

# **DEVELOPMENT OF REGIONAL IMPACT (DRI #3855)**

## **TRAFFIC STUDY FOR PLEASANT HILL ROAD RESIDENTIAL DEVELOPMENT**

**CLAYTON COUNTY, GEORGIA**



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## **EXECUTIVE SUMMARY**

Traffic impacts were evaluated for the proposed residential development that will be located to the southwest corner of the intersection of SR 314 (West Fayetteville Road) and East Pleasant Road in Clayton County, Georgia. The development will consist of:

- Single-Family Attached Housing: 500 units
- Multifamily Housing: 280 units

The development proposes two full access driveways on East Pleasant Hill Road and one full access driveway on SR 314 (West Fayetteville Road).

Existing and future operations during the AM peak hour (7:00 AM – 9:00 AM), School Dismissal peak hour (2:00 PM – 4:00 PM at limited intersections close to school) and PM peak hour (4:00 PM – 6:00 PM) before and after completion of the project were analyzed at the following intersections:

1. SR 314 (West Fayetteville Road) and East Fayetteville Road
2. SR 314 (West Fayetteville Road) and Crenshaw Drive
3. SR 314 (West Fayetteville Road) and East Pleasant Hill Road
4. SR 314 (West Fayetteville Road) and Yellow River Road
5. SR 314 (West Fayetteville Road) and Norman Drive
6. SR 314 (West Fayetteville Road) and Godby Road/ Phoenix Boulevard
7. SR 314 (West Fayetteville Road) and Southampton Road
8. SR 314 (West Fayetteville Road) and SR 139 (Riverdale Road)

## Traffic Operations Summary

Table E1 below provides a summary of traffic operations for the “No-Build” and “Build” conditions for the year 2027 with and without system improvements. As per GRTA requirements, all approaches that do not meet the level-of-service (LOS) standard (considered failing) are highlighted in Table E1. Table E1 for “Build” conditions also includes the project’s total added trip and the respective percentage of overall total “Build” condition approach traffic volume for all failing LOS approaches after all improvements are completed.

TABLE E1 – FUTURE INTERSECTION OPERATIONS AT FAILING APPROACHES

Intersection		No-Build Condition: LOS (Delay)				Build Condition: LOS (Delay)							
		NO IMPROVEMENTS		SYSTEM IMPROVEMENTS		NO IMPROVEMENTS		SYSTEM IMPROVEMENTS		SITE VOLUMES AT FAILING APPROACH BUILD WITH IMPROVEMENTS		PRECENT SITE TRIPS OF TOTAL APPROACH TRIPS AT FAILING APPROACHES	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
2	<u>SR 314 (W Fayetteville Rd) @ Crenshaw Dr</u> - Eastbound Approach	E (41.9)	F (137.3)			F (53.9)	F (187.6)			0	0	0%	0%
4	<u>SR 314 (W Fayetteville Rd) @ Yellow River Rd / School Exit Drwy</u> - Eastbound Approach					F (*)	F (*)			0	0	0%	0%
7	<u>SR 314 (W Fayetteville Rd) @ Southampton Rd</u> - Eastbound Approach	C (17.5)	E (37.1)			C (19.1)	E (45.7)			0	0	0%	0%
11	<u>SR 314 (W Fayetteville Rd) @ Site Drwy 3</u> - Eastbound Approach	N/A	N/A	N/A	N/A	D (33.6)	F (97.8)			85	58	100%	100%

\* Delay exceeds 300 seconds

The results of future “Build” traffic operations show that the following intersections have LOS “E or F” for the approaches in the AM or PM peak hour or both:

1. Intersection 2: SR 314 (West Fayetteville Road) and Crenshaw Drive
2. Intersection 4: SR 314 (West Fayetteville Road) and Yellow River Road / North Clayton Middle School Exit Driveway
3. Intersection 11: SR 314 (West Fayetteville Road) and Site Driveway 3

#### **Intersections 2, 7 and 11**

- The eastbound approaches at these intersections will continue to operate at a level-of-service “E” or “F” in the “Build” condition. These intersections already have left turn and right turn lanes on the side street in the existing condition. It is not unusual for stop controlled site streets to have elevated delays during peak periods. The intersections will not warrant a traffic signal. Therefore, no more improvements were recommended at these intersections.

#### **Intersections 4**

- The eastbound approach of this intersection will operate at a level-of-service “F” in the “Build” condition during the AM, PM and School dismissal peak hours. The intersection will not warrant a traffic signal. The enforcement of police officer during the peak hours to regulate the traffic movements should be considered.

The table below includes 95<sup>th</sup> percentile Synchro HCM 6 queue length for failing level-of-service approaches for the build condition with improvements that had site generated traffic. Queue length reports are included in the Appendix.

**TABLE E2 – FUTURE 95TH PERCENTILE SYNCHRO QUEUES (FT) FOR FAILING APPROACHES**

Intersection	Available Storage (ft)	Queue in feet		
		BUILD		
		AM Peak	PM Peak	Dismissal Peak
<b>2</b> <u>SR 314 (W Fayetteville Rd) @ Crenshaw Dr</u> - Eastbound Left - Eastbound Right	190'	128'	155'	-
	220'	10'	5'	-
<b>4</b> <u>SR 314 (W Fayetteville Rd) @ Yellow River Rd / School Exit Drwy</u> - Eastbound Left - Eastbound Right	500'	495'	360'	180'
	470'	15'	35'	20'
<b>7</b> <u>SR 314 (W Fayetteville Rd) @ Southampton Rd</u> - Eastbound Left/Right	100'	23'	70'	-
<b>11</b> <u>SR 314 (W Fayetteville Rd) @ Site Drwy 3</u> - Eastbound Left/Right	100'	50'	83'	-

Although the approach level of service are failing for the approaches listed in Table E2, the queues do not extend beyond the available storage.

## **Recommended Site Mitigation Improvements**

The following access configuration is recommended for the site driveway intersections.

- Site Driveway 1: Full access (western) driveway on East Pleasant Hill Road, aligned with Popular Pointe Drive
  - One entering and one exiting lanes
  - Stop-sign controlled on the westbound approach with driveway approach and Popular Drive remaining free flow
  - Left turn lane for entering traffic.
- Site Driveway 2: Full access (eastern) driveway on East Pleasant Hill Road
  - One entering and one exiting lanes
  - Stop-sign controlled on the driveway approach with East Pleasant Hill Road remaining free flow
  - Left turn lane for entering traffic.
- Site Driveway 3: Full access driveway on SR 314 (West Fayetteville Road)
  - One entering and one exiting lanes
  - Stop-sign controlled on the driveway approach with SR 314 (West Fayetteville Road) remaining free flow.
  - Left turn and right turn lanes on SR 314 (West Fayetteville Road) for entering traffic

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## INTRODUCTION

The purpose of this study is to determine the traffic impact that will result from the proposed residential development that will be located to the southwest corner of the intersection of SR 314 (West Fayetteville Road) and East Pleasant Road in Clayton County, Georgia. The traffic analysis evaluates the current operations and the future conditions with the traffic generated by the development. The development will consist of:

- Single-Family Attached Housing: 500 units
- Multifamily Housing: 280 units



The development proposes access at the following locations:

- Site Driveway 1: Full access (western) driveway on East Pleasant Hill Road, aligned with Popular Pointe Drive
- Site Driveway 2: Full access (eastern) driveway on East Pleasant Hill Road
- Site Driveway 3: Full access driveway on SR 314 (West Fayetteville Road)

The AM, School Dismissal and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the intersections of:

1. SR 314 (West Fayetteville Road) and East Fayetteville Road
2. SR 314 (West Fayetteville Road) and Crenshaw Drive
3. SR 314 (West Fayetteville Road) and East Pleasant Hill Road
4. SR 314 (West Fayetteville Road) and Yellow River Road
5. SR 314 (West Fayetteville Road) and Norman Drive
6. SR 314 (West Fayetteville Road) and Godby Road/ Phoenix Boulevard
7. SR 314 (West Fayetteville Road) and Southampton Road
8. SR 314 (West Fayetteville Road) and SR 139 (Riverdale Road)

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report.

## **STUDY NETWORK DETERMINATION**

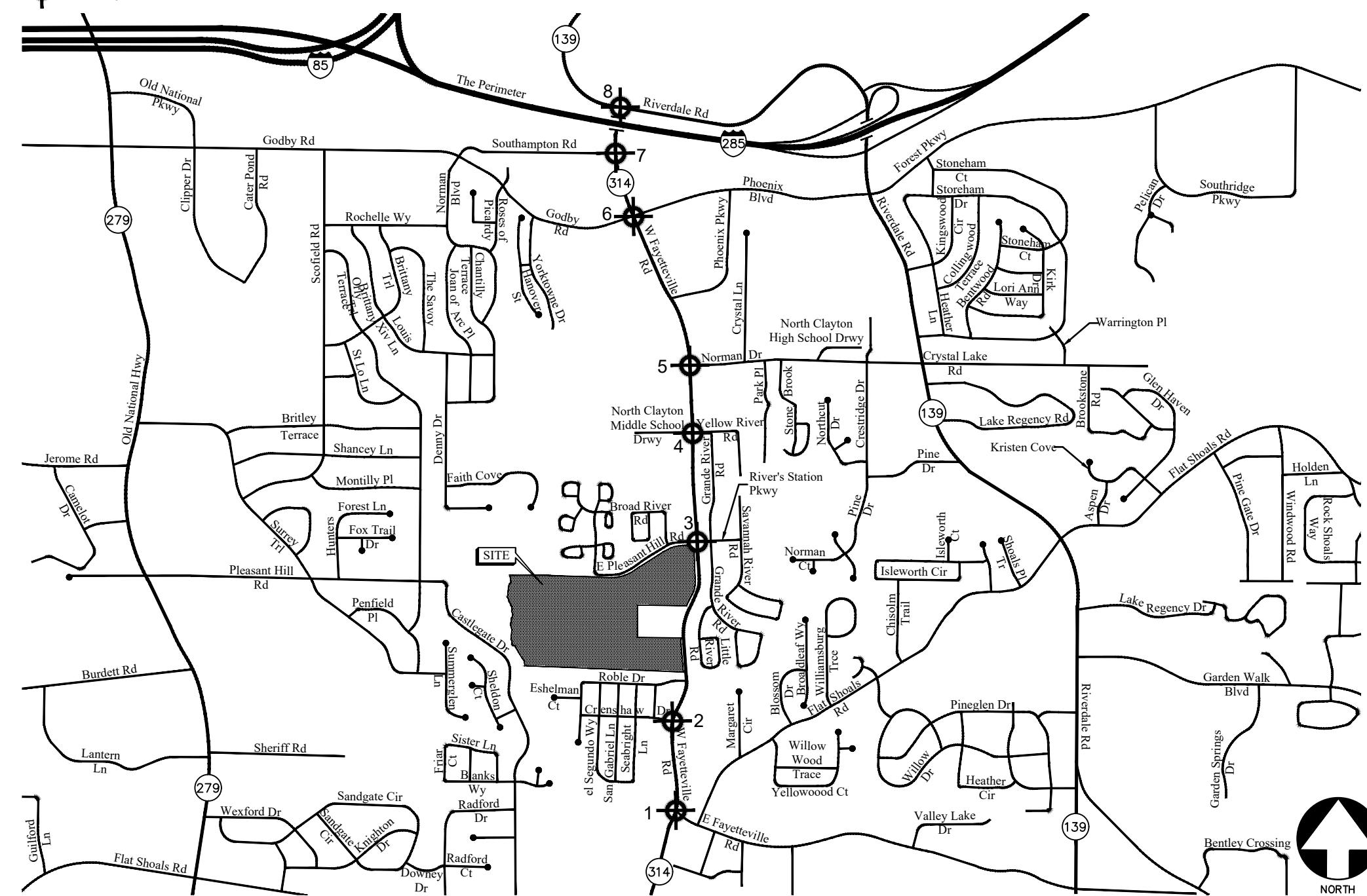
The study network was determined by evaluating the amount of traffic that the proposed development will add to each roadway segment in the area. According to GRTA requirements, a roadway segment carries a “significant” amount of traffic if the project contributes 7% or more trips to the two-way daily service volumes of the roadway at the appropriate level of service standard. Upon agreement with GRTA a level of service standard of “D” was used for determining the study area network.

The traffic generated by the proposed project was then assigned to the area roadways using the trip distribution to determine the site-generated traffic on each roadway segment. The boundaries of the study network extend to the most distant intersections where at least 7% of the service volumes on the segment are attributed to project traffic. The following study intersections fell within the 7% rule and/or have been selected as being suitable for evaluation in discussions with ARC, GRTA and Clayton County:

1. SR 314 (West Fayetteville Road) and East Fayetteville Road
2. SR 314 (West Fayetteville Road) and Crenshaw Drive
3. SR 314 (West Fayetteville Road) and East Pleasant Hill Road
4. SR 314 (West Fayetteville Road) and Yellow River Road
5. SR 314 (West Fayetteville Road) and Norman Drive
6. SR 314 (West Fayetteville Road) and Godby Road/ Phoenix Boulevard
7. SR 314 (West Fayetteville Road) and Southampton Road
8. SR 314 (West Fayetteville Road) and SR 139 (Riverdale Road)

The location of the development and the surrounding study network is shown in Figure 1. Other intersections within this corridor, such as unsignalized side streets, right-in / right-out driveways or private driveways have not been included in the study network.

 Study Intersections



LOCATION MAP

## **EXISTING ROADWAY FACILITIES**

The following is a brief description of each of the roadway facilities located in proximity to the site:

### ***SR 314 (West Fayetteville Road)***

SR 314 (West Fayetteville Road) is a north-south, two-lane, undivided roadway with a posted speed limit of 40 mph and in the vicinity of the site and 25 mph in the school zone. GDOT traffic counts (Station ID: 063-1163) indicate that the daily traffic volume on SR 314 (West Fayetteville Road) in 2019 was 19,600 vehicles north of East Pleasant Hill Road. GDOT classifies SR 314 (West Fayetteville Road) as an Urban Minor Arterial roadway.

### ***SR 139 (Riverdale Road)***

SR 139 (Riverdale Road) is an east-west, four-lane, median-divided roadway with a posted speed limit of 45 mph in the vicinity of the site. GDOT traffic counts (Station ID: 063-1136) indicate that the daily traffic volume on SR 139 (Riverdale Road) in 2019 was 13,400 vehicles east of SR 314 (West Fayetteville Road). GDOT classifies SR 139 (Riverdale Road) as an Urban Minor Arterial roadway.

### ***East Fayetteville Road***

East Fayetteville Road is an east-west, two-lane, undivided roadway with a posted speed limit of 35 mph in the vicinity of the site. GDOT traffic counts (Station ID: 063-1383) indicate that the daily traffic volume on East Fayetteville Road in 2019 was 5,010 vehicles per day east of Valley Lake Drive. GDOT classifies East Fayetteville Road as an Urban Major Collector roadway.

### ***East Pleasant Hill Road***

East Pleasant Hill Road is an east-west, four-lane, undivided roadway with a posted speed limit of 35 mph in the vicinity of the site.

### ***Crenshaw Drive***

Crenshaw Drive is an east-west, two-lane, undivided roadway with a posted speed limit of 25 mph in the vicinity of the site.

### ***Yellow River Road***

Yellow River Road is an east-west, two-lane, undivided roadway with a right in right out access at the intersection of SR 314 and Yellow River Road and posted speed limit of 25 mph in the vicinity of the site.

### ***Norman Drive***

Norman Drive is an east-west, two-lane roadway with a two-way left turn lane and a posted speed limit of 35 mph in the vicinity of the site.

### ***Godby Road***

Godby Road is an east-west, four-lane, median divided roadway with a posted speed limit of 35 mph in the vicinity of the site.

### ***Phoenix Boulevard***

Phoenix Boulevard is an east-west, four-lane, median-divided roadway with a posted speed limit of 35 mph in the vicinity of the site. GDOT traffic counts (Station ID 063-8215) indicate that the daily traffic volume on Phoenix Boulevard in 2019 was 9,480 vehicles west of Phoenix Parkway. GDOT classifies Phoenix Boulevard as an Urban Minor Arterial roadway.

### ***Southampton Road***

Southampton Road is an east-west, two-lane, undivided roadway with a posted speed limit of 25 mph in the vicinity of the site

## Existing Bicycle and Pedestrian Facilities

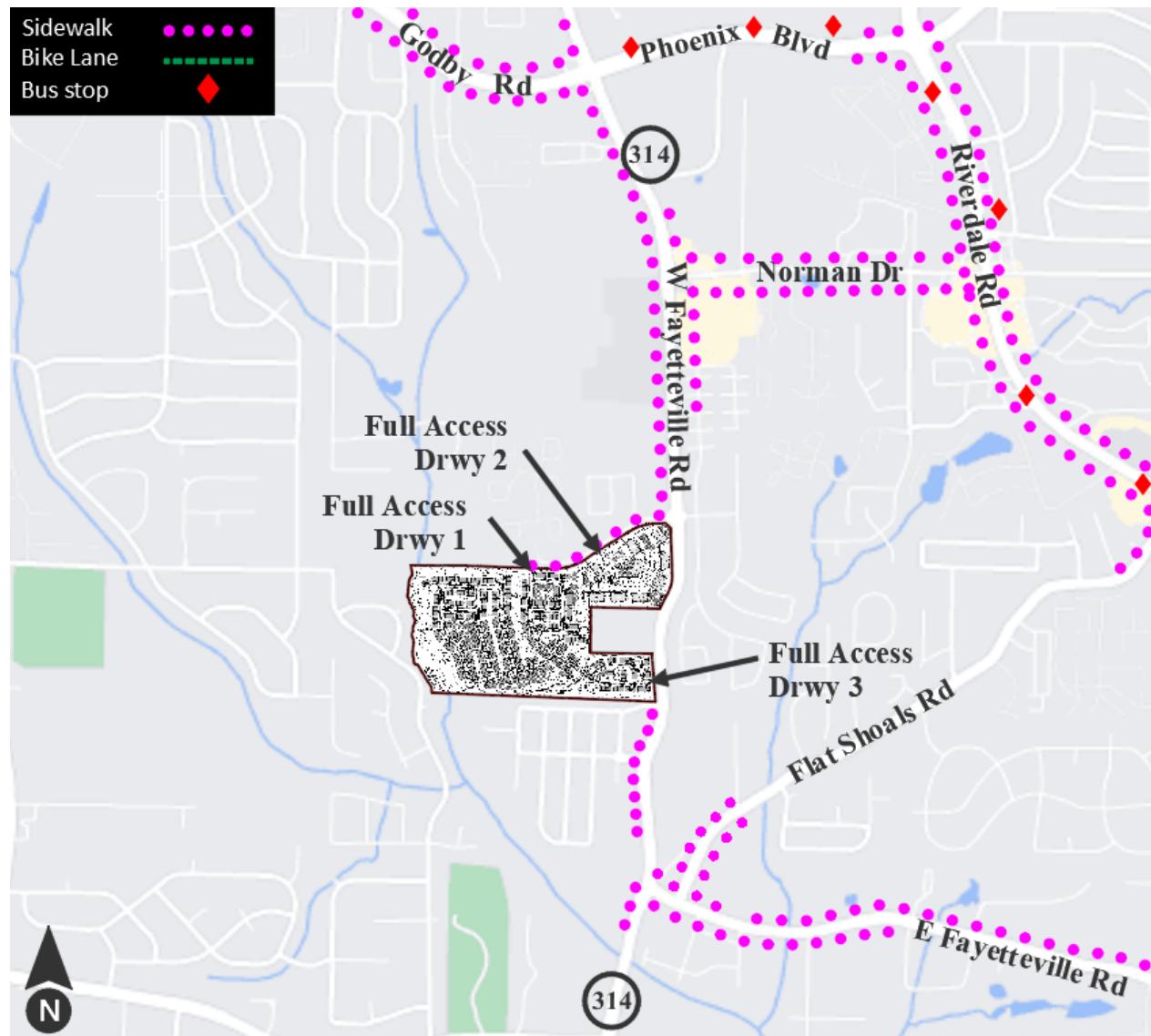
- The location of sidewalks is shown in the existing alternative transportation map below.
- Bus stops are present on Godby Road, Phoenix Boulevard and SR 139 (Riverdale Road)
- Bike lane is present on either sides of SR 139 (Riverdale Road) from West Fayetteville Road to Sullivan Road.
- Crosswalks are available at all the signalized intersections in the vicinity of the development.

## Alternative Modes of Access

- Existing transit routes were not identified in the study network.
- No high-capacity transit stations were identified in the vicinity of the proposed development.

The graphic below includes the location of existing sidewalks in the study network.

Existing Alternative Transportation Map



## STUDY METHODOLOGY

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board's Highway Capacity Manual, 6<sup>th</sup> edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for the analysis. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

### Unsignalized Intersections

For unsignalized intersections controlled by a stop sign on minor streets, the level-of-service (LOS) for motor vehicles with controlled movements is determined by the computed control delay according to the thresholds stated in Table 1 below. LOS is determined for each minor street movement (or shared movement), as well as major street left turns. LOS is not defined for the intersection as a whole or for major street approaches. The LOS of any controlled movement which experiences a volume to capacity ratio greater than 1 is designed as "F" regardless of the control delay.

Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps and follow-up time for a vehicle in the queue.

Level-of-service is assigned a letter designation from "A" through "F". Level-of-service "A" indicates excellent operations with little delay to motorists, while level-of-service "F" exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross the main road without experiencing long delays.

TABLE 1 — LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 15	B	F
> 15 and ≤ 25	C	F
> 25 and ≤ 35	D	F
> 35 and ≤ 50	E	F
> 50	F	F

\*The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major-street approaches or for the intersection.

Source: Highway Capacity Manual, 6<sup>th</sup> edition, Exhibit 20-2 LOS Criteria: Motorized Vehicle Mode

## Signalized Intersections

According to HCM procedures, LOS can be calculated for the entire intersection, each intersection approach, and each lane group. HCM uses control delay alone to characterize LOS for the entire intersection or an approach. Control delay per vehicle is composed of initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. Both control delay and volume-to-capacity ratio are used to characterize LOS for a lane group. A volume-to-capacity ratio greater than 1.0 for a lane group indicates failure from capacity perspective. Therefore, such a lane group is assigned LOS F regardless of the amount of control delay.

Table 2 below summarizes the LOS criteria from HCM for motorized vehicles at signalized intersections.

TABLE 2 – LEVEL-OF-SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS

Control Delay (sec/vehicle) *	LOS for Lane Group by Volume-to-Capacity Ratio*	
	v/c ≤ 1.0	v/c > 1.0
≤ 10	A	F
> 10 and ≤ 20	B	F
> 20 and ≤ 35	C	F
> 35 and ≤ 55	D	F
> 55 and ≤ 80	E	F
> 80	F	F

\*For approach-based and intersection wide assessments, LOS is defined solely by control delay

Source: Highway Capacity Manual, 6<sup>th</sup> edition, Exhibit 19-8 *LOS Criteria: Motorized Vehicle Mode*

LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more vehicles are stopped than with LOS A. LOS C is typically assigned when progression is favorable, or the cycle length is moderate. Individual cycle failures (one or more queued vehicles are not able to depart because of insufficient capacity during the cycle) may begin to appear at this level. Many vehicles still pass through the intersection without stopping, but the number of vehicles stopping is significant. LOS D is typically assigned when the v/c ratio is high and either progression is ineffective, or the cycle length is long. There are many vehicle-stops and individual cycle failures are noticeable. LOS E is typically assigned when the v/c ratio is high, progression is very poor, the cycle length is long, and individual cycle failures are frequent. LOS F is typically assigned when the v/c ratio is very high, progression is very poor, the cycle length is long, and most cycles fail to clear the queue.

## **EXISTING TRAFFIC ANALYSIS**

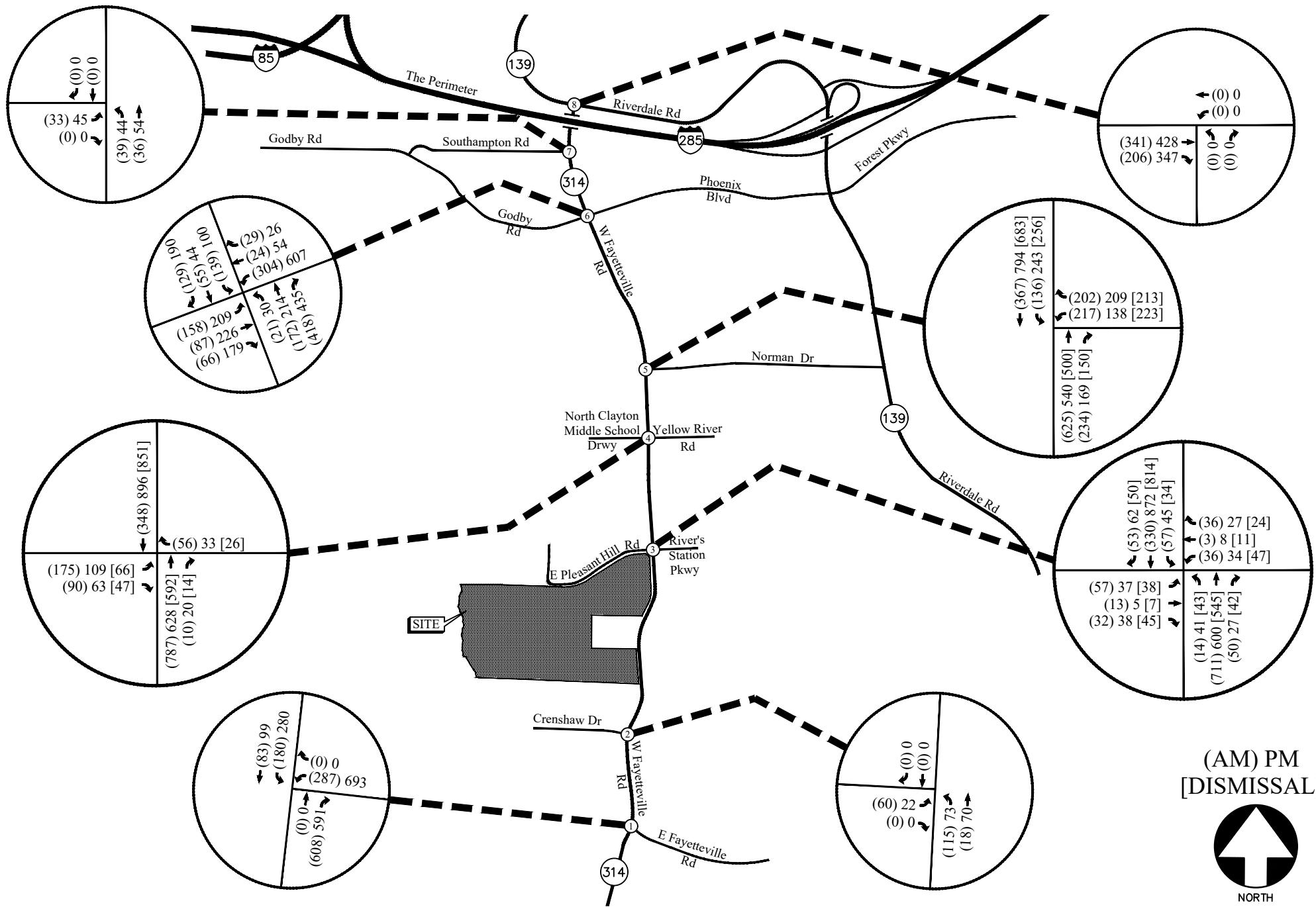
### **Existing Traffic Volumes**

Existing traffic counts were obtained at the following study intersections:

1. SR 314 (West Fayetteville Road) and East Fayetteville Road
2. SR 314 (West Fayetteville Road) and Crenshaw Drive
3. SR 314 (West Fayetteville Road) and East Pleasant Hill Road
4. SR 314 (West Fayetteville Road) and Yellow River Road
5. SR 314 (West Fayetteville Road) and Norman Drive
6. SR 314 (West Fayetteville Road) and Godby Road/ Phoenix Boulevard
7. SR 314 (West Fayetteville Road) and Southampton Road
8. SR 314 (West Fayetteville Road) and SR 139 (Riverdale Road)

Turning movement counts were collected on Thursday, December 08, 2022. All turning movement counts were recorded during the AM, School Dismissal and PM peak hours between 7:00 AM to 9:00 AM, 2:00 PM to 4:00 PM and 4:00 PM to 6:00 PM, respectively. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.

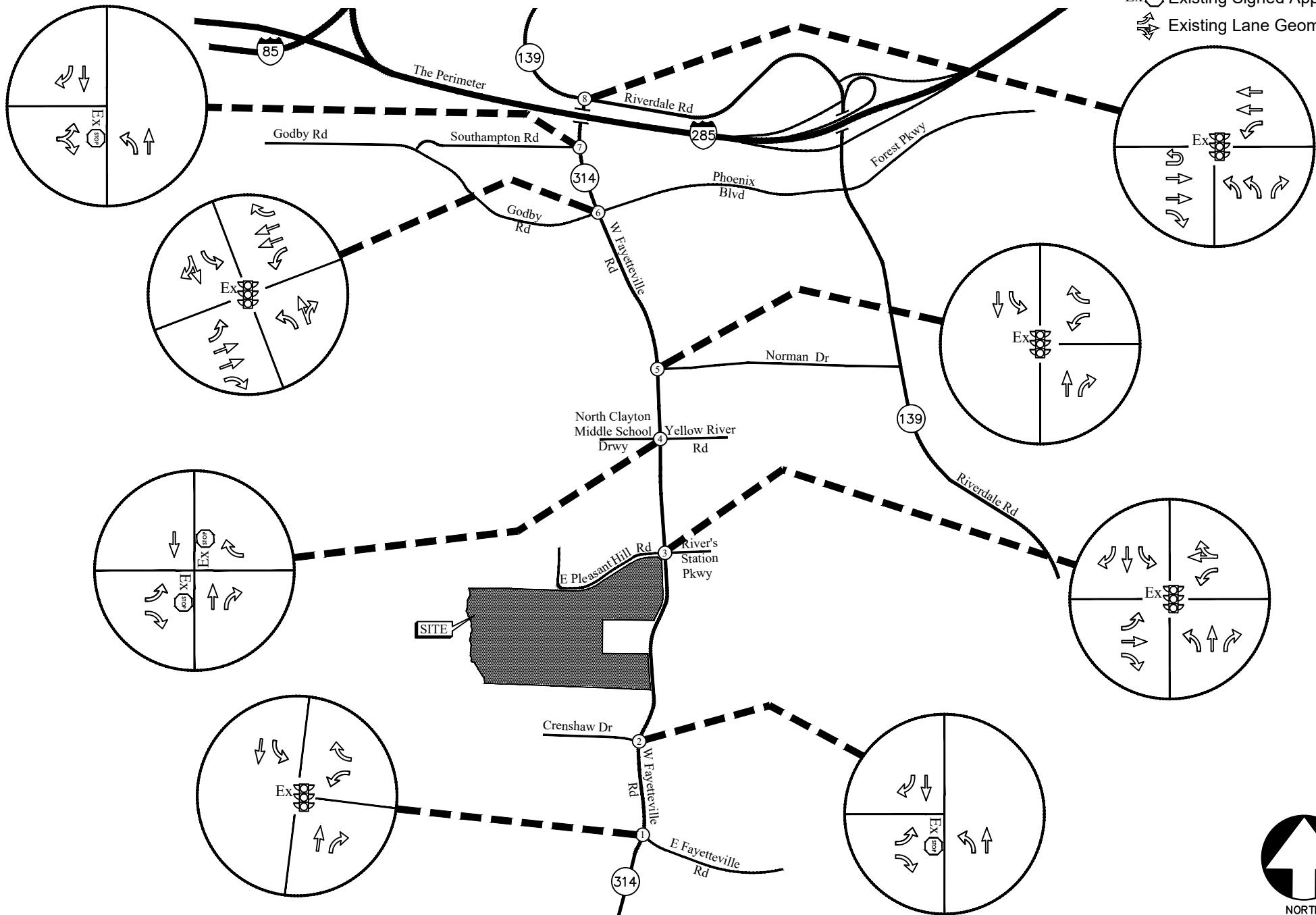
North Clayton Middle School is in close proximity to the proposed site, apart from AM and PM peak hours, the turning movements were also recorded during school dismissal peak hours at the intersections 3, 4 and 5.



**LEGEND**

Ex STOP Existing Signed Approach

Existing Lane Geometry

**EXISTING TRAFFIC CONTROL AND LANE GEOMETRY**

## Existing 2023 Traffic Operations

Existing 2023 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analyses are shown in Table 3.

**TABLE 3 – EXISTING INTERSECTION OPERATIONS**

Intersection		Traffic Control	AM Peak	PM Peak	Dismissal Peak	LOS Standard
<b>1</b>	<b>SR 314 (W Fayetteville Rd) @ E Fayetteville Rd</b> - Westbound Approach - Northbound Approach - Southbound Approach	Signalized	<b>B (14.0)</b> D (47.5) A (5.0) A (4.4)	<b>B (19.7)</b> D (51.1) A (8.7) B (10.4)	-	<b>D/D</b> D/D D/D D/D
<b>2</b>	<b>SR 314 (W Fayetteville Rd) @ Crenshaw Dr</b> - Eastbound Approach - Northbound Left	Stop Controlled on Eastbound Approach	D (29.8) A (8.0)	<b>F (76.8)</b> A (9.9)	-	D/E D/D
<b>3</b>	<b>SR 314 (W Fayetteville Rd) @ E Pleasant Rd</b> - Eastbound Approach - Westbound Approach - Northbound Approach - Southbound Approach	Signalized	<b>A (6.4)</b> D (47.1) D (46.7) A (3.5) A (0.5)	<b>A (4.4)</b> D (47.1) D (46.6) A (2.8) A (1.6)	<b>A (4.8)</b> D (46.9) D (47.2) A (2.5) A (1.2)	<b>D/D</b> D/D D/D D/D
<b>4</b>	<b>SR 314 (W Fayetteville Rd) @ Yellow River Rd / (M School Exit Drwy)</b> - Eastbound Approach - Westbound Approach	Stop Controlled on Eastbound	<b>F (148.1)</b> C (16.2)	<b>F (216.2)</b> B (13.3)	<b>F (63.7)</b> B (12.6)	E/E/E D/D/D
<b>5</b>	<b>SR 314 @ Norman Dr</b> - Westbound Approach - Northbound Approach - Southbound Approach	Signalized	<b>C (23.8)</b> D (50.3) C (28.4) A (6.6)	<b>B (15.7)</b> D (51.5) C (24.1) A (6.6)	<b>B (19.0)</b> D (50.5) C (26.2) A (7.7)	<b>D/D/D</b> D/D/D D/D/D D/D/D
<b>6</b>	<b>SR 314 (W Fayetteville Rd) @ Godby Rd &amp; Phoenix Blvd</b> - Eastbound Approach - Westbound Approach - Northbound Approach - Southbound Approach	Signalized	<b>C (24.6)</b> D (53.3) D (43.9) B (14.4) B (13.4)	<b>C (32.7)</b> D (53.3) D (37.6) C (21.6) C (29.0)	-	<b>D/D</b> D/D D/D D/D
<b>7</b>	<b>SR 314 (W Fayetteville Rd) @ Southampton Rd</b> - Eastbound Approach - Northbound Left	Stop Controlled on Eastbound Approach	C (15.8) A (8.3)	D (28.4) B (10.8)	-	D/D D/D
<b>8</b>	<b>SR 314 @ SR 139 (Riverdale Rd)</b> - Eastbound Approach - Westbound Approach - Northbound Approach	Signalized	<b>B (18.1)</b> A (8.7) A (4.6) D (43.5)	<b>B (16.7)</b> B (14.6) A (6.8) D (44.7)	-	<b>D/D</b> D/D D/D D/D

The results of existing traffic operations analysis indicate that all the study intersections (signalized) are operating at an overall level-of-service “C” or better in both the AM and PM peak hours. The unsignalized intersections approaches are operating at a level-of-service “D” or better in both the AM and PM peak hours, except the eastbound approach of the intersections SR 314 and Yellow River Road and eastbound approach of Crenshaw Drive and SR 314 that are operating at a level of service “F” in the AM, PM, and school dismissal peak hours.

## PROJECT DESCRIPTION

The proposed residential development will be located to the southwest corner of the intersection of SR 314 (West Fayetteville Road) and East Pleasant Road in Clayton County. The development will consist of:

- Single-Family Attached Housing: 500 units
- Multifamily Housing: 280 units

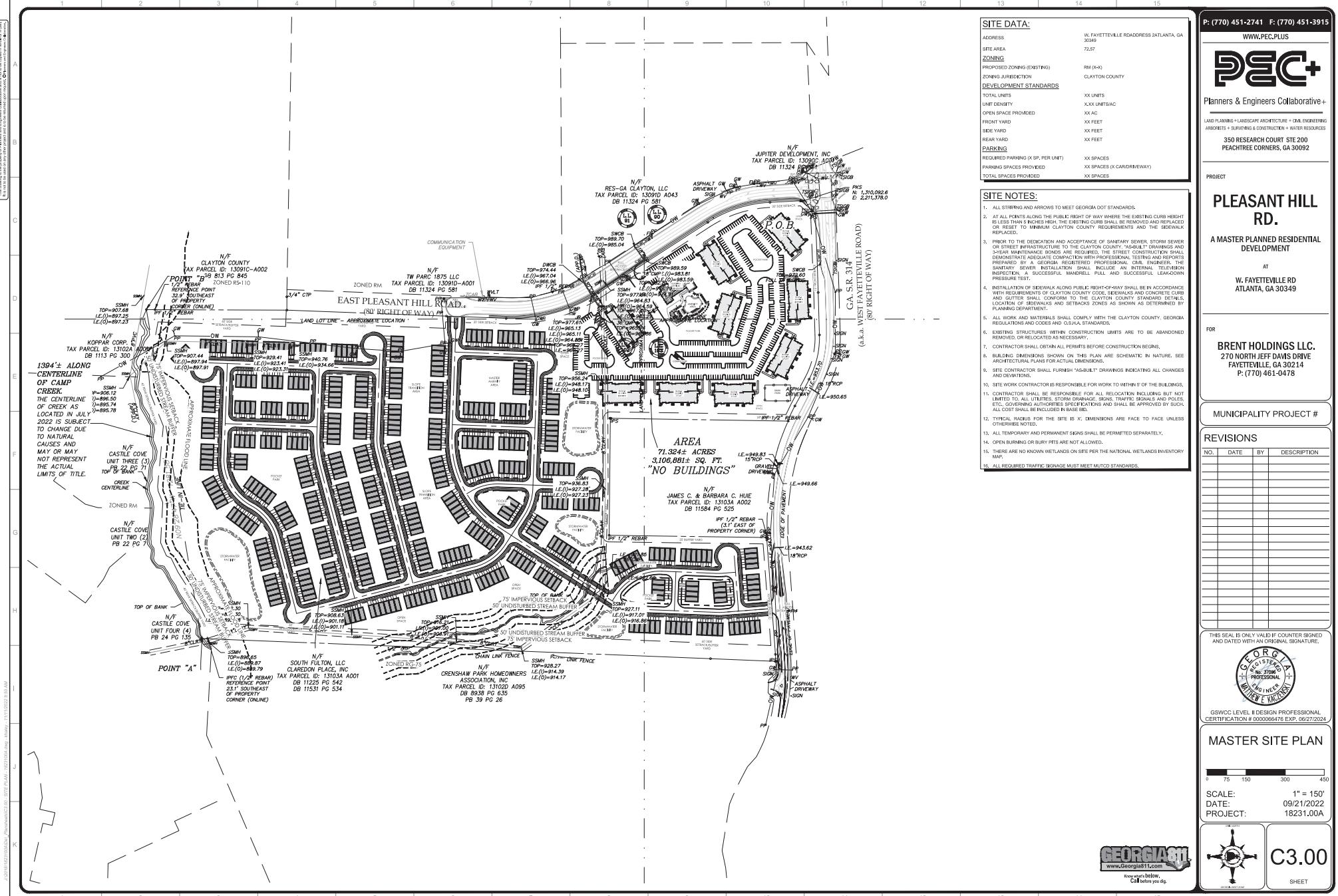


The development proposes access at the following locations:

- Site Driveway 1: Full access (western) driveway on East Pleasant Hill Road, aligned with Popular Pointe Drive
- Site Driveway 2: Full access (eastern) driveway on East Pleasant Hill Road
- Site Driveway 3: Full access driveway on SR 314 (West Fayetteville Road)

## **Site Plan**

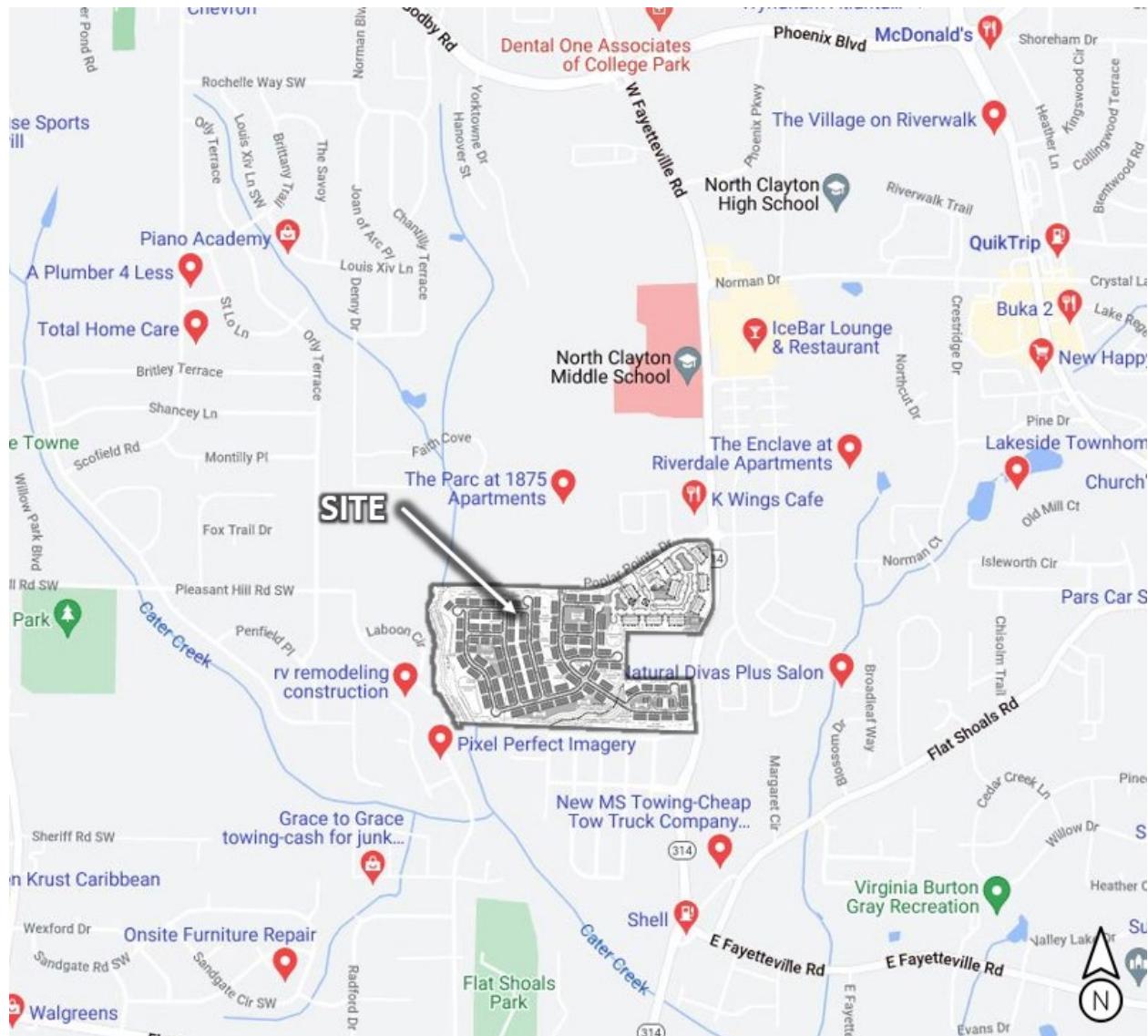
A site plan is shown in Figure 4. A digital copy of the site plan is also provided with this report.



## Planned Bicycle and Pedestrian Facilities

Sidewalks will be provided along the internal street network and along street frontage of the proposed development to promote external connectivity via pedestrian facilities. Trails will be considered where possible internal to the development.

## Potential Pedestrian and Bicycle Destinations



- Food: K Wings Café, MetroWest, ChinaOne, IceBar Lounge, J Buffalo Wings
- Grocery: Wayfield Foods, Food Mart
- Banks: Truist Bank
- Retail: Barber Lounge, Nails Spa, Ideal Furniture
- Recreation: Flat Shoals Park, Tucker Memorial Park, Virginia Burton Gray Recreation
- North Clayton Middle School, North Clayton High School

## **Planned Transit Facilities**

There is no existing or planned public transit service near the proposed development.

## **Consistency with Adopted Comprehensive Plan**

The proposed development consists of approximately 72.57 acres of residential development and will include 500 townhomes and 280 multi-family housing (low-rise). The site is currently zoned as High Density Residential (RM).

## **Future Land Use Map**

<b>Future Land Use Map Zoning</b>	Neighborhood Commercial
<b>Land Use Vision and Goals for Clayton County</b>	<p>The land use vision and goals for Clayton County are to:</p> <ul style="list-style-type: none"><li>• Ensure the provision of housing for all residents</li><li>• Coordinate housing and economic development</li><li>• Encourage well-coordinated development</li><li>• Improve quality of life for all residents</li></ul>
<b>Relation to Existing Land Use Plans</b>	The proposed residential development is consistent with the land use vision and goals listed above by providing more housing for all residents and increasing economic development.

## **Project Phasing**

This project has been evaluated for the complete build-out of the development in 2027.

## Trip Generation

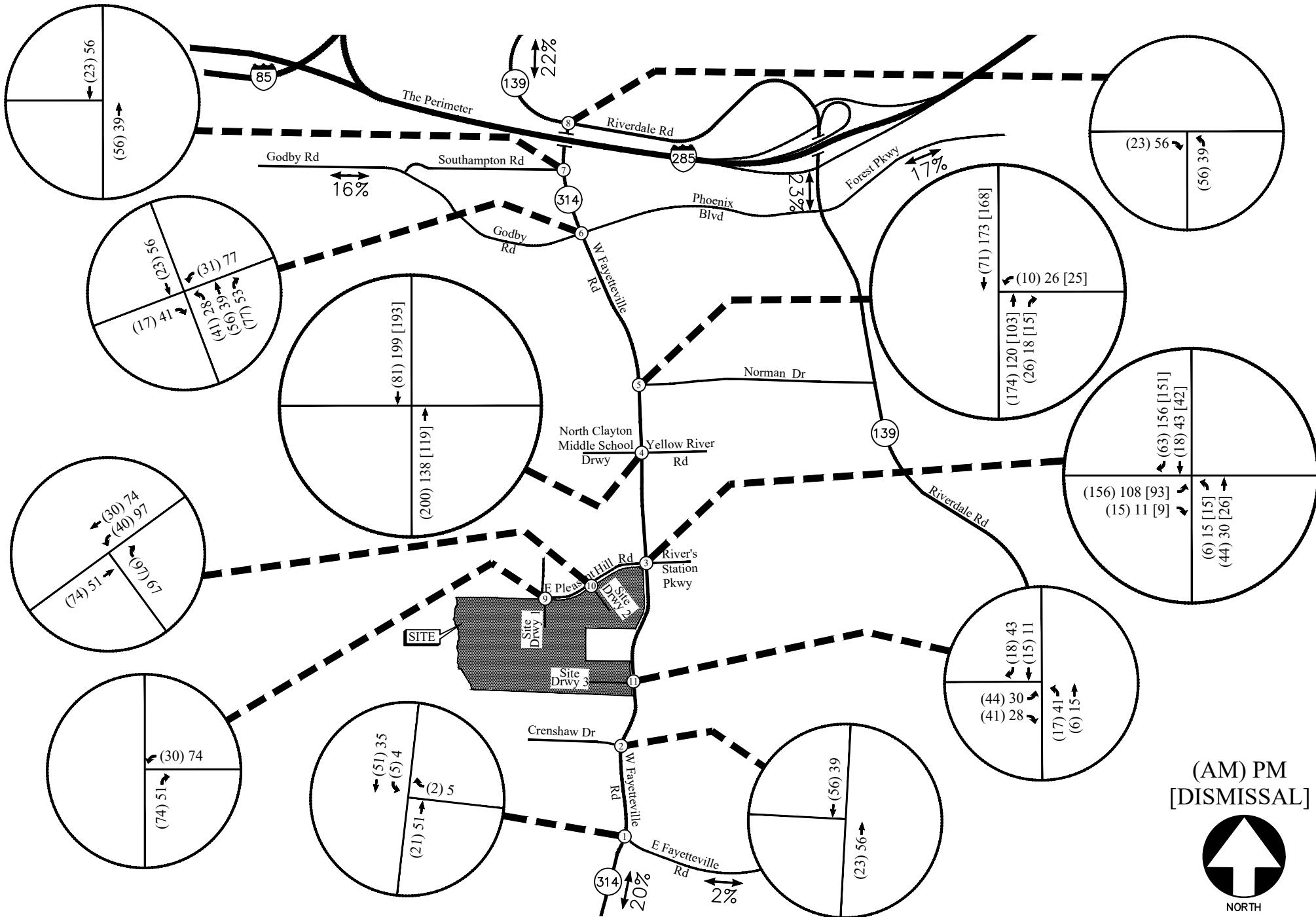
Trip generation estimates for the project were based on the rates and equations published in the 11<sup>th</sup> edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE *Land Uses*: 215 – *Single-Family Attached Housing* and 220 – *Multifamily Housing (Low-Rise) - Not Close to Rail Transit*. A 1% alternate mode reduction was also applied. The calculated total trip generation for the proposed development is shown in Table 4.

**TABLE 4 – TRIP GENERATION**

Land Use	Size	AM Peak Hour			PM Peak Hour			School Dismissal Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Two-way
<b>215 – Single-Family Attached Housing</b>	500 Units	79	175	254	169	127	296	156	96	252	3,760
<b>220 – Multifamily Housing (Low-Rise) - Not Close to Rail Transit</b>	280 Units	26	84	110	89	52	141	94	58	152	1,870
<b>Alternate Mode Reduction (1%)</b>		-1	-3	-4	-3	-2	-5	-3	-2	-5	-56
<b>Total Trips (without Reductions)</b>		105	259	364	258	179	437	250	154	404	5,630
<b>New External Trips (with Reductions)</b>		<b>104</b>	<b>256</b>	<b>360</b>	<b>255</b>	<b>177</b>	<b>432</b>	<b>247</b>	<b>152</b>	<b>399</b>	<b>5,574</b>

## Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of GDOT ADT volumes and the locations of major roadways and highways that will serve the development. The site-generated peak hour traffic volumes, shown in Table 4, were assigned to the study area intersections based on this distribution. The outer-leg distribution and AM and PM peak hour new traffic generated by the site are shown in Figure 5.



TRIP DISTRIBUTION AND SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES

FIGURE 5  
A&R Engineering Inc.

## **FUTURE 2027 TRAFFIC ANALYSIS**

The future 2027 traffic operations are analyzed for the “Build” and “No-Build” conditions. This provides a basis of reference for determining both the contribution of the site to overall traffic conditions and the additional improvements needed to provide sufficient site access and capacity for passing traffic.

Improvements that are identified as “System Improvements” address deficiencies that are found within the existing road network prior to any impacts from the proposed development’s added traffic. Improvements that are identified as “Site Mitigation Improvements” address further impacts that are a result of the proposed development’s added traffic. Note that survey and construction drawings would be needed to verify the feasibility and extent of additional right-of-way required for any recommended improvements.

### **Future “No-Build” Conditions**

The “No-Build” (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future “No-Build” volumes consist of the existing traffic volumes plus increases for annual growth of traffic.

### **Annual Traffic Growth**

In order to evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last three years (2017-2019) revealed growth of approximately 2.3% in the area. This growth factor was applied to the existing traffic volumes to estimate the future year traffic volumes prior to the addition of site-generated traffic.

## Planned and Programmed Improvements in Study Area

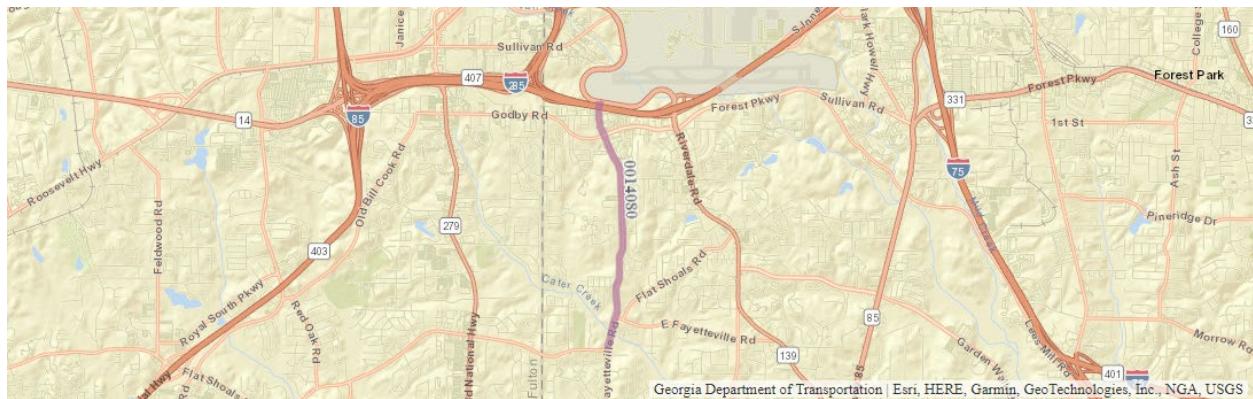
The following improvements have been identified in the Regional Transportation Plan (Plan 2040), GDOT GeoPI, and/or the local comprehensive transportation plan. These improvements are within the vicinity of the proposed development.

**TABLE 5 – PLANNED AND PROGRAMMED IMPROVEMENTS**

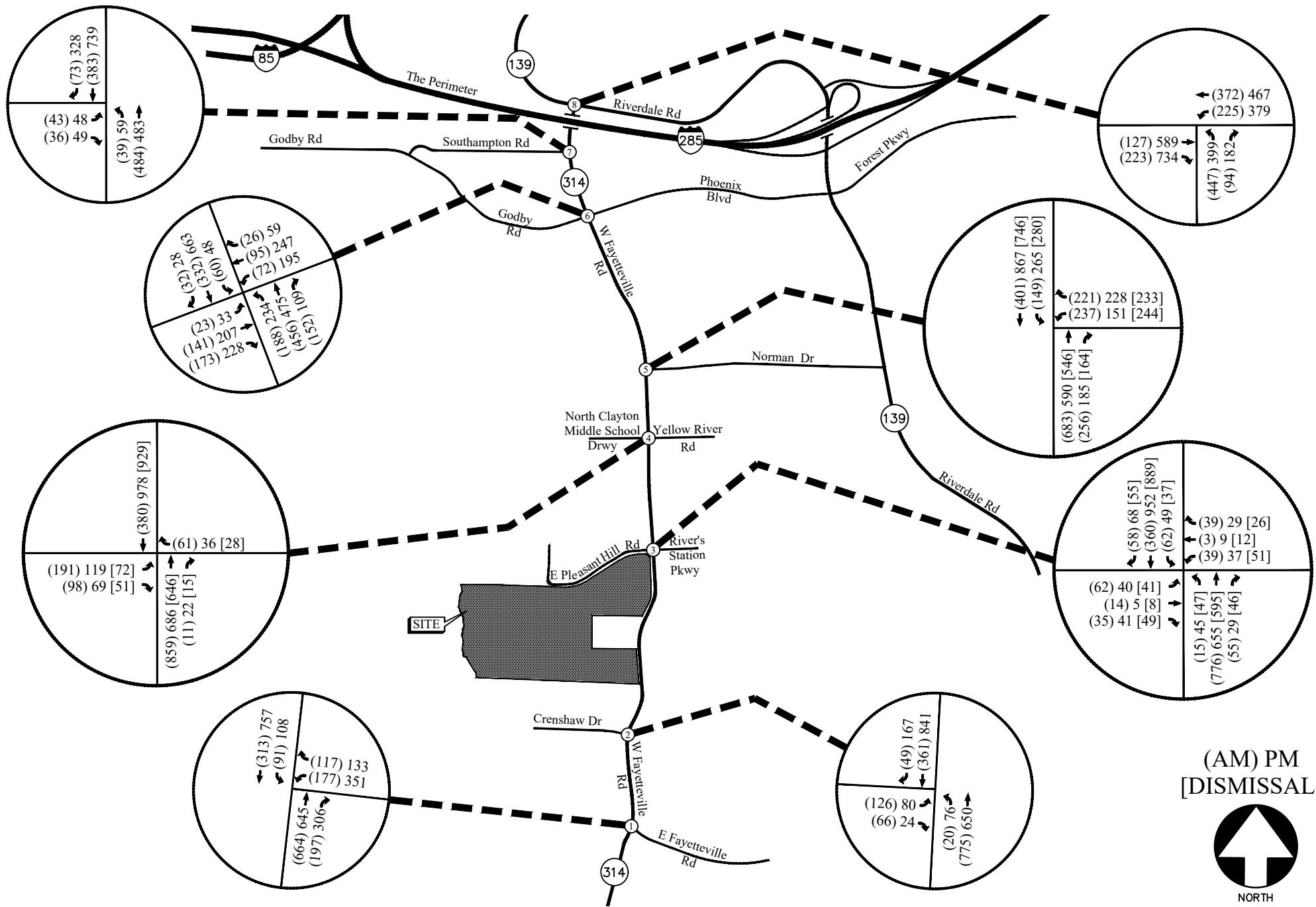
Item #	Project Name	From / To Points	Sponsor	GDOT PI #	ARC ID #	Design FY	ROW / UTL FY	CST FY
1	SR 314 (West Fayetteville Road) Widening from 2 lanes to 4 lanes	From Flat Shoals Road / Creel Road to SR 139 (Riverdale Road)	GDOT	0014080	-	2031	2034	2040

### **GDOT PI # 0014080 - SR 314 (West Fayetteville Road) Widening from 2 lanes to 4 lanes**

The proposed project would improve SR 314 (West Fayetteville Road) from Flat Shoals Road / Creel Road to SR 139 (Riverdale Road) in Clayton County. The existing two-lane roadway would be widened to four 12-foot lanes.



Since the network year for the SR 314 (West Fayetteville Road) widening plan is 2040 and the proposed development is planned to be completed by 2027, the planned project will not be considered in the future analysis.



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

## Future “No-Build” Traffic Operations

The future “No-Build” traffic operations were analyzed using the volumes in Figure 6 and the results are shown in Table 6.

TABLE 6 – FUTURE “NO-BUILD” INTERSECTION OPERATIONS

Intersection		LOS (Delay)		
		NO IMPROVEMENTS		
		AM Peak	PM Peak	Dismissal
<b>1</b>	<b><u>SR 314 (W Fayetteville Rd) @ E Fayetteville Rd</u></b>	<b>B (14.4)</b> D (47.0) A (5.8) A (5.0)	<b>C (21.5)</b> D (52.7) B (10.2) B (12.5)	-
	<b><u>SR 314 (W Fayetteville Rd) @ Crenshaw Dr</u></b>	E (41.9) A (8.1)	<b>F (137.3)</b> B (10.3)	-
	<b><u>SR 314 (W Fayetteville Rd) @ E Pleasant Rd</u></b>	<b>A (6.7)</b> D (46.8) D (46.4) A (4.0) A (0.6)	<b>A (4.7)</b> D (47.3) D (46.6) A (3.0) A (2.0)	<b>A (5.0)</b> D (46.8) D (47.2) A (2.8) A (1.5)
	<b><u>SR 314 (W Fayetteville Rd) @ Yellow River Rd / (M School Exit Drwy)</u></b>	<b>F (272.2)</b> C (17.8)	<b>F (*)</b> B (14.1)	<b>F (106.8)</b> B (13.3)
<b>5</b>	<b><u>SR 314 @ Norman Dr</u></b>	<b>C (25.6)</b> D (52.1) C (30.9) A (7.7)	<b>B (17.2)</b> D (51.1) C (26.2) A (7.9)	<b>C (20.9)</b> D (52.3) C (28.6) A (9.3)
	<b><u>SR 314 (W Fayetteville Rd) @ Godby Rd &amp; Phoenix Blvd</u></b>	<b>C (25.9)</b> D (53.2) D (42.7) B (16.5) B (15.2)	<b>D (36.9)</b> D (53.8) D (36.6) C (27.2) D (37.1)	-
	<b><u>SR 314 (W Fayetteville Rd) @ Southampton Rd</u></b>	C (17.5) A (8.4)	<b>E (37.1)</b> B (11.4)	-
	<b><u>SR 314 @ SR 139 (Riverdale Rd)</u></b>	<b>B (18.4)</b> A (9.8) A (5.1) D (42.8)	<b>C (22.5)</b> C (24.1) A (9.7) D (44.1)	-

\* Delay exceeds 300 seconds

The results of future “No-Build” traffic operations show that one or more approaches at these intersections do not meet the LOS standard:

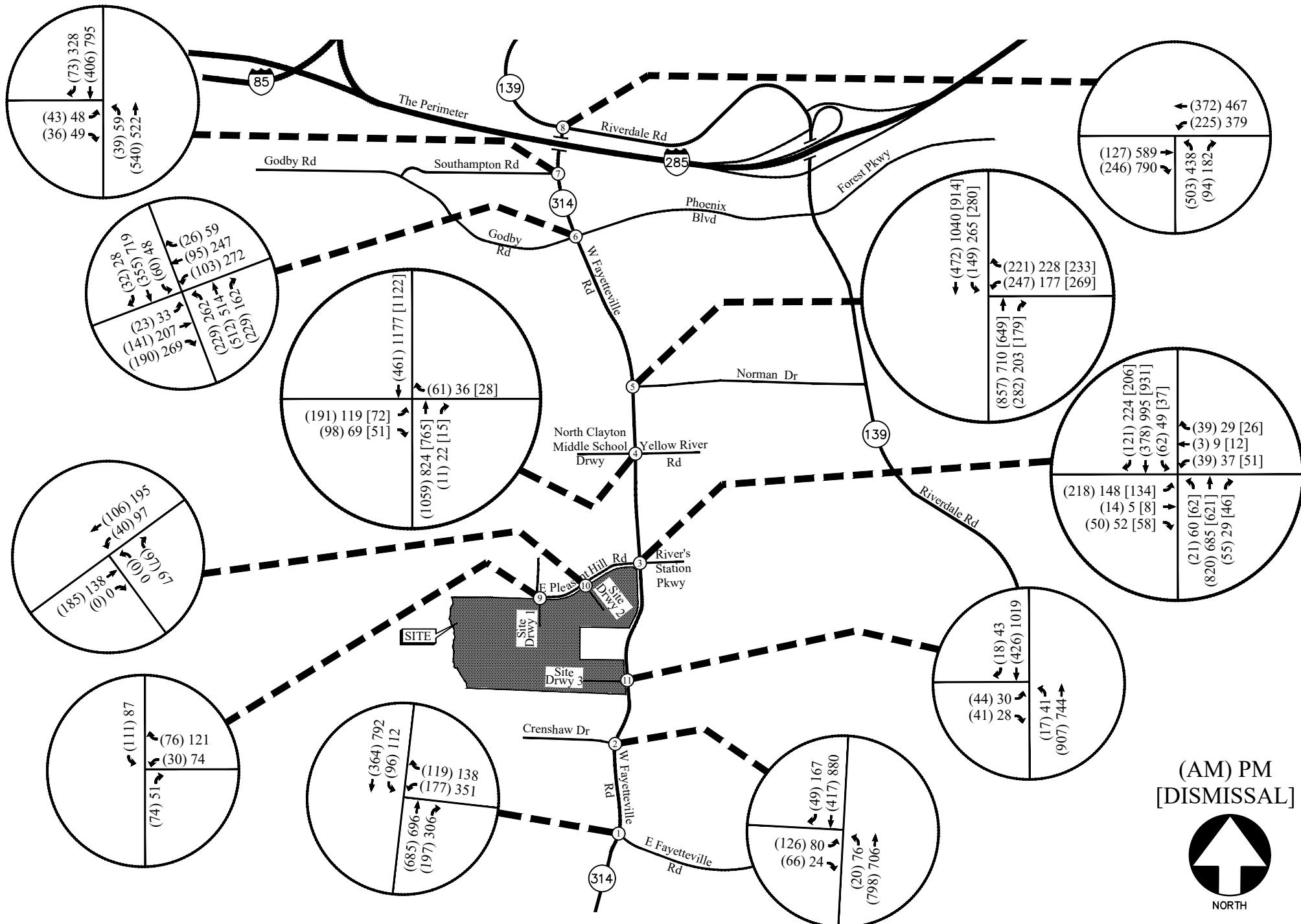
2. SR 314 (West Fayetteville Road) and Crenshaw Drive
4. SR 314 (West Fayetteville Road) and Yellow River Road /Middle School Exit Driveway
7. SR 314 (West Fayetteville Road) and Southampton Road

At intersections 2 and 7, the eastbound approaches will operate at LOS “F” in the PM peak hour. These intersections already have left turn and right turn lanes on the side street in the existing condition. It is not unusual for stop controlled site streets to have elevated delays during peak periods. The intersections will not warrant a traffic signal. Therefore, no more improvements were recommended at these intersections.

At intersection 4 (SR 314 and Yellow River Road /Middle School Exit Driveway), the eastbound approach will operate at LOS “F” in the AM, PM and School dismissal peak hour. The intersections will not warrant a traffic impact signal in the “no build”condition. The enforcement of a police officer during the peak hours to regulate the traffic movements should be considered.

## **Future “Build” Conditions**

The “Build” or development conditions include the estimated background traffic from the “No-Build” conditions plus the traffic from the proposed development. In order to evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) were added to base traffic volumes (Figure 6) to calculate the future traffic volumes after the construction of the development. These total future “Build” traffic volumes are shown in Figure 7.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES

## Auxiliary Lane Analysis

Included below are analyses for left-turn lanes and deceleration lanes for all site driveways per GDOT standards. The analyses below are based off the trip distribution included in the “Trip Distribution” section. According to the trip distribution, the total 24-hour two-way volume entering and exiting the site is 5,574 vehicles.

### Left Turn Lane Analysis

For four lane roadways with AADT's less than 10,000 vehicles and a posted speed limit of 35 mph, the daily site generated traffic left-turn movements threshold to warrant a left-turn lane is 400 left-turning vehicles a day. For two lane roadway with AADT's greater than 6,000 vehicles and a posted speed limit of 40 mph, the minimum threshold to warrant a left turn lane is 175 left turning vehicles a day. The projected left-turn volumes per day for each driveway is included in Table 7.

TABLE 7 – GDOT REQUIREMENTS FOR LEFT TURN LANES

Intersection	Left turn traffic. (% total entering)	Left-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/ day)	Warrants met?
East Pleasant Hill Road @ Site Drwy 1 (Western)	29% (Westbound)	<b>808</b> $(\text{total trips}) \div 2 \times 0.29 =$ $(5574) \div 2 \times 0.29 = 808$	35 mph / 4-Lane / $< 10,000$	400	Yes
East Pleasant Hill Road @ Site Drwy 2 (Eastern)	38% (Westbound)	<b>1059</b> $(\text{total trips}) \div 2 \times 0.38 =$ $(5574) \div 2 \times 0.38 = 1059$	35 mph / 4-Lane / $< 10,000$	400	Yes
SR 314 (West Fayetteville Road) @ Site Drwy 3	16% (Northbound)	<b>446</b> $(\text{total trips}) \div 2 \times 0.16 =$ $(5574) \div 2 \times 0.16 = 446$	40 mph / 2-Lane / $\geq 6,000$	175	Yes

Per GDOT standards, a left turn lane is warranted at all the site driveways.

## Deceleration Turn Lane Analysis

For two lane roadways with AADT's greater than 6,000 vehicles and a posted speed limit of 40 mph, the daily site generated traffic right-turn movements threshold to warrant a deceleration lane is 75 right turning vehicles a day. For four lane roadways with AADT's less than 10,000 vehicles and a posted speed limit of 35 mph, the minimum threshold to warrant a deceleration lane is 200 right turning vehicles a day. The projected right-turn volumes per day for each driveway is included in Table 8.

TABLE 8 – GDOT REQUIREMENTS FOR DECELERATION LANES

Intersection	Right-turn traffic (% total entering)	Right-turn Volume (vehicles/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicles/ day)	Warrants met?
SR 314 (West Fayetteville Road) @ Site Drwy 3	17% (Southbound)	<b>474</b> (total trips) ÷ 2 × 0.17 = (5574) ÷ 2 × 0.17 = 474	40 mph / 2-Lane / ≥ 6,000	75	Yes

A deceleration lane is warranted at site driveway 3, per GDOT standards.

## Future “Build” Traffic Operations

The future “Build” traffic operations were analyzed using the volumes in Figure 7, and the results are shown in Table 9.

TABLE 9 – FUTURE “BUILD” INTERSECTION OPERATIONS

Intersection		LOS (Delay)		
		NO IMPROVEMENTS		
		AM Peak	PM Peak	Dismissal
1	<b>SR 314 (W Fayetteville Rd) @ E Fayetteville Rd</b> - Westbound Approach - Northbound Approach - Southbound Approach	<b>B (14.1)</b> D (47.1) A (5.9) A (5.2)	<b>C (20.5)</b> D (45.9) B (11.3) B (13.7)	-
2	<b>SR 314 (W Fayetteville Rd) @ Crenshaw Dr</b> - Eastbound Approach - Northbound Left	F (53.9) A (8.3)	F (187.6) B (10.5)	-
3	<b>SR 314 (W Fayetteville Rd) @ E Pleasant Rd</b> - Eastbound Approach - Westbound Approach - Northbound Approach - Southbound Approach	<b>B (14.9)</b> D (42.2) D (35.1) B (10.2) A (7.6)	<b>B (12.6)</b> D (44.7) D (38.7) A (7.4) B (10.6)	<b>B (10.9)</b> D (45.1) D (40.5) A (5.7) A (7.7)
4	<b>SR 314 (W Fayetteville Rd) @ Yellow River Rd / (M School Exit Drwy)</b> - Eastbound Approach - Westbound Approach	F (*) C (23.1)	F (*) C (16.3)	F (296.8) B (14.8)
5	<b>SR 314 @ Norman Dr</b> - Westbound Approach - Northbound Approach - Southbound Approach	<b>C (30.0)</b> D (52.9) D (38.1) A (9.8)	<b>C (21.3)</b> D (50.5) C (30.9) B (12.1)	<b>C (23.7)</b> D (48.7) C (33.1) B (12.9)
6	<b>SR 314 (W Fayetteville Rd) @ Godby Rd &amp; Phoenix Blvd</b> - Eastbound Approach - Westbound Approach - Northbound Approach - Southbound Approach	<b>C (29.7)</b> D (54.1) D (39.5) C (23.6) B (19.2)	<b>D (46.8)</b> D (54.1) D (52.2) D (37.7) D (49.2)	-
7	<b>SR 314 (W Fayetteville Rd) @ Southampton Rd</b> - Eastbound Approach - Northbound Left	C (19.1) A (8.5)	E (45.7) B (11.7)	-
8	<b>SR 314 @ SR 139 (Riverdale Rd)</b> - Eastbound Approach - Westbound Approach - Northbound Approach	<b>B (19.4)</b> B (11.0) A (5.7) D (41.8)	<b>C (23.7)</b> C (24.0) B (13.0) D (43.4)	-

<b>9</b>	<b><u>East Pleasant Hill Rd @ Site Drwy 1/Popular Pointe Dr</u></b> - Westbound Approach -Southbound Approach	A (9.4) A (7.6)	A (9.5) A (7.5)	-
<b>10</b>	<b><u>East Pleasant Hill Rd @ Site Drwy 2</u></b> - Northbound Approach -Westbound Left	A (9.3) A (7.7)	A (9.0) A (7.7)	-
<b>11</b>	<b><u>SR 314 (W Fayetteville Rd) @ Site Drwy 3</u></b> - Eastbound Approach -Northbound Left	D (33.6) A (8.4)	<b>F (97.8)</b> B (11.4)	-

\* Delay exceeds 300 seconds

The results of future “Build” traffic operations show that the following intersection has LOS “E or F” for the approaches in the AM or PM peak hour or both:

2. SR 314 (West Fayetteville Road) and Crenshaw Drive
4. SR 314 (West Fayetteville Road) and Yellow River Road / North Clayton Middle School Exit Driveway
7. SR 314 (West Fayetteville Road) and Southampton Road
11. SR 314 (West Fayetteville Road) and Site Driveway 3

At intersections 2, 7, and 11, the eastbound approaches will continue to operate at a level-of-service “E” or “F” in the “Build” condition. These intersections already have left turn and right turn lanes on the side street in the existing condition. It is not unusual for stop controlled site streets to have elevated delays during peak periods. The intersections will not warrant a traffic signal. Therefore, no more improvements were recommended at these intersections.

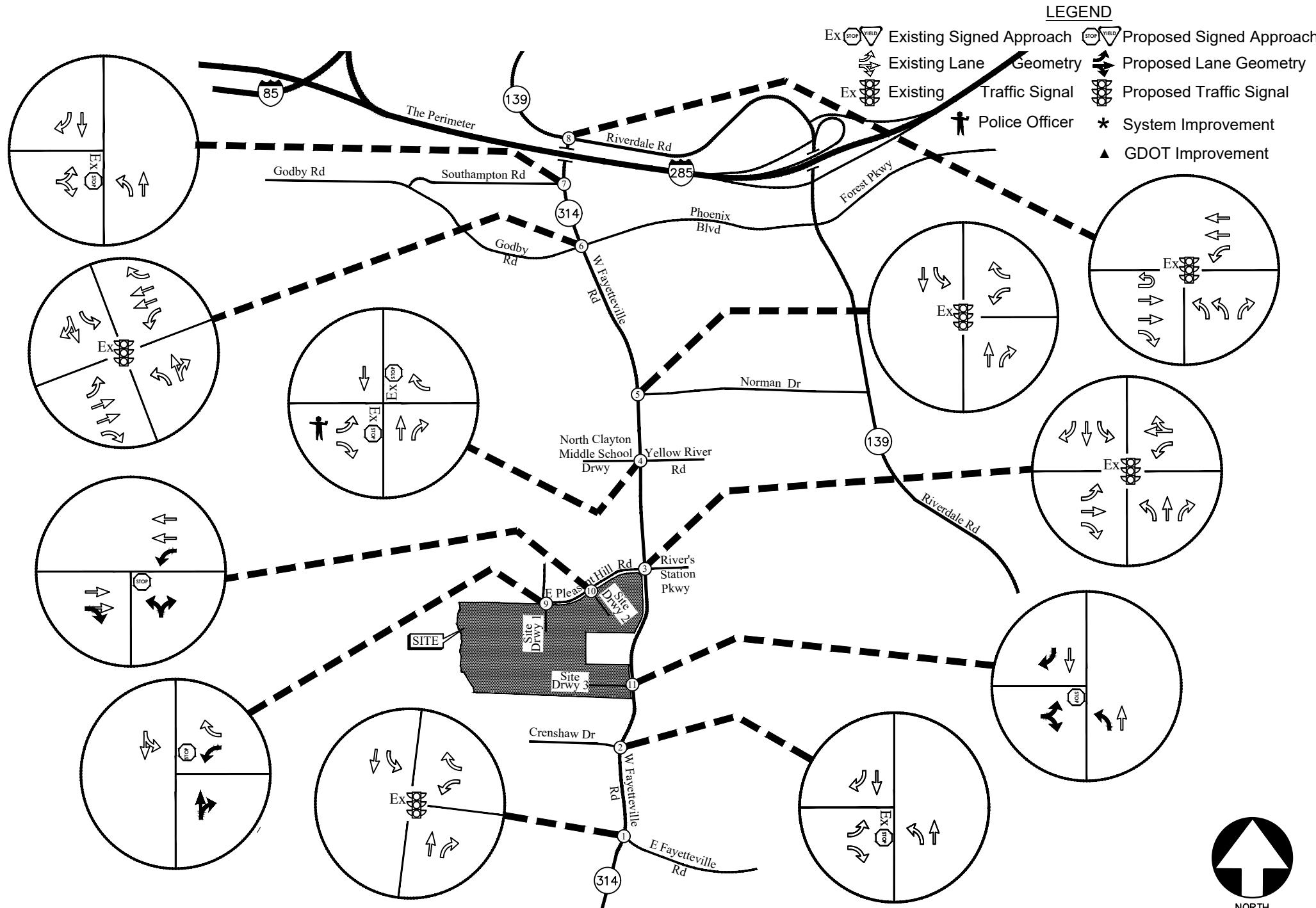
At intersection 4 (SR 314 and Yellow River Road /Middle School Exit Driveway), the eastbound approach will operate at a level-of-service “F” in the “Build” condition during the AM, PM and School dismissal peak hours. The intersection will not warrant a traffic signal. The enforcement of police officer during the peak hours to regulate the traffic movements should be considered.

## Recommended Site Mitigation Improvements

- Site Driveway 1: Full access (western) driveway on East Pleasant Hill Road, aligned with Popular Pointe Drive
  - One entering and one exiting lanes
  - Stop-sign controlled on the driveway approach with East Pleasant Hill Road remaining free flow
  - Left turn lane for entering traffic
- Site Driveway 2: Full access (eastern) driveway on East Pleasant Hill Road
  - One entering and one exiting lanes
  - Stop-sign controlled on the driveway approach with East Pleasant Hill Road remaining free flow
  - Left turn lane for entering traffic

- Site Driveway 3: Full access driveway on SR 314 (West Fayetteville Road)
  - One entering and one exiting lanes
  - Stop-sign controlled on the driveway approach with SR 314 (West Fayetteville Road) remaining free flow
  - Left Turn and Right Turn Lanes on SR 314 (West Fayetteville Road) for entering traffic

Recommendations for future traffic control and lane geometry are shown in Figure 8



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY

## **CONCLUSIONS AND RECOMMENDATIONS**

Traffic impacts were evaluated for the proposed residential development located to the southwest corner of the intersection of SR 314 (West Fayetteville Road) and East Pleasant Road in Clayton County, Georgia. The development proposes two full access driveways on East Pleasant Road and one full access driveway on SR 314 (West Fayetteville Road).

The AM, School Dismissal and PM peak hours have been analyzed in this study. In addition to the site access points, this study included the evaluation of traffic operations at the intersections of:

1. SR 314 (West Fayetteville Road) and East Fayetteville Road
2. SR 314 (West Fayetteville Road) and Crenshaw Drive
3. SR 314 (West Fayetteville Road) and East Pleasant Hill Road
4. SR 314 (West Fayetteville Road) and Yellow River Road
5. SR 314 (West Fayetteville Road) and Norman Drive
6. SR 314 (West Fayetteville Road) and Godby Road/ Phoenix Boulevard
7. SR 314 (West Fayetteville Road) and Southampton Road
8. SR 314 (West Fayetteville Road) and SR 139 (Riverdale Road)

The results of future “Build” traffic operations show that the following intersection has LOS “E or F” for the approaches in the AM or PM peak hour or both:

2. SR 314 (West Fayetteville Road) and Crenshaw Drive
4. SR 314 (Wes Fayetteville Road) and Yellow River Road / North Clayton Middle School Exit Driveway
7. SR 314 (West Fayetteville Road) and Southampton Road
11. SR 314 (Wes Fayetteville Road) and Site Driveway 3

At intersections 2, 7, and 11, the eastbound approaches will continue to operate at a level-of-service “E” or “F” in the “Build” condition. These intersections already have left turn and right turn lanes on the side street in the existing condition. It is not unusual for stop controlled site streets to have elevated delays during peak periods. The intersections will not warrant a traffic signal. Therefore, no more improvements were recommended at these intersections.

At intersection 4 (SR 314 and Yellow River Road /Middle School Exit Driveway), the eastbound approach will operate at a level-of-service “F” in the “Build” condition during the AM, PM and School dismissal peak hours. The intersection will not warrant a traffic signal. The enforcement of police officer during the peak hours to regulate the traffic movements should be considered.

## **Recommended Site Mitigation Improvements**

- Site Driveway 1: Full access (western) driveway on East Pleasant Hill Road, aligned with Popular Pointe Drive
  - One entering and one exiting lanes
  - Stop-sign controlled on the westbound approach with driveway approach and Popular Drive remaining free flow
  - Left turn lane for entering traffic
- Site Driveway 2: Full access (eastern) driveway on East Pleasant Hill Road
  - One entering and one exiting lanes
  - Stop-sign controlled on the driveway approach with East Pleasant Hill Road remaining free flow
  - Left turn lane for entering traffic
- Site Driveway 3: Full access driveway on SR 314 (West Fayetteville Road)
  - One entering and one exiting lanes
  - Stop-sign controlled on the driveway approach with SR 314 (West Fayetteville Road) remaining free flow
  - Left Turn and Right Turn Lanes on SR 314 (West Fayetteville Road) for entering traffic

## **Appendix**

Existing Intersection Traffic Counts .....	.....
GRTA Letter of Understanding.....	.....
Linear Regression of Daily Traffic.....	.....
Fact Sheets for Planned and Programmed Improvements.....	.....
Existing Intersection Analysis.....	.....
Future “No-Build” Intersection Analysis .....	.....
Future “Build” Intersections Analysis .....	.....
Traffic Volume Worksheets .....	.....

## **Existing Intersection Traffic Counts**

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @  
E. Pleasant Hill Rd  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220532  
Site Code : 20220532  
Start Date : 12-08-2022  
Page No : 1

### Groups Printed- Cars, Buses & Trucks

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				E. Pleasant Hill Rd Eastbound				River's Station Pkwy Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	143	4	149	3	58	9	70	13	0	8	21	3	1	6	10	250
07:15 AM	1	126	6	133	8	61	9	78	17	0	8	25	6	2	10	18	254
07:30 AM	3	182	7	192	12	73	10	95	10	4	9	23	13	0	10	23	333
07:45 AM	7	187	16	210	17	70	12	99	18	2	11	31	9	0	14	23	363
Total	13	638	33	684	40	262	40	342	58	6	36	100	31	3	40	74	1200
08:00 AM	1	183	8	192	13	79	14	106	18	3	5	26	6	1	4	11	335
08:15 AM	3	159	19	181	15	108	17	140	11	4	7	22	8	2	8	18	361
08:30 AM	6	127	8	141	7	108	11	126	15	2	2	19	9	0	6	15	301
08:45 AM	4	143	12	159	13	110	14	137	16	1	6	23	10	1	11	22	341
Total	14	612	47	673	48	405	56	509	60	10	20	90	33	4	29	66	1338
<b>*** BREAK ***</b>																	
02:00 PM	11	137	9	157	12	159	9	180	17	0	9	26	11	4	7	22	385
02:15 PM	10	140	14	164	13	168	10	191	10	1	6	17	9	1	5	15	387
02:30 PM	10	128	11	149	10	194	5	209	11	0	8	19	16	2	4	22	399
02:45 PM	10	142	10	162	15	195	12	222	9	1	9	19	8	2	6	16	419
Total	41	547	44	632	50	716	36	802	47	2	32	81	44	9	22	75	1590
03:00 PM	10	143	11	164	6	201	15	222	8	3	13	24	9	2	7	18	428
03:15 PM	13	126	12	151	9	210	10	229	10	2	13	25	13	2	7	22	427
03:30 PM	10	134	9	153	4	208	13	225	11	1	10	22	17	5	4	26	426
03:45 PM	10	127	13	150	10	198	10	218	11	3	11	25	21	3	2	26	419
Total	43	530	45	618	29	817	48	894	40	9	47	96	60	12	20	92	1700
04:00 PM	15	94	11	120	4	217	11	232	13	3	6	22	13	3	4	20	394
04:15 PM	17	136	10	163	10	205	15	230	9	3	9	21	9	4	4	17	431
04:30 PM	9	122	10	141	6	203	15	224	17	4	7	28	6	3	8	17	410
04:45 PM	9	152	4	165	11	235	18	264	8	2	13	23	12	3	12	27	479
Total	50	504	35	589	31	860	59	950	47	12	35	94	40	13	28	81	1714
05:00 PM	12	159	8	179	9	219	14	242	7	0	7	14	9	2	2	13	448
05:15 PM	9	171	12	192	18	203	8	229	8	0	5	13	8	2	6	16	450
05:30 PM	11	118	3	132	7	215	22	244	14	3	13	30	5	1	7	13	419
05:45 PM	10	144	18	172	6	207	12	225	8	2	10	20	11	2	8	21	438
Total	42	592	41	675	40	844	56	940	37	5	35	77	33	7	23	63	1755
Grand Total	203	3423	245	3871	238	3904	295	4437	289	44	205	538	241	48	162	451	9297
Apprch %	5.2	88.4	6.3		5.4	88	6.6		53.7	8.2	38.1		53.4	10.6	35.9		
Total %	2.2	36.8	2.6	41.6	2.6	42	3.2	47.7	3.1	0.5	2.2	5.8	2.6	0.5	1.7	4.9	

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

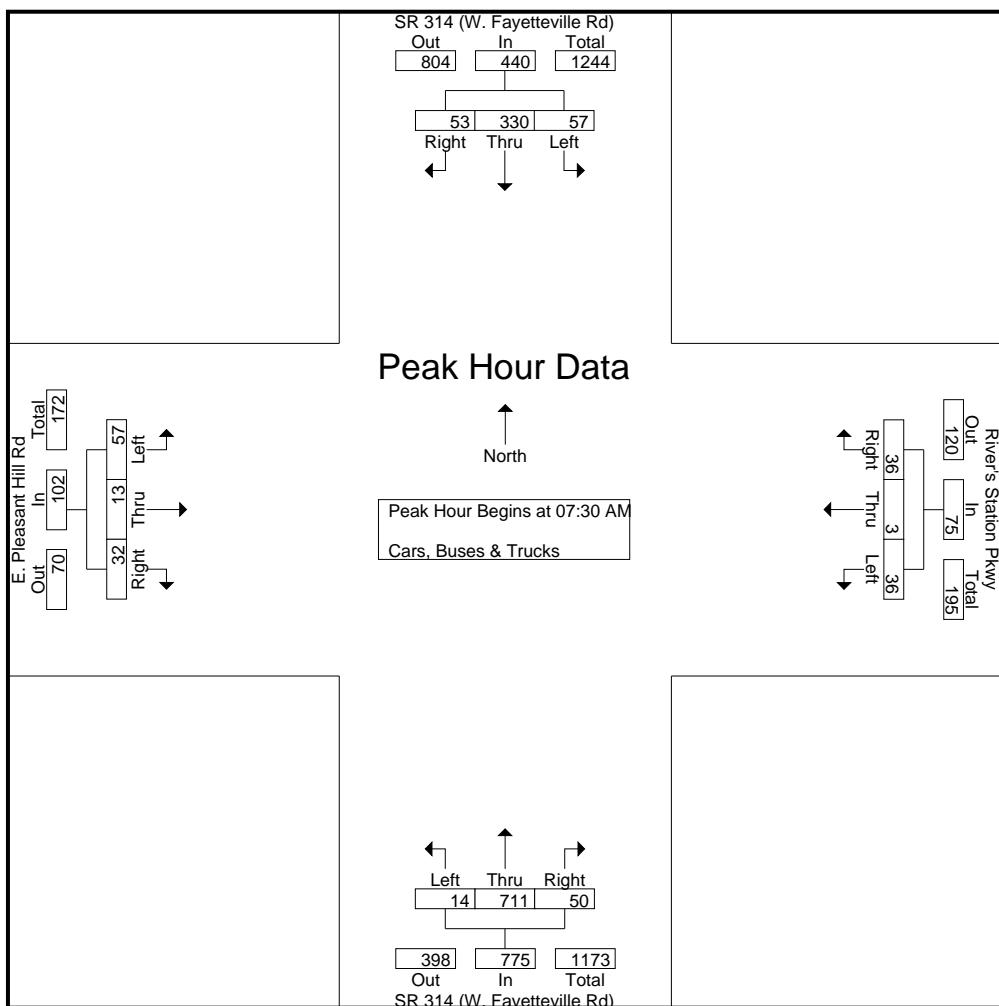
Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @  
E. Pleasant Hill Rd  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220532  
Site Code : 20220532  
Start Date : 12-08-2022  
Page No : 2

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				E. Pleasant Hill Rd Eastbound				River's Station Pkwy Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	3	182	7	192	12	73	10	95	10	4	9	23	13	0	10	23	333
07:45 AM	7	187	16	210	17	70	12	99	18	2	11	31	9	0	14	23	363
08:00 AM	1	183	8	192	13	79	14	106	18	3	5	26	6	1	4	11	335
08:15 AM	3	159	19	181	15	108	17	140	11	4	7	22	8	2	8	18	361
Total Volume	14	711	50	775	57	330	53	440	57	13	32	102	36	3	36	75	1392
% App. Total	1.8	91.7	6.5		13	75	12		55.9	12.7	31.4		48	4	48		
PHF	.500	.951	.658	.923	.838	.764	.779	.786	.792	.813	.727	.823	.692	.375	.643	.815	.959



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

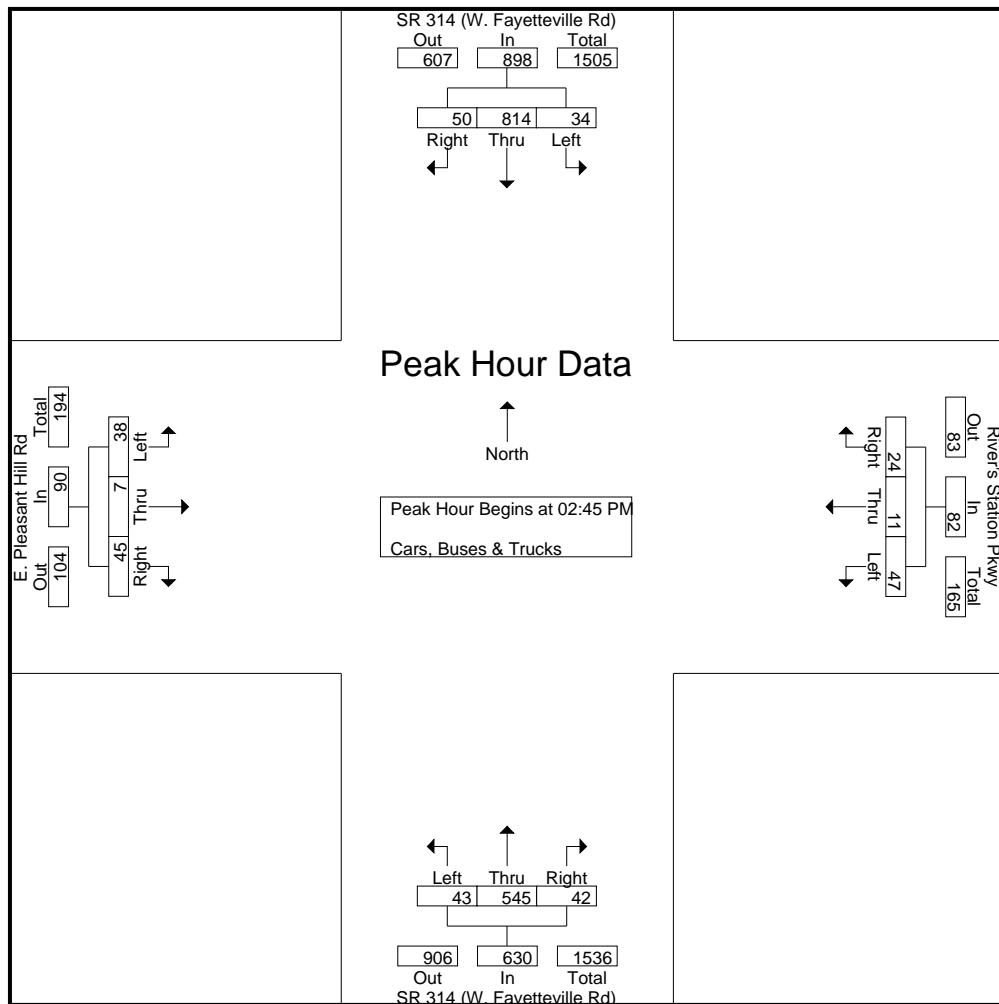
Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @  
E. Pleasant Hill Rd  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220532  
Site Code : 20220532  
Start Date : 12-08-2022  
Page No : 3

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				E. Pleasant Hill Rd Eastbound				River's Station Pkwy Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:45 PM																	
02:45 PM	10	142	10	162	15	195	12	222	9	1	9	19	8	2	6	16	419
03:00 PM	10	143	11	164	6	201	15	222	8	3	13	24	9	2	7	18	428
03:15 PM	13	126	12	151	9	210	10	229	10	2	13	25	13	2	7	22	427
03:30 PM	10	134	9	153	4	208	13	225	11	1	10	22	17	5	4	26	426
Total Volume	43	545	42	630	34	814	50	898	38	7	45	90	47	11	24	82	1700
% App. Total	6.8	86.5	6.7		3.8	90.6	5.6		42.2	7.8	50		57.3	13.4	29.3		
PHF	.827	.953	.875	.960	.567	.969	.833	.980	.864	.583	.865	.900	.691	.550	.857	.788	.993



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

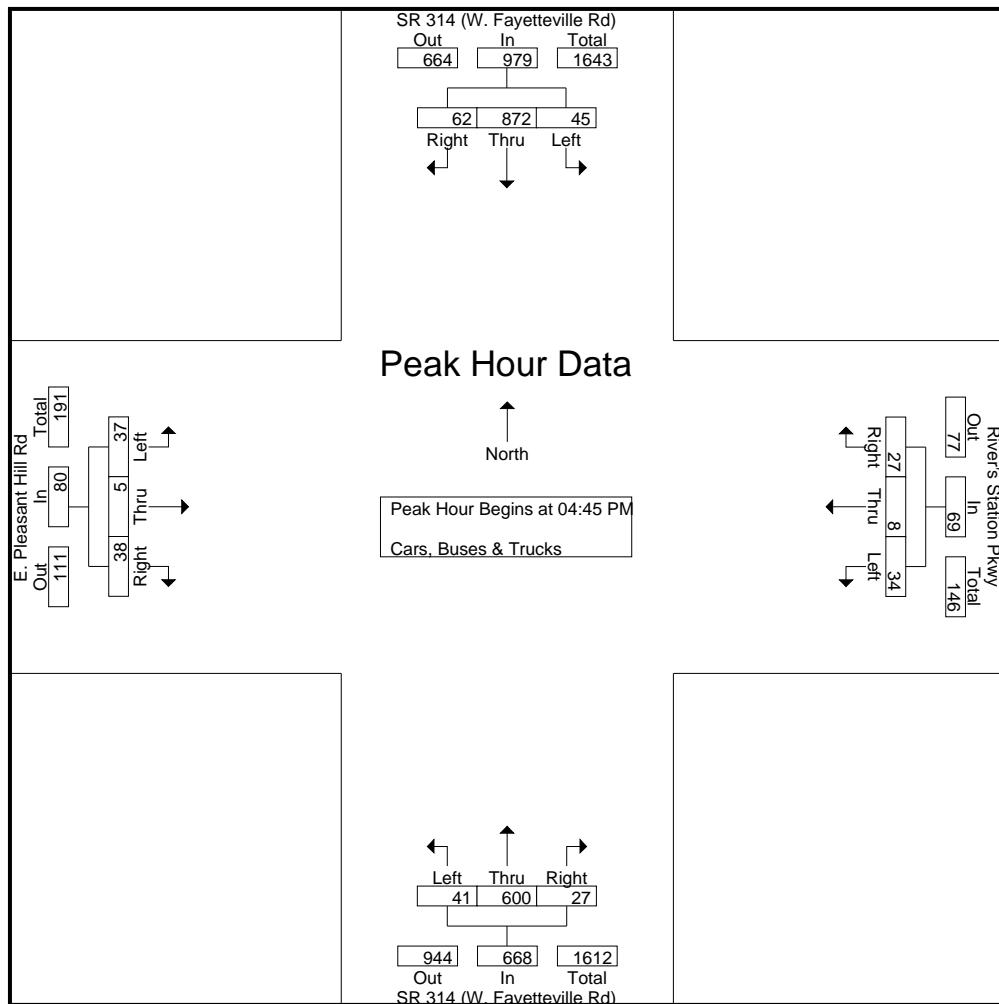
Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @  
E. Pleasant Hill Rd  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220532  
Site Code : 20220532  
Start Date : 12-08-2022  
Page No : 4

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				E. Pleasant Hill Rd Eastbound				River's Station Pkwy Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	9	152	4	165	11	235	18	264	8	2	13	23	12	3	12	27	479
05:00 PM	12	159	8	179	9	219	14	242	7	0	7	14	9	2	2	13	448
05:15 PM	9	171	12	192	18	203	8	229	8	0	5	13	8	2	6	16	450
05:30 PM	11	118	3	132	7	215	22	244	14	3	13	30	5	1	7	13	419
Total Volume	41	600	27	668	45	872	62	979	37	5	38	80	34	8	27	69	1796
% App. Total	6.1	89.8	4		4.6	89.1	6.3		46.2	6.2	47.5		49.3	11.6	39.1		
PHF	.854	.877	.563	.870	.625	.928	.705	.927	.661	.417	.731	.667	.708	.667	.563	.639	.937



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

TMC DATA

SR 314 (W. Fayetteville Rd) @ E

Fayetteville Rd

7-9 am | 4-6 pm

File Name : 20220533

Site Code : 20220533

Start Date : 12-08-2022

Page No : 1

### Groups Printed- Cars,Buses & Trucks

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				Eastbound				E Fayetteville Rd Westbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	115	27	142	15	52	0	67	0	0	0	0	19	0	23	42	251
07:15 AM	0	113	34	147	13	57	0	70	0	0	0	0	49	0	21	70	287
07:30 AM	0	138	50	188	21	68	0	89	0	0	0	0	36	0	35	71	348
07:45 AM	0	169	52	221	17	65	0	82	0	0	0	0	44	0	29	73	376
Total	0	535	163	698	66	242	0	308	0	0	0	0	148	0	108	256	1262
08:00 AM	0	148	39	187	19	66	0	85	0	0	0	0	39	0	19	58	330
08:15 AM	0	153	39	192	26	88	0	114	0	0	0	0	43	0	24	67	373
08:30 AM	0	122	37	159	21	89	0	110	0	0	0	0	38	0	21	59	328
08:45 AM	0	134	30	164	26	91	0	117	0	0	0	0	35	0	17	52	333
Total	0	557	145	702	92	334	0	426	0	0	0	0	155	0	81	236	1364
*** BREAK ***																	
04:00 PM	0	111	58	169	31	198	0	229	0	0	0	0	65	0	18	83	481
04:15 PM	0	144	80	224	31	188	0	219	0	0	0	0	69	0	31	100	543
04:30 PM	0	124	83	207	28	195	0	223	0	0	0	0	71	0	29	100	530
04:45 PM	0	136	72	208	32	215	0	247	0	0	0	0	79	0	35	114	569
Total	0	515	293	808	122	796	0	918	0	0	0	0	284	0	113	397	2123
05:00 PM	0	157	68	225	24	206	0	230	0	0	0	0	88	0	27	115	570
05:15 PM	0	160	65	225	21	196	0	217	0	0	0	0	88	0	38	126	568
05:30 PM	0	138	75	213	22	198	0	220	0	0	0	0	66	0	22	88	521
05:45 PM	0	140	82	222	25	195	0	220	0	0	0	0	49	0	33	82	524
Total	0	595	290	885	92	795	0	887	0	0	0	0	291	0	120	411	2183
Grand Total	0	2202	891	3093	372	2167	0	2539	0	0	0	0	878	0	422	1300	6932
Apprch %	0	71.2	28.8		14.7	85.3	0		0	0	0	0	67.5	0	32.5		
Total %	0	31.8	12.9	44.6	5.4	31.3	0	36.6	0	0	0	0	12.7	0	6.1	18.8	

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

## TMC DATA

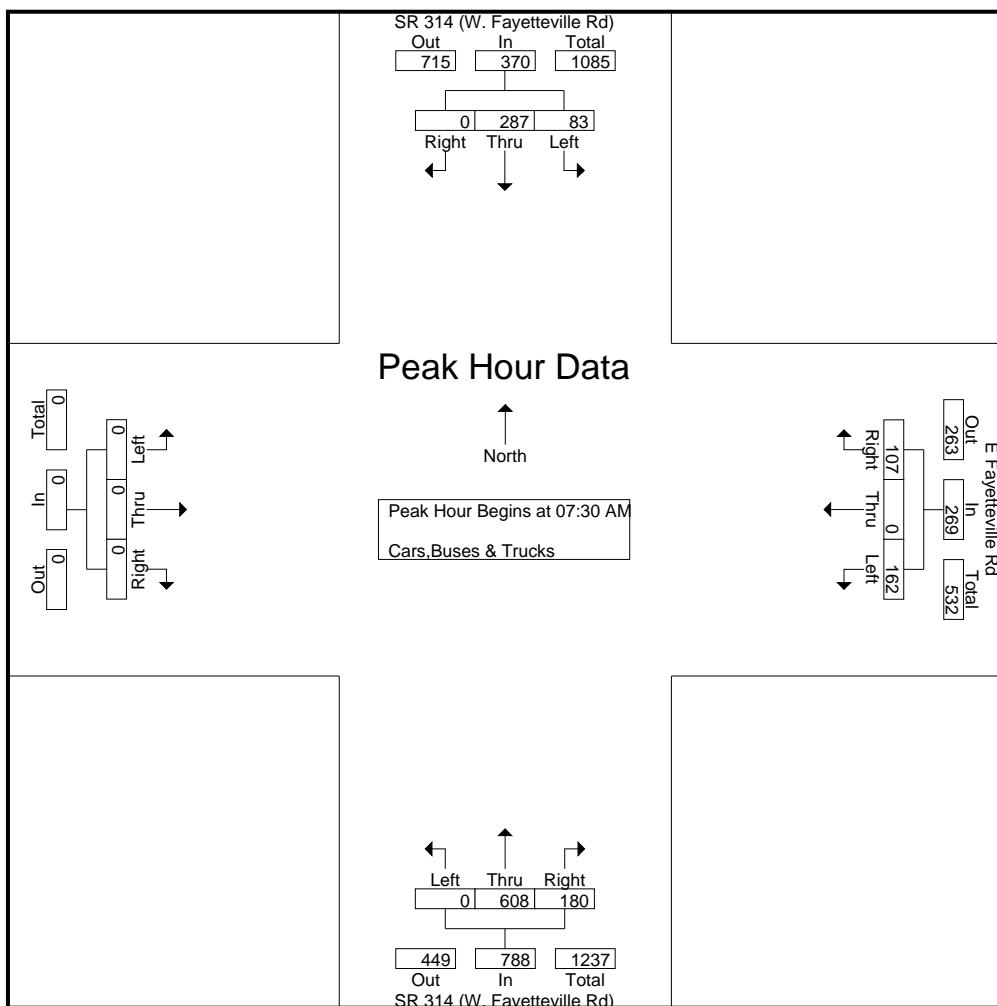
SR 314 (W. Fayetteville Rd) @ E

Fayetteville Rd

7-9 am | 4-6 pm

File Name : 20220533  
 Site Code : 20220533  
 Start Date : 12-08-2022  
 Page No : 2

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				Eastbound				E Fayetteville Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	138	50	188	21	68	0	89	0	0	0	0	36	0	35	71	348
07:45 AM	0	169	52	221	17	65	0	82	0	0	0	0	44	0	29	73	376
08:00 AM	0	148	39	187	19	66	0	85	0	0	0	0	39	0	19	58	330
08:15 AM	0	153	39	192	26	88	0	114	0	0	0	0	43	0	24	67	373
Total Volume	0	608	180	788	83	287	0	370	0	0	0	0	162	0	107	269	1427
% App. Total	0	77.2	22.8		22.4	77.6	0		0	0	0	0	60.2	0	39.8		
PHF	.000	.899	.865	.891	.798	.815	.000	.811	.000	.000	.000	.000	.920	.000	.764	.921	.949



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

## TMC DATA

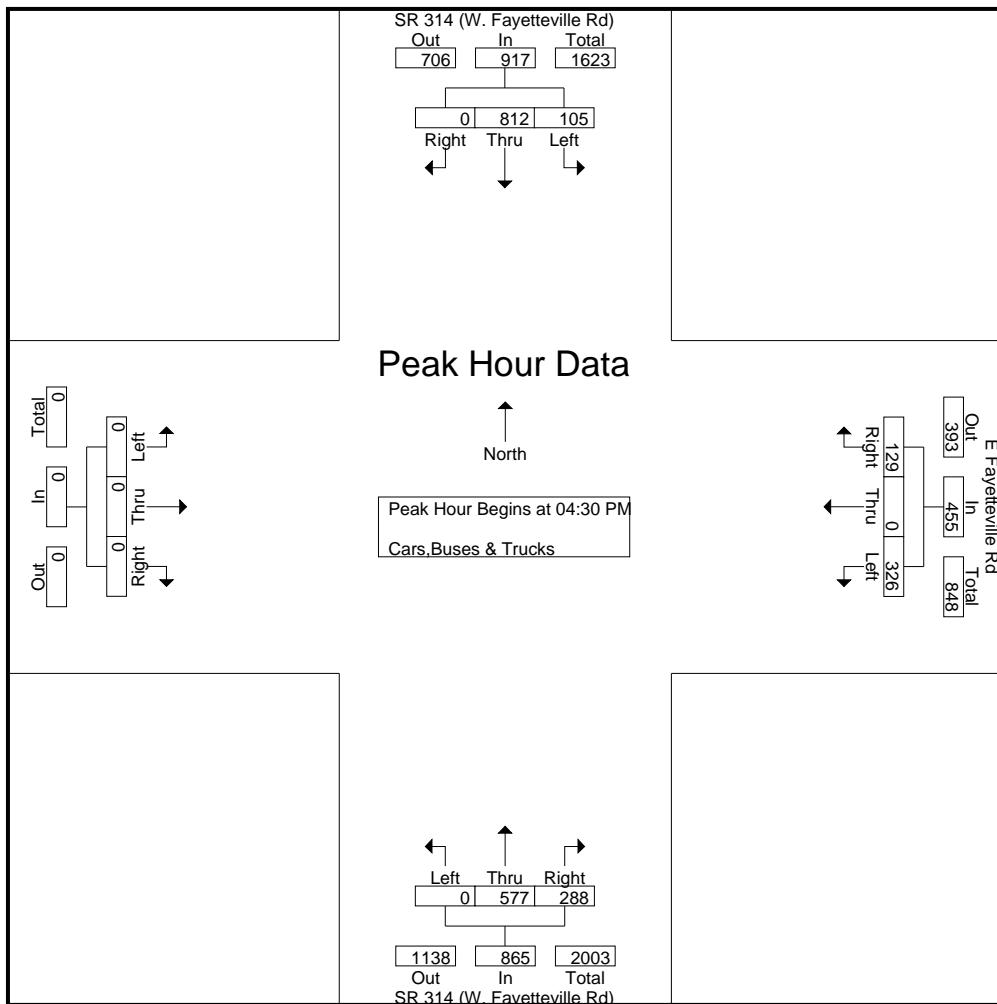
SR 314 (W. Fayetteville Rd) @ E

Fayetteville Rd

7-9 am | 4-6 pm

File Name : 20220533  
 Site Code : 20220533  
 Start Date : 12-08-2022  
 Page No : 3

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				Eastbound				E Fayetteville Rd Westbound				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	124	<b>83</b>	207	28	195	0	223	0	0	0	0	71	0	29	100	530
04:45 PM	0	136	72	208	<b>32</b>	<b>215</b>	0	<b>247</b>	0	0	0	0	79	0	35	114	569
05:00 PM	0	157	68	<b>225</b>	24	206	0	230	0	0	0	0	<b>88</b>	0	27	115	<b>570</b>
05:15 PM	0	<b>160</b>	65	225	21	196	0	217	0	0	0	0	88	0	<b>38</b>	<b>126</b>	568
Total Volume	0	577	288	865	105	812	0	917	0	0	0	0	326	0	129	455	2237
% App. Total	0	66.7	33.3		11.5	88.5	0		0	0	0	0	71.6	0	28.4		
PHF	.000	.902	.867	.961	.820	.944	.000	.928	.000	.000	.000	.000	.926	.000	.849	.903	.981



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

TMC Data

SR 314 @ Norman Drive  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220534  
Site Code : 20220534  
Start Date : 12-09-2022  
Page No : 1

## Groups Printed- Cars, Trucks & Buses

Start Time	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				Eastbound				Norman Dr Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	137	14	151	24	73	0	97	0	0	0	0	27	0	39	66	314
07:15 AM	0	141	31	172	17	91	0	108	0	0	0	0	42	0	40	82	362
07:30 AM	0	154	55	209	10	94	0	104	0	0	0	0	35	0	47	82	395
07:45 AM	0	174	64	238	23	85	0	108	0	0	0	0	46	0	47	93	439
Total	0	606	164	770	74	343	0	417	0	0	0	0	150	0	173	323	1510
08:00 AM	0	171	46	217	38	85	0	123	0	0	0	0	40	0	51	91	431
08:15 AM	0	159	50	209	39	107	0	146	0	0	0	0	55	0	55	110	465
08:30 AM	0	121	74	195	36	90	0	126	0	0	0	0	76	0	49	125	446
08:45 AM	0	118	64	182	39	70	0	109	0	0	0	0	58	0	36	94	385
Total	0	569	234	803	152	352	0	504	0	0	0	0	229	0	191	420	1727
<b>*** BREAK ***</b>																	
02:00 PM	0	105	38	143	61	153	0	214	0	0	0	0	41	0	40	81	438
02:15 PM	0	118	32	150	55	154	0	209	0	0	0	0	39	0	46	85	444
02:30 PM	0	113	49	162	61	164	0	225	0	0	0	0	47	0	48	95	482
02:45 PM	0	125	30	155	49	178	0	227	0	0	0	0	48	0	46	94	476
Total	0	461	149	610	226	649	0	875	0	0	0	0	175	0	180	355	1840
03:00 PM	0	117	36	153	70	165	0	235	0	0	0	0	45	0	61	106	494
03:15 PM	0	143	42	185	59	164	0	223	0	0	0	0	47	0	46	93	501
03:30 PM	0	122	44	166	62	172	0	234	0	0	0	0	69	0	47	116	516
03:45 PM	0	118	28	146	65	182	0	247	0	0	0	0	62	0	59	121	514
Total	0	500	150	650	256	683	0	939	0	0	0	0	223	0	213	436	2025
04:00 PM	0	103	55	158	63	137	0	200	0	0	0	0	39	0	52	91	449
04:15 PM	0	122	37	159	77	192	0	269	0	0	0	0	39	0	30	69	497
04:30 PM	0	138	35	173	78	194	0	272	0	0	0	0	42	0	40	82	527
04:45 PM	0	142	46	188	53	207	0	260	0	0	0	0	32	0	45	77	525
Total	0	505	173	678	271	730	0	1001	0	0	0	0	152	0	167	319	1998
05:00 PM	0	123	37	160	67	186	0	253	0	0	0	0	34	0	46	80	493
05:15 PM	0	136	43	179	61	198	0	259	0	0	0	0	27	0	67	94	532
05:30 PM	0	139	43	182	62	203	0	265	0	0	0	0	45	0	51	96	543
05:45 PM	0	115	49	164	54	187	0	241	0	0	0	0	39	0	46	85	490
Total	0	513	172	685	244	774	0	1018	0	0	0	0	145	0	210	355	2058
Grand Total	0	3154	1042	4196	1223	3531	0	4754	0	0	0	0	1074	0	1134	2208	11158
Apprch %	0	75.2	24.8		25.7	74.3	0		0	0	0	0	48.6	0	51.4		
Total %	0	28.3	9.3	37.6	11	31.6	0	42.6	0	0	0	0	9.6	0	10.2	19.8	

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

TMC Data

SR 314 @ Norman Drive

7-9 am | 2-4 pm | 4-6 pm

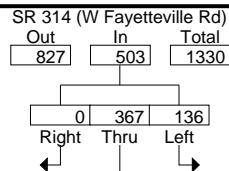
File Name : 20220534

Site Code : 20220534

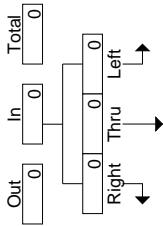
Start Date : 12-09-2022

Page No : 2

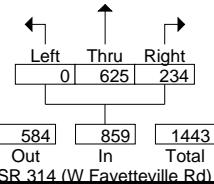
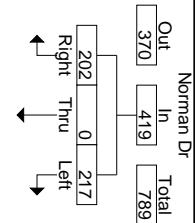
	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				Eastbound				Norman Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	174	64	238	23	85	0	108	0	0	0	0	46	0	47	93	439
08:00 AM	0	171	46	217	38	85	0	123	0	0	0	0	40	0	51	91	431
08:15 AM	0	159	50	209	39	107	0	146	0	0	0	0	55	0	55	110	465
08:30 AM	0	121	74	195	36	90	0	126	0	0	0	0	76	0	49	125	446
Total Volume	0	625	234	859	136	367	0	503	0	0	0	0	217	0	202	419	1781
% App. Total	0	72.8	27.2		27	73	0		0	0	0	0	51.8	0	48.2		
PHF	.000	.898	.791	.902	.872	.857	.000	.861	.000	.000	.000	.000	.714	.000	.918	.838	.958



## Peak Hour Data



Peak Hour Begins at 07:45 AM  
Cars, Trucks & Buses



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

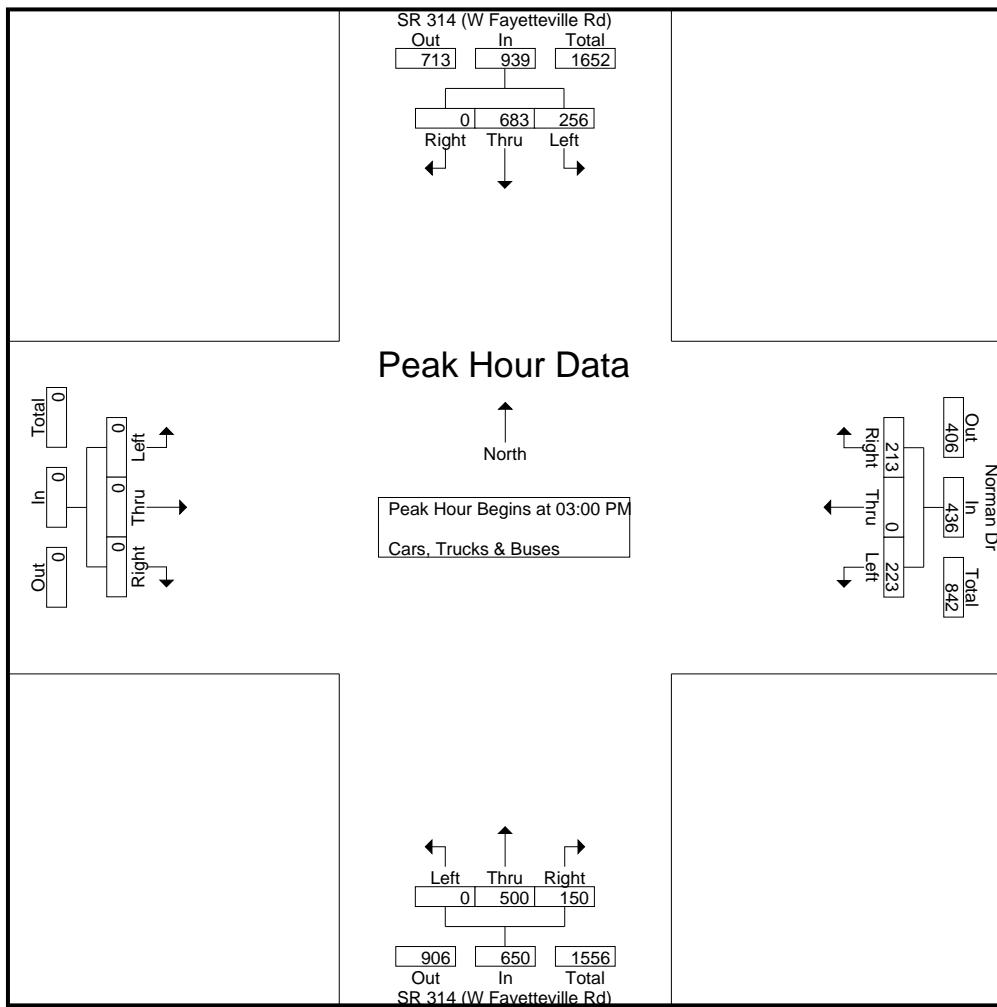
Marietta, GA 30067

TMC Data

SR 314 @ Norman Drive  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220534  
Site Code : 20220534  
Start Date : 12-09-2022  
Page No : 3

Start Time	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				Eastbound				Norman Dr Westbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	117	36	153	70	165	0	235	0	0	0	0	45	0	61	106	494
03:15 PM	0	143	42	185	59	164	0	223	0	0	0	0	47	0	46	93	501
03:30 PM	0	122	44	166	62	172	0	234	0	0	0	0	69	0	47	116	516
03:45 PM	0	118	28	146	65	182	0	247	0	0	0	0	62	0	59	121	514
Total Volume	0	500	150	650	256	683	0	939	0	0	0	0	223	0	213	436	2025
% App. Total	0	76.9	23.1		27.3	72.7	0		0	0	0		51.1	0	48.9		
PHF	.000	.874	.852	.878	.914	.938	.000	.950	.000	.000	.000	.000	.808	.000	.873	.901	.981



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

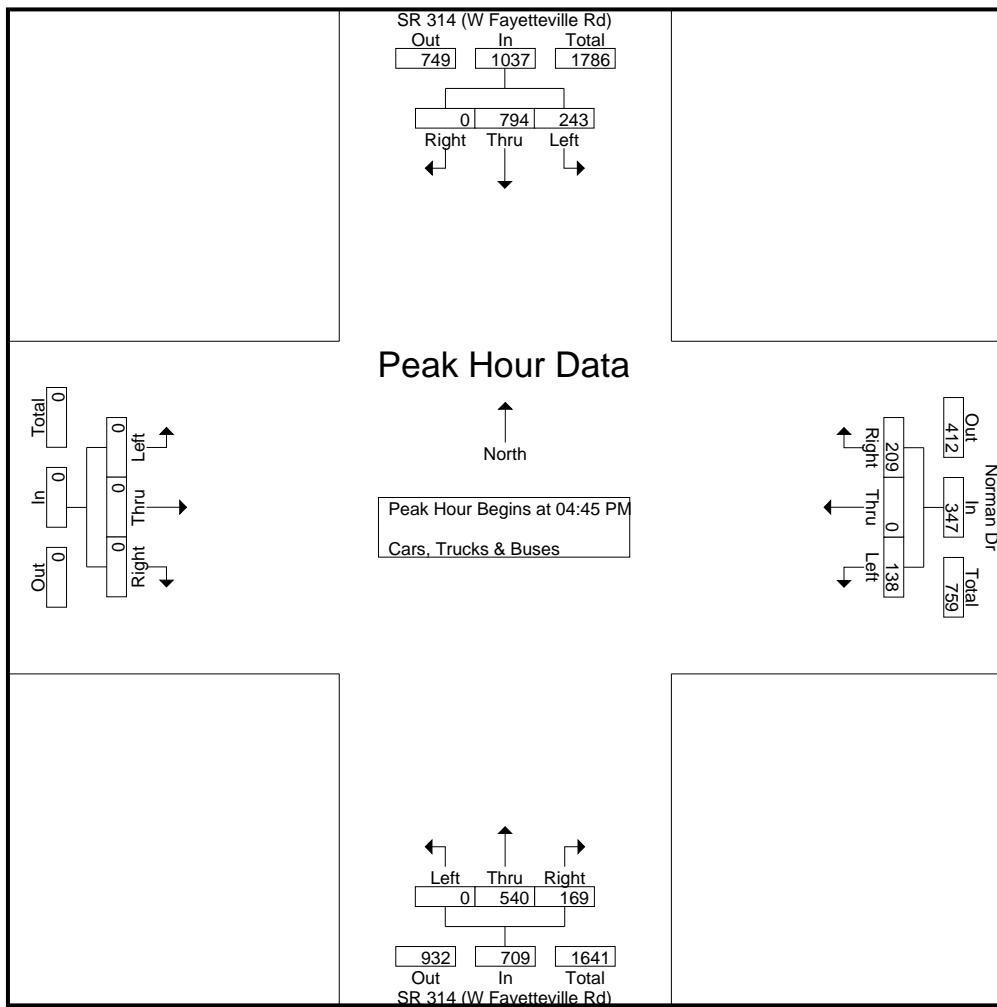
Marietta, GA 30067

TMC Data

SR 314 @ Norman Drive  
7-9 am | 2-4 pm | 4-6 pm

File Name : 20220534  
Site Code : 20220534  
Start Date : 12-09-2022  
Page No : 4

Start Time	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				Eastbound				Norman Dr Westbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	142	46	188	53	207	0	260	0	0	0	0	32	0	45	77	525
05:00 PM	0	123	37	160	67	186	0	253	0	0	0	0	34	0	46	80	493
05:15 PM	0	136	43	179	61	198	0	259	0	0	0	0	27	0	67	94	532
05:30 PM	0	139	43	182	62	203	0	265	0	0	0	0	45	0	51	96	543
Total Volume	0	540	169	709	243	794	0	1037	0	0	0	0	138	0	209	347	2093
% App. Total	0	76.2	23.8		23.4	76.6	0		0	0	0		39.8	0	60.2		
PHF	.000	.951	.918	.943	.907	.959	.000	.978	.000	.000	.000	.000	.767	.000	.780	.904	.964



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @ Godby Rd  
& Phoenix Blvd  
7-9 am | 4-6 pm

File Name : 20220535  
Site Code : 20220535  
Start Date : 12/8/2022  
Page No : 1

### Groups Printed- Cars,Buses & Trucks

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				Godby Rd Eastbound					Phoenix Blvd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	35	87	31	153	5	73	5	83	1	25	29	0	55	13	15	8	36	327
07:15 AM	47	104	27	178	8	60	6	74	9	25	27	1	62	18	12	6	36	350
07:30 AM	40	117	29	186	10	63	4	77	4	26	35	2	67	18	22	5	45	375
07:45 AM	39	114	36	189	10	79	4	93	6	39	43	0	88	11	23	5	39	409
Total	161	422	123	706	33	275	19	327	20	115	134	3	272	60	72	24	156	1461
08:00 AM	47	108	41	196	16	81	6	103	5	38	37	0	80	21	20	7	48	427
08:15 AM	46	79	33	158	19	81	15	115	2	26	43	2	73	16	22	7	45	391
08:30 AM	48	64	26	138	13	63	9	85	3	23	33	1	60	13	20	8	41	324
08:45 AM	35	99	35	169	8	64	6	78	7	29	33	1	70	26	14	8	48	365
Total	176	350	135	661	56	289	36	381	17	116	146	4	283	76	76	30	182	1507

\*\*\* BREAK \*\*\*

04:00 PM	42	92	32	166	16	143	3	162	6	44	52	3	105	40	56	16	112	545
04:15 PM	47	79	17	143	15	149	2	166	9	48	58	2	117	37	50	17	104	530
04:30 PM	66	96	21	183	14	133	7	154	7	49	57	1	114	48	66	23	137	588
04:45 PM	42	93	32	167	14	167	10	191	3	40	48	1	92	43	47	8	98	548
Total	197	360	102	659	59	592	22	673	25	181	215	7	428	168	219	64	451	2211
05:00 PM	57	119	28	204	4	142	5	151	6	55	59	4	124	40	52	14	106	585
05:15 PM	49	127	19	195	12	165	4	181	6	46	45	2	99	48	61	9	118	593
05:30 PM	58	91	14	163	15	143	6	164	5	41	47	2	95	36	64	10	110	532
05:45 PM	47	82	16	145	15	152	2	169	6	24	47	2	79	52	53	3	108	501
Total	211	419	77	707	46	602	17	665	23	166	198	10	397	176	230	36	442	2211

Grand Total	745	1551	437	2733	194	1758	94	2046	85	578	693	24	1380	480	597	154	1231	7390
Apprch %	27.3	56.8	16		9.5	85.9	4.6		6.2	41.9	50.2	1.7		39	48.5	12.5		
Total %	10.1	21	5.9	37	2.6	23.8	1.3	27.7	1.2	7.8	9.4	0.3	18.7	6.5	8.1	2.1	16.7	

# A & R Engineering, Inc.

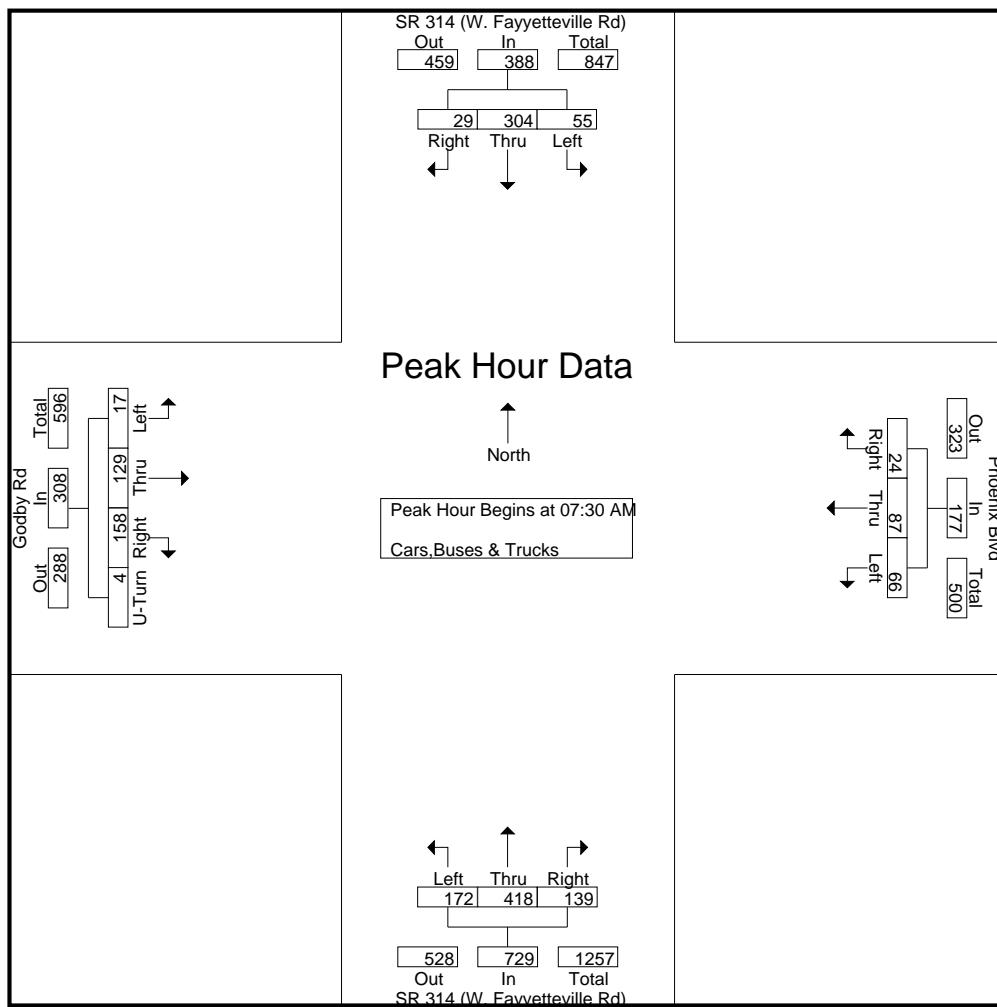
2160 Kingston Court Suite 'O'  
Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @ Godby Rd  
& Phoenix Blvd  
7-9 am | 4-6 pm

File Name : 20220535  
Site Code : 20220535  
Start Date : 12/8/2022  
Page No : 2

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				Godby Rd Eastbound					Phoenix Blvd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	40	117	29	186	10	63	4	77	4	26	35	2	67	18	22	5	45	375
07:45 AM	39	114	36	189	10	79	4	93	6	39	43	0	88	11	23	5	39	409
08:00 AM	47	108	41	196	16	81	6	103	5	38	37	0	80	21	20	7	48	427
08:15 AM	46	79	33	158	19	81	15	115	2	26	43	2	73	16	22	7	45	391
Total Volume	172	418	139	729	55	304	29	388	17	129	158	4	308	66	87	24	177	1602
% App. Total	23.6	57.3	19.1		14.2	78.4	7.5		5.5	41.9	51.3	1.3		37.3	49.2	13.6		
PHF	.915	.893	.848	.930	.724	.938	.483	.843	.708	.827	.919	.500	.875	.786	.946	.857	.922	.938



# A & R Engineering, Inc.

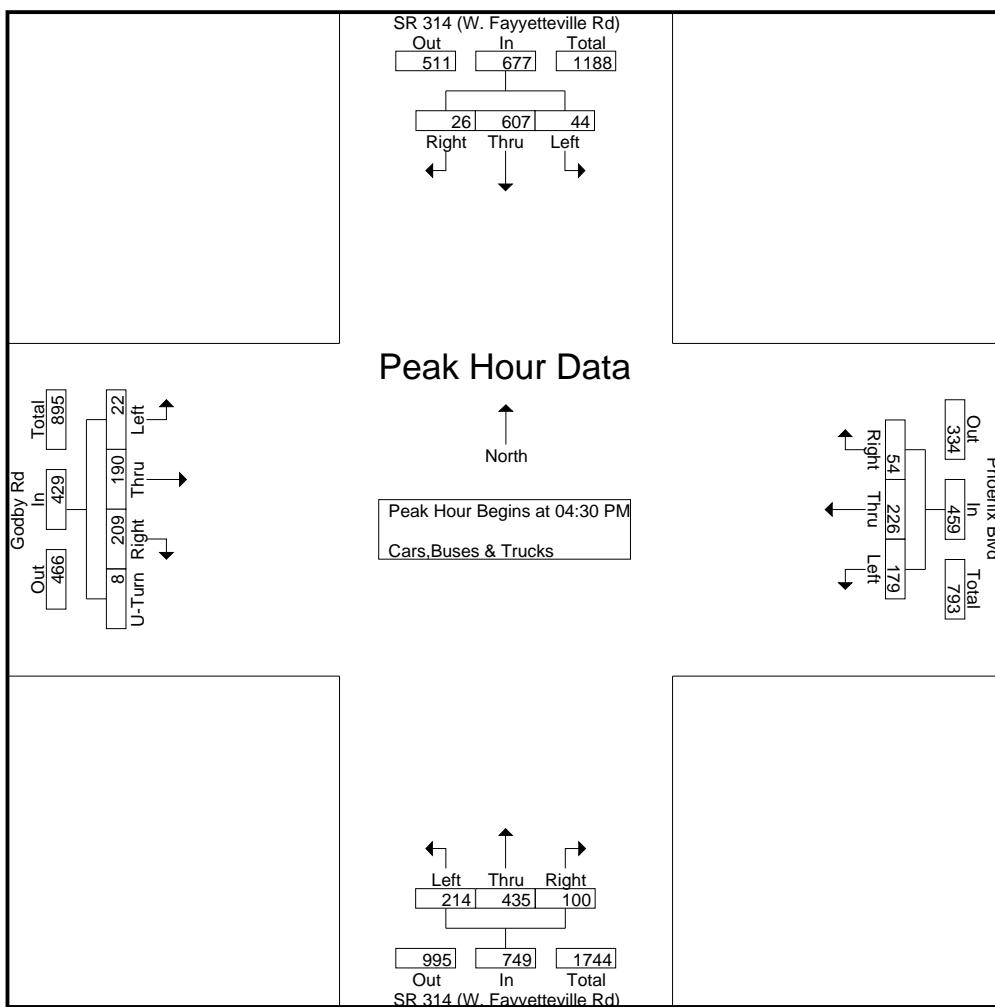
2160 Kingston Court Suite 'O'  
Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @ Godby Rd  
& Phoenix Blvd  
7-9 am | 4-6 pm

File Name : 20220535  
Site Code : 20220535  
Start Date : 12/8/2022  
Page No : 3

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				Godby Rd Eastbound					Phoenix Blvd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	66	96	21	183	14	133	7	154	7	49	57	1	114	48	66	23	137	588
04:45 PM	42	93	32	167	14	167	10	191	3	40	48	1	92	43	47	8	98	548
05:00 PM	57	119	28	204	4	142	5	151	6	55	59	4	124	40	52	14	106	585
05:15 PM	49	127	19	195	12	165	4	181	6	46	45	2	99	48	61	9	118	593
Total Volume	214	435	100	749	44	607	26	677	22	190	209	8	429	179	226	54	459	2314
% App. Total	28.6	58.1	13.4		6.5	89.7	3.8		5.1	44.3	48.7	1.9		39	49.2	11.8		
PHF	.811	.856	.781	.918	.786	.909	.650	.886	.786	.864	.886	.500	.865	.932	.856	.587	.838	.976



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @  
Crenshaw Drive  
7-9 am | 4-6 pm

File Name : 20220536  
Site Code : 20220535  
Start Date : 12-08-2022  
Page No : 1

### Groups Printed- Cars,Buses & Trucks

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				Crenshaw Drive Eastbound					Westbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	134	4	143	0	55	8	63	15	0	8	0	23	0	0	0	0	229
07:15 AM	6	111	6	123	0	61	9	70	22	0	10	0	32	0	0	0	0	225
07:30 AM	3	167	7	177	0	81	8	89	25	0	12	0	37	0	0	0	0	303
07:45 AM	7	175	16	198	0	75	11	86	35	0	15	0	50	0	0	0	0	334
Total	21	587	33	641	0	272	36	308	97	0	45	0	142	0	0	0	0	1091
08:00 AM	5	163	8	176	0	73	12	85	29	0	17	0	46	0	0	0	0	307
08:15 AM	3	155	19	177	0	102	14	116	26	0	16	0	42	0	0	0	0	335
08:30 AM	6	119	8	133	0	100	11	111	22	0	15	0	37	0	0	0	0	281
08:45 AM	4	142	12	158	0	105	13	118	17	0	14	0	31	0	0	0	0	307
Total	18	579	47	644	0	380	50	430	94	0	62	0	156	0	0	0	0	1230
<b>*** BREAK ***</b>																		
04:00 PM	15	102	11	128	0	201	28	229	18	0	6	0	24	0	0	0	0	381
04:15 PM	17	148	10	175	0	188	31	219	15	0	5	0	20	0	0	0	0	414
04:30 PM	14	122	8	144	0	179	35	214	19	0	7	0	26	0	0	0	0	384
04:45 PM	18	149	6	173	0	215	38	253	16	0	5	0	21	0	0	0	0	447
Total	64	521	35	620	0	783	132	915	68	0	23	0	91	0	0	0	0	1626
05:00 PM	13	162	8	183	0	195	35	230	17	0	6	0	23	0	0	0	0	436
05:15 PM	18	173	12	203	0	172	39	211	19	0	4	0	23	0	0	0	0	437
05:30 PM	21	111	15	147	0	188	41	229	21	0	7	0	28	0	0	0	0	404
05:45 PM	16	156	18	190	0	191	33	224	16	0	5	0	21	0	0	0	0	435
Total	68	602	53	723	0	746	148	894	73	0	22	0	95	0	0	0	0	1712
Grand Total	171	2289	168	2628	0	2181	366	2547	332	0	152	0	484	0	0	0	0	5659
Apprch %	6.5	87.1	6.4		0	85.6	14.4		68.6	0	31.4	0		0	0	0	0	
Total %	3	40.4	3	46.4	0	38.5	6.5	45	5.9	0	2.7	0	8.6	0	0	0	0	

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

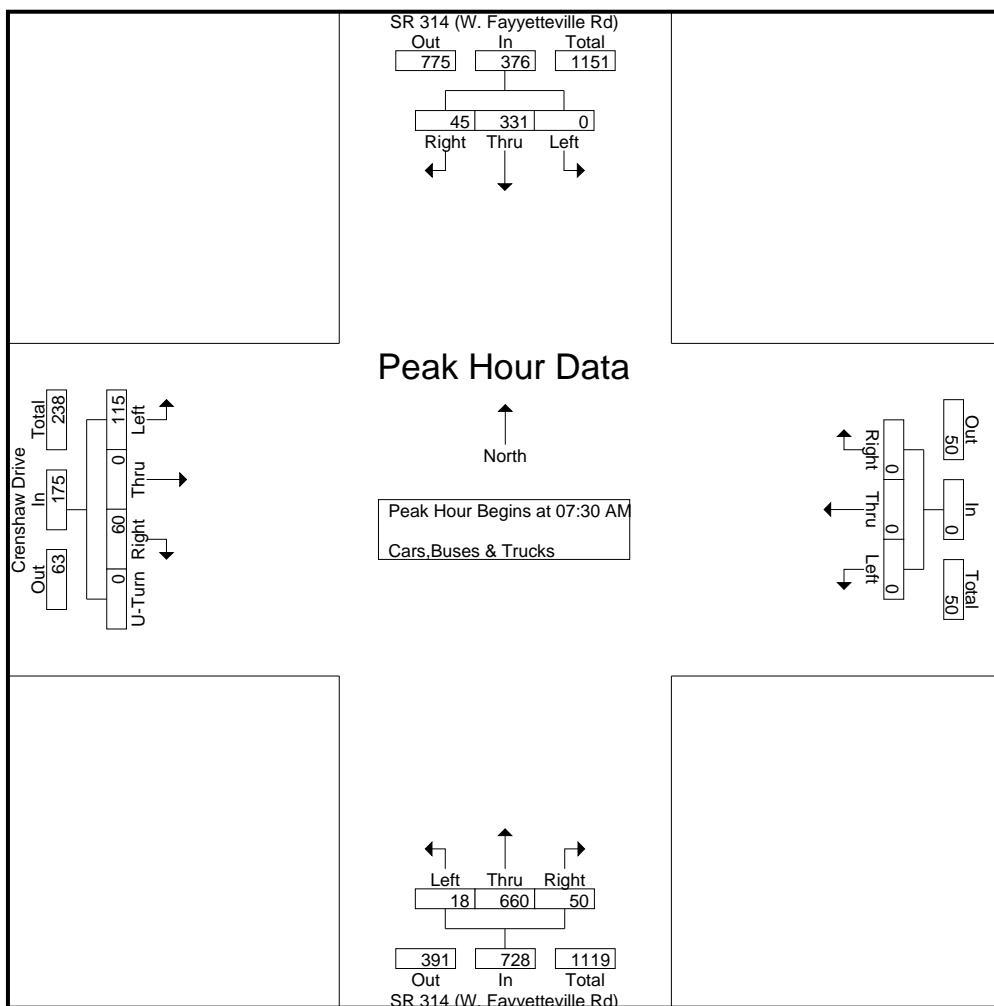
Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @  
Crenshaw Drive  
7-9 am | 4-6 pm

File Name : 20220536  
Site Code : 20220535  
Start Date : 12-08-2022  
Page No : 2

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				Crenshaw Drive Eastbound					Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 07:30 AM																		
07:30 AM	3	167	7	177	0	81	8	89	25	0	12	0	37	0	0	0	0	303
07:45 AM	7	175	16	198	0	75	11	86	35	0	15	0	50	0	0	0	0	334
08:00 AM	5	163	8	176	0	73	12	85	29	0	17	0	46	0	0	0	0	307
08:15 AM	3	155	19	177	0	102	14	116	26	0	16	0	42	0	0	0	0	335
Total Volume	18	660	50	728	0	331	45	376	115	0	60	0	175	0	0	0	0	1279
% App. Total	2.5	90.7	6.9		0	88	12		65.7	0	34.3	0		0	0	0	0	
PHF	.643	.943	.658	.919	.000	.811	.804	.810	.821	.000	.882	.000	.875	.000	.000	.000	.000	.954



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

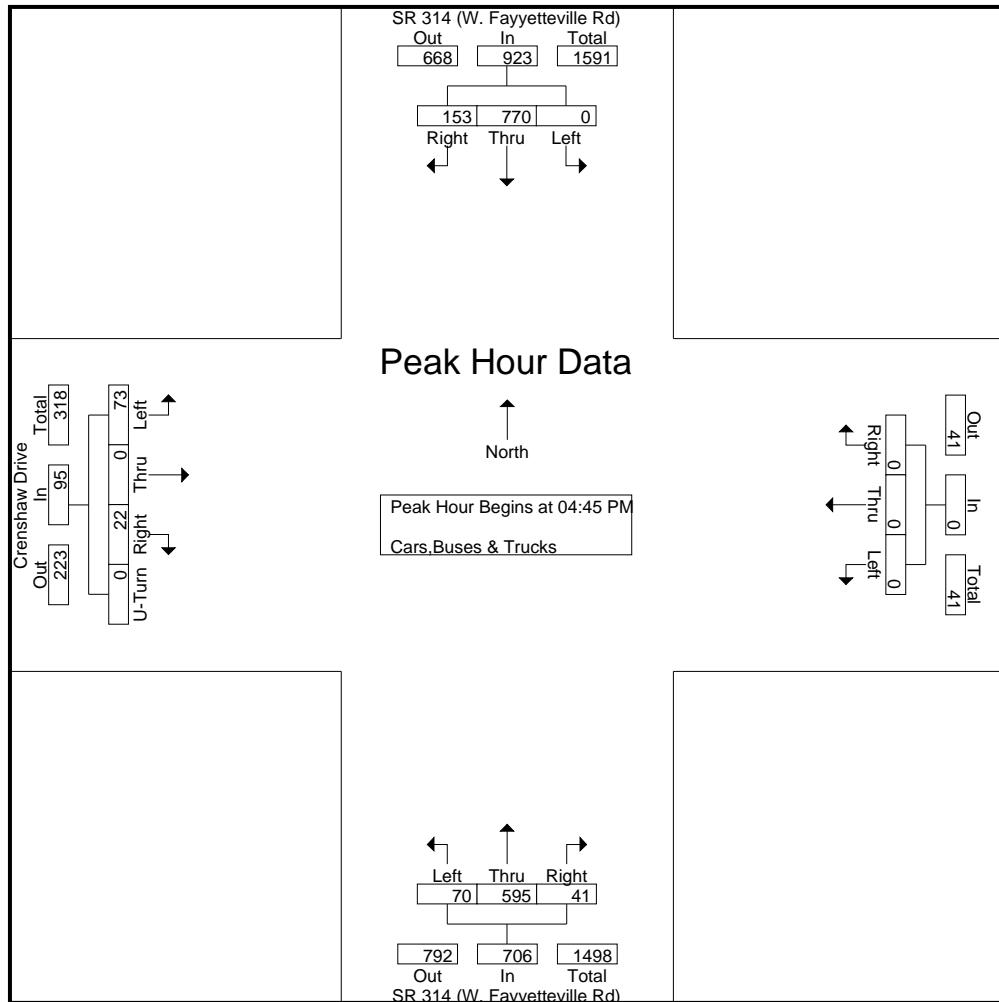
Marietta, GA 30067

## TMC DATA

SR 314 (W. Fayetteville Rd) @  
Crenshaw Drive  
7-9 am | 4-6 pm

File Name : 20220536  
Site Code : 20220535  
Start Date : 12-08-2022  
Page No : 3

	SR 314 (W. Fayetteville Rd) Northbound				SR 314 (W. Fayetteville Rd) Southbound				Crenshaw Drive Eastbound					Westbound					
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																			
Peak Hour for Entire Intersection Begins at 04:45 PM																			
04:45 PM	18	149	6	173	0	215	38	253	16	0	5	0	21	0	0	0	0	447	
05:00 PM	13	162	8	183	0	195	35	230	17	0	6	0	23	0	0	0	0	436	
05:15 PM	18	173	12	203	0	172	39	211	19	0	4	0	23	0	0	0	0	437	
05:30 PM	21	111	15	147	0	188	41	229	21	0	7	0	28	0	0	0	0	404	
Total Volume	70	595	41	706	0	770	153	923	73	0	22	0	95	0	0	0	0	1724	
% App. Total	9.9	84.3	5.8		0	83.4	16.6		76.8	0	23.2	0	0	0	0	0	0		
PHF	.833	.860	.683	.869	.000	.895	.933	.912	.869	.000	.786	.000	.848	.000	.000	.000	.000	.964	



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

TMC Data

SR 314 @ Yellow River Dr

(M School Exit Drwy)

24hrs

File Name : 20220537

Site Code : 20220537

Start Date : 12-08-2022

Page No : 1

### Groups Printed- Cars,Buses & Trucks

Start Time	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				M School Exit Drwy Eastbound				Yellow River Rd Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	146	2	148	0	35	0	35	2	0	5	7	0	0	10	10	200
07:15 AM	0	144	3	147	0	69	0	69	12	0	5	17	0	0	13	13	246
07:30 AM	0	165	2	167	0	63	0	63	28	0	20	48	0	0	16	16	294
07:45 AM	0	163	1	164	0	78	0	78	49	0	19	68	0	0	18	18	328
Total	0	618	8	626	0	245	0	245	91	0	49	140	0	0	57	57	1068
08:00 AM	0	211	2	213	0	41	0	41	50	0	25	75	0	0	14	14	343
08:15 AM	0	229	1	230	0	91	0	91	48	0	26	74	0	0	8	8	403
08:30 AM	0	202	1	203	0	93	0	93	24	0	10	34	0	0	1	1	331
08:45 AM	0	165	1	166	0	97	0	97	39	0	26	65	0	0	5	5	333
Total	0	807	5	812	0	322	0	322	161	0	87	248	0	0	28	28	1410
09:00 AM	0	129	1	130	0	83	0	83	56	0	29	85	0	0	11	11	309
09:15 AM	0	163	2	165	0	76	0	76	30	0	26	56	0	0	5	5	302
09:30 AM	0	153	2	155	0	106	0	106	17	0	7	24	0	0	1	1	286
09:45 AM	0	119	1	120	1	112	0	113	4	0	6	10	0	0	3	3	246
Total	0	564	6	570	1	377	0	378	107	0	68	175	0	0	20	20	1143
10:00 AM	0	110	1	111	0	100	0	100	12	0	3	15	0	0	3	3	229
10:15 AM	0	130	2	132	1	99	0	100	6	0	2	8	0	0	2	2	242
10:30 AM	0	113	0	113	0	105	0	105	1	0	1	2	0	0	0	0	220
10:45 AM	0	124	1	125	0	117	0	117	2	0	2	4	0	0	1	1	247
Total	0	477	4	481	1	421	0	422	21	0	8	29	0	0	6	6	938
11:00 AM	0	131	2	133	2	122	0	124	2	0	1	3	0	0	0	0	260
11:15 AM	0	108	2	110	0	111	0	111	2	0	2	4	0	0	2	2	227
11:30 AM	0	132	2	134	0	113	0	113	6	0	0	6	0	0	1	1	254
11:45 AM	0	128	2	130	1	127	0	128	2	0	2	4	0	0	1	1	263
Total	0	499	8	507	3	473	0	476	12	0	5	17	0	0	4	4	1004
12:00 PM	0	154	1	155	0	136	0	136	1	0	3	4	0	0	4	4	299
12:15 PM	0	113	1	114	0	132	0	132	3	0	2	5	0	0	2	2	253
12:30 PM	0	131	1	132	0	124	0	124	3	0	3	6	0	0	3	3	265
12:45 PM	0	154	1	155	0	125	0	125	9	0	1	10	0	0	6	6	296
Total	0	552	4	556	0	517	0	517	16	0	9	25	0	0	15	15	1113
01:00 PM	0	169	1	170	2	108	0	110	2	0	4	6	0	0	0	0	286
01:15 PM	0	140	1	141	1	137	0	138	6	0	3	9	0	0	2	2	290
01:30 PM	0	156	4	160	0	159	0	159	3	0	2	5	0	0	4	4	328
01:45 PM	0	149	2	151	0	157	0	157	4	0	2	6	0	0	4	4	318
Total	0	614	8	622	3	561	0	564	15	0	11	26	0	0	10	10	1222
02:00 PM	0	189	2	191	0	156	0	156	2	0	4	6	0	0	3	3	356
02:15 PM	0	166	1	167	0	188	0	188	8	0	2	10	0	0	4	4	369
02:30 PM	0	167	3	170	0	184	0	184	6	0	7	13	0	0	3	3	370
02:45 PM	0	198	1	199	0	181	0	181	19	0	15	34	0	0	6	6	420
Total	0	720	7	727	0	709	0	709	35	0	28	63	0	0	16	16	1515
03:00 PM	0	165	5	170	1	186	0	187	18	0	14	32	0	0	6	6	395
03:15 PM	0	155	2	157	0	213	0	213	21	0	9	30	0	0	8	8	408
03:30 PM	0	188	0	188	0	210	0	210	8	0	9	17	0	0	6	6	421

**A & R Engineering, Inc.**  
2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC Data

**SR 314 @ Yellow River Dr  
(M School Exit Drwy)  
24hrs**

2 / 110

File Name : 20220537  
Site Code : 20220537  
Start Date : 12-08-2022  
Page No : 2

## Groups Printed- Cars,Buses & Trucks

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

TMC Data

SR 314 @ Yellow River Dr

(M School Exit Drwy)

24hrs

File Name : 20220537

Site Code : 20220537

Start Date : 12-08-2022

Page No : 3

## Groups Printed- Cars,Buses & Trucks

Start Time	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				M School Exit Drwy Eastbound				Yellow River Rd Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
12:45 AM	0	22	0	22	0	55	0	55	0	0	0	0	0	0	0	0	77
Total	0	131	0	131	0	273	0	273	0	0	0	0	0	0	0	0	404
01:00 AM	0	20	0	20	0	48	0	48	0	0	0	0	0	0	0	0	68
01:15 AM	0	17	0	17	0	72	0	72	0	0	0	0	0	0	0	0	89
01:30 AM	0	18	0	18	0	34	0	34	0	0	0	0	0	0	0	0	52
01:45 AM	0	15	0	15	0	39	0	39	0	0	0	0	0	0	0	0	54
Total	0	70	0	70	0	193	0	193	0	0	0	0	0	0	0	0	263
02:00 AM	0	14	0	14	0	26	0	26	0	0	0	0	0	0	0	0	40
02:15 AM	0	17	0	17	0	32	0	32	0	0	0	0	0	0	0	0	49
02:30 AM	0	12	0	12	0	29	0	29	0	0	0	0	0	0	0	0	41
02:45 AM	0	13	0	13	0	34	0	34	0	0	0	0	0	0	0	0	47
Total	0	56	0	56	0	121	0	121	0	0	0	0	0	0	0	0	177
03:00 AM	0	12	0	12	0	27	0	27	0	0	0	0	0	0	0	0	39
03:15 AM	0	16	0	16	0	23	0	23	0	0	0	0	0	0	0	0	39
03:30 AM	0	21	0	21	0	15	0	15	0	0	0	0	0	0	0	0	36
03:45 AM	0	17	0	17	0	18	0	18	0	0	0	0	0	0	0	0	35
Total	0	66	0	66	0	83	0	83	0	0	0	0	0	0	0	0	149
04:00 AM	0	27	0	27	0	12	0	12	0	0	0	0	0	0	0	0	39
04:15 AM	0	28	0	28	0	15	0	15	0	0	0	0	0	0	0	0	43
04:30 AM	0	34	0	34	0	16	0	16	0	0	0	0	0	0	0	0	50
04:45 AM	0	36	0	36	0	15	0	15	0	0	0	0	0	0	0	0	51
Total	0	125	0	125	0	58	0	58	0	0	0	0	0	0	0	0	183
05:00 AM	0	46	0	46	0	21	0	21	0	0	0	0	0	0	0	0	67
05:15 AM	0	49	0	49	0	25	0	25	0	0	0	0	0	0	0	0	74
05:30 AM	0	63	0	63	0	28	0	28	0	0	0	0	0	0	0	0	91
05:45 AM	0	97	0	97	0	36	0	36	0	0	0	0	0	0	0	0	133
Total	0	255	0	255	0	110	0	110	0	0	0	0	0	0	0	0	365
06:00 AM	0	120	0	120	0	25	0	25	0	0	0	0	0	0	0	0	145
06:15 AM	0	122	0	122	0	50	0	50	0	0	0	0	0	0	0	0	172
06:30 AM	0	96	0	96	0	47	0	47	0	0	0	0	0	0	0	0	143
06:45 AM	0	128	0	128	0	44	0	44	0	0	0	0	0	0	0	0	172
Total	0	466	0	466	0	166	0	166	0	0	0	0	0	0	0	0	632
Grand Total	0	10652	75	10727	388	10644	0	11032	703	0	415	1118	0	0	216	216	23093
Apprch %	0	99.3	0.7		3.5	96.5	0		62.9	0	37.1		0	0	100		
Total %	0	46.1	0.3	46.5	1.7	46.1	0	47.8	3	0	1.8	4.8	0	0	0.9	0.9	

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

TMC Data

SR 314 @ Yellow River Dr

(M School Exit Drwy)

24hrs

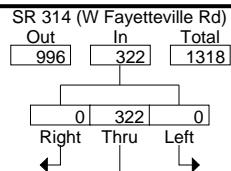
File Name : 20220537

Site Code : 20220537

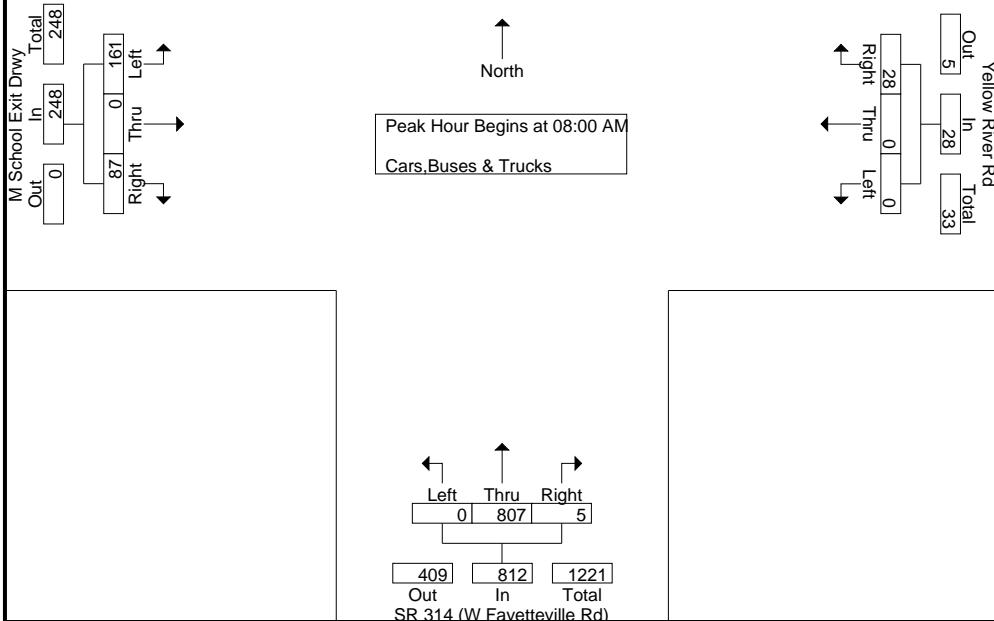
Start Date : 12-08-2022

Page No : 4

	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				M School Exit Drwy Eastbound				Yellow River Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	211	2	213	0	41	0	41	50	0	25	75	0	0	14	14	343
08:15 AM	0	229	1	230	0	91	0	91	48	0	26	74	0	0	8	8	403
08:30 AM	0	202	1	203	0	93	0	93	24	0	10	34	0	0	1	1	331
08:45 AM	0	165	1	166	0	97	0	97	39	0	26	65	0	0	5	5	333
Total Volume	0	807	5	812	0	322	0	322	161	0	87	248	0	0	28	28	1410
% App. Total	0	99.4	0.6		0	100	0		64.9	0	35.1		0	0	100		
PHF	.000	.881	.625	.883	.000	.830	.000	.830	.805	.000	.837	.827	.000	.000	.500	.500	.875



## Peak Hour Data



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

TMC Data

SR 314 @ Yellow River Dr

(M School Exit Drwy)

24hrs

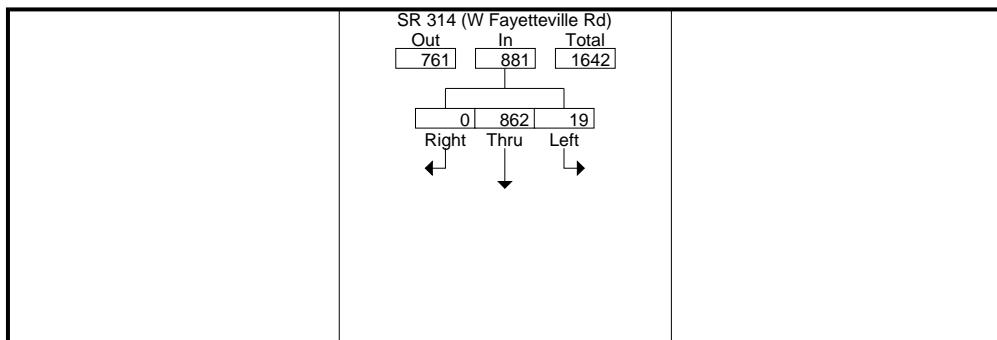
File Name : 20220537

Site Code : 20220537

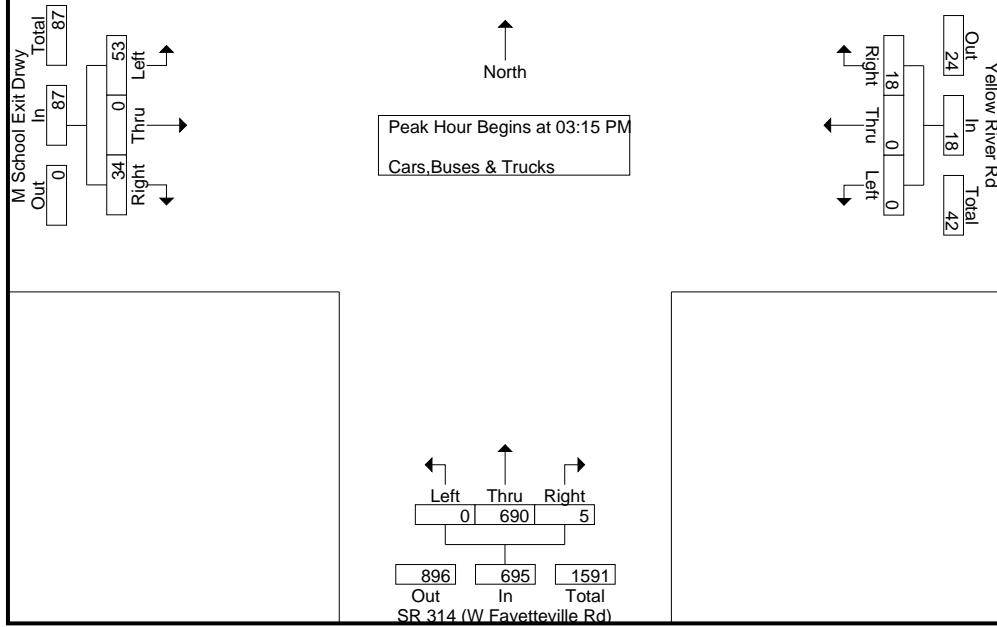
Start Date : 12-08-2022

Page No : 5

	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				M School Exit Drwy Eastbound				Yellow River Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 04:00 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	0	155	2	157	0	213	0	213	21	0	9	30	0	0	8	8	408
03:30 PM	0	188	0	188	0	210	0	210	8	0	9	17	0	0	6	6	421
03:45 PM	0	190	0	190	0	202	0	202	15	0	13	28	0	0	1	1	421
04:00 PM	0	157	3	160	19	237	0	256	9	0	3	12	0	0	3	3	431
Total Volume	0	690	5	695	19	862	0	881	53	0	34	87	0	0	18	18	1681
% App. Total	0	99.3	0.7		2.2	97.8	0		60.9	0	39.1		0	0	100		
PHF	.000	.908	.417	.914	.250	.909	.000	.860	.631	.000	.654	.725	.000	.000	.563	.563	.975



Peak Hour Data



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

TMC Data

SR 314 @ Yellow River Dr

(M School Exit Drwy)

24hrs

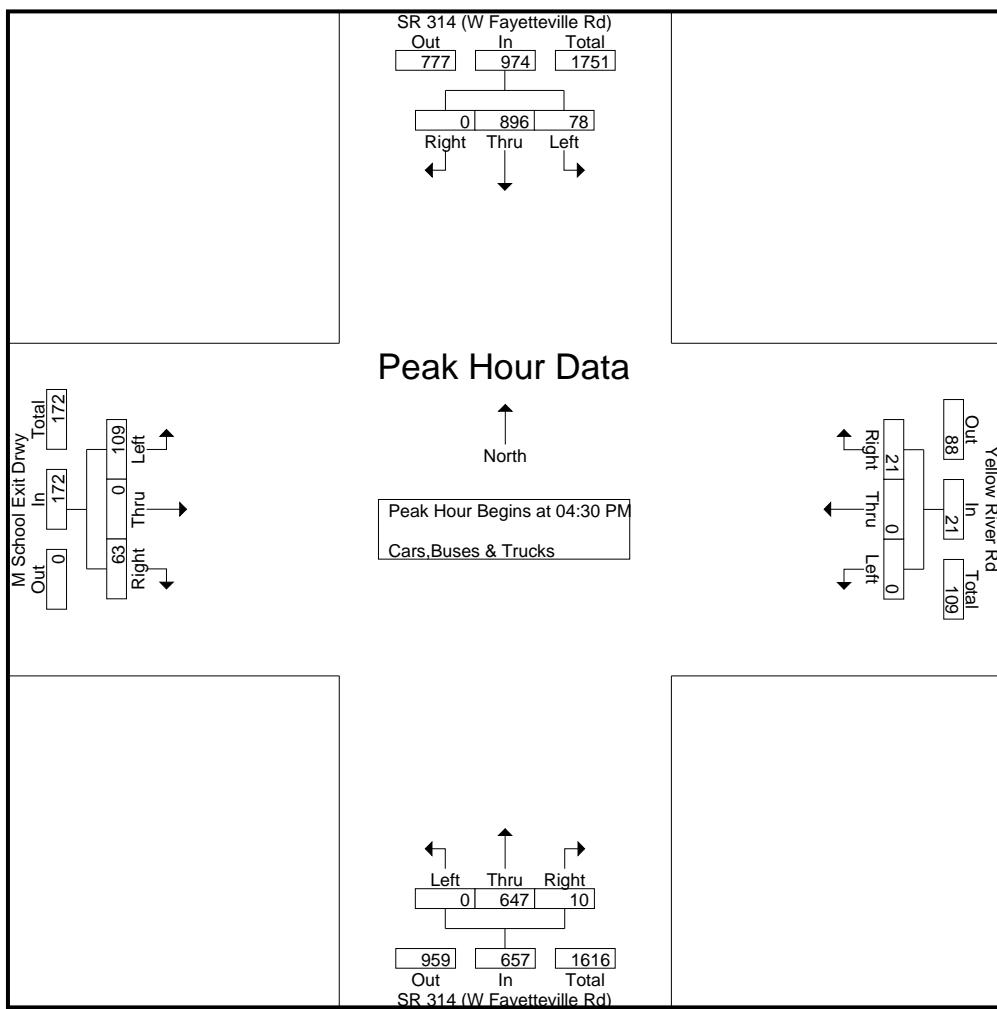
File Name : 20220537

Site Code : 20220537

Start Date : 12-08-2022

Page No : 6

	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				M School Exit Drwy Eastbound				Yellow River Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	189	5	194	19	199	0	218	62	0	24	86	0	0	6	6	504
04:45 PM	0	129	1	130	21	247	0	268	19	0	17	36	0	0	3	3	437
05:00 PM	0	164	1	165	20	229	0	249	17	0	13	30	0	0	4	4	448
05:15 PM	0	165	3	168	18	221	0	239	11	0	9	20	0	0	8	8	435
Total Volume	0	647	10	657	78	896	0	974	109	0	63	172	0	0	21	21	1824
% App. Total	0	98.5	1.5		8	92	0		63.4	0	36.6		0	0	100		
PHF	.000	.856	.500	.847	.929	.907	.000	.909	.440	.000	.656	.500	.000	.000	.656	.656	.905



# A & R Engineering, Inc.

**2160 Kingston Court Suite 'O'**

**Marietta, GA 30067**

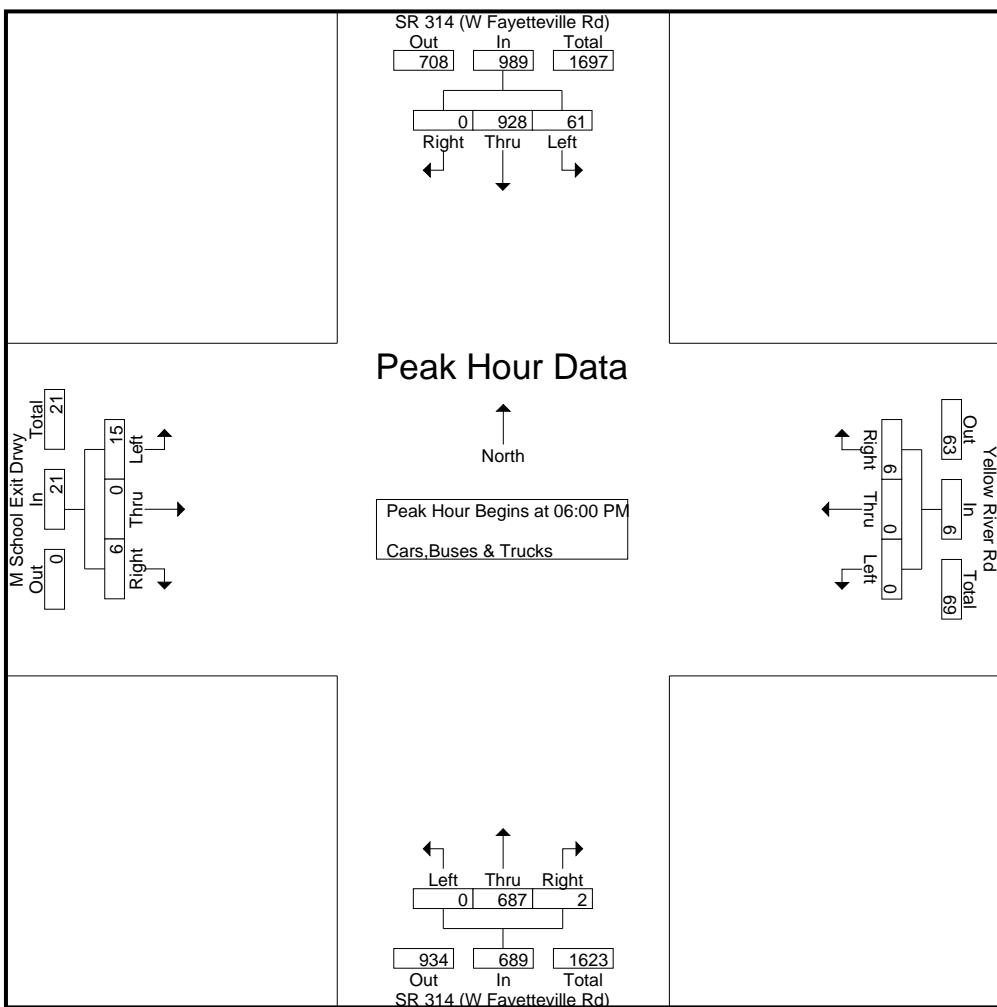
TMC Data

SR 314 @ Yellow River Dr  
(M School Exit Drwy)  
24hrs

24113

File Name : 20220537  
Site Code : 20220537  
Start Date : 12-08-2022  
Page No : 7

	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				M School Exit Drwy Eastbound				Yellow River Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 06:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 06:00 PM																	
06:00 PM	0	194	1	195	18	247	0	265	5	0	1	6	0	0	5	5	471
06:15 PM	0	142	1	143	17	231	0	248	3	0	3	6	0	0	1	1	398
06:30 PM	0	178	0	178	14	238	0	252	4	0	2	6	0	0	0	0	436
06:45 PM	0	173	0	173	12	212	0	224	3	0	0	3	0	0	0	0	400
Total Volume	0	687	2	689	61	928	0	989	15	0	6	21	0	0	6	6	1705
% App. Total	0	99.7	0.3		6.2	93.8	0		71.4	0	28.6		0	0	100		
PHF	.000	.885	.500	.883	.847	.939	.000	.933	.750	.000	.500	.875	.000	.000	.300	.300	.905



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

Marietta, GA 30067

TMC Data

SR 314 (W. Fayetteville Rd) @  
Southampton Rd  
7-9 am | 4-6 pm

File Name : 20220538  
Site Code : 20220538  
Start Date : 12-08-2022  
Page No : 1

### Groups Printed- Cars, Trucks & Buses

Start Time	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				Southampton Rd Eastbound				Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	5	104	0	109	0	56	13	69	9	0	8	17	0	0	0	0	195
07:15 AM	7	125	0	132	0	75	12	87	12	0	8	20	0	0	0	0	239
07:30 AM	8	126	0	134	0	85	16	101	8	0	6	14	0	0	0	0	249
07:45 AM	8	110	0	118	0	88	26	114	9	0	8	17	0	0	0	0	249
Total	28	465	0	493	0	304	67	371	38	0	30	68	0	0	0	0	932

08:00 AM	13	82	0	95	0	103	13	116	10	0	11	21	0	0	0	0	232
08:15 AM	6	74	0	80	0	78	22	100	9	0	4	13	0	0	0	0	193
08:30 AM	7	88	0	95	0	86	16	102	2	0	8	10	0	0	0	0	207
08:45 AM	8	83	0	91	0	92	18	110	8	0	5	13	0	0	0	0	214
Total	34	327	0	361	0	359	69	428	29	0	28	57	0	0	0	0	846

\*\*\* BREAK \*\*\*

04:00 PM	16	97	0	113	0	120	59	179	8	0	6	14	0	0	0	0	306
04:15 PM	11	87	0	98	0	176	78	254	15	0	10	25	0	0	0	0	377
04:30 PM	15	118	0	133	0	164	58	222	12	0	10	22	0	0	0	0	377
04:45 PM	9	91	0	100	0	181	74	255	10	0	11	21	0	0	0	0	376
Total	51	393	0	444	0	641	269	910	45	0	37	82	0	0	0	0	1436
05:00 PM	10	117	0	127	0	167	87	254	12	0	9	21	0	0	0	0	402
05:15 PM	20	116	0	136	0	165	81	246	10	0	15	25	0	0	0	0	407
05:30 PM	15	106	0	121	0	156	54	210	19	0	10	29	0	0	0	0	360
05:45 PM	5	77	0	82	0	176	77	253	13	0	11	24	0	0	0	0	359
Total	50	416	0	466	0	664	299	963	54	0	45	99	0	0	0	0	1528

Grand Total	163	1601	0	1764	0	1968	704	2672	166	0	140	306	0	0	0	0	4742
Apprch %	9.2	90.8	0		0	73.7	26.3		54.2	0	45.8		0	0	0	0	
Total %	3.4	33.8	0	37.2	0	41.5	14.8	56.3	3.5	0	3	6.5	0	0	0	0	

# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

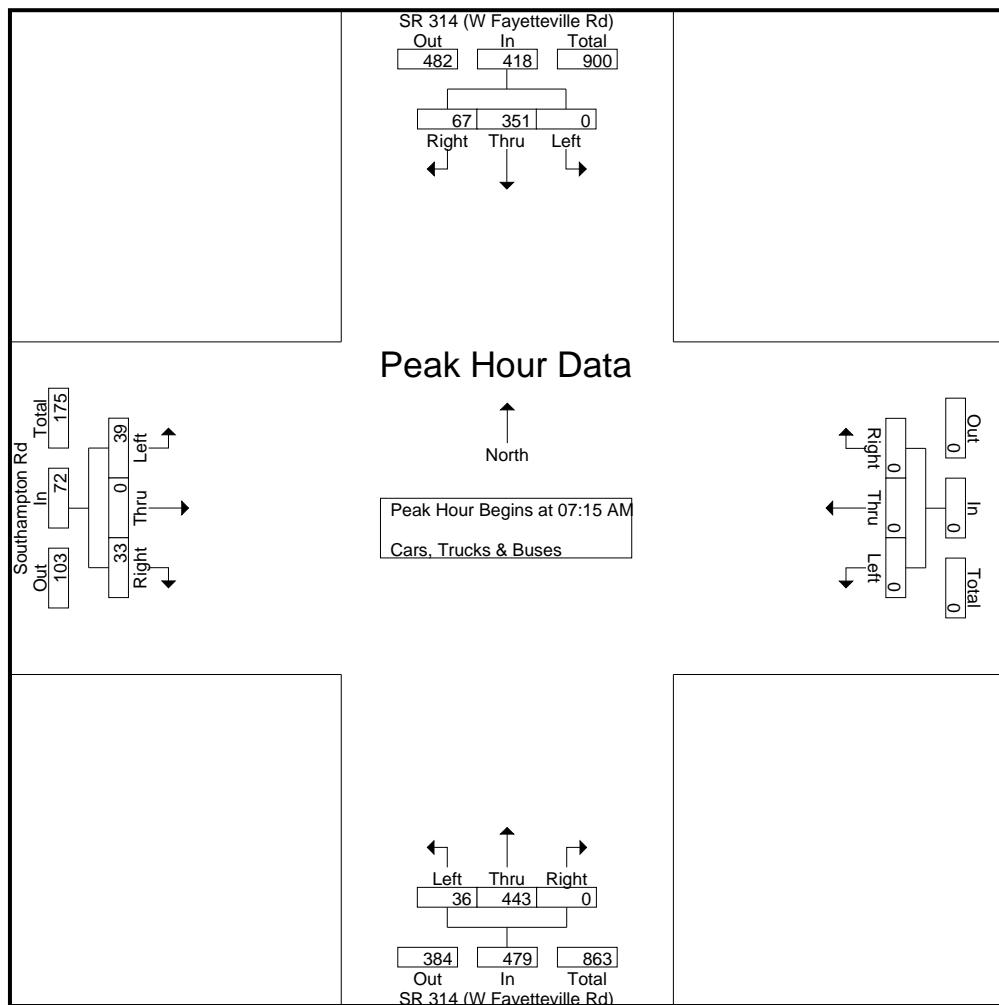
Marietta, GA 30067

TMC Data

SR 314 (W. Fayetteville Rd) @  
Southampton Rd  
7-9 am | 4-6 pm

File Name : 20220538  
Site Code : 20220538  
Start Date : 12-08-2022  
Page No : 2

	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				Southampton Rd Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	7	125	0	132	0	75	12	87	12	0	8	20	0	0	0	0	239
07:30 AM	8	126	0	134	0	85	16	101	8	0	6	14	0	0	0	0	249
07:45 AM	8	110	0	118	0	88	26	114	9	0	8	17	0	0	0	0	249
08:00 AM	13	82	0	95	0	103	13	116	10	0	11	21	0	0	0	0	232
Total Volume	36	443	0	479	0	351	67	418	39	0	33	72	0	0	0	0	969
% App. Total	7.5	92.5	0	0	0	84	16	0	54.2	0	45.8	0	0	0	0	0	969
PHF	.692	.879	.000	.894	.000	.852	.644	.901	.813	.000	.750	.857	.000	.000	.000	.000	.973



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'

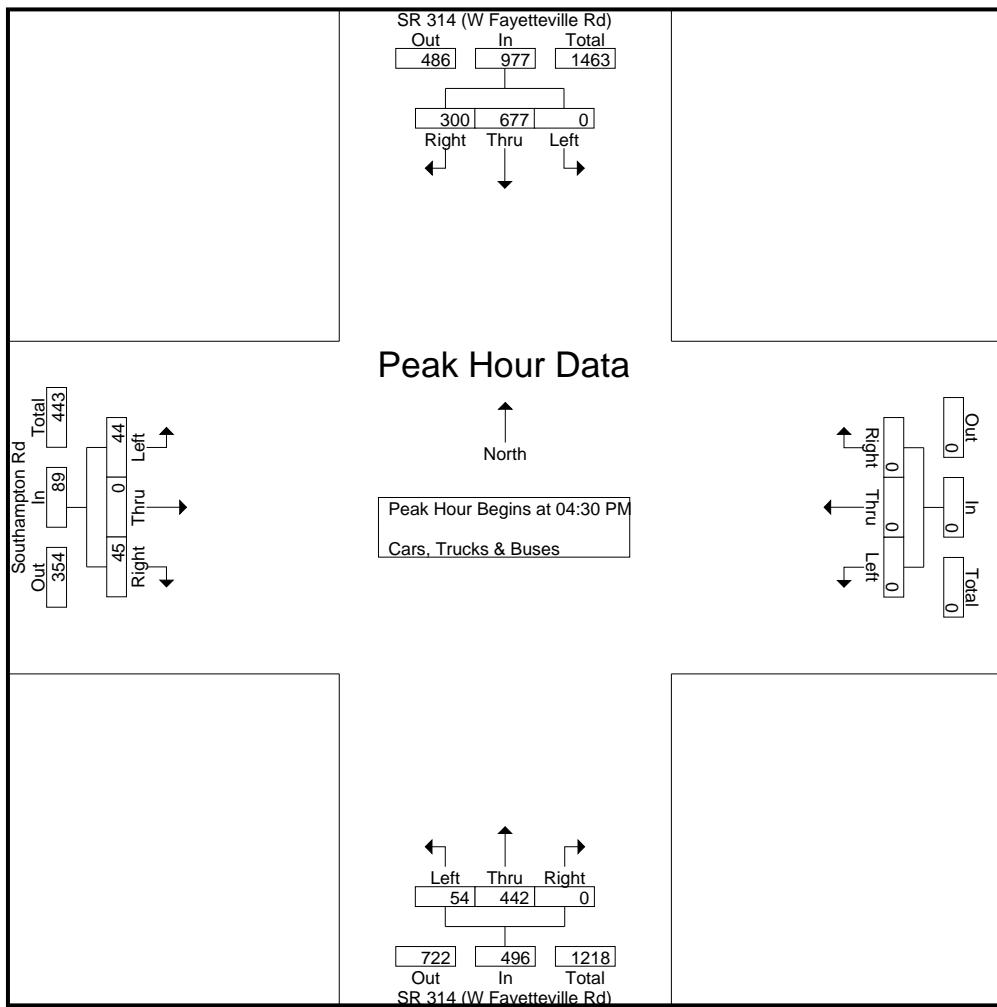
Marietta, GA 30067

TMC Data

SR 314 (W. Fayetteville Rd) @  
Southampton Rd  
7-9 am | 4-6 pm

File Name : 20220538  
Site Code : 20220538  
Start Date : 12-08-2022  
Page No : 3

Start Time	SR 314 (W Fayetteville Rd) Northbound				SR 314 (W Fayetteville Rd) Southbound				Southampton Rd Eastbound				Westbound				Int. Total	
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total		
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																		
Peak Hour for Entire Intersection Begins at 04:30 PM																		
04:30 PM	15	118	0	133	0	164	58	222	12	0	10	22	0	0	0	0	377	
04:45 PM	9	91	0	100	0	181	74	255	10	0	11	21	0	0	0	0	376	
05:00 PM	10	117	0	127	0	167	87	254	12	0	9	21	0	0	0	0	402	
05:15 PM	20	116	0	136	0	165	81	246	10	0	15	25	0	0	0	0	407	
Total Volume	54	442	0	496	0	677	300	977	44	0	45	89	0	0	0	0	1562	
% App. Total	10.9	89.1	0		0	69.3	30.7		49.4	0	50.6		0	0	0			
PHF	.675	.936	.000	.912	.000	.935	.862	.958	.917	.000	.750	.890	.000	.000	.000	.000	.959	



# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC DATA  
SR 314 @ SR 139 (Riverdale Rd)  
7-9 am | 4-6 pm

File Name : 20220539  
Site Code : 20220539  
Start Date : 12/8/2022  
Page No : 1

## Groups Printed- Cars,Buses & Trucks

Start Time	SR 314 Northbound				Southbound				SR 139 (Riverdale Rd) Eastbound				SR 139 (Riverdale Rd) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	101	0	14	115	0	0	0	0	0	21	44	65	37	90	0	127	307
07:15 AM	84	0	20	104	0	0	0	0	0	25	49	74	37	67	0	104	282
07:30 AM	108	0	19	127	0	0	0	0	0	24	48	72	41	81	0	122	321
07:45 AM	113	0	28	141	0	0	0	0	0	33	49	82	47	92	0	139	362
Total	406	0	81	487	0	0	0	0	0	103	190	293	162	330	0	492	1272
08:00 AM	102	0	23	125	0	0	0	0	0	35	61	96	40	95	0	135	356
08:15 AM	86	0	16	102	0	0	0	0	0	24	46	70	78	73	0	151	323
08:30 AM	75	0	18	93	0	0	0	0	0	35	56	91	55	62	0	117	301
08:45 AM	57	0	23	80	0	0	0	0	0	29	54	83	48	87	0	135	298
Total	320	0	80	400	0	0	0	0	0	123	217	340	221	317	0	538	1278
<b>*** BREAK ***</b>																	
04:00 PM	72	0	32	104	0	0	0	0	0	123	100	223	75	114	0	189	516
04:15 PM	67	0	42	109	0	0	0	0	0	151	167	318	87	108	0	195	622
04:30 PM	78	0	30	108	0	0	0	0	0	99	138	237	74	125	0	199	544
04:45 PM	104	0	39	143	0	0	0	0	0	123	183	306	77	107	0	184	633
Total	321	0	143	464	0	0	0	0	0	496	588	1084	313	454	0	767	2315
05:00 PM	77	0	40	117	0	0	0	0	0	108	166	274	79	138	0	217	608
05:15 PM	86	0	46	132	0	0	0	0	0	154	152	306	102	97	0	199	637
05:30 PM	98	0	42	140	0	0	0	0	0	154	171	325	89	86	0	175	640
05:45 PM	81	0	28	109	0	0	0	0	0	209	143	352	80	90	0	170	631
Total	342	0	156	498	0	0	0	0	0	625	632	1257	350	411	0	761	2516
Grand Total	1389	0	460	1849	0	0	0	0	0	1347	1627	2974	1046	1512	0	2558	7381
Apprch %	75.1	0	24.9		0	0	0	0	0	45.3	54.7		40.9	59.1	0		
Total %	18.8	0	6.2	25.1	0	0	0	0	0	18.2	22	40.3	14.2	20.5	0	34.7	

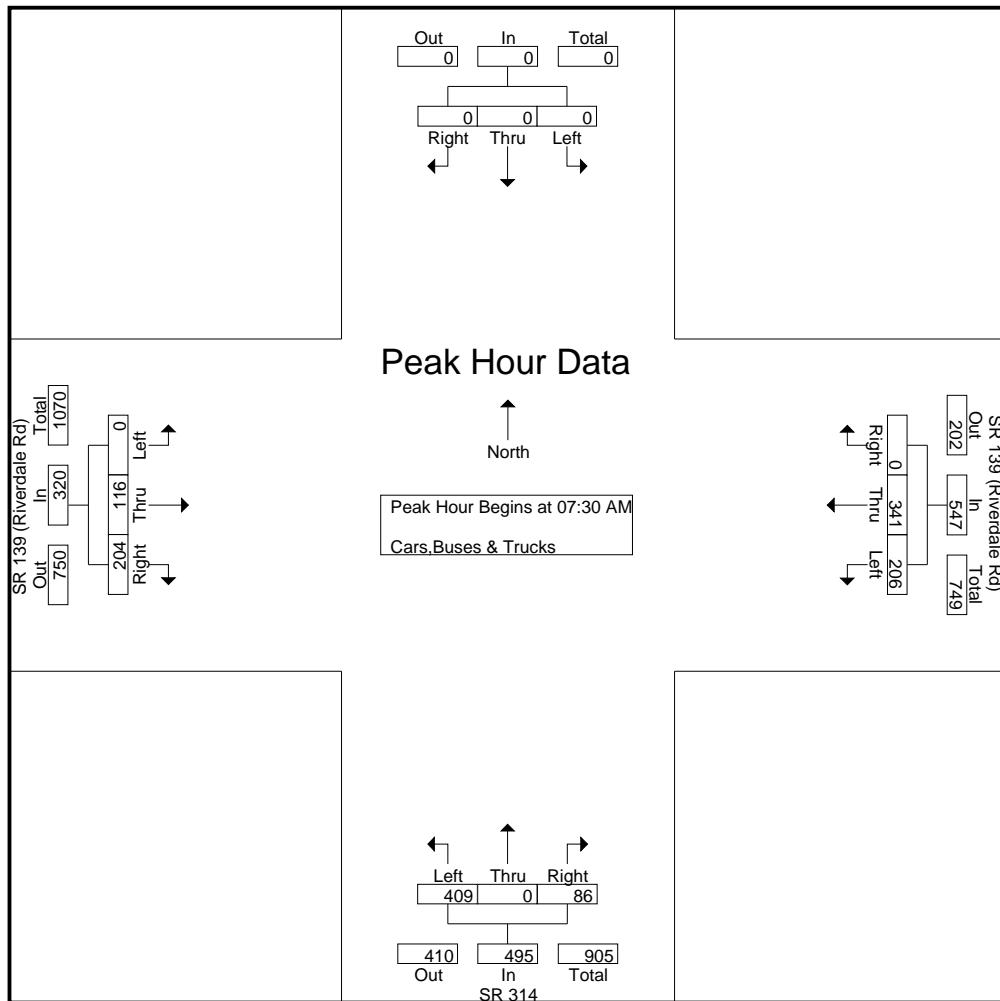
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC DATA  
SR 314 @ SR 139 (Riverdale Rd)  
7-9 am | 4-6 pm

File Name : 20220539  
Site Code : 20220539  
Start Date : 12/8/2022  
Page No : 2

Start Time	SR 314 Northbound				Southbound				SR 139 (Riverdale Rd) Eastbound				SR 139 (Riverdale Rd) Westbound				
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	108	0	19	127	0	0	0	0	0	24	48	72	41	81	0	122	321
07:45 AM	113	0	28	141	0	0	0	0	0	33	49	82	47	92	0	139	362
08:00 AM	102	0	23	125	0	0	0	0	0	35	61	96	40	95	0	135	356
08:15 AM	86	0	16	102	0	0	0	0	0	24	46	70	78	73	0	151	323
Total Volume	409	0	86	495	0	0	0	0	0	116	204	320	206	341	0	547	1362
% App. Total	82.6	0	17.4		0	0	0		0	36.2	63.8		37.7	62.3	0		
PHF	.905	.000	.768	.878	.000	.000	.000	.000	.000	.829	.836	.833	.660	.897	.000	.906	.941



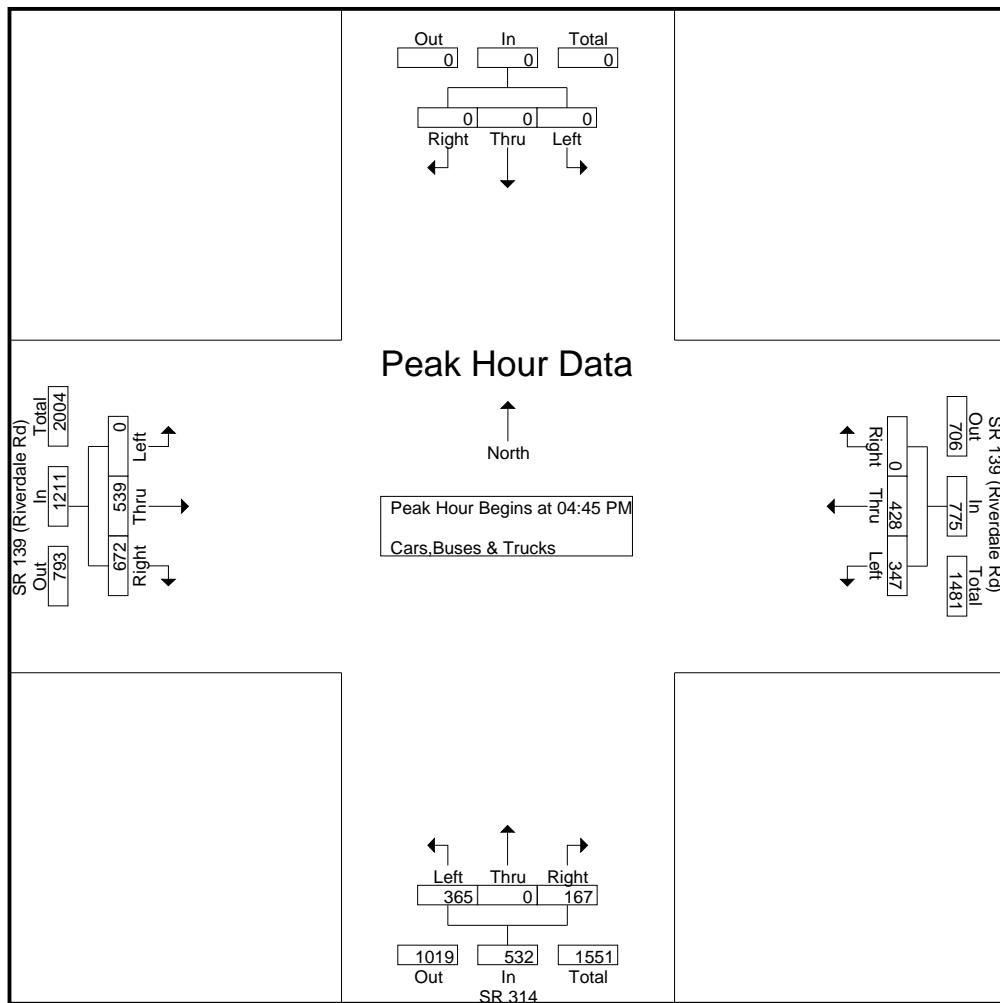
# A & R Engineering, Inc.

2160 Kingston Court Suite 'O'  
Marietta, GA 30067

TMC DATA  
SR 314 @ SR 139 (Riverdale Rd)  
7-9 am | 4-6 pm

File Name : 20220539  
Site Code : 20220539  
Start Date : 12/8/2022  
Page No : 3

	SR 314 Northbound				Southbound				SR 139 (Riverdale Rd) Eastbound				SR 139 (Riverdale Rd) Westbound				
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	104	0	39	143	0	0	0	0	0	123	183	306	77	107	0	184	633
05:00 PM	77	0	40	117	0	0	0	0	0	108	166	274	79	138	0	217	608
05:15 PM	86	0	46	132	0	0	0	0	0	154	152	306	102	97	0	199	637
05:30 PM	98	0	42	140	0	0	0	0	0	154	171	325	89	86	0	175	640
Total Volume	365	0	167	532	0	0	0	0	0	539	672	1211	347	428	0	775	2518
% App. Total	68.6	0	31.4	0	0	0	0	0	0	44.5	55.5	0	44.8	55.2	0	0	0
PHF	.877	.000	.908	.930	.000	.000	.000	.000	.000	.875	.918	.932	.850	.775	.000	.893	.984



## **GRTA Letter of Understanding**



## LETTER OF UNDERSTANDING

---

December 21, 2022

Richard Ferry  
Brent Holdings  
270 North Jeff Davis Drive  
Fayetteville, GA 30214

**RE: Pleasant Hill Road Residential (DRI#: 3855)**

Dear Richard Ferry:

The purpose of this Letter of Understanding is to document the discussions during the Methodology Meeting held virtually on December 7, 2022 regarding **Pleasant Hill Road Residential** Development of Regional Impact (DRI). The *GRTA DRI Review Procedures*, as well as the inputs and parameters documented in this Letter of Understanding and the revised Methodology Meeting Packet, shall be adhered to in preparing the GRTA required Transportation Study.

### PROJECT OVERVIEW

- The proposed site is located at the southwest corner of the intersection of SR 314 and East Pleasant Road and to the west of SR 314.
- The proposed development includes 500 single family attached housing units and 280 low rise multifamily housing units.
- The projected build-out is one phase to be completed by 2027.
- The proposed development includes (3) full site accesses along East Pleasant Hill Rd and SR 314.
- The DRI trigger for this development is a land disturbance permit.
- The vehicular trip generation is estimated to be 5,574 net daily trips based on the *ITE Trip Generation Manual 11<sup>th</sup> edition*.
- The applicant is applying for approval under GRTA's non-expedited Traffic Impact Study review process.

### STUDY NETWORK

1. SR 314 (West Fayetteville Road) and East Fayetteville Road
2. SR 314 (West Fayetteville Road) and Crenshaw Drive
3. SR 314 (West Fayetteville Road) and East Pleasant Hill Road
4. SR 314 (West Fayetteville Road) and Yellow River Road
5. SR 314 (West Fayetteville Road) and Norman Drive
6. SR 314 (West Fayetteville Road) and Godby Road/ Phoenix Boulevard
7. SR 314 (West Fayetteville Road) and Southampton Road
8. SR 314 (West Fayetteville Road) and SR 139 (Riverdale Road)

### METHODOLOGY MEETING PACKET INPUTS & PARAMETERS

- The Site Plan shall meet all the applicable requirements in Section 7.1 of the *GRTA DRI Review Procedures*.
- All Study Network intersections shall be analyzed during the AM and PM peak hours for (1) existing conditions, (2) future "no-build" conditions, and (3) future "build" conditions as specified in the *GRTA DRI Review Procedures*.

- This DRI shall be modeled and reviewed in one phase to be completed by 2027.
- The Level of Service (LOS) standard for all analysis shall be LOS D unless specified otherwise in Section 3.2.2.1. For example, a LOS E standard is allowed if the existing LOS for the intersection or approach is a LOS F.
- Default values should not be assumed in the traffic modeling. Existing conditions shall be taken into account as required in Section 3.2.2.
- The trip generation calculations in the revised Methodology Meeting Packet shall be used in the Transportation Study. Alternative mode reductions are allowed for this site. Pass-by reductions shall not exceed 15% of a roadway's traffic volume standard established in Appendix 7.2.
- The trip assignment approach in the revised Methodology Meeting Packet shall be utilized for all Study Network intersection movements.
- The applicant shall research TIP, STIP, RTP and GDOT's construction work program, as well as any local government and transit operator plans (SPLOST, CIP, etc.), to determine the open date, sponsor, cost of the project, funding source(s), for future roadway projects in the project vicinity. Programmed transportation projects anticipated to open on or before the Build Out year of the DRI Project shall be modeled as completed in the No-Build and Build conditions unless approved otherwise.
- A 2.3% annual traffic Background Growth Rate shall be used for all roadways.
- Capacity analysis shall be based on turning movement counts collected not more than 12-months prior to the date of the actual DRI submittal to GRTA, unless specified otherwise. As specified in Section 2.3, turning movement counts shall be collected while local schools are in session, on a Tuesday, Wednesday or Thursday (unless approved otherwise) and not during holiday periods (weeks of July 4<sup>th</sup>, Thanksgiving and +/- 5 days of Christmas).
- If the *GRTA DRI Review Procedures* requires an Enhanced Focus Area for Heavy Vehicles or an Enhanced Focus Area for Dense Urban Environments, the Transportation Study shall incorporate the inputs and parameters agreed to at the Methodology Meeting and documented in the revised Methodology Meeting Packet. These inputs may include a Heavy Vehicle modeling percentages, a Heavy Vehicle route map, a pedestrian crosswalk delay adjustment and a bus blockage adjustment factor.

#### ADDITIONAL REQUIREMENTS

**All applicable requirements of the *GRTA DRI Review Procedures* must be met for the Transportation Study to be considered complete.** The *GRTA DRI Review Procedures* are located on GRTA's DRI website: <https://www.srta.ga.gov/programs-projects/dev-of-regional-impact/> Contact GRTA staff if you have any questions on these requirements.

The Transportation Study shall also include as attachments the native LOS modeling file (i.e., Synchro modeling files) as well as the modeling reports (PDFs) for all Study Network intersections for the Existing, No-Build and Build conditions for all phases. The PDF reports shall be numbered (in page headers) and organized in order according to the Study Network numbering sequence in this Letter of Understanding. The reports shall also be organized in the following sequence: *Existing condition AM, Existing condition PM, No-build condition AM, No-Build condition PM, Build condition AM, Build condition PM*. If improvements are modeled, those PDFs shall be labeled as such and follow the appropriate condition's applicable peak period.

The Transportation Study appendices shall also include all turning movement count data, regardless of if using historic data or newly collected turning movement counts.

When documenting any Queue Length impacts required in Section 3.2.3.6, the TIS Executive Summary shall also note any individual *movements* not meeting the LOS standard where the DRI Project adds trips in the Build condition and exceeds available storage capacity for that movement.

When identifying mitigations in the existing, no-build and build conditions, the mitigations identified in preceding conditions shall not be modeled as complete when conducting the LOS analysis. The same mitigation may still be proposed as mitigation in the subsequent condition but it shall not be included as completed in the default analysis. For example, a turn lane may be identified as a needed improvement in the no-build condition. The turn lane should not be modeled as completed in the build condition. The turn lane should only be modeled as complete in the no-build with improvements condition and the build with improvements condition.

#### DRI REVIEW PACKAGE SUBMITTAL

GRTA will begin reviewing the DRI once the DRI Review Package is submitted and deemed complete. The DRI Review Package includes: the permitting Local Government inputting both Department of Community Affairs (DCA) forms into the DCA DRI website; and the **Traffic Engineer submittal of the GRTA Transportation Study (including LOS appendices, traffic count data and any other required attachments) and Site Plan to GRTA staff and ALL stakeholders included in the CC list of this Letter of Understanding.**

All DRI Review Packages shall be submitted electronically via email to all stakeholders in the CC list of the Letter of Understanding. If the DRI Review Package total file size is greater than 10 MB, the DRI Review Package shall be submitted via email with a FTP link provided for downloading the files.

Please contact me if you have any questions about the Letter of Understanding or the *GRTA DRI Review Procedures*.

Sincerely,

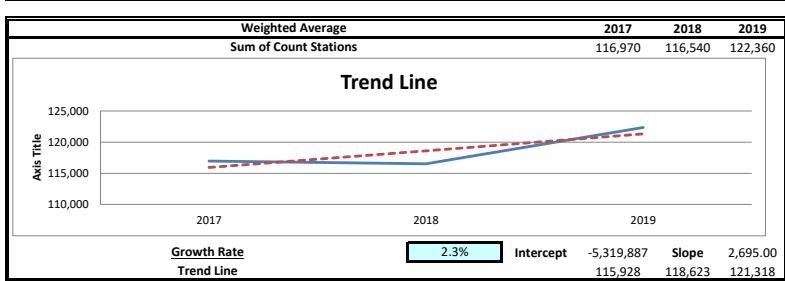
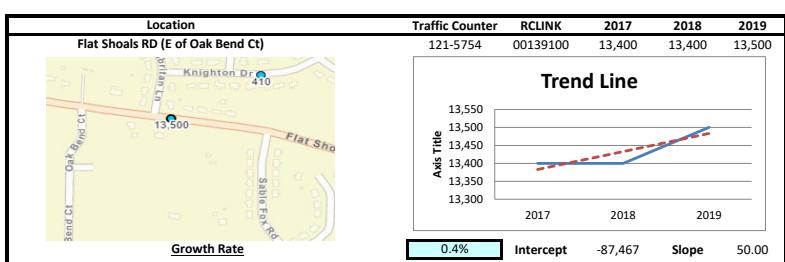
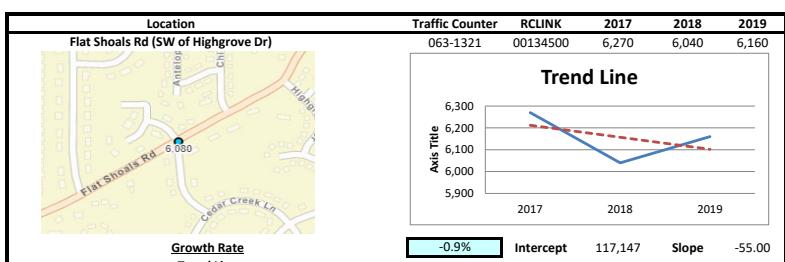
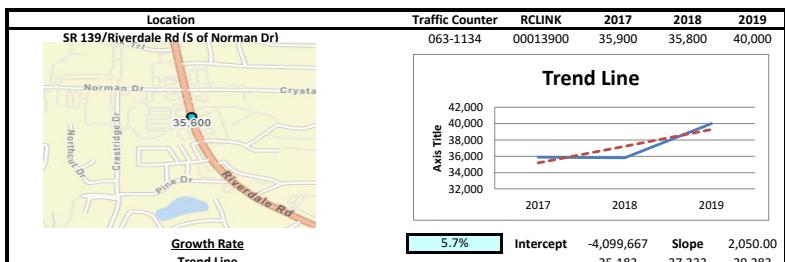
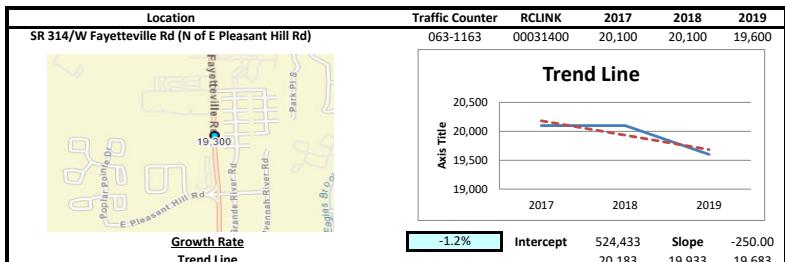
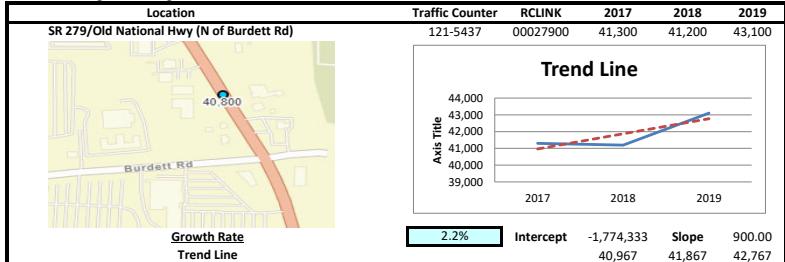
Elizabeth Davis  
Senior Transit Planner

Cc:

Donald Shockey, ARC	Kevin Nintin, A&R Engineering
Reginald James, ARC	Abdul Amer, A&R Engineering
TreJon Singletary, City of South Fulton	Naser Omer, A&R Engineering
Angela Rambeau, Clayton County	Richard Ferry, Brent Holdings
Keith Rohling, Clayton County	Bryan McCranie, PEC
Deborah Sims, Fayette County	Richard Sanger, PEC
Alexia Kimbell, Fayette County	
Chris Stanley, Fayette County	
LaShawn Gardiner, Forest Park	
December Weir, GRTA/ATL	
Natavis Harris, MARTA	

## **Linear Regression of Daily Traffic**

Location	Growth Rate	R Squared	Station ID	Route	2017	2018	2019
SR 279/Old National Hwy (N of Burdett Rd)	2.2%	0.71	121-5437	00027900	41,300	41,200	43,100
SR 314/W Fayetteville Rd (N of E Pleasant)	-1.2%	0.75	063-1163	00031400	20,100	20,100	19,600
SR 139/Riverdale Rd (S of Norman Dr)	5.7%	0.73	063-1134	00013900	35,900	35,800	40,000
Flat Shoals Rd (SW of Highgrove Dr)	-0.9%	0.23	063-1321	00134500	6,270	6,040	6,160
Flat Shoals RD (E of Oak Bend Ct)	0.4%	0.75	121-5754	00139100	13,400	13,400	13,500
<b>Weighted Average</b>	<b>2.3%</b>	<b>0.69</b>	Sum of Count Stations =		<b>116,970</b>	<b>116,540</b>	<b>122,360</b>



**Fact Sheets for Planned and Programmed  
Improvements**

**Short Title**

SR 314 (WEST FAYETTEVILLE ROAD) WIDENING FROM  
FLAT SHOALS ROAD / CREEL ROAD TO SR 139  
(RIVERDALE ROAD)

**GDOT Project No.**

0014080

**Federal ID No.**

N/A

**Status**

Long Range

**Service Type**

Roadway / General Purpose Capacity

**Sponsor**

GDOT

**Jurisdiction**

Clayton County

**Analysis Level**

In the Region's Air Quality Conformity Analysis

**Existing Thru Lane**

2

LCI

**Planned Thru Lane**

4

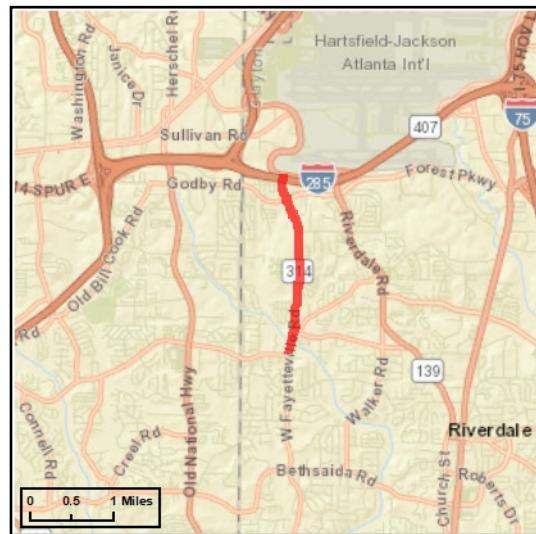
Flex

**Network Year**

2040

**Corridor Length**

2.3 miles

**Detailed Description and Justification**

This project will widen SR 314 to 4 lanes from Flat Shoals and Creel Road to SR 139.

<b>Phase Status &amp; Funding Information</b>	<b>Status</b>	<b>FISCAL YEAR</b>	<b>TOTAL PHASE COST</b>	<b>BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE</b>			
				<b>FEDERAL</b>	<b>STATE</b>	<b>BONDS</b>	<b>LOCAL/PRIVATE</b>
ALL	Transportation Funding Act (HB 170)	LR 2031-2040	<b>\$32,191,550</b>	\$0,000	\$0,000	\$0,000	\$32,191,550
			<b>\$32,191,550</b>	<b>\$0,000</b>	<b>\$0,000</b>	<b>\$0,000</b>	<b>\$32,191,550</b>

SCP: Scoping PE: Preliminary engineering / engineering / design / planning  
UTL: Utility relocation CST: Construction / Implementation PE-OV: GDOT oversight services for engineering  
ALL: Total estimated cost, inclusive of all phases ROW: Right-of-way Acquisition



For additional information about this project, please call (404) 463-3100 or email transportation@atlantaregional.com.



## **Existing Intersection Analysis**

## Timings

1a. Existing 2023 AM

1: SR 314 (W Fayetteville Rd) &amp; E Fayetteville Rd

02/10/2023



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	162	107	608	180	83	287
Future Volume (vph)	162	107	608	180	83	287
Lane Group Flow (vph)	171	113	640	189	87	302
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		6			2
Permitted Phases		8		6	2	
Detector Phase	8	8	6	6	2	2
Switch Phase						
Minimum Initial (s)	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	27.5	27.5	25.5	25.5	23.5	23.5
Total Split (s)	30.0	30.0	70.0	70.0	70.0	70.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.65	0.34	0.46	0.15	0.17	0.22
Control Delay	51.1	9.7	7.0	1.1	4.3	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.1	9.7	7.0	1.1	4.3	3.8
Queue Length 50th (ft)	104	0	135	0	8	32
Queue Length 95th (ft)	163	45	249	20	31	80
Internal Link Dist (ft)	302		635			1175
Turn Bay Length (ft)	145			445	120	
Base Capacity (vph)	433	473	1380	1221	513	1380
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.24	0.46	0.15	0.17	0.22

## Intersection Summary

Cycle Length: 100

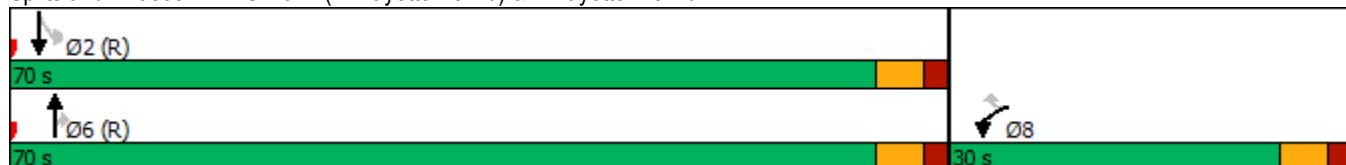
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 1: SR 314 (W Fayetteville Rd) &amp; E Fayetteville Rd



HCM 6th Signalized Intersection Summary  
1: SR 314 (W Fayetteville Rd) & E Fayetteville Rd

1a. Existing 2023 AM

02/10/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	162	107	608	180	83	287
Future Volume (veh/h)	162	107	608	180	83	287
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	171	113	640	0	87	302
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	214	191	1440		585	1440
Arrive On Green	0.12	0.12	0.77	0.00	0.77	0.77
Sat Flow, veh/h	1781	1585	1870	1585	789	1870
Grp Volume(v), veh/h	171	113	640	0	87	302
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	789	1870
Q Serve(g_s), s	9.3	6.8	12.0	0.0	4.3	4.4
Cycle Q Clear(g_c), s	9.3	6.8	12.0	0.0	16.3	4.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	214	191	1440		585	1440
V/C Ratio(X)	0.80	0.59	0.44		0.15	0.21
Avail Cap(c_a), veh/h	436	388	1440		585	1440
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	42.8	41.7	4.0	0.0	6.9	3.2
Incr Delay (d2), s/veh	6.7	2.9	1.0	0.0	0.5	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.4	2.7	3.4	0.0	0.7	1.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	49.5	44.6	5.0	0.0	7.4	3.5
LnGrp LOS	D	D	A		A	A
Approach Vol, veh/h	284		640		389	
Approach Delay, s/veh	47.5		5.0		4.4	
Approach LOS	D		A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+R <sub>c</sub> ), s		82.5			82.5	17.5
Change Period (Y+R <sub>c</sub> ), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		64.5			64.5	24.5
Max Q Clear Time (g_c+l1), s		18.3			14.0	11.3
Green Ext Time (p_c), s		5.1			10.2	0.7
Intersection Summary						
HCM 6th Ctrl Delay		14.0				
HCM 6th LOS		B				
Notes						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

Intersection						
Int Delay, s/veh	4.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	115	60	18	710	331	45
Future Vol, veh/h	115	60	18	710	331	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	105	-	-	235
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	121	63	19	747	348	47
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1133	348	348	0	-	0
Stage 1	348	-	-	-	-	-
Stage 2	785	-	-	-	-	-
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	224	695	1211	-	-	-
Stage 1	715	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	220	695	1211	-	-	-
Mov Cap-2 Maneuver	220	-	-	-	-	-
Stage 1	704	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	29.8	0.2	0			
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1211	-	220	695	-	-
HCM Lane V/C Ratio	0.016	-	0.55	0.091	-	-
HCM Control Delay (s)	8	-	39.7	10.7	-	-
HCM Lane LOS	A	-	E	B	-	-
HCM 95th %tile Q(veh)	0	-	3	0.3	-	-

## Timings

1a. Existing 2023 AM

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↗ ↖	↑ ↗	↑ ↖	↑ ↗	↑ ↘	↗ ↖	↑ ↗	↑ ↘	↗ ↖
Traffic Volume (vph)	57	13	32	36	3	14	711	50	57	330	53
Future Volume (vph)	57	13	32	36	3	14	711	50	57	330	53
Lane Group Flow (vph)	59	14	33	38	41	15	741	52	59	344	55
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4				8		6			2
Permitted Phases	4		4	8		6		6	2		2
Detector Phase	4	4	4	8	8	6	6	6	2	2	2
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Total Split (s)	32.0	32.0	32.0	32.0	32.0	68.0	68.0	68.0	68.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.44	0.08	0.18	0.28	0.21	0.02	0.48	0.04	0.11	0.22	0.04
Control Delay	52.0	39.9	15.7	45.6	16.8	5.5	9.2	3.2	2.8	2.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.0	39.9	15.7	45.6	16.8	5.5	9.2	3.2	2.8	2.4	0.6
Queue Length 50th (ft)	36	8	0	23	2	2	204	3	5	29	0
Queue Length 95th (ft)	74	26	28	53	32	m9	464	22	m15	64	m5
Internal Link Dist (ft)	307				117		307			1423	
Turn Bay Length (ft)	230					105		200	90		280
Base Capacity (vph)	360	493	443	369	452	852	1538	1316	530	1538	1316
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.03	0.07	0.10	0.09	0.02	0.48	0.04	0.11	0.22	0.04
Intersection Summary											
Cycle Length: 100											
Actuated Cycle Length: 100											
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green											
Natural Cycle: 60											
Control Type: Actuated-Coordinated											
m Volume for 95th percentile queue is metered by upstream signal.											

Splits and Phases: 3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy



## HCM 6th Signalized Intersection Summary

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

1a. Existing 2023 AM

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	57	13	32	36	3	36	14	711	50	57	330	53
Future Volume (veh/h)	57	13	32	36	3	36	14	711	50	57	330	53
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	59	14	0	38	3	0	15	741	0	59	344	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	157	115		148	115		931	1550		586	1550	
Arrive On Green	0.06	0.06	0.00	0.06	0.06	0.00	0.83	0.83	0.00	1.00	1.00	0.00
Sat Flow, veh/h	1414	1870	1585	1400	1870	0	1037	1870	1585	718	1870	1585
Grp Volume(v), veh/h	59	14	0	38	3	0	15	741	0	59	344	0
Grp Sat Flow(s), veh/h/ln	1414	1870	1585	1400	1870	0	1037	1870	1585	718	1870	1585
Q Serve(g_s), s	4.1	0.7	0.0	2.6	0.2	0.0	0.3	11.2	0.0	1.2	0.0	0.0
Cycle Q Clear(g_c), s	4.2	0.7	0.0	3.3	0.2	0.0	0.3	11.2	0.0	12.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	157	115		148	115		931	1550		586	1550	
V/C Ratio(X)	0.38	0.12		0.26	0.03		0.02	0.48		0.10	0.22	
Avail Cap(c_a), veh/h	444	496		433	496		931	1550		586	1550	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.1	44.4	0.0	46.0	44.1	0.0	1.5	2.4	0.0	0.8	0.0	0.0
Incr Delay (d2), s/veh	1.5	0.5	0.0	0.9	0.1	0.0	0.0	1.1	0.0	0.3	0.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.5	0.3	0.0	1.0	0.1	0.0	0.0	2.2	0.0	0.1	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.6	44.9	0.0	46.9	44.2	0.0	1.5	3.5	0.0	1.2	0.3	0.0
LnGrp LOS	D	D		D	D		A	A		A	A	
Approach Vol, veh/h						41			756			403
Approach Delay, s/veh						46.7			3.5			0.5
Approach LOS						D			A			A
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	88.4		11.6		88.4		11.6					
Change Period (Y+Rc), s	5.5		5.5		5.5		5.5					
Max Green Setting (Gmax), s	62.5		26.5		62.5		26.5					
Max Q Clear Time (g_c+l1), s	14.5		6.2		13.2		5.3					
Green Ext Time (p_c), s	6.0		0.2		13.1		0.1					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			6.4									
HCM 6th LOS			A									
<b>Notes</b>												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

## Intersection

Int Delay, s/veh 27.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑		↑			↑		↑	↑		↑	
Traffic Vol, veh/h	175	0	90	0	0	56	0	787	10	0	348	0
Future Vol, veh/h	175	0	90	0	0	56	0	787	10	0	348	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	Free	-	-	None
Storage Length	0	-	0	-	-	0	-	-	180	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	180	0	93	0	0	58	0	811	10	0	359	0

Major/Minor	Minor2	Minor1		Major1		Major2					
Conflicting Flow All	1170	-	359	-	-	811	-	0	-	-	0
Stage 1	359	-	-	-	-	-	-	-	-	-	-
Stage 2	811	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	-	-	6.22	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	-	-	3.318	-	-	-	-	-
Pot Cap-1 Maneuver	~ 170	0	685	0	0	379	0	-	0	0	0
Stage 1	659	0	-	0	0	-	0	-	0	0	0
Stage 2	373	0	-	0	0	-	0	-	0	0	0
Platoon blocked, %							-	-	-	-	-
Mov Cap-1 Maneuver	~ 144	-	685	-	-	379	-	-	-	-	-
Mov Cap-2 Maneuver	~ 144	-	-	-	-	-	-	-	-	-	-
Stage 1	659	-	-	-	-	-	-	-	-	-	-
Stage 2	316	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB	
HCM Control Delay, s	148.1	16.2	0	0	
HCM LOS	F	C			
<hr/>					
Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	WBLn1	SBT
Capacity (veh/h)	-	144	685	379	-
HCM Lane V/C Ratio	-	1.253	0.135	0.152	-
HCM Control Delay (s)	-	218.5	11.1	16.2	-
HCM Lane LOS	-	F	B	C	-
HCM 95th %tile Q(veh)	-	10.8	0.5	0.5	-

## Notes

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	217	202	625	234	136	367
Future Volume (vph)	217	202	625	234	136	367
Lane Group Flow (vph)	226	210	651	244	142	382
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		6		5	2
Permitted Phases			8		6	2
Detector Phase	8	8	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	15.0	23.5
Total Split (s)	30.0	30.0	55.0	55.0	15.0	70.0
Total Split (%)	30.0%	30.0%	55.0%	55.0%	15.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Min	Min	C-Min	C-Min	None	C-Min
v/c Ratio	0.71	0.46	0.61	0.25	0.32	0.29
Control Delay	50.8	8.1	25.8	10.8	7.3	6.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.8	8.1	25.8	10.8	7.3	6.6
Queue Length 50th (ft)	137	0	317	50	25	77
Queue Length 95th (ft)	202	56	499	128	55	146
Internal Link Dist (ft)	191		831			769
Turn Bay Length (ft)				135	210	
Base Capacity (vph)	433	546	1072	983	465	1324
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.38	0.61	0.25	0.31	0.29

#### Intersection Summary

Cycle Length: 100

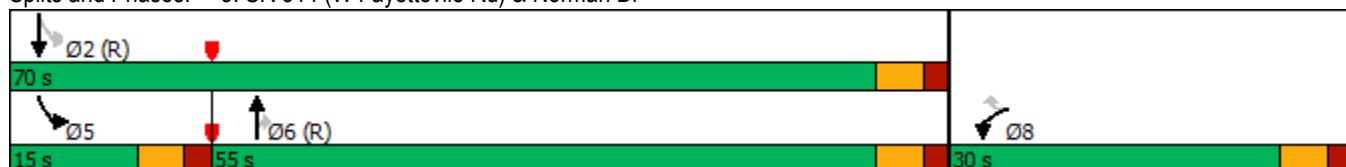
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Splits and Phases: 5: SR 314 (W Fayetteville Rd) & Norman Dr



HCM 6th Signalized Intersection Summary  
5: SR 314 (W Fayetteville Rd) & Norman Dr

1a. Existing 2023 AM

02/10/2023



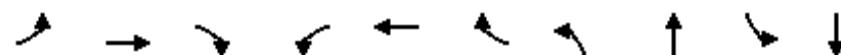
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	217	202	625	234	136	367
Future Volume (veh/h)	217	202	625	234	136	367
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	226	0	651	0	142	382
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	264		1193		415	1387
Arrive On Green	0.15	0.00	0.21	0.00	0.05	0.74
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	226	0	651	0	142	382
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	12.4	0.0	31.0	0.0	2.5	6.6
Cycle Q Clear(g_c), s	12.4	0.0	31.0	0.0	2.5	6.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	264		1193		415	1387
V/C Ratio(X)	0.86		0.55		0.34	0.28
Avail Cap(c_a), veh/h	436		1193		497	1387
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	41.6	0.0	26.6	0.0	11.3	4.2
Incr Delay (d2), s/veh	8.7	0.0	1.8	0.0	0.5	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6.0	0.0	16.1	0.0	1.1	2.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	50.3	0.0	28.4	0.0	11.8	4.7
LnGrp LOS	D		C		B	A
Approach Vol, veh/h	226		651		524	
Approach Delay, s/veh	50.3		28.4		6.6	
Approach LOS	D		C		A	
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+R <sub>c</sub> ), s	79.7			10.4	69.3	20.3
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	64.5			9.5	49.5	24.5
Max Q Clear Time (g_c+l1), s	8.6			4.5	33.0	14.4
Green Ext Time (p_c), s	2.4			0.1	4.3	0.4
Intersection Summary						
HCM 6th Ctrl Delay			23.8			
HCM 6th LOS			C			
Notes						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

## Timings

1a. Existing 2023 AM

6: SR 314 (W Fayetteville Rd) &amp; Godby Rd/Phoenix Blvd

02/10/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑↑
Traffic Volume (vph)	21	129	158	66	87	24	172	418	55	304
Future Volume (vph)	21	129	158	66	87	24	172	418	55	304
Lane Group Flow (vph)	22	137	168	70	93	26	183	593	59	354
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		1	6	5	2
Permitted Phases	4		4	8		8	6		2	
Detector Phase	7	4	4	3	8	8	1	6	5	2
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	26.5	26.5	15.0	27.5	27.5	15.0	42.5	15.0	41.5
Total Split (s)	18.0	32.0	32.0	18.0	32.0	32.0	21.0	55.0	15.0	49.0
Total Split (%)	15.0%	26.7%	26.7%	15.0%	26.7%	26.7%	17.5%	45.8%	12.5%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.11	0.46	0.58	0.30	0.21	0.07	0.27	0.52	0.12	0.33
Control Delay	37.5	57.2	15.3	41.6	47.9	0.4	7.4	16.0	7.5	15.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	37.5	57.2	15.3	41.6	47.9	0.4	7.4	16.0	7.5	15.7
Queue Length 50th (ft)	14	54	0	45	35	0	42	251	13	141
Queue Length 95th (ft)	35	85	62	82	60	0	81	414	31	238
Internal Link Dist (ft)		652			379			1297		831
Turn Bay Length (ft)	590		185	270		185	180		175	
Base Capacity (vph)	276	781	484	267	781	484	729	1147	531	1073
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.18	0.35	0.26	0.12	0.05	0.25	0.52	0.11	0.33

## Intersection Summary

Cycle Length: 120

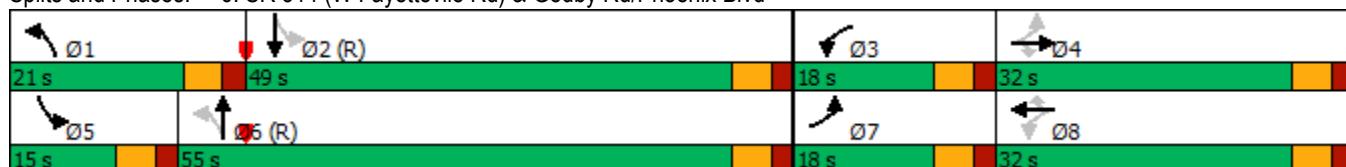
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Splits and Phases: 6: SR 314 (W Fayetteville Rd) &amp; Godby Rd/Phoenix Blvd



HCM 6th Signalized Intersection Summary  
6: SR 314 (W Fayetteville Rd) & Godby Rd/Phoenix Blvd

1a. Existing 2023 AM

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑↑	
Traffic Volume (veh/h)	21	129	158	66	87	24	172	418	139	55	304	29
Future Volume (veh/h)	21	129	158	66	87	24	172	418	139	55	304	29
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	137	168	70	93	0	183	445	148	59	323	31
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	266	457	204	243	544		663	814	271	463	978	94
Arrive On Green	0.02	0.13	0.13	0.05	0.15	0.00	0.06	0.61	0.61	0.04	0.58	0.58
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1343	447	1781	1680	161
Grp Volume(v), veh/h	22	137	168	70	93	0	183	0	593	59	0	354
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1790	1781	0	1841
Q Serve(g_s), s	1.3	4.2	12.4	4.1	2.7	0.0	4.9	0.0	23.4	1.6	0.0	11.9
Cycle Q Clear(g_c), s	1.3	4.2	12.4	4.1	2.7	0.0	4.9	0.0	23.4	1.6	0.0	11.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.25	1.00		0.09
Lane Grp Cap(c), veh/h	266	457	204	243	544		663	0	1085	463	0	1072
V/C Ratio(X)	0.08	0.30	0.82	0.29	0.17		0.28	0.00	0.55	0.13	0.00	0.33
Avail Cap(c_a), veh/h	413	785	350	346	785		786	0	1085	540	0	1072
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	43.9	47.4	51.0	42.6	44.2	0.0	9.3	0.0	13.9	10.9	0.0	13.0
Incr Delay (d2), s/veh	0.1	0.4	8.1	0.6	0.1	0.0	0.2	0.0	2.0	0.1	0.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	1.9	5.3	1.8	1.2	0.0	1.8	0.0	9.3	0.6	0.0	4.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.0	47.7	59.0	43.3	44.4	0.0	9.5	0.0	15.9	11.1	0.0	13.8
LnGrp LOS	D	D	E	D	D		A	A	B	B	A	B
Approach Vol, veh/h		327			163			776			413	
Approach Delay, s/veh		53.3			43.9			14.4			13.4	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	12.7	75.3	11.0	20.9	9.8	78.2	8.1	23.9				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	15.5	43.5	12.5	26.5	9.5	49.5	12.5	26.5				
Max Q Clear Time (g_c+l1), s	6.9	13.9	6.1	14.4	3.6	25.4	3.3	4.7				
Green Ext Time (p_c), s	0.3	4.2	0.1	1.0	0.0	7.5	0.0	0.4				
Intersection Summary												
HCM 6th Ctrl Delay		24.6										
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	1.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		T	↑	↑	↗
Traffic Vol, veh/h	39	33	36	443	351	67
Future Vol, veh/h	39	33	36	443	351	67
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	-	80	-	-	285
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	40	34	37	457	362	69
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	893	362	431	0	-	0
Stage 1	362	-	-	-	-	-
Stage 2	531	-	-	-	-	-
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	312	683	1129	-	-	-
Stage 1	704	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	302	683	1129	-	-	-
Mov Cap-2 Maneuver	302	-	-	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	590	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	15.8	0.6		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1129	-	406	-	-	
HCM Lane V/C Ratio	0.033	-	0.183	-	-	
HCM Control Delay (s)	8.3	-	15.8	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-	

## Timings

1a. Existing 2023 AM

8: SR 314 (W Fayetteville Rd) &amp; SR 139 (Riverdale Rd)

02/10/2023



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗	↖	↑↑	↖↗	↗
Traffic Volume (vph)	116	204	206	341	409	86
Future Volume (vph)	116	204	206	341	409	86
Lane Group Flow (vph)	123	217	219	363	435	91
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6			5	2	8
Permitted Phases			6	2		8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0
Minimum Split (s)	23.5	23.5	15.0	23.5	41.5	41.5
Total Split (s)	33.0	33.0	21.0	54.0	46.0	46.0
Total Split (%)	33.0%	33.0%	21.0%	54.0%	46.0%	46.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.06	0.22	0.25	0.15	0.69	0.25
Control Delay	12.0	2.7	6.3	5.4	43.7	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.0	2.7	6.3	5.4	43.7	8.7
Queue Length 50th (ft)	17	0	40	34	135	0
Queue Length 95th (ft)	38	39	81	61	174	39
Internal Link Dist (ft)	499			726	559	
Turn Bay Length (ft)		405	415		90	
Base Capacity (vph)	1954	971	903	2499	1390	695
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.06	0.22	0.24	0.15	0.31	0.13

## Intersection Summary

Cycle Length: 100

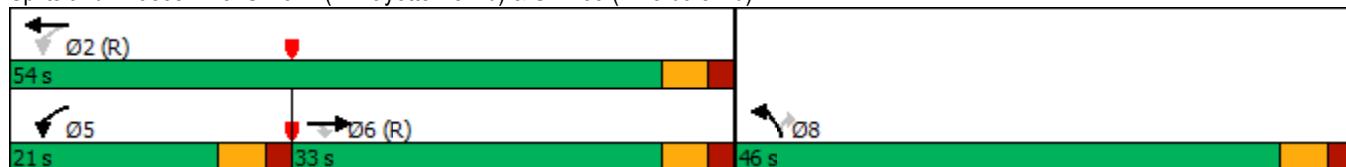
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 8: SR 314 (W Fayetteville Rd) &amp; SR 139 (Riverdale Rd)



HCM 6th Signalized Intersection Summary  
8: SR 314 (W Fayetteville Rd) & SR 139 (Riverdale Rd)

1a. Existing 2023 AM

02/10/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	116	204	206	341	409	86
Future Volume (veh/h)	116	204	206	341	409	86
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	123	217	219	363	435	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2176	971	812	2606	541	
Arrive On Green	0.61	0.61	0.07	0.73	0.16	0.00
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	123	217	219	363	435	0
Grp Sat Flow(s), veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	1.4	6.1	4.2	3.0	12.1	0.0
Cycle Q Clear(g_c), s	1.4	6.1	4.2	3.0	12.1	0.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2176	971	812	2606	541	
V/C Ratio(X)	0.06	0.22	0.27	0.14	0.80	
Avail Cap(c_a), veh/h	2176	971	971	2606	1400	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.8	8.7	5.3	4.0	40.7	0.0
Incr Delay (d2), s/veh	0.0	0.5	0.2	0.1	2.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.5	2.0	1.2	0.8	5.2	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	7.8	9.2	5.4	4.1	43.5	0.0
LnGrp LOS	A	A	A	A	D	
Approach Vol, veh/h	340			582	435	
Approach Delay, s/veh	8.7			4.6	43.5	
Approach LOS	A			A	D	
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+R <sub>c</sub> ), s	78.8			12.1	66.7	21.2
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	48.5			15.5	27.5	40.5
Max Q Clear Time (g_c+l1), s	5.0			6.2	8.1	14.1
Green Ext Time (p_c), s	4.7			0.4	2.7	1.5
Intersection Summary						
HCM 6th Ctrl Delay			18.1			
HCM 6th LOS			B			
Notes						
User approved ignoring U-Turning movement.						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

## Timings

1b. Existing 2023 PM

1: SR 314 (W Fayetteville Rd) &amp; E Fayetteville Rd

02/10/2023



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↗ ↑	↑	↗ ↑	↗	↑
Traffic Volume (vph)	321	122	591	280	99	693
Future Volume (vph)	321	122	591	280	99	693
Lane Group Flow (vph)	331	126	609	289	102	714
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		6			2
Permitted Phases		8		6	2	
Detector Phase	8	8	6	6	2	2
Switch Phase						
Minimum Initial (s)	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	27.5	27.5	25.5	25.5	23.5	23.5
Total Split (s)	30.0	30.0	70.0	70.0	70.0	70.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.84	0.28	0.49	0.25	0.23	0.57
Control Delay	57.1	7.3	10.3	1.4	9.4	11.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.1	7.3	10.3	1.4	9.4	11.8
Queue Length 50th (ft)	198	0	183	0	20	147
Queue Length 95th (ft)	#324	44	268	27	m57	443
Internal Link Dist (ft)	302		635			1175
Turn Bay Length (ft)	145			445	120	
Base Capacity (vph)	433	482	1245	1153	448	1245
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.26	0.49	0.25	0.23	0.57

## Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 60

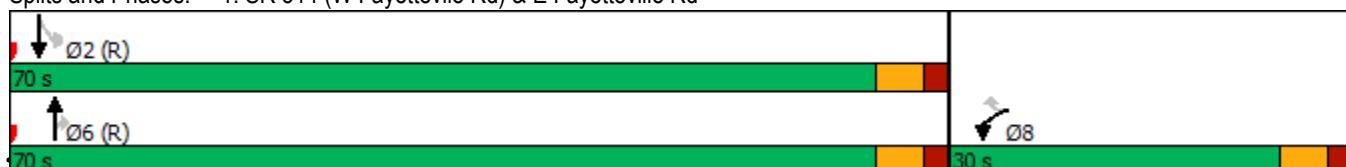
Control Type: Actuated-Coordinated

# 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: SR 314 (W Fayetteville Rd) &amp; E Fayetteville Rd



HCM 6th Signalized Intersection Summary  
1: SR 314 (W Fayetteville Rd) & E Fayetteville Rd

1b. Existing 2023 PM  
02/10/2023

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖ ↗ ↘ ↗ ↘ ↘	↖ ↗ ↘ ↗ ↘ ↘	↑ ↗ ↘ ↗ ↘ ↘	↖ ↗ ↘ ↗ ↘ ↘	↖ ↗ ↘ ↗ ↘ ↘	↑ ↗ ↘ ↗ ↘ ↘
Traffic Volume (veh/h)	321	122	591	280	99	693
Future Volume (veh/h)	321	122	591	280	99	693
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	331	126	609	0	102	714
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	369	329	1277		502	1277
Arrive On Green	0.21	0.21	0.68	0.00	0.68	0.68
Sat Flow, veh/h	1781	1585	1870	1585	812	1870
Grp Volume(v), veh/h	331	126	609	0	102	714
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	812	1870
Q Serve(g_s), s	18.1	6.8	15.3	0.0	6.8	19.6
Cycle Q Clear(g_c), s	18.1	6.8	15.3	0.0	22.1	19.6
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	369	329	1277		502	1277
V/C Ratio(X)	0.90	0.38	0.48		0.20	0.56
Avail Cap(c_a), veh/h	436	388	1277		502	1277
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	38.6	34.1	7.5	0.0	12.7	8.1
Incr Delay (d2), s/veh	18.6	0.7	1.3	0.0	0.9	1.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	9.6	2.7	5.4	0.0	1.3	7.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	57.2	34.9	8.7	0.0	13.6	9.9
LnGrp LOS	E	C	A		B	A
Approach Vol, veh/h	457		609			816
Approach Delay, s/veh	51.1		8.7			10.4
Approach LOS	D		A			B
Timer - Assigned Phs	2			6		8
Phs Duration (G+Y+R <sub>c</sub> ), s	73.8			73.8		26.2
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5		5.5
Max Green Setting (Gmax), s	64.5			64.5		24.5
Max Q Clear Time (g_c+l1), s	24.1			17.3		20.1
Green Ext Time (p_c), s	13.3			9.4		0.7
Intersection Summary						
HCM 6th Ctrl Delay		19.7				
HCM 6th LOS		B				
Notes						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

Intersection						
Int Delay, s/veh	4.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	73	22	70	595	770	153
Future Vol, veh/h	73	22	70	595	770	153
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	105	-	-	235
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	23	74	626	811	161

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1585	811	811	0	-	0
Stage 1	811	-	-	-	-	-
Stage 2	774	-	-	-	-	-
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	119	379	815	-	-	-
Stage 1	437	-	-	-	-	-
Stage 2	455	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	108	379	815	-	-	-
Mov Cap-2 Maneuver	108	-	-	-	-	-
Stage 1	397	-	-	-	-	-
Stage 2	455	-	-	-	-	-

Approach	EB	NB	SB			
HCM Control Delay, s	76.8	1	0			
HCM LOS	F					

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	815	-	108	379	-	-
HCM Lane V/C Ratio	0.09	-	0.712	0.061	-	-
HCM Control Delay (s)	9.9	-	95.4	15.1	-	-
HCM Lane LOS	A	-	F	C	-	-
HCM 95th %tile Q(veh)	0.3	-	3.8	0.2	-	-

## Timings

1b. Existing 2023 PM

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	37	5	38	34	8	41	600	27	45	872	62
Future Volume (vph)	37	5	38	34	8	41	600	27	45	872	62
Lane Group Flow (vph)	39	5	40	36	38	44	638	29	48	928	66
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4				8		6			2
Permitted Phases	4		4	8		6		6	2		2
Detector Phase	4	4	4	8	8	6	6	6	2	2	2
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Total Split (s)	32.0	32.0	32.0	32.0	32.0	68.0	68.0	68.0	68.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.34	0.03	0.24	0.30	0.23	0.11	0.41	0.02	0.08	0.59	0.05
Control Delay	50.3	40.6	16.6	48.7	22.3	5.9	9.0	2.7	3.4	6.2	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.3	40.6	16.6	48.7	22.3	5.9	9.0	2.7	3.4	6.2	1.4
Queue Length 50th (ft)	24	3	0	22	5	11	250	3	4	131	0
Queue Length 95th (ft)	56	14	31	52	36	m27	367	m10	m18	420	m13
Internal Link Dist (ft)		307			117		307			1423	
Turn Bay Length (ft)	230					105		200	90		280
Base Capacity (vph)	361	493	448	372	458	417	1563	1333	623	1563	1338
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.01	0.09	0.10	0.08	0.11	0.41	0.02	0.08	0.59	0.05

## Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

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

Splits and Phases: 3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy



## HCM 6th Signalized Intersection Summary

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

1b. Existing 2023 PM

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	37	5	38	34	8	27	41	600	27	45	872	62
Future Volume (veh/h)	37	5	38	34	8	27	41	600	27	45	872	62
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	5	0	36	9	0	44	638	0	48	928	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	103		146	103		575	1562		665	1562	
Arrive On Green	0.05	0.05	0.00	0.05	0.05	0.00	0.84	0.84	0.00	1.00	1.00	0.00
Sat Flow, veh/h	1406	1870	1585	1411	1870	0	603	1870	1585	790	1870	1585
Grp Volume(v), veh/h	39	5	0	36	9	0	44	638	0	48	928	0
Grp Sat Flow(s), veh/h/ln	1406	1870	1585	1411	1870	0	603	1870	1585	790	1870	1585
Q Serve(g_s), s	2.7	0.3	0.0	2.5	0.5	0.0	1.3	8.5	0.0	0.7	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.3	0.0	2.7	0.5	0.0	1.3	8.5	0.0	9.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	103		146	103		575	1562		665	1562	
V/C Ratio(X)	0.27	0.05		0.25	0.09		0.08	0.41		0.07	0.59	
Avail Cap(c_a), veh/h	438	496		442	496		575	1562		665	1562	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.4	44.8	0.0	46.1	44.9	0.0	1.5	2.1	0.0	0.5	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.2	0.0	0.9	0.4	0.0	0.3	0.8	0.0	0.2	1.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	0.1	0.0	0.9	0.2	0.0	0.1	1.5	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.4	45.0	0.0	46.9	45.2	0.0	1.7	2.9	0.0	0.7	1.7	0.0
LnGrp LOS	D	D		D	D		A	A		A	A	
Approach Vol, veh/h		44			45			682			976	
Approach Delay, s/veh		47.1			46.6			2.8			1.6	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		89.0		11.0		89.0		11.0				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		62.5		26.5		62.5		26.5				
Max Q Clear Time (g_c+l1), s		11.2		5.2		10.5		4.7				
Green Ext Time (p_c), s		22.7		0.1		11.3		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			4.4									
HCM 6th LOS			A									
<b>Notes</b>												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

## Intersection

Int Delay, s/veh 21.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑		↑			↑		↑	↑		↑	
Traffic Vol, veh/h	109	0	63	0	0	33	0	628	20	0	896	0
Future Vol, veh/h	109	0	63	0	0	33	0	628	20	0	896	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	Free	-	-	None
Storage Length	0	-	0	-	-	0	-	-	180	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	114	0	66	0	0	34	0	654	21	0	933	0

Major/Minor	Minor2	Minor1			Major1			Major2			
Conflicting Flow All	1587	-	933	-	-	654	-	0	-	-	0
Stage 1	933	-	-	-	-	-	-	-	-	-	-
Stage 2	654	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	-	-	6.22	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	-	-	3.318	-	-	-	-	-
Pot Cap-1 Maneuver	~ 87	0	323	0	0	467	0	-	0	0	0
Stage 1	319	0	-	0	0	-	0	-	0	0	0
Stage 2	456	0	-	0	0	-	0	-	0	0	0
Platoon blocked, %							-	-	-	-	-
Mov Cap-1 Maneuver	~ 81	-	323	-	-	467	-	-	-	-	-
Mov Cap-2 Maneuver	~ 81	-	-	-	-	-	-	-	-	-	-
Stage 1	319	-	-	-	-	-	-	-	-	-	-
Stage 2	422	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB	
HCM Control Delay, s	216.2	13.3	0	0	
HCM LOS	F	B			
<hr/>					
Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	WBLn1	SBT
Capacity (veh/h)	-	81	323	467	-
HCM Lane V/C Ratio	-	1.402	0.203	0.074	-
HCM Control Delay (s)	\$ 330.1	19	13.3	-	
HCM Lane LOS	-	F	C	B	-
HCM 95th %tile Q(veh)	-	8.9	0.7	0.2	-

## Notes

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	138	209	540	169	243	794
Future Volume (vph)	138	209	540	169	243	794
Lane Group Flow (vph)	144	218	563	176	253	827
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		6		5	2
Permitted Phases			8		6	2
Detector Phase	8	8	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	15.0	23.5
Total Split (s)	30.0	30.0	55.0	55.0	15.0	70.0
Total Split (%)	30.0%	30.0%	55.0%	55.0%	15.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Min	Min	C-Min	C-Min	None	C-Min
v/c Ratio	0.61	0.55	0.50	0.17	0.44	0.59
Control Delay	51.1	10.6	25.9	11.8	6.4	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.1	10.6	25.9	11.8	6.4	8.1
Queue Length 50th (ft)	88	0	301	42	38	190
Queue Length 95th (ft)	143	62	439	97	76	352
Internal Link Dist (ft)	191		831			769
Turn Bay Length (ft)				135	210	
Base Capacity (vph)	433	552	1122	1011	585	1408
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.39	0.50	0.17	0.43	0.59

#### Intersection Summary

Cycle Length: 100

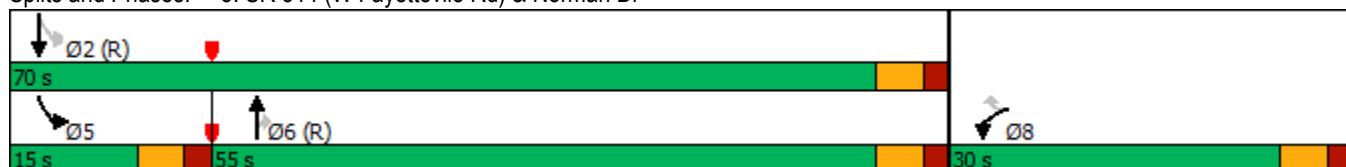
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 5: SR 314 (W Fayetteville Rd) & Norman Dr



HCM 6th Signalized Intersection Summary  
5: SR 314 (W Fayetteville Rd) & Norman Dr

1b. Existing 2023 PM

02/10/2023



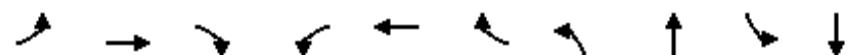
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑	↑ ↗	↑ ↗	↑
Traffic Volume (veh/h)	138	209	540	169	243	794
Future Volume (veh/h)	138	209	540	169	243	794
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	144	0	562	0	253	827
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	182		1253		532	1474
Arrive On Green	0.10	0.00	0.22	0.00	0.06	0.79
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	144	0	562	0	253	827
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	7.9	0.0	26.0	0.0	4.1	16.8
Cycle Q Clear(g_c), s	7.9	0.0	26.0	0.0	4.1	16.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	182		1253		532	1474
V/C Ratio(X)	0.79		0.45		0.48	0.56
Avail Cap(c_a), veh/h	436		1253		589	1474
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	43.9	0.0	23.0	0.0	9.1	4.0
Incr Delay (d2), s/veh	7.6	0.0	1.2	0.0	0.7	1.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.8	0.0	13.4	0.0	1.7	4.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	51.5	0.0	24.1	0.0	9.8	5.6
LnGrp LOS	D		C		A	A
Approach Vol, veh/h	144		562		1080	
Approach Delay, s/veh	51.5		24.1		6.6	
Approach LOS	D		C		A	
Timer - Assigned Phs	2		5	6	8	
Phs Duration (G+Y+R <sub>c</sub> ), s	84.3		11.8	72.5	15.7	
Change Period (Y+R <sub>c</sub> ), s	5.5		5.5	5.5	5.5	
Max Green Setting (Gmax), s	64.5		9.5	49.5	24.5	
Max Q Clear Time (g_c+l1), s	18.8		6.1	28.0	9.9	
Green Ext Time (p_c), s	7.0		0.2	4.0	0.3	
Intersection Summary						
HCM 6th Ctrl Delay		15.7				
HCM 6th LOS		B				
Notes						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

## Timings

1b. Existing 2023 PM

6: SR 314 (W Fayetteville Rd) &amp; Godby Rd/Phoenix Blvd

02/10/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	1	2↑	3	4	5↑	6	7	8↑	9	10
Traffic Volume (vph)	30	190	209	179	226	54	214	435	44	607
Future Volume (vph)	30	190	209	179	226	54	214	435	44	607
Lane Group Flow (vph)	31	194	213	183	231	55	218	546	45	646
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		1	6	5	2
Permitted Phases	4		4	8		8	6		2	
Detector Phase	7	4	4	3	8	8	1	6	5	2
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	26.5	26.5	15.0	27.5	27.5	15.0	42.5	15.0	41.5
Total Split (s)	18.0	32.0	32.0	18.0	32.0	32.0	21.0	55.0	15.0	49.0
Total Split (%)	15.0%	26.7%	26.7%	15.0%	26.7%	26.7%	17.5%	45.8%	12.5%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.14	0.54	0.61	0.63	0.36	0.13	0.54	0.52	0.10	0.73
Control Delay	35.0	56.7	14.2	47.7	46.0	0.6	13.6	18.6	9.8	32.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.0	56.7	14.2	47.7	46.0	0.6	13.6	18.6	9.8	32.5
Queue Length 50th (ft)	18	76	0	119	87	0	60	248	11	388
Queue Length 95th (ft)	42	111	71	181	125	0	105	390	27	#681
Internal Link Dist (ft)		652			379			1297		831
Turn Bay Length (ft)	590		185	270		185	180		175	
Base Capacity (vph)	298	781	515	294	793	489	423	1052	497	891
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.25	0.41	0.62	0.29	0.11	0.52	0.52	0.09	0.73

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

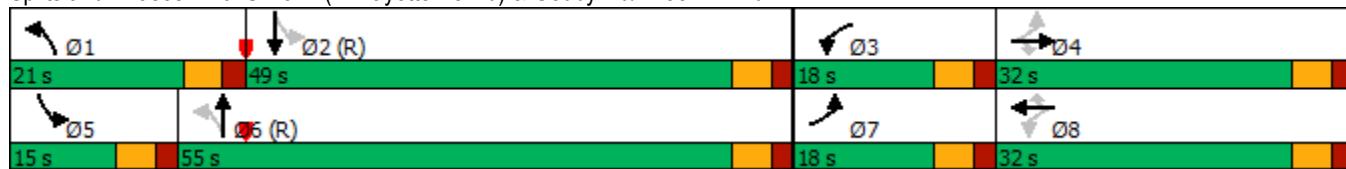
Natural Cycle: 100

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: SR 314 (W Fayetteville Rd) &amp; Godby Rd/Phoenix Blvd



HCM 6th Signalized Intersection Summary  
6: SR 314 (W Fayetteville Rd) & Godby Rd/Phoenix Blvd

1b. Existing 2023 PM

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑↑	
Traffic Volume (veh/h)	30	190	209	179	226	54	214	435	100	44	607	26
Future Volume (veh/h)	30	190	209	179	226	54	214	435	100	44	607	26
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	194	213	183	231	0	218	444	102	45	619	27
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	289	561	250	345	820		359	775	178	395	855	37
Arrive On Green	0.03	0.16	0.16	0.10	0.23	0.00	0.08	0.53	0.53	0.03	0.48	0.48
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1471	338	1781	1779	78
Grp Volume(v), veh/h	31	194	213	183	231	0	218	0	546	45	0	646
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1810	1781	0	1856
Q Serve(g_s), s	1.7	5.8	15.7	10.0	6.4	0.0	7.1	0.0	24.5	1.5	0.0	33.3
Cycle Q Clear(g_c), s	1.7	5.8	15.7	10.0	6.4	0.0	7.1	0.0	24.5	1.5	0.0	33.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.04
Lane Grp Cap(c), veh/h	289	561	250	345	820		359	0	953	395	0	892
V/C Ratio(X)	0.11	0.35	0.85	0.53	0.28		0.61	0.00	0.57	0.11	0.00	0.72
Avail Cap(c_a), veh/h	427	785	350	352	820		450	0	953	478	0	892
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.6	45.0	49.2	35.5	38.0	0.0	19.5	0.0	19.3	16.2	0.0	24.8
Incr Delay (d2), s/veh	0.2	0.4	13.3	1.4	0.2	0.0	1.7	0.0	2.5	0.1	0.0	5.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	2.6	7.1	4.4	2.8	0.0	2.8	0.0	10.4	0.6	0.0	15.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.7	45.4	62.4	37.0	38.2	0.0	21.1	0.0	21.8	16.3	0.0	29.9
LnGrp LOS	D	D	E	D	D		C	A	C	B	A	C
Approach Vol, veh/h						414			764			691
Approach Delay, s/veh						37.6			21.6			29.0
Approach LOS				D		D		C		C		C
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	14.9	63.2	17.5	24.4	9.4	68.7	8.7	33.2				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	15.5	43.5	12.5	26.5	9.5	49.5	12.5	26.5				
Max Q Clear Time (g_c+l1), s	9.1	35.3	12.0	17.7	3.5	26.5	3.7	8.4				
Green Ext Time (p_c), s	0.3	4.1	0.0	1.3	0.0	6.6	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay				32.7								
HCM 6th LOS				C								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		T	↑	↑	↗
Traffic Vol, veh/h	44	45	54	442	677	300
Future Vol, veh/h	44	45	54	442	677	300
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	-	80	-	-	285
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	47	56	460	705	313
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1277	705	1018	0	-	0
Stage 1	705	-	-	-	-	-
Stage 2	572	-	-	-	-	-
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	184	436	682	-	-	-
Stage 1	490	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	169	436	682	-	-	-
Mov Cap-2 Maneuver	169	-	-	-	-	-
Stage 1	450	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	28.4	1.2		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	682	-	245	-	-	
HCM Lane V/C Ratio	0.082	-	0.378	-	-	
HCM Control Delay (s)	10.8	-	28.4	-	-	
HCM Lane LOS	B	-	D	-	-	
HCM 95th %tile Q(veh)	0.3	-	1.7	-	-	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (vph)	539	672	347	428	365	167
Future Volume (vph)	539	672	347	428	365	167
Lane Group Flow (vph)	550	686	354	437	372	170
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6			5	2	8
Permitted Phases			6	2		8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0
Minimum Split (s)	23.5	23.5	15.0	23.5	41.5	41.5
Total Split (s)	37.5	37.5	21.0	58.5	41.5	41.5
Total Split (%)	37.5%	37.5%	21.0%	58.5%	41.5%	41.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.29	0.59	0.54	0.17	0.66	0.42
Control Delay	14.3	3.7	8.5	4.8	44.6	8.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	3.7	8.5	4.8	44.6	8.8
Queue Length 50th (ft)	94	0	66	38	115	0
Queue Length 95th (ft)	161	64	123	67	154	53
Internal Link Dist (ft)	499			726	559	
Turn Bay Length (ft)		405	415		90	
Base Capacity (vph)	1909	1169	684	2567	1235	678
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.59	0.52	0.17	0.30	0.25

**Intersection Summary**

Cycle Length: 100

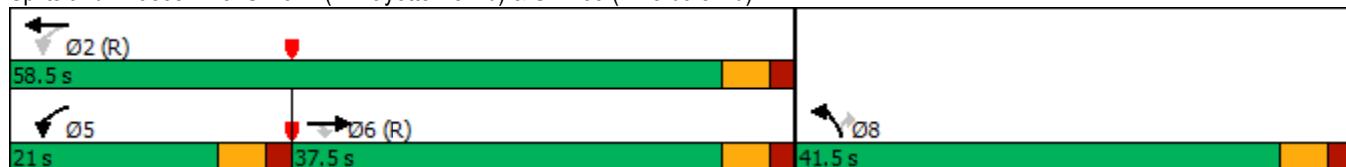
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 8: SR 314 (W Fayetteville Rd) &amp; SR 139 (Riverdale Rd)



HCM 6th Signalized Intersection Summary  
8: SR 314 (W Fayetteville Rd) & SR 139 (Riverdale Rd)

1b. Existing 2023 PM

02/10/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	539	672	347	428	365	167
Future Volume (veh/h)	539	672	347	428	365	167
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	550	686	354	437	372	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2141	955	481	2677	472	
Arrive On Green	0.60	0.60	0.10	0.75	0.14	0.00
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	550	686	354	437	372	0
Grp Sat Flow(s), veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	7.3	30.3	7.0	3.5	10.4	0.0
Cycle Q Clear(g_c), s	7.3	30.3	7.0	3.5	10.4	0.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2141	955	481	2677	472	
V/C Ratio(X)	0.26	0.72	0.74	0.16	0.79	
Avail Cap(c_a), veh/h	2141	955	587	2677	1244	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.3	13.9	7.0	3.5	41.8	0.0
Incr Delay (d2), s/veh	0.3	4.6	3.8	0.1	3.0	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	2.5	10.3	2.4	0.9	4.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.6	18.6	10.8	3.6	44.7	0.0
LnGrp LOS	A	B	B	A	D	
Approach Vol, veh/h	1236			791	372	
Approach Delay, s/veh	14.6			6.8	44.7	
Approach LOS	B			A	D	
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+R <sub>c</sub> ), s	80.8			15.1	65.7	19.2
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	53.0			15.5	32.0	36.0
Max Q Clear Time (g_c+l1), s	5.5			9.0	32.3	12.4
Green Ext Time (p_c), s	5.8			0.6	0.0	1.3
Intersection Summary						
HCM 6th Ctrl Delay			16.7			
HCM 6th LOS			B			
Notes						
User approved ignoring U-Turning movement.						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

## Timings

1c. Existing 2023 Dismissal

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	38	7	45	47	11	43	545	42	34	814	50
Future Volume (vph)	38	7	45	47	11	43	545	42	34	814	50
Lane Group Flow (vph)	38	7	45	47	35	43	551	42	34	822	51
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4				8		6			2
Permitted Phases	4		4	8		6		6	2		2
Detector Phase	4	4	4	8	8	6	6	6	2	2	2
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Total Split (s)	32.0	32.0	32.0	32.0	32.0	68.0	68.0	68.0	68.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.31	0.04	0.25	0.38	0.21	0.09	0.35	0.03	0.05	0.53	0.04
Control Delay	48.5	40.3	15.8	50.7	24.0	3.0	3.5	0.9	3.6	5.6	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.5	40.3	15.8	50.7	24.0	3.0	3.5	0.9	3.6	5.6	1.7
Queue Length 50th (ft)	23	4	0	29	7	4	74	0	3	91	0
Queue Length 95th (ft)	54	17	32	64	35	14	137	7	m14	344	m13
Internal Link Dist (ft)		307			117		307			1423	
Turn Bay Length (ft)	230					105		200	90		280
Base Capacity (vph)	362	493	452	371	460	483	1555	1328	688	1555	1330
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.01	0.10	0.13	0.08	0.09	0.35	0.03	0.05	0.53	0.04

## Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

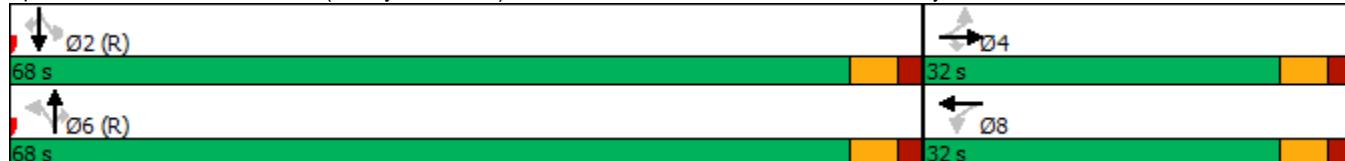
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

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

Splits and Phases: 3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy



## HCM 6th Signalized Intersection Summary

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

1c. Existing 2023 Dismissal

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	38	7	45	47	11	24	43	545	42	34	814	50
Future Volume (veh/h)	38	7	45	47	11	24	43	545	42	34	814	50
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	38	7	0	47	11	0	43	551	0	34	822	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	144	106		147	106		627	1559		726	1559	
Arrive On Green	0.06	0.06	0.00	0.06	0.06	0.00	0.83	0.83	0.00	1.00	1.00	0.00
Sat Flow, veh/h	1404	1870	1585	1409	1870	0	666	1870	1585	857	1870	1585
Grp Volume(v), veh/h	38	7	0	47	11	0	43	551	0	34	822	0
Grp Sat Flow(s), veh/h/ln	1404	1870	1585	1409	1870	0	666	1870	1585	857	1870	1585
Q Serve(g_s), s	2.6	0.4	0.0	3.3	0.6	0.0	1.1	7.0	0.0	0.3	0.0	0.0
Cycle Q Clear(g_c), s	3.2	0.4	0.0	3.6	0.6	0.0	1.1	7.0	0.0	7.3	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	144	106		147	106		627	1559		726	1559	
V/C Ratio(X)	0.26	0.07		0.32	0.10		0.07	0.35		0.05	0.53	
Avail Cap(c_a), veh/h	436	496		440	496		627	1559		726	1559	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.3	44.7	0.0	46.4	44.8	0.0	1.5	2.0	0.0	0.3	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.3	0.0	1.2	0.4	0.0	0.2	0.6	0.0	0.1	1.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.9	0.2	0.0	1.2	0.3	0.0	0.1	1.3	0.0	0.0	0.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.3	44.9	0.0	47.6	45.2	0.0	1.7	2.6	0.0	0.4	1.3	0.0
LnGrp LOS	D	D		D	D		A	A		A	A	
Approach Vol, veh/h		45			58			594			856	
Approach Delay, s/veh		46.9			47.2			2.5			1.2	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	88.8		11.2		88.8		11.2					
Change Period (Y+Rc), s	5.5		5.5		5.5		5.5					
Max Green Setting (Gmax), s	62.5		26.5		62.5		26.5					
Max Q Clear Time (g_c+l1), s	9.3		5.2		9.0		5.6					
Green Ext Time (p_c), s	18.3		0.1		9.2		0.1					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay		4.8										
HCM 6th LOS		A										
<b>Notes</b>												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

## Intersection

Int Delay, s/veh 4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑		↑			↑		↑	↑		↑	
Traffic Vol, veh/h	66	0	47	0	0	26	0	592	14	0	851	0
Future Vol, veh/h	66	0	47	0	0	26	0	592	14	0	851	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	Free	-	-	None
Storage Length	0	-	0	-	-	0	-	-	180	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	67	0	48	0	0	27	0	604	14	0	868	0

Major/Minor	Minor2	Minor1			Major1			Major2				
Conflicting Flow All	1472	-	868	-	-	604	-	0	-	-	0	
Stage 1	868	-	-	-	-	-	-	-	-	-	-	
Stage 2	604	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy	7.12	-	6.22	-	-	6.22	-	-	-	-	-	
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	-	3.318	-	-	3.318	-	-	-	-	-	
Pot Cap-1 Maneuver	105	0	352	0	0	498	0	-	0	0	-	0
Stage 1	347	0	-	0	0	-	0	-	0	0	-	0
Stage 2	485	0	-	0	0	-	0	-	0	0	-	0
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	99	-	352	-	-	498	-	-	-	-	-	-
Mov Cap-2 Maneuver	99	-	-	-	-	-	-	-	-	-	-	-
Stage 1	347	-	-	-	-	-	-	-	-	-	-	-
Stage 2	459	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB			NB	SB		
HCM Control Delay, s	63.7		12.6		0		0	
HCM LOS	F		B					
<hr/>								
Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	WBLn1	SBT			
Capacity (veh/h)	-	99	352	498	-			
HCM Lane V/C Ratio	-	0.68	0.136	0.053	-			
HCM Control Delay (s)	-	97.1	16.8	12.6	-			
HCM Lane LOS	-	F	C	B	-			
HCM 95th %tile Q(veh)	-	3.4	0.5	0.2	-			



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗
Traffic Volume (vph)	223	213	500	150	256	683
Future Volume (vph)	223	213	500	150	256	683
Lane Group Flow (vph)	228	217	510	153	261	697
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		6		5	2
Permitted Phases		8		6	2	
Detector Phase	8	8	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	15.0	23.5
Total Split (s)	30.0	30.0	55.0	55.0	15.0	70.0
Total Split (%)	30.0%	30.0%	55.0%	55.0%	15.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag		Lag	Lag	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Recall Mode	Min	Min	C-Min	C-Min	None	C-Min
v/c Ratio	0.71	0.47	0.49	0.16	0.47	0.53
Control Delay	50.7	8.0	23.0	8.4	8.5	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.7	8.0	23.0	8.4	8.5	9.3
Queue Length 50th (ft)	138	0	234	15	49	179
Queue Length 95th (ft)	203	57	392	61	98	327
Internal Link Dist (ft)	191		831			769
Turn Bay Length (ft)			135	210		
Base Capacity (vph)	433	551	1037	942	566	1322
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.39	0.49	0.16	0.46	0.53

**Intersection Summary**

Cycle Length: 100

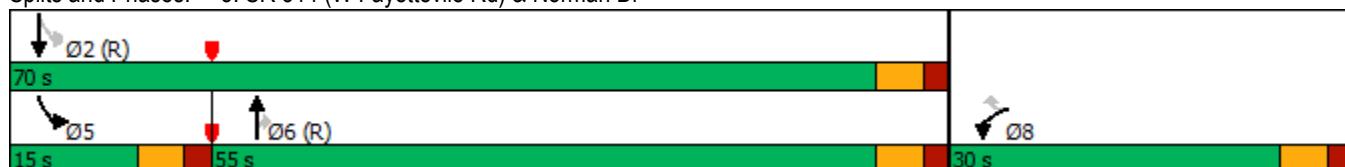
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 5: SR 314 (W Fayetteville Rd) &amp; Norman Dr





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	223	213	500	150	256	683
Future Volume (veh/h)	223	213	500	150	256	683
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	228	0	510	0	261	697
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	266		1147		534	1385
Arrive On Green	0.15	0.00	0.20	0.00	0.07	0.74
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	228	0	510	0	261	697
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	12.5	0.0	23.9	0.0	5.1	15.4
Cycle Q Clear(g_c), s	12.5	0.0	23.9	0.0	5.1	15.4
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	266		1147		534	1385
V/C Ratio(X)	0.86		0.44		0.49	0.50
Avail Cap(c_a), veh/h	436		1147		574	1385
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	41.5	0.0	25.0	0.0	9.8	5.4
Incr Delay (d2), s/veh	9.0	0.0	1.2	0.0	0.7	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6.0	0.0	12.3	0.0	1.6	4.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	50.5	0.0	26.2	0.0	10.5	6.7
LnGrp LOS	D		C		B	A
Approach Vol, veh/h	228		510		958	
Approach Delay, s/veh	50.5		26.2		7.7	
Approach LOS	D		C		A	
Timer - Assigned Phs	2		5	6	8	
Phs Duration (G+Y+R <sub>c</sub> ), s	79.6		12.7	66.8	20.4	
Change Period (Y+R <sub>c</sub> ), s	5.5		5.5	5.5	5.5	
Max Green Setting (Gmax), s	64.5		9.5	49.5	24.5	
Max Q Clear Time (g_c+l1), s	17.4		7.1	25.9	14.5	
Green Ext Time (p_c), s	5.3		0.2	3.6	0.4	
Intersection Summary						
HCM 6th Ctrl Delay		19.0				
HCM 6th LOS		B				
Notes						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

## **Future “No-Build” Intersection Analysis**



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	177	117	664	197	91	313
Future Volume (vph)	177	117	664	197	91	313
Lane Group Flow (vph)	186	123	699	207	96	329
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		6			2
Permitted Phases			8		6	2
Detector Phase	8	8	6	6	2	2
Switch Phase						
Minimum Initial (s)	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	27.5	27.5	25.5	25.5	23.5	23.5
Total Split (s)	30.0	30.0	70.0	70.0	70.0	70.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.67	0.35	0.51	0.17	0.21	0.24
Control Delay	50.9	9.2	8.0	1.1	5.0	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.9	9.2	8.0	1.1	5.0	4.1
Queue Length 50th (ft)	113	0	161	0	12	42
Queue Length 95th (ft)	174	46	297	21	37	91
Internal Link Dist (ft)	302		635			1175
Turn Bay Length (ft)	145			445	120	
Base Capacity (vph)	433	480	1364	1214	458	1364
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.26	0.51	0.17	0.21	0.24

**Intersection Summary**

Cycle Length: 100

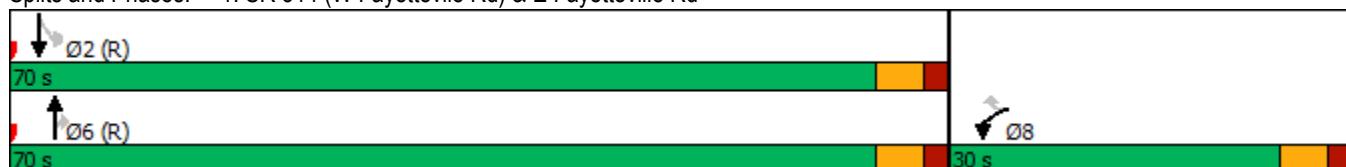
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 1: SR 314 (W Fayetteville Rd) &amp; E Fayetteville Rd



HCM 6th Signalized Intersection Summary  
1: SR 314 (W Fayetteville Rd) & E Fayetteville Rd

2a. No Build 2027 AM

02/10/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗
Traffic Volume (veh/h)	177	117	664	197	91	313
Future Volume (veh/h)	177	117	664	197	91	313
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	123	699	0	96	329
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	230	204	1423		534	1423
Arrive On Green	0.13	0.13	0.76	0.00	0.76	0.76
Sat Flow, veh/h	1781	1585	1870	1585	747	1870
Grp Volume(v), veh/h	186	123	699	0	96	329
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	747	1870
Q Serve(g_s), s	10.2	7.3	14.3	0.0	5.6	5.1
Cycle Q Clear(g_c), s	10.2	7.3	14.3	0.0	19.9	5.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	230	204	1423		534	1423
V/C Ratio(X)	0.81	0.60	0.49		0.18	0.23
Avail Cap(c_a), veh/h	436	388	1423		534	1423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	41.1	4.6	0.0	8.4	3.5
Incr Delay (d2), s/veh	6.7	2.8	1.2	0.0	0.7	0.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.8	3.0	4.2	0.0	0.9	1.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	49.0	44.0	5.8	0.0	9.1	3.8
LnGrp LOS	D	D	A		A	A
Approach Vol, veh/h	309		699		425	
Approach Delay, s/veh	47.0		5.8		5.0	
Approach LOS	D		A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+R <sub>c</sub> ), s		81.6			81.6	18.4
Change Period (Y+R <sub>c</sub> ), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		64.5			64.5	24.5
Max Q Clear Time (g_c+l1), s		21.9			16.3	12.2
Green Ext Time (p_c), s		5.7			11.7	0.7
Intersection Summary						
HCM 6th Ctrl Delay		14.4				
HCM 6th LOS		B				
Notes						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

Intersection						
Int Delay, s/veh	5.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	126	66	20	775	361	49
Future Vol, veh/h	126	66	20	775	361	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	105	-	-	235
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	133	69	21	816	380	52
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1238	380	380	0	-	0
Stage 1	380	-	-	-	-	-
Stage 2	858	-	-	-	-	-
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	194	667	1178	-	-	-
Stage 1	691	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	191	667	1178	-	-	-
Mov Cap-2 Maneuver	191	-	-	-	-	-
Stage 1	679	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	41.9	0.2		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1178	-	191	667	-	-
HCM Lane V/C Ratio	0.018	-	0.694	0.104	-	-
HCM Control Delay (s)	8.1	-	58.1	11	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	4.3	0.3	-	-

## Timings

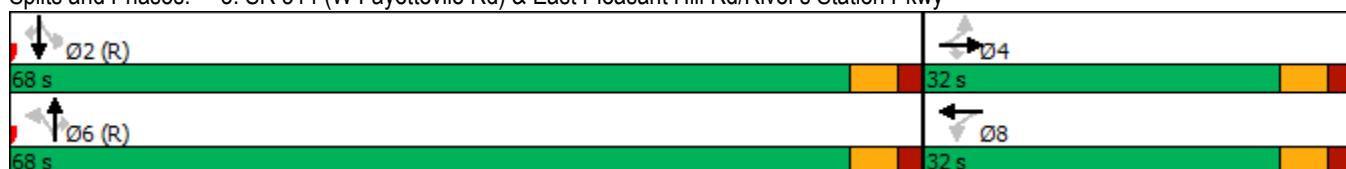
2a. No Build 2027 AM

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↗ ↖	↑ ↗	↑ ↖	↑ ↗	↑ ↘	↗ ↖	↑ ↗	↑ ↘	↗ ↖
Traffic Volume (vph)	62	14	35	39	3	15	776	55	62	360	58
Future Volume (vph)	62	14	35	39	3	15	776	55	62	360	58
Lane Group Flow (vph)	65	15	36	41	44	16	808	57	65	375	60
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4				8		6			2
Permitted Phases	4		4	8		6		6	2		2
Detector Phase	4	4	4	8	8	6	6	6	2	2	2
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Total Split (s)	32.0	32.0	32.0	32.0	32.0	68.0	68.0	68.0	68.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.47	0.08	0.19	0.29	0.22	0.02	0.53	0.04	0.14	0.24	0.05
Control Delay	52.5	39.4	15.1	45.3	16.2	5.7	11.1	3.2	3.3	2.7	0.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	39.4	15.1	45.3	16.2	5.7	11.1	3.2	3.3	2.7	0.8
Queue Length 50th (ft)	40	9	0	25	2	3	270	5	5	33	0
Queue Length 95th (ft)	80	27	28	56	33	m9	569	m21	m19	81	m7
Internal Link Dist (ft)		307			117		307			1423	
Turn Bay Length (ft)	230					105		200	90		280
Base Capacity (vph)	359	493	445	369	454	825	1531	1311	477	1531	1311
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.03	0.08	0.11	0.10	0.02	0.53	0.04	0.14	0.24	0.05
Intersection Summary											
Cycle Length: 100											
Actuated Cycle Length: 100											
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green											
Natural Cycle: 60											
Control Type: Actuated-Coordinated											
m Volume for 95th percentile queue is metered by upstream signal.											

Splits and Phases: 3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy



## HCM 6th Signalized Intersection Summary

2a. No Build 2027 AM

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	62	14	35	39	3	39	15	776	55	62	360	58
Future Volume (veh/h)	62	14	35	39	3	39	15	776	55	62	360	58
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No	No		No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	65	15	0	41	3	0	16	808	0	65	375	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	163	124		154	124		902	1541		537	1541	
Arrive On Green	0.07	0.07	0.00	0.07	0.07	0.00	0.82	0.82	0.00	1.00	1.00	0.00
Sat Flow, veh/h	1414	1870	1585	1398	1870	0	1008	1870	1585	675	1870	1585
Grp Volume(v), veh/h	65	15	0	41	3	0	16	808	0	65	375	0
Grp Sat Flow(s), veh/h/ln	1414	1870	1585	1398	1870	0	1008	1870	1585	675	1870	1585
Q Serve(g_s), s	4.5	0.8	0.0	2.8	0.2	0.0	0.3	13.4	0.0	1.8	0.0	0.0
Cycle Q Clear(g_c), s	4.7	0.8	0.0	3.6	0.2	0.0	0.3	13.4	0.0	15.2	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	163	124		154	124		902	1541		537	1541	
V/C Ratio(X)	0.40	0.12		0.27	0.02		0.02	0.52		0.12	0.24	
Avail Cap(c_a), veh/h	445	496		432	496		902	1541		537	1541	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	45.9	44.0	0.0	45.6	43.7	0.0	1.6	2.7	0.0	1.2	0.0	0.0
Incr Delay (d2), s/veh	1.6	0.4	0.0	0.9	0.1	0.0	0.0	1.3	0.0	0.5	0.4	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.6	0.4	0.0	1.0	0.1	0.0	0.0	2.8	0.0	0.2	0.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.4	44.4	0.0	46.6	43.8	0.0	1.6	4.0	0.0	1.7	0.4	0.0
LnGrp LOS	D	D		D	D		A	A		A	A	
Approach Vol, veh/h		80			44			824			440	
Approach Delay, s/veh		46.8			46.4			4.0			0.6	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		87.9		12.1		87.9		12.1				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		62.5		26.5		62.5		26.5				
Max Q Clear Time (g_c+l1), s		17.2		6.7		15.4		5.6				
Green Ext Time (p_c), s		6.7		0.2		15.0		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			6.7									
HCM 6th LOS			A									
<b>Notes</b>												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

## Intersection

Int Delay, s/veh 50.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	191	0	98	0	0	61	0	859	11	0	380	0
Future Vol, veh/h	191	0	98	0	0	61	0	859	11	0	380	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	Free	-	-	None
Storage Length	0	-	0	-	-	0	-	-	180	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	197	0	101	0	0	63	0	886	11	0	392	0

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	1278	-	392	-	-	886	-	0	-	-	-	0
Stage 1	392	-	-	-	-	-	-	-	-	-	-	-
Stage 2	886	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	-	-	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	-	-	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	~ 143	0	657	0	0	343	0	-	0	0	-	0
Stage 1	633	0	-	0	0	-	0	-	0	0	-	0
Stage 2	339	0	-	0	0	-	0	-	0	0	-	0
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 117	-	657	-	-	343	-	-	-	-	-	-
Mov Cap-2 Maneuver	~ 117	-	-	-	-	-	-	-	-	-	-	-
Stage 1	633	-	-	-	-	-	-	-	-	-	-	-
Stage 2	277	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	272.2	17.8	0	0
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	WBLn1	SBT
Capacity (veh/h)	-	117	657	343	-
HCM Lane V/C Ratio	-	1.683	0.154	0.183	-
HCM Control Delay (s)	-	\$ 406	11.5	17.8	-
HCM Lane LOS	-	F	B	C	-
HCM 95th %tile Q(veh)	-	14.9	0.5	0.7	-

## Notes

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗
Traffic Volume (vph)	237	221	683	256	149	401
Future Volume (vph)	237	221	683	256	149	401
Lane Group Flow (vph)	247	230	711	267	155	418
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		6		5	2
Permitted Phases			8		6	2
Detector Phase	8	8	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	15.0	23.5
Total Split (s)	30.0	30.0	55.0	55.0	15.0	70.0
Total Split (%)	30.0%	30.0%	55.0%	55.0%	15.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Min	Min	C-Min	C-Min	None	C-Min
v/c Ratio	0.74	0.48	0.68	0.28	0.40	0.32
Control Delay	51.5	7.8	28.5	11.6	8.7	7.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.5	7.8	28.5	11.6	8.7	7.2
Queue Length 50th (ft)	149	0	372	67	29	90
Queue Length 95th (ft)	220	58	574	152	60	163
Internal Link Dist (ft)	191		831			769
Turn Bay Length (ft)				135	210	
Base Capacity (vph)	433	561	1052	968	410	1307
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.41	0.68	0.28	0.38	0.32

#### Intersection Summary

Cycle Length: 100

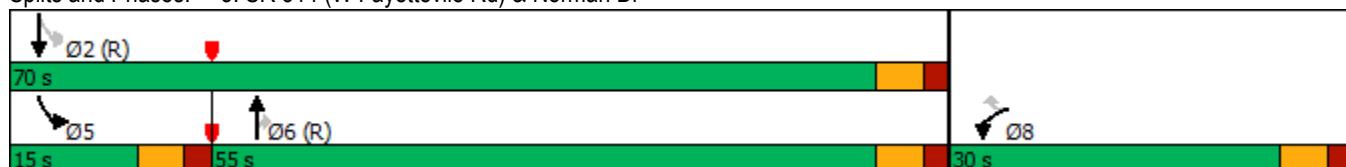
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 5: SR 314 (W Fayetteville Rd) & Norman Dr



HCM 6th Signalized Intersection Summary  
5: SR 314 (W Fayetteville Rd) & Norman Dr

2a. No Build 2027 AM

02/10/2023



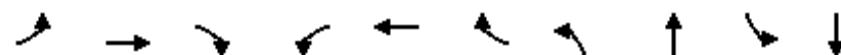
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	237	221	683	256	149	401
Future Volume (veh/h)	237	221	683	256	149	401
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	247	0	711	0	155	418
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	285		1169		368	1366
Arrive On Green	0.16	0.00	0.21	0.00	0.05	0.73
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	247	0	711	0	155	418
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	13.5	0.0	34.5	0.0	2.9	7.8
Cycle Q Clear(g_c), s	13.5	0.0	34.5	0.0	2.9	7.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	285		1169		368	1366
V/C Ratio(X)	0.87		0.61		0.42	0.31
Avail Cap(c_a), veh/h	436		1169		448	1366
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	41.0	0.0	28.6	0.0	13.5	4.7
Incr Delay (d2), s/veh	11.1	0.0	2.4	0.0	0.8	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6.7	0.0	18.0	0.0	1.4	2.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	52.1	0.0	30.9	0.0	14.3	5.3
LnGrp LOS	D		C		B	A
Approach Vol, veh/h	247		711		573	
Approach Delay, s/veh	52.1		30.9		7.7	
Approach LOS	D		C		A	
Timer - Assigned Phs	2		5	6	8	
Phs Duration (G+Y+R <sub>c</sub> ), s	78.5		10.5	68.0	21.5	
Change Period (Y+R <sub>c</sub> ), s	5.5		5.5	5.5	5.5	
Max Green Setting (Gmax), s	64.5		9.5	49.5	24.5	
Max Q Clear Time (g_c+l1), s	9.8		4.9	36.5	15.5	
Green Ext Time (p_c), s	2.6		0.1	4.3	0.5	
Intersection Summary						
HCM 6th Ctrl Delay		25.6				
HCM 6th LOS		C				
Notes						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

## Timings

2a. No Build 2027 AM

6: SR 314 (W Fayetteville Rd) &amp; Godby Rd/Phoenix Blvd

02/10/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	1	2↑	3	4	5↑	6	7	8↑	9	10
Traffic Volume (vph)	23	141	173	72	95	26	188	456	60	332
Future Volume (vph)	23	141	173	72	95	26	188	456	60	332
Lane Group Flow (vph)	24	150	184	77	101	28	200	647	64	387
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4			3	8		1	6	5
Permitted Phases			4		8		8	6		2
Detector Phase	7	4	4	3	8	8	1	6	5	2
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	26.5	26.5	15.0	27.5	27.5	15.0	42.5	15.0	41.5
Total Split (s)	18.0	32.0	32.0	18.0	32.0	32.0	21.0	55.0	15.0	49.0
Total Split (%)	15.0%	26.7%	26.7%	15.0%	26.7%	26.7%	17.5%	45.8%	12.5%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.12	0.48	0.60	0.32	0.22	0.08	0.31	0.57	0.14	0.37
Control Delay	36.7	56.6	15.6	41.2	47.2	0.4	8.1	18.0	8.1	17.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.7	56.6	15.6	41.2	47.2	0.4	8.1	18.0	8.1	17.0
Queue Length 50th (ft)	15	59	0	49	38	0	48	294	14	159
Queue Length 95th (ft)	36	91	67	86	63	0	92	491	34	276
Internal Link Dist (ft)		652			379			1297		831
Turn Bay Length (ft)	590		185	270		185	180		175	
Base Capacity (vph)	282	781	492	272	781	484	692	1131	480	1056
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.19	0.37	0.28	0.13	0.06	0.29	0.57	0.13	0.37

## Intersection Summary

Cycle Length: 120

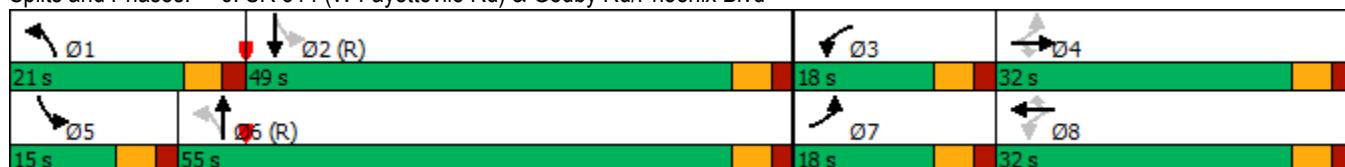
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Splits and Phases: 6: SR 314 (W Fayetteville Rd) &amp; Godby Rd/Phoenix Blvd



HCM 6th Signalized Intersection Summary  
6: SR 314 (W Fayetteville Rd) & Godby Rd/Phoenix Blvd

2a. No Build 2027 AM

02/10/2023

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	
Traffic Volume (veh/h)	23	141	173	72	95	26	188	456	152	60	332	32
Future Volume (veh/h)	23	141	173	72	95	26	188	456	152	60	332	32
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	150	184	77	101	0	200	485	162	64	353	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	281	494	220	254	589		622	793	265	407	943	91
Arrive On Green	0.02	0.14	0.14	0.05	0.17	0.00	0.07	0.59	0.59	0.04	0.56	0.56
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1342	448	1781	1679	162
Grp Volume(v), veh/h	24	150	184	77	101	0	200	0	647	64	0	387
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1790	1781	0	1841
Q Serve(g_s), s	1.4	4.6	13.6	4.4	2.9	0.0	5.6	0.0	27.8	1.8	0.0	14.0
Cycle Q Clear(g_c), s	1.4	4.6	13.6	4.4	2.9	0.0	5.6	0.0	27.8	1.8	0.0	14.0
Prop In Lane	1.00			1.00		1.00	1.00	1.00	0.25	1.00		0.09
Lane Grp Cap(c), veh/h	281	494	220	254	589		622	0	1058	407	0	1034
V/C Ratio(X)	0.09	0.30	0.84	0.30	0.17		0.32	0.00	0.61	0.16	0.00	0.37
Avail Cap(c_a), veh/h	425	785	350	351	785		734	0	1058	483	0	1034
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	42.7	46.4	50.3	41.4	43.0	0.0	10.4	0.0	15.7	12.7	0.0	14.6
Incr Delay (d2), s/veh	0.1	0.3	9.4	0.7	0.1	0.0	0.3	0.0	2.6	0.2	0.0	1.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	2.0	5.9	2.0	1.3	0.0	2.1	0.0	11.2	0.7	0.0	5.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.9	46.8	59.8	42.0	43.1	0.0	10.7	0.0	18.3	12.9	0.0	15.6
LnGrp LOS	D	D	E	D	D		B	A	B	B	A	B
Approach Vol, veh/h		358			178			847			451	
Approach Delay, s/veh		53.2			42.7			16.5			15.2	
Approach LOS		D			D			B			B	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	13.4	72.9	11.5	22.2	9.9	76.5	8.3	25.4				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	15.5	43.5	12.5	26.5	9.5	49.5	12.5	26.5				
Max Q Clear Time (g_c+l1), s	7.6	16.0	6.4	15.6	3.8	29.8	3.4	4.9				
Green Ext Time (p_c), s	0.3	4.6	0.1	1.1	0.0	7.6	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay		25.9										
HCM 6th LOS			C									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		T	↑	↑	↗
Traffic Vol, veh/h	43	36	39	484	383	73
Future Vol, veh/h	43	36	39	484	383	73
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	-	80	-	-	285
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	37	40	499	395	75
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	974	395	470	0	-	0
Stage 1	395	-	-	-	-	-
Stage 2	579	-	-	-	-	-
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	279	654	1092	-	-	-
Stage 1	681	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	269	654	1092	-	-	-
Mov Cap-2 Maneuver	269	-	-	-	-	-
Stage 1	656	-	-	-	-	-
Stage 2	560	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	17.5	0.6	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1092	-	368	-	-	
HCM Lane V/C Ratio	0.037	-	0.221	-	-	
HCM Control Delay (s)	8.4	-	17.5	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.8	-	-	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (vph)	127	223	225	372	447	94
Future Volume (vph)	127	223	225	372	447	94
Lane Group Flow (vph)	135	237	239	396	476	100
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6			5	2	8
Permitted Phases			6	2		8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0
Minimum Split (s)	23.5	23.5	15.0	23.5	41.5	41.5
Total Split (s)	32.0	32.0	22.0	54.0	46.0	46.0
Total Split (%)	32.0%	32.0%	22.0%	54.0%	46.0%	46.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.07	0.25	0.28	0.16	0.71	0.26
Control Delay	13.1	2.9	7.0	5.9	43.2	8.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	2.9	7.0	5.9	43.2	8.1
Queue Length 50th (ft)	20	0	47	40	147	0
Queue Length 95th (ft)	44	43	93	69	187	40
Internal Link Dist (ft)	499			726	559	
Turn Bay Length (ft)	405	415			90	
Base Capacity (vph)	1886	954	886	2455	1390	700
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.25	0.27	0.16	0.34	0.14

**Intersection Summary**

Cycle Length: 100

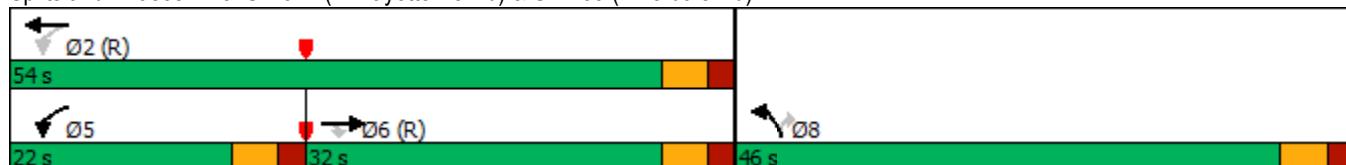
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 8: SR 314 (W Fayetteville Rd) &amp; SR 139 (Riverdale Rd)



HCM 6th Signalized Intersection Summary  
8: SR 314 (W Fayetteville Rd) & SR 139 (Riverdale Rd)

2a. No Build 2027 AM

02/10/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	127	223	225	372	447	94
Future Volume (veh/h)	127	223	225	372	447	94
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	237	239	396	476	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2105	939	785	2561	586	
Arrive On Green	0.59	0.59	0.07	0.72	0.17	0.00
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	135	237	239	396	476	0
Grp Sat Flow(s), veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	1.6	7.2	4.9	3.5	13.3	0.0
Cycle Q Clear(g_c), s	1.6	7.2	4.9	3.5	13.3	0.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2105	939	785	2561	586	
V/C Ratio(X)	0.06	0.25	0.30	0.15	0.81	
Avail Cap(c_a), veh/h	2105	939	948	2561	1400	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.6	9.8	5.8	4.4	40.0	0.0
Incr Delay (d2), s/veh	0.1	0.6	0.2	0.1	2.8	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	2.3	1.5	1.0	5.7	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	8.7	10.4	6.0	4.5	42.8	0.0
LnGrp LOS	A	B	A	A	D	
Approach Vol, veh/h	372			635	476	
Approach Delay, s/veh	9.8			5.1	42.8	
Approach LOS	A			A	D	
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+R <sub>c</sub> ), s	77.6			12.8	64.7	22.4
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	48.5			16.5	26.5	40.5
Max Q Clear Time (g_c+l1), s	5.5			6.9	9.2	15.3
Green Ext Time (p_c), s	5.1			0.4	2.9	1.7
Intersection Summary						
HCM 6th Ctrl Delay			18.4			
HCM 6th LOS			B			
Notes						
User approved ignoring U-Turning movement.						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

## Timings

2b. No Build 2027 PM

1: SR 314 (W Fayetteville Rd) &amp; E Fayetteville Rd

02/10/2023



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	351	133	645	306	108	757
Future Volume (vph)	351	133	645	306	108	757
Lane Group Flow (vph)	362	137	665	315	111	780
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		6			2
Permitted Phases		8		6	2	
Detector Phase	8	8	6	6	2	2
Switch Phase						
Minimum Initial (s)	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	27.5	27.5	25.5	25.5	23.5	23.5
Total Split (s)	30.0	30.0	70.0	70.0	70.0	70.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.89	0.29	0.54	0.27	0.28	0.64
Control Delay	61.5	7.1	11.4	1.4	11.1	14.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.5	7.1	11.4	1.4	11.1	14.1
Queue Length 50th (ft)	220	0	212	0	23	197
Queue Length 95th (ft)	#371	47	306	28	m64	494
Internal Link Dist (ft)	302		635			1175
Turn Bay Length (ft)	145			445	120	
Base Capacity (vph)	433	491	1227	1150	395	1227
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.28	0.54	0.27	0.28	0.64

## Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 65

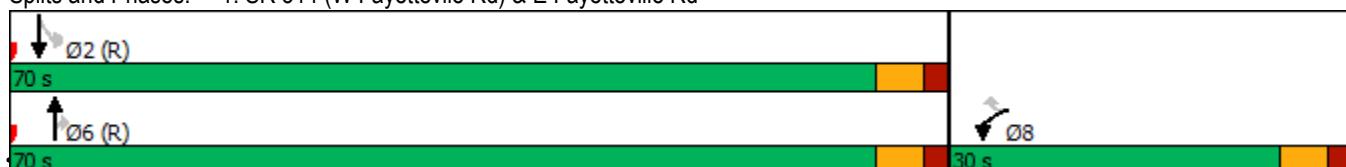
Control Type: Actuated-Coordinated

# 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: SR 314 (W Fayetteville Rd) &amp; E Fayetteville Rd



HCM 6th Signalized Intersection Summary  
1: SR 314 (W Fayetteville Rd) & E Fayetteville Rd

2b. No Build 2027 PM

02/10/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	351	133	645	306	108	757
Future Volume (veh/h)	351	133	645	306	108	757
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	362	137	665	0	111	780
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	397	354	1247		444	1247
Arrive On Green	0.22	0.22	0.67	0.00	0.67	0.67
Sat Flow, veh/h	1781	1585	1870	1585	771	1870
Grp Volume(v), veh/h	362	137	665	0	111	780
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	771	1870
Q Serve(g_s), s	19.8	7.4	18.4	0.0	8.7	23.8
Cycle Q Clear(g_c), s	19.8	7.4	18.4	0.0	27.1	23.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	397	354	1247		444	1247
V/C Ratio(X)	0.91	0.39	0.53		0.25	0.63
Avail Cap(c_a), veh/h	436	388	1247		444	1247
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	33.0	8.6	0.0	15.6	9.5
Incr Delay (d2), s/veh	21.9	0.7	1.6	0.0	1.3	2.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	10.8	2.8	6.7	0.0	1.6	8.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	59.8	33.7	10.2	0.0	16.9	11.9
LnGrp LOS	E	C	B		B	
Approach Vol, veh/h	499		665		891	
Approach Delay, s/veh	52.7		10.2		12.5	
Approach LOS	D		B		B	
Timer - Assigned Phs	2			6		8
Phs Duration (G+Y+R <sub>c</sub> ), s	72.2			72.2		27.8
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5		5.5
Max Green Setting (Gmax), s	64.5			64.5		24.5
Max Q Clear Time (g_c+l1), s	29.1			20.4		21.8
Green Ext Time (p_c), s	14.5			10.6		0.5
Intersection Summary						
HCM 6th Ctrl Delay			21.5			
HCM 6th LOS			C			
Notes						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

Intersection						
Int Delay, s/veh	8.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	80	24	76	650	841	167
Future Vol, veh/h	80	24	76	650	841	167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	0	0	105	-	-	235
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	25	80	684	885	176
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1729	885	885	0	-	0
Stage 1	885	-	-	-	-	-
Stage 2	844	-	-	-	-	-
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	97	344	765	-	-	-
Stage 1	403	-	-	-	-	-
Stage 2	422	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	87	344	765	-	-	-
Mov Cap-2 Maneuver	87	-	-	-	-	-
Stage 1	361	-	-	-	-	-
Stage 2	422	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	137.3	1.1	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	765	-	87	344	-	-
HCM Lane V/C Ratio	0.105	-	0.968	0.073	-	-
HCM Control Delay (s)	10.3	-	173.6	16.3	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.3	-	5.4	0.2	-	-

## Timings

2b. No Build 2027 PM

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↗ ↖	↗ ↙	↖ ↖	↖ ↙	↑ ↗	↑ ↘	↗ ↖	↑ ↘	↗ ↙
Traffic Volume (vph)	40	5	41	37	9	45	655	29	49	952	68
Future Volume (vph)	40	5	41	37	9	45	655	29	49	952	68
Lane Group Flow (vph)	43	5	44	39	41	48	697	31	52	1013	72
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4			8		6			2	
Permitted Phases	4		4	8		6		6	2		2
Detector Phase	4	4	4	8	8	6	6	6	2	2	2
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Total Split (s)	32.0	32.0	32.0	32.0	32.0	68.0	68.0	68.0	68.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.36	0.03	0.25	0.32	0.24	0.13	0.45	0.02	0.09	0.65	0.05
Control Delay	50.6	40.2	16.0	48.7	22.1	6.4	9.7	2.6	3.8	7.8	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.6	40.2	16.0	48.7	22.1	6.4	9.7	2.6	3.8	7.8	1.4
Queue Length 50th (ft)	26	3	0	24	6	12	291	3	5	175	1
Queue Length 95th (ft)	59	14	32	55	37	m28	426	m9	m17	508	m11
Internal Link Dist (ft)		307			117		307			1423	
Turn Bay Length (ft)	230				105		200	90		280	
Base Capacity (vph)	360	493	451	372	460	357	1558	1329	574	1558	1336
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.01	0.10	0.10	0.09	0.13	0.45	0.02	0.09	0.65	0.05
Intersection Summary											
Cycle Length: 100											
Actuated Cycle Length: 100											
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green											
Natural Cycle: 75											
Control Type: Actuated-Coordinated											
m Volume for 95th percentile queue is metered by upstream signal.											

Splits and Phases: 3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy



## HCM 6th Signalized Intersection Summary

2b. No Build 2027 PM

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	40	5	41	37	9	29	45	655	29	49	952	68
Future Volume (veh/h)	40	5	41	37	9	29	45	655	29	49	952	68
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	43	5	0	39	10	0	48	697	0	52	1013	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	143	105		147	105		536	1560		622	1560	
Arrive On Green	0.06	0.06	0.00	0.06	0.06	0.00	0.83	0.83	0.00	1.00	1.00	0.00
Sat Flow, veh/h	1405	1870	1585	1411	1870	0	556	1870	1585	748	1870	1585
Grp Volume(v), veh/h	43	5	0	39	10	0	48	697	0	52	1013	0
Grp Sat Flow(s), veh/h/ln	1405	1870	1585	1411	1870	0	556	1870	1585	748	1870	1585
Q Serve(g_s), s	3.0	0.3	0.0	2.7	0.5	0.0	1.6	9.9	0.0	0.9	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.3	0.0	2.9	0.5	0.0	1.6	9.9	0.0	10.8	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	143	105		147	105		536	1560		622	1560	
V/C Ratio(X)	0.30	0.05		0.26	0.10		0.09	0.45		0.08	0.65	
Avail Cap(c_a), veh/h	437	496		442	496		536	1560		622	1560	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.5	44.7	0.0	46.1	44.8	0.0	1.5	2.2	0.0	0.6	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.2	0.0	0.9	0.4	0.0	0.3	0.9	0.0	0.3	2.1	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.1	0.1	0.0	1.0	0.2	0.0	0.1	1.8	0.0	0.1	0.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.6	44.9	0.0	47.0	45.2	0.0	1.8	3.1	0.0	0.9	2.1	0.0
LnGrp LOS	D	D		D	D		A	A		A	A	
Approach Vol, veh/h		48			49			745			1065	
Approach Delay, s/veh		47.3			46.6			3.0			2.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		88.9		11.1		88.9		11.1				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		62.5		26.5		62.5		26.5				
Max Q Clear Time (g_c+l1), s		12.8		5.5		11.9		4.9				
Green Ext Time (p_c), s		26.2		0.1		13.1		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			4.7									
HCM 6th LOS			A									
<b>Notes</b>												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

## Intersection

Int Delay, s/veh 38.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑		↑			↑		↑	↑		↑	
Traffic Vol, veh/h	119	0	69	0	0	36	0	686	22	0	978	0
Future Vol, veh/h	119	0	69	0	0	36	0	686	22	0	978	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	Free	-	-	None
Storage Length	0	-	0	-	-	0	-	-	180	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	124	0	72	0	0	38	0	715	23	0	1019	0

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	1734	-	1019	-	-	715	-	0	-	-	-	0
Stage 1	1019	-	-	-	-	-	-	-	-	-	-	-
Stage 2	715	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	-	-	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	-	-	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	~ 69	0	288	0	0	431	0	-	0	0	-	0
Stage 1	286	0	-	0	0	-	0	-	0	0	-	0
Stage 2	422	0	-	0	0	-	0	-	0	0	-	0
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 63	-	288	-	-	431	-	-	-	-	-	-
Mov Cap-2 Maneuver	~ 63	-	-	-	-	-	-	-	-	-	-	-
Stage 1	286	-	-	-	-	-	-	-	-	-	-	-
Stage 2	385	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB		NB		SB	
HCM Control Delay, \$	383.2	14.1		0		0	
HCM LOS	F	B					
<hr/>							
Minor Lane/Major Mvmt	NBT		EBLn1	EBLn2	WBLn1	SBT	
Capacity (veh/h)	-		63	288	431	-	
HCM Lane V/C Ratio	-		1.968	0.25	0.087	-	
HCM Control Delay (s)	\$ 592.9		21.6	14.1	-		
HCM Lane LOS	-		F	C	B	-	
HCM 95th %tile Q(veh)	-		11.6	1	0.3	-	

## Notes

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗
Traffic Volume (vph)	151	228	590	185	265	867
Future Volume (vph)	151	228	590	185	265	867
Lane Group Flow (vph)	157	238	615	193	276	903
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		6		5	2
Permitted Phases			8		6	2
Detector Phase	8	8	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	15.0	23.5
Total Split (s)	30.0	30.0	55.0	55.0	15.0	70.0
Total Split (%)	30.0%	30.0%	55.0%	55.0%	15.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Min	Min	C-Min	C-Min	None	C-Min
v/c Ratio	0.63	0.56	0.56	0.19	0.52	0.65
Control Delay	51.0	10.2	28.3	12.8	7.9	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.0	10.2	28.3	12.8	7.9	9.6
Queue Length 50th (ft)	96	0	341	51	44	234
Queue Length 95th (ft)	153	63	482	110	87	438
Internal Link Dist (ft)	191		831			769
Turn Bay Length (ft)				135	210	
Base Capacity (vph)	433	567	1095	990	537	1394
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.42	0.56	0.19	0.51	0.65

#### Intersection Summary

Cycle Length: 100

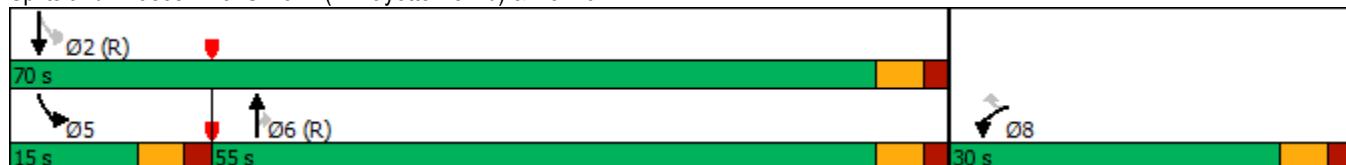
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Splits and Phases: 5: SR 314 (W Fayetteville Rd) & Norman Dr





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	151	228	590	185	265	867
Future Volume (veh/h)	151	228	590	185	265	867
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	0	615	0	276	903
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	195		1228		492	1460
Arrive On Green	0.11	0.00	0.22	0.00	0.07	0.78
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	157	0	615	0	276	903
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	8.6	0.0	28.9	0.0	4.7	20.5
Cycle Q Clear(g_c), s	8.6	0.0	28.9	0.0	4.7	20.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	195		1228		492	1460
V/C Ratio(X)	0.81		0.50		0.56	0.62
Avail Cap(c_a), veh/h	436		1228		538	1460
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	43.5	0.0	24.8	0.0	11.1	4.7
Incr Delay (d2), s/veh	7.6	0.0	1.5	0.0	1.1	2.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.1	0.0	14.9	0.0	2.3	5.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	51.1	0.0	26.2	0.0	12.2	6.6
LnGrp LOS	D		C		B	A
Approach Vol, veh/h	157		615		1179	
Approach Delay, s/veh	51.1		26.2		7.9	
Approach LOS	D		C		A	
Timer - Assigned Phs		2		5	6	8
Phs Duration (G+Y+R <sub>c</sub> ), s		83.6		12.4	71.2	16.4
Change Period (Y+R <sub>c</sub> ), s		5.5		5.5	5.5	5.5
Max Green Setting (Gmax), s		64.5		9.5	49.5	24.5
Max Q Clear Time (g_c+l1), s		22.5		6.7	30.9	10.6
Green Ext Time (p_c), s		8.1		0.2	4.2	0.3
Intersection Summary						
HCM 6th Ctrl Delay		17.2				
HCM 6th LOS		B				
Notes						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

## Timings

2b. No Build 2027 PM

6: SR 314 (W Fayetteville Rd) &amp; Godby Rd/Phoenix Blvd

02/10/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑↑
Traffic Volume (vph)	33	207	228	195	247	59	234	475	48	663
Future Volume (vph)	33	207	228	195	247	59	234	475	48	663
Lane Group Flow (vph)	34	211	233	199	252	60	239	596	49	706
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		1	6	5	2
Permitted Phases	4		4	8		8	6		2	
Detector Phase	7	4	4	3	8	8	1	6	5	2
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	26.5	26.5	15.0	27.5	27.5	15.0	42.5	15.0	41.5
Total Split (s)	18.0	32.0	32.0	18.0	32.0	32.0	21.0	55.0	15.0	49.0
Total Split (%)	15.0%	26.7%	26.7%	15.0%	26.7%	26.7%	17.5%	45.8%	12.5%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.15	0.56	0.62	0.68	0.38	0.14	0.67	0.57	0.12	0.83
Control Delay	34.5	56.2	13.6	49.8	45.6	0.7	27.7	20.5	10.6	39.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	34.5	56.2	13.6	49.8	45.6	0.7	27.7	20.5	10.6	39.8
Queue Length 50th (ft)	20	83	0	130	95	0	91	287	12	466
Queue Length 95th (ft)	45	120	74	193	135	0	181	450	30	#814
Internal Link Dist (ft)		652			379			1297		831
Turn Bay Length (ft)	590		185	270		185	180		175	
Base Capacity (vph)	303	781	531	295	796	490	371	1037	448	852
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.27	0.44	0.67	0.32	0.12	0.64	0.57	0.11	0.83

## Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

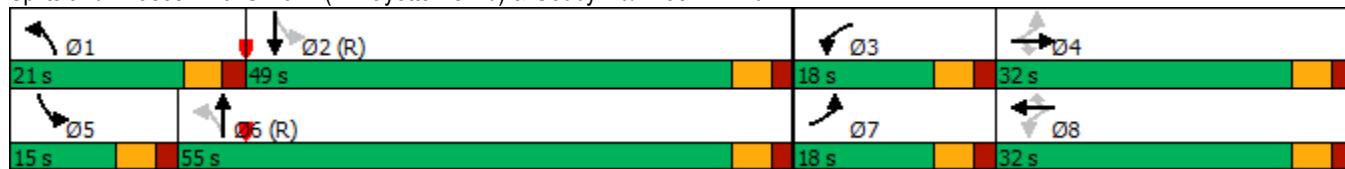
Natural Cycle: 100

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: SR 314 (W Fayetteville Rd) &amp; Godby Rd/Phoenix Blvd



HCM 6th Signalized Intersection Summary  
6: SR 314 (W Fayetteville Rd) & Godby Rd/Phoenix Blvd

2b. No Build 2027 PM

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	
Traffic Volume (veh/h)	33	207	228	195	247	59	234	475	109	48	663	28
Future Volume (veh/h)	33	207	228	195	247	59	234	475	109	48	663	28
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	211	233	199	252	0	239	485	111	49	677	29
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	302	604	270	357	874		305	749	172	340	810	35
Arrive On Green	0.03	0.17	0.17	0.10	0.25	0.00	0.09	0.51	0.51	0.03	0.45	0.45
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1473	337	1781	1780	76
Grp Volume(v), veh/h	34	211	233	199	252	0	239	0	596	49	0	706
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1810	1781	0	1857
Q Serve(g_s), s	1.9	6.3	17.2	10.7	6.9	0.0	8.2	0.0	28.9	1.7	0.0	40.1
Cycle Q Clear(g_c), s	1.9	6.3	17.2	10.7	6.9	0.0	8.2	0.0	28.9	1.7	0.0	40.1
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.19	1.00		0.04
Lane Grp Cap(c), veh/h	302	604	270	357	874		305	0	921	340	0	845
V/C Ratio(X)	0.11	0.35	0.86	0.56	0.29		0.78	0.00	0.65	0.14	0.00	0.84
Avail Cap(c_a), veh/h	437	785	350	357	874		379	0	921	421	0	845
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.3	43.9	48.5	34.3	36.7	0.0	24.1	0.0	21.6	18.4	0.0	28.8
Incr Delay (d2), s/veh	0.2	0.3	16.0	1.9	0.2	0.0	8.2	0.0	3.5	0.2	0.0	9.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	2.8	7.9	4.8	3.0	0.0	3.8	0.0	12.5	0.7	0.0	19.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	39.5	44.3	64.5	36.3	36.9	0.0	32.3	0.0	25.1	18.6	0.0	38.4
LnGrp LOS	D	D	E	D	D		C	A	C	B	A	D
Approach Vol, veh/h		478			451			835			755	
Approach Delay, s/veh		53.8			36.6			27.2			37.1	
Approach LOS		D			D			C			D	
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	16.0	60.1	18.0	25.9	9.5	66.6	8.9	35.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	15.5	43.5	12.5	26.5	9.5	49.5	12.5	26.5				
Max Q Clear Time (g_c+l1), s	10.2	42.1	12.7	19.2	3.7	30.9	3.9	8.9				
Green Ext Time (p_c), s	0.3	0.9	0.0	1.2	0.0	6.6	0.0	1.4				
Intersection Summary												
HCM 6th Ctrl Delay		36.9										
HCM 6th LOS			D									
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		T	↑	↑	↗
Traffic Vol, veh/h	48	49	59	483	739	328
Future Vol, veh/h	48	49	59	483	739	328
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	-	80	-	-	285
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	51	61	503	770	342
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1395	770	1112	0	-	0
Stage 1	770	-	-	-	-	-
Stage 2	625	-	-	-	-	-
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	156	401	628	-	-	-
Stage 1	457	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	141	401	628	-	-	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	413	-	-	-	-	-
Stage 2	534	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	37.1	1.2		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	628	-	210	-	-	
HCM Lane V/C Ratio	0.098	-	0.481	-	-	
HCM Control Delay (s)	11.4	-	37.1	-	-	
HCM Lane LOS	B	-	E	-	-	
HCM 95th %tile Q(veh)	0.3	-	2.4	-	-	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (vph)	589	734	379	467	399	182
Future Volume (vph)	589	734	379	467	399	182
Lane Group Flow (vph)	601	749	387	477	407	186
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6			5	2	8
Permitted Phases			6	2		8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	6.0
Minimum Split (s)	23.5	23.5	23.5	23.5	41.5	41.5
Total Split (s)	33.9	33.9	24.6	58.5	41.5	41.5
Total Split (%)	33.9%	33.9%	24.6%	58.5%	41.5%	41.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	Min	C-Min	None	None
v/c Ratio	0.36	0.65	0.59	0.19	0.68	0.43
Control Delay	19.0	4.9	9.6	5.3	44.3	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.0	4.9	9.6	5.3	44.3	8.4
Queue Length 50th (ft)	116	0	77	45	126	0
Queue Length 95th (ft)	212	93	143	76	165	55
Internal Link Dist (ft)	499			726	559	
Turn Bay Length (ft)		405	415		90	
Base Capacity (vph)	1683	1145	683	2531	1235	688
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.65	0.57	0.19	0.33	0.27

**Intersection Summary**

Cycle Length: 100

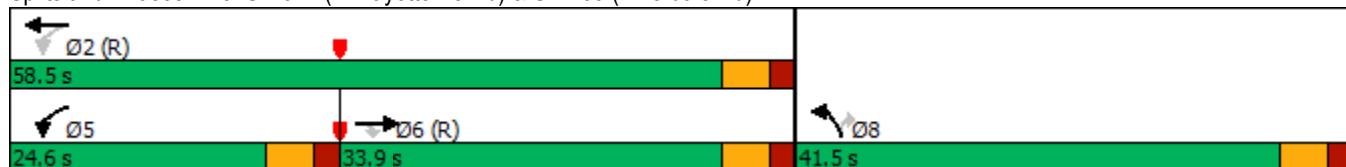
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 8: SR 314 (W Fayetteville Rd) &amp; SR 139 (Riverdale Rd)



HCM 6th Signalized Intersection Summary  
8: SR 314 (W Fayetteville Rd) & SR 139 (Riverdale Rd)

2b. No Build 2027 PM

02/10/2023



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	589	734	379	467	399	182
Future Volume (veh/h)	589	734	379	467	399	182
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	601	749	387	477	407	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	1910	852	518	2638	510	
Arrive On Green	0.54	0.54	0.15	0.74	0.15	0.00
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	601	749	387	477	407	0
Grp Sat Flow(s), veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	9.4	41.4	8.1	4.0	11.4	0.0
Cycle Q Clear(g_c), s	9.4	41.4	8.1	4.0	11.4	0.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	1910	852	518	2638	510	
V/C Ratio(X)	0.31	0.88	0.75	0.18	0.80	
Avail Cap(c_a), veh/h	1910	852	591	2638	1244	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.9	20.3	10.7	3.8	41.2	0.0
Incr Delay (d2), s/veh	0.4	12.5	6.1	0.2	2.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.5	16.2	3.1	1.0	4.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	13.3	32.8	16.9	4.0	44.1	0.0
LnGrp LOS	B	C	B	A	D	
Approach Vol, veh/h	1350			864	407	
Approach Delay, s/veh	24.1			9.7	44.1	
Approach LOS	C			A	D	
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+R <sub>c</sub> ), s	79.7			20.5	59.2	20.3
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	53.0			19.1	28.4	36.0
Max Q Clear Time (g_c+l1), s	6.0			10.1	43.4	13.4
Green Ext Time (p_c), s	6.5			1.8	0.0	1.4
Intersection Summary						
HCM 6th Ctrl Delay			22.5			
HCM 6th LOS			C			

Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

## Timings

2c. No Build 2027 Dismissal

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↗ ↖	↑ ↗	↑ ↖	↗ ↖	↑ ↗	↑ ↖	↗ ↖	↑ ↗	↗ ↖
Traffic Volume (vph)	41	8	49	51	12	47	595	46	37	889	55
Future Volume (vph)	41	8	49	51	12	47	595	46	37	889	55
Lane Group Flow (vph)	41	8	49	52	38	47	601	46	37	898	56
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		4				8		6			2
Permitted Phases	4		4	8		6		6	2		2
Detector Phase	4	4	4	8	8	6	6	6	2	2	2
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Total Split (s)	32.0	32.0	32.0	32.0	32.0	68.0	68.0	68.0	68.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.33	0.05	0.26	0.40	0.21	0.11	0.39	0.03	0.06	0.58	0.04
Control Delay	48.3	40.0	15.2	51.0	23.2	3.4	3.9	0.9	3.9	6.8	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	48.3	40.0	15.2	51.0	23.2	3.4	3.9	0.9	3.9	6.8	1.8
Queue Length 50th (ft)	25	5	0	32	7	5	87	0	4	148	0
Queue Length 95th (ft)	57	18	33	68	37	16	161	7	m13	423	m11
Internal Link Dist (ft)		307			117		307			1423	
Turn Bay Length (ft)	230					105		200	90		280
Base Capacity (vph)	361	493	455	371	461	427	1548	1324	642	1548	1325
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.02	0.11	0.14	0.08	0.11	0.39	0.03	0.06	0.58	0.04
Intersection Summary											
Cycle Length: 100											
Actuated Cycle Length: 100											
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green											
Natural Cycle: 65											
Control Type: Actuated-Coordinated											
m Volume for 95th percentile queue is metered by upstream signal.											

Splits and Phases: 3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy



## HCM 6th Signalized Intersection Summary

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

2c. No Build 2027 Dismissal

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	41	8	49	51	12	26	47	595	46	37	889	55
Future Volume (veh/h)	41	8	49	51	12	26	47	595	46	37	889	55
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	41	8	0	52	12	0	47	601	0	37	898	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	146	110		149	110		587	1554		686	1554	
Arrive On Green	0.06	0.06	0.00	0.06	0.06	0.00	0.83	0.83	0.00	1.00	1.00	0.00
Sat Flow, veh/h	1402	1870	1585	1407	1870	0	620	1870	1585	818	1870	1585
Grp Volume(v), veh/h	41	8	0	52	12	0	47	601	0	37	898	0
Grp Sat Flow(s), veh/h/ln	1402	1870	1585	1407	1870	0	620	1870	1585	818	1870	1585
Q Serve(g_s), s	2.9	0.4	0.0	3.6	0.6	0.0	1.4	8.0	0.0	0.5	0.0	0.0
Cycle Q Clear(g_c), s	3.5	0.4	0.0	4.0	0.6	0.0	1.4	8.0	0.0	8.5	0.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	146	110		149	110		587	1554		686	1554	
V/C Ratio(X)	0.28	0.07		0.35	0.11		0.08	0.39		0.05	0.58	
Avail Cap(c_a), veh/h	435	496		439	496		587	1554		686	1554	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.33	1.33	1.33
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	46.2	44.5	0.0	46.4	44.6	0.0	1.5	2.1	0.0	0.4	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.3	0.0	1.4	0.4	0.0	0.3	0.7	0.0	0.1	1.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	1.0	0.2	0.0	1.3	0.3	0.0	0.1	1.5	0.0	0.0	0.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	47.2	44.7	0.0	47.7	45.0	0.0	1.8	2.8	0.0	0.6	1.6	0.0
LnGrp LOS	D	D		D	D		A	A		A	A	
Approach Vol, veh/h						64			648			935
Approach Delay, s/veh						47.2			2.8			1.5
Approach LOS						D			A			A
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		88.6		11.4		88.6		11.4				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		62.5		26.5		62.5		26.5				
Max Q Clear Time (g_c+l1), s		10.5		5.5		10.0		6.0				
Green Ext Time (p_c), s		21.3		0.1		10.5		0.1				
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay				5.0								
HCM 6th LOS				A								
<b>Notes</b>												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

## Intersection

Int Delay, s/veh 7.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↖			↖		↖	↖		↖	
Traffic Vol, veh/h	72	0	51	0	0	28	0	646	15	0	929	0
Future Vol, veh/h	72	0	51	0	0	28	0	646	15	0	929	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	Free	-	-	None
Storage Length	0	-	0	-	-	0	-	-	180	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	0	52	0	0	29	0	659	15	0	948	0

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	1607	-	948	-	-	659	-	0	-	-	0	
Stage 1	948	-	-	-	-	-	-	-	-	-	-	
Stage 2	659	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy	7.12	-	6.22	-	-	6.22	-	-	-	-	-	
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	-	3.318	-	-	3.318	-	-	-	-	-	
Pot Cap-1 Maneuver	85	0	316	0	0	464	0	-	0	0	-	0
Stage 1	313	0	-	0	0	-	0	-	0	0	-	0
Stage 2	453	0	-	0	0	-	0	-	0	0	-	0
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	80	-	316	-	-	464	-	-	-	-	-	-
Mov Cap-2 Maneuver	80	-	-	-	-	-	-	-	-	-	-	-
Stage 1	313	-	-	-	-	-	-	-	-	-	-	-
Stage 2	425	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB		NB	SB
HCM Control Delay, s	106.8	13.3		0	0
HCM LOS	F	B			
<hr/>					
Minor Lane/Major Mvmt	NBT EBLn1 EBLn2 WBLn1		SBT		
Capacity (veh/h)	-	80	316	464	-
HCM Lane V/C Ratio	-	0.918	0.165	0.062	-
HCM Control Delay (s)	-	169.2	18.6	13.3	-
HCM Lane LOS	-	F	C	B	-
HCM 95th %tile Q(veh)	-	4.9	0.6	0.2	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗	↑ ↗
Traffic Volume (vph)	244	233	546	164	280	746
Future Volume (vph)	244	233	546	164	280	746
Lane Group Flow (vph)	249	238	557	167	286	761
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		6		5	2
Permitted Phases		8		6	2	
Detector Phase	8	8	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	15.0	23.5
Total Split (s)	30.0	30.0	55.0	55.0	15.0	70.0
Total Split (%)	30.0%	30.0%	55.0%	55.0%	15.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag		Lag	Lag	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Recall Mode	Min	Min	C-Min	C-Min	None	C-Min
v/c Ratio	0.74	0.48	0.55	0.18	0.56	0.58
Control Delay	51.4	7.8	25.2	9.3	10.5	10.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.4	7.8	25.2	9.3	10.5	10.7
Queue Length 50th (ft)	150	0	281	22	58	218
Queue Length 95th (ft)	222	59	439	71	109	381
Internal Link Dist (ft)	191		831			769
Turn Bay Length (ft)			135	210		
Base Capacity (vph)	433	567	1015	925	518	1304
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.58	0.42	0.55	0.18	0.55	0.58

**Intersection Summary**

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Splits and Phases: 5: SR 314 (W Fayetteville Rd) &amp; Norman Dr





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	244	233	546	164	280	746
Future Volume (veh/h)	244	233	546	164	280	746
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	249	0	557	0	286	761
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	287		1111		494	1363
Arrive On Green	0.16	0.00	0.20	0.00	0.08	0.73
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	249	0	557	0	286	761
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	13.6	0.0	26.6	0.0	5.9	18.6
Cycle Q Clear(g_c), s	13.6	0.0	26.6	0.0	5.9	18.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	287		1111		494	1363
V/C Ratio(X)	0.87		0.50		0.58	0.56
Avail Cap(c_a), veh/h	436		1111		521	1363
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	40.9	0.0	27.0	0.0	11.7	6.2
Incr Delay (d2), s/veh	11.3	0.0	1.6	0.0	1.5	1.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	6.8	0.0	13.8	0.0	2.2	6.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	52.3	0.0	28.6	0.0	13.2	7.8
LnGrp LOS	D		C		B	A
Approach Vol, veh/h	249		557		1047	
Approach Delay, s/veh	52.3		28.6		9.3	
Approach LOS	D		C		A	
Timer - Assigned Phs	2		5	6	8	
Phs Duration (G+Y+R <sub>c</sub> ), s	78.4		13.5	64.9	21.6	
Change Period (Y+R <sub>c</sub> ), s	5.5		5.5	5.5	5.5	
Max Green Setting (Gmax), s	64.5		9.5	49.5	24.5	
Max Q Clear Time (g_c+l1), s	20.6		7.9	28.6	15.6	
Green Ext Time (p_c), s	6.0		0.1	3.9	0.5	
Intersection Summary						
HCM 6th Ctrl Delay		20.9				
HCM 6th LOS			C			

Notes

Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.

## **Future “Build” Intersections Analysis**



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	177	119	685	197	96	364
Future Volume (vph)	177	119	685	197	96	364
Lane Group Flow (vph)	186	125	721	207	101	383
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		6			2
Permitted Phases			8		6	2
Detector Phase	8	8	6	6	2	2
Switch Phase						
Minimum Initial (s)	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	27.5	27.5	25.5	25.5	23.5	23.5
Total Split (s)	30.0	30.0	70.0	70.0	70.0	70.0
Total Split (%)	30.0%	30.0%	70.0%	70.0%	70.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.67	0.35	0.53	0.17	0.23	0.28
Control Delay	50.9	9.2	8.3	1.1	10.0	8.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.9	9.2	8.3	1.1	10.0	8.4
Queue Length 50th (ft)	113	0	170	0	21	88
Queue Length 95th (ft)	174	46	312	21	76	212
Internal Link Dist (ft)	302		635			1175
Turn Bay Length (ft)	145			445	120	
Base Capacity (vph)	433	482	1364	1214	443	1364
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.26	0.53	0.17	0.23	0.28

**Intersection Summary**

Cycle Length: 100

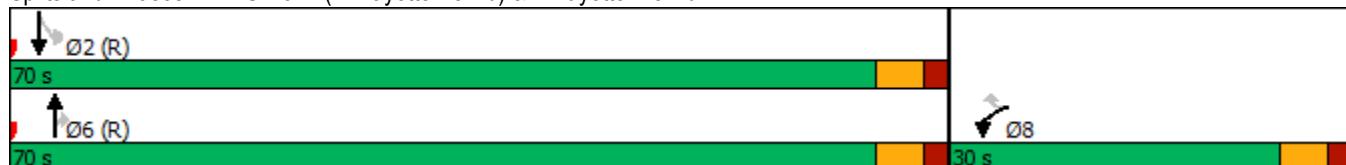
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 1: SR 314 (W Fayetteville Rd) &amp; E Fayetteville Rd



HCM 6th Signalized Intersection Summary  
1: SR 314 (W Fayetteville Rd) & E Fayetteville Rd

3a. Build 2027 AM  
02/10/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	177	119	685	197	96	364
Future Volume (veh/h)	177	119	685	197	96	364
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	186	125	721	0	101	383
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	230	204	1423		519	1423
Arrive On Green	0.13	0.13	0.76	0.00	0.76	0.76
Sat Flow, veh/h	1781	1585	1870	1585	732	1870
Grp Volume(v), veh/h	186	125	721	0	101	383
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	732	1870
Q Serve(g_s), s	10.2	7.5	15.0	0.0	6.2	6.2
Cycle Q Clear(g_c), s	10.2	7.5	15.0	0.0	21.2	6.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	230	204	1423		519	1423
V/C Ratio(X)	0.81	0.61	0.51		0.19	0.27
Avail Cap(c_a), veh/h	436	388	1423		519	1423
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	42.4	41.2	4.6	0.0	8.8	3.6
Incr Delay (d2), s/veh	6.7	2.9	1.3	0.0	0.8	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.8	3.0	4.4	0.0	1.0	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	49.0	44.1	5.9	0.0	9.6	4.1
LnGrp LOS	D	D	A		A	A
Approach Vol, veh/h	311		721		484	
Approach Delay, s/veh	47.1		5.9		5.2	
Approach LOS	D		A		A	
Timer - Assigned Phs		2			6	8
Phs Duration (G+Y+R <sub>c</sub> ), s		81.6			81.6	18.4
Change Period (Y+R <sub>c</sub> ), s		5.5			5.5	5.5
Max Green Setting (Gmax), s		64.5			64.5	24.5
Max Q Clear Time (g_c+l1), s		23.2			17.0	12.2
Green Ext Time (p_c), s		6.6			12.2	0.7
Intersection Summary						
HCM 6th Ctrl Delay		14.1				
HCM 6th LOS		B				

Notes

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

Intersection						
Int Delay, s/veh	7.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	126	66	20	798	417	49
Future Vol, veh/h	126	66	20	798	417	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	180	-	105	-	-	235
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	133	69	21	840	439	52
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1321	439	439	0	-	0
Stage 1	439	-	-	-	-	-
Stage 2	882	-	-	-	-	-
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	173	618	1121	-	-	-
Stage 1	650	-	-	-	-	-
Stage 2	405	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	170	618	1121	-	-	-
Mov Cap-2 Maneuver	170	-	-	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	405	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	53.9	0.2		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1121	-	170	618	-	-
HCM Lane V/C Ratio	0.019	-	0.78	0.112	-	-
HCM Control Delay (s)	8.3	-	76.1	11.6	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.1	-	5.1	0.4	-	-

## Timings

3a. Build 2027 AM

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗
Traffic Volume (vph)	218	14	50	39	3	21	820	55	62	378	121
Future Volume (vph)	218	14	50	39	3	21	820	55	62	378	121
Lane Group Flow (vph)	227	15	52	41	44	22	854	57	65	394	126
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases			4			8		6			2
Permitted Phases	4			8		6		6	2		2
Detector Phase	4	4	4	8	8	6	6	6	2	2	2
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Total Split (s)	32.0	32.0	32.0	32.0	32.0	68.0	68.0	68.0	68.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	32.0%	68.0%	68.0%	68.0%	68.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.79	0.04	0.14	0.14	0.12	0.03	0.68	0.05	0.23	0.31	0.11
Control Delay	56.8	28.8	9.1	30.9	10.7	10.3	22.1	5.3	8.6	6.6	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.8	28.8	9.1	30.9	10.7	10.3	22.1	5.3	8.6	6.6	1.4
Queue Length 50th (ft)	137	8	0	21	2	7	488	7	10	63	0
Queue Length 95th (ft)	211	23	29	47	28	m16	676	m25	m34	141	18
Internal Link Dist (ft)	303				117		298			1423	
Turn Bay Length (ft)	230					105		200	90		280
Base Capacity (vph)	359	493	457	369	454	634	1264	1092	285	1264	1115
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.03	0.11	0.11	0.10	0.03	0.68	0.05	0.23	0.31	0.11

## Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

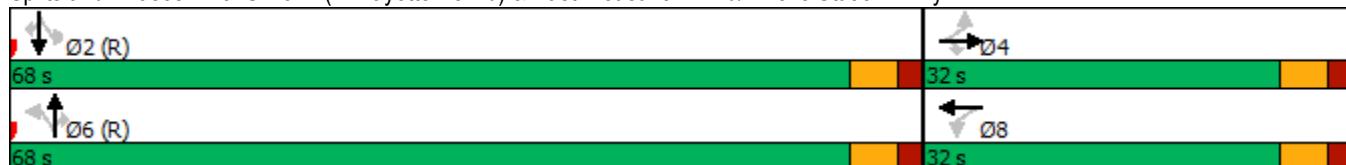
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 60

Control Type: Actuated-Coordinated

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

Splits and Phases: 3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy



HCM 6th Signalized Intersection Summary  
3: SR 314 (W Fayetteville Rd) & East Pleasant Hill Rd/River's Station Pkwy

3a. Build 2027 AM

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	218	14	50	39	3	39	21	820	55	62	378	121
Future Volume (veh/h)	218	14	50	39	3	39	21	820	55	62	378	121
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	227	15	0	41	3	0	22	854	0	65	394	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	341		318	341		695	1323		370	1323	
Arrive On Green	0.18	0.18	0.00	0.18	0.18	0.00	0.71	0.71	0.00	0.71	0.71	0.00
Sat Flow, veh/h	1414	1870	1585	1398	1870	0	990	1870	1585	646	1870	1585
Grp Volume(v), veh/h	227	15	0	41	3	0	22	854	0	65	394	0
Grp Sat Flow(s), veh/h/ln	1414	1870	1585	1398	1870	0	990	1870	1585	646	1870	1585
Q Serve(g_s), s	15.7	0.7	0.0	2.5	0.1	0.0	0.8	24.6	0.0	6.0	7.8	0.0
Cycle Q Clear(g_c), s	15.8	0.7	0.0	3.2	0.1	0.0	8.6	24.6	0.0	30.6	7.8	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	328	341		318	341		695	1323		370	1323	
V/C Ratio(X)	0.69	0.04		0.13	0.01		0.03	0.65		0.18	0.30	
Avail Cap(c_a), veh/h	445	496		433	496		695	1323		370	1323	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	39.9	33.7	0.0	35.0	33.5	0.0	7.0	7.9	0.0	16.1	5.4	0.0
Incr Delay (d2), s/veh	2.8	0.1	0.0	0.2	0.0	0.0	0.1	2.4	0.0	1.0	0.6	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	5.6	0.3	0.0	0.9	0.1	0.0	0.2	8.4	0.0	1.0	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	42.8	33.7	0.0	35.2	33.5	0.0	7.1	10.3	0.0	17.1	6.0	0.0
LnGrp LOS	D	C		D	C		A	B		B	A	
Approach Vol, veh/h	242				44			876			459	
Approach Delay, s/veh	42.2				35.1			10.2			7.6	
Approach LOS	D				D			B			A	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	76.3		23.7		76.3		23.7					
Change Period (Y+Rc), s	5.5		5.5		5.5		5.5					
Max Green Setting (Gmax), s	62.5		26.5		62.5		26.5					
Max Q Clear Time (g_c+l1), s	32.6		17.8		26.6		5.2					
Green Ext Time (p_c), s	6.4		0.4		14.9		0.1					
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			B									
Notes												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

## Intersection

Int Delay, s/veh 102.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖	↖
Traffic Vol, veh/h	191	0	98	0	0	61	0	1059	11	0	461	0
Future Vol, veh/h	191	0	98	0	0	61	0	1059	11	0	461	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	Free	-	-	None
Storage Length	500	-	-	-	-	0	-	-	180	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	197	0	101	0	0	63	0	1092	11	0	475	0

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	1567	-	475	-	-	1092	-	0	-	-	-	0
Stage 1	475	-	-	-	-	-	-	-	-	-	-	-
Stage 2	1092	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	-	-	6.22	-	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	-	-	3.318	-	-	-	-	-	-
Pot Cap-1 Maneuver	~ 90	0	590	0	0	261	0	-	0	0	-	0
Stage 1	570	0	-	0	0	-	0	-	0	0	-	0
Stage 2	260	0	-	0	0	-	0	-	0	0	-	0
Platoon blocked, %							-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 68	-	590	-	-	261	-	-	-	-	-	-
Mov Cap-2 Maneuver	~ 68	-	-	-	-	-	-	-	-	-	-	-
Stage 1	570	-	-	-	-	-	-	-	-	-	-	-
Stage 2	197	-	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB		NB	SB
HCM Control Delay, \$	655.5		23.1	0	0
HCM LOS	F		C		
<hr/>					
Minor Lane/Major Mvmt	NBT EBLn1 EBLn2WBLn1		SBT		
Capacity (veh/h)	- 68 590 261		-		
HCM Lane V/C Ratio	- 2.896 0.171 0.241		-		
HCM Control Delay (s)	\$ 985.4 12.4 23.1		-		
HCM Lane LOS	- F B C		-		
HCM 95th %tile Q(veh)	- 19.8 0.6 0.9		-		

## Notes

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	247	221	857	282	149	472
Future Volume (vph)	247	221	857	282	149	472
Lane Group Flow (vph)	257	230	893	294	155	492
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		6		5	2
Permitted Phases			8		6	2
Detector Phase	8	8	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	15.0	23.5
Total Split (s)	30.0	30.0	55.0	55.0	15.0	70.0
Total Split (%)	30.0%	30.0%	55.0%	55.0%	15.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Min	Min	C-Min	C-Min	None	C-Min
v/c Ratio	0.75	0.47	0.87	0.31	0.59	0.38
Control Delay	51.9	7.7	33.2	8.7	20.5	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	51.9	7.7	33.2	8.7	20.5	7.9
Queue Length 50th (ft)	155	0	491	76	29	115
Queue Length 95th (ft)	229	58	#822	118	95	200
Internal Link Dist (ft)	191		831			769
Turn Bay Length (ft)				135	210	
Base Capacity (vph)	433	561	1031	943	278	1298
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.41	0.87	0.31	0.56	0.38

#### Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

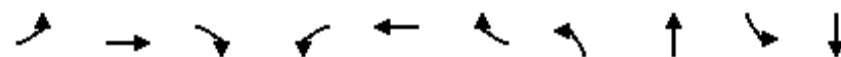
Queue shown is maximum after two cycles.

Splits and Phases: 5: SR 314 (W Fayetteville Rd) & Norman Dr





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	247	221	857	282	149	472
Future Volume (veh/h)	247	221	857	282	149	472
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	257	0	893	0	155	492
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	295		1158		267	1355
Arrive On Green	0.17	0.00	0.20	0.00	0.05	0.72
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	257	0	893	0	155	492
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	14.1	0.0	45.1	0.0	3.0	9.8
Cycle Q Clear(g_c), s	14.1	0.0	45.1	0.0	3.0	9.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	295		1158		267	1355
V/C Ratio(X)	0.87		0.77		0.58	0.36
Avail Cap(c_a), veh/h	436		1158		346	1355
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	40.7	0.0	33.1	0.0	20.0	5.1
Incr Delay (d2), s/veh	12.2	0.0	5.0	0.0	2.0	0.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	7.0	0.0	24.1	0.0	2.2	3.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	52.9	0.0	38.1	0.0	22.0	5.9
LnGrp LOS	D		D		C	A
Approach Vol, veh/h	257		893		647	
Approach Delay, s/veh	52.9		38.1		9.8	
Approach LOS	D		D		A	
Timer - Assigned Phs	2		5	6	8	
Phs Duration (G+Y+R <sub>c</sub> ), s	78.0		10.5	67.4	22.0	
Change Period (Y+R <sub>c</sub> ), s	5.5		5.5	5.5	5.5	
Max Green Setting (Gmax), s	64.5		9.5	49.5	24.5	
Max Q Clear Time (g_c+l1), s	11.8		5.0	47.1	16.1	
Green Ext Time (p_c), s	3.2		0.1	1.5	0.5	
Intersection Summary						
HCM 6th Ctrl Delay		30.0				
HCM 6th LOS		C				
Notes						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑↑
Traffic Volume (vph)	23	141	190	103	95	26	229	512	60	355
Future Volume (vph)	23	141	190	103	95	26	229	512	60	355
Lane Group Flow (vph)	24	150	202	110	101	28	244	789	64	412
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		1	6	5	2
Permitted Phases	4		4	8		8	6		2	
Detector Phase	7	4	4	3	8	8	1	6	5	2
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	26.5	26.5	15.0	27.5	27.5	15.0	42.5	15.0	41.5
Total Split (s)	18.0	32.0	32.0	18.0	32.0	32.0	21.0	55.0	15.0	49.0
Total Split (%)	15.0%	26.7%	26.7%	15.0%	26.7%	26.7%	17.5%	45.8%	12.5%	40.8%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.11	0.47	0.62	0.40	0.18	0.07	0.41	0.74	0.21	0.42
Control Delay	35.8	56.4	15.6	41.7	45.1	0.3	9.9	24.4	9.7	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	35.8	56.4	15.6	41.7	45.1	0.3	9.9	24.4	9.7	19.5
Queue Length 50th (ft)	15	59	0	70	37	0	64	429	15	181
Queue Length 95th (ft)	36	91	70	116	63	0	114	#714	35	312
Internal Link Dist (ft)		652			379			1297		831
Turn Bay Length (ft)	590		185	270		185	180		175	
Base Capacity (vph)	299	781	506	286	781	484	631	1070	337	991
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.19	0.40	0.38	0.13	0.06	0.39	0.74	0.19	0.42

**Intersection Summary**

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

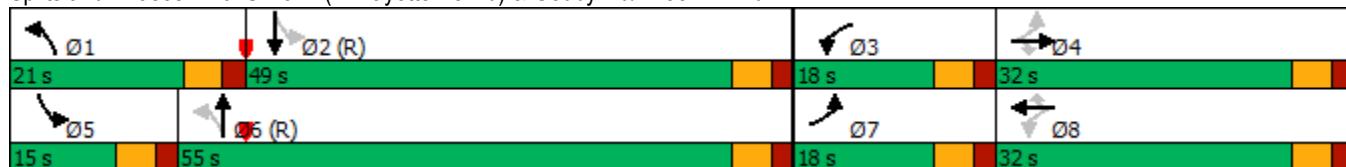
Natural Cycle: 110

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 6: SR 314 (W Fayetteville Rd) &amp; Godby Rd/Phoenix Blvd



HCM 6th Signalized Intersection Summary  
6: SR 314 (W Fayetteville Rd) & Godby Rd/Phoenix Blvd

3a. Build 2027 AM

02/10/2023

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑↑	
Traffic Volume (veh/h)	23	141	190	103	95	26	229	512	229	60	355	32
Future Volume (veh/h)	23	141	190	103	95	26	229	512	229	60	355	32
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	150	202	110	101	0	244	545	244	64	378	34
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	295	532	238	294	687		575	690	309	272	879	79
Arrive On Green	0.02	0.15	0.15	0.07	0.19	0.00	0.08	0.56	0.56	0.04	0.52	0.52
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1224	548	1781	1691	152
Grp Volume(v), veh/h	24	150	202	110	101	0	244	0	789	64	0	412
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1772	1781	0	1843
Q Serve(g_s), s	1.4	4.5	14.9	6.1	2.8	0.0	7.3	0.0	42.0	2.0	0.0	16.6
Cycle Q Clear(g_c), s	1.4	4.5	14.9	6.1	2.8	0.0	7.3	0.0	42.0	2.0	0.0	16.6
Prop In Lane	1.00			1.00	1.00		1.00	1.00	0.31	1.00		0.08
Lane Grp Cap(c), veh/h	295	532	238	294	687		575	0	999	272	0	958
V/C Ratio(X)	0.08	0.28	0.85	0.37	0.15		0.42	0.00	0.79	0.24	0.00	0.43
Avail Cap(c_a), veh/h	439	785	350	361	785		662	0	999	348	0	958
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	41.6	45.3	49.7	38.1	40.2	0.0	12.2	0.0	20.6	18.4	0.0	17.8
Incr Delay (d2), s/veh	0.1	0.3	12.3	0.8	0.1	0.0	0.5	0.0	6.3	0.4	0.0	1.4
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	2.0	6.6	2.7	1.2	0.0	2.8	0.0	17.7	0.8	0.0	7.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.7	45.6	62.0	38.9	40.3	0.0	12.7	0.0	26.9	18.9	0.0	19.2
LnGrp LOS	D	D	E	D	D		B	A	C	B	A	B
Approach Vol, veh/h						211			1033			476
Approach Delay, s/veh						39.5			23.6			19.2
Approach LOS				D		D			C			B
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	15.2	67.9	13.5	23.5	9.9	73.2	8.3	28.7				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	15.5	43.5	12.5	26.5	9.5	49.5	12.5	26.5				
Max Q Clear Time (g_c+l1), s	9.3	18.6	8.1	16.9	4.0	44.0	3.4	4.8				
Green Ext Time (p_c), s	0.4	4.7	0.1	1.1	0.0	3.6	0.0	0.5				
Intersection Summary												
HCM 6th Ctrl Delay				29.7								
HCM 6th LOS				C								
Notes												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		T	↑	↑	↗
Traffic Vol, veh/h	43	36	39	540	406	73
Future Vol, veh/h	43	36	39	540	406	73
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	-	285
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	37	40	557	419	75
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1056	419	494	0	-	0
Stage 1	419	-	-	-	-	-
Stage 2	637	-	-	-	-	-
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	250	634	1070	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	241	634	1070	-	-	-
Mov Cap-2 Maneuver	241	-	-	-	-	-
Stage 1	639	-	-	-	-	-
Stage 2	527	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	19.1	0.6		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1070	-	336	-	-	
HCM Lane V/C Ratio	0.038	-	0.242	-	-	
HCM Control Delay (s)	8.5	-	19.1	-	-	
HCM Lane LOS	A	-	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.9	-	-	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (vph)	127	246	225	372	503	94
Future Volume (vph)	127	246	225	372	503	94
Lane Group Flow (vph)	135	262	239	396	535	100
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6			5	2	8
Permitted Phases			6	2		8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0
Minimum Split (s)	23.5	23.5	15.0	23.5	41.5	41.5
Total Split (s)	33.0	33.0	21.0	54.0	46.0	46.0
Total Split (%)	33.0%	33.0%	21.0%	54.0%	46.0%	46.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.07	0.28	0.29	0.17	0.73	0.24
Control Delay	14.4	3.1	7.8	6.6	42.3	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.4	3.1	7.8	6.6	42.3	7.5
Queue Length 50th (ft)	21	0	51	43	164	0
Queue Length 95th (ft)	46	47	99	74	204	38
Internal Link Dist (ft)	500			726	557	
Turn Bay Length (ft)	405	415			90	
Base Capacity (vph)	1811	938	858	2391	1390	700
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.28	0.28	0.17	0.38	0.14

**Intersection Summary**

Cycle Length: 100

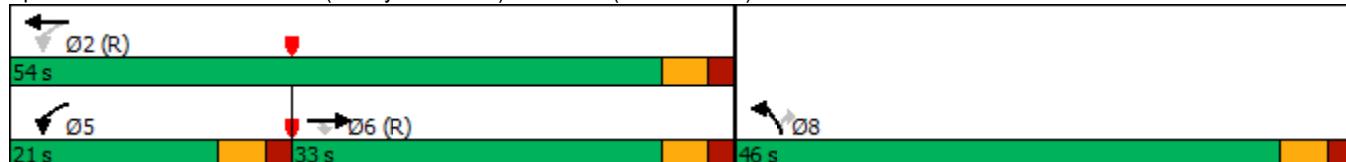
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 8: SR 314 (W Fayetteville Rd) &amp; SR 139 (Riverdale Rd)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	127	246	225	372	503	94
Future Volume (veh/h)	127	246	225	372	503	94
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	262	239	396	535	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2032	906	754	2496	649	
Arrive On Green	0.57	0.57	0.08	0.70	0.19	0.00
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	135	262	239	396	535	0
Grp Sat Flow(s), veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	1.7	8.5	5.2	3.7	14.9	0.0
Cycle Q Clear(g_c), s	1.7	8.5	5.2	3.7	14.9	0.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2032	906	754	2496	649	
V/C Ratio(X)	0.07	0.29	0.32	0.16	0.82	
Avail Cap(c_a), veh/h	2032	906	896	2496	1400	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	9.5	11.0	6.5	5.0	39.0	0.0
Incr Delay (d2), s/veh	0.1	0.8	0.2	0.1	2.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.6	2.8	1.6	1.1	6.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	9.6	11.8	6.7	5.1	41.8	0.0
LnGrp LOS	A	B	A	A	D	
Approach Vol, veh/h	397			635	535	
Approach Delay, s/veh	11.0			5.7	41.8	
Approach LOS	B			A	D	
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+R <sub>c</sub> ), s	75.7			13.1	62.7	24.3
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	48.5			15.5	27.5	40.5
Max Q Clear Time (g_c+l1), s	5.7			7.2	10.5	16.9
Green Ext Time (p_c), s	5.1			0.4	3.0	1.9
Intersection Summary						
HCM 6th Ctrl Delay			19.4			
HCM 6th LOS			B			
Notes						
User approved ignoring U-Turning movement.						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

**Intersection**

Int Delay, s/veh 6.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
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Lane Configurations						
Traffic Vol, veh/h	30	76	0	74	111	0
Future Vol, veh/h	30	76	0	74	111	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	83	0	80	121	0

Major/Minor	Minor1	Major1	Major2
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Conflicting Flow All	282	40	0	0	80	0
Stage 1	40	-	-	-	-	-
Stage 2	242	-	-	-	-	-
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	708	1031	-	-	1518	-
Stage 1	982	-	-	-	-	-
Stage 2	798	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	651	1031	-	-	1518	-
Mov Cap-2 Maneuver	651	-	-	-	-	-
Stage 1	982	-	-	-	-	-
Stage 2	734	-	-	-	-	-

Approach	WB	NB	SB
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HCM Control Delay, s	9.4	0	7.6
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
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Capacity (veh/h)	-	-	651	1031	1518	-
HCM Lane V/C Ratio	-	-	0.05	0.08	0.079	-
HCM Control Delay (s)	-	-	10.8	8.8	7.6	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.3	0.3	-

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	Y	
Traffic Vol, veh/h	185	0	40	106	0	97
Future Vol, veh/h	185	0	40	106	0	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	201	0	43	115	0	105
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	201	0	345	101
Stage 1	-	-	-	-	201	-
Stage 2	-	-	-	-	144	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1368	-	626	935
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	868	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1368	-	607	935
Mov Cap-2 Maneuver	-	-	-	-	607	-
Stage 1	-	-	-	-	813	-
Stage 2	-	-	-	-	841	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	2.1	9.3			
HCM LOS			A			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	935	-	-	1368	-	
HCM Lane V/C Ratio	0.113	-	-	0.032	-	
HCM Control Delay (s)	9.3	-	-	7.7	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-	

Intersection						
Int Delay, s/veh	2.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		T	↑	↑	T
Traffic Vol, veh/h	44	41	17	907	426	18
Future Vol, veh/h	44	41	17	907	426	18
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	-	210	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	45	18	986	463	20
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1485	463	483	0	-	0
Stage 1	463	-	-	-	-	-
Stage 2	1022	-	-	-	-	-
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	137	599	1080	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	347	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	135	599	1080	-	-	-
Mov Cap-2 Maneuver	135	-	-	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	347	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	33.6	0.2		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1080	-	216	-	-	
HCM Lane V/C Ratio	0.017	-	0.428	-	-	
HCM Control Delay (s)	8.4	-	33.6	-	-	
HCM Lane LOS	A	-	D	-	-	
HCM 95th %tile Q(veh)	0.1	-	2	-	-	



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	351	138	696	306	112	792
Future Volume (vph)	351	138	696	306	112	792
Lane Group Flow (vph)	362	142	718	315	115	816
Turn Type	Prot	Perm	NA	Perm	Perm	NA
Protected Phases	8		6			2
Permitted Phases		8		6	2	
Detector Phase	8	8	6	6	2	2
Switch Phase						
Minimum Initial (s)	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	27.5	27.5	25.5	25.5	23.5	23.5
Total Split (s)	36.0	36.0	64.0	64.0	64.0	64.0
Total Split (%)	36.0%	36.0%	64.0%	64.0%	64.0%	64.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag						
Lead-Lag Optimize?						
Recall Mode	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.82	0.28	0.60	0.28	0.34	0.68
Control Delay	50.5	6.1	14.2	1.8	14.0	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.5	6.1	14.2	1.8	14.0	19.4
Queue Length 50th (ft)	216	0	248	0	42	407
Queue Length 95th (ft)	303	43	415	34	m63	650
Internal Link Dist (ft)	302		635			1175
Turn Bay Length (ft)	145			445	120	
Base Capacity (vph)	539	581	1193	1126	334	1193
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.67	0.24	0.60	0.28	0.34	0.68

**Intersection Summary**

Cycle Length: 100

Actuated Cycle Length: 100

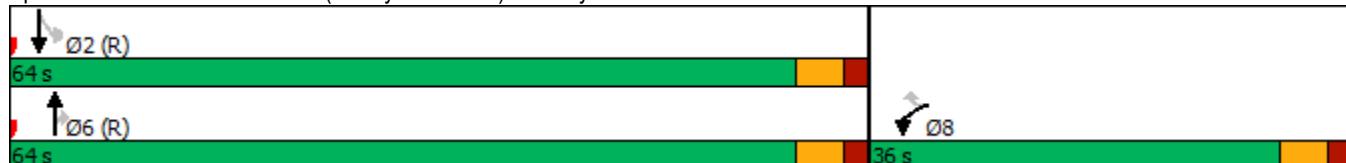
Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

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

Splits and Phases: 1: SR 314 (W Fayetteville Rd) &amp; E Fayetteville Rd



HCM 6th Signalized Intersection Summary  
1: SR 314 (W Fayetteville Rd) & E Fayetteville Rd

3b. Build 2027 PM

02/10/2023



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	351	138	696	306	112	792
Future Volume (veh/h)	351	138	696	306	112	792
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	362	142	718	0	115	816
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	407	362	1238		403	1238
Arrive On Green	0.23	0.23	0.66	0.00	0.66	0.66
Sat Flow, veh/h	1781	1585	1870	1585	734	1870
Grp Volume(v), veh/h	362	142	718	0	115	816
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	734	1870
Q Serve(g_s), s	19.7	7.6	21.1	0.0	10.2	26.2
Cycle Q Clear(g_c), s	19.7	7.6	21.1	0.0	31.3	26.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	407	362	1238		403	1238
V/C Ratio(X)	0.89	0.39	0.58		0.29	0.66
Avail Cap(c_a), veh/h	543	483	1238		403	1238
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	37.4	32.7	9.3	0.0	17.9	10.1
Incr Delay (d2), s/veh	13.5	0.7	2.0	0.0	1.8	2.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	9.8	2.9	7.8	0.0	1.8	9.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	50.8	33.4	11.3	0.0	19.6	12.9
LnGrp LOS	D	C	B		B	B
Approach Vol, veh/h	504		718		931	
Approach Delay, s/veh	45.9		11.3		13.7	
Approach LOS	D		B		B	
Timer - Assigned Phs	2			6		8
Phs Duration (G+Y+R <sub>c</sub> ), s	71.7			71.7		28.3
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5		5.5
Max Green Setting (Gmax), s	58.5			58.5		30.5
Max Q Clear Time (g_c+l1), s	33.3			23.1		21.7
Green Ext Time (p_c), s	13.0			11.1		1.1
Intersection Summary						
HCM 6th Ctrl Delay		20.5				
HCM 6th LOS			C			
Notes						
Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.						

Intersection						
Int Delay, s/veh	10.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Vol, veh/h	80	24	76	706	880	167
Future Vol, veh/h	80	24	76	706	880	167
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	Yield	-	None	-	Yield
Storage Length	180	-	105	-	-	235
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	25	80	743	926	176
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1829	926	926	0	-	0
Stage 1	926	-	-	-	-	-
Stage 2	903	-	-	-	-	-
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	~ 84	326	738	-	-	-
Stage 1	386	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	~ 75	326	738	-	-	-
Mov Cap-2 Maneuver	~ 75	-	-	-	-	-
Stage 1	344	-	-	-	-	-
Stage 2	396	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	187.6	1	0			
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	738	-	75	326	-	-
HCM Lane V/C Ratio	0.108	-	1.123	0.077	-	-
HCM Control Delay (s)	10.5	-	238.8	17	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.4	-	6.2	0.2	-	-
Notes						
~: Volume exceeds capacity	\$: Delay exceeds 300s	+:	Computation Not Defined	*	All major volume in platoon	

## Timings

3b. Build 2027 PM

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗
Traffic Volume (vph)	148	5	52	37	9	60	685	29	49	995	224
Future Volume (vph)	148	5	52	37	9	60	685	29	49	995	224
Lane Group Flow (vph)	157	5	55	39	41	64	729	31	52	1059	238
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases			4			8		6			2
Permitted Phases	4			8		6		6	2		2
Detector Phase	4	4	4	8	8	6	6	6	2	2	2
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Total Split (s)	24.0	24.0	24.0	24.0	24.0	76.0	76.0	76.0	76.0	76.0	76.0
Total Split (%)	24.0%	24.0%	24.0%	24.0%	24.0%	76.0%	76.0%	76.0%	76.0%	76.0%	76.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.75	0.02	0.19	0.18	0.15	0.29	0.53	0.03	0.12	0.77	0.19
Control Delay	61.3	33.8	11.3	37.2	17.0	17.3	16.2	4.9	6.3	13.3	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.3	33.8	11.3	37.2	17.0	17.3	16.2	4.9	6.3	13.3	1.7
Queue Length 50th (ft)	95	3	0	22	5	24	353	4	9	302	0
Queue Length 95th (ft)	#164	13	33	51	34	m63	538	m12	m18	593	m27
Internal Link Dist (ft)		303			117		298			1423	
Turn Bay Length (ft)	230					105		200	90		280
Base Capacity (vph)	251	344	337	259	330	217	1369	1171	441	1369	1226
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.01	0.16	0.15	0.12	0.29	0.53	0.03	0.12	0.77	0.19

## Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 80

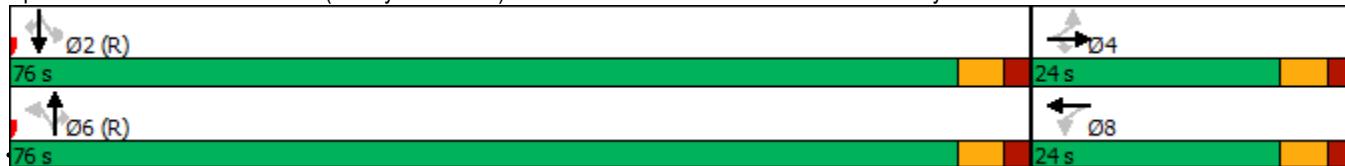
Control Type: Actuated-Coordinated

# 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: 3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy



HCM 6th Signalized Intersection Summary  
3: SR 314 (W Fayetteville Rd) & East Pleasant Hill Rd/River's Station Pkwy

3b. Build 2027 PM

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	148	5	52	37	9	29	60	685	29	49	995	224
Future Volume (veh/h)	148	5	52	37	9	29	60	685	29	49	995	224
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No			No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	5	0	39	10	0	64	729	0	52	1059	0
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	256	253		260	253		303	1411		506	1411	
Arrive On Green	0.14	0.14	0.00	0.14	0.14	0.00	0.75	0.75	0.00	0.75	0.75	0.00
Sat Flow, veh/h	1405	1870	1585	1411	1870	0	533	1870	1585	726	1870	1585
Grp Volume(v), veh/h	157	5	0	39	10	0	64	729	0	52	1059	0
Grp Sat Flow(s), veh/h/ln	1405	1870	1585	1411	1870	0	533	1870	1585	726	1870	1585
Q Serve(g_s), s	10.9	0.2	0.0	2.5	0.5	0.0	7.7	15.7	0.0	3.1	32.0	0.0
Cycle Q Clear(g_c), s	11.4	0.2	0.0	2.7	0.5	0.0	39.7	15.7	0.0	18.8	32.0	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	256	253		260	253		303	1411		506	1411	
V/C Ratio(X)	0.61	0.02		0.15	0.04		0.21	0.52		0.10	0.75	
Avail Cap(c_a), veh/h	325	346		330	346		303	1411		506	1411	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	42.5	37.5	0.0	38.6	37.6	0.0	18.2	4.9	0.0	8.7	6.9	0.0
Incr Delay (d2), s/veh	2.4	0.0	0.0	0.3	0.1	0.0	1.6	1.4	0.0	0.4	3.7	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.9	0.1	0.0	0.9	0.2	0.0	1.0	4.7	0.0	0.5	11.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	44.9	37.5	0.0	38.9	37.6	0.0	19.8	6.3	0.0	9.1	10.6	0.0
LnGrp LOS	D	D		D	D		B	A		A	B	
Approach Vol, veh/h		162			49			793			1111	
Approach Delay, s/veh		44.7			38.7			7.4			10.6	
Approach LOS		D			D			A			B	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	81.0		19.0		81.0		19.0					
Change Period (Y+Rc), s	5.5		5.5		5.5		5.5					
Max Green Setting (Gmax), s	70.5		18.5		70.5		18.5					
Max Q Clear Time (g_c+l1), s	34.0		13.4		41.7		4.7					
Green Ext Time (p_c), s	23.3		0.2		11.8		0.1					
Intersection Summary												
HCM 6th Ctrl Delay		12.6										
HCM 6th LOS		B										
Notes												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

## Intersection

Int Delay, s/veh 75

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑		↑			↑		↑	↑		↑	
Traffic Vol, veh/h	119	0	69	0	0	36	0	824	22	0	1177	0
Future Vol, veh/h	119	0	69	0	0	36	0	824	22	0	1177	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	Free	-	-	None
Storage Length	500	-	-	-	-	0	-	-	180	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	124	0	72	0	0	38	0	858	23	0	1226	0

Major/Minor	Minor2	Minor1			Major1			Major2			
Conflicting Flow All	2084	-	1226	-	-	858	-	0	-	-	-
Stage 1	1226	-	-	-	-	-	-	-	-	-	-
Stage 2	858	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	-	-	6.22	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	-	-	3.318	-	-	-	-	-
Pot Cap-1 Maneuver	~ 39	0	218	0	0	357	0	-	0	0	-
Stage 1	218	0	-	0	0	-	0	-	0	0	-
Stage 2	352	0	-	0	0	-	0	-	0	0	-
Platoon blocked, %							-	-	-	-	-
Mov Cap-1 Maneuver	~ 35	-	218	-	-	357	-	-	-	-	-
Mov Cap-2 Maneuver	~ 35	-	-	-	-	-	-	-	-	-	-
Stage 1	218	-	-	-	-	-	-	-	-	-	-
Stage 2	315	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB			NB	SB		
HCM Control Delay, \$	884.6	16.3			0	0		
HCM LOS	F	C						
<hr/>								
Minor Lane/Major Mvmt	NBT EBLn1 EBLn2WBLn1			SBT				
Capacity (veh/h)	-	35	218	357	-			
HCM Lane V/C Ratio	-	3.542	0.33	0.105	-			
HCM Control Delay (s)	\$ 1380.4	29.4	16.3	-				
HCM Lane LOS	-	F	D	C	-			
HCM 95th %tile Q(veh)	-	14.4	1.4	0.3	-			

## Notes

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑ ↗	↑ ↗	↑	↑ ↗	↗	↑ ↗
Traffic Volume (vph)	177	228	710	203	265	1040
Future Volume (vph)	177	228	710	203	265	1040
Lane Group Flow (vph)	184	238	740	211	276	1083
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		6		5	2
Permitted Phases		8		6	2	
Detector Phase	8	8	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	15.0	23.5
Total Split (s)	30.0	30.0	53.0	53.0	17.0	70.0
Total Split (%)	30.0%	30.0%	53.0%	53.0%	17.0%	70.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag		Lag	Lag	Lead		
Lead-Lag Optimize?		Yes	Yes	Yes		
Recall Mode	Min	Min	C-Min	C-Min	None	C-Min
v/c Ratio	0.66	0.53	0.73	0.23	0.63	0.79
Control Delay	50.9	9.3	28.9	9.5	13.5	15.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	50.9	9.3	28.9	9.5	13.5	15.4
Queue Length 50th (ft)	112	0	404	57	47	372
Queue Length 95th (ft)	172	61	#619	111	122	#742
Internal Link Dist (ft)	191		831			769
Turn Bay Length (ft)			135	210		
Base Capacity (vph)	433	567	1014	918	446	1366
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.42	0.73	0.23	0.62	0.79

#### Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: SR 314 (W Fayetteville Rd) & Norman Dr





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	177	228	710	203	265	1040
Future Volume (veh/h)	177	228	710	203	265	1040
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	184	0	740	0	276	1083
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	222		1193		402	1432
Arrive On Green	0.12	0.00	0.21	0.00	0.07	0.77
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	184	0	740	0	276	1083
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	10.1	0.0	35.9	0.0	4.9	32.3
Cycle Q Clear(g_c), s	10.1	0.0	35.9	0.0	4.9	32.3
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	222		1193		402	1432
V/C Ratio(X)	0.83		0.62		0.69	0.76
Avail Cap(c_a), veh/h	436		1193		477	1432
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	0.0	28.5	0.0	16.0	6.5
Incr Delay (d2), s/veh	7.7	0.0	2.4	0.0	3.3	3.8
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	4.8	0.0	18.8	0.0	3.6	9.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	50.5	0.0	30.9	0.0	19.2	10.3
LnGrp LOS	D		C		B	B
Approach Vol, veh/h	184		740		1359	
Approach Delay, s/veh	50.5		30.9		12.1	
Approach LOS	D		C		B	
Timer - Assigned Phs	2		5	6	8	
Phs Duration (G+Y+R <sub>c</sub> ), s	82.0		12.8	69.3	18.0	
Change Period (Y+R <sub>c</sub> ), s	5.5		5.5	5.5	5.5	
Max Green Setting (Gmax), s	64.5		11.5	47.5	24.5	
Max Q Clear Time (g_c+l1), s	34.3		6.9	37.9	12.1	
Green Ext Time (p_c), s	10.6		0.3	3.8	0.4	
Intersection Summary						
HCM 6th Ctrl Delay		21.3				
HCM 6th LOS		C				
Notes						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	SBL	SBT
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑↑
Traffic Volume (vph)	33	207	269	272	247	59	262	514	48	719
Future Volume (vph)	33	207	269	272	247	59	262	514	48	719
Lane Group Flow (vph)	34	211	274	278	252	60	267	689	49	763
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	pm+pt	NA
Protected Phases	7	4		3	8		1	6	5	2
Permitted Phases	4		4	8		8	6		2	
Detector Phase	7	4	4	3	8	8	1	6	5	2
Switch Phase										
Minimum Initial (s)	5.0	6.0	6.0	5.0	6.0	6.0	5.0	15.0	5.0	15.0
Minimum Split (s)	15.0	26.5	26.5	15.0	27.5	27.5	15.0	42.5	15.0	41.5
Total Split (s)	19.0	34.0	34.0	14.0	29.0	29.0	19.0	57.0	15.0	53.0
Total Split (%)	15.8%	28.3%	28.3%	11.7%	24.2%	24.2%	15.8%	47.5%	12.5%	44.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Min	None	C-Min
v/c Ratio	0.15	0.53	0.70	1.16	0.44	0.17	0.68	0.64	0.13	0.92
Control Delay	36.1	54.4	19.1	149.1	49.1	1.0	37.1	20.7	10.2	49.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.1	54.4	19.1	149.1	49.1	1.0	37.1	20.7	10.2	49.1
Queue Length 50th (ft)	21	83	24	~249	99	0	136	329	11	536
Queue Length 95th (ft)	45	116	107	#397	137	0	241	553	29	#880
Internal Link Dist (ft)		652			379			1297		831
Turn Bay Length (ft)	590		185	270		185	180		175	
Base Capacity (vph)	324	840	559	239	702	412	390	1076	410	832
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.25	0.49	1.16	0.36	0.15	0.68	0.64	0.12	0.92

**Intersection Summary**

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 110

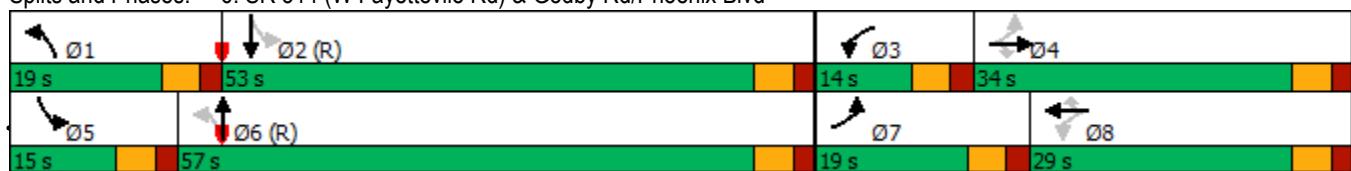
Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

**Splits and Phases:** 6: SR 314 (W Fayetteville Rd) & Godby Rd/Phoenix Blvd

HCM 6th Signalized Intersection Summary  
6: SR 314 (W Fayetteville Rd) & Godby Rd/Phoenix Blvd

3b. Build 2027 PM

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑	↑↑	
Traffic Volume (veh/h)	33	207	269	272	247	59	262	514	162	48	719	28
Future Volume (veh/h)	33	207	269	272	247	59	262	514	162	48	719	28
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	34	211	274	278	252	0	267	524	165	49	734	29
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	313	693	309	318	845		292	705	222	282	786	31
Arrive On Green	0.03	0.20	0.20	0.07	0.24	0.00	0.11	0.52	0.52	0.03	0.44	0.44
Sat Flow, veh/h	1781	3554	1585	1781	3554	1585	1781	1364	429	1781	1787	71
Grp Volume(v), veh/h	34	211	274	278	252	0	267	0	689	49	0	763
Grp Sat Flow(s), veh/h/ln	1781	1777	1585	1781	1777	1585	1781	0	1793	1781	0	1858
Q Serve(g_s), s	1.8	6.1	20.2	8.5	7.0	0.0	11.3	0.0	36.2	1.8	0.0	46.9
Cycle Q Clear(g_c), s	1.8	6.1	20.2	8.5	7.0	0.0	11.3	0.0	36.2	1.8	0.0	46.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		0.24	1.00		0.04
Lane Grp Cap(c), veh/h	313	693	309	318	845		292	0	927	282	0	817
V/C Ratio(X)	0.11	0.30	0.89	0.88	0.30		0.91	0.00	0.74	0.17	0.00	0.93
Avail Cap(c_a), veh/h	463	844	376	318	845		295	0	927	364	0	817
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.9	41.3	47.0	42.6	37.5	0.0	31.7	0.0	22.7	20.3	0.0	32.0
Incr Delay (d2), s/veh	0.2	0.2	18.9	22.8	0.2	0.0	30.8	0.0	5.4	0.3	0.0	19.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	0.8	2.7	9.5	6.1	3.0	0.0	10.2	0.0	15.7	0.7	0.0	24.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.1	41.6	65.9	65.4	37.7	0.0	62.5	0.0	28.1	20.6	0.0	51.0
LnGrp LOS	D	D	E	E	D		E	A	C	C	A	D
Approach Vol, veh/h		519				530			956			812
Approach Delay, s/veh		54.1				52.2			37.7			49.2
Approach LOS		D				D			D			D
Timer - Assigned Phs	1	2	3	4	5	6	7	8				
Phs Duration (G+Y+Rc), s	18.8	58.3	14.0	28.9	9.5	67.6	8.9	34.0				
Change Period (Y+Rc), s	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5				
Max Green Setting (Gmax), s	13.5	47.5	8.5	28.5	9.5	51.5	13.5	23.5				
Max Q Clear Time (g_c+l1), s	13.3	48.9	10.5	22.2	3.8	38.2	3.8	9.0				
Green Ext Time (p_c), s	0.0	0.0	0.0	1.2	0.0	6.4	0.0	1.2				
Intersection Summary												
HCM 6th Ctrl Delay			46.8									
HCM 6th LOS			D									
Notes												
User approved pedestrian interval to be less than phase max green.												
Unsignalized Delay for [WBR] is excluded from calculations of the approach delay and intersection delay.												

Intersection						
Int Delay, s/veh	2.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		T	↑	↑	↗
Traffic Vol, veh/h	48	49	59	522	795	328
Future Vol, veh/h	48	49	59	522	795	328
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	80	-	-	285
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	51	61	544	828	342
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1494	828	1170	0	-	0
Stage 1	828	-	-	-	-	-
Stage 2	666	-	-	-	-	-
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	136	371	597	-	-	-
Stage 1	429	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	122	371	597	-	-	-
Mov Cap-2 Maneuver	122	-	-	-	-	-
Stage 1	385	-	-	-	-	-
Stage 2	511	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	45.7	1.2		0		
HCM LOS	E					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	597	-	185	-	-	
HCM Lane V/C Ratio	0.103	-	0.546	-	-	
HCM Control Delay (s)	11.7	-	45.7	-	-	
HCM Lane LOS	B	-	E	-	-	
HCM 95th %tile Q(veh)	0.3	-	2.8	-	-	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↓↓	↑
Traffic Volume (vph)	589	790	379	467	438	182
Future Volume (vph)	589	790	379	467	438	182
Lane Group Flow (vph)	601	806	387	477	447	186
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	6			5	2	8
Permitted Phases			6	2		8
Detector Phase	6	6	5	2	8	8
Switch Phase						
Minimum Initial (s)	15.0	15.0	5.0	15.0	6.0	6.0
Minimum Split (s)	23.5	23.5	15.0	23.5	41.5	41.5
Total Split (s)	37.5	37.5	21.0	58.5	41.5	41.5
Total Split (%)	37.5%	37.5%	21.0%	58.5%	41.5%	41.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	C-Min	C-Min	None	C-Min	None	None
v/c Ratio	0.35	0.68	0.62	0.19	0.70	0.42
Control Delay	18.1	5.0	10.8	5.7	43.8	7.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	18.1	5.0	10.8	5.7	43.8	7.9
Queue Length 50th (ft)	117	0	81	47	139	0
Queue Length 95th (ft)	202	91	150	80	178	53
Internal Link Dist (ft)	500			726	557	
Turn Bay Length (ft)		405	415		90	
Base Capacity (vph)	1726	1185	641	2489	1235	688
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.68	0.60	0.19	0.36	0.27

**Intersection Summary**

Cycle Length: 100

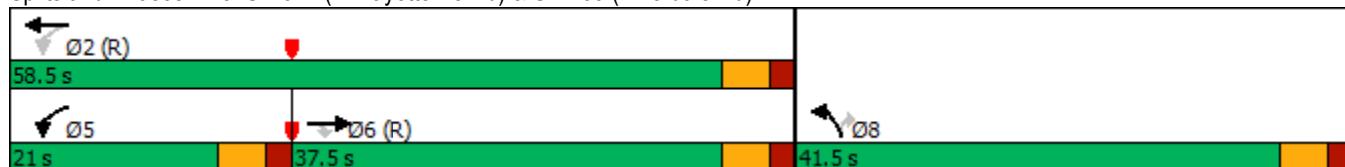
Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBT, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Splits and Phases: 8: SR 314 (W Fayetteville Rd) &amp; SR 139 (Riverdale Rd)





Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑↑	↑
Traffic Volume (veh/h)	589	790	379	467	438	182
Future Volume (veh/h)	589	790	379	467	438	182
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00	1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No	No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	601	806	387	477	447	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	2007	895	451	2594	553	
Arrive On Green	0.56	0.56	0.11	0.73	0.16	0.00
Sat Flow, veh/h	3647	1585	1781	3647	3456	1585
Grp Volume(v), veh/h	601	806	387	477	447	0
Grp Sat Flow(s), veh/h/ln	1777	1585	1781	1777	1728	1585
Q Serve(g_s), s	8.9	45.0	8.5	4.2	12.5	0.0
Cycle Q Clear(g_c), s	8.9	45.0	8.5	4.2	12.5	0.0
Prop In Lane	1.00	1.00	1.00	1.00	1.00	1.00
Lane Grp Cap(c), veh/h	2007	895	451	2594	553	
V/C Ratio(X)	0.30	0.90	0.86	0.18	0.81	
Avail Cap(c_a), veh/h	2007	895	530	2594	1244	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	11.4	19.3	11.8	4.2	40.5	0.0
Incr Delay (d2), s/veh	0.4	13.9	11.8	0.2	2.9	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.2	17.4	3.9	1.1	5.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	11.8	33.2	23.6	4.4	43.4	0.0
LnGrp LOS	B	C	C	A	D	
Approach Vol, veh/h	1407			864	447	
Approach Delay, s/veh	24.0			13.0	43.4	
Approach LOS	C			B	D	
Timer - Assigned Phs	2			5	6	8
Phs Duration (G+Y+R <sub>c</sub> ), s	78.5			16.5	62.0	21.5
Change Period (Y+R <sub>c</sub> ), s	5.5			5.5	5.5	5.5
Max Green Setting (Gmax), s	53.0			15.5	32.0	36.0
Max Q Clear Time (g_c+l1), s	6.2			10.5	47.0	14.5
Green Ext Time (p_c), s	6.4			0.6	0.0	1.5
Intersection Summary						
HCM 6th Ctrl Delay			23.7			
HCM 6th LOS			C			

#### Notes

User approved ignoring U-Turning movement.

Unsignalized Delay for [NBR] is excluded from calculations of the approach delay and intersection delay.

**Intersection**

Int Delay, s/veh 7.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
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Lane Configurations						
Traffic Vol, veh/h	74	121	0	51	87	0
Future Vol, veh/h	74	121	0	51	87	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	132	0	55	95	0

Major/Minor	Minor1	Major1	Major2
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Conflicting Flow All	218	28	0	0	55	0
Stage 1	28	-	-	-	-	-
Stage 2	190	-	-	-	-	-
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	770	1047	-	-	1550	-
Stage 1	995	-	-	-	-	-
Stage 2	842	-	-	-	-	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	723	1047	-	-	1550	-
Mov Cap-2 Maneuver	723	-	-	-	-	-
Stage 1	995	-	-	-	-	-
Stage 2	791	-	-	-	-	-

Approach	WB	NB	SB
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HCM Control Delay, s 9.5 0 7.5

HCM LOS A

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
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Capacity (veh/h)	-	-	723	1047	1550	-
HCM Lane V/C Ratio	-	-	0.111	0.126	0.061	-
HCM Control Delay (s)	-	-	10.6	8.9	7.5	0
HCM Lane LOS	-	-	B	A	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0.4	0.2	-

Intersection						
Int Delay, s/veh	2.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑		↑	↑↑	Y	
Traffic Vol, veh/h	138	0	97	195	0	67
Future Vol, veh/h	138	0	97	195	0	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	160	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	150	0	105	212	0	73
Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	150	0	466	75
Stage 1	-	-	-	-	150	-
Stage 2	-	-	-	-	316	-
Critical Hdwy	-	-	4.14	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	-	-	2.22	-	3.52	3.32
Pot Cap-1 Maneuver	-	-	1429	-	525	971
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	712	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1429	-	487	971
Mov Cap-2 Maneuver	-	-	-	-	487	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	660	-
Approach	EB	WB	NB			
HCM Control Delay, s	0	2.6	9			
HCM LOS			A			
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	971	-	-	1429	-	
HCM Lane V/C Ratio	0.075	-	-	0.074	-	
HCM Control Delay (s)	9	-	-	7.7	-	
HCM Lane LOS	A	-	-	A	-	
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-	

Intersection						
Int Delay, s/veh	3.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W		R	↑	↑	R
Traffic Vol, veh/h	30	28	41	744	1019	43
Future Vol, veh/h	30	28	41	744	1019	43
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	-	210	-	-	150
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	30	45	809	1108	47
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	2007	1108	1155	0	-	0
Stage 1	1108	-	-	-	-	-
Stage 2	899	-	-	-	-	-
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	65	255	605	-	-	-
Stage 1	316	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	60	255	605	-	-	-
Mov Cap-2 Maneuver	60	-	-	-	-	-
Stage 1	293	-	-	-	-	-
Stage 2	397	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	97.8	0.6		0		
HCM LOS	F					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	605	-	95	-	-	
HCM Lane V/C Ratio	0.074	-	0.664	-	-	
HCM Control Delay (s)	11.4	-	97.8	-	-	
HCM Lane LOS	B	-	F	-	-	
HCM 95th %tile Q(veh)	0.2	-	3.3	-	-	

## Timings

3c. Build 2027 Dismissal

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

02/10/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗	↑ ↘	↑ ↗
Traffic Volume (vph)	134	8	58	51	12	62	621	46	37	931	206
Future Volume (vph)	134	8	58	51	12	62	621	46	37	931	206
Lane Group Flow (vph)	135	8	59	52	38	63	627	46	37	940	208
Turn Type	Perm	NA	Perm	Perm	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases			4			8		6			2
Permitted Phases	4			8		6		6	2		2
Detector Phase	4	4	4	8	8	6	6	6	2	2	2
Switch Phase											
Minimum Initial (s)	6.0	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0
Minimum Split (s)	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
Total Split (s)	25.0	25.0	25.0	25.0	25.0	75.0	75.0	75.0	75.0	75.0	75.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	25.0%	75.0%	75.0%	75.0%	75.0%	75.0%	75.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag											
Lead-Lag Optimize?											
Recall Mode	None	None	None	None	None	C-Min	C-Min	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.68	0.03	0.21	0.25	0.14	0.21	0.45	0.04	0.07	0.68	0.17
Control Delay	56.5	34.0	11.2	39.1	18.6	6.8	6.8	1.5	5.5	9.9	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	34.0	11.2	39.1	18.6	6.8	6.8	1.5	5.5	9.9	1.7
Queue Length 50th (ft)	82	4	0	30	7	10	132	0	4	175	0
Queue Length 95th (ft)	140	17	34	62	34	31	233	10	m13	532	m30
Internal Link Dist (ft)		303			117		298			1423	
Turn Bay Length (ft)	230				105		200	90		280	
Base Capacity (vph)	265	363	356	273	346	307	1384	1187	526	1384	1229
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.51	0.02	0.17	0.19	0.11	0.21	0.45	0.04	0.07	0.68	0.17

## Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

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

Splits and Phases: 3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy



## HCM 6th Signalized Intersection Summary

3: SR 314 (W Fayetteville Rd) &amp; East Pleasant Hill Rd/River's Station Pkwy

3c. Build 2027 Dismissal

02/10/2023

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	134	8	58	51	12	26	62	621	46	37	931	206
Future Volume (veh/h)	134	8	58	51	12	26	62	621	46	37	931	206
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No		No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	135	8	0	52	12	0	63	627	0	37	940	0
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	234	227		238	227		391	1437		592	1437	
Arrive On Green	0.12	0.12	0.00	0.12	0.12	0.00	0.77	0.77	0.00	0.77	0.77	0.00
Sat Flow, veh/h	1402	1870	1585	1407	1870	0	596	1870	1585	799	1870	1585
Grp Volume(v), veh/h	135	8	0	52	12	0	63	627	0	37	940	0
Grp Sat Flow(s), veh/h/ln	1402	1870	1585	1407	1870	0	596	1870	1585	799	1870	1585
Q Serve(g_s), s	9.4	0.4	0.0	3.4	0.6	0.0	5.5	11.7	0.0	1.7	23.4	0.0
Cycle Q Clear(g_c), s	10.0	0.4	0.0	3.8	0.6	0.0	28.9	11.7	0.0	13.4	23.4	0.0
Prop In Lane	1.00		1.00	1.00		0.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	234	227		238	227		391	1437		592	1437	
V/C Ratio(X)	0.58	0.04		0.22	0.05		0.16	0.44		0.06	0.65	
Avail Cap(c_a), veh/h	337	365		341	365		391	1437		592	1437	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	43.3	38.8	0.0	40.4	38.8	0.0	12.1	4.0	0.0	6.4	5.4	0.0
Incr Delay (d2), s/veh	2.2	0.1	0.0	0.5	0.1	0.0	0.9	1.0	0.0	0.2	2.3	0.0
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	3.4	0.2	0.0	1.2	0.3	0.0	0.8	3.3	0.0	0.3	8.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	45.5	38.8	0.0	40.9	38.9	0.0	13.0	5.0	0.0	6.6	7.7	0.0
LnGrp LOS	D	D		D	D		B	A		A	A	
Approach Vol, veh/h		143			64			690			977	
Approach Delay, s/veh		45.1			40.5			5.7			7.7	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	82.4		17.6		82.4		17.6					
Change Period (Y+Rc), s	5.5		5.5		5.5		5.5					
Max Green Setting (Gmax), s	69.5		19.5		69.5		19.5					
Max Q Clear Time (g_c+l1), s	25.4		12.0		30.9		5.8					
Green Ext Time (p_c), s	21.4		0.2		10.8		0.1					
<b>Intersection Summary</b>												
HCM 6th Ctrl Delay			10.9									
HCM 6th LOS			B									
<b>Notes</b>												
Unsignalized Delay for [NBR, EBR, WBR, SBR] is excluded from calculations of the approach delay and intersection delay.												

## Intersection

Int Delay, s/veh 18.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑		↑			↑		↑	↑		↑	
Traffic Vol, veh/h	72	0	51	0	0	28	0	765	15	0	1122	0
Future Vol, veh/h	72	0	51	0	0	28	0	765	15	0	1122	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	Free	-	-	None
Storage Length	500	-	-	-	-	0	-	-	180	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	73	0	52	0	0	29	0	781	15	0	1145	0

Major/Minor	Minor2	Minor1			Major1			Major2			
Conflicting Flow All	1926	-	1145	-	-	781	-	0	-	-	0
Stage 1	1145	-	-	-	-	-	-	-	-	-	-
Stage 2	781	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.12	-	6.22	-	-	6.22	-	-	-	-	-
Critical Hdwy Stg 1	6.12	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	-	3.318	-	-	3.318	-	-	-	-	-
Pot Cap-1 Maneuver	~ 50	0	243	0	0	395	0	-	0	0	0
Stage 1	243	0	-	0	0	-	0	-	0	0	0
Stage 2	388	0	-	0	0	-	0	-	0	0	0
Platoon blocked, %							-	-	-	-	-
Mov Cap-1 Maneuver	~ 46	-	243	-	-	395	-	-	-	-	-
Mov Cap-2 Maneuver	~ 46	-	-	-	-	-	-	-	-	-	-
Stage 1	243	-	-	-	-	-	-	-	-	-	-
Stage 2	360	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB	
HCM Control Delay, s	296.8	14.8	0	0	
HCM LOS	F	B			
<hr/>					
Minor Lane/Major Mvmt	NBT	EBLn1	EBLn2	WBLn1	SBT
Capacity (veh/h)	-	46	243	395	-
HCM Lane V/C Ratio	-	1.597	0.214	0.072	-
HCM Control Delay (s)	\$ 490.2	23.8	14.8	-	
HCM Lane LOS	-	F	C	B	-
HCM 95th %tile Q(veh)	-	7.2	0.8	0.2	-

## Notes

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



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	269	233	649	179	280	914
Future Volume (vph)	269	233	649	179	280	914
Lane Group Flow (vph)	274	238	662	183	286	933
Turn Type	Prot	Perm	NA	Perm	pm+pt	NA
Protected Phases	8		6		5	2
Permitted Phases			8		6	2
Detector Phase	8	8	6	6	5	2
Switch Phase						
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	23.5	23.5	23.5	23.5	15.0	23.5
Total Split (s)	35.0	35.0	46.0	46.0	19.0	65.0
Total Split (%)	35.0%	35.0%	46.0%	46.0%	19.0%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag			Lag	Lag	Lead	
Lead-Lag Optimize?			Yes	Yes	Yes	
Recall Mode	Min	Min	C-Min	C-Min	None	C-Min
v/c Ratio	0.74	0.46	0.75	0.23	0.65	0.74
Control Delay	49.1	7.0	35.5	12.6	16.6	16.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	49.1	7.0	35.5	12.6	16.6	16.1
Queue Length 50th (ft)	165	0	397	42	61	335
Queue Length 95th (ft)	231	56	#619	100	155	638
Internal Link Dist (ft)	191		831			769
Turn Bay Length (ft)				135	210	
Base Capacity (vph)	522	634	887	810	451	1269
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.38	0.75	0.23	0.63	0.74

#### Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBT, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 5: SR 314 (W Fayetteville Rd) & Norman Dr





Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (veh/h)	269	233	649	179	280	914
Future Volume (veh/h)	269	233	649	179	280	914
Initial Q (Q <sub>b</sub> ), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	274	0	662	0	286	933
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	314		1073		416	1335
Arrive On Green	0.18	0.00	0.19	0.00	0.09	0.71
Sat Flow, veh/h	1781	1585	1870	1585	1781	1870
Grp Volume(v), veh/h	274	0	662	0	286	933
Grp Sat Flow(s), veh/h/ln	1781	1585	1870	1585	1781	1870
Q Serve(g_s), s	15.0	0.0	32.5	0.0	6.1	28.5
Cycle Q Clear(g_c), s	15.0	0.0	32.5	0.0	6.1	28.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	314		1073		416	1335
V/C Ratio(X)	0.87		0.62		0.69	0.70
Avail Cap(c_a), veh/h	525		1073		505	1335
HCM Platoon Ratio	1.00	1.00	0.33	0.33	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.00	1.00	1.00
Uniform Delay (d), s/veh	40.1	0.0	30.5	0.0	15.6	8.2
Incr Delay (d2), s/veh	8.6	0.0	2.7	0.0	3.0	3.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%), veh/ln	7.2	0.0	17.0	0.0	3.2	9.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	48.7	0.0	33.1	0.0	18.6	11.2
LnGrp LOS	D		C		B	B
Approach Vol, veh/h	274		662		1219	
Approach Delay, s/veh	48.7		33.1		12.9	
Approach LOS	D		C		B	
Timer - Assigned Phs	2		5	6	8	
Phs Duration (G+Y+R <sub>c</sub> ), s	76.9		14.0	62.9	23.1	
Change Period (Y+R <sub>c</sub> ), s	5.5		5.5	5.5	5.5	
Max Green Setting (Gmax), s	59.5		13.5	40.5	29.5	
Max Q Clear Time (g_c+l1), s	30.5		8.1	34.5	17.0	
Green Ext Time (p_c), s	7.9		0.4	2.4	0.6	
Intersection Summary						
HCM 6th Ctrl Delay		23.7				
HCM 6th LOS		C				
Notes						
Unsignalized Delay for [NBR, WBR] is excluded from calculations of the approach delay and intersection delay.						

## **Traffic Volume Worksheets**

## 22-203 Pleasant Hill Road Residential Development DRI #3855

Traffic Volumes

A&R Engineering  
March 2023

### 1. SR 314 & E Fayetteville Rd

#### A.M. Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				-				East Fayetteville Road			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	608	180	788	83	287	0	370	0	0	0	0	162	0	107	269
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	0	664	197	861	91	313	0	404	0	0	0	0	177	0	117	294
Total New Trips:	0	21	0	21	5	51	0	56	0	0	0	0	0	0	2	2
Future 2027 Traffic Volumes:	0	685	197	882	96	364	0	460	0	0	0	0	177	0	119	296

#### P.M. Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				-				East Fayetteville Road			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	591	280	871	99	693	0	792	0	0	0	0	321	0	122	443
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	0	645	306	951	108	757	0	865	0	0	0	0	351	0	133	484
Total New Trips:	0	51	0	51	4	35	0	39	0	0	0	0	0	0	5	5
Future 2027 Traffic Volumes:	0	696	306	1002	112	792	0	904	0	0	0	0	351	0	138	489

## 22-203 Pleasant Hill Road Residential Development DRI #3855

Traffic Volumes

A&R Engineering  
March 2023

### 2. SR 314 & Crenshaw Dr

#### A.M. Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				Crenshaw Drive				- Westbound			
	Northbound				Southbound				Eastbound							
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	18	710	0	728	0	331	45	376	115	0	60	175	0	0	0	0
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	20	775	0	795	0	361	49	410	126	0	66	192	0	0	0	0
Total New Trips:	0	23	0	23	0	56	0	56	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	20	798	0	818	0	417	49	466	126	0	66	192	0	0	0	0

#### P.M. Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				Crenshaw Drive				- Westbound			
	Northbound				Southbound				Eastbound							
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	70	595	0	665	0	770	153	923	73	0	22	95	0	0	0	0
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	76	650	0	726	0	841	167	1008	80	0	24	104	0	0	0	0
Total New Trips:	0	56	0	56	0	39	0	39	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	76	706	0	782	0	880	167	1047	80	0	24	104	0	0	0	0

22-203 Pleasant Hill Road Residential Development DRI #3855

## Traffic Volumes

A&R Engineering  
March 2023

### **3. SR 314 & E Pleasant Hill Rd**

A.M. Peak Hour

Condition	SR 314 (West Fayetteville Road) Northbound				SR 314 (West Fayetteville Road) Southbound				East Pleasant Hill Road Eastbound				River's Station Parkway Westbound			
	Northbound		Southbound		Eastbound		Westbound									
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	14	711	50	775	57	330	53	440	57	13	32	102	36	3	36	75
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	15	776	55	846	62	360	58	480	62	14	35	111	39	3	39	81
Total New Trips:	6	44	0	50	0	18	63	81	156	0	15	171	0	0	0	0
Future 2027 Traffic Volumes:	21	820	55	896	62	378	121	561	218	14	50	282	39	3	39	81

## P.M. Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				East Pleasant Hill Road				River's Station Parkway			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	41	600	27	668	45	872	62	979	37	5	38	80	34	8	27	69
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	45	655	29	729	49	952	68	1069	40	5	41	86	37	9	29	75
Total New Trips:	15	30	0	45	0	43	156	199	108	0	11	119	0	0	0	0
Future 2027 Traffic Volumes:	60	685	29	774	49	995	224	1268	148	5	52	205	37	9	29	75

## Dismissal Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				East Pleasant Hill Road				River's Station Parkway			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	43	545	42	630	34	814	50	898	38	7	45	90	47	11	24	82
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	47	595	46	688	37	889	55	981	41	8	49	98	51	12	26	89
Total New Trips:	15	26	0	41	0	42	151	193	93	0	9	102	0	0	0	0
Future 2027 Traffic Volumes:	62	621	46	729	37	931	206	1174	134	8	58	200	51	12	26	89

**22-203 Pleasant Hill Road Residential Development DRI #3855**  
**Traffic Volumes**

**A&R Engineering**  
**March 2023**

**4. SR 314 & Yellow River Rd**

**A.M. Peak Hour**

Condition	SR 314 (West Fayetteville Road) Northbound				SR 314 (West Fayetteville Road) Southbound				North Clayton Middle School Eastbound				Yellow River Road Westbound											
	L		T		R		Tot		L		T		R		Tot		L		T		R		Tot	
	Existing 2022 Traffic Counts:	0	787	10	797	Growth Factor (%):	2.3	2.3	2.3	2.3	No-Build 2027 Volumes:	0	859	11	870	Total New Trips:	0	200	0	200	Future 2027 Traffic Volumes:	0	1059	11	1070
0	348	0	348	175	0	90	265	0	0	56	56	2.3	2.3	2.3	2.3	0	0	61	61	0	0	0	0	
0	380	0	380	191	0	98	289	0	0	0	0	0	0	0	0	191	0	98	289	0	0	61	61	
0	81	0	81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

**P.M. Peak Hour**

Condition	SR 314 (West Fayetteville Road) Northbound				SR 314 (West Fayetteville Road) Southbound				North Clayton Middle School Eastbound				Yellow River Road Westbound											
	L		T		R		Tot		L		T		R		Tot		L		T		R		Tot	
	Existing 2022 Traffic Counts:	0	628	20	648	Growth Factor (%):	2.3	2.3	2.3	2.3	No-Build 2027 Volumes:	0	686	22	708	Total New Trips:	0	138	0	138	Future 2027 Traffic Volumes:	0	824	22	846
0	896	0	896	109	0	63	172	0	0	33	33	2.3	2.3	2.3	2.3	0	0	36	36	0	0	0	0	
0	978	0	978	119	0	69	188	0	0	0	0	0	0	0	0	119	0	69	188	0	0	36	36	
0	199	0	199	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

**Dismissal Peak Hour**

Condition	SR 314 (West Fayetteville Road) Northbound				SR 314 (West Fayetteville Road) Southbound				North Clayton Middle School Eastbound				Yellow River Road Westbound											
	L		T		R		Tot		L		T		R		Tot		L		T		R		Tot	
	Existing 2022 Traffic Counts:	0	592	14	606	Growth Factor (%):	2.3	2.3	2.3	2.3	No-Build 2027 Volumes:	0	646	15	661	Total New Trips:	0	119	0	119	Future 2027 Traffic Volumes:	0	765	15	780
0	851	0	851	66	0	47	113	0	0	26	26	2.3	2.3	2.3	2.3	0	0	28	28	0	0	0	0	
0	929	0	929	72	0	51	123	0	0	0	0	0	0	0	0	72	0	51	123	0	0	28	28	
0	193	0	193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0	1122	0	1122	72	0	51	123	0	0	28	28	0	0	2.3	2.3	2.3	2.3	0	0	2.3	2.3	0	0	

**22-203 Pleasant Hill Road Residential Development DRI #3855**  
**Traffic Volumes**

**A&R Engineering**  
**March 2023**

**5. SR 314 & Norman Drive**

**A.M. Peak Hour**

Condition	SR 314 (West Fayetteville Road) Northbound				SR 314 (West Fayetteville Road) Southbound				- Eastbound				Norman Drive Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	625	234	859	136	367	0	503	0	0	0	0	217	0	202	419
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	0	683	256	939	149	401	0	550	0	0	0	0	237	0	221	458
Total New Trips:	0	174	26	200	0	71	0	71	0	0	0	0	10	0	0	10
Future 2027 Traffic Volumes:	0	857	282	1139	149	472	0	621	0	0	0	0	247	0	221	468

**P.M. Peak Hour**

Condition	SR 314 (West Fayetteville Road) Northbound				SR 314 (West Fayetteville Road) Southbound				- Eastbound				Norman Drive Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	540	169	709	243	794	0	1037	0	0	0	0	138	0	209	347
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	0	590	185	775	265	867	0	1132	0	0	0	0	151	0	228	379
Total New Trips:	0	120	18	138	0	173	0	173	0	0	0	0	26	0	0	26
Future 2027 Traffic Volumes:	0	710	203	913	265	1040	0	1305	0	0	0	0	177	0	228	405

**Dismissal Peak Hour**

Condition	SR 314 (West Fayetteville Road) Northbound				SR 314 (West Fayetteville Road) Southbound				- Eastbound				Norman Drive Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	500	150	650	256	683	0	939	0	0	0	0	223	0	213	436
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	0	546	164	710	280	746	0	1026	0	0	0	0	244	0	233	477
Total New Trips:	0	103	15	118	0	168	0	168	0	0	0	0	25	0	0	25
Future 2027 Traffic Volumes:	0	649	179	828	280	914	0	1194	0	0	0	0	269	0	233	502

## **22-203 Pleasant Hill Road Residential Development DRI #3855**

### **Traffic Volumes**

A&R Engineering  
March 2023

6. SR 314 & Godby Rd

A.M. Peak Hour

## P.M. Peak Hour

Condition	SR 314 (West Fayetteville Road) Northbound				SR 314 (West Fayetteville Road) Southbound				Godby Road Eastbound				Phoenix Boulevard Westbound			
	Northbound		Southbound		Eastbound		Westbound									
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	214	435	100	749	44	607	26	677	30	190	209	429	179	226	54	459
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	234	475	109	818	48	663	28	739	33	207	228	468	195	247	59	501
Total New Trips:	28	39	53	120	0	56	0	56	0	0	41	41	77	0	0	77
Future 2027 Traffic Volumes:	262	514	162	938	48	719	28	795	33	207	269	509	272	247	59	578

## 22-203 Pleasant Hill Road Residential Development DRI #3855

Traffic Volumes

A&R Engineering  
March 2023

### 7. SR 314 & Southampton Rd

#### A.M. Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				Southampton Road				- Westbound			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	36	443	0	479	0	351	67	418	39	0	33	72	0	0	0	0
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	39	484	0	523	0	383	73	456	43	0	36	79	0	0	0	0
Total New Trips:	0	56	0	56	0	23	0	23	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	39	540	0	579	0	406	73	479	43	0	36	79	0	0	0	0

#### P.M. Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				Southampton Road				- Westbound			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	54	442	0	496	0	677	300	977	44	0	45	89	0	0	0	0
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	59	483	0	542	0	739	328	1067	48	0	49	97	0	0	0	0
Total New Trips:	0	39	0	39	0	56	0	56	0	0	0	0	0	0	0	0
Future 2027 Traffic Volumes:	59	522	0	581	0	795	328	1123	48	0	49	97	0	0	0	0

**22-203 Pleasant Hill Road Residential Development DRI #3855**  
**Traffic Volumes**

**A&R Engineering**  
**March 2023**

**8. SR 314 & SR 139**

**A.M. Peak Hour**

Condition	SR 314 (West Fayetteville Road)				-				SR 139 (Riverdale Road)				SR 139 (Riverdale Road)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	409	0	86	495	0	0	0	0	0	116	204	320	206	341	0	547
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	447	0	94	541	0	0	0	0	0	127	223	350	225	372	0	597
Total New Trips:	56	0	0	56	0	0	0	0	0	0	23	23	0	0	0	0
Future 2027 Traffic Volumes:	503	0	94	597	0	0	0	0	0	127	246	373	225	372	0	597

**P.M. Peak Hour**

Condition	SR 314 (West Fayetteville Road)				-				SR 139 (Riverdale Road)				SR 139 (Riverdale Road)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	365	0	167	532	0	0	0	0	0	539	672	1211	347	428	0	775
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	399	0	182	581	0	0	0	0	0	589	734	1323	379	467	0	846
Total New Trips:	39	0	0	39	0	0	0	0	0	0	56	56	0	0	0	0
Future 2027 Traffic Volumes:	438	0	182	620	0	0	0	0	0	589	790	1379	379	467	0	846

## 22-203 Pleasant Hill Road Residential Development DRI #3855

Traffic Volumes

A&R Engineering  
March 2023

### 9. E Pleasant Hill Rd & Drwy 1

#### A.M. Peak Hour

Condition	Site Driveway 1 Northbound				Popular Pointe Drive Southbound				- Eastbound				East Pleasant Hill Road Westbound												
	L		T		R		Tot		L		T		R		Tot		L		T		R		Tot		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	
Existing 2022 Traffic Counts:	0	0	0	0	102	0	0	102	0	0	0	0	0	0	0	0	0	0	70	70	0	0	70	70	
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		
No-Build 2027 Volumes:	0	0	0	0	111	0	0	111	0	0	0	0	0	0	0	0	0	0	76	76	0	0	76	76	
Total New Trips:	0	0	74	74	0	0	0	0	0	0	0	0	0	0	0	0	30	0	0	30	30	0	0	30	
Future 2027 Traffic Volumes:	0	0	74	74	111	0	0	111	0	0	0	0	0	0	0	0	30	0	76	106	30	0	76	106	

#### P.M. Peak Hour

Condition	Site Driveway 1 Northbound				Popular Pointe Drive Southbound				- Eastbound				East Pleasant Hill Road Westbound												
	L		T		R		Tot		L		T		R		Tot		L		T		R		Tot		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	
Existing 2022 Traffic Counts:	0	0	0	0	80	0	0	80	0	0	0	0	0	0	0	0	0	0	111	111	0	0	111	111	
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		
No-Build 2027 Volumes:	0	0	0	0	87	0	0	87	0	0	0	0	0	0	0	0	0	0	121	121	0	0	121	121	
Total New Trips:	0	0	51	51	0	0	0	0	0	0	0	0	0	0	0	0	74	0	0	74	74	0	0	74	
Future 2027 Traffic Volumes:	0	0	51	51	87	0	0	87	0	0	0	0	0	0	0	0	74	0	121	195	74	0	121	195	



## 22-203 Pleasant Hill Road Residential Development DRI #3855

Traffic Volumes

A&R Engineering  
March 2023

### 11. SR 314 & Drwy 3

#### A.M. Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				Site Driveway 3				- Westbound			
	Northbound				Southbound				Eastbound							
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	825	0	825	0	376	0	376	0	0	0	0	0	0	0	0
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	0	901	0	901	0	411	0	411	0	0	0	0	0	0	0	0
Total New Trips:	17	6	0	23	0	15	18	33	44	0	41	85	0	0	0	0
Future 2027 Traffic Volumes:	17	907	0	924	0	426	18	444	44	0	41	85	0	0	0	0

#### P.M. Peak Hour

Condition	SR 314 (West Fayetteville Road)				SR 314 (West Fayetteville Road)				Site Driveway 3				- Westbound			
	Northbound				Southbound				Eastbound							
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	668	0	668	0	923	0	923	0	0	0	0	0	0	0	0
Growth Factor (%):	2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3		2.3	2.3	2.3	
No-Build 2027 Volumes:	0	729	0	729	0	1008	0	1008	0	0	0	0	0	0	0	0
Total New Trips:	41	15	0	56	0	11	43	54	30	0	28	58	0	0	0	0
Future 2027 Traffic Volumes:	41	744	0	785	0	1019	43	1062	30	0	28	58	0	0	0	0