TRAFFIC IMPACT ANALYSIS

For

Womble Parcel Development

Chatham County, North Carolina

Prepared For:

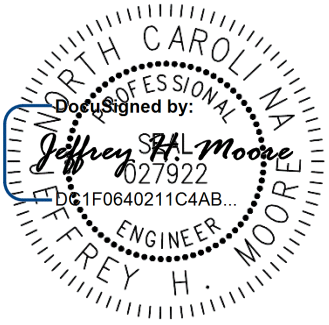
Catalyst Capital Partners, Inc.
1600 Camden Road, Suite 200
Charlotte, NC 28203

Prepared By:

GANNETT FLEMING

Excellence Delivered As Promised

22 S. Pack Square
Suite 800
Asheville, NC 28801
NC Licensure No. F-0270



15 November 2022
(Gannett Fleming Project No. 072395)

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INTRODUCTION
A residential development known as *the Womble Parcel* is proposed on US 15-501 in Chatham County, NC. The project will consist of 243 multifamily mid-rise residential units (Apartments) and 15,000 square feet of Medical-Dental Offices. The project location is illustrated in Figure 1.

According to the site plan developed by McKim & Creed, dated June 7, 2022, proposed direct access to the development is planned on US 15-501 with 2 driveways that will be restricted to right-in/right-out control. The site plan is shown in Figure 2.

TRIP GENERATION
The amount of traffic generated by a new development is a function of the size and type of development. Trip generation data for this report was conducted in accordance with the procedures outlined in the Institute of Transportation Engineers (ITE) report entitled ***Trip Generation 11th Edition***[3]. Table 1 illustrates the total number of daily, AM peak hour, and PM peak hour trips expected to be generated by the proposed development. Table 1 indicates the proposed development phase will generate approximately 1,653 total trips per day, 139 trips in the AM Peak Hour, and 153 trips in the PM Peak Hour when it is fully built out.

CAPACITY ANALYSIS
Capacity analyses were performed for 2022 Existing conditions, 2026 Background, 2026 Future Buildout, and 2027 Future Buildout +1 conditions for the following intersections:

- US 15-501 at SR 1919 (Smith Level Road) (signalized intersection)
- US 15-501 at SR 1724 (Old Lystra Road) (signalized intersection)
- US 15-501 at Collection Center (unsignalized intersection)
- US 15-501 at SR 1532 (Manns Chapel Road) (signalized intersection)

RECOMMENDED IMPROVEMENTS

To mitigate the traffic-related impacts caused by the Womble Parcel residential development and to provide for safe, efficient, and reliable traffic flow, Gannett Fleming recommends the following:

US 15-501 / SR 1919 (Smith Level Road)
Gannett Fleming recommends no changes to this intersection.

US 15-501 / SR 1724 (Old Lystra Road)
Gannett Fleming recommends no changes to this intersection.

US 15-501 / Collection Center
Gannett Fleming recommends that left turns be prohibited from the westbound Collection Center approach. Additionally, Gannett Fleming recommends that U-turns be prohibited from the southbound US 15-501 approach.

US 15-501 / SR 1532 (Manns Chapel Road)
Gannett Fleming recommends no changes to this intersection.

US 15-501 / Site Accesses #1
Gannett Fleming recommends that this intersection be constructed as shown on the plans with right-in / right-out control and at least 100 feet of stem length as per NCDOT Guidelines and the installation of a dedicated right turn lane with 100 feet of full storage and appropriate taper on the southbound US 15-501 approach.

US 15-501 / Access #2
Gannett Fleming recommends that this intersection be constructed as shown on the plans with right-in / right-out control and at least 100 feet of stem length as per NCDOT Guidelines and the installation of a dedicated right turn taper on the southbound US 15-501 approach.

CONCLUSIONS
This Traffic Impact Analysis shows that the proposed Womble Parcel development impacts on the traffic operations at the study area intersections will be mitigated by the recommended improvements. It is the opinion of Gannett Fleming that with the recommended improvements in place, the proposed development will not negatively impact the health, safety, and welfare of the traveling public.

II. INTRODUCTION

A residential mixed-use development known as *the Womble Parcel* is proposed on US 15-501 in Chatham County, NC. The project will consist of 243 multifamily mid-rise residential units and 15,000 square feet of Medical-Dental Offices.

According to the site plan developed by McKim & Creed, dated June 7, 2022, proposed direct access to the development is planned on US 15-501 with 2 driveways that will be restricted to right-in/right-out control.

The purpose of this report is to evaluate the traffic impacts from the proposed Womble Parcel residential developments and to recommend transportation improvements needed to mitigate congestion that may result from the additional site traffic. This report presents trip generation, trip distribution, traffic analyses, and recommendations for transportation improvements needed to meet anticipated traffic demands. This report examines existing 2022 existing conditions, 2026 Background conditions, and 2026 Future Buildout conditions.

Figure 1 – Project and Count Locations

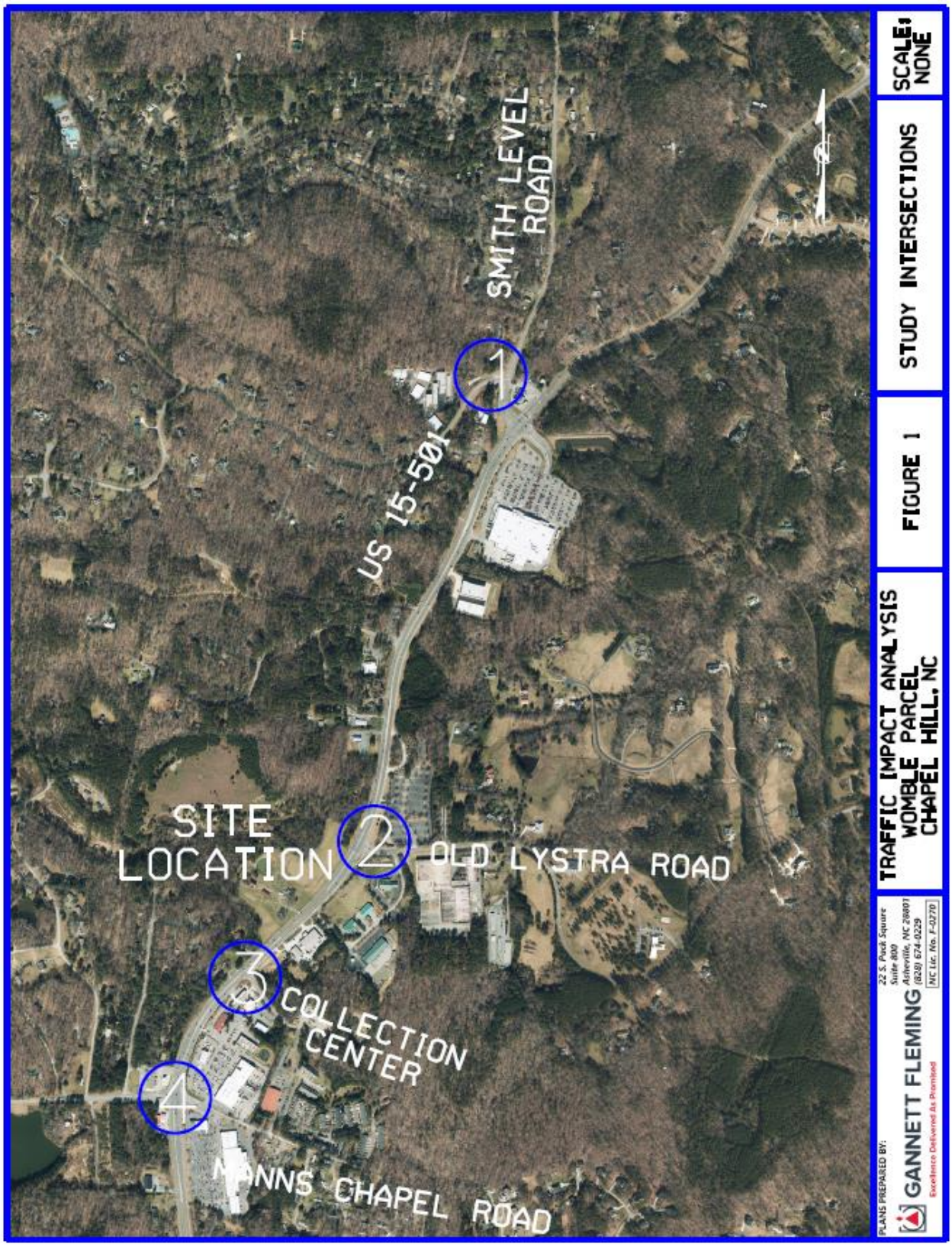
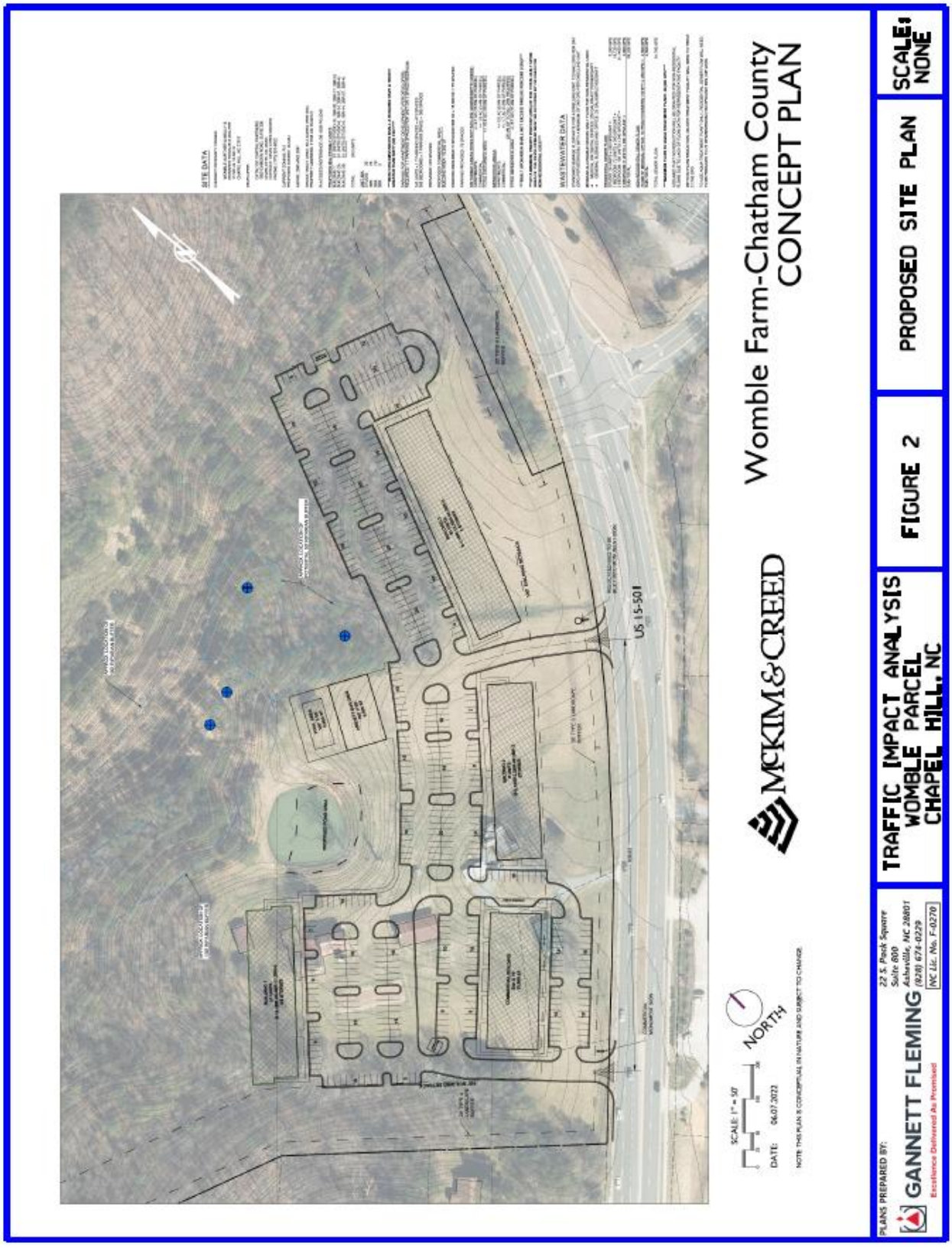


Figure 2 – Proposed Site Plan



III. Inventory of Traffic Conditions

A. Study Area

The City of Greensboro and NCDOT requested the following intersections be analyzed to determine the associated impacts from the proposed development (See Figure 1):

- US 15-501 at SR 1919 (Smith Level Road) (signalized intersection)
- US 15-501 at SR 1724 (Old Lystra Road) (signalized intersection)
- US 15-501 at Collection Center (unsignalized intersection)
- US 15-501- at SR 1532 (Manns Chapel Road) (unsignalized intersection)

B. Existing Conditions

A description of facilities in the general vicinity of this proposed development is as follows:

US 15-501 is maintained by NCDOT as part of the US Highway System. US 15-501 is a major north/south corridor through the State of North Carolina. The 2018 AADT was measured at 31,000 vehicles per day in the vicinity of the project. US 15-501 is classified as an "*Other Principal Arterial*" by NCDOT's Functional Classification Map.

SR 1919 (Smith Level Road) is maintained by NCDOT as a secondary road and has a cross section of two lanes in the subject area. The 2018 AADT was measured at 9,400 vehicles per day in the vicinity of the project. SR 1919 (Smith Level Road) is classified as a "*Minor Arterial*" by NCDOT's Functional Classification Map.

SR 1724 (Old Lystra Road) is maintained by NCDOT as a secondary road with a two-lane cross section. It has some commercial and residential uses along its length. SR 1724 (Old Lystra Road) is classified as a "*Local Road*" by NCDOT's Functional Classification Map.

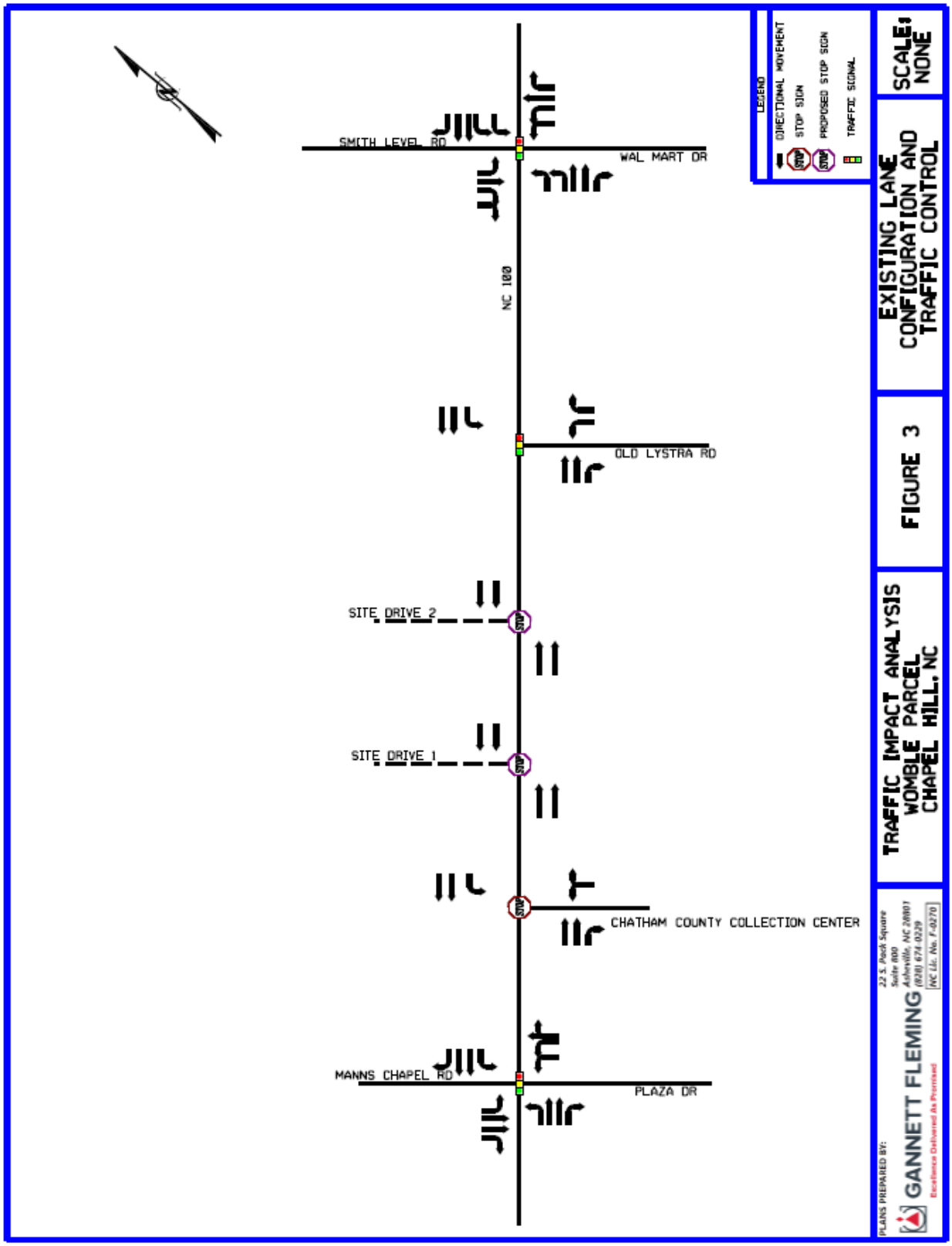
Collection Center is maintained by Chatham County. It has a cross section of two lanes. It serves as access to the Chatham Cunty Collection Center. Collection Center is classified as a "*Local Road*" by NCDOT's Functional Classification Map.

The existing lane configurations and traffic control for the study area intersections are shown in Figure 3.

C. Projected Transportation Improvements

Gannett Fleming is aware of NCDOT STIP Project #U-6192 (US 15-501 from US 64 Byp to Smith Level Rd in Chatham Co). This project that will convert the remaining non-synchronized sections of the facility (US 15-501) to a synchronized street in the study area. Right of way acquisition for this project is scheduled to begin in 2026 with construction to begin in "future year". At the time of this Analysis, there are few details available concerning this project. No project plans were available at the time of this Analysis.

Figure 3 – Existing Lane Configuration and Traffic Control



V. Traffic Generation

The amount of traffic generated by a new development is a function of the size and type of development. Once the proposed land use data for the site are known, the number of trips generated by the development can be estimated. Trip generation data for this report was conducted in accordance with the procedures outlined in the Institute of Transportation Engineers (ITE) report entitled ***Trip Generation***[3]. Table 1 illustrates the number of daily, AM peak hour, and PM peak hour trips expected to be generated by the proposed development.

Table 1 – ITE Trip Generation Summary

Table 1 - ITE Trip Generation Summary												
							AM			PM		
LUC	Description	Density	Variable	PK HR	METHOD	Daily	In	Out	Total	In	Out	Total
221	Multifamily Mid-Rise New Trips	243	Units	Adj	EQN	1113	22	73	95	58	37	95
	Pass-by Adjustment AM (0%) PM (0%)						0	0	0	0	0	0
	Multifamily Mid-Rise New Trips						22	73	95	58	37	95
720	Medical-Dental Office New Trips	15	KSF	Adj	Rate	540	35	9	44	17	41	58
	Pass-by Adjustment AM (0%) PM (0%)						0	0	0	0	0	0
	Medical-Dental Office New Trips						35	9	44	17	41	58
	Total New Trips					1653	57	82	139	75	78	153

Traffic impact is determined by estimating the total number of daily vehicle trips, as well as the number of peak hour vehicle trips. Table 1 indicates the proposed development phase will generate approximately 1,653 total trips per day, 139 trips in the AM Peak Hour, and 153 trips in the PM Peak Hour when it is fully built out.

Pass-by and internal capture trip reductions are not applicable for residential developments. Gannett Fleming did not apply these trip reductions.

VI. Traffic Distribution

To properly determine the impact of the traffic generated by the proposed development, it is necessary to determine the distribution of traffic to and from the development (See Table 2). These percentages are based on the projected traffic patterns and population / employment centers in the area. They are also based on existing ADTs and data obtained from traffic counts. The project traffic distribution is shown in Figure 6.

Table 2 - Project Traffic Distribution

Facility	Directions of Approach and Departure
US 15-501 (west)	30%
US 15-501 (east)	70%
SR 1919 (Smith Level Road) (south)	10%

VII. Projected Traffic Volumes

A. Existing Traffic

Gannett Fleming performed traffic counts at the existing intersections identified in the scoping of this analysis. The 2022 Traffic Count Volumes are shown in Figure 4.

In accordance with NCDOT Congestion Management Guidelines, Gannett Fleming "balanced" the factored traffic volumes. This balancing reconciles volumes for adjacent intersections on shared routes. Because the volumes observed at the study intersections were not within the range that would be acceptable when considering business uses and driveways between them, it is Gannett Fleming's opinion that balancing the volumes was necessary.

B. Historical Traffic Growth

Historical traffic growth is the increase in traffic volumes due to usage increases and non-specific growth throughout the area. To account for normal increases in traffic as well as smaller, undetermined development, the existing 2022 traffic volumes were grown by 4% per year compounded annually to 2026 to develop Background traffic volumes. This percentage is based on NCDOT AADT Maps[2] and observed growth patterns in this area of Chatham County. The 2026 Background AM and PM peak hour traffic volumes are illustrated in Figure 5.

C. Approved Development Traffic

Approved development traffic is traffic generated by specific approved but not yet constructed, developments within the vicinity of the subject project. Gannett Fleming is not aware of any developments being constructed in the study area that will influence the traffic conditions beyond the approved growth rate.

D. 2026 Total Traffic

To obtain total 2026 Future Buildout traffic volumes, the development traffic was distributed by percentage as shown on Figure 6. The development traffic volumes are shown in Figure 7 and were added to the 2026 Background traffic volumes. The AM and PM peak-hour turning movements for the studied intersections were then calculated and analyzed for the build-out years. The 2026 Future Buildout traffic volumes for the AM and PM peak hours are illustrated in Figure 8.

E. 2045 Design Year Total Traffic

To obtain total 2045 Design Year traffic volumes, the 2026 Background Traffic was grown by 1% compounded annually from 2026 until 2045. The development traffic volumes were then added to the resulting values. The AM and PM peak-hour turning movements for the studied intersections were then calculated and analyzed for the 2045 Design Year. The 2045 Design Year traffic volumes for the AM and PM peak hours are illustrated in Figure 9.

Figure 4 - 2022 Traffic Count Volumes

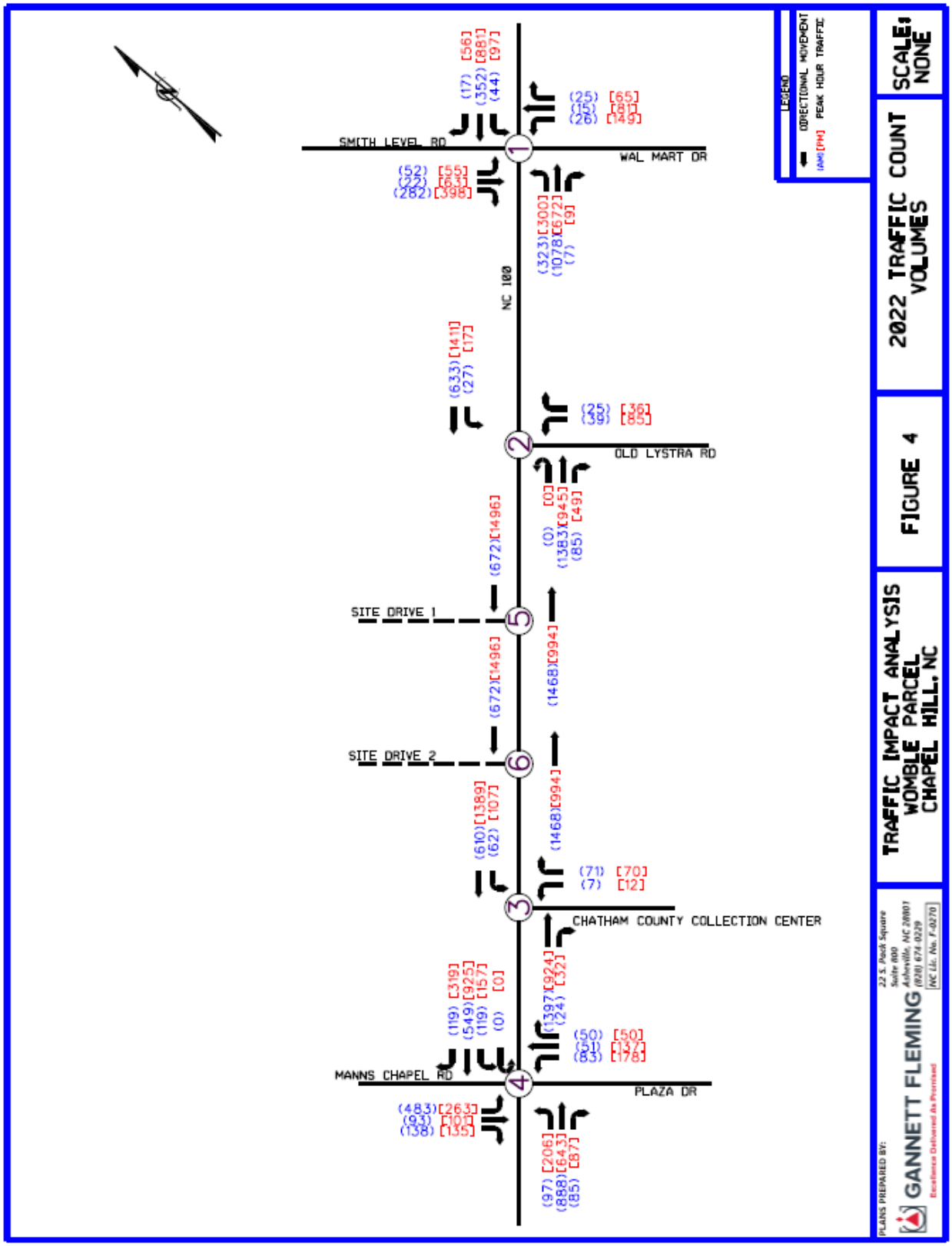


Figure 5 – 2022 Background Traffic Volumes

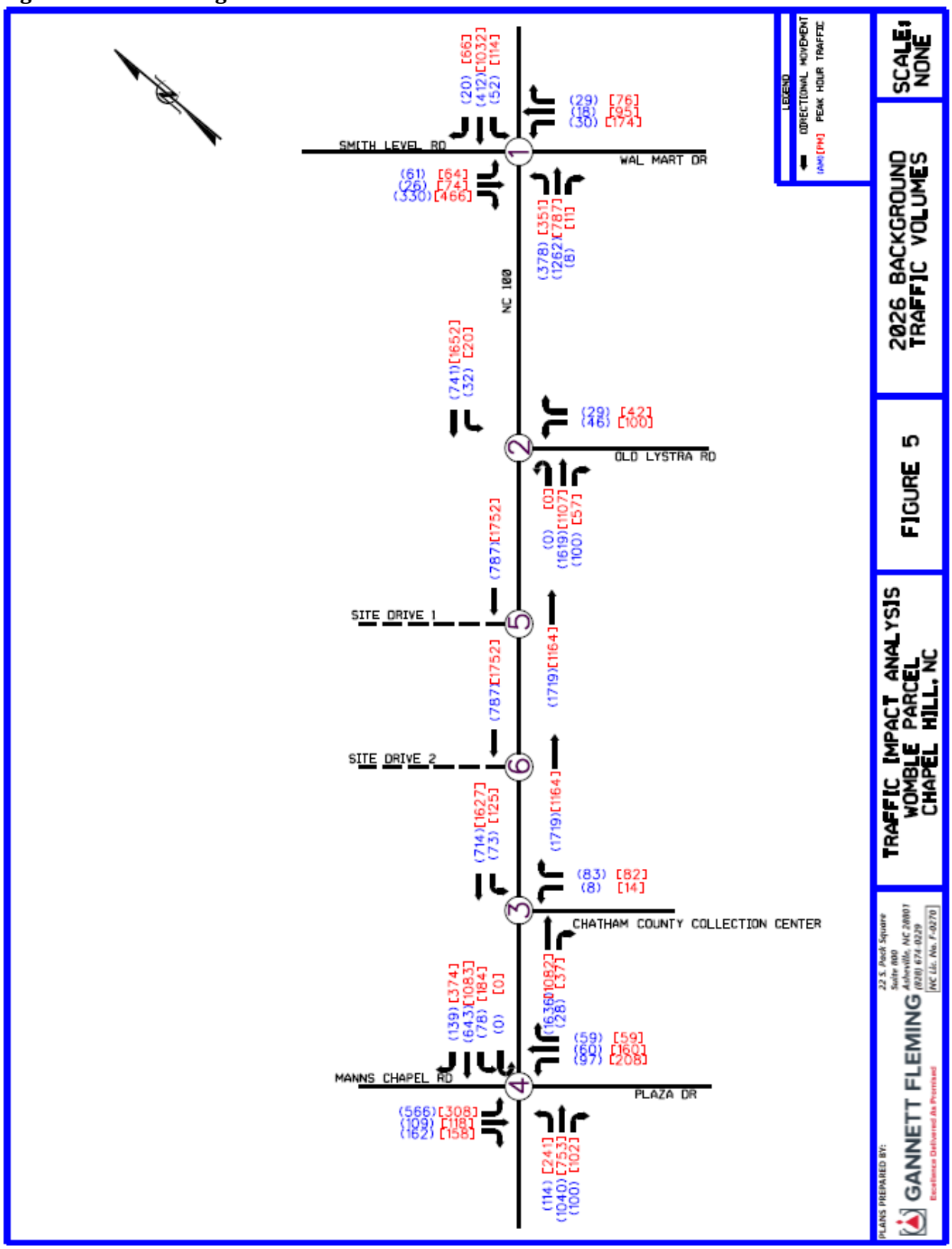


Figure 6 – Land Use Traffic Distribution

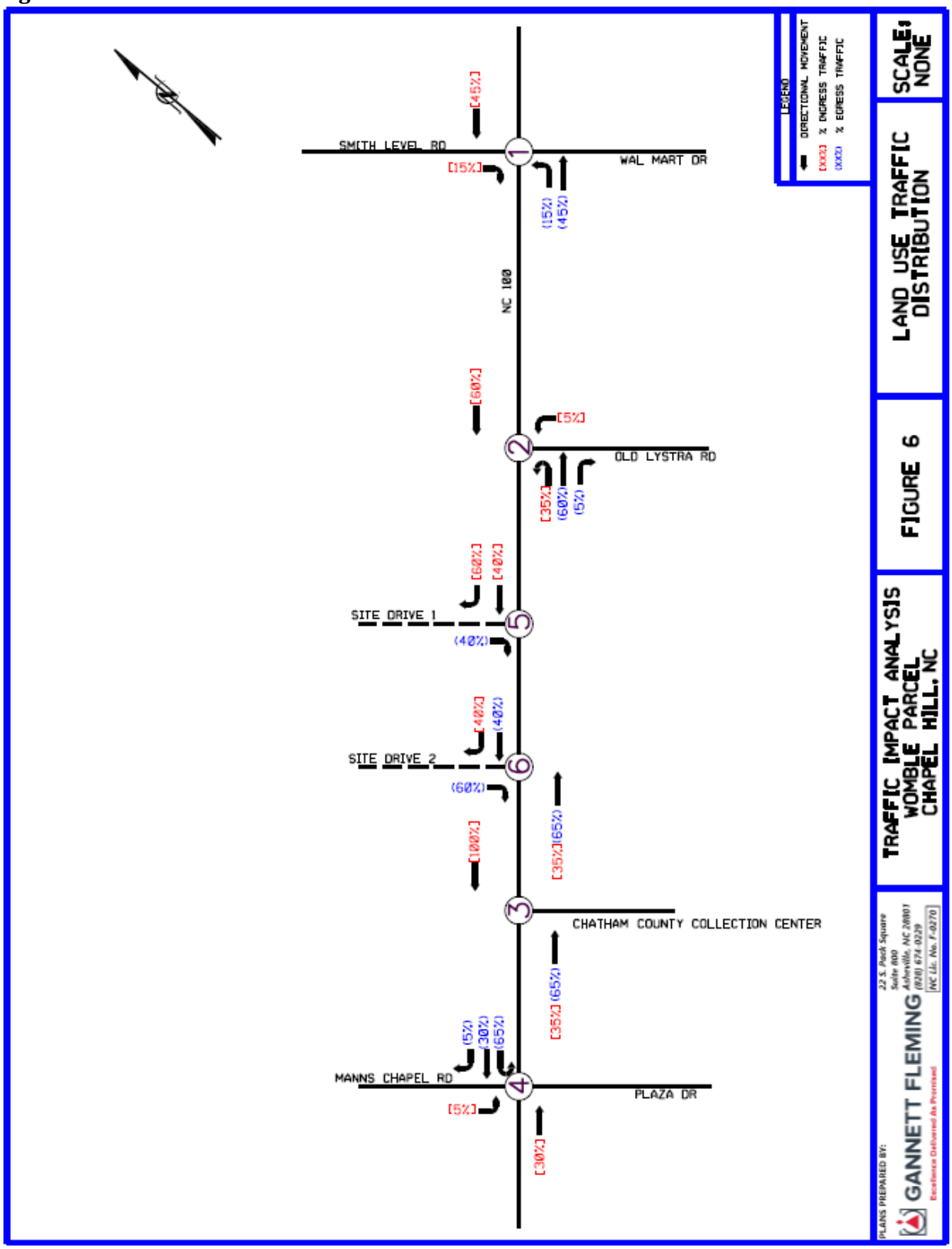


Figure 7 – Land Use Traffic Volumes

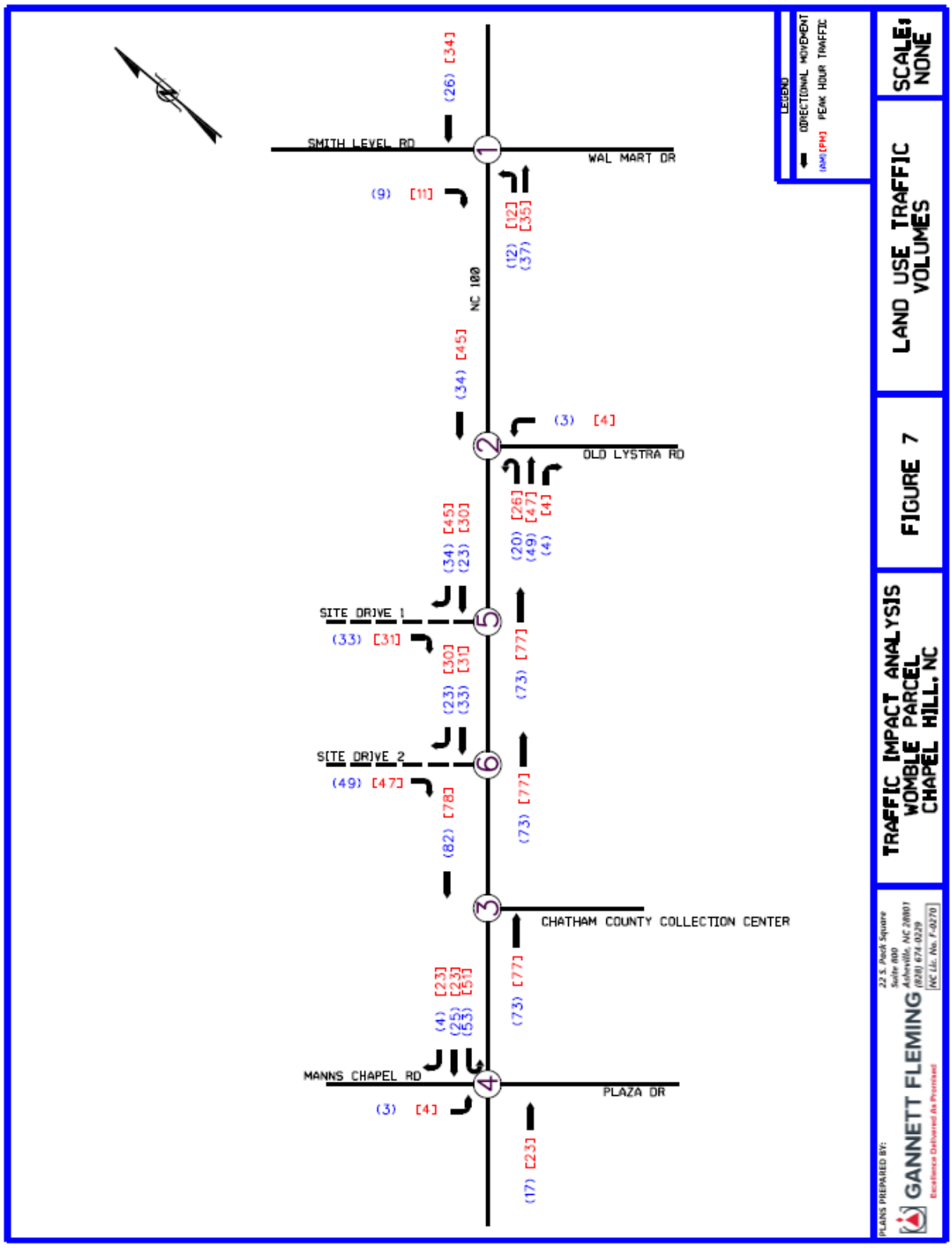


Figure 8 –2026 Future Traffic Volumes

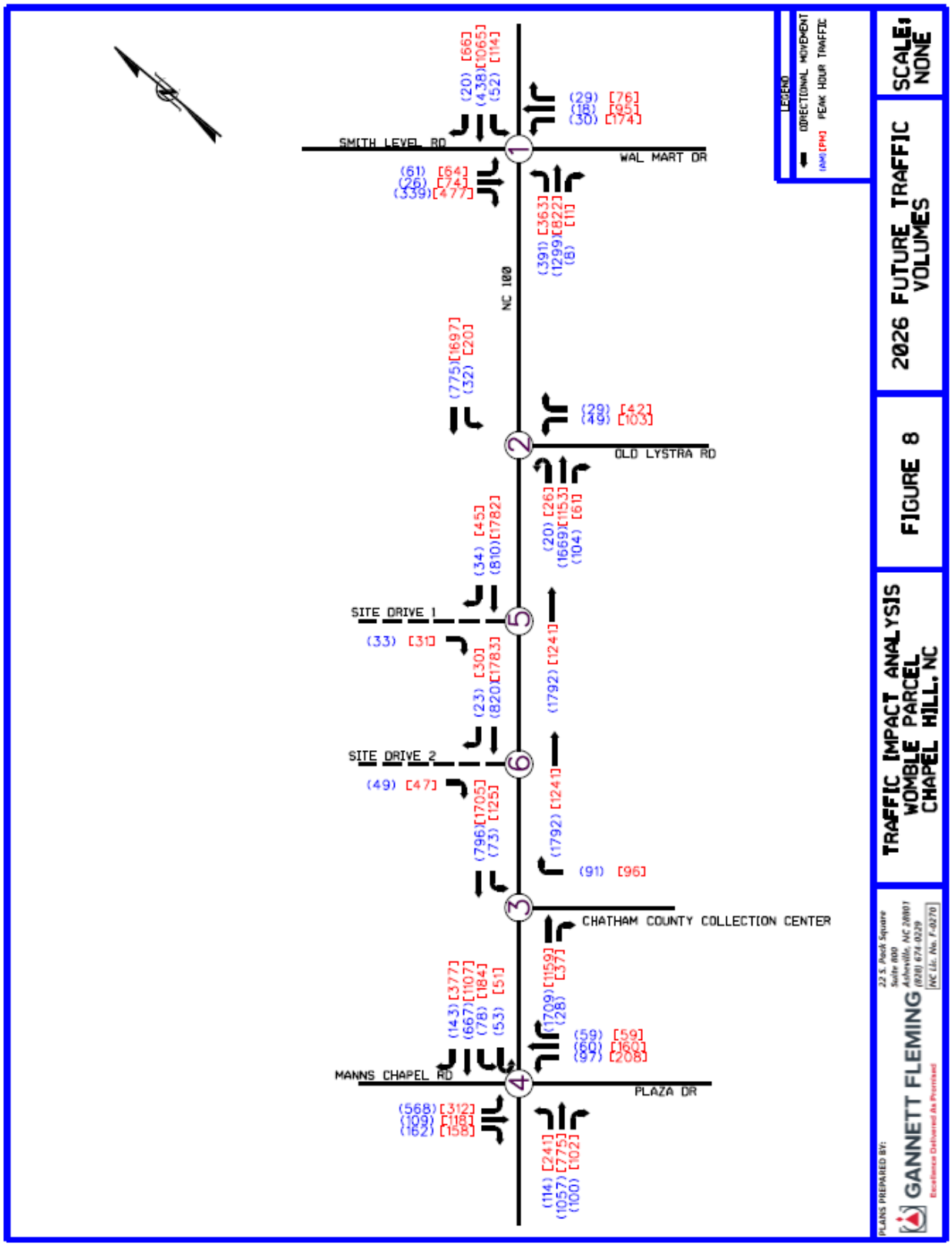
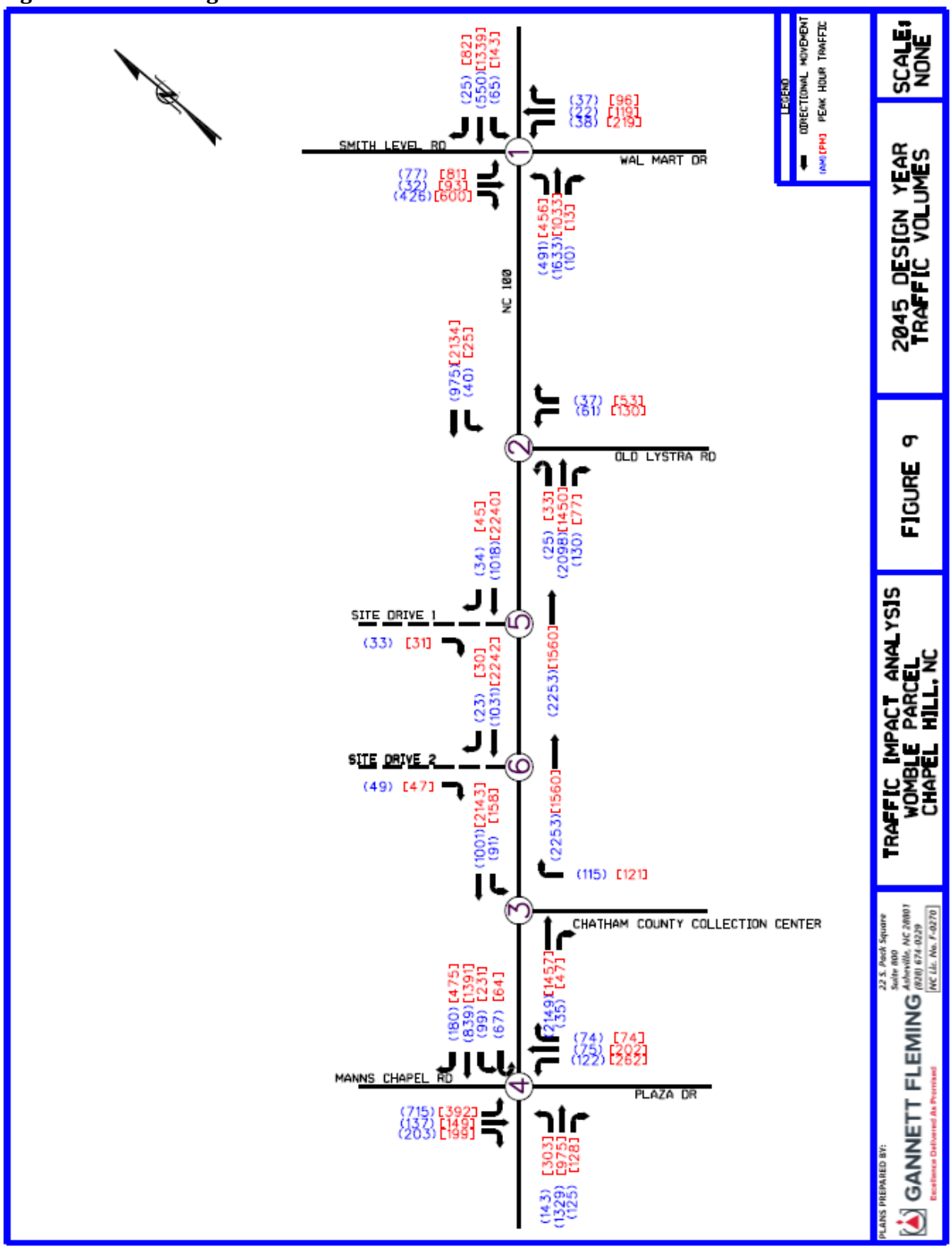


Figure 9 –2045 Design Year Traffic Volumes



VIII. Traffic Analysis

The study area intersections were analyzed using the methods outlined in the ***Highway Capacity Manual***[1] and Synchro Version 11 Software. The ***Highway Capacity Manual***[1] defines capacity as "the maximum rate of flow at which persons or vehicles can be reasonably expected to traverse a point or uniform section of a lane or roadway during a specified time period under prevailing roadway, traffic, and control conditions, usually expressed as vehicles per hour or persons per hour".

Level of service (LOS) is a term used to represent different traffic conditions and is defined as a "qualitative measure describing operational conditions within a traffic stream, and their perception by motorist/or passengers". Level of Service varies from Level A, representing free flow, to Level F where traffic breakdown conditions are evident. Level B represents good progression with minimal congestion. At Level C, the number of vehicles stopping is significant, although many still pass through the intersection without stopping. Level D represents more congestion, but the overall operations are acceptable. At Level E, freedom to maneuver within the traffic stream is extremely difficult with driver frustration being generally high.

For signalized intersections, service levels pertain to each approach as well as an overall value. The unsignalized intersection analysis method in the ***Highway Capacity Manual***[1] assigns LOS values for each movement that yields the right-of-way, but not to the overall intersection. This movement is generally a secondary movement from a minor street. At an unsignalized intersection, the primary traffic on the main roadway is virtually uninterrupted. Therefore, the overall level of service is usually much greater than what is represented by the results of the minor street movements. Synchro Version 11 will calculate an amount of delay for the overall intersection but will not assign LOS value. Therefore, the overall intersection delay is not reported in the summary tables of this report. Generally, Level of Service D is acceptable for signalized intersections in suburban areas during peak periods. With the current method of reporting levels of service for unsignalized intersections, it is not uncommon for some of the minor street movements to be operating at LOS F during the peak hours.

Note: In accordance with NCDOT Guidelines, right turn on red movements were prohibited for each scenario. Additionally, all left turns from exclusive left turn lanes were modeled as "protected only". The minimum cycle length for a traffic signal was set as 90 seconds for a three-phase and 120 seconds for a four-phase signal. All signals in this analysis were modeled as actuated/coordinated. Synchro modeling software may predict that cycle lengths greater than 180 seconds may be most efficient for coordinated signal systems.

Table 3 present criteria of each level of service as indicated in the ***Highway Capacity Manual***[1]***.***

Table 3 – Intersection Level of Service Criteria

Level of Service Criteria		
Level of Service	**Signalized Stopped Delay Per Vehicle (sec)**	**Unsignalized Average Total Delay(sec/veh)**
A	≤10	≤10
B	>10 and ≤20	>10 and ≤15
C	>20 and ≤35	>15 and ≤25
D	>35 and ≤55	>25 and ≤35
E	>55 and ≤80	>35 and ≤50
F	>80	>50

Capacity analyses were performed for 2022 existing conditions, 2026 Background, 2026 Future Buildout, and 2045 Design Year conditions for the following intersection:

- US 15-501 at SR 1919 (Smith Level Road) (signalized intersection)
- US 15-501 at SR 1724 (Old Lystra Road) (signalized intersection)
- US 15-501 at Collection Center (unsignalized intersection)
- US 15-501 at SR 1532 (Manns Chapel Road) (signalized intersection)
- US 15-501 at Site Access #1 (unsignalized intersection)
- US 15-501 at Site Access #2 (unsignalized intersection)

Synchro 11 calculated the AM and PM peak hour level of service and delay for the study area intersections using methods outlined in the ***Highway Capacity Manual***[1]. All capacity analyses are included in Appendix B and are briefly summarized in the following sub-sections. *It should be noted that under coordinated traffic signal operations, levels of service and delays may change with counterintuitive results. Individual approaches or intersections may experience less delay even with increased volumes due to the "system" approach taken by Synchro, where an individual intersection or approach may benefit from an increase or decrease in coordinated cycle lengths that may approach the optimum cycle length for that individual intersection.*

1. US 15-501 / Smith Level Road

The intersection of US 15-501 / SR 1919 Smith Level Road is currently a signalized four-legged intersection. During the AM Peak Hour, the intersection as a whole is operating at an LOS of B with 16.3 seconds of delay. During the PM Peak Hour, the intersection is operating at LOS C with 26.6 seconds of delay. During the AM and PM Peak Hours, the eastbound SR 1919 (Smith Level Road) approach is operating at LOS C and LOS D with delays of 33.1 seconds and 36.8 seconds respectively.

For the 2026 Background traffic conditions, the intersection is predicted to remain operating at LOS B and C during the AM and PM Peak Hours with delays of 17.0 and 33.1 seconds respectively. During the AM and PM Peak Hours, the eastbound SR 1919 (Smith Level Road) approach is predicted to operate at LOS C and D with delays of 34.5 seconds and 43.1 seconds respectively.

Under 2026 Future Buildout conditions, the intersection is predicted to continue to operate at LOS B and LOS C during the AM and PM Peak Hours with all approaches maintaining LOS D or better. During the AM and PM Peak Hours, the eastbound SR 1919 (Smith Level Road) approach is predicted to operate at LOS D with delays of 36.3 seconds and 42.7 seconds respectively.

Under 2045 Design Year conditions, the intersection is predicted to continue to operate at LOS B during the AM Peak Hour but become LOS D during the PM Peak Hour. During the AM Peak Hour, the eastbound SR 1919 (Smith Level Road) approach is predicted to operate at LOS D with a delay of 37.3 seconds. During the PM Peak Hour, the LOS will be D with a delay of 52.7 seconds.

The 2026 Future Buildout Queues are expected to lessen during the AM Peak Hour from those predicted for the 2026 Background conditions. The queues do increase during the PM Peak Hour by about 3 vehicle lengths.

Table 4 displays the Level of Service and Delay for the subject intersection for the 2022 Existing, 2026 Background, 2026 Future Buildout, and 2046 Design Year conditions. Table 5 displays projected queueing for the aforementioned conditions.

Table 4 – US 15-501 / SR 1919 (Smith Level Road) Level of Service

Table 4 - US 15-501 at Smith Level Road Level of Service

AM Peak Hour			2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)			**B**	**B**	**B**	**B**
Total Intersection Delay (Seconds)			**16.3**	**17.0**	**18.3**	**18.2**
Smith Level Road Eastbound		LOS	C	C	D	D
		Approach Delay	33.1	34.5	36.3	37.3
Wal-Mart Westbound		LOS	D	D	D	D
		Approach Delay	49.5	48.1	49.7	47.0
US 15-501 Northbound		LOS	A	B	B	B
		Approach Delay	9.4	10.2	12.1	10.5
US 15-501 Southbound		LOS	C	C	B	C
		Approach Delay	20.0	20.4	19.2	23.4

PM Peak Hour			2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)			**C**	**C**	**C**	**D**
Total Intersection Delay (Seconds)			**26.6**	**33.1**	**30.5**	**35.9**
Smith Level Road Eastbound		LOS	D	D	D	D
		Approach Delay	36.8	43.1	42.7	52.7
Wal-Mart Westbound		LOS	D	E	D	E
		Approach Delay	51.2	58.2	51.4	65.9
US 15-501 Northbound		LOS	B	C	B	B
		Approach Delay	13.9	24.0	17.7	17.5
US 15-501 Southbound		LOS	C	C	C	D
		Approach Delay	26.6	29.6	31.1	37.0

Delay Decrease or LOS Improvement
Delay Increase > 25% or LOS Decrease by 1 Letter Grade
LOS "F"

Table 5 – US 15-501 / SR 1919 (Smith Level Road) Queues

Table 5 - US 15-501 at Smith Level Road Queues

AM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Smith Level Road Eastbound	Maximum	240	237	235	240
	95th Percentile	115	139	146	176
Wal-Mart Westbound	Maximum	136	108	66	110
	95th Percentile	43	41	48	50
US 15-501 Northbound	Maximum	260	258	259	460
	95th Percentile	152	191	324	342
US 15-501 Southbound	Maximum	158	247	184	218
	95th Percentile	130	148	154	208

PM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Smith Level Road Eastbound	Maximum	245	380	491	683
	95th Percentile	163	201	202	#302
Wal-Mart Westbound	Maximum	206	302	204	423
	95th Percentile	120	138	138	#204
US 15-501 Northbound	Maximum	196	201	222	259
	95th Percentile	157	202	181	264
US 15-501 Southbound	Maximum	319	421	487	1013
	95th Percentile	366	439	467	645

Queue Decrease
Queue Increase > 25%
Queue > Available Storage
= 95th percentile volume exceeds capacity, queue may be longer.

2. US 15-501 / Old Lystra Road

The US 15-501 / Old Lystra Road intersection is currently a signalized three-legged intersection. The intersection as a whole currently operates at Level of Service (LOS) of A for both the AM and PM Peak Hours and is predicted to maintain that LOS during 2026 Background conditions and 2026 Future Buildout conditions. The SR 1724 (Old Lystra Road) westbound approach LOS is expected to become LOS E in the AM Peak Hour 2026 Future Buildout conditions and D in the PM Peak Hour with delays of 60.9 and 54.5 seconds respectively.

The queues predicted by Sim Traffic at this intersection show some change as a result of the addition of Womble Parcel development traffic. In fact, the westbound Old Lystra Road approach is expected to decrease some during the AM Peak Hour. During the PM Peak Hour, they are expected to increase by up to 2 car lengths.

Gannett Fleming recommends no changes to this intersection as a result of the Womble Parcel development.

Table 6 displays the Level of Service and Delay for the subject intersection for the 2022 Existing, 2026 Background, 2026 Future Buildout, and 2046 Design Year conditions. Table 7 displays projected queueing for the intersection.

Table 6 – US 15-501 / Old Lystra Road Level of Service

Table 6 - US 15-501 at Old Lystra Road Level of Service

AM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)		**A**	**A**	**A**	**A**
Total Intersection Delay (Seconds)		**7.3**	**4.2**	**7.5**	**9.2**
	LOS				
	Approach Delay				
Old Lystra Road Westbound	LOS	E	D	E	E
	Approach Delay	55.7	52.3	60.9	65.4
US 15-501 Northbound	LOS	A	A	A	A
	Approach Delay	5.7	2.3	4.3	8.7
US 15-501 Southbound	LOS	A	A	A	A
	Approach Delay	6.0	3.7	9.6	4.8

PM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)		**A**	**A**	**A**	**B**
Total Intersection Delay (Seconds)		**7.5**	**6.8**	**9.5**	**14.0**
	LOS				
	Approach Delay				
Old Lystra Road Westbound	LOS	E	E	D	F
	Approach Delay	56.8	58.4	54.5	89.0
US 15-501 Northbound	LOS	A	A	A	A
	Approach Delay	2.1	1.8	3.9	3.2
US 15-501 Southbound	LOS	A	A	A	B
	Approach Delay	7.0	6.0	9.7	15.5

Delay Decrease or LOS Improvement
Delay Increase > 25% or LOS Decrease by 1 Letter Grade
LOS "F"

Table 7 – US 15-501 / Old Lystra Road Queues

Table 7 - US 15-501 at Old Lystra Road Queues

AM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Old Lystra Road Westbound	Maximum				
	95th Percentile				
	Maximum	134	112	113	138
	95th Percentile	69	81	84	101
US 15-501 Northbound	Maximum	151	269	204	331
	95th Percentile	265	56	88	450
US 15-501 Southbound	Maximum	135	146	176	178
	95th Percentile	168	65	223	84

PM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Old Lystra Road Westbound	Maximum				
	95th Percentile				
	Maximum	178	151	177	650
	95th Percentile	123	142	146	#235
US 15-501 Northbound	Maximum	204	137	135	143
	95th Percentile	60	31	59	72
US 15-501 Southbound	Maximum	181	259	377	1448
	95th Percentile	510	347	343	#954

Queue Decrease
Queue Increase > 25%
Queue > Available Storage
= 95th percentile volume exceeds capacity, queue may be longer.

3. US 15-501 / Collection Center

The US 15-501 / Collection Center intersection is currently an unsignalized three-legged intersection. There were no observed U-turns during the data collection at this intersection.

The westbound Collection Center approach to the intersection operates at LOS E for the AM and PM Peak Hours during 2022 Existing conditions with delays of 37.2 and 44.3 seconds respectively. This approach is predicted to operate at LOS F for the 2026 Background conditions with delays of 101.9 and 157.3 seconds respectively.

For the 2026 Future Buildout conditions, with the recommended prohibition of left turns from the westbound Collection Center approach, the approach LOS is expected to improve to D and C for the AM and PM Peak Hours with drastic reductions in delay. The US 15-501 approaches are predicted to remain LOS A.

The 2026 Future Buildout queues predicted by Sim Traffic at this intersection show decreases as a result of left turn prohibition on the westbound approach.

Gannett Fleming recommends that left turns be prohibited from the westbound Collection Center approach. Additionally, Gannett Fleming recommends that U-turns be prohibited from the southbound US 15-501 approach.

Table 8 displays the Level of Service and Delay for the subject intersection for the 2022 Existing, 2026 Background, 2026 Future Buildout, and 2046 Design Year conditions. Table 9 displays projected queueing for the intersection.

Table 8 – US 15-501 / Collection Center Level of Service

Table 8 - US 15-501 at Collection Center Level of Service

AM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)		N/A	N/A	N/A	N/A
Total Intersection Delay (Seconds)		N/A	N/A	N/A	N/A
Collection Center Westbound	LOS	E	F	D	F
	Approach Delay	37.2	101.9	28.1	67.9
US 15-501 Northbound	LOS	A	A	A	A
	Approach Delay	0.0	0.0	0.0	0.0
US 15-501 Southbound	LOS	A	A	A	A
	Approach Delay	1.7	2.4	1.8	3.5

PM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)		N/A	N/A	N/A	N/A
Total Intersection Delay (Seconds)		N/A	N/A	N/A	N/A
Collection Center Westbound	LOS	E	F	C	D
	Approach Delay	44.3	157.3	16.4	25.2
US 15-501 Northbound	LOS	A	A	A	A
	Approach Delay	0.0	0.0	0.0	0.0
US 15-501 Southbound	LOS	A	A	A	A
	Approach Delay	0.9	1.1	0.9	1.5

Delay Decrease or LOS Improvement
Delay Increase > 25% or LOS Decrease by 1 Letter Grade
LOS "F"

Table 9 – US 15-501 / Collection Center Queues

Table 9 - US 15-501 at Collection Center Queues

AM Peak Hour	Queue Length	2022 Existing Feet	2026 Background Feet	2026 Future Buildout Feet	2045 Design Year Feet
	Maximum				
	95th Percentile				
Collection Center Westbound	Maximum	116	162	140	184
	95th Percentile	53	120	45	115
US 15-501 Northbound	Maximum	52	53	27	30
	95th Percentile	0	0	0	0
US 15-501 Southbound	Maximum	138	139	104	332
	95th Percentile	20	33	28	68

PM Peak Hour	Queue Length	2022 Existing Feet	2026 Background Feet	2026 Future Buildout Feet	2045 Design Year Feet
	Maximum				
	95th Percentile				
Collection Center Westbound	Maximum	120	226	118	133
	95th Percentile	63	155	25	53
US 15-501 Northbound	Maximum	22	50	28	41
	95th Percentile	0	0	0	0
US 15-501 Southbound	Maximum	133	99	115	326
	95th Percentile	18	28	25	60

Queue Decrease
Queue Increase > 25%
Queue > Available Storage

4. US 15-501 / Manns Chapel Road

The US 15-501 / Manns Chapel Road intersection is currently a signalized four-legged intersection. A review of the capacity analyses revealed that the intersection as a whole operates at LOS D for both the AM and PM Peak Hours. The intersection is expected to remain at LOS D for the 2026 Background, and 2026 Future Buildout conditions. The eastbound Manns Chapel Road approach is currently operating at Level of Service (LOS) D in both the AM and PM Peak Hour conditions with delays of 48.2 and 47.9 seconds respectively.

The capacity analyses for the 2026 Background traffic conditions revealed that the eastbound Manns Chapel Road approach is expected to operate at LOS D in both the AM and PM Peak Hour conditions with delays of 49.8 and 51.4 seconds respectively.

The capacity analyses for the 2026 Future Buildout traffic conditions revealed that the eastbound Manns Chapel Road approach is expected to operate at LOS D in the AM and PM Peak Hour conditions with delays of 47.1 and 52.5 seconds respectively.

The capacity analyses for the 2045 Design Year traffic conditions revealed that the intersection as a whole is expected to operate at an LOS of D during the AM Peak Hour and E during the PM Peak Hour with delays of 50.9 and 56.0 seconds respectively. The eastbound Manns Chapel Road approach is expected to operate at LOS E in the AM and PM Peak Hour conditions with delays of 67.0 and 73.0 seconds respectively.

The queues for this intersection show reductions for some of the approaches during the AM and PM Peak Hour 2026 Future Buildout conditions. They increase markedly for the 2045 Design Year conditions. It is Gannett Fleming's opinion that Project U-6192 will improve the queues at this intersection, though there were insufficient details about the project available for modeling purposes.

Gannett Fleming recommends no changes to this intersection as a result of the Womble Parcel development.

Table 10 displays the Level of Service and Delay for the subject intersection for the 2022 Existing, 2026 Background, 2026 Future Buildout, and 2046 Design Year conditions. Table 11 displays projected queueing for the intersection.

Table 10 – US 15-501 / Manns Chapel Road Level of Service

Table 10 - US 15-501 at Mann's Chapel Road Level of Service

AM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)		**D**	**D**	**D**	**D**
Total Intersection Delay (Seconds)		**36.2**	**37.5**	**37.2**	**50.9**
Mann's Chapel Road Eastbound	LOS	D	D	D	E
	Approach Delay	48.2	49.8	47.1	67.0
Plaza Drive Westbound	LOS	D	E	E	E
	Approach Delay	52.3	56.5	64.0	70.4
US 15-501 Northbound	LOS	C	D	C	D
	Approach Delay	30.3	35.7	33.8	46.7
US 15-501 Southbound	LOS	C	C	C	D
	Approach Delay	29.0	21.6	26.7	37.7

PM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)		**D**	**D**	**D**	**E**
Total Intersection Delay (Seconds)		**36.4**	**40.7**	**37.4**	**56.0**
Mann's Chapel Road Eastbound	LOS	D	D	D	E
	Approach Delay	47.9	51.4	52.5	73.0
Plaza Drive Westbound	LOS	E	E	E	F
	Approach Delay	63.9	65.4	67.0	97.3
US 15-501 Northbound	LOS	C	D	C	D
	Approach Delay	33.9	40.4	39.8	54.1
US 15-501 Southbound	LOS	D	C	C	D
	Approach Delay	26.8	30.7	23.4	41.1

Delay Decrease or LOS Improvement
Delay Increase > 25% or LOS Decrease by 1 Letter Grade
LOS "F"

Table 11 – US 15-501 / Manns Chapel Road Queues

Table 11 - US 15-501 at Mann's Chapel Road Queues

AM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Mann's Chapel Road Eastbound	Maximum	635	344	445	1164
	95th Percentile	262	309	309	462
Plaza Drive Westbound	Maximum	166	235	161	405
	95th Percentile	145	#181	#106	#143
US 15-501 Northbound	Maximum	348	556	422	1144
	95th Percentile	407	497	509	#741
US 15-501 Southbound	Maximum	271	309	288	637
	95th Percentile	303	157	275	#307

PM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Mann's Chapel Road Eastbound	Maximum	257	320	263	1146
	95th Percentile	#162	#202	#207	#288
Plaza Drive Westbound	Maximum	350	646	732	1217
	95th Percentile	#262	#331	#257	#358
US 15-501 Northbound	Maximum	345	625	364	1181
	95th Percentile	#278	355	363	#479
US 15-501 Southbound	Maximum	398	759	384	1146
	95th Percentile	410	#586	458	#792

Queue Decrease
Queue Increase > 25%
Queue > Available Storage
= 95th percentile volume exceeds capacity, queue may be longer.

5. US 15-501 / Site Access #1

The US 15-501 / Site Access #1 intersection is proposed as a three-legged unsignalized intersection with right-in/right-out control. Under 2026 Future Buildout conditions, the AM and PM Peak Hour LOS are predicted to be B and C with delays of 12.0 and 22.3 seconds respectively.

Queue lengths are expected to less than three car lengths for all approaches during the 2026 Future Buildout conditions.

Gannett Fleming recommends that this intersection be constructed as shown on the plans with right-in / right-out control and at least 100 feet of stem length as per NCDOT Guidelines and the installation of a dedicated right turn lane with 100 feet of full storage and appropriate tapers on the southbound US 15-501 approach.

Table 12 displays the Level of Service and Delay for the subject intersection for the 2022 Existing, 2026 Background, 2026 Future Buildout, and 2046 Design Year conditions. Table 13 displays projected queueing for the intersection.

Table 12 – US 15-501 / Site Access #1 Level of Service

Table 12 - US 15-501 at Site Access #1 Level of Service					
AM Peak Hour		**2022 Existing**	**2026 Background**	**2026 Future Buildout**	**2045 Design Year**
Intersection Level of Service (LOS)		N/A	N/A	N/A	N/A
Total Intersection Delay (Seconds)		N/A	N/A	N/A	N/A
Site Access #1 Eastbound	LOS	N/A	N/A	B	B
	Approach Delay	N/A	N/A	12.0	13.4
	LOS				
	Approach Delay				
US 15-501 Northbound	LOS	N/A	N/A	A	A
	Approach Delay	N/A	N/A	0.0	0.0
US 15-501 Southbound	LOS	N/A	N/A	A	A
	Approach Delay	N/A	N/A	0.0	0.0
PM Peak Hour		**2022 Existing**	**2026 Background**	**2026 Future Buildout**	**2045 Design Year**
Intersection Level of Service (LOS)		N/A	N/A	N/A	N/A
Total Intersection Delay (Seconds)		N/A	N/A	N/A	N/A
Site Access #1 Eastbound	LOS	N/A	N/A	C	D
	Approach Delay	N/A	N/A	22.3	32.9
	LOS				
	Approach Delay				
US 15-501 Northbound	LOS	N/A	N/A	A	A
	Approach Delay	N/A	N/A	0.0	0.0
US 15-501 Southbound	LOS	N/A	N/A	A	A
	Approach Delay	N/A	N/A	0.0	0.0

Delay Decrease or LOS Improvement
Delay Increase > 25% or LOS Decrease by 1 Letter Grade
LOS "F"

Table 13 – US 15-501 / Site Access #1 Queues

Table 13 - US 15-501 at Site Access #1 Queues

AM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Site Access #1 Eastbound	Maximum	N/A	N/A	22	64
	95th Percentile	N/A	N/A	5	8
	Maximum				
	95th Percentile				
US 15-501 Northbound	Maximum	N/A	N/A	0	124
	95th Percentile	N/A	N/A	0	0
US 15-501 Southbound	Maximum	N/A	N/A	0	0
	95th Percentile	N/A	N/A	0	0

PM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Site Access #1 Eastbound	Maximum	N/A	N/A	6	166
	95th Percentile	N/A	N/A	13	20
	Maximum				
	95th Percentile				
US 15-501 Northbound	Maximum	N/A	N/A	0	0
	95th Percentile	N/A	N/A	0	0
US 15-501 Southbound	Maximum	N/A	N/A	0	264
	95th Percentile	N/A	N/A	0	0

Queue Decrease
Queue Increase > 25%
Queue > Available Storage
= 95th percentile volume exceeds capacity, queue may be longer.

6. US 15-501 / Site Access #2

The US 15-501 / Site Access #2 intersection is proposed as a three-legged unsignalized intersection with right-in/right-out control. Under 2026 Future Buildout conditions, the AM and PM Peak Hour LOS are predicted to be B and C with delays of 12.3 and 23.9 seconds respectively.

Queue lengths are expected to less than five car lengths for all approaches during the 2026 Future Buildout conditions.

Gannett Fleming recommends that this intersection be constructed as shown on the plans with right-in / right-out control and at least 100 feet of stem length as per NCDOT Guidelines and the installation of a dedicated right turn taper on the southbound US 15-501 approach.

Table 14 displays the Level of Service and Delay for the subject intersection for the 2022 Existing, 2026 Background, 2026 Future Buildout, and 2046 Design Year conditions. Table 15 displays projected queueing for the intersection.

Table 14 – US 15-501 / Site Access #2 Level of Service

Table 14 - US 15-501 at Site Access #2 Level of Service

AM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)		N/A	N/A	N/A	N/A
Total Intersection Delay (Seconds)		N/A	N/A	N/A	N/A
Site Access #2 Eastbound	LOS	N/A	N/A	B	B
	Approach Delay	N/A	N/A	12.3	13.9
	LOS				
	Approach Delay				
US 15-501 Northbound	LOS	N/A	N/A	A	A
	Approach Delay	N/A	N/A	0.0	0.0
US 15-501 Southbound	LOS	N/A	N/A	A	A
	Approach Delay	N/A	N/A	0.0	0.0

PM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
Intersection Level of Service (LOS)		N/A	N/A	N/A	N/A
Total Intersection Delay (Seconds)		N/A	N/A	N/A	N/A
Site Access #2 Eastbound	LOS	N/A	N/A	C	E
	Approach Delay	N/A	N/A	23.9	37.2
	LOS				
	Approach Delay				
US 15-501 Northbound	LOS	N/A	N/A	A	A
	Approach Delay	N/A	N/A	0.0	0.0
US 15-501 Southbound	LOS	N/A	N/A	A	A
	Approach Delay	N/A	N/A	0.0	0.0

Delay Decrease or LOS Improvement
Delay Increase > 25% or LOS Decrease by 1 Letter Grade
LOS "F"

Table 15 – US 15-501 / Site Access #2 Queues

Table 15 - US 15-501 at Site Access #2 Queues

AM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Site Access #2 Eastbound	Maximum	N/A	N/A	67	44
	95th Percentile	N/A	N/A	8	10
	Maximum				
	95th Percentile				
US 15-501 Northbound	Maximum	N/A	N/A	0	0
	95th Percentile	N/A	N/A	0	0
US 15-501 Southbound	Maximum	N/A	N/A	0	50
	95th Percentile	N/A	N/A	0	0

PM Peak Hour		2022 Existing	2026 Background	2026 Future Buildout	2045 Design Year
	Queue Length	Feet	Feet	Feet	Feet
Site Access #2 Eastbound	Maximum	N/A	N/A	107	280
	95th Percentile	N/A	N/A	20	33
	Maximum				
	95th Percentile				
US 15-501 Northbound	Maximum	N/A	N/A	0	0
	95th Percentile	N/A	N/A	0	0
US 15-501 Southbound	Maximum	N/A	N/A	0	575
	95th Percentile	N/A	N/A	0	0

Queue Decrease
Queue Increase > 25%
Queue > Available Storage

IX. Recommendations

To mitigate the traffic-related impacts caused by the Womble Parcel multifamily residential development and to provide for safe, efficient, and reliable traffic flow, Gannett Fleming recommends the following:

US 15-501 / SR 1919 (Smith Level Road)
Gannett Fleming recommends no changes to this intersection.

US 15-501 / SR 1724 (Old Lystra Road)
Gannett Fleming recommends no changes to this intersection.

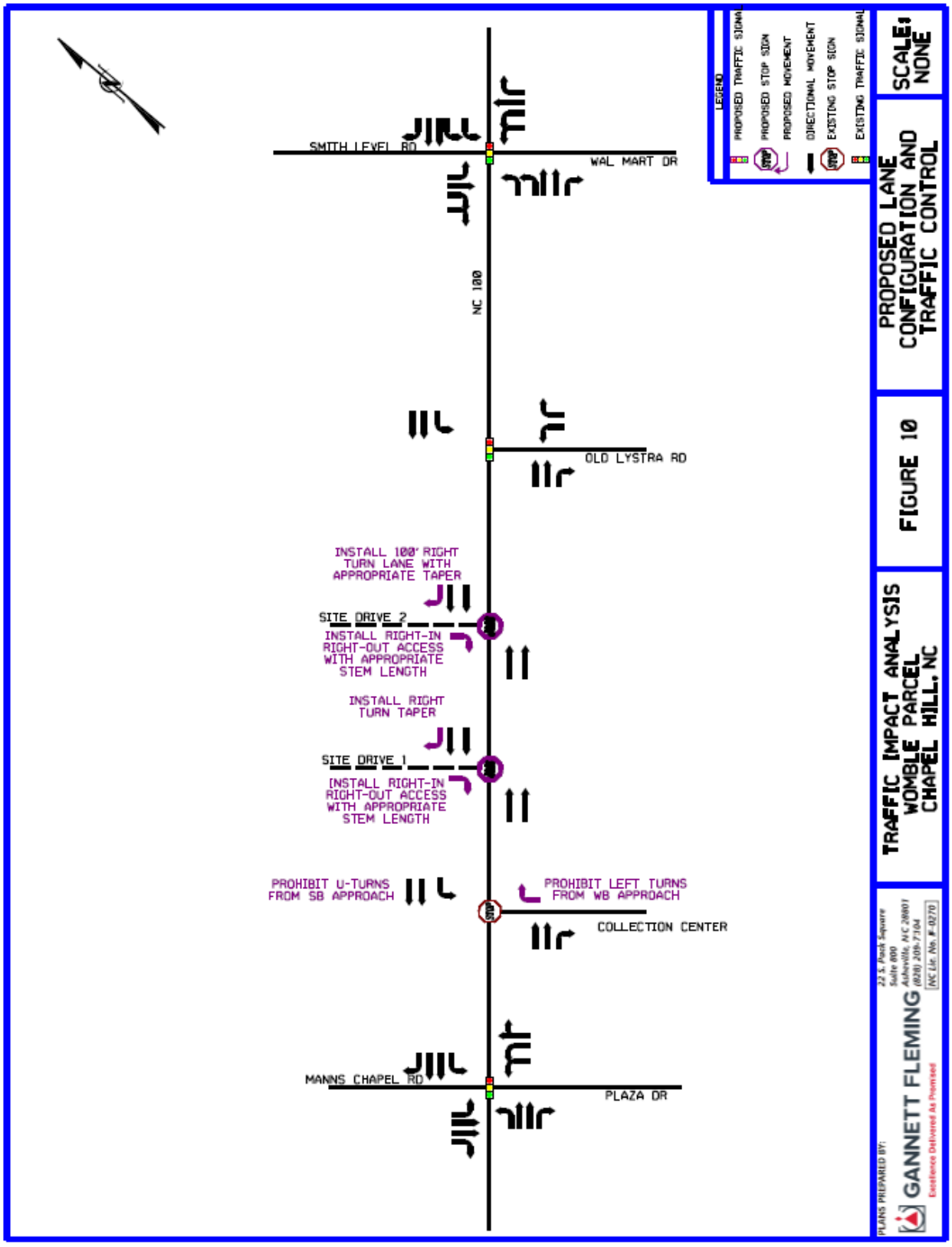
US 15-501 / Collection Center
Gannett Fleming recommends that left turns be prohibited from the westbound Collection Center approach. Gannett Fleming recommends that U-turns be prohibited from the southbound US 15-501 approach.

US 15-501 / SR 1532 (Manns Chapel Road)
Gannett Fleming recommends no changes to this intersection.

US 15-501 / Site Accesses #1
Gannett Fleming recommends that this intersection be constructed as shown on the plans with right-in / right-out control and at least 100 feet of stem length as per NCDOT Guidelines and the installation of a dedicated right turn lane with 100 feet of full storage and appropriate taper on the southbound US 15-501 approach.

US 15-501 / Access #2
Gannett Fleming recommends that this intersection be constructed as shown on the plans with right-in / right-out control and at least 100 feet of stem length as per NCDOT Guidelines and the installation of a dedicated right turn lane taper on the southbound US 15-501 approach.

Figure 10 – Proposed Lane Configuration and Traffic Control



X. Conclusions

This Traffic Impact Analysis shows that the proposed Womble Parcel with Tracts 9A & 9B impacts on the traffic operations at the study area intersections will be mitigated by the recommended improvements. With the recommended improvements in place, the proposed development will not negatively impact the health, safety, and welfare of the travelling public.

NCDOT STIP Project U-6192 is being planned for construction in the project area. It is anticipated that the project will be completed well before the 2045 Design Year. Because of the lack of information available about U-6192 at the time of these analyses, the 2045 Design Year scenarios reflect existing conditions with the recommended improvements. It is Gannett Fleming's opinion that U-6192 will be of great benefit to the intersections studied in this Analysis and will more than mitigate any effects of this the Womble Parcel development.

XI. References

[1] ***Highway Capacity Manual***, Special Report 209, Transportation Research Board, National Research Council, Washington, D.C., 1998.

[2] NCDOT Interactive Traffic Volume Map:
http://ncdot.maps.arcgis.com/apps/webappviewer/index.html?id=5f6fe58c1d90482ab9107ccc03026280

[3] ***Trip Generation Manual***, Institute of Transportation Engineers, 11th Edition, Washington, D.C., 2021

[4] ***Greensboro Urban Area Thoroughfare Plan,*** Chatham County, NC, 2015.

Appendix A: Traffic Data

A

US 15 501 @ Collection Center

File Name: AM
Location:

Cars and Peds

Site Code:
Study Date: 08/05/2022

	US 15 501 Southbound						Collection Center Drive Westbound						US 15 501 Northbound						Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00		0	93	13		106		10	0	1		11		2	227	0		229						0	346
07:15		0	126	13		139		17	0	1		18		7	311	0		318						0	475
07:30		0	142	8		150		13	0	1		14		5	337	0		342						0	506
07:45		0	154	12		166		13	0	2		15		7	333	0		340						0	521
Total	0	0	515	46	0	561	0	53	0	5	0	58	0	21	1208	0	0	1229	0	0	0	0	0	0	1848
08:00		0	133	14		147		23	0	1		24		6	315	0		321						0	492
08:15		0	173	26		199		20	0	3		23		6	291	0		297						0	519
08:30		0	172	16		188		17	0	2		19		4	282	0		286						0	493
08:45		0	199	13		212		12	0	2		14		13	238	0		251						0	477
Total	0	0	677	69	0	746	0	72	0	8	0	80	0	29	1126	0	0	1155	0	0	0	0	0	0	1981
Grand Total	0	0	1192	115	0	1307	0	125	0	13	0	138	0	50	2334	0	0	2384	0	0	0	0	0	0	3829
Appr %		0	91.2	8.8	0			90.6	0	9.4	0			2.1	97.9	0	0			-2	-2	-2	-2		
Total %		0	31.1	3	0			3.3	0	0.3	0			1.3	61	0	0			0	0	0	0		
AM Pk Hr		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30	07:30
AM Pk Vol		0	602	60	0	662		69	0	7	0	76		24	1276	0	0	1300		0	0	0	0	0	2038
AM PHF		NaN	0.870	0.577	NaN	0.832		0.750	NaN	0.583	NaN	0.792		0.857	0.947	NaN	NaN	0.950		NaN	NaN	NaN	NaN	NaN	0.978

US 15 501 @ Collection Center

File Name: AM
Location:

Trucks and Bikes

Site Code:
Study Date: 08/05/2022

	US 15 501 Southbound						Collection Center Drive Westbound						US 15 501 Northbound						Eastbound						
Time	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00		0	1	0		1		0	0	0		0		0	3	0		3						0	4
07:15		0	3	0		3		0	0	0		0		0	2	0		2						0	5
07:30		0	2	1		3		0	0	0		0		0	6	0		6						0	9
07:45		0	4	0		4		1	0	0		1		0	9	0		9						0	14
Total	0	0	10	1	0	11	0	1	0	0	0	1	0	0	20	0	0	20	0	0	0	0	0	0	32
08:00		0	1	1		2		1	0	0		1		0	5	0		5						0	8
08:15		0	1	0		1		0	0	0		0		0	2	0		2						0	3
08:30		0	6	0		6		0	0	0		0		0	1	0		1						0	7
08:45		0	6	1		7		0	0	0		0		0	6	0		6						0	13
Total	0	0	14	2	0	16	0	1	0	0	0	1	0	0	14	0	0	14	0	0	0	0	0	0	31
Grand Total	0	0	24	3	0	27	0	2	0	0	0	2	0	0	34	0	0	34	0	0	0	0	0	0	63
Appr %		0	88.9	11.1	0			100	0	0	0			0	100	0	0			-2	-2	-2	-2		
Total %		0	38.1	4.8	0			3.2	0	0	0			0	54	0	0			0	0	0	0		
AM Pk Hr		07:15	07:15	07:15	07:15	07:15		07:15	07:15	07:15	07:15	07:15		07:15	07:15	07:15	07:15	07:15		07:15	07:15	07:15	07:15	07:15	07:15
AM Pk Vol		0	10	2	0	12		2	0	0	0	2		0	22	0	0	22		0	0	0	0	0	36
AM PHF		NaN	0.625	0.500	NaN	0.750		0.500	NaN	NaN	NaN	0.500		NaN	0.611	NaN	NaN	0.611		NaN	NaN	NaN	NaN	NaN	0.643

US 15 501 @ Collection Center

File Name: AM
Site Code:
Location:
All Vehicles
Study Date: 08/05/2022

	US 15 501 Southbound					Collection Center Drive Westbound					US 15 501 Northbound					Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00	0	94	13	0	107	10	0	1	0	11	2	230	0	0	232	0	0	0	0	0	350
07:15	0	129	13	0	142	17	0	1	0	18	7	313	0	0	320	0	0	0	0	0	480
07:30	0	144	9	0	153	13	0	1	0	14	5	343	0	0	348	0	0	0	0	0	515
07:45	0	158	12	0	170	14	0	2	0	16	7	342	0	0	349	0	0	0	0	0	535
Total	0	525	47	0	572	54	0	5	0	59	21	1228	0	0	1249	0	0	0	0	0	1880
08:00	0	134	15	0	149	24	0	1	0	25	6	320	0	0	326	0	0	0	0	0	500
08:15	0	174	26	0	200	20	0	3	0	23	6	293	0	0	299	0	0	0	0	0	522
08:30	0	178	16	0	194	17	0	2	0	19	4	283	0	0	287	0	0	0	0	0	500
08:45	0	205	14	0	219	12	0	2	0	14	13	244	0	0	257	0	0	0	0	0	490
Total	0	691	71	0	762	73	0	8	0	81	29	1140	0	0	1169	0	0	0	0	0	2012
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1216	118	0	1334	127	0	13	0	140	50	2368	0	0	2418	0	0	0	0	0	3892
Appr %	00.0	91.2	08.8	00.0		90.7	00.0	09.3	00.0		02.1	97.9	00.0	00.0		NaN	NaN	NaN	NaN		
Total %	00.0	31.2	03.0	00.0		03.3	00.0	00.3	00.0		01.3	60.8	00.0	00.0		00.0	00.0	00.0	00.0		
% Trucks	-	02.0	02.5	-	02.0	01.6	-	00.0	-	01.4	00.0	01.4	-	-	01.4	-	-	-	-	-	01.6
AM Pk Hr	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30
AM Pk Vol	0	610	62	0	672	71	0	7	0	78	24	1298	0	0	1322	0	0	0	0	0	2072
AM PHF	NaN	0.876	0.596	NaN	0.840	0.740	NaN	0.583	NaN	0.780	0.857	0.946	NaN	NaN	0.947	NaN	NaN	NaN	NaN	NaN	0.968

US 15 501 @ Collection Center

File Name: AM
Location:

Site Code:
Study Date: 08/05/2022

All Vehicles

US 15 501			
In = 2495		Out = 1334	
0	1216	118	0
Right	Thru	Left	U-Turn

Out = 0		
0	U-Turn	
0	Left	
In = 0		
0	Thru	
0	Right	

Collection Center Drive		
In = 168		
127	Right	
0	Thru	
Out = 140		
13	Left	
0	U-Turn	

Total Volumes
07:00 to 09:00
Volume = 3892

U-Turn	Left	Thru	Right
0	0	2368	50
In = 1229		Out = 2418	
US 15 501			

US 15 501 @ Collection Center

File Name: AM
Location:

All Vehicles

Site Code:
Study Date: 08/05/2022

US 15 501			
0	610	62	0
Right	Thru	Left	U-Turn

0	0	0	0
U-Turn	Left	Thru	Right

AM Peak Hour Statistics
AM Peak Hour Begins: 07:30
AM Peak Hour Volume: 2072
AM Peak Hour Factor: 0.968

U-Turn	Left	Thru	Right
0	0	1298	24
US 15 501			

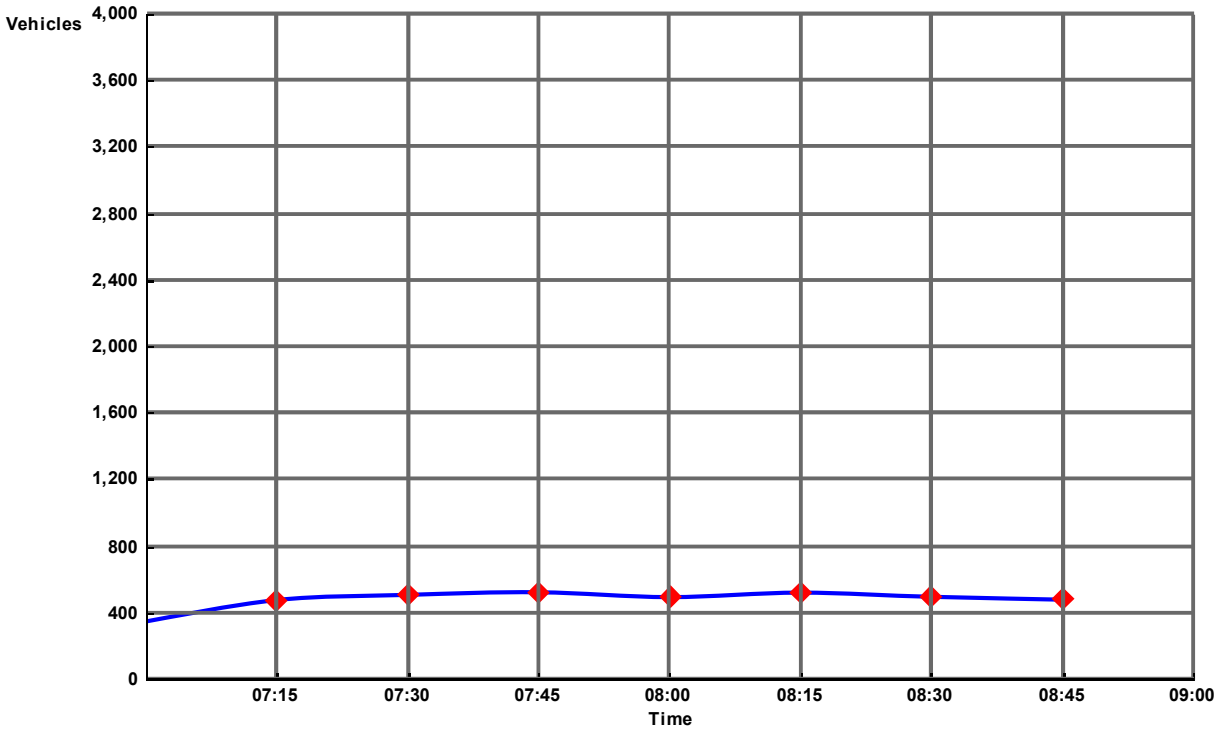
Right	Thru	Left	U-Turn
71	0	7	0
Collection Center Drive			

US 15 501 @ Collection Center

File Name: AM
Location:

Site Code:
Study Date: 08/05/2022

Cars

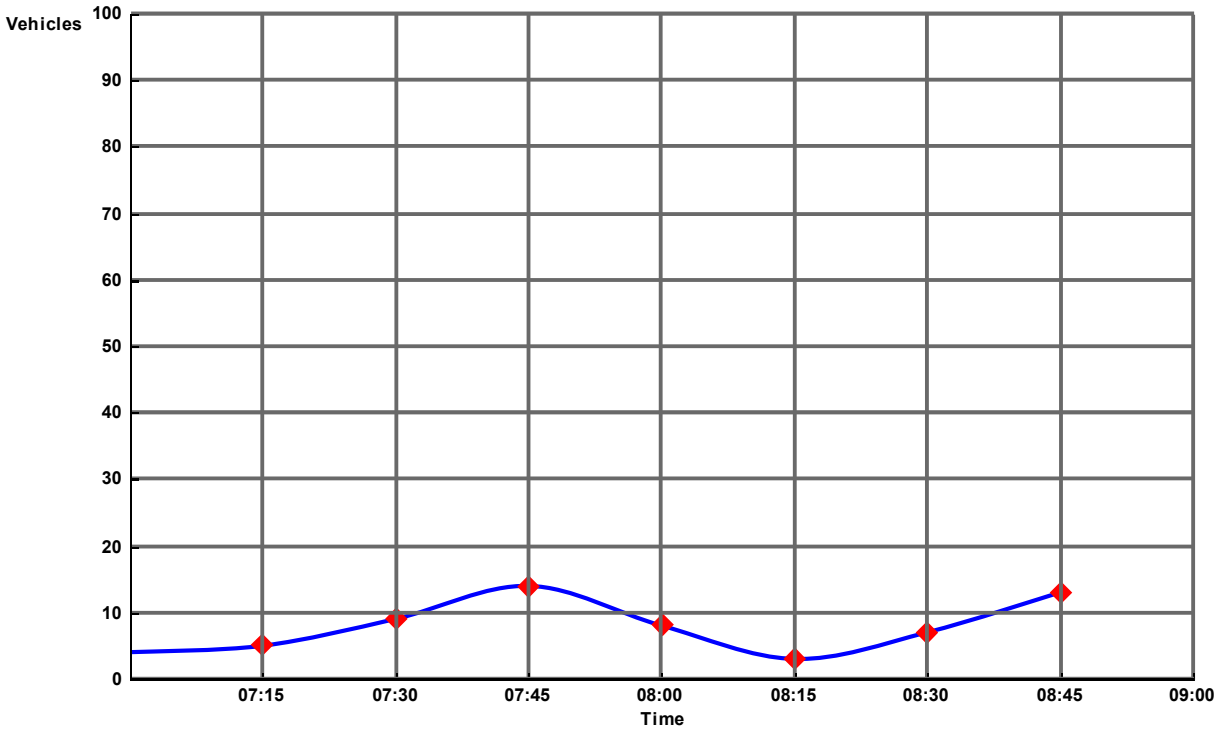


US 15 501 @ Collection Center

File Name: AM
Location:

Site Code:
Study Date: 08/05/2022

Trucks



US 15 501 @ Collection Center

File Name: PM
Location:

Cars and Peds

Site Code:
Study Date: 08/08/2022

	US 15 501 Southbound						Collection Center Drive Westbound						US 15 501 Northbound						Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00		0	282	28		310		19	0	3		22		5	189	0		194						0	526
16:15		0	316	24		340		10	0	5		15		7	212	0		219						0	574
16:30		0	349	18		367		18	0	1		19		6	208	0		214						0	600
16:45		0	349	26		375		16	0	2		18		7	204	0		211						0	604
Total	0	0	1296	96	0	1392	0	63	0	11	0	74	0	25	813	0	0	838	0	0	0	0	0	0	2304
17:00		0	348	29		377		15	0	7		22		8	223	0		231						0	630
17:15		0	367	26		393		21	0	1		22		11	233	0		244						0	659
17:30		0	356	25		381		18	0	2		20		6	233	0		239						0	640
17:45		0	316	23		339		13	0	4		17		5	207	0		212						0	568
Total	0	0	1387	103	0	1490	0	67	0	14	0	81	0	30	896	0	0	926	0	0	0	0	0	0	2497
Grand Total	0	0	2683	199	0	2882	0	130	0	25	0	155	0	55	1709	0	0	1764	0	0	0	0	0	0	4801
Appr %		0	93.1	6.9	0			83.9	0	16.1	0			3.1	96.9	0	0			-2	-2	-2	-2		
Total %		0	55.9	4.1	0			2.7	0	0.5	0			1.1	35.6	0	0			0	0	0	0		
PM Pk Hr		16:45	16:45	16:45	16:45	16:45		16:45	16:45	16:45	16:45	16:45		16:45	16:45	16:45	16:45	16:45		16:45	16:45	16:45	16:45	16:45	16:45
PM Pk Vol		0	1420	106	0	1526		70	0	12	0	82		32	893	0	0	925		0	0	0	0	0	2533
PM PHF		NaN	0.967	0.914	NaN	0.971		0.833	NaN	0.429	NaN	0.932		0.727	0.958	NaN	NaN	0.948		NaN	NaN	NaN	NaN	NaN	0.961

US 15 501 @ Collection Center

File Name: PM
Location:

Site Code:
Study Date: 08/08/2022

Trucks and Bikes

	US 15 501 Southbound						Collection Center Drive Westbound						US 15 501 Northbound						Eastbound						
Time	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00		0	2	0		2		0	0	0		0		0	2	0		2						0	4
16:15		0	2	0		2		0	0	0		0		0	5	0		5						0	7
16:30		0	3	0		3		0	0	0		0		0	3	0		3						0	6
16:45		0	5	1		6		0	0	0		0		0	5	0		5						0	11
Total	0	0	12	1	0	13	0	0	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	28
17:00		0	4	0		4		0	0	0		0		0	2	0		2						0	6
17:15		0	6	0		6		0	0	0		0		0	1	0		1						0	7
17:30		0	2	0		2		0	0	0		0		0	2	0		2						0	4
17:45		0	5	0		5		0	0	0		0		0	3	0		3						0	8
Total	0	0	17	0	0	17	0	0	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	25
Grand Total	0	0	29	1	0	30	0	0	0	0	0	0	0	0	23	0	0	23	0	0	0	0	0	0	53
Appr %		0	96.7	3.3	0			-2	-2	-2	-2			0	100	0	0			-2	-2	-2	-2		
Total %		0	54.7	1.9	0			0	0	0	0			0	43.4	0	0			0	0	0	0		
PM Pk Hr		16:30	16:30	16:30	16:30	16:30		16:30	16:30	16:30	16:30	16:30		16:30	16:30	16:30	16:30	16:30		16:30	16:30	16:30	16:30	16:30	16:30
PM Pk Vol		0	18	1	0	19		0	0	0	0	0		0	11	0	0	11		0	0	0	0	0	30
PM PHF		NaN	0.750	0.250	NaN	0.792		NaN	NaN	NaN	NaN	NaN		NaN	0.550	NaN	NaN	0.550		NaN	NaN	NaN	NaN	NaN	0.682

US 15 501 @ Collection Center

File Name: PM
Location:

All Vehicles

Site Code:
Study Date: 08/08/2022

	US 15 501 Southbound					Collection Center Drive Westbound					US 15 501 Northbound					Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00	0	284	28	0	312	19	0	3	0	22	5	191	0	0	196	0	0	0	0	0	530
16:15	0	318	24	0	342	10	0	5	0	15	7	217	0	0	224	0	0	0	0	0	581
16:30	0	352	18	0	370	18	0	1	0	19	6	211	0	0	217	0	0	0	0	0	606
16:45	0	354	27	0	381	16	0	2	0	18	7	209	0	0	216	0	0	0	0	0	615
Total	0	1308	97	0	1405	63	0	11	0	74	25	828	0	0	853	0	0	0	0	0	2332
17:00	0	352	29	0	381	15	0	7	0	22	8	225	0	0	233	0	0	0	0	0	636
17:15	0	373	26	0	399	21	0	1	0	22	11	234	0	0	245	0	0	0	0	0	666
17:30	0	358	25	0	383	18	0	2	0	20	6	235	0	0	241	0	0	0	0	0	644
17:45	0	321	23	0	344	13	0	4	0	17	5	210	0	0	215	0	0	0	0	0	576
Total	0	1404	103	0	1507	67	0	14	0	81	30	904	0	0	934	0	0	0	0	0	2522
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	2712	200	0	2912	130	0	25	0	155	55	1732	0	0	1787	0	0	0	0	0	4854
Appr %	00.0	93.1	06.9	00.0		83.9	00.0	16.1	00.0		03.1	96.9	00.0	00.0		NaN	NaN	NaN	NaN		
Total %	00.0	55.9	04.1	00.0		02.7	00.0	00.5	00.0		01.1	35.7	00.0	00.0		00.0	00.0	00.0	00.0		
% Trucks	-	01.1	00.5	-	01.0	00.0	-	00.0	-	00.0	00.0	01.3	-	-	01.3	-	-	-	-	-	01.1
PM Pk Hr	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45
PM Pk Vol	0	1437	107	0	1544	70	0	12	0	82	32	903	0	0	935	0	0	0	0	0	2561
PM PHF	NaN	0.963	0.922	NaN	0.967	0.833	NaN	0.429	NaN	0.932	0.727	0.961	NaN	NaN	0.954	NaN	NaN	NaN	NaN	NaN	0.961

US 15 501 @ Collection Center

File Name: PM
Location:

Site Code:
Study Date: 08/08/2022

All Vehicles

US 15 501			
In = 1862		Out = 2912	
0	2712	200	0
Right	Thru	Left	U-Turn

Out = 0			
0	0	0	0
U-Turn	Left	Thru	Right
In = 0			

Collection Center Drive			
In = 255		Out = 155	
130	0	25	0
Right	Thru	Left	U-Turn

Total Volumes
16:00 to 18:00
Volume = 4854

U-Turn	Left	Thru	Right
0	0	1732	55
In = 2737		Out = 1787	
US 15 501			

US 15 501 @ Collection Center

File Name: PM
Location:

All Vehicles

Site Code:
Study Date: 08/08/2022

US 15 501			
0	1437	107	0
Right	Thru	Left	U-Turn

0	0	0	0
U-Turn	Left	Thru	Right

PM Peak Hour Statistics
PM Peak Hour Begins: 16:45
PM Peak Hour Volume: 2561
PM Peak Hour Factor: 0.961

U-Turn	Left	Thru	Right
0	0	903	32
US 15 501			

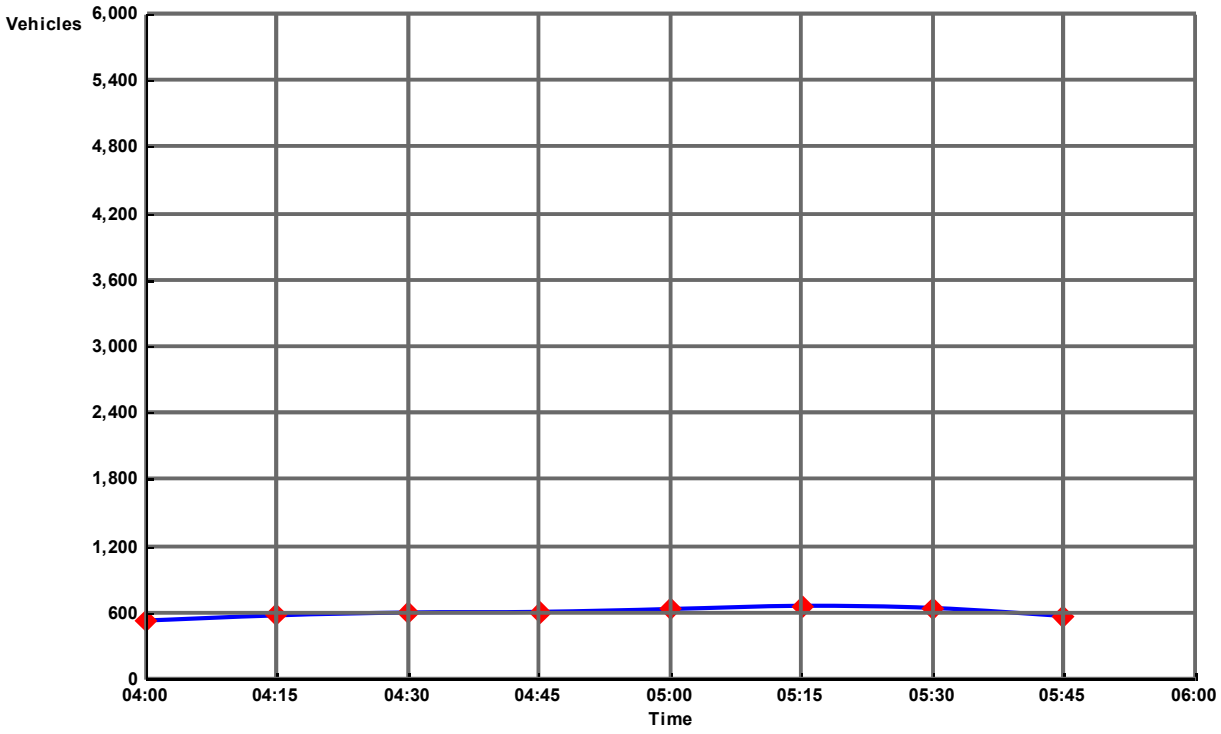
Right	Thru	Left	U-Turn
70	0	12	0
Collection Center Drive			

US 15 501 @ Collection Center

File Name: PM
Location:

Site Code:
Study Date: 08/08/2022

Cars

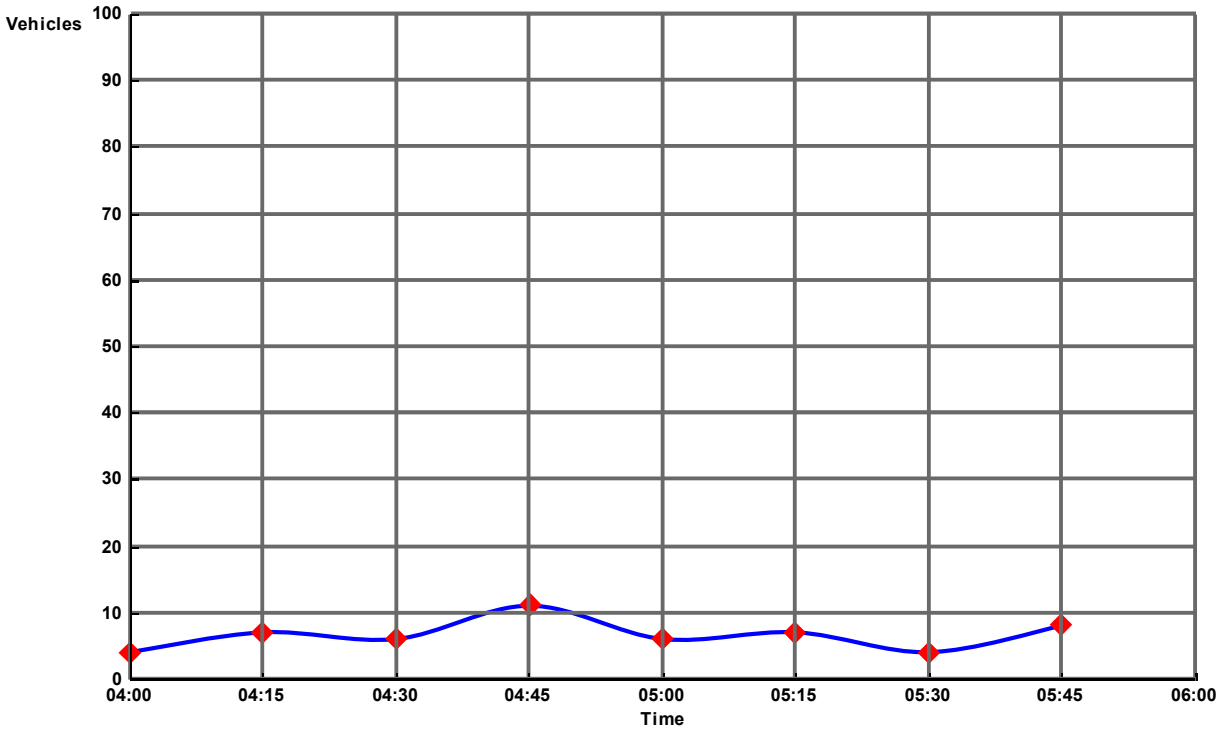


US 15 501 @ Collection Center

File Name: PM
Location:

Site Code:
Study Date: 08/08/2022

Trucks



Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Cars and Peds

Site Code:
Study Date: 05/11/2022

	US 15 501 Southbound						Plaza Dr Westbound						US 15 501 Northbound						Manns Chapel Rd Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00	0	16	88	4		108	0	13	4	11		28	0	15	163	12		190	0	18	8	70		96	422
07:15	0	24	102	11		137	0	14	7	20		41	0	10	231	8		249	0	29	16	112		157	584
07:30	0	26	151	14		191	0	5	9	25		39	0	13	205	16		234	0	40	18	128		186	650
07:45	0	36	127	20		183	0	17	18	26		61	0	19	222	25		266	0	39	31	129		199	709
Total	0	102	468	49	0	619	0	49	38	82	0	169	0	57	821	61	0	939	0	126	73	439	0	638	2365
08:00	0	26	131	13		170	0	12	13	16		41	0	27	216	32		275	0	29	23	119		171	657
08:15	0	26	120	19		165	0	16	11	16		43	0	26	217	19		262	0	29	21	106		156	626
08:30	0	28	115	17		160	0	20	14	20		54	0	12	224	12		248	0	20	16	98		134	596
08:45	0	32	97	18		147	0	10	13	27		50	0	21	188	25		234	0	30	16	115		161	592
Total	0	112	463	67	0	642	0	58	51	79	0	188	0	86	845	88	0	1019	0	108	76	438	0	622	2471
Grand Total	0	214	931	116	0	1261	0	107	89	161	0	357	0	143	1666	149	0	1958	0	234	149	877	0	1260	4836
Appr %		17	73.8	9.2	0			30	24.9	45.1	0			7.3	85.1	7.6	0			18.6	11.8	69.6	0		
Total %		4.4	19.3	2.4	0			2.2	1.8	3.3	0			3	34.4	3.1	0			4.8	3.1	18.1	0		
AM Pk Hr		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30	07:30
AM Pk Vol		114	529	66	0	709		50	51	83	0	184		85	860	92	0	1037		137	93	482	0	712	2642
AM PHF		0.792	0.876	0.825	NaN	0.928		0.735	0.708	0.798	NaN	0.754		0.787	0.968	0.719	NaN	0.943		0.856	0.750	0.934	NaN	0.894	0.932

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Site Code:
Study Date: 05/11/2022

Trucks and Bikes

	US 15 501 Southbound						Plaza Dr Westbound						US 15 501 Northbound						Manns Chapel Rd Eastbound						
Time	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00	0	0	3	0		3	0	0	0	1		1	0	0	3	0		3	0	1	0	2		3	10
07:15	0	0	5	0		5	0	0	0	1		1	0	2	2	0		4	0	0	0	1		1	11
07:30	0	3	8	0		11	0	0	0	0		0	0	0	3	1		4	0	0	0	1		1	16
07:45	0	0	4	0		4	0	0	0	0		0	0	0	6	1		7	0	0	0	0		0	11
Total	0	3	20	0	0	23	0	0	0	2	0	2	0	2	14	2	0	18	0	1	0	4	0	5	48
08:00	0	1	3	0		4	0	0	0	0		0	0	0	7	2		9	0	1	0	0		1	14
08:15	0	1	5	1		7	0	0	0	0		0	0	0	12	1		13	0	0	0	0		0	20
08:30	0	1	5	1		7	0	0	0	0		0	0	0	11	1		12	0	1	0	0		1	20
08:45	0	0	7	0		7	0	0	0	0		0	0	0	10	2		12	0	0	0	1		1	20
Total	0	3	20	2	0	25	0	0	0	0	0	0	0	0	40	6	0	46	0	2	0	1	0	3	74
Grand Total	0	6	40	2	0	48	0	0	0	2	0	2	0	2	54	8	0	64	0	3	0	5	0	8	122
Appr %		12.5	83.3	4.2	0			0	0	100	0			3.1	84.4	12.5	0			37.5	0	62.5	0		
Total %		4.9	32.8	1.6	0			0	0	1.6	0			1.6	44.3	6.6	0			2.5	0	4.1	0		
AM Pk Hr		08:00	08:00	08:00	08:00	08:00		08:00	08:00	08:00	08:00	08:00		08:00	08:00	08:00	08:00	08:00		08:00	08:00	08:00	08:00	08:00	08:00
AM Pk Vol		3	20	2	0	25		0	0	0	0	0		0	40	6	0	46		2	0	1	0	3	74
AM PHF		0.750	0.714	0.500	NaN	0.893		NaN	NaN	NaN	NaN	NaN		NaN	0.833	0.750	NaN	0.885		0.500	NaN	0.250	NaN	0.750	0.925

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Site Code:
Location:
All Vehicles
Study Date: 05/11/2022

	US 15 501 Southbound					Plaza Dr Westbound					US 15 501 Northbound					Manns Chapel Rd Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00	16	91	4	0	111	13	4	12	0	29	15	166	12	0	193	19	8	72	0	99	432
07:15	24	107	11	0	142	14	7	21	0	42	12	233	8	0	253	29	16	113	0	158	595
07:30	29	159	14	0	202	5	9	25	0	39	13	208	17	0	238	40	18	129	0	187	666
07:45	36	131	20	0	187	17	18	26	0	61	19	228	26	0	273	39	31	129	0	199	720
Total	105	488	49	0	642	49	38	84	0	171	59	835	63	0	957	127	73	443	0	643	2413
08:00	27	134	13	0	174	12	13	16	0	41	27	223	34	0	284	30	23	119	0	172	671
08:15	27	125	20	0	172	16	11	16	0	43	26	229	20	0	275	29	21	106	0	156	646
08:30	29	120	18	0	167	20	14	20	0	54	12	235	13	0	260	21	16	98	0	135	616
08:45	32	104	18	0	154	10	13	27	0	50	21	198	27	0	246	30	16	116	0	162	612
Total	115	483	69	0	667	58	51	79	0	188	86	885	94	0	1065	110	76	439	0	625	2545
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	220	971	118	0	1309	107	89	163	0	359	145	1720	157	0	2022	237	149	882	0	1268	4958
Appr %	16.8	74.2	09.0	00.0		29.8	24.8	45.4	00.0		07.2	85.1	07.8	00.0		18.7	11.8	69.6	00.0		
Total %	04.4	19.6	02.4	00.0		02.2	01.8	03.3	00.0		02.9	34.7	03.2	00.0		04.8	03.0	17.8	00.0		
% Trucks	02.7	04.1	01.7	-	03.7	00.0	00.0	01.2	-	00.6	01.4	03.1	05.1	-	03.2	01.3	00.0	00.6	-	00.6	02.5
AM Pk Hr	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30
AM Pk Vol	119	549	67	0	735	50	51	83	0	184	85	888	97	0	1070	138	93	483	0	714	2703
AM PHF	0.826	0.863	0.838	NaN	0.910	0.735	0.708	0.798	NaN	0.754	0.787	0.969	0.713	NaN	0.942	0.863	0.750	0.936	NaN	0.897	0.939

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Site Code:
Study Date: 05/11/2022

All Vehicles

US 15 501			
In = 2709		Out = 1309	
220	971	118	0
Right	Thru	Left	U-Turn

Manns Chapel Rd			
In = 466	Out = 1268		
237	149	882	0
Right	Thru	Left	U-Turn

Plaza Dr			
In = 412		Out = 359	
107	89	163	0
Right	Thru	Left	U-Turn

Total Volumes
07:00 to 09:00
Volume = 4958

U-Turn	Left	Thru	Right
0	157	1720	145
In = 1371		Out = 2022	
US 15 501			

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

All Vehicles

Site Code:
Study Date: 05/11/2022

US 15 501			
119	549	67	0
Right	Thru	Left	U-Turn

Manns Chapel Rd		
0	U-Turn	
483	Left	
93	Thru	
138	Right	

AM Peak Hour Statistics
AM Peak Hour Begins: 07:30
AM Peak Hour Volume: 2703
AM Peak Hour Factor: 0.939

Plaza Dr		
50	Right	
51	Thru	
83	Left	
0	U-Turn	

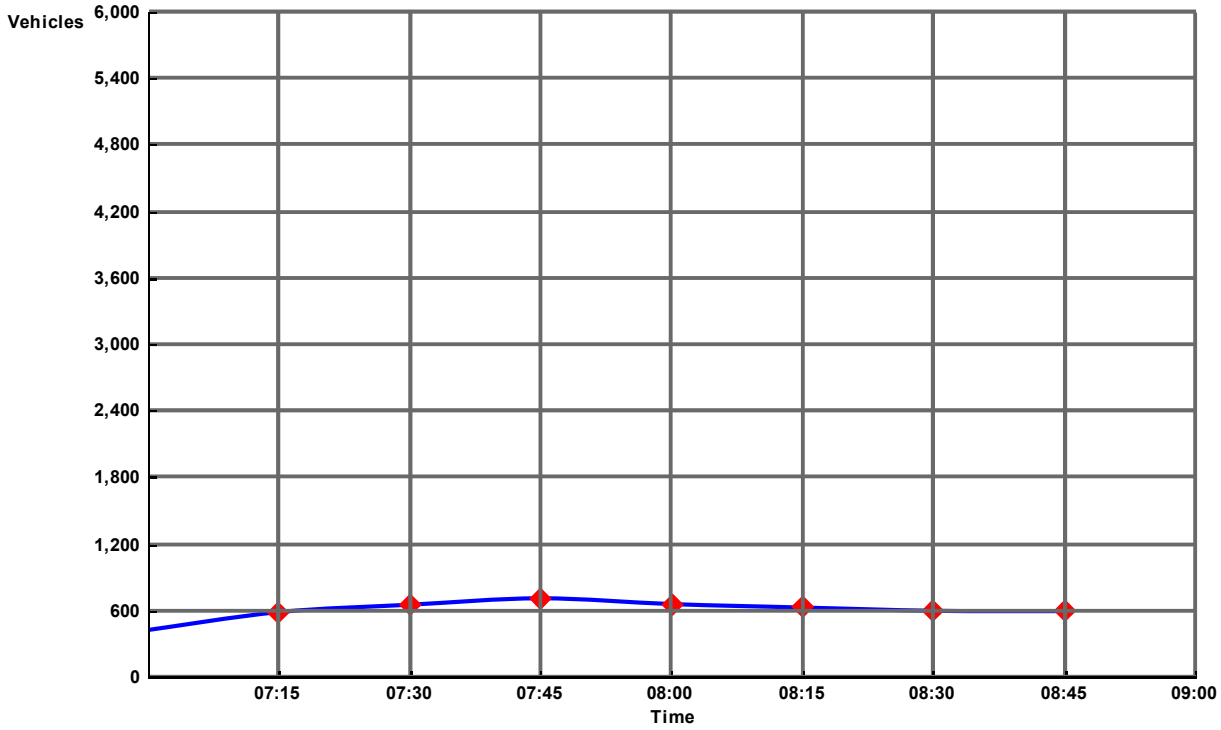
U-Turn	Left	Thru	Right
0	97	888	85
US 15 501			

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Cars

Site Code:
Study Date: 05/11/2022

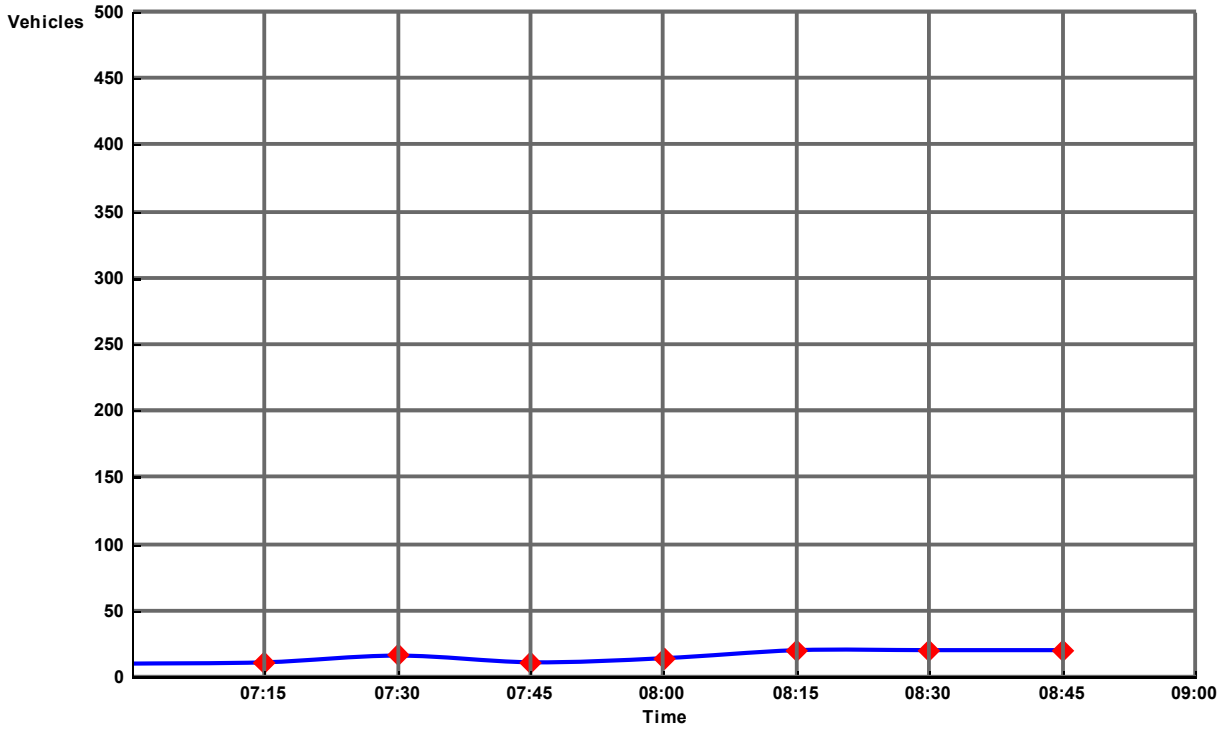


Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Site Code:
Study Date: 05/11/2022

Trucks



Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Cars and Peds

Site Code:
Study Date: 05/19/2022

	US 15 501 Southbound						Plaza Dr Westbound						US 15 501 Northbound						Manns Chapel Rd Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00		69	213	23		305		19	23	45		87		24	162	34		220		20	23	60		103	715
16:15		70	246	38		354		13	34	35		82		15	138	29		182		28	33	78		139	757
16:30		63	213	40		316		10	26	46		82		17	144	45		206		30	25	69		124	728
16:45		63	228	44		335		13	31	45		89		24	155	44		223		31	26	63		120	767
Total	0	265	900	145	0	1310	0	55	114	171	0	340	0	80	599	152	0	831	0	109	107	270	0	486	2967
17:00		77	222	40		339		12	32	52		96		20	158	55		233		35	24	73		132	800
17:15		91	234	26		351		19	35	35		89		23	162	50		235		38	24	55		117	792
17:30		86	228	45		359		5	38	46		89		20	154	52		226		29	27	70		126	800
17:45		82	202	41		325		7	30	53		90		14	143	33		190		14	28	65		107	712
Total	0	336	886	152	0	1374	0	43	135	186	0	364	0	77	617	190	0	884	0	116	103	263	0	482	3104
Grand Total	0	601	1786	297	0	2684	0	98	249	357	0	704	0	157	1216	342	0	1715	0	225	210	533	0	968	6071
Appr %		22.4	66.5	11.1	0			13.9	35.4	50.7	0			9.2	70.9	19.9	0			23.2	21.7	55.1	0		
Total %		9.9	29.4	4.9	0			1.6	4.1	5.9	0			2.6	20	5.6	0			3.7	3.5	8.8	0		
PM Pk Hr		16:45	16:45	16:45	16:45	16:45		16:45	16:45	16:45	16:45	16:45		16:45	16:45	16:45	16:45	16:45		16:45	16:45	16:45	16:45	16:45	16:45
PM Pk Vol		317	912	155	0	1384		49	136	178	0	363		87	629	201	0	917		133	101	261	0	495	3159
PM PHF		0.871	0.974	0.861	NaN	0.964		0.645	0.895	0.856	NaN	0.945		0.906	0.971	0.914	NaN	0.976		0.875	0.935	0.894	NaN	0.938	0.987

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Site Code:
Study Date: 05/19/2022

Trucks and Bikes

	US 15 501 Southbound						Plaza Dr Westbound						US 15 501 Northbound						Manns Chapel Rd Eastbound						
Time	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00		1	7	1		9		0	0	0		0		0	4	0		4		0	0	1		1	14
16:15		1	3	0		4		1	0	0		1		2	9	3		14		2	0	1		3	22
16:30		1	2	0		3		1	0	0		1		0	8	0		8		1	0	0		1	13
16:45		1	1	0		2		0	0	0		0		0	3	4		7		0	0	0		0	9
Total	0	4	13	1	0	18	0	2	0	0	0	2	0	2	24	7	0	33	0	3	0	2	0	5	58
17:00		1	8	2		11		1	0	0		1		0	5	1		6		1	0	1		2	20
17:15		0	0	0		0		0	0	0		0		0	2	0		2		1	0	0		1	3
17:30		0	4	0		4		0	1	0		1		0	4	0		4		0	0	1		1	10
17:45		0	0	0		0		0	0	0		0		0	0	0		0		0	0	0		0	0
Total	0	1	12	2	0	15	0	1	1	0	0	2	0	0	11	1	0	12	0	2	0	2	0	4	33
Grand Total	0	5	25	3	0	33	0	3	1	0	0	4	0	2	35	8	0	45	0	5	0	4	0	9	91
Appr %		15.2	75.8	9.1	0			75	25	0	0			4.4	77.8	17.8	0			55.6	0	44.4	0		
Total %		5.5	27.5	3.3	0			3.3	1.1	0	0			2.2	38.5	8.8	0			5.5	0	4.4	0		
PM Pk Hr		16:15	16:15	16:15	16:15	16:15		16:15	16:15	16:15	16:15	16:15		16:15	16:15	16:15	16:15	16:15		16:15	16:15	16:15	16:15	16:15	16:15
PM Pk Vol		4	14	2	0	20		3	0	0	0	3		2	25	8	0	35		4	0	2	0	6	64
PM PHF		1.000	0.438	0.250	NaN	0.455		0.750	NaN	NaN	NaN	0.750		0.250	0.694	0.500	NaN	0.625		0.500	NaN	0.500	NaN	0.500	0.727

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

All Vehicles

Site Code:
Study Date: 05/19/2022

	US 15 501 Southbound					Plaza Dr Westbound					US 15 501 Northbound					Manns Chapel Rd Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00	70	220	24	0	314	19	23	45	0	87	24	166	34	0	224	20	23	61	0	104	729
16:15	71	249	38	0	358	14	34	35	0	83	17	147	32	0	196	30	33	79	0	142	779
16:30	64	215	40	0	319	11	26	46	0	83	17	152	45	0	214	31	25	69	0	125	741
16:45	64	229	44	0	337	13	31	45	0	89	24	158	48	0	230	31	26	63	0	120	776
Total	269	913	146	0	1328	57	114	171	0	342	82	623	159	0	864	112	107	272	0	491	3025
17:00	78	230	42	0	350	13	32	52	0	97	20	163	56	0	239	36	24	74	0	134	820
17:15	91	234	26	0	351	19	35	35	0	89	23	164	50	0	237	39	24	55	0	118	795
17:30	86	232	45	0	363	5	39	46	0	90	20	158	52	0	230	29	27	71	0	127	810
17:45	82	202	41	0	325	7	30	53	0	90	14	143	33	0	190	14	28	65	0	107	712
Total	337	898	154	0	1389	44	136	186	0	366	77	628	191	0	896	118	103	265	0	486	3137
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	606	1811	300	0	2717	101	250	357	0	708	159	1251	350	0	1760	230	210	537	0	977	6162
Appr %	22.3	66.7	11.0	00.0		14.3	35.3	50.4	00.0		09.0	71.1	19.9	00.0		23.5	21.5	55.0	00.0		
Total %	09.8	29.4	04.9	00.0		01.6	04.1	05.8	00.0		02.6	20.3	05.7	00.0		03.7	03.4	08.7	00.0		
% Trucks	00.8	01.4	01.0	-	01.2	03.0	00.4	00.0	-	00.6	01.3	02.8	02.3	-	02.6	02.2	00.0	00.7	-	00.9	01.5
PM Pk Hr	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45
PM Pk Vol	319	925	157	0	1401	50	137	178	0	365	87	643	206	0	936	135	101	263	0	499	3201
PM PHF	0.876	0.988	0.872	NaN	0.965	0.658	0.878	0.856	NaN	0.941	0.906	0.980	0.920	NaN	0.979	0.865	0.935	0.889	NaN	0.931	0.976

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Site Code:
Study Date: 05/19/2022

All Vehicles

US 15 501			
In = 1889		Out = 2717	
606	1811	300	0
Right	Thru	Left	U-Turn

Manns Chapel Rd			
In = 1206	Out = 977		
230	210	537	0
Right	Thru	Left	U-Turn

Plaza Dr			
In = 669		Out = 708	
101	250	357	0
Right	Thru	Left	U-Turn

Total Volumes
16:00 to 18:00
Volume = 6162

U-Turn	Left	Thru	Right
0	350	1251	159
In = 2398		Out = 1760	
US 15 501			

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

All Vehicles

Site Code:
Study Date: 05/19/2022

US 15 501			
319	925	157	0
Right	Thru	Left	U-Turn

Manns Chapel Rd		
0	U-Turn	
263	Left	
101	Thru	
135	Right	

PM Peak Hour Statistics
PM Peak Hour Begins: 16:45
PM Peak Hour Volume: 3201
PM Peak Hour Factor: 0.976

Plaza Dr		
50	Right	
137	Thru	
178	Left	
0	U-Turn	

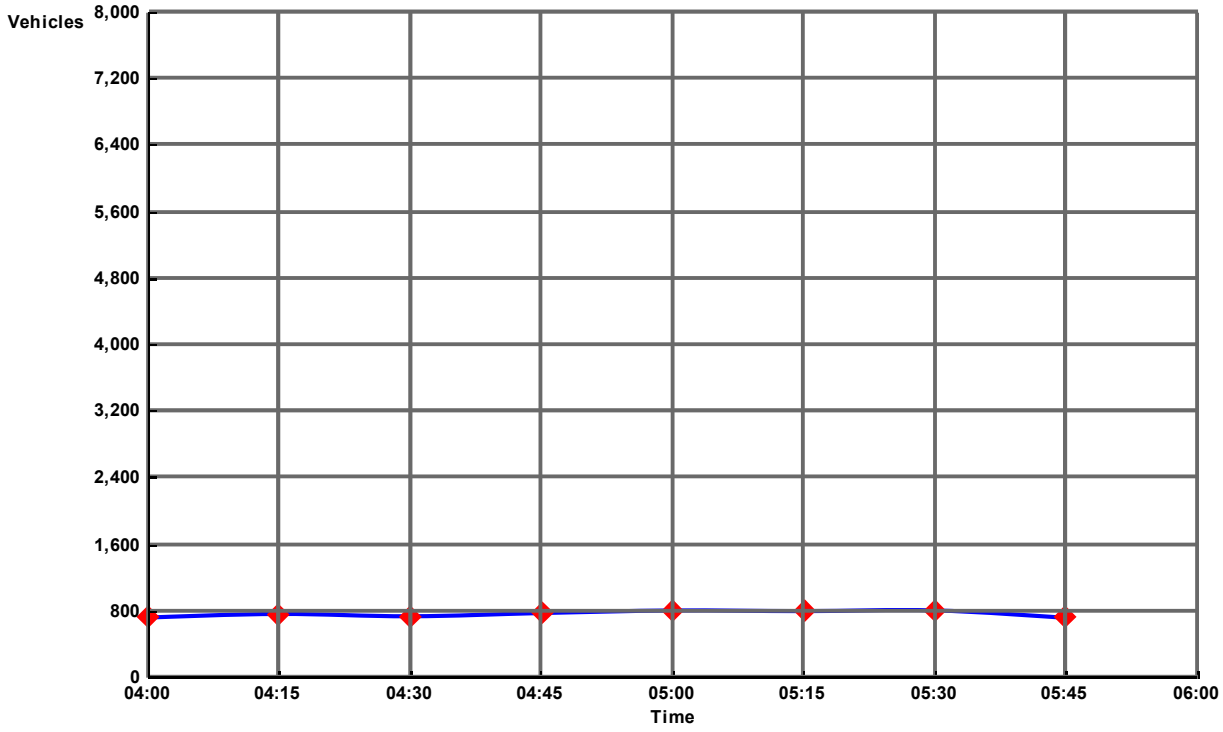
U-Turn	Left	Thru	Right
0	206	643	87
US 15 501			

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Cars

Site Code:
Study Date: 05/19/2022

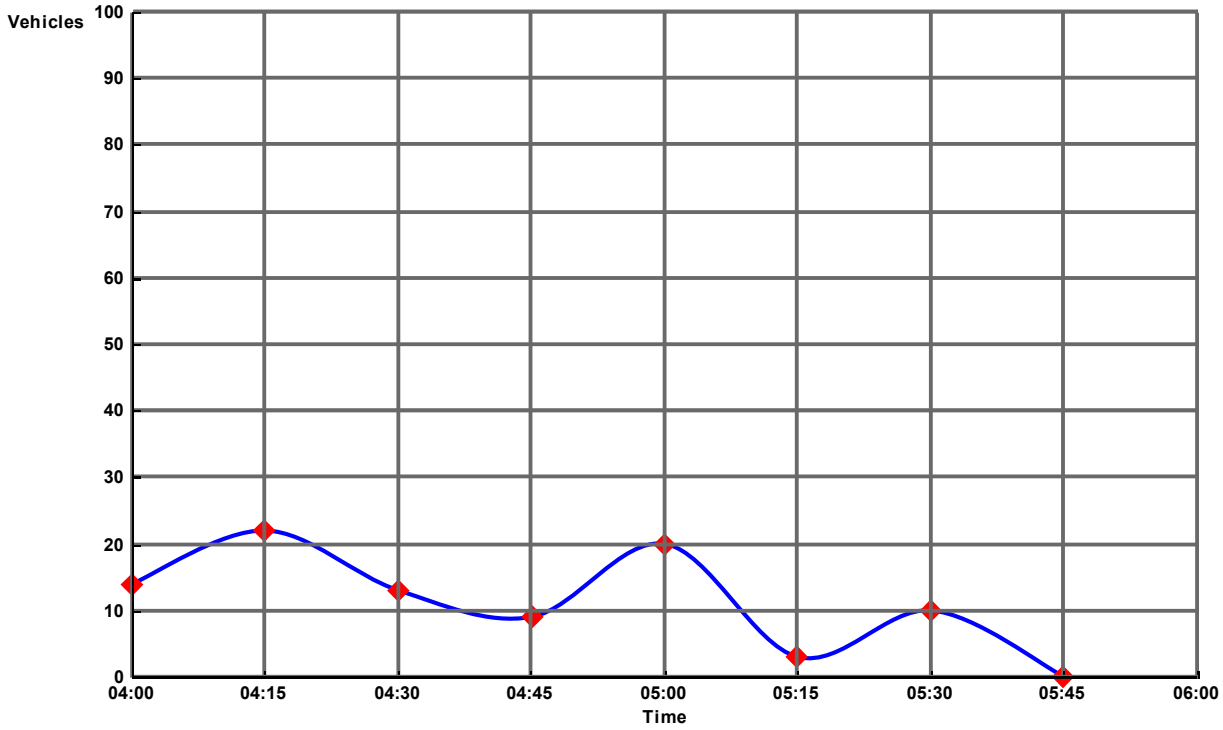


Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Site Code:
Study Date: 05/19/2022

Trucks



Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Cars and Peds

Site Code:
Study Date: 05/19/2022

	US 15 501 Southbound						Old Lystra Rd Westbound						US 15 501 Northbound						Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00		0	125	3		128		4	0	3		7		4	288	0		292		0	0	0		0	427
07:15		0	126	3		129		4	0	10		14		12	319	0		331		0	0	0		0	474
07:30		0	174	4		178		3	0	8		11		15	366	0		381		0	0	0		0	570
07:45		0	186	4		190		4	0	17		21		28	338	0		366						0	577
Total	0	0	611	14	0	625	0	15	0	38	0	53	0	59	1311	0	0	1370	0	0	0	0	0	0	2048
08:00		0	191	8		199		9	0	4		13		16	337	0		353						0	565
08:15		0	176	11		187		9	0	9		18		24	371	0		395						0	600
08:30		0	152	9		161		10	0	8		18		13	342	0		355						0	534
08:45		0	163	5		168		8	0	10		18		23	312	0		335						0	521
Total	0	0	682	33	0	715	0	36	0	31	0	67	0	76	1362	0	0	1438	0	0	0	0	0	0	2220
Grand Total	0	0	1293	47	0	1340	0	51	0	69	0	120	0	135	2673	0	0	2808	0	0	0	0	0	0	4268
Appr %		0	96.5	3.5	0			42.5	0	57.5	0			4.8	95.2	0	0			-2	-2	-2	-2		
Total %		0	30.3	1.1	0			1.2	0	1.6	0			3.2	62.6	0	0			0	0	0	0		
AM Pk Hr		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30	07:30
AM Pk Vol		0	727	27	0	754		25	0	38	0	63		83	1412	0	0	1495		0	0	0	0	0	2312
AM PHF		NaN	0.952	0.614	NaN	0.947		0.694	NaN	0.559	NaN	0.750		0.741	0.951	NaN	NaN	0.946		NaN	NaN	NaN	NaN	NaN	0.963

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Site Code:
Study Date: 05/19/2022

Trucks and Bikes

	US 15 501 Southbound						Old Lystra Rd Westbound						US 15 501 Northbound						Eastbound						
Time	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00		0	3	0		3		1	0	1		2		1	4	0		5		0	0	0		0	10
07:15		0	6	0		6		0	0	0		0		0	3	0		3		0	0	0		0	9
07:30		0	12	0		12		0	0	0		0		0	4	0		4		0	0	0		0	16
07:45		0	4	0		4		0	0	0		0		0	9	0		9						0	13
Total	0	0	25	0	0	25	0	1	0	1	0	2	0	1	20	0	0	21	0	0	0	0	0	0	48
08:00		0	5	0		5		0	0	0		0		0	6	0		6						0	11
08:15		0	8	0		8		0	0	1		1		2	16	0		18						0	27
08:30		0	7	1		8		1	0	0		1		0	8	0		8						0	17
08:45		0	7	0		7		0	0	0		0		1	15	0		16						0	23
Total	0	0	27	1	0	28	0	1	0	1	0	2	0	3	45	0	0	48	0	0	0	0	0	0	78
Grand Total	0	0	52	1	0	53	0	2	0	2	0	4	0	4	65	0	0	69	0	0	0	0	0	0	126
Appr %		0	98.1	1.9	0			50	0	50	0			5.8	94.2	0	0			-2	-2	-2	-2		
Total %		0	41.3	0.8	0			1.6	0	1.6	0			3.2	51.6	0	0			0	0	0	0		
AM Pk Hr		08:00	08:00	08:00	08:00	08:00		08:00	08:00	08:00	08:00	08:00		08:00	08:00	08:00	08:00	08:00		08:00	08:00	08:00	08:00	08:00	08:00
AM Pk Vol		0	27	1	0	28		1	0	1	0	2		3	45	0	0	48		0	0	0	0	0	78
AM PHF		NaN	0.844	0.250	NaN	0.875		0.250	NaN	0.250	NaN	0.500		0.375	0.703	NaN	NaN	0.667		NaN	NaN	NaN	NaN	NaN	0.722

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

All Vehicles

Site Code:
Study Date: 05/19/2022

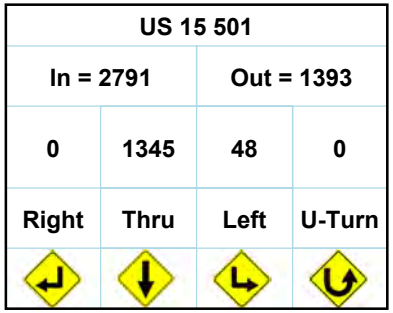
	US 15 501 Southbound					Old Lystra Rd Westbound					US 15 501 Northbound					Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00	0	128	3	0	131	5	0	4	0	9	5	292	0	0	297	0	0	0	0	0	437
07:15	0	132	3	0	135	4	0	10	0	14	12	322	0	0	334	0	0	0	0	0	483
07:30	0	186	4	0	190	3	0	8	0	11	15	370	0	0	385	0	0	0	0	0	586
07:45	0	190	4	0	194	4	0	17	0	21	28	347	0	0	375	0	0	0	0	0	590
Total	0	636	14	0	650	16	0	39	0	55	60	1331	0	0	1391	0	0	0	0	0	2096
08:00	0	196	8	0	204	9	0	4	0	13	16	343	0	0	359	0	0	0	0	0	576
08:15	0	184	11	0	195	9	0	10	0	19	26	387	0	0	413	0	0	0	0	0	627
08:30	0	159	10	0	169	11	0	8	0	19	13	350	0	0	363	0	0	0	0	0	551
08:45	0	170	5	0	175	8	0	10	0	18	24	327	0	0	351	0	0	0	0	0	544
Total	0	709	34	0	743	37	0	32	0	69	79	1407	0	0	1486	0	0	0	0	0	2298
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	0	1345	48	0	1393	53	0	71	0	124	139	2738	0	0	2877	0	0	0	0	0	4394
Appr %	00.0	96.6	03.4	00.0		42.7	00.0	57.3	00.0		04.8	95.2	00.0	00.0		NaN	NaN	NaN	NaN		
Total %	00.0	30.6	01.1	00.0		01.2	00.0	01.6	00.0		03.2	62.3	00.0	00.0		00.0	00.0	00.0	00.0		
% Trucks	-	03.9	02.1	-	03.8	03.8	-	02.8	-	03.2	02.9	02.4	-	-	02.4	-	-	-	-	-	02.9
AM Pk Hr	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30
AM Pk Vol	0	756	27	0	783	25	0	39	0	64	85	1447	0	0	1532	0	0	0	0	0	2379
AM PHF	NaN	0.964	0.614	NaN	0.960	0.694	NaN	0.574	NaN	0.762	0.759	0.935	NaN	NaN	0.927	NaN	NaN	NaN	NaN	NaN	0.949

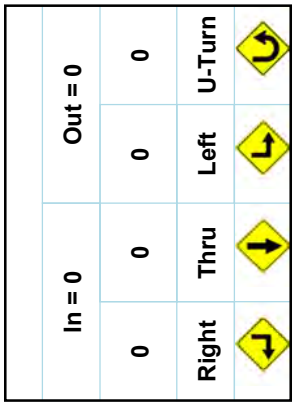
Report Title 1
Report Title 2
Report Title 3

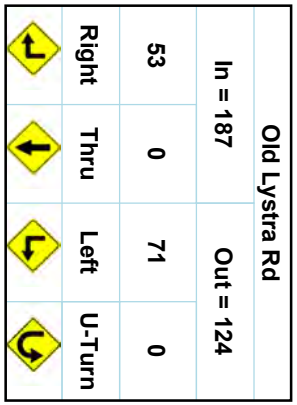
File Name: AM
Location:

All Vehicles

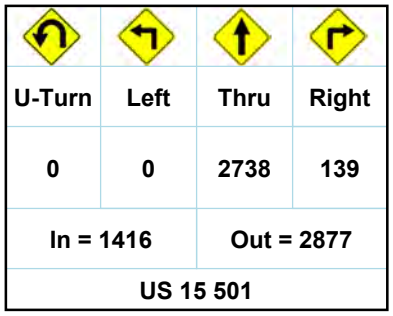
Site Code:
Study Date: 05/19/2022







Total Volumes
07:00 to 09:00
Volume = 4394



Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

All Vehicles

Site Code:
Study Date: 05/19/2022

US 15 501			
0	756	27	0
Right	Thru	Left	U-Turn

0	U-Turn		
0	Left		
0	Thru		
0	Right		

AM Peak Hour Statistics
AM Peak Hour Begins: 07:30
AM Peak Hour Volume: 2379
AM Peak Hour Factor: 0.949

	Right	25	Old Lystra Rd
	Thru	0	
	Left	39	
	U-Turn	0	

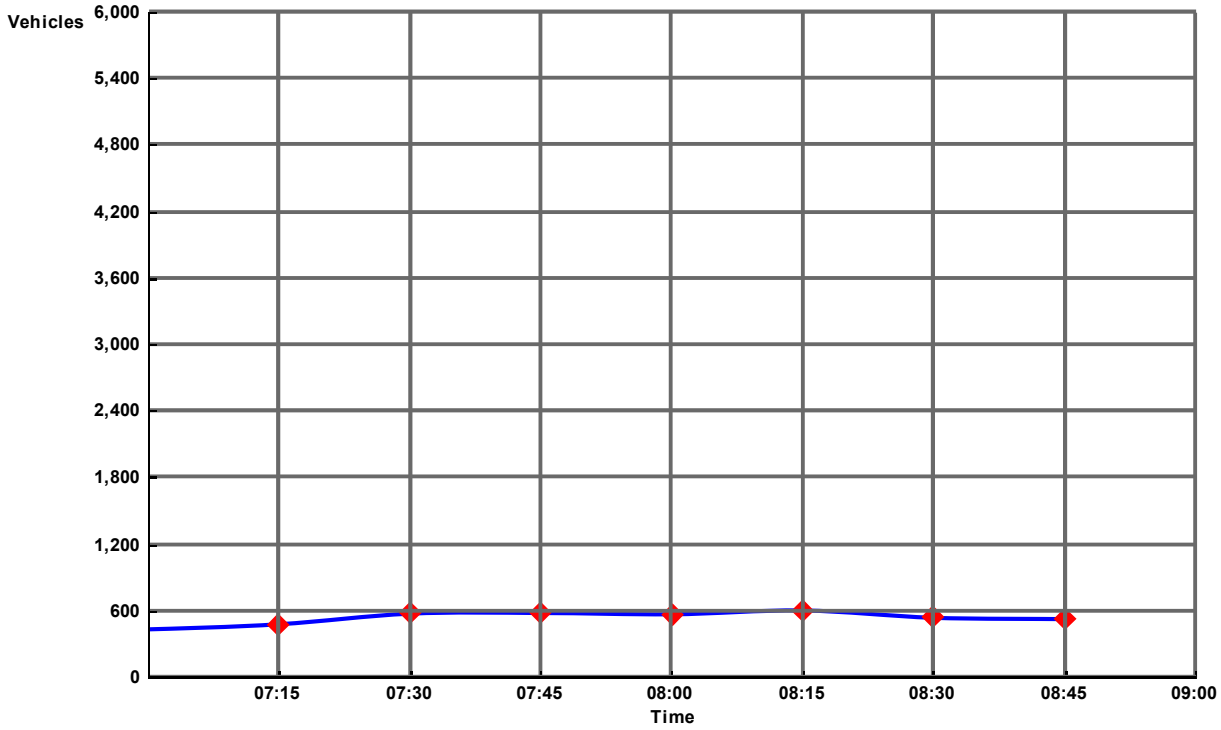
U-Turn	Left	Thru	Right
0	0	1447	85
US 15 501			

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Site Code:
Study Date: 05/19/2022

Cars

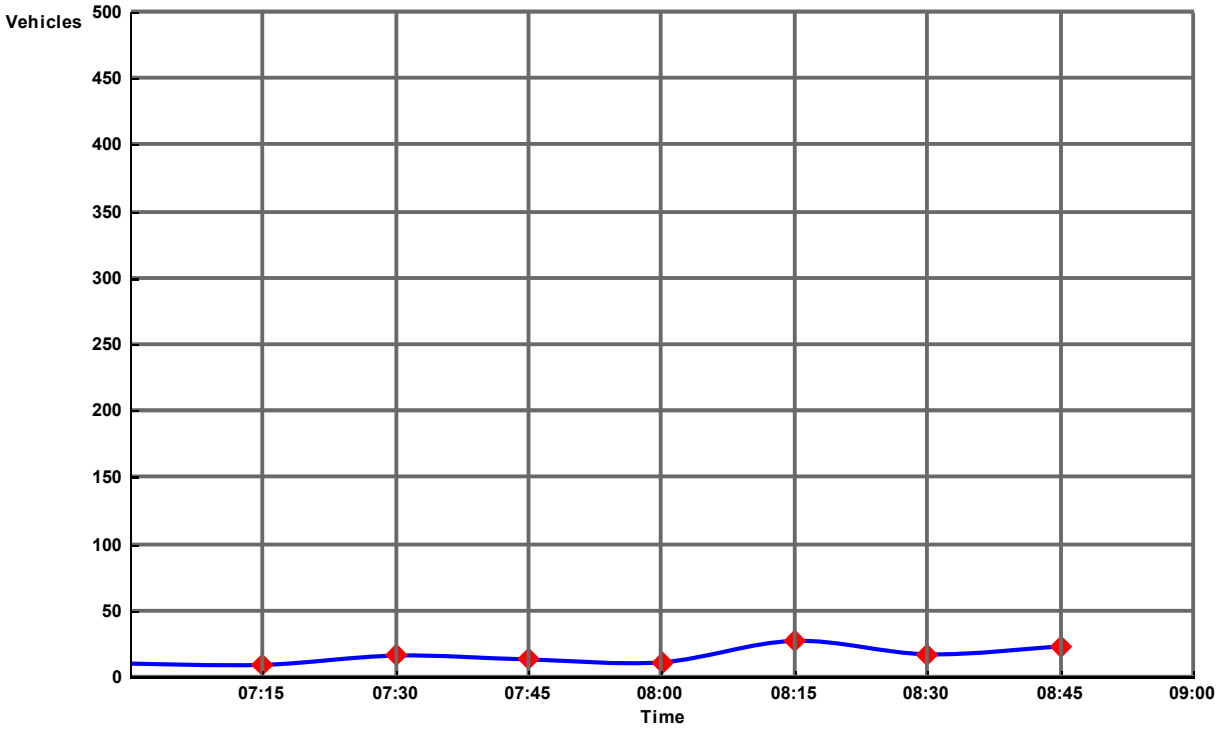


Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Trucks

Site Code:
Study Date: 05/19/2022



Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Cars and Peds

Site Code:
Study Date: 05/19/2022

	US 15 501 Southbound						Old Lystra Rd Westbound						US 15 501 Northbound						Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00		0	304	8		312		10	0	21		31		14	230	0		244						0	587
16:15		0	354	14		368		16	0	26		42		29	230	0		259						0	669
16:30		0	319	8		327		7	0	21		28		15	221	0		236						0	591
16:45		67	284	3		354		9	0	17		26		15	240	0		255						0	635
Total	0	67	1261	33	0	1361	0	42	0	85	0	127	0	73	921	0	0	994	0	0	0	0	0	0	2482
17:00		0	364	5		369		4	0	20		24		7	250	0		257						0	650
17:15		0	358	5		363		7	0	22		29		13	247	0		260						0	652
17:30		0	362	4		366		16	0	23		39		14	230	0		244						0	649
17:45		0	335	5		340		4	0	12		16		8	237	0		245						0	601
Total	0	0	1419	19	0	1438	0	31	0	77	0	108	0	42	964	0	0	1006	0	0	0	0	0	0	2552
Grand Total	0	67	2680	52	0	2799	0	73	0	162	0	235	0	115	1885	0	0	2000	0	0	0	0	0	0	5034
Appr %		2.4	95.7	1.9	0			31.1	0	68.9	0			5.8	94.3	0	0			-2	-2	-2	-2		
Total %		1.3	53.2	1	0			1.5	0	3.2	0			2.3	37.4	0	0			0	0	0	0		
PM Pk Hr		16:45	16:45	16:45	16:45	16:45		16:45	16:45	16:45	16:45	16:45		16:45	16:45	16:45	16:45	16:45		16:45	16:45	16:45	16:45	16:45	16:45
PM Pk Vol		67	1368	17	0	1452		36	0	82	0	118		49	967	0	0	1016		0	0	0	0	0	2586
PM PHF		0.250	0.940	0.850	NaN	0.984		0.563	NaN	0.891	NaN	0.756		0.817	0.967	NaN	NaN	0.977		NaN	NaN	NaN	NaN	NaN	0.966

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Site Code:
Study Date: 05/19/2022

Trucks and Bikes

	US 15 501 Southbound						Old Lystra Rd Westbound						US 15 501 Northbound						Eastbound						
Time	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00		0	7	0		7		0	0	0		0		0	7	0		7						0	14
16:15		0	6	1		7		0	0	0		0		0	9	0		9						0	16
16:30		0	3	0		3		1	0	0		1		2	7	0		9						0	13
16:45		1	1	0		2		0	0	1		1		0	3	0		3						0	6
Total	0	1	17	1	0	19	0	1	0	1	0	2	0	2	26	0	0	28	0	0	0	0	0	0	49
17:00		0	8	0		8		0	0	2		2		0	3	0		3						0	13
17:15		0	0	0		0		0	0	0		0		0	3	0		3						0	3
17:30		0	3	0		3		0	0	0		0		0	3	0		3						0	6
17:45		0	0	0		0		0	0	0		0		0	1	0		1						0	1
Total	0	0	11	0	0	11	0	0	0	2	0	2	0	0	10	0	0	10	0	0	0	0	0	0	23
Grand Total	0	1	28	1	0	30	0	1	0	3	0	4	0	2	36	0	0	38	0	0	0	0	0	0	72
Appr %		3.3	93.3	3.3	0			25	0	75	0			5.3	94.7	0	0			-2	-2	-2	-2		
Total %		1.4	38.9	1.4	0			1.4	0	4.2	0			2.8	50	0	0			0	0	0	0		
PM Pk Hr		16:00	16:00	16:00	16:00	16:00		16:00	16:00	16:00	16:00	16:00		16:00	16:00	16:00	16:00	16:00		16:00	16:00	16:00	16:00	16:00	16:00
PM Pk Vol		1	17	1	0	19		1	0	1	0	2		2	26	0	0	28		0	0	0	0	0	49
PM PHF		0.250	0.607	0.250	NaN	0.679		0.250	NaN	0.250	NaN	0.500		0.250	0.722	NaN	NaN	0.778		NaN	NaN	NaN	NaN	NaN	0.766

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

All Vehicles

Site Code:
Study Date: 05/19/2022

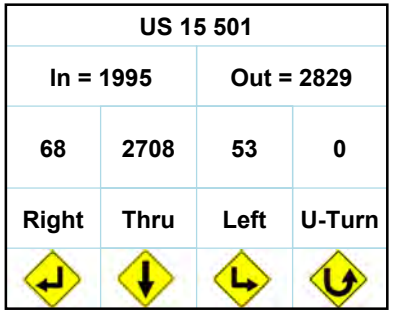
	US 15 501 Southbound					Old Lystra Rd Westbound					US 15 501 Northbound					Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00	0	311	8	0	319	10	0	21	0	31	14	237	0	0	251	0	0	0	0	0	601
16:15	0	360	15	0	375	16	0	26	0	42	29	239	0	0	268	0	0	0	0	0	685
16:30	0	322	8	0	330	8	0	21	0	29	17	228	0	0	245	0	0	0	0	0	604
16:45	68	285	3	0	356	9	0	18	0	27	15	243	0	0	258	0	0	0	0	0	641
Total	68	1278	34	0	1380	43	0	86	0	129	75	947	0	0	1022	0	0	0	0	0	2531
17:00	0	372	5	0	377	4	0	22	0	26	7	253	0	0	260	0	0	0	0	0	663
17:15	0	358	5	0	363	7	0	22	0	29	13	250	0	0	263	0	0	0	0	0	655
17:30	0	365	4	0	369	16	0	23	0	39	14	233	0	0	247	0	0	0	0	0	655
17:45	0	335	5	0	340	4	0	12	0	16	8	238	0	0	246	0	0	0	0	0	602
Total	0	1430	19	0	1449	31	0	79	0	110	42	974	0	0	1016	0	0	0	0	0	2575
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	68	2708	53	0	2829	74	0	165	0	239	117	1921	0	0	2038	0	0	0	0	0	5106
Appr %	02.4	95.7	01.9	00.0		31.0	00.0	69.0	00.0		05.7	94.3	00.0	00.0		NaN	NaN	NaN	NaN		
Total %	01.3	53.0	01.0	00.0		01.4	00.0	03.2	00.0		02.3	37.6	00.0	00.0		00.0	00.0	00.0	00.0		
% Trucks	01.5	01.0	01.9	-	01.1	01.4	-	01.8	-	01.7	01.7	01.9	-	-	01.9	-	-	-	-	-	01.4
PM Pk Hr	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45	16:45
PM Pk Vol	68	1380	17	0	1465	36	0	85	0	121	49	979	0	0	1028	0	0	0	0	0	2614
PM PHF	0.250	0.927	0.850	NaN	0.971	0.563	NaN	0.924	NaN	0.776	0.817	0.967	NaN	NaN	0.977	NaN	NaN	NaN	NaN	NaN	0.954

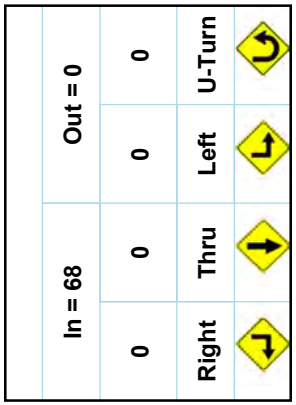
Report Title 1
Report Title 2
Report Title 3

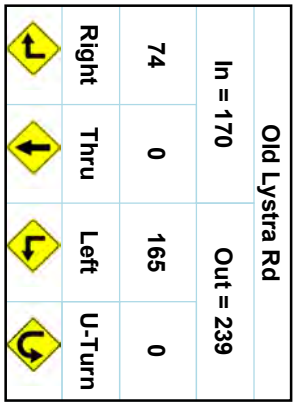
File Name: PM
Location:

All Vehicles

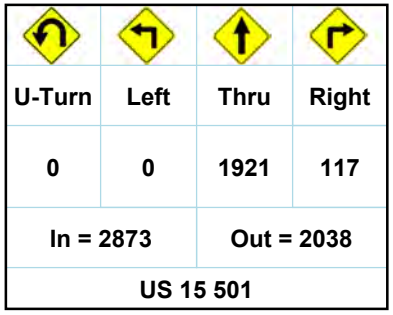
Site Code:
Study Date: 05/19/2022







Total Volumes
16:00 to 18:00
Volume = 5106



Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

All Vehicles

Site Code:
Study Date: 05/19/2022

US 15 501			
68	1380	17	0
Right	Thru	Left	U-Turn

0	0	0	0
U-Turn	Left	Thru	Right

PM Peak Hour Statistics
PM Peak Hour Begins: 16:45
PM Peak Hour Volume: 2614
PM Peak Hour Factor: 0.954

Old Lystra Rd		
36	0	85	0
Right	Thru	Left	U-Turn

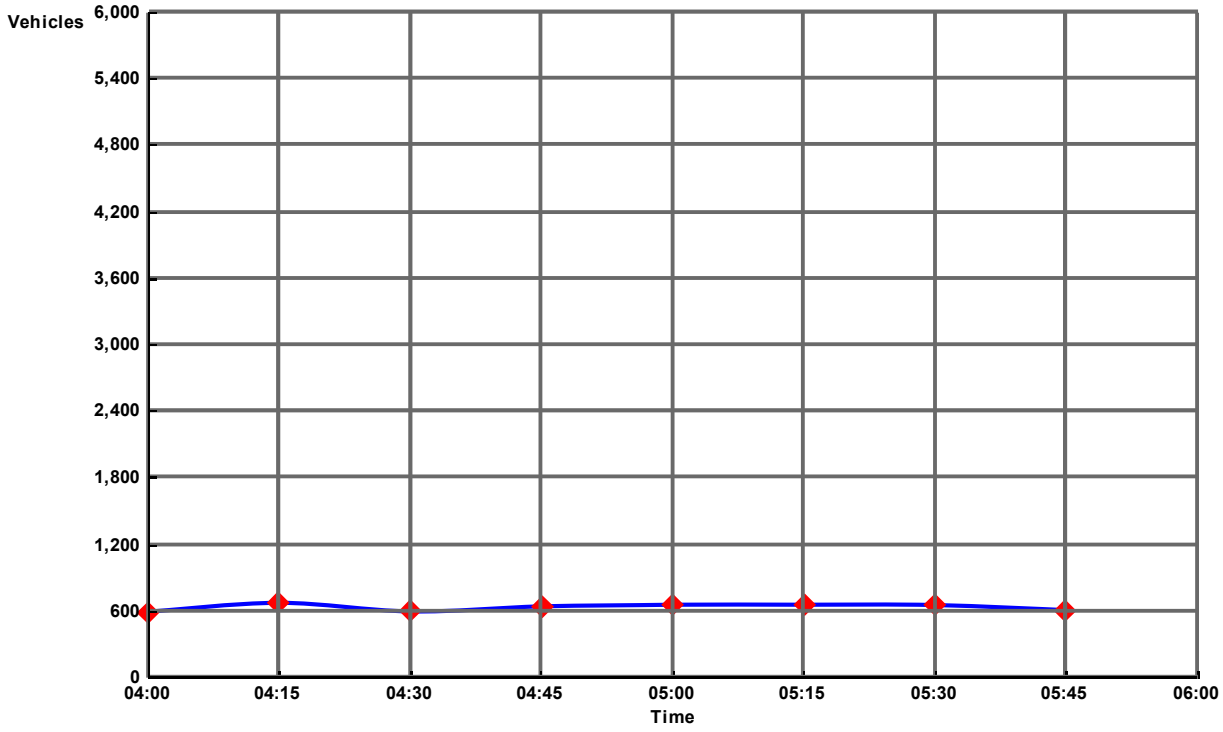
U-Turn	Left	Thru	Right
0	0	979	49
US 15 501			

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Cars

Site Code:
Study Date: 05/19/2022

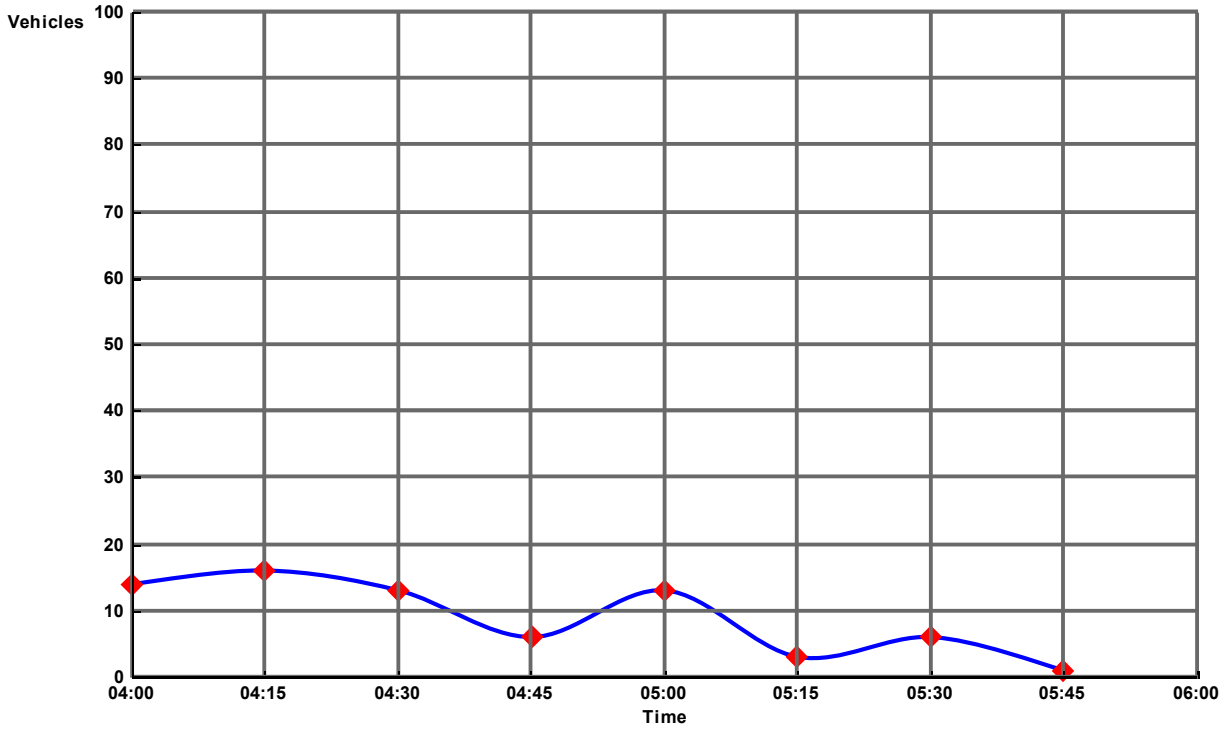


Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Site Code:
Study Date: 05/19/2022

Trucks



Report Title 1
Report Title 2
Report Title 3

File Name: AM
Site Code:
Location:
Cars and Peds
Study Date: 06/22/2022

	US 15 501 Southbound						Walmart Drive Westbound						US 15 501 Northbound						Smith Level Rd Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00		0	92	6		98		5	7	6		18		0	179	51		230		45	6	7		58	404
07:15		5	90	7		102		10	5	5		20		0	257	58		315		43	4	18		65	502
07:30		2	114	8		124		7	5	5		17		2	280	68		350		64	5	13		82	573
07:45		2	122	10		134		3	3	5		11		2	218	75		295		64	4	13		81	521
Total	0	9	418	31	0	458	0	25	20	21	0	66	0	4	934	252	0	1190	0	216	19	51	0	286	2000
08:00		5	133	17		155		4	2	11		17		1	231	96		328		77	8	10		95	595
08:15		6	99	9		114		11	5	5		21		2	248	80		330		71	5	14		90	555
08:30		12	98	10		120		12	6	12		30		1	227	84		312		58	14	8		80	542
08:45		5	109	14		128		6	8	12		26		1	222	63		286		60	15	9		84	524
Total	0	28	439	50	0	517	0	33	21	40	0	94	0	5	928	323	0	1256	0	266	42	41	0	349	2216
Grand Total	0	37	857	81	0	975	0	58	41	61	0	160	0	9	1862	575	0	2446	0	482	61	92	0	635	4216
Appr %		3.8	87.9	8.3	0			36.3	25.6	38.1	0			0.4	76.1	23.5	0			75.9	9.6	14.5	0		
Total %		0.9	20.3	1.9	0			1.4	1	1.4	0			0.2	44.2	13.6	0			11.4	1.4	2.2	0		
AM Pk Hr		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30		07:30	07:30	07:30	07:30	07:30	07:30
AM Pk Vol		15	468	44	0	527		25	15	26	0	66		7	977	319	0	1303		276	22	50	0	348	2244
AM PHF		0.625	0.880	0.647	NaN	0.850		0.568	0.750	0.591	NaN	0.786		0.875	0.872	0.831	NaN	0.931		0.896	0.688	0.893	NaN	0.916	0.943

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Site Code:
Location:
Trucks and Bikes
Study Date: 06/22/2022

	US 15 501 Southbound						Walmart Drive Westbound						US 15 501 Northbound						Smith Level Rd Eastbound						
Time	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00		0	3	1		4		0	0	0		0		0	6	1		7		1	0	0		1	12
07:15		0	1	0		1		0	0	0		0		0	2	2		4		0	0	0		0	5
07:30		0	4	0		4		0	0	0		0		0	4	1		5		0	0	0		0	9
07:45		1	5	0		6		0	0	0		0		0	3	0		3		1	0	1		2	11
Total	0	1	13	1	0	15	0	0	0	0	0	0	0	0	15	4	0	19	0	2	0	1	0	3	37
08:00		0	5	0		5		0	0	0		0		0	2	3		5		3	0	0		3	13
08:15		1	1	0		2		0	0	0		0		0	6	0		6		2	0	1		3	11
08:30		1	3	0		4		2	0	0		2		0	8	1		9		3	0	0		3	18
08:45		0	5	1		6		1	2	1		4		0	4	3		7		3	0	0		3	20
Total	0	2	14	1	0	17	0	3	2	1	0	6	0	0	20	7	0	27	0	11	0	1	0	12	62
Grand Total	0	3	27	2	0	32	0	3	2	1	0	6	0	0	35	11	0	46	0	13	0	2	0	15	99
Appr %		9.4	84.4	6.3	0			50	33.3	16.7	0			0	76.1	23.9	0			86.7	0	13.3	0		
Total %		3	27.3	2	0			3	2	1	0			0	35.4	11.1	0			13.1	0	2	0		
AM Pk Hr		08:00	08:00	08:00	08:00	08:00		08:00	08:00	08:00	08:00	08:00		08:00	08:00	08:00	08:00	08:00		08:00	08:00	08:00	08:00	08:00	08:00
AM Pk Vol		2	14	1	0	17		3	2	1	0	6		0	20	7	0	27		11	0	1	0	12	62
AM PHF		0.500	0.700	0.250	NaN	0.708		0.375	0.250	0.250	NaN	0.375		NaN	0.625	0.583	NaN	0.750		0.917	NaN	0.250	NaN	1.000	0.775

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Site Code:
Location:
All Vehicles
Study Date: 06/22/2022

	US 15 501 Southbound					Walmart Drive Westbound					US 15 501 Northbound					Smith Level Rd Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
07:00	0	95	7	0	102	5	7	6	0	18	0	185	52	0	237	46	6	7	0	59	416
07:15	5	91	7	0	103	10	5	5	0	20	0	259	60	0	319	43	4	18	0	65	507
07:30	2	118	8	0	128	7	5	5	0	17	2	284	69	0	355	64	5	13	0	82	582
07:45	3	127	10	0	140	3	3	5	0	11	2	221	75	0	298	65	4	14	0	83	532
Total	10	431	32	0	473	25	20	21	0	66	4	949	256	0	1209	218	19	52	0	289	2037
08:00	5	138	17	0	160	4	2	11	0	17	1	233	99	0	333	80	8	10	0	98	608
08:15	7	100	9	0	116	11	5	5	0	21	2	254	80	0	336	73	5	15	0	93	566
08:30	13	101	10	0	124	14	6	12	0	32	1	235	85	0	321	61	14	8	0	83	560
08:45	5	114	15	0	134	7	10	13	0	30	1	226	66	0	293	63	15	9	0	87	544
Total	30	453	51	0	534	36	23	41	0	100	5	948	330	0	1283	277	42	42	0	361	2278
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	40	884	83	0	1007	61	43	62	0	166	9	1897	586	0	2492	495	61	94	0	650	4315
Appr %	04.0	87.8	08.2	00.0		36.7	25.9	37.3	00.0		00.4	76.1	23.5	00.0		76.2	09.4	14.5	00.0		
Total %	00.9	20.5	01.9	00.0		01.4	01.0	01.4	00.0		00.2	44.0	13.6	00.0		11.5	01.4	02.2	00.0		
% Trucks	07.5	03.1	02.4	-	03.2	04.9	04.7	01.6	-	03.6	00.0	01.8	01.9	-	01.8	02.6	00.0	02.1	-	02.3	02.3
AM Pk Hr	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30	07:30
AM Pk Vol	17	483	44	0	544	25	15	26	0	66	7	992	323	0	1322	282	22	52	0	356	2288
AM PHF	0.607	0.875	0.647	NaN	0.850	0.568	0.750	0.591	NaN	0.786	0.875	0.873	0.816	NaN	0.931	0.881	0.688	0.867	NaN	0.908	0.941

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

All Vehicles

Site Code:
Study Date: 06/22/2022

US 15 501			
In = 2052		Out = 1007	
40	884	83	0
Right	Thru	Left	U-Turn

Smith Level Rd			
In = 669	Out = 650		
495	61	94	0
Right	Thru	Left	U-Turn

Walmart Drive			
In = 153		Out = 166	
61	43	62	0
Right	Thru	Left	U-Turn

Total Volumes
07:00 to 09:00
Volume = 4315

U-Turn	Left	Thru	Right
0	586	1897	9
In = 1441		Out = 2492	
US 15 501			

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

All Vehicles

Site Code:
Study Date: 06/22/2022

US 15 501			
17	483	44	0
Right	Thru	Left	U-Turn

Smith Level Rd			
282	22	52	0
Right	Thru	Left	U-Turn

AM Peak Hour Statistics
AM Peak Hour Begins: 07:30
AM Peak Hour Volume: 2288
AM Peak Hour Factor: 0.941

Walmart Drive			
25	15	26	0
Right	Thru	Left	U-Turn

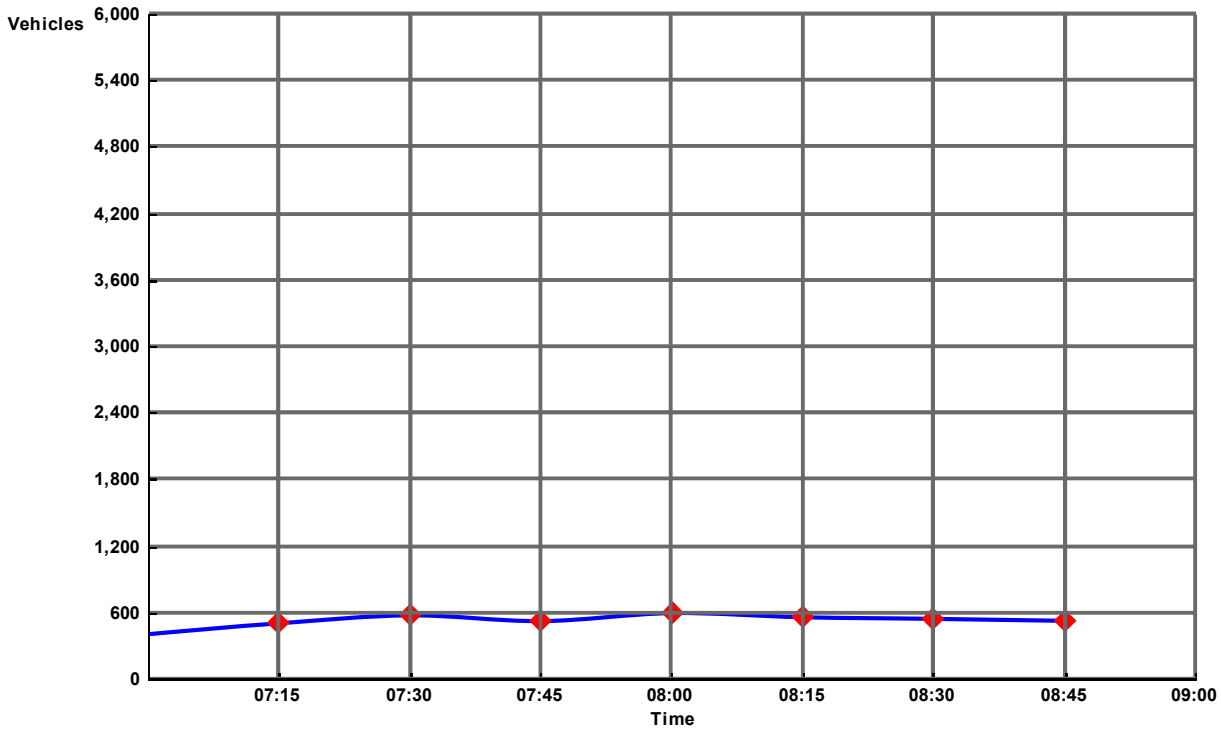
U-Turn	Left	Thru	Right
0	323	992	7
US 15 501			

Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Cars

Site Code:
Study Date: 06/22/2022

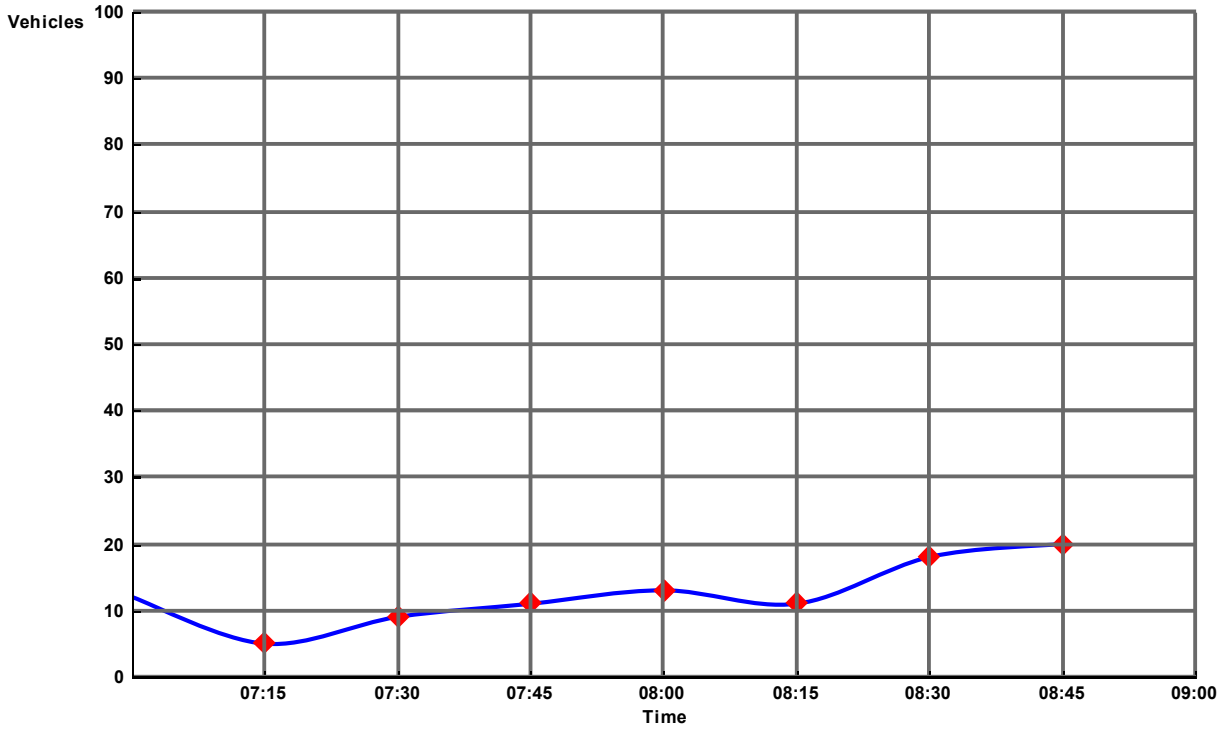


Report Title 1
Report Title 2
Report Title 3

File Name: AM
Location:

Site Code:
Study Date: 06/22/2022

Trucks



Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Cars and Peds

Site Code:
Study Date: 06/21/2022

	US 15 501 Southbound						Walmart Drive Westbound						US 15 501 Northbound						Smith Level Rd Eastbound						
Time	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Peds	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00		15	195	26		236		16	13	43		72		3	119	39		161		76	16	12		104	573
16:15		16	242	21		279		17	22	44		83		3	123	77		203		113	8	15		136	701
16:30		20	220	22		262		23	23	29		75		5	117	75		197		98	19	11		128	662
16:45		10	240	31		281		10	16	38		64		1	149	83		233		90	17	16		123	701
Total	0	61	897	100	0	1058	0	66	74	154	0	294	0	12	508	274	0	794	0	377	60	54	0	491	2637
17:00		10	227	23		260		15	20	38		73		0	129	63		192		94	19	13		126	651
17:15		11	245	29		285		12	26	28		66		0	138	91		229		92	19	4		115	695
17:30		8	248	13		269		12	17	31		60		4	129	65		198		96	25	14		135	662
17:45		13	209	16		238		20	16	32		68		1	132	86		219		70	17	5		92	617
Total	0	42	929	81	0	1052	0	59	79	129	0	267	0	5	528	305	0	838	0	352	80	36	0	468	2625
Grand Total	0	103	1826	181	0	2110	0	125	153	283	0	561	0	17	1036	579	0	1632	0	729	140	90	0	959	5262
Appr %		4.9	86.5	8.6	0			22.3	27.3	50.4	0			1	63.5	35.5	0			76	14.6	9.4	0		
Total %		2	34.7	3.4	0			2.4	2.9	5.4	0			0.3	19.7	11	0			13.9	2.7	1.7	0		
PM Pk Hr		16:15	16:15	16:15	16:15	16:15		16:15	16:15	16:15	16:15	16:15		16:15	16:15	16:15	16:15	16:15		16:15	16:15	16:15	16:15	16:15	16:15
PM Pk Vol		56	929	97	0	1082		65	81	149	0	295		9	518	298	0	825		395	63	55	0	513	2715
PM PHF		0.700	0.960	0.782	NaN	0.963		0.707	0.880	0.847	NaN	0.889		0.450	0.869	0.898	NaN	0.885		0.874	0.829	0.859	NaN	0.943	0.968

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Site Code:
Study Date: 06/21/2022

Trucks and Bikes

	US 15 501 Southbound						Walmart Drive Westbound						US 15 501 Northbound						Smith Level Rd Eastbound						
Time	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Bikes	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00		0	2	0		2		0	0	0		0		0	3	0		3		1	0	0		1	6
16:15		0	1	0		1		0	0	0		0		0	4	1		5		2	0	0		2	8
16:30		0	2	0		2		0	0	0		0		0	2	1		3		1	0	0		1	6
16:45		0	4	0		4		0	0	0		0		0	2	0		2		0	0	0		0	6
Total	0	0	9	0	0	9	0	0	0	0	0	0	0	0	11	2	0	13	0	4	0	0	0	4	26
17:00		0	3	0		3		0	0	0		0		0	2	0		2		0	0	0		0	5
17:15		0	1	0		1		0	0	0		0		0	2	0		2		1	0	0		1	4
17:30		0	3	0		3		1	0	0		1		0	1	0		1		0	0	0		0	5
17:45		0	2	0		2		0	0	0		0		0	2	1		3		0	0	0		0	5
Total	0	0	9	0	0	9	0	1	0	0	0	1	0	0	7	1	0	8	0	1	0	0	0	1	19
Grand Total	0	0	18	0	0	18	0	1	0	0	0	1	0	0	18	3	0	21	0	5	0	0	0	5	45
Appr %		0	100	0	0			100	0	0	0			0	85.7	14.3	0			100	0	0	0		
Total %		0	40	0	0			2.2	0	0	0			0	40	6.7	0			11.1	0	0	0		
PM Pk Hr		16:00	16:00	16:00	16:00	16:00		16:00	16:00	16:00	16:00	16:00		16:00	16:00	16:00	16:00	16:00		16:00	16:00	16:00	16:00	16:00	16:00
PM Pk Vol		0	9	0	0	9		0	0	0	0	0		0	11	2	0	13		4	0	0	0	4	26
PM PHF		NaN	0.563	NaN	NaN	0.563		NaN	NaN	NaN	NaN	NaN		NaN	0.688	0.500	NaN	0.650		0.500	NaN	NaN	NaN	0.500	0.813

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

All Vehicles

Site Code:
Study Date: 06/21/2022

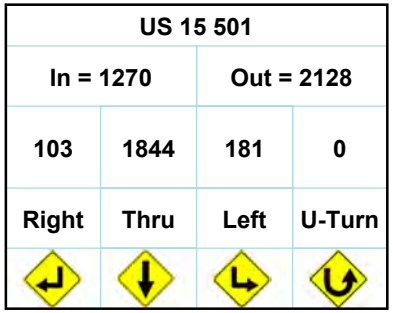
	US 15 501 Southbound					Walmart Drive Westbound					US 15 501 Northbound					Smith Level Rd Eastbound					
Time	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Right	Thru	Left	U-Turn	Appr Total	Int Total
16:00	15	197	26	0	238	16	13	43	0	72	3	122	39	0	164	77	16	12	0	105	579
16:15	16	243	21	0	280	17	22	44	0	83	3	127	78	0	208	115	8	15	0	138	709
16:30	20	222	22	0	264	23	23	29	0	75	5	119	76	0	200	99	19	11	0	129	668
16:45	10	244	31	0	285	10	16	38	0	64	1	151	83	0	235	90	17	16	0	123	707
Total	61	906	100	0	1067	66	74	154	0	294	12	519	276	0	807	381	60	54	0	495	2663
17:00	10	230	23	0	263	15	20	38	0	73	0	131	63	0	194	94	19	13	0	126	656
17:15	11	246	29	0	286	12	26	28	0	66	0	140	91	0	231	93	19	4	0	116	699
17:30	8	251	13	0	272	13	17	31	0	61	4	130	65	0	199	96	25	14	0	135	667
17:45	13	211	16	0	240	20	16	32	0	68	1	134	87	0	222	70	17	5	0	92	622
Total	42	938	81	0	1061	60	79	129	0	268	5	535	306	0	846	353	80	36	0	469	2644
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total	103	1844	181	0	2128	126	153	283	0	562	17	1054	582	0	1653	734	140	90	0	964	5307
Appr %	04.8	86.7	08.5	00.0		22.4	27.2	50.4	00.0		01.0	63.8	35.2	00.0		76.1	14.5	09.3	00.0		
Total %	01.9	34.7	03.4	00.0		02.4	02.9	05.3	00.0		00.3	19.9	11.0	00.0		13.8	02.6	01.7	00.0		
% Trucks	00.0	01.0	00.0	-	00.8	00.8	00.0	00.0	-	00.2	00.0	01.7	00.5	-	01.3	00.7	00.0	00.0	-	00.5	00.8
PM Pk Hr	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15	16:15
PM Pk Vol	56	939	97	0	1092	65	81	149	0	295	9	528	300	0	837	398	63	55	0	516	2740
PM PHF	0.700	0.962	0.782	NaN	0.958	0.707	0.880	0.847	NaN	0.889	0.450	0.874	0.904	NaN	0.890	0.865	0.829	0.859	NaN	0.935	0.966

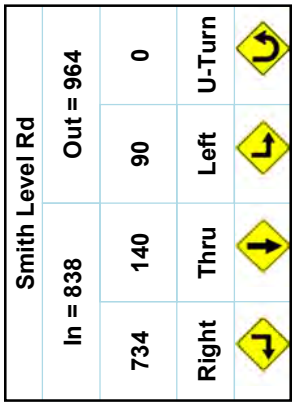
Report Title 1
Report Title 2
Report Title 3

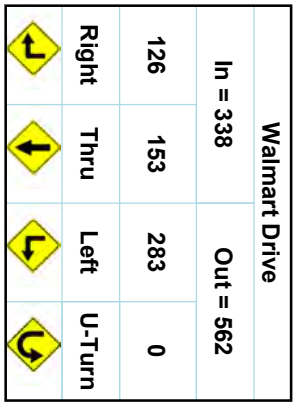
File Name: PM
Location:

All Vehicles

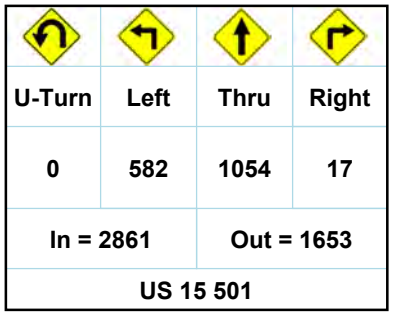
Site Code:
Study Date: 06/21/2022







Total Volumes
16:00 to 18:00
Volume = 5307



Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

All Vehicles

Site Code:
Study Date: 06/21/2022

US 15 501			
56	939	97	0
Right	Thru	Left	U-Turn

Smith Level Rd			
0	U-Turn		
55	Left		
63	Thru		
398	Right		

PM Peak Hour Statistics
PM Peak Hour Begins: 16:15
PM Peak Hour Volume: 2740
PM Peak Hour Factor: 0.966

Walmart Drive			
65	Right		
81	Thru		
149	Left		
0	U-Turn		

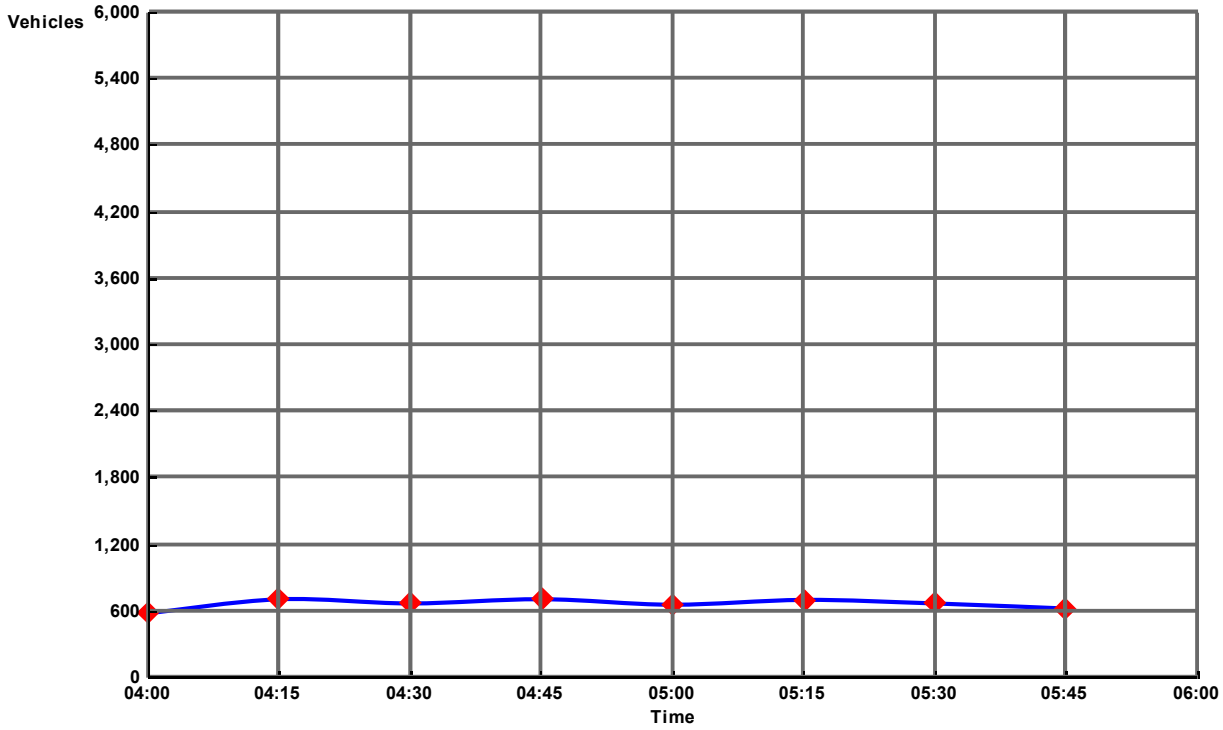
U-Turn	Left	Thru	Right
0	300	528	9
US 15 501			

Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

Cars

Site Code:
Study Date: 06/21/2022

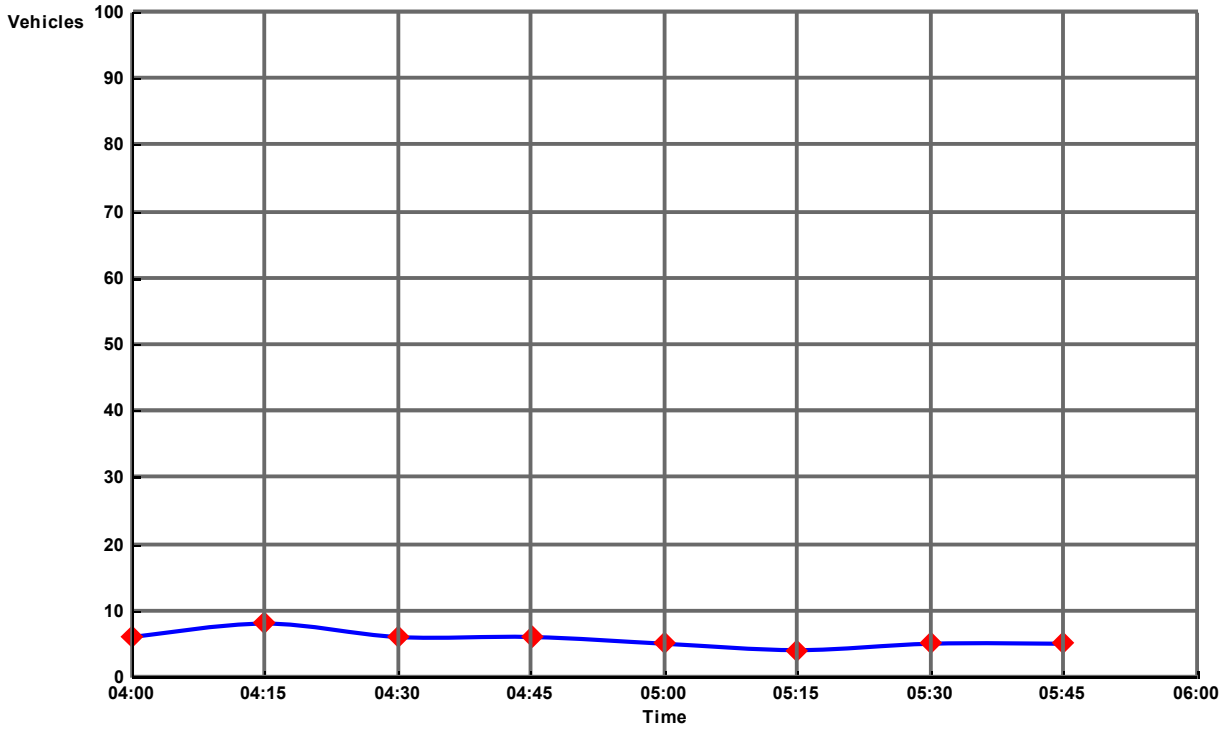


Report Title 1
Report Title 2
Report Title 3

File Name: PM
Location:

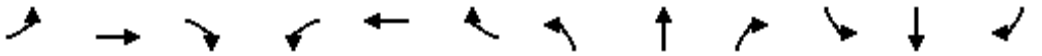
Site Code:
Study Date: 06/21/2022

Trucks



Appendix B: Capacity Software Reports

B

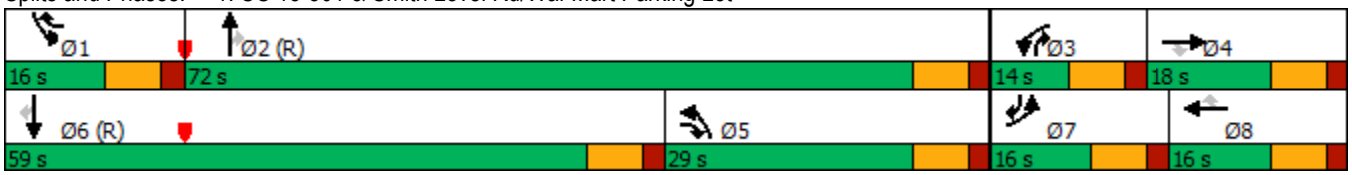


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	52	22	282	26	15	25	323	1078	7	44	352	17
Future Volume (vph)	52	22	282	26	15	25	323	1078	7	44	352	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		150	125		125	250		250	250		75
Storage Lanes	1		2	2		1	2		1	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	0.88	0.97	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			30			45			45	
Link Distance (ft)		1026			1053			3622			1014	
Travel Time (s)		15.5			23.9			54.9			15.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	58	24	313	29	17	28	359	1198	8	49	391	19
Shared Lane Traffic (%)												
Lane Group Flow (vph)	58	24	313	29	17	28	359	1198	8	49	391	19
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	19.0	14.0
Total Split (s)	16.0	18.0	29.0	14.0	16.0	16.0	29.0	72.0	14.0	16.0	59.0	16.0
Total Split (%)	13.3%	15.0%	24.2%	11.7%	13.3%	13.3%	24.2%	60.0%	11.7%	13.3%	49.2%	13.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	12.8	10.3	33.5	9.0	9.3	15.5	24.0	83.3	94.5	9.6	65.1	78.1
Actuated g/C Ratio	0.11	0.09	0.28	0.08	0.08	0.13	0.20	0.69	0.79	0.08	0.54	0.65
v/c Ratio	0.31	0.15	0.40	0.11	0.12	0.14	0.52	0.49	0.01	0.18	0.20	0.02
Control Delay	54.1	52.5	27.8	53.0	53.3	43.7	30.0	3.3	0.3	52.9	16.6	6.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	54.1	52.5	27.8	53.0	53.3	43.7	30.0	3.3	0.3	52.9	16.6	6.3
LOS	D	D	C	D	D	D	C	A	A	D	B	A
Approach Delay		33.1			49.5			9.4			20.0	
Approach LOS		C			D			A			C	
Queue Length 50th (ft)	38	18	86	10	13	21	113	44	0	18	90	4
Queue Length 95th (ft)	87	45	115	26	36	43	152	57	m0	38	130	11

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		946			973			3542			934	
Turn Bay Length (ft)	100		150	125		125	250		250	250		75
Base Capacity (vph)	197	201	777	257	170	223	686	2456	1246	314	1920	1019
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.29	0.12	0.40	0.11	0.10	0.13	0.52	0.49	0.01	0.16	0.20	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 90 (75%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.52			
Intersection Signal Delay: 16.3		Intersection LOS: B	
Intersection Capacity Utilization 57.7%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot



Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	39	25	4	1383	85	27	633
Future Volume (vph)	39	25	4	1383	85	27	633
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250		250	250	
Storage Lanes	1	1	1		1	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850			0.850		
Flt Protected	0.950		0.950			0.950	
Satd. Flow (prot)	1770	1583	1770	3539	1583	1770	3539
Flt Permitted	0.950		0.950			0.950	
Satd. Flow (perm)	1770	1583	1770	3539	1583	1770	3539
Right Turn on Red		No			No		
Satd. Flow (RTOR)							
Link Speed (mph)	45			45			45
Link Distance (ft)	1212			302			3622
Travel Time (s)	18.4			4.6			54.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	43	28	4	1537	94	30	703
Shared Lane Traffic (%)							
Lane Group Flow (vph)	43	28	4	1537	94	30	703
Turn Type	Prot	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	8		5	2	8	1	6
Permitted Phases		8			2		
Detector Phase	8	8	5	2	8	1	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	12.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	19.0	14.0	14.0	19.0
Total Split (s)	16.0	16.0	14.0	88.0	16.0	16.0	90.0
Total Split (%)	13.3%	13.3%	11.7%	73.3%	13.3%	13.3%	75.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lead		Lag	Lead
Lead-Lag Optimize?			Yes	Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	10.2	10.2	9.0	90.7	107.8	9.8	97.0
Actuated g/C Ratio	0.08	0.08	0.08	0.76	0.90	0.08	0.81
v/c Ratio	0.29	0.21	0.03	0.58	0.07	0.21	0.25
Control Delay	56.4	54.7	65.0	5.9	0.3	48.5	4.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.4	54.7	65.0	5.9	0.3	48.5	4.2
LOS	E	D	E	A	A	D	A
Approach Delay	55.7			5.7			6.0
Approach LOS	E			A			A
Queue Length 50th (ft)	32	21	3	231	1	17	22
Queue Length 95th (ft)	69	51	m5	265	m1	47	168

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	1132			222			3542
Turn Bay Length (ft)	150		250		250	250	
Base Capacity (vph)	163	146	132	2673	1395	162	2861
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.19	0.03	0.58	0.07	0.19	0.25

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 36 (30%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 7.3		Intersection LOS: A	
Intersection Capacity Utilization 52.4%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: US 15-501 & Old Lystra Road

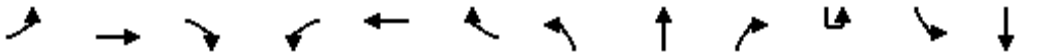
Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	7	71	1397	24	4	62	610
Future Vol, veh/h	7	71	1397	24	4	62	610
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	8	79	1552	27	4	69	678

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	2051	790	0	0	1579	1579	0
Stage 1	1566	-	-	-	-	-	-
Stage 2	485	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	48	333	-	-	140	413	-
Stage 1	158	-	-	-	-	-	-
Stage 2	585	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	38	333	-	-	354	354	-
Mov Cap-2 Maneuver	38	-	-	-	-	-	-
Stage 1	158	-	-	-	-	-	-
Stage 2	464	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	37.2	0	1.7
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	196	354	-
HCM Lane V/C Ratio	-	-	0.442	0.207	-
HCM Control Delay (s)	-	-	37.2	17.8	-
HCM Lane LOS	-	-	E	C	-
HCM 95th %tile Q(veh)	-	-	2.1	0.8	-



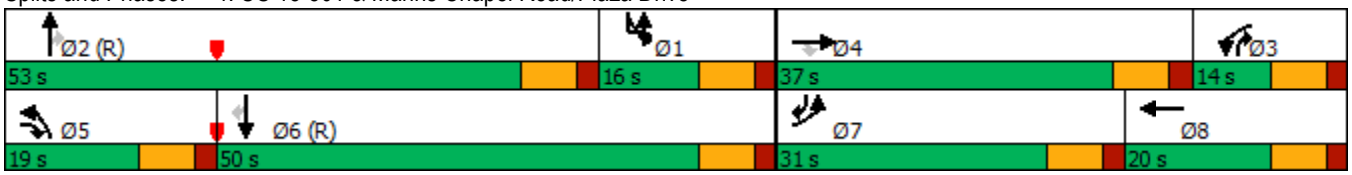
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	483	93	138	83	51	50	97	888	85	4	67	549
Future Volume (vph)	483	93	138	83	51	50	97	888	85	4	67	549
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		100	100		0	250		250		275	
Storage Lanes	2		1	2		0	1		1		1	
Taper Length (ft)	100			100			100				100	
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850		0.926				0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	3433	1725	0	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	3433	1863	1583	3433	1725	0	1770	3539	1583	0	1770	3539
Right Turn on Red			No			No			No			
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1170			1242			1181				1184
Travel Time (s)		26.6			28.2			26.8				26.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	537	103	153	92	57	56	108	987	94	4	74	610
Shared Lane Traffic (%)												
Lane Group Flow (vph)	537	103	153	92	113	0	108	987	94	0	78	610
Turn Type	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	1	6
Permitted Phases			4						2			
Detector Phase	7	4	5	3	8		5	2	3	1	1	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	12.0	7.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	19.0	14.0	14.0	14.0	19.0
Total Split (s)	31.0	37.0	19.0	14.0	20.0		19.0	53.0	14.0	16.0	16.0	50.0
Total Split (%)	25.8%	30.8%	15.8%	11.7%	16.7%		15.8%	44.2%	11.7%	13.3%	13.3%	41.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lead	Lead	Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	None	None	None	C-Max
Act Effct Green (s)	24.3	14.0	26.9	24.0	13.6		12.9	54.3	83.2		10.6	49.2
Actuated g/C Ratio	0.20	0.12	0.22	0.20	0.11		0.11	0.45	0.69		0.09	0.41
v/c Ratio	0.77	0.47	0.43	0.13	0.58		0.57	0.62	0.09		0.50	0.42
Control Delay	53.3	56.2	24.7	39.9	62.4		62.8	28.9	7.8		66.5	28.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	53.3	56.2	24.7	39.9	62.4		62.8	28.9	7.8		66.5	28.5
LOS	D	E	C	D	E		E	C	A		E	C
Approach Delay		48.2			52.3			30.3				29.0
Approach LOS		D			D			C				C
Queue Length 50th (ft)	201	76	58	29	83		80	330	24		53	154
Queue Length 95th (ft)	262	128	95	55	145		141	407	49		115	303

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	119
Future Volume (vph)	119
Ideal Flow (vphpl)	1900
Storage Length (ft)	275
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	132
Shared Lane Traffic (%)	
Lane Group Flow (vph)	132
Turn Type	pm+ov
Protected Phases	7
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	14.0
Total Split (s)	31.0
Total Split (%)	25.8%
Yellow Time (s)	5.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	5.0
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	78.5
Actuated g/C Ratio	0.65
v/c Ratio	0.13
Control Delay	9.0
Queue Delay	0.0
Total Delay	9.0
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	39
Queue Length 95th (ft)	61

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Internal Link Dist (ft)		1090			1162			1101				1104
Turn Bay Length (ft)	225		100	100			250		250		275	
Base Capacity (vph)	743	496	369	685	215		206	1600	1097		162	1450
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	0.72	0.21	0.41	0.13	0.53		0.52	0.62	0.09		0.48	0.42

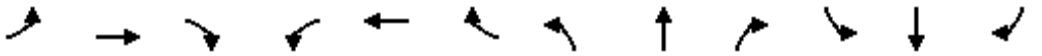
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 32 (27%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 36.2		Intersection LOS: D	
Intersection Capacity Utilization 63.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 4: US 15-501 & Manns Chapel Road/Plaza Drive



Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	275
Base Capacity (vph)	1057
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.12

Intersection Summary

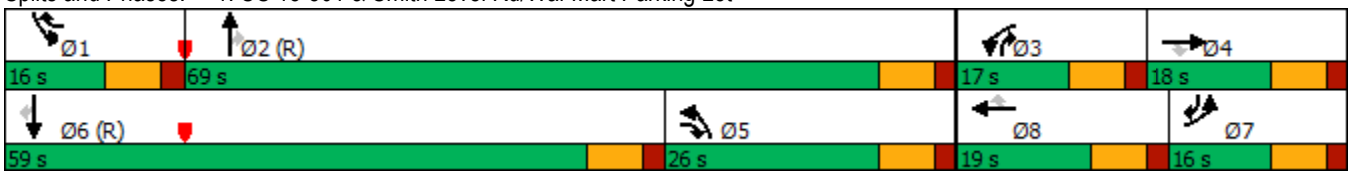


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	63	398	149	81	65	300	672	9	97	881	56
Future Volume (vph)	55	63	398	149	81	65	300	672	9	97	881	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		150	125		125	250		250	250		75
Storage Lanes	1		2	2		1	2		1	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	0.88	0.97	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			30			45			45	
Link Distance (ft)		1026			1053			3622			1014	
Travel Time (s)		15.5			23.9			54.9			15.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	61	70	442	166	90	72	333	747	10	108	979	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	61	70	442	166	90	72	333	747	10	108	979	62
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	19.0	14.0
Total Split (s)	16.0	18.0	26.0	17.0	19.0	16.0	26.0	69.0	17.0	16.0	59.0	16.0
Total Split (%)	13.3%	15.0%	21.7%	14.2%	15.8%	13.3%	21.7%	57.5%	14.2%	13.3%	49.2%	13.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	10.7	11.6	30.8	11.6	12.5	23.9	21.0	69.2	85.8	10.4	58.6	71.7
Actuated g/C Ratio	0.09	0.10	0.26	0.10	0.10	0.20	0.18	0.58	0.72	0.09	0.49	0.60
v/c Ratio	0.39	0.39	0.62	0.50	0.46	0.23	0.56	0.37	0.01	0.36	0.57	0.07
Control Delay	59.1	57.0	30.5	57.0	58.4	28.8	34.8	4.8	2.4	55.1	24.5	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.1	57.0	30.5	57.0	58.4	28.8	34.8	4.8	2.4	55.1	24.5	10.9
LOS	E	E	C	E	E	C	C	A	A	E	C	B
Approach Delay		36.8			51.2			13.9			26.6	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	45	51	121	63	66	36	105	41	1	41	294	19
Queue Length 95th (ft)	90	99	163	100	120	69	157	74	m3	71	366	40

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		946			973			3542			934	
Turn Bay Length (ft)	100		150	125		125	250		250	250		75
Base Capacity (vph)	163	201	714	343	217	323	600	2040	1137	315	1729	933
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.35	0.62	0.48	0.41	0.22	0.56	0.37	0.01	0.34	0.57	0.07

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 32 (27%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 65			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.62			
Intersection Signal Delay: 26.6		Intersection LOS: C	
Intersection Capacity Utilization 56.6%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot



Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	85	36	4	945	49	17	1411
Future Volume (vph)	85	36	4	945	49	17	1411
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250		250	250	
Storage Lanes	1	1	1		1	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850			0.850		
Flt Protected	0.950		0.950			0.950	
Satd. Flow (prot)	1770	1583	1770	3539	1583	1770	3539
Flt Permitted	0.950		0.950			0.950	
Satd. Flow (perm)	1770	1583	1770	3539	1583	1770	3539
Right Turn on Red		No			No		
Satd. Flow (RTOR)							
Link Speed (mph)	45			45			45
Link Distance (ft)	1212			302			3622
Travel Time (s)	18.4			4.6			54.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	94	40	4	1050	54	19	1568
Shared Lane Traffic (%)							
Lane Group Flow (vph)	94	40	4	1050	54	19	1568
Turn Type	Prot	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	8		5	2	8	1	6
Permitted Phases		8			2		
Detector Phase	8	8	5	2	8	1	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	12.0	7.0	7.0	7.0
Minimum Split (s)	14.0	14.0	14.0	25.0	14.0	14.0	19.0
Total Split (s)	20.0	20.0	14.0	86.0	20.0	14.0	86.0
Total Split (%)	16.7%	16.7%	11.7%	71.7%	16.7%	11.7%	71.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lead		Lag	Lead
Lead-Lag Optimize?			Yes	Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	12.9	12.9	9.0	91.5	112.4	9.0	94.3
Actuated g/C Ratio	0.11	0.11	0.08	0.76	0.94	0.08	0.79
v/c Ratio	0.49	0.24	0.03	0.39	0.04	0.14	0.56
Control Delay	59.0	51.5	45.2	2.0	0.6	61.5	6.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	51.5	45.2	2.0	0.6	61.5	6.4
LOS	E	D	D	A	A	E	A
Approach Delay	56.8			2.1			7.0
Approach LOS	E			A			A
Queue Length 50th (ft)	69	29	3	28	0	15	57
Queue Length 95th (ft)	123	63	m7	60	m5	m27	510

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	1132			222			3542
Turn Bay Length (ft)	150		250		250	250	
Base Capacity (vph)	221	197	132	2697	1468	132	2779
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.20	0.03	0.39	0.04	0.14	0.56

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 82 (68%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay: 7.5		Intersection LOS: A	
Intersection Capacity Utilization 53.2%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: US 15-501 & Old Lystra Road

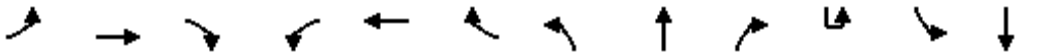
Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	12	70	924	32	4	107	1389
Future Vol, veh/h	12	70	924	32	4	107	1389
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	13	78	1027	36	4	119	1543

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	2063	532	0	0	1062	1063	0
Stage 1	1045	-	-	-	-	-	-
Stage 2	1018	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	47	492	-	-	303	651	-
Stage 1	300	-	-	-	-	-	-
Stage 2	310	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	38	492	-	-	618	618	-
Mov Cap-2 Maneuver	38	-	-	-	-	-	-
Stage 1	300	-	-	-	-	-	-
Stage 2	248	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	44.3	0	0.9
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	179	618	-
HCM Lane V/C Ratio	-	-	0.509	0.2	-
HCM Control Delay (s)	-	-	44.3	12.3	-
HCM Lane LOS	-	-	E	B	-
HCM 95th %tile Q(veh)	-	-	2.5	0.7	-



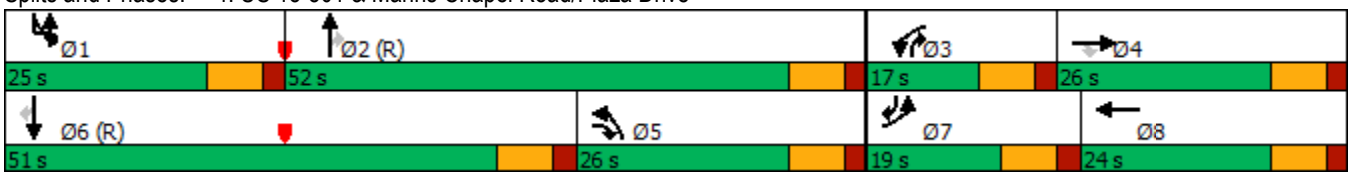
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	263	101	135	178	137	50	206	643	87	4	157	925
Future Volume (vph)	263	101	135	178	137	50	206	643	87	4	157	925
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		100	100		0	250		250		275	
Storage Lanes	2		1	2		0	1		1		1	
Taper Length (ft)	100			100			100				100	
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850		0.960				0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	3433	1788	0	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	3433	1863	1583	3433	1788	0	1770	3539	1583	0	1770	3539
Right Turn on Red			No			No			No			
Satd. Flow (RTOR)												
Link Speed (mph)		45			35			45				45
Link Distance (ft)		1170			1242			1181				1184
Travel Time (s)		17.7			24.2			17.9				17.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	292	112	150	198	152	56	229	714	97	4	174	1028
Shared Lane Traffic (%)												
Lane Group Flow (vph)	292	112	150	198	208	0	229	714	97	0	178	1028
Turn Type	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	1	6
Permitted Phases			4						2			
Detector Phase	7	4	5	3	8		5	2	3	1	1	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	12.0	7.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	19.0	14.0	14.0	14.0	19.0
Total Split (s)	19.0	26.0	26.0	17.0	24.0		26.0	52.0	17.0	25.0	25.0	51.0
Total Split (%)	15.8%	21.7%	21.7%	14.2%	20.0%		21.7%	43.3%	14.2%	20.8%	20.8%	42.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag		Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes		Yes			Yes
Recall Mode	None	None	None	None	None		None	C-Max	None	None	None	C-Max
Act Effct Green (s)	13.9	20.3	41.3	11.8	18.1		21.0	50.2	67.0		17.8	47.0
Actuated g/C Ratio	0.12	0.17	0.34	0.10	0.15		0.18	0.42	0.56		0.15	0.39
v/c Ratio	0.74	0.36	0.28	0.59	0.77		0.74	0.48	0.11		0.68	0.74
Control Delay	63.2	47.4	18.4	59.5	68.1		62.5	27.5	13.8		52.8	27.5
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	63.2	47.4	18.4	59.5	68.1		62.5	27.5	13.8		52.8	27.5
LOS	E	D	B	E	E		E	C	B		D	C
Approach Delay		47.9			63.9			33.9				26.8
Approach LOS		D			E			C				C
Queue Length 50th (ft)	114	77	58	76	155		170	216	35		138	367
Queue Length 95th (ft)	#162	133	96	117	#262		#281	278	65		188	410

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	319
Future Volume (vph)	319
Ideal Flow (vphpl)	1900
Storage Length (ft)	275
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	354
Shared Lane Traffic (%)	
Lane Group Flow (vph)	354
Turn Type	pm+ov
Protected Phases	7
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	14.0
Total Split (s)	19.0
Total Split (%)	15.8%
Yellow Time (s)	5.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	5.0
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	60.9
Actuated g/C Ratio	0.51
v/c Ratio	0.44
Control Delay	11.5
Queue Delay	0.0
Total Delay	11.5
LOS	B
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	163
Queue Length 95th (ft)	117

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Internal Link Dist (ft)		1090			1162			1101				1104
Turn Bay Length (ft)	225		100	100			250		250		275	
Base Capacity (vph)	400	326	544	343	283		309	1480	886		295	1385
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	0.73	0.34	0.28	0.58	0.73		0.74	0.48	0.11		0.60	0.74

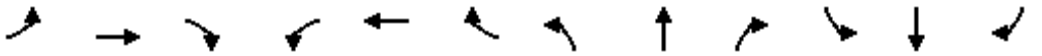
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 46 (38%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 36.4		Intersection LOS: D	
Intersection Capacity Utilization 71.4%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: US 15-501 & Manns Chapel Road/Plaza Drive



Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	275
Base Capacity (vph)	804
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.44

Intersection Summary

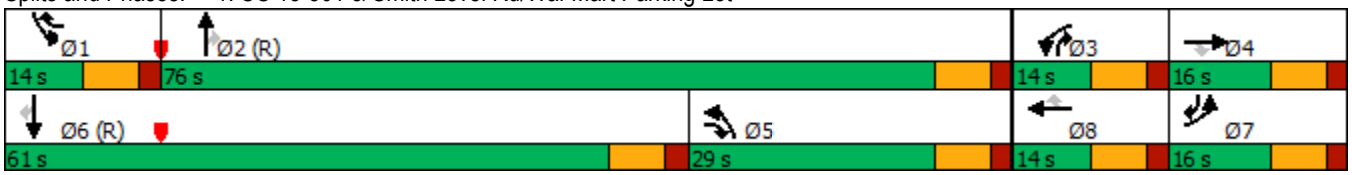


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	26	330	30	18	29	378	1262	8	52	412	20
Future Volume (vph)	61	26	330	30	18	29	378	1262	8	52	412	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		150	125		125	250		250	250		75
Storage Lanes	1		2	2		1	2		1	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	0.88	0.97	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			30			45			45	
Link Distance (ft)		1026			1053			3622			1014	
Travel Time (s)		15.5			23.9			54.9			15.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	68	29	367	33	20	32	420	1402	9	58	458	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	29	367	33	20	32	420	1402	9	58	458	22
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	19.0	14.0
Total Split (s)	16.0	16.0	29.0	14.0	14.0	14.0	29.0	76.0	14.0	14.0	61.0	16.0
Total Split (%)	13.3%	13.3%	24.2%	11.7%	11.7%	11.7%	24.2%	63.3%	11.7%	11.7%	50.8%	13.3%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	12.9	10.1	33.3	9.0	9.0	12.8	24.0	83.9	95.1	9.2	65.3	80.4
Actuated g/C Ratio	0.11	0.08	0.28	0.08	0.08	0.11	0.20	0.70	0.79	0.08	0.54	0.67
v/c Ratio	0.36	0.18	0.47	0.13	0.14	0.19	0.61	0.57	0.01	0.22	0.24	0.02
Control Delay	55.3	53.7	29.2	53.2	54.6	39.0	33.5	3.2	1.0	54.3	16.7	8.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	55.3	53.7	29.2	53.2	54.6	39.0	33.5	3.2	1.0	54.3	16.7	8.7
LOS	E	D	C	D	D	D	C	A	A	D	B	A
Approach Delay		34.5			48.1			10.2			20.4	
Approach LOS		C			D			B			C	
Queue Length 50th (ft)	45	21	102	12	15	24	152	172	1	22	108	4
Queue Length 95th (ft)	99	52	139	29	41	41	191	190	m1	44	148	18

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		946			973			3542			934	
Turn Bay Length (ft)	100		150	125		125	250		250	250		75
Base Capacity (vph)	198	170	774	257	139	168	686	2474	1254	262	1924	1048
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.17	0.47	0.13	0.14	0.19	0.61	0.57	0.01	0.22	0.24	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 88 (73%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.61			
Intersection Signal Delay: 17.0		Intersection LOS: B	
Intersection Capacity Utilization 63.3%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot



Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	46	29	4	1619	100	32	741
Future Volume (vph)	46	29	4	1619	100	32	741
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250		250	250	
Storage Lanes	1	1	1		1	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850			0.850		
Flt Protected	0.950		0.950			0.950	
Satd. Flow (prot)	1770	1583	1770	3539	1583	1770	3539
Flt Permitted	0.950		0.950			0.950	
Satd. Flow (perm)	1770	1583	1770	3539	1583	1770	3539
Right Turn on Red		No			No		
Satd. Flow (RTOR)							
Link Speed (mph)	45			45			45
Link Distance (ft)	1212			302			3622
Travel Time (s)	18.4			4.6			54.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	51	32	4	1799	111	36	823
Shared Lane Traffic (%)							
Lane Group Flow (vph)	51	32	4	1799	111	36	823
Turn Type	Prot	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	8	1	5	2	8	1	6
Permitted Phases		8			2		
Detector Phase	8	1	5	2	8	1	6
Switch Phase							
Minimum Initial (s)	7.0	12.0	7.0	12.0	7.0	12.0	7.0
Minimum Split (s)	14.0	19.0	14.0	19.0	14.0	19.0	19.0
Total Split (s)	14.0	19.0	14.0	87.0	14.0	19.0	92.0
Total Split (%)	11.7%	15.8%	11.7%	72.5%	11.7%	15.8%	76.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lead	Lag	Lag		Lead	Lead
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	9.0	28.0	9.0	85.8	100.8	14.0	98.2
Actuated g/C Ratio	0.08	0.23	0.08	0.72	0.84	0.12	0.82
v/c Ratio	0.39	0.09	0.03	0.71	0.08	0.17	0.28
Control Delay	61.9	36.9	36.8	2.4	0.5	44.5	1.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.9	36.9	36.8	2.4	0.5	44.5	1.9
LOS	E	D	D	A	A	D	A
Approach Delay	52.3			2.3			3.7
Approach LOS	D			A			A
Queue Length 50th (ft)	38	20	3	49	4	20	33
Queue Length 95th (ft)	81	47	m4	56	m4	m51	65

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	1132			222			3542
Turn Bay Length (ft)	150		250		250	250	
Base Capacity (vph)	132	369	132	2530	1329	206	2895
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.09	0.03	0.71	0.08	0.17	0.28

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 22 (18%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.71			
Intersection Signal Delay: 4.2		Intersection LOS: A	
Intersection Capacity Utilization 63.1%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: US 15-501 & Old Lystra Road

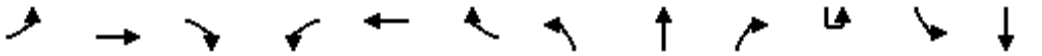
Intersection	
Int Delay, s/veh	4.4

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	8	83	1636	28	4	73	714
Future Vol, veh/h	8	83	1636	28	4	73	714
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	9	92	1818	31	4	81	793

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	2401	925	0	0	1849	1849	0
Stage 1	1834	-	-	-	-	-	-
Stage 2	567	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	28	271	-	-	93	324	-
Stage 1	112	-	-	-	-	-	-
Stage 2	531	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	19	271	-	-	268	268	-
Mov Cap-2 Maneuver	19	-	-	-	-	-	-
Stage 1	112	-	-	-	-	-	-
Stage 2	361	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	101.9	0	2.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	125	268	-
HCM Lane V/C Ratio	-	-	0.809	0.319	-
HCM Control Delay (s)	-	-	101.9	24.6	-
HCM Lane LOS	-	-	F	C	-
HCM 95th %tile Q(veh)	-	-	4.8	1.3	-



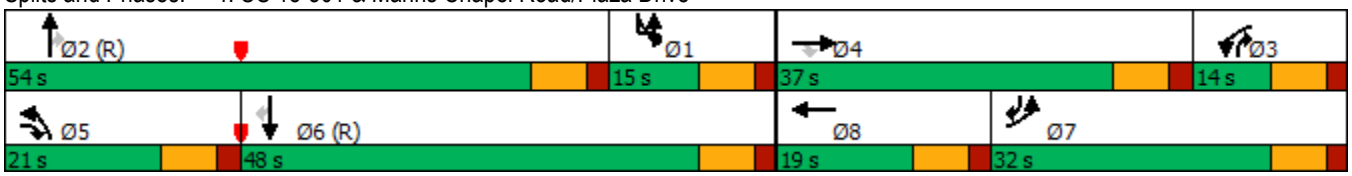
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	566	109	162	97	60	59	114	1040	100	4	78	543
Future Volume (vph)	566	109	162	97	60	59	114	1040	100	4	78	543
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		100	100		0	250		250		275	
Storage Lanes	2		1	2		0	1		1		1	
Taper Length (ft)	100			100			100				100	
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850		0.926				0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	3433	1725	0	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	3433	1863	1583	3433	1725	0	1770	3539	1583	0	1770	3539
Right Turn on Red			No			No			No			
Satd. Flow (RTOR)												
Link Speed (mph)		35			45			45				45
Link Distance (ft)		1170			1242			1181				1184
Travel Time (s)		22.8			18.8			17.9				17.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	629	121	180	108	67	66	127	1156	111	4	87	603
Shared Lane Traffic (%)												
Lane Group Flow (vph)	629	121	180	108	133	0	127	1156	111	0	91	603
Turn Type	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	1	6
Permitted Phases			4						2			
Detector Phase	7	4	5	3	8		5	2	3	1	1	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	12.0	7.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	19.0	14.0	14.0	14.0	19.0
Total Split (s)	32.0	37.0	21.0	14.0	19.0		21.0	54.0	14.0	15.0	15.0	48.0
Total Split (%)	26.7%	30.8%	17.5%	11.7%	15.8%		17.5%	45.0%	11.7%	12.5%	12.5%	40.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lead	Lead	Lag	Lead		Lead	Lead	Lag	Lag	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Min	None	None	None	C-Min
Act Effct Green (s)	26.2	15.1	29.6	24.6	13.5		14.4	49.9	79.5		10.3	45.8
Actuated g/C Ratio	0.22	0.13	0.25	0.20	0.11		0.12	0.42	0.66		0.09	0.38
v/c Ratio	0.84	0.51	0.46	0.15	0.69		0.60	0.78	0.11		0.60	0.45
Control Delay	56.0	56.1	23.7	40.5	69.4		61.7	35.4	8.3		56.6	20.2
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	56.0	56.1	23.7	40.5	69.4		61.7	35.4	8.3		56.6	20.2
LOS	E	E	C	D	E		E	D	A		E	C
Approach Delay		49.8			56.5			35.7				21.6
Approach LOS		D			E			D				C
Queue Length 50th (ft)	239	89	66	35	100		93	411	29		61	141
Queue Length 95th (ft)	309	144	107	63	#181		159	497	57		#131	157

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	139
Future Volume (vph)	139
Ideal Flow (vphpl)	1900
Storage Length (ft)	275
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	154
Shared Lane Traffic (%)	
Lane Group Flow (vph)	154
Turn Type	pm+ov
Protected Phases	7
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	14.0
Total Split (s)	32.0
Total Split (%)	26.7%
Yellow Time (s)	5.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	5.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	72.0
Actuated g/C Ratio	0.60
v/c Ratio	0.16
Control Delay	6.4
Queue Delay	0.0
Total Delay	6.4
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	28
Queue Length 95th (ft)	44

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Internal Link Dist (ft)		1090			1162			1101				1104
Turn Bay Length (ft)	225		100	100			250		250		275	
Base Capacity (vph)	772	496	410	703	202		236	1488	1049		154	1351
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	0.81	0.24	0.44	0.15	0.66		0.54	0.78	0.11		0.59	0.45

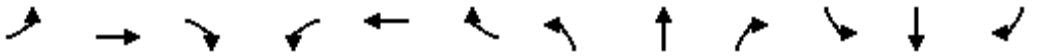
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 26 (22%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 37.5		Intersection LOS: D	
Intersection Capacity Utilization 69.9%		ICU Level of Service C	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: US 15-501 & Manns Chapel Road/Plaza Drive



Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	275
Base Capacity (vph)	960
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.16

Intersection Summary

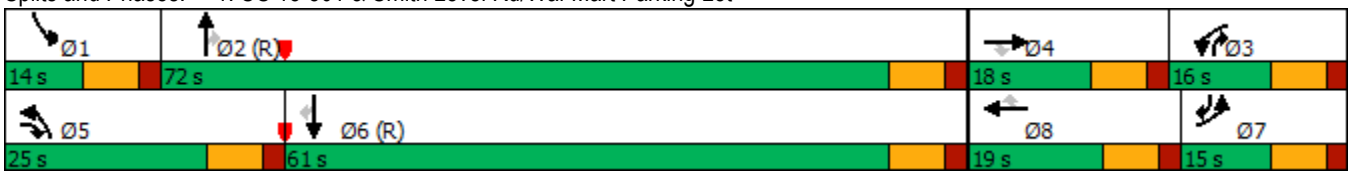


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	74	466	174	95	76	351	787	11	114	1032	66
Future Volume (vph)	64	74	466	174	95	76	351	787	11	114	1032	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		150	125		125	250		250	250		75
Storage Lanes	1		2	2		1	2		1	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	0.88	0.97	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1026			1053			3622			1014	
Travel Time (s)		23.3			23.9			82.3			23.0	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	71	82	518	193	106	84	390	874	12	127	1147	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	82	518	193	106	84	390	874	12	127	1147	73
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8		5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	8	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	19.0	14.0
Total Split (s)	15.0	18.0	25.0	16.0	19.0	19.0	25.0	72.0	16.0	14.0	61.0	15.0
Total Split (%)	12.5%	15.0%	20.8%	13.3%	15.8%	15.8%	20.8%	60.0%	13.3%	11.7%	50.8%	12.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	10.1	11.7	30.6	13.9	12.8	12.8	20.6	68.1	83.0	9.1	56.5	66.6
Actuated g/C Ratio	0.08	0.10	0.26	0.12	0.11	0.11	0.17	0.57	0.69	0.08	0.47	0.56
v/c Ratio	0.48	0.45	0.73	0.48	0.54	0.50	0.66	0.44	0.01	0.49	0.69	0.08
Control Delay	63.7	59.0	37.8	55.6	60.8	61.0	70.3	3.7	0.6	60.1	27.6	6.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.7	59.0	37.8	55.6	60.8	61.0	70.3	3.7	0.6	60.1	27.6	6.7
LOS	E	E	D	E	E	E	E	A	A	E	C	A
Approach Delay		43.1			58.2			24.0			29.6	
Approach LOS		D			E			C			C	
Queue Length 50th (ft)	53	60	150	75	78	62	147	26	1	49	360	13
Queue Length 95th (ft)	103	113	201	114	138	115	202	32	m1	82	439	25

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		946			973			3542			934	
Turn Bay Length (ft)	100		150	125		125	250		250	250		75
Base Capacity (vph)	151	201	711	398	217	184	592	2006	1094	259	1666	881
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.41	0.73	0.48	0.49	0.46	0.66	0.44	0.01	0.49	0.69	0.08

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 46 (38%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 33.1	Intersection LOS: C
Intersection Capacity Utilization 63.2%	ICU Level of Service B
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot



Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	100	42	4	1107	57	20	1652
Future Volume (vph)	100	42	4	1107	57	20	1652
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250		250	250	
Storage Lanes	1	1	1		1	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850			0.850		
Flt Protected	0.950		0.950			0.950	
Satd. Flow (prot)	1770	1583	1770	3539	1583	1770	3539
Flt Permitted	0.950		0.950			0.950	
Satd. Flow (perm)	1770	1583	1770	3539	1583	1770	3539
Right Turn on Red		No			No		
Satd. Flow (RTOR)							
Link Speed (mph)	45			45			45
Link Distance (ft)	1212			302			3622
Travel Time (s)	18.4			4.6			54.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	111	47	4	1230	63	22	1836
Shared Lane Traffic (%)							
Lane Group Flow (vph)	111	47	4	1230	63	22	1836
Turn Type	Prot	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	8		5	2	8	1	6
Permitted Phases		8			2		
Detector Phase	8	8	5	2	8	1	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	12.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	19.0	14.0	14.0	19.0
Total Split (s)	20.0	20.0	14.0	86.0	20.0	14.0	86.0
Total Split (%)	16.7%	16.7%	11.7%	71.7%	16.7%	11.7%	71.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lead	Lag		Lead	Lag
Lead-Lag Optimize?			Yes	Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	13.5	13.5	9.0	88.1	108.6	9.0	93.7
Actuated g/C Ratio	0.11	0.11	0.08	0.73	0.90	0.08	0.78
v/c Ratio	0.56	0.27	0.03	0.47	0.04	0.17	0.66
Control Delay	61.2	51.9	73.2	1.6	0.2	53.4	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	51.9	73.2	1.6	0.2	53.4	5.4
LOS	E	D	E	A	A	D	A
Approach Delay	58.4			1.8			6.0
Approach LOS	E			A			A
Queue Length 50th (ft)	82	33	3	25	1	16	226
Queue Length 95th (ft)	142	72	m6	31	m1	m25	347

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	1132			222			3542
Turn Bay Length (ft)	150		250		250	250	
Base Capacity (vph)	221	197	132	2598	1425	132	2763
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.24	0.03	0.47	0.04	0.17	0.66

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 72 (60%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay: 6.8		Intersection LOS: A	
Intersection Capacity Utilization 59.8%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: US 15-501 & Old Lystra Road

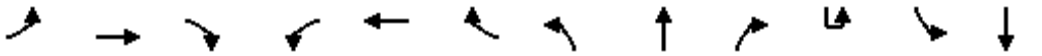
Intersection	
Int Delay, s/veh	5.7

Movement	WBL	WBR	NBT	NBR	SBU	SBL	SBT
Lane Configurations							
Traffic Vol, veh/h	14	82	1082	37	4	125	1627
Future Vol, veh/h	14	82	1082	37	4	125	1627
Conflicting Peds, #/hr	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	-	None
Storage Length	0	-	-	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	-	0
Grade, %	0	-	0	-	-	-	0
Peak Hour Factor	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2
Mvmt Flow	16	91	1202	41	4	139	1808

Major/Minor	Minor1		Major1		Major2		
Conflicting Flow All	2413	622	0	0	1243	1243	0
Stage 1	1223	-	-	-	-	-	-
Stage 2	1190	-	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	6.44	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.52	2.22	-
Pot Cap-1 Maneuver	27	430	-	-	231	556	-
Stage 1	241	-	-	-	-	-	-
Stage 2	251	-	-	-	-	-	-
Platoon blocked, %			-	-			-
Mov Cap-1 Maneuver	20	430	-	-	524	524	-
Mov Cap-2 Maneuver	20	-	-	-	-	-	-
Stage 1	241	-	-	-	-	-	-
Stage 2	182	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	157.3	0	1.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	108	524	-
HCM Lane V/C Ratio	-	-	0.988	0.274	-
HCM Control Delay (s)	-	-	157.3	14.4	-
HCM Lane LOS	-	-	F	B	-
HCM 95th %tile Q(veh)	-	-	6.2	1.1	-



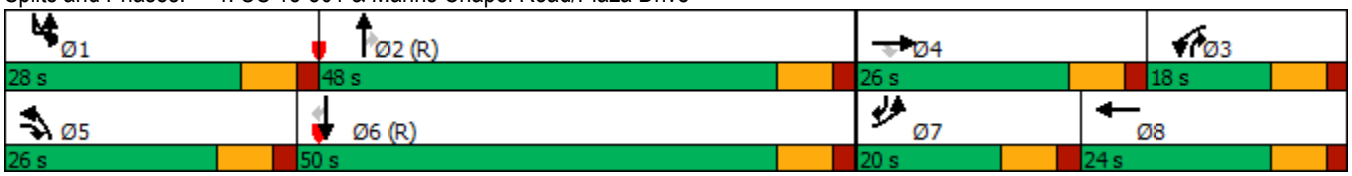
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	308	118	158	208	160	59	241	753	102	4	184	1083
Future Volume (vph)	308	118	158	208	160	59	241	753	102	4	184	1083
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		100	100		0	250		250		275	
Storage Lanes	2		1	2		0	1		1		1	
Taper Length (ft)	100			100			100				100	
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850		0.959				0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	3433	1786	0	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	3433	1863	1583	3433	1786	0	1770	3539	1583	0	1770	3539
Right Turn on Red			No			No			No			
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1170			1242			1181				1184
Travel Time (s)		26.6			28.2			26.8				26.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	342	131	176	231	178	66	268	837	113	4	204	1203
Shared Lane Traffic (%)												
Lane Group Flow (vph)	342	131	176	231	244	0	268	837	113	0	208	1203
Turn Type	Prot	NA	pm+ov	Prot	NA		Prot	NA	pm+ov	Prot	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	1	6
Permitted Phases			4						2			
Detector Phase	7	4	5	3	8		5	2	3	1	1	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0		7.0	12.0	7.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0		14.0	19.0	14.0	14.0	14.0	19.0
Total Split (s)	20.0	26.0	26.0	18.0	24.0		26.0	48.0	18.0	28.0	28.0	50.0
Total Split (%)	16.7%	21.7%	21.7%	15.0%	20.0%		21.7%	40.0%	15.0%	23.3%	23.3%	41.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag		Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None		None	C-Max	None	None	None	C-Max
Act Effct Green (s)	15.0	15.7	36.4	18.1	18.8		20.7	46.1	64.2		20.1	45.5
Actuated g/C Ratio	0.12	0.13	0.30	0.15	0.16		0.17	0.38	0.54		0.17	0.38
v/c Ratio	0.80	0.54	0.37	0.45	0.87		0.88	0.62	0.13		0.71	0.90
Control Delay	65.7	56.3	20.2	50.5	79.5		77.4	32.8	8.3		61.1	31.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0
Total Delay	65.7	56.3	20.2	50.5	79.5		77.4	32.8	8.3		61.1	31.9
LOS	E	E	C	D	E		E	C	A		E	C
Approach Delay		51.4			65.4			40.4				30.7
Approach LOS		D			E			D				C
Queue Length 50th (ft)	134	96	67	85	186		204	277	21		137	323
Queue Length 95th (ft)	#202	154	109	131	#331		#353	355	40		216	#586

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	374
Future Volume (vph)	374
Ideal Flow (vphpl)	1900
Storage Length (ft)	275
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	416
Shared Lane Traffic (%)	
Lane Group Flow (vph)	416
Turn Type	pm+ov
Protected Phases	7
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	14.0
Total Split (s)	20.0
Total Split (%)	16.7%
Yellow Time (s)	5.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	5.0
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	65.5
Actuated g/C Ratio	0.55
v/c Ratio	0.48
Control Delay	11.9
Queue Delay	0.0
Total Delay	11.9
LOS	B
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	153
Queue Length 95th (ft)	171

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Internal Link Dist (ft)		1090			1162			1101				1104
Turn Bay Length (ft)	225		100	100			250		250		275	
Base Capacity (vph)	429	326	484	517	282		309	1360	847		339	1342
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	0.80	0.40	0.36	0.45	0.87		0.87	0.62	0.13		0.61	0.90

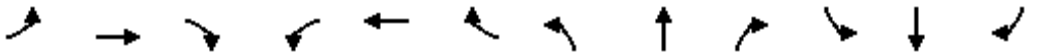
Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 24 (20%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 40.7		Intersection LOS: D	
Intersection Capacity Utilization 80.8%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: US 15-501 & Manns Chapel Road/Plaza Drive



Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	275
Base Capacity (vph)	864
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.48

Intersection Summary

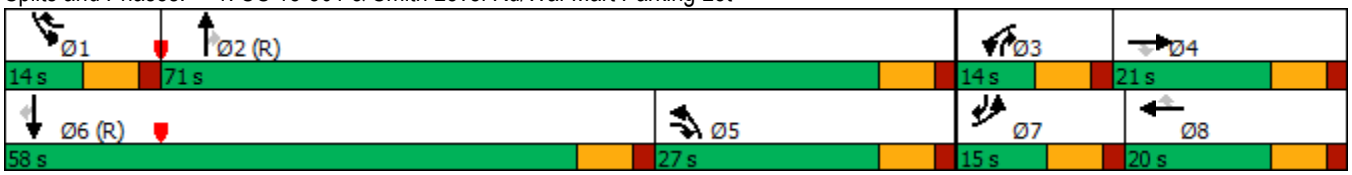


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	26	339	30	18	29	391	1299	8	52	438	20
Future Volume (vph)	61	26	339	30	18	29	391	1299	8	52	438	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		150	125		125	250		250	250		75
Storage Lanes	1		2	2		1	2		1	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	0.88	0.97	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			30			45			45	
Link Distance (ft)		1026			1053			3622			1014	
Travel Time (s)		15.5			23.9			54.9			15.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	68	29	377	33	20	32	434	1443	9	58	487	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	29	377	33	20	32	434	1443	9	58	487	22
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	12.0	7.0
Minimum Split (s)	14.0	20.0	14.0	14.0	20.0	14.0	14.0	20.0	14.0	14.0	20.0	14.0
Total Split (s)	15.0	21.0	27.0	14.0	20.0	14.0	27.0	71.0	14.0	14.0	58.0	15.0
Total Split (%)	12.5%	17.5%	22.5%	11.7%	16.7%	11.7%	22.5%	59.2%	11.7%	11.7%	48.3%	12.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lead	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	12.5	10.1	31.3	9.0	9.4	15.9	22.0	83.3	94.5	9.8	67.3	80.0
Actuated g/C Ratio	0.10	0.08	0.26	0.08	0.08	0.13	0.18	0.69	0.79	0.08	0.56	0.67
v/c Ratio	0.37	0.19	0.52	0.13	0.14	0.15	0.69	0.59	0.01	0.21	0.25	0.02
Control Delay	56.5	53.6	31.3	53.2	53.4	43.7	37.6	4.5	1.5	53.0	15.7	5.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	56.5	53.6	31.3	53.2	53.4	43.7	37.6	4.5	1.5	53.0	15.7	5.7
LOS	E	D	C	D	D	D	D	A	A	D	B	A
Approach Delay		36.3			49.7			12.1			19.2	
Approach LOS		D			D			B			B	
Queue Length 50th (ft)	45	21	109	12	15	24	152	190	1	22	112	4
Queue Length 95th (ft)	100	52	146	29	40	48	209	324	m1	43	154	11

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		946			973			3542			934	
Turn Bay Length (ft)	100		150	125		125	250		250	250		75
Base Capacity (vph)	186	248	726	257	232	209	629	2455	1246	281	1984	1054
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.12	0.52	0.13	0.09	0.15	0.69	0.59	0.01	0.21	0.25	0.02

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 78 (65%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 18.3		Intersection LOS: B	
Intersection Capacity Utilization 64.3%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot



Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	49	29	28	1669	104	32	775
Future Volume (vph)	49	29	28	1669	104	32	775
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	150	250		250	250	
Storage Lanes	1	1	1		1	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850			0.850		
Flt Protected	0.950		0.950			0.950	
Satd. Flow (prot)	1770	1583	1770	3539	1583	1770	3539
Flt Permitted	0.950		0.950			0.950	
Satd. Flow (perm)	1770	1583	1770	3539	1583	1770	3539
Right Turn on Red		No			No		
Satd. Flow (RTOR)							
Link Speed (mph)	45			45			45
Link Distance (ft)	1212			302			3622
Travel Time (s)	18.4			4.6			54.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	54	32	31	1854	116	36	861
Shared Lane Traffic (%)							
Lane Group Flow (vph)	54	32	31	1854	116	36	861
Turn Type	Prot	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	8		5	2	8	1	6
Permitted Phases		8			2		
Detector Phase	8	8	5	2	8	1	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	12.0	7.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	14.0	19.0	14.0
Total Split (s)	14.0	14.0	14.0	87.0	14.0	19.0	92.0
Total Split (%)	11.7%	11.7%	11.7%	72.5%	11.7%	15.8%	76.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lead		Lag	Lead
Lead-Lag Optimize?			Yes	Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	9.1	9.1	9.0	89.5	105.6	14.0	92.5
Actuated g/C Ratio	0.08	0.08	0.08	0.75	0.88	0.12	0.77
v/c Ratio	0.40	0.27	0.23	0.70	0.08	0.17	0.32
Control Delay	62.4	58.4	56.1	3.7	0.8	57.2	7.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	62.4	58.4	56.1	3.7	0.8	57.2	7.6
LOS	E	E	E	A	A	E	A
Approach Delay	60.9			4.3			9.6
Approach LOS	E			A			A
Queue Length 50th (ft)	41	24	25	67	4	27	180
Queue Length 95th (ft)	84	57	m34	88	m8	m57	223

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	1132			222			3542
Turn Bay Length (ft)		150	250		250	250	
Base Capacity (vph)	134	120	132	2638	1393	206	2727
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.40	0.27	0.23	0.70	0.08	0.17	0.32

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 8 (7%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 80			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 7.5		Intersection LOS: A	
Intersection Capacity Utilization 60.3%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: US 15-501 & Old Lystra Road

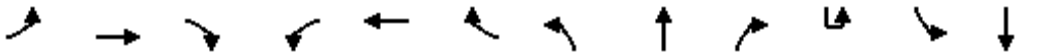
Intersection	
Int Delay, s/veh	1.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	91	1709	28	73	804
Future Vol, veh/h	0	91	1709	28	73	804
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	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	101	1899	31	81	893

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	965	0	0	1930	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	255	-	-	301	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	255	-	-	301	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	28.1	0	1.8
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	255	301	-
HCM Lane V/C Ratio	-	-	0.397	0.269	-
HCM Control Delay (s)	-	-	28.1	21.3	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	1.8	1.1	-



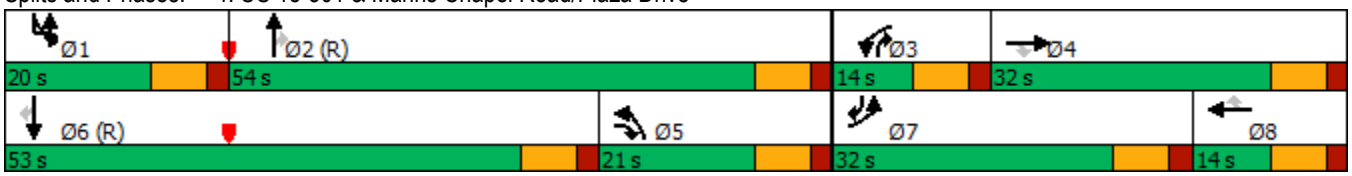
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	568	109	162	97	60	59	114	1057	100	53	78	667
Future Volume (vph)	568	109	162	97	60	59	114	1057	100	53	78	667
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		100	100		0	250		250		275	
Storage Lanes	2		1	2		1	1		1		1	
Taper Length (ft)	100			100			100				100	
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850			0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	3433	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	3433	1863	1583	3433	1863	1583	1770	3539	1583	0	1770	3539
Right Turn on Red			No			No			No			
Satd. Flow (RTOR)												
Link Speed (mph)		35			45			45				45
Link Distance (ft)		1170			1242			1181				1184
Travel Time (s)		22.8			18.8			17.9				17.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	631	121	180	108	67	66	127	1174	111	59	87	741
Shared Lane Traffic (%)												
Lane Group Flow (vph)	631	121	180	108	67	66	127	1174	111	0	146	741
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	1	6
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	8	5	2	3	1	1	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	14.0	19.0
Total Split (s)	32.0	32.0	21.0	14.0	14.0	14.0	21.0	54.0	14.0	20.0	20.0	53.0
Total Split (%)	26.7%	26.7%	17.5%	11.7%	11.7%	11.7%	17.5%	45.0%	11.7%	16.7%	16.7%	44.2%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	None	C-Max
Act Effct Green (s)	26.4	23.6	39.6	9.0	9.0	9.0	16.0	53.0	67.0		14.3	51.4
Actuated g/C Ratio	0.22	0.20	0.33	0.08	0.08	0.08	0.13	0.44	0.56		0.12	0.43
v/c Ratio	0.84	0.33	0.34	0.42	0.48	0.55	0.54	0.75	0.13		0.69	0.49
Control Delay	55.6	42.5	20.6	58.3	65.3	71.9	57.8	33.0	14.5		68.4	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	55.6	42.5	20.6	58.3	65.3	71.9	57.8	33.0	14.5		68.4	23.3
LOS	E	D	C	E	E	E	E	C	B		E	C
Approach Delay		47.1			64.0			33.8				26.7
Approach LOS		D			E			C				C
Queue Length 50th (ft)	240	78	73	41	51	50	93	417	42		115	216
Queue Length 95th (ft)	309	134	118	72	99	#106	159	509	74		#195	274

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	143
Future Volume (vph)	143
Ideal Flow (vphpl)	1900
Storage Length (ft)	275
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	159
Shared Lane Traffic (%)	
Lane Group Flow (vph)	159
Turn Type	pm+ov
Protected Phases	7
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	14.0
Total Split (s)	32.0
Total Split (%)	26.7%
Yellow Time (s)	5.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	5.0
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	78.8
Actuated g/C Ratio	0.66
v/c Ratio	0.15
Control Delay	4.5
Queue Delay	0.0
Total Delay	4.5
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	23
Queue Length 95th (ft)	50

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Internal Link Dist (ft)		1090			1162			1101				1104
Turn Bay Length (ft)	225		100	100			250		250		275	
Base Capacity (vph)	772	419	523	257	140	119	236	1563	884		221	1514
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	0.82	0.29	0.34	0.42	0.48	0.55	0.54	0.75	0.13		0.66	0.49

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 94 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.84			
Intersection Signal Delay: 37.2		Intersection LOS: D	
Intersection Capacity Utilization 75.2%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: US 15-501 & Manns Chapel Road/Plaza Drive



Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	275
Base Capacity (vph)	1033
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.15

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	1792	818	34
Future Vol, veh/h	0	33	0	1792	818	34
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	-	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	0	1991	909	38

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	455	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	552	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	552	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	552	-	-
HCM Lane V/C Ratio	-	0.066	-	-
HCM Control Delay (s)	-	12	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.2	-	-

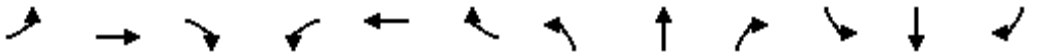
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	49	0	1792	828	23
Future Vol, veh/h	0	49	0	1792	828	23
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	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	54	0	1991	920	26

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	460	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	548	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	548	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	548	-	-
HCM Lane V/C Ratio	-	0.099	-	-
HCM Control Delay (s)	-	12.3	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	74	477	174	95	76	363	822	11	114	1065	66
Future Volume (vph)	64	74	477	174	95	76	363	822	11	114	1065	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		150	125		125	250		250	250		75
Storage Lanes	1		2	2		1	2		1	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	0.88	0.97	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			30			45			45	
Link Distance (ft)		1026			1053			3622			1014	
Travel Time (s)		15.5			23.9			54.9			15.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	71	82	530	193	106	84	403	913	12	127	1183	73
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	82	530	193	106	84	403	913	12	127	1183	73
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	19.0	14.0
Total Split (s)	15.0	18.0	26.0	16.0	19.0	14.0	26.0	72.0	16.0	14.0	60.0	15.0
Total Split (%)	12.5%	15.0%	21.7%	13.3%	15.8%	11.7%	21.7%	60.0%	13.3%	11.7%	50.0%	12.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lead	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	9.8	11.7	31.3	13.9	13.1	22.1	21.4	68.1	87.1	9.0	55.7	70.5
Actuated g/C Ratio	0.08	0.10	0.26	0.12	0.11	0.18	0.18	0.57	0.73	0.08	0.46	0.59
v/c Ratio	0.49	0.45	0.73	0.48	0.52	0.29	0.66	0.45	0.01	0.49	0.72	0.08
Control Delay	64.8	59.0	37.2	55.6	60.0	31.0	42.4	7.0	1.4	60.3	29.1	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	64.8	59.0	37.2	55.6	60.0	31.0	42.4	7.0	1.4	60.3	29.1	11.2
LOS	E	E	D	E	E	C	D	A	A	E	C	B
Approach Delay		42.7			51.4			17.7			31.1	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	53	60	152	75	78	44	131	175	0	49	383	23
Queue Length 95th (ft)	103	113	202	114	138	82	181	161	m1	82	467	45

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		946			973			3542			934	
Turn Bay Length (ft)	100		150	125		125	250		250	250		75
Base Capacity (vph)	147	201	732	398	217	291	617	2009	1148	257	1643	933
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.41	0.72	0.48	0.49	0.29	0.65	0.45	0.01	0.49	0.72	0.08

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 20 (17%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.73			
Intersection Signal Delay: 30.5		Intersection LOS: C	
Intersection Capacity Utilization 64.5%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	103	42	40	1153	61	20	1697
Future Volume (vph)	103	42	40	1153	61	20	1697
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250		250	250	
Storage Lanes	1	1	1		1	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850			0.850		
Flt Protected	0.950		0.950			0.950	
Satd. Flow (prot)	1770	1583	1770	3539	1583	1770	3539
Flt Permitted	0.950		0.950			0.950	
Satd. Flow (perm)	1770	1583	1770	3539	1583	1770	3539
Right Turn on Red		No			No		
Satd. Flow (RTOR)							
Link Speed (mph)	45			45			45
Link Distance (ft)	1212			302			3622
Travel Time (s)	18.4			4.6			54.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	114	47	44	1281	68	22	1886
Shared Lane Traffic (%)							
Lane Group Flow (vph)	114	47	44	1281	68	22	1886
Turn Type	Prot	pm+ov	Prot	NA	pm+ov	Prot	NA
Protected Phases	8	1	5	2	8	1	6
Permitted Phases		8			2		
Detector Phase	8	1	5	2	8	1	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	12.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	19.0	14.0	14.0	19.0
Total Split (s)	20.0	14.0	14.0	86.0	20.0	14.0	86.0
Total Split (%)	16.7%	11.7%	11.7%	71.7%	16.7%	11.7%	71.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag		Lag	Lag	Lead		Lag	Lead
Lead-Lag Optimize?		Yes	Yes	Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	13.6	24.8	9.0	85.2	104.8	9.0	85.2
Actuated g/C Ratio	0.11	0.21	0.08	0.71	0.87	0.08	0.71
v/c Ratio	0.57	0.14	0.33	0.51	0.05	0.17	0.75
Control Delay	61.7	37.2	60.9	2.2	0.4	51.8	9.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.7	37.2	60.9	2.2	0.4	51.8	9.3
LOS	E	D	E	A	A	D	A
Approach Delay	54.5			3.9			9.7
Approach LOS	D			A			A
Queue Length 50th (ft)	84	29	36	42	1	17	310
Queue Length 95th (ft)	146	62	m59	53	m2	m25	343

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	1132			222			3542
Turn Bay Length (ft)	150		250		250	250	
Base Capacity (vph)	221	326	132	2513	1375	132	2513
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.14	0.33	0.51	0.05	0.17	0.75

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 48 (40%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.75			
Intersection Signal Delay: 9.5		Intersection LOS: A	
Intersection Capacity Utilization 61.1%		ICU Level of Service B	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: US 15-501 & Old Lystra Road

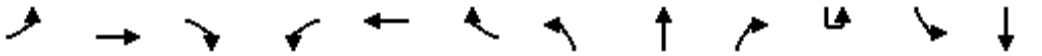
Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	96	1108	37	125	1719
Future Vol, veh/h	0	96	1108	37	125	1719
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	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	107	1231	41	139	1910

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	636	0	0	1272	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	421	-	-	542	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	421	-	-	542	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.4	0	0.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	421	542	-
HCM Lane V/C Ratio	-	-	0.253	0.256	-
HCM Control Delay (s)	-	-	16.4	13.9	-
HCM Lane LOS	-	-	C	B	-
HCM 95th %tile Q(veh)	-	-	1	1	-



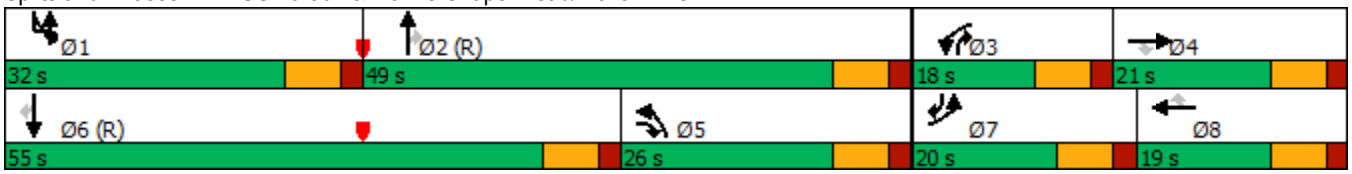
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	312	118	158	208	160	59	241	775	102	51	184	1107
Future Volume (vph)	312	118	158	208	160	59	241	775	102	51	184	1107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		100	100		100	250		250		275	
Storage Lanes	2		1	2		1	1		1		1	
Taper Length (ft)	100			100			100				100	
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850			0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	3433	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	3433	1863	1583	3433	1863	1583	1770	3539	1583	0	1770	3539
Right Turn on Red			No			No			No			
Satd. Flow (RTOR)												
Link Speed (mph)		35			45			45				45
Link Distance (ft)		1170			1242			1181				1184
Travel Time (s)		22.8			18.8			17.9				17.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	347	131	176	231	178	66	268	861	113	57	204	1230
Shared Lane Traffic (%)												
Lane Group Flow (vph)	347	131	176	231	178	66	268	861	113	0	261	1230
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	1	6
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	8	5	2	3	1	1	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	14.0	19.0
Total Split (s)	20.0	21.0	26.0	18.0	19.0	19.0	26.0	49.0	18.0	32.0	32.0	55.0
Total Split (%)	16.7%	17.5%	21.7%	15.0%	15.8%	15.8%	21.7%	40.8%	15.0%	26.7%	26.7%	45.8%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	None	C-Max
Act Effct Green (s)	15.0	16.2	37.2	12.7	14.0	14.0	21.0	47.4	65.2		23.6	50.0
Actuated g/C Ratio	0.12	0.14	0.31	0.11	0.12	0.12	0.18	0.40	0.54		0.20	0.42
v/c Ratio	0.81	0.52	0.36	0.63	0.82	0.36	0.87	0.62	0.13		0.75	0.83
Control Delay	66.6	56.6	21.7	59.9	80.7	55.0	75.2	32.0	14.8		49.9	23.0
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	66.6	56.6	21.7	59.9	80.7	55.0	75.2	32.0	14.8		49.9	23.0
LOS	E	E	C	E	F	D	E	C	B		D	C
Approach Delay		52.5			67.0			39.8				23.4
Approach LOS		D			E			D				C
Queue Length 50th (ft)	136	96	74	89	137	48	204	282	42		166	393
Queue Length 95th (ft)	#207	162	120	132	#257	94	#353	363	77		m246	458

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	377
Future Volume (vph)	377
Ideal Flow (vphpl)	1900
Storage Length (ft)	275
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	419
Shared Lane Traffic (%)	
Lane Group Flow (vph)	419
Turn Type	pm+ov
Protected Phases	7
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	14.0
Total Split (s)	20.0
Total Split (%)	16.7%
Yellow Time (s)	5.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	5.0
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	65.0
Actuated g/C Ratio	0.54
v/c Ratio	0.49
Control Delay	8.3
Queue Delay	0.0
Total Delay	8.3
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	119
Queue Length 95th (ft)	148

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Internal Link Dist (ft)		1090			1162			1101				1104
Turn Bay Length (ft)	225		100	100		100	250		250		275	
Base Capacity (vph)	429	252	491	371	217	184	309	1398	863		398	1475
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	0.81	0.52	0.36	0.62	0.82	0.36	0.87	0.62	0.13		0.66	0.83

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 16 (13%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.87			
Intersection Signal Delay: 37.4		Intersection LOS: D	
Intersection Capacity Utilization 77.9%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 4: US 15-501 & Manns Chapel Road/Plaza Drive



Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	275
Base Capacity (vph)	857
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.49

Intersection Summary

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	0	1255	1796	45
Future Vol, veh/h	0	31	0	1255	1796	45
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	-	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	0	1394	1996	50

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	998	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	242	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	242	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.3	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	242	-	-
HCM Lane V/C Ratio	-	0.142	-	-
HCM Control Delay (s)	-	22.3	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.5	-	-

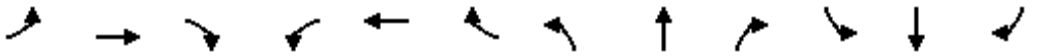
Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	47	0	1255	1797	30
Future Vol, veh/h	0	47	0	1255	1797	30
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	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	0	1394	1997	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	999	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	242	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	242	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	242	-	-
HCM Lane V/C Ratio	-	0.216	-	-
HCM Control Delay (s)	-	23.9	-	-
HCM Lane LOS	-	C	-	-
HCM 95th %tile Q(veh)	-	0.8	-	-

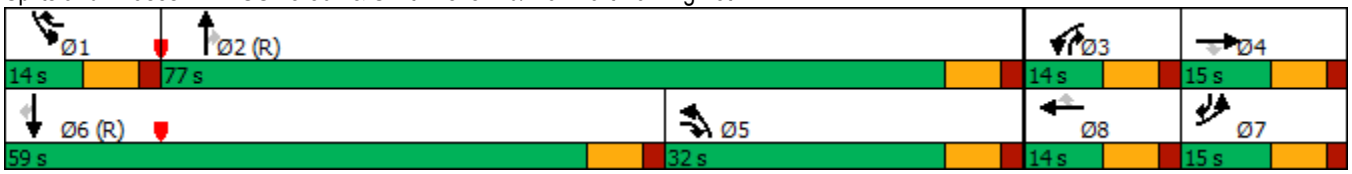


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	77	32	426	38	22	37	491	1633	10	65	550	25
Future Volume (vph)	77	32	426	38	22	37	491	1633	10	65	550	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		150	125		125	250		250	250		75
Storage Lanes	1		2	2		1	2		1	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	0.88	0.97	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			30			45			45	
Link Distance (ft)		1026			1053			3622			1014	
Travel Time (s)		15.5			23.9			54.9			15.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	86	36	473	42	24	41	546	1814	11	72	611	28
Shared Lane Traffic (%)												
Lane Group Flow (vph)	86	36	473	42	24	41	546	1814	11	72	611	28
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	19.0	14.0
Total Split (s)	15.0	15.0	32.0	14.0	14.0	14.0	32.0	77.0	14.0	14.0	59.0	15.0
Total Split (%)	12.5%	12.5%	26.7%	11.7%	11.7%	11.7%	26.7%	64.2%	11.7%	11.7%	49.2%	12.5%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	10.1	9.6	35.8	9.5	9.0	14.4	27.0	80.3	95.8	9.0	59.5	74.6
Actuated g/C Ratio	0.08	0.08	0.30	0.08	0.08	0.12	0.22	0.67	0.80	0.08	0.50	0.62
v/c Ratio	0.58	0.24	0.57	0.15	0.17	0.22	0.71	0.77	0.01	0.28	0.35	0.03
Control Delay	69.1	55.9	30.1	53.3	55.2	35.9	30.0	4.7	0.8	55.4	20.2	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.1	55.9	30.1	53.3	55.2	35.9	30.0	4.7	0.8	55.4	20.2	10.8
LOS	E	E	C	D	E	D	C	A	A	E	C	B
Approach Delay		37.3			47.0			10.5			23.4	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	65	27	130	15	18	22	189	276	1	27	162	9
Queue Length 95th (ft)	#128	61	176	34	46	50	m209	m342	m1	52	208	22

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		946			973			3542			934	
Turn Bay Length (ft)	100		150	125		125	250		250	250		75
Base Capacity (vph)	151	155	831	271	139	190	772	2367	1263	258	1755	973
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.23	0.57	0.15	0.17	0.22	0.71	0.77	0.01	0.28	0.35	0.03

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 64 (53%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 18.2		Intersection LOS: B	
Intersection Capacity Utilization 74.4%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot



Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	61	37	35	2098	130	40	975
Future Volume (vph)	61	37	35	2098	130	40	975
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250		250	250	
Storage Lanes	1	1	1		1	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850			0.850		
Flt Protected	0.950		0.950			0.950	
Satd. Flow (prot)	1770	1583	1770	3539	1583	1770	3539
Flt Permitted	0.950		0.950			0.950	
Satd. Flow (perm)	1770	1583	1770	3539	1583	1770	3539
Right Turn on Red		No			No		
Satd. Flow (RTOR)							
Link Speed (mph)	45			45			45
Link Distance (ft)	1212			302			3622
Travel Time (s)	18.4			4.6			54.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	68	41	39	2331	144	44	1083
Shared Lane Traffic (%)							
Lane Group Flow (vph)	68	41	39	2331	144	44	1083
Turn Type	Prot	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	8		5	2	8	1	6
Permitted Phases		8			2		
Detector Phase	8	8	5	2	8	1	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	12.0	7.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	19.0	14.0	19.0	14.0
Total Split (s)	14.0	14.0	14.0	87.0	14.0	19.0	92.0
Total Split (%)	11.7%	11.7%	11.7%	72.5%	11.7%	15.8%	76.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag		Lead	Lead
Lead-Lag Optimize?			Yes	Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	9.0	9.0	9.0	85.8	100.8	14.0	92.6
Actuated g/C Ratio	0.08	0.08	0.08	0.72	0.84	0.12	0.77
v/c Ratio	0.52	0.35	0.30	0.92	0.11	0.21	0.40
Control Delay	67.8	61.4	42.7	8.7	0.7	51.2	2.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	67.8	61.4	42.7	8.7	0.7	51.2	2.9
LOS	E	E	D	A	A	D	A
Approach Delay	65.4			8.7			4.8
Approach LOS	E			A			A
Queue Length 50th (ft)	52	31	28	181	6	28	72
Queue Length 95th (ft)	101	69	m30	m450	m6	m60	84

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	1132			222			3542
Turn Bay Length (ft)	150		250		250	250	
Base Capacity (vph)	132	118	132	2530	1329	206	2730
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.35	0.30	0.92	0.11	0.21	0.40

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 118 (98%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 9.2		Intersection LOS: A	
Intersection Capacity Utilization 72.2%		ICU Level of Service C	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: US 15-501 & Old Lystra Road

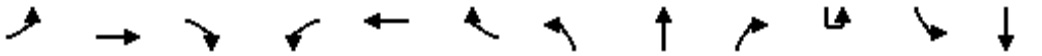
Intersection	
Int Delay, s/veh	3.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	115	2149	35	91	1011
Future Vol, veh/h	0	115	2149	35	91	1011
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	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	128	2388	39	101	1123

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	1214	0	0	2427	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	174	-	-	192	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	174	-	-	192	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	67.9	0	3.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	174	192	-
HCM Lane V/C Ratio	-	-	0.734	0.527	-
HCM Control Delay (s)	-	-	67.9	42.9	-
HCM Lane LOS	-	-	F	E	-
HCM 95th %tile Q(veh)	-	-	4.6	2.7	-



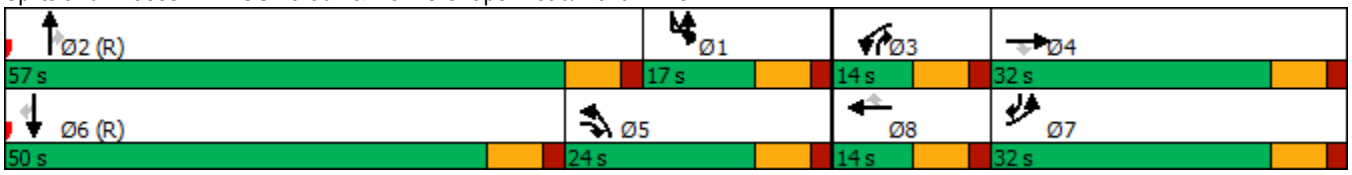
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	715	137	203	122	75	74	143	1329	125	67	99	839
Future Volume (vph)	715	137	203	122	75	74	143	1329	125	67	99	839
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		100	100		100	250		300		400	
Storage Lanes	2		1	2		1	1		1		1	
Taper Length (ft)	100			100			100				100	
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850			0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	3433	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	3433	1863	1583	3433	1863	1583	1770	3539	1583	0	1770	3539
Right Turn on Red			No			No			No			
Satd. Flow (RTOR)												
Link Speed (mph)		35			45			45				45
Link Distance (ft)		1170			1242			1181				1184
Travel Time (s)		22.8			18.8			17.9				17.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	794	152	226	136	83	82	159	1477	139	74	110	932
Shared Lane Traffic (%)												
Lane Group Flow (vph)	794	152	226	136	83	82	159	1477	139	0	184	932
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	1	6
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	8	5	2	3	1	1	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	14.0	19.0
Total Split (s)	32.0	32.0	24.0	14.0	14.0	14.0	24.0	57.0	14.0	17.0	17.0	50.0
Total Split (%)	26.7%	26.7%	20.0%	11.7%	11.7%	11.7%	20.0%	47.5%	11.7%	14.2%	14.2%	41.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lag	Lead	Lead	Lag	Lag	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes			Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	None	C-Max
Act Effct Green (s)	27.0	27.0	46.0	9.0	9.0	9.0	19.0	52.0	61.0		12.0	45.0
Actuated g/C Ratio	0.22	0.22	0.38	0.08	0.08	0.08	0.16	0.43	0.51		0.10	0.38
v/c Ratio	1.03	0.36	0.37	0.53	0.60	0.69	0.57	0.96	0.17		1.04	0.70
Control Delay	85.6	42.2	18.5	61.4	71.9	83.7	55.5	49.3	9.1		128.9	26.6
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	85.6	42.2	18.5	61.4	71.9	83.7	55.5	49.3	9.1		128.9	26.6
LOS	F	D	B	E	E	F	E	D	A		F	C
Approach Delay		67.0			70.4			46.7				37.7
Approach LOS		E			E			D				D
Queue Length 50th (ft)	~338	100	90	53	63	63	115	575	33		~157	225
Queue Length 95th (ft)	#462	164	139	87	#128	#143	189	#741	55		#307	276

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	180
Future Volume (vph)	180
Ideal Flow (vphpl)	1900
Storage Length (ft)	350
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	200
Shared Lane Traffic (%)	
Lane Group Flow (vph)	200
Turn Type	pm+ov
Protected Phases	7
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	14.0
Total Split (s)	32.0
Total Split (%)	26.7%
Yellow Time (s)	5.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	5.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	77.0
Actuated g/C Ratio	0.64
v/c Ratio	0.20
Control Delay	5.9
Queue Delay	0.0
Total Delay	5.9
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	32
Queue Length 95th (ft)	52

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Internal Link Dist (ft)		1090			1162			1101				1104
Turn Bay Length (ft)	225		100	100		100	250		300		400	
Base Capacity (vph)	772	419	606	257	139	118	280	1533	804		177	1327
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	1.03	0.36	0.37	0.53	0.60	0.69	0.57	0.96	0.17		1.04	0.70

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 114 (95%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.04			
Intersection Signal Delay: 50.9		Intersection LOS: D	
Intersection Capacity Utilization 88.8%		ICU Level of Service E	
Analysis Period (min) 15			
~ Volume exceeds capacity, queue is theoretically infinite.			
Queue shown is maximum after two cycles.			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 4: US 15-501 & Manns Chapel Road/Plaza Drive



Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	350
Base Capacity (vph)	1015
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.20

Intersection Summary

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	33	0	2263	1028	34
Future Vol, veh/h	0	33	0	2263	1028	34
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	-	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	37	0	2514	1142	38

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	571	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	464	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	464	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	464	-	-
HCM Lane V/C Ratio	-	0.079	-	-
HCM Control Delay (s)	-	13.4	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.3	-	-

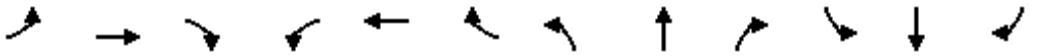
Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	49	0	2263	1041	23
Future Vol, veh/h	0	49	0	2263	1041	23
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	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	54	0	2514	1157	26

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	579	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	458	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	458	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	458	-	-
HCM Lane V/C Ratio	-	0.119	-	-
HCM Control Delay (s)	-	13.9	-	-
HCM Lane LOS	-	B	-	-
HCM 95th %tile Q(veh)	-	0.4	-	-

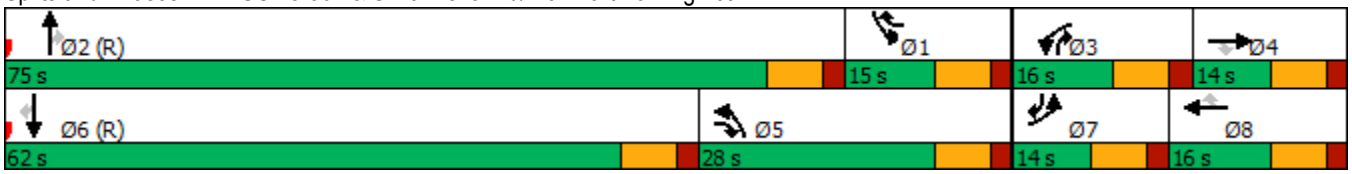


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	93	600	219	119	96	456	1033	13	143	1339	82
Future Volume (vph)	81	93	600	219	119	96	456	1033	13	143	1339	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		150	125		125	250		250	250		75
Storage Lanes	1		2	2		1	2		1	2		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	0.88	0.97	1.00	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1770	1863	2787	3433	1863	1583	3433	3539	1583	3433	3539	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			30			45			45	
Link Distance (ft)		1026			1053			3622			1014	
Travel Time (s)		15.5			23.9			54.9			15.4	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	90	103	667	243	132	107	507	1148	14	159	1488	91
Shared Lane Traffic (%)												
Lane Group Flow (vph)	90	103	667	243	132	107	507	1148	14	159	1488	91
Turn Type	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	7	4	5	3	8	1	5	2	3	1	6	7
Permitted Phases			4			8			2			6
Detector Phase	7	4	5	3	8	1	5	2	3	1	6	7
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	12.0	7.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	19.0	14.0
Total Split (s)	14.0	14.0	28.0	16.0	16.0	15.0	28.0	75.0	16.0	15.0	62.0	14.0
Total Split (%)	11.7%	11.7%	23.3%	13.3%	13.3%	12.5%	23.3%	62.5%	13.3%	12.5%	51.7%	11.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lead	Lead	Lag	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	C-Max	None
Act Effct Green (s)	9.0	9.0	32.0	11.0	11.0	21.0	23.0	70.0	81.0	10.0	57.0	66.0
Actuated g/C Ratio	0.08	0.08	0.27	0.09	0.09	0.18	0.19	0.58	0.68	0.08	0.48	0.55
v/c Ratio	0.68	0.74	0.90	0.77	0.78	0.39	0.77	0.56	0.01	0.56	0.89	0.10
Control Delay	79.7	84.5	44.2	70.5	82.6	34.9	46.2	5.0	0.8	60.8	36.3	7.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	79.7	84.5	44.2	70.5	82.6	34.9	46.2	5.0	0.8	60.8	36.3	7.1
LOS	E	F	D	E	F	C	D	A	A	E	D	A
Approach Delay		52.7			65.9			17.5			37.0	
Approach LOS		D			E			B			D	
Queue Length 50th (ft)	69	80	210	96	102	59	206	45	1	61	534	18
Queue Length 95th (ft)	#148	#169	#302	#155	#204	104	264	58	m1	98	645	33

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Internal Link Dist (ft)		946			973			3542			934	
Turn Bay Length (ft)	100		150	125		125	250		250	250		75
Base Capacity (vph)	132	139	743	314	170	277	657	2064	1068	286	1681	870
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.68	0.74	0.90	0.77	0.78	0.39	0.77	0.56	0.01	0.56	0.89	0.10

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 62 (52%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 35.9		Intersection LOS: D	
Intersection Capacity Utilization 76.8%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot



Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	130	53	51	1450	77	25	2134
Future Volume (vph)	130	53	51	1450	77	25	2134
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	150	0	250		250	250	
Storage Lanes	1	1	1		1	1	
Taper Length (ft)	100		100			100	
Lane Util. Factor	1.00	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850			0.850		
Flt Protected	0.950		0.950			0.950	
Satd. Flow (prot)	1770	1583	1770	3539	1583	1770	3539
Flt Permitted	0.950		0.950			0.950	
Satd. Flow (perm)	1770	1583	1770	3539	1583	1770	3539
Right Turn on Red		No			No		
Satd. Flow (RTOR)							
Link Speed (mph)	45			45			45
Link Distance (ft)	1212			302			3622
Travel Time (s)	18.4			4.6			54.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	144	59	57	1611	86	28	2371
Shared Lane Traffic (%)							
Lane Group Flow (vph)	144	59	57	1611	86	28	2371
Turn Type	Prot	Perm	Prot	NA	pm+ov	Prot	NA
Protected Phases	8		5	2	8	1	6
Permitted Phases		8			2		
Detector Phase	8	8	5	2	8	1	6
Switch Phase							
Minimum Initial (s)	7.0	7.0	7.0	12.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	19.0	14.0	14.0	19.0
Total Split (s)	16.0	16.0	14.0	90.0	16.0	14.0	90.0
Total Split (%)	13.3%	13.3%	11.7%	75.0%	13.3%	11.7%	75.0%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag			Lag	Lag		Lead	Lead
Lead-Lag Optimize?			Yes	Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	None	None	C-Max
Act Effct Green (s)	11.0	11.0	9.0	90.6	108.6	9.0	87.8
Actuated g/C Ratio	0.09	0.09	0.08	0.76	0.90	0.08	0.73
v/c Ratio	0.89	0.41	0.43	0.60	0.06	0.21	0.92
Control Delay	100.6	60.5	51.8	1.6	0.4	63.3	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	100.6	60.5	51.8	1.6	0.4	63.3	14.9
LOS	F	E	D	A	A	E	B
Approach Delay	89.0			3.2			15.5
Approach LOS	F			A			B
Queue Length 50th (ft)	112	44	45	42	2	21	827
Queue Length 95th (ft)	#235	89	m59	m45	m3	m25	#954

Lane Group	WBL	WBR	NBU	NBT	NBR	SBL	SBT
Internal Link Dist (ft)	1132			222			3542
Turn Bay Length (ft)	150		250		250	250	
Base Capacity (vph)	162	145	132	2671	1432	132	2589
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.41	0.43	0.60	0.06	0.21	0.92

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 120			
Offset: 8 (7%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 14.0		Intersection LOS: B	
Intersection Capacity Utilization 74.5%		ICU Level of Service D	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 2: US 15-501 & Old Lystra Road

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	121	1457	47	158	2160
Future Vol, veh/h	0	121	1457	47	158	2160
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	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	134	1619	52	176	2400

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	836	0	0	1671	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	4.14	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	0	310	-	-	380	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	310	-	-	380	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	25.2	0	1.5
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	310	380	-
HCM Lane V/C Ratio	-	-	0.434	0.462	-
HCM Control Delay (s)	-	-	25.2	22.4	-
HCM Lane LOS	-	-	D	C	-
HCM 95th %tile Q(veh)	-	-	2.1	2.4	-

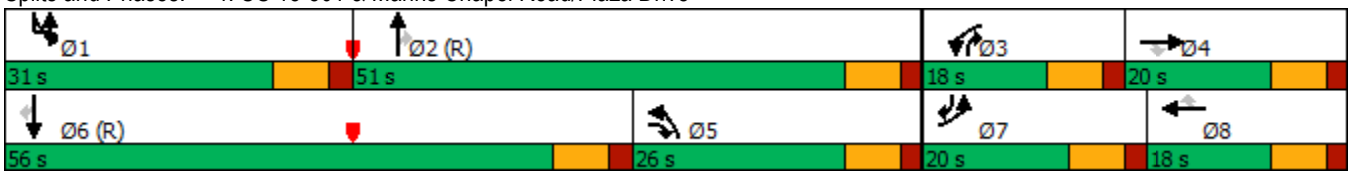
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations												
Traffic Volume (vph)	392	149	199	262	202	74	303	975	128	64	231	1391
Future Volume (vph)	392	149	199	262	202	74	303	975	128	64	231	1391
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		100	100		100	250		300		400	
Storage Lanes	2		1	2		1	1		1		1	
Taper Length (ft)	100			100			100				100	
Lane Util. Factor	0.97	1.00	1.00	0.97	1.00	1.00	1.00	0.95	1.00	0.95	1.00	0.95
Frt			0.850			0.850			0.850			
Flt Protected	0.950			0.950			0.950				0.950	
Satd. Flow (prot)	3433	1863	1583	3433	1863	1583	1770	3539	1583	0	1770	3539
Flt Permitted	0.950			0.950			0.950				0.950	
Satd. Flow (perm)	3433	1863	1583	3433	1863	1583	1770	3539	1583	0	1770	3539
Right Turn on Red			No			No			No			
Satd. Flow (RTOR)												
Link Speed (mph)		35			45			45				45
Link Distance (ft)		1170			1242			1181				1184
Travel Time (s)		22.8			18.8			17.9				17.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	436	166	221	291	224	82	337	1083	142	71	257	1546
Shared Lane Traffic (%)												
Lane Group Flow (vph)	436	166	221	291	224	82	337	1083	142	0	328	1546
Turn Type	Prot	NA	pm+ov	Prot	NA	Perm	Prot	NA	pm+ov	Prot	Prot	NA
Protected Phases	7	4	5	3	8		5	2	3	1	1	6
Permitted Phases			4			8			2			
Detector Phase	7	4	5	3	8	8	5	2	3	1	1	6
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0	7.0	7.0	7.0	7.0	12.0	7.0	7.0	7.0	12.0
Minimum Split (s)	14.0	14.0	14.0	14.0	14.0	14.0	14.0	19.0	14.0	14.0	14.0	19.0
Total Split (s)	20.0	20.0	26.0	18.0	18.0	18.0	26.0	51.0	18.0	31.0	31.0	56.0
Total Split (%)	16.7%	16.7%	21.7%	15.0%	15.0%	15.0%	21.7%	42.5%	15.0%	25.8%	25.8%	46.7%
Yellow Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0	-2.0	-2.0	-2.0	0.0	-2.0	-2.0	-2.0		-2.0	-2.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	7.0	5.0	5.0	5.0		5.0	5.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lag	Lag	Lead	Lead	Lead	Lead
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	None	None	None	C-Max
Act Effct Green (s)	15.0	15.0	36.0	13.0	13.0	11.0	21.0	46.7	64.7		25.3	51.0
Actuated g/C Ratio	0.12	0.12	0.30	0.11	0.11	0.09	0.18	0.39	0.54		0.21	0.42
v/c Ratio	1.02	0.72	0.47	0.78	1.11	0.57	1.09	0.79	0.17		0.88	1.03
Control Delay	99.6	68.3	24.2	67.8	146.3	68.0	124.0	37.5	14.9		53.7	49.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	99.6	68.3	24.2	67.8	146.3	68.0	124.0	37.5	14.9		53.7	49.3
LOS	F	E	C	E	F	E	F	D	B		D	D
Approach Delay		73.0			97.3			54.1				41.1
Approach LOS		E			F			D				D
Queue Length 50th (ft)	~180	125	98	114	~198	62	~294	387	54		234	~673
Queue Length 95th (ft)	#288	#222	153	#178	#358	#122	#479	475	91		m270	m#792

Lane Group	SBR
Lane Configurations	
Traffic Volume (vph)	475
Future Volume (vph)	475
Ideal Flow (vphpl)	1900
Storage Length (ft)	350
Storage Lanes	1
Taper Length (ft)	
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	No
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.90
Adj. Flow (vph)	528
Shared Lane Traffic (%)	
Lane Group Flow (vph)	528
Turn Type	pm+ov
Protected Phases	7
Permitted Phases	6
Detector Phase	7
Switch Phase	
Minimum Initial (s)	7.0
Minimum Split (s)	14.0
Total Split (s)	20.0
Total Split (%)	16.7%
Yellow Time (s)	5.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	-2.0
Total Lost Time (s)	5.0
Lead/Lag	Lead
Lead-Lag Optimize?	Yes
Recall Mode	None
Act Effct Green (s)	66.0
Actuated g/C Ratio	0.55
v/c Ratio	0.61
Control Delay	9.1
Queue Delay	0.0
Total Delay	9.1
LOS	A
Approach Delay	
Approach LOS	
Queue Length 50th (ft)	156
Queue Length 95th (ft)	m169

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Internal Link Dist (ft)		1090			1162			1101				1104
Turn Bay Length (ft)	225		100	100		100	250		300		400	
Base Capacity (vph)	429	232	474	371	201	145	309	1377	853		383	1504
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	1.02	0.72	0.47	0.78	1.11	0.57	1.09	0.79	0.17		0.86	1.03

Intersection Summary	
Area Type:	Other
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 94 (78%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 56.0	Intersection LOS: E
Intersection Capacity Utilization 93.7%	ICU Level of Service F
Analysis Period (min) 15	
~ Volume exceeds capacity, queue is theoretically infinite.	
Queue shown is maximum after two cycles.	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: US 15-501 & Manns Chapel Road/Plaza Drive



Lane Group	SBR
Internal Link Dist (ft)	
Turn Bay Length (ft)	350
Base Capacity (vph)	870
Starvation Cap Reductn	0
Spillback Cap Reductn	0
Storage Cap Reductn	0
Reduced v/c Ratio	0.61

Intersection Summary

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	31	0	1578	2258	45
Future Vol, veh/h	0	31	0	1578	2258	45
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	-	-	-	100
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	34	0	1753	2509	50

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1255	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	163	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	163	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	32.9	0	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	163	-	-
HCM Lane V/C Ratio	-	0.211	-	-
HCM Control Delay (s)	-	32.9	-	-
HCM Lane LOS	-	D	-	-
HCM 95th %tile Q(veh)	-	0.8	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	47	0	1578	2259	30
Future Vol, veh/h	0	47	0	1578	2259	30
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	-	-	-	25
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	52	0	1753	2510	33

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	-	1255	-	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.94	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.32	-	-	-	-
Pot Cap-1 Maneuver	0	163	0	-	-	-
Stage 1	0	-	0	-	-	-
Stage 2	0	-	0	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	163	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	37.2	0	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	-	163	-	-
HCM Lane V/C Ratio	-	0.32	-	-
HCM Control Delay (s)	-	37.2	-	-
HCM Lane LOS	-	E	-	-
HCM 95th %tile Q(veh)	-	1.3	-	-

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	R	L	L	T	R	L	L	T	T
Maximum Queue (ft)	89	186	240	199	49	46	67	136	170	174	260	255
Average Queue (ft)	36	30	132	79	5	17	10	29	105	129	132	140
95th Queue (ft)	75	90	214	187	25	42	37	90	163	171	213	220
Link Distance (ft)		962					989				3524	3524
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		150	150	125	125		125	250	250		
Storage Blk Time (%)	0		10	0				1			0	0
Queuing Penalty (veh)	0		8	0				1			1	0

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	19	30	70	158	94	30
Average Queue (ft)	1	3	36	88	41	6
95th Queue (ft)	8	16	67	142	80	23
Link Distance (ft)				961	961	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	250	250	250			75
Storage Blk Time (%)					2	
Queuing Penalty (veh)					0	

Intersection: 2: US 15-501 & Old Lystra Road

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	U	T	T	R	L	T	T
Maximum Queue (ft)	68	134	31	151	150	31	69	118	135
Average Queue (ft)	37	26	4	51	50	5	19	42	46
95th Queue (ft)	73	75	19	108	118	22	53	101	105
Link Distance (ft)		1148		241	241			3524	3524
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150		250			250	250		
Storage Blk Time (%)		0							
Queuing Penalty (veh)		0							

Intersection: 3: US 15-501 & Collection Center

Movement	WB	NB	SB
Directions Served	LR	TR	UL
Maximum Queue (ft)	116	52	138
Average Queue (ft)	50	2	45
95th Queue (ft)	91	17	95
Link Distance (ft)	1100	1110	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	T	R	L	L	TR	L	T	T	R	UL
Maximum Queue (ft)	274	325	635	144	67	107	166	345	348	326	88	159
Average Queue (ft)	190	222	142	66	13	48	84	99	237	224	25	79
95th Queue (ft)	280	315	391	113	40	90	142	221	319	308	64	138
Link Distance (ft)			1112				1183		1129	1129		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225	225		100	100	100		250			250	275
Storage Blk Time (%)	2	10	6	3		1	13		5	3		
Queuing Penalty (veh)	4	25	39	19		1	12		5	3		

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	271	269	135
Average Queue (ft)	174	170	44
95th Queue (ft)	260	261	96
Link Distance (ft)	1110	1110	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			275
Storage Blk Time (%)	0	0	
Queuing Penalty (veh)	0	0	

Network Summary

Network wide Queuing Penalty: 118

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	R	L	L	T	R	L	L	T	T
Maximum Queue (ft)	199	209	245	197	159	206	186	163	158	196	148	173
Average Queue (ft)	40	71	152	110	42	93	73	45	107	132	67	78
95th Queue (ft)	98	146	215	198	103	153	147	102	153	180	128	138
Link Distance (ft)		962					989				3524	3524
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		150	150	125	125		125	250	250		
Storage Blk Time (%)		6	10	1	1	3	2	2				
Queuing Penalty (veh)		28	13	1	2	5	5	6				

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	41	124	160	319	303	175
Average Queue (ft)	2	21	81	217	197	44
95th Queue (ft)	15	72	147	294	274	145
Link Distance (ft)				961	961	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	250	250	250			75
Storage Blk Time (%)				4	33	0
Queuing Penalty (veh)				4	21	1

Intersection: 2: US 15-501 & Old Lystra Road

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	U	T	T	R	L	T	T
Maximum Queue (ft)	178	170	52	204	179	32	53	157	181
Average Queue (ft)	86	53	5	101	103	4	14	83	96
95th Queue (ft)	160	119	25	164	158	20	42	152	163
Link Distance (ft)		1148		241	241			3524	3524
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150		250			250	250		
Storage Blk Time (%)	4	0							
Queuing Penalty (veh)	2	0							

Intersection: 3: US 15-501 & Collection Center

Movement	WB	NB	SB
Directions Served	LR	TR	UL
Maximum Queue (ft)	120	22	133
Average Queue (ft)	47	1	45
95th Queue (ft)	85	7	87
Link Distance (ft)	1100	1110	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	T	R	L	L	TR	L	T	T	R	UL
Maximum Queue (ft)	234	257	165	143	150	200	350	345	342	242	64	215
Average Queue (ft)	124	156	77	64	80	135	168	183	161	145	27	109
95th Queue (ft)	191	218	137	113	164	207	283	288	243	228	61	187
Link Distance (ft)			1112				1183		1129	1129		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225	225		100	100	100		250			250	275
Storage Blk Time (%)	0	0	5	1	4	28	35	6	0	0		
Queuing Penalty (veh)	0	1	24	5	9	58	69	21	0	0		

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	363	398	374
Average Queue (ft)	192	209	105
95th Queue (ft)	295	311	214
Link Distance (ft)	1110	1110	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			275
Storage Blk Time (%)	1	2	
Queuing Penalty (veh)	2	6	

Network Summary

Network wide Queuing Penalty: 282

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	R	L	L	T	R	L	L	T	T
Maximum Queue (ft)	127	235	237	183	27	108	46	70	250	258	234	253
Average Queue (ft)	51	33	130	83	3	32	12	23	123	140	117	129
95th Queue (ft)	102	108	201	180	16	69	32	58	203	215	202	221
Link Distance (ft)		962					989				3524	3524
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		150	150	125	125		125	250	250		
Storage Blk Time (%)	1	0	4	1		0			0	0	0	0
Queuing Penalty (veh)	6	0	4	1		0			0	0	0	0

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	16	31	116	247	164	30
Average Queue (ft)	1	9	53	131	95	5
95th Queue (ft)	7	30	95	189	155	21
Link Distance (ft)				961	961	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	250	250	250			75
Storage Blk Time (%)				0	10	
Queuing Penalty (veh)				0	2	

Intersection: 2: US 15-501 & Old Lystra Road

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	U	T	T	R	L	T	T
Maximum Queue (ft)	112	61	30	269	266	53	94	94	146
Average Queue (ft)	38	16	2	139	148	13	23	19	27
95th Queue (ft)	81	46	12	244	240	40	64	62	72
Link Distance (ft)		1148		241	241			3524	3524
Upstream Blk Time (%)				1	1				
Queuing Penalty (veh)				10	8				
Storage Bay Dist (ft)	150		250			250	250		
Storage Blk Time (%)				1	1				
Queuing Penalty (veh)				0	1				

Intersection: 3: US 15-501 & Collection Center

Movement	WB	NB	SB
Directions Served	LR	T	UL
Maximum Queue (ft)	162	53	139
Average Queue (ft)	69	2	64
95th Queue (ft)	124	18	110
Link Distance (ft)	1100	1110	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)			0
Queuing Penalty (veh)			0

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	T	R	L	L	TR	L	T	T	R	UL
Maximum Queue (ft)	274	322	344	114	48	200	235	350	556	506	350	179
Average Queue (ft)	216	250	120	73	13	72	135	142	342	302	53	88
95th Queue (ft)	294	330	253	117	37	142	212	327	516	461	190	154
Link Distance (ft)			1112				1183		1129	1129		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225	225		100	100	100		250			250	275
Storage Blk Time (%)	4	16	9	4		3	23	0	22	14		
Queuing Penalty (veh)	13	49	71	27		4	25	0	28	16		

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	280	309	137
Average Queue (ft)	152	146	60
95th Queue (ft)	239	248	113
Link Distance (ft)	1110	1110	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			275
Storage Blk Time (%)	0	1	
Queuing Penalty (veh)	0	1	

Network Summary

Network wide Queuing Penalty: 269

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	R	L	L	T	R	L	L	T	T
Maximum Queue (ft)	109	380	250	200	174	194	302	199	186	201	170	157
Average Queue (ft)	60	106	172	127	62	115	73	84	126	146	96	105
95th Queue (ft)	103	259	248	229	148	176	177	165	185	198	164	162
Link Distance (ft)		962					989				3524	3524
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		150	150	125	125		125	250	250		
Storage Blk Time (%)	2	2	17	5	1	10	4	7				
Queuing Penalty (veh)	11	15	25	7	1	20	10	20				

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	19	144	349	421	420	175
Average Queue (ft)	1	18	121	327	301	90
95th Queue (ft)	9	68	273	427	410	222
Link Distance (ft)				961	961	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	250	250	250			75
Storage Blk Time (%)				17	39	
Queuing Penalty (veh)				21	29	

Intersection: 2: US 15-501 & Old Lystra Road

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	U	T	T	R	L	T	T
Maximum Queue (ft)	151	87	30	140	137	29	69	259	245
Average Queue (ft)	79	33	1	53	60	4	21	167	173
95th Queue (ft)	124	76	10	101	97	19	56	229	233
Link Distance (ft)		1148		241	241			3524	3524
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150		250			250	250		
Storage Blk Time (%)	0							0	
Queuing Penalty (veh)	0							0	

Intersection: 3: US 15-501 & Collection Center

Movement	WB	NB	SB
Directions Served	LR	TR	UL
Maximum Queue (ft)	226	50	99
Average Queue (ft)	59	2	57
95th Queue (ft)	142	18	90
Link Distance (ft)	1100	1110	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB
Directions Served	L	L	T	R	L	L	TR	L	T	T	R	UL
Maximum Queue (ft)	274	320	285	152	149	200	646	350	625	548	78	375
Average Queue (ft)	167	198	123	63	87	144	229	299	325	284	38	249
95th Queue (ft)	247	279	216	113	169	225	445	384	555	503	69	430
Link Distance (ft)			1112				1183		1129	1129		
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225	225		100	100	100		250			250	275
Storage Blk Time (%)	1	5	11	1	6	24	46	44	3	3		0
Queuing Penalty (veh)	2	15	59	4	15	58	105	183	9	4		1

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	SB	SB	SB
Directions Served	T	T	R
Maximum Queue (ft)	674	759	375
Average Queue (ft)	425	463	317
95th Queue (ft)	610	675	475
Link Distance (ft)	1110	1110	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			275
Storage Blk Time (%)	30	36	1
Queuing Penalty (veh)	63	148	6

Network Summary

Network wide Queuing Penalty: 833

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	R	L	L	T	R	L	L	T	T
Maximum Queue (ft)	110	106	235	200	24	66	23	83	205	218	259	259
Average Queue (ft)	56	21	138	102	1	11	12	28	114	142	112	129
95th Queue (ft)	100	59	216	202	8	38	29	70	167	197	210	211
Link Distance (ft)		962					989				3524	3524
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		150	150	125	125		125	250	250		
Storage Blk Time (%)	2	0	6	0							0	0
Queuing Penalty (veh)	7	1	6	0							1	0

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	17	31	96	184	166	25
Average Queue (ft)	1	7	44	116	83	3
95th Queue (ft)	6	28	88	179	148	17
Link Distance (ft)				961	961	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	250	250	250			75
Storage Blk Time (%)					5	
Queuing Penalty (veh)					1	

Intersection: 2: US 15-501 & Old Lystra Road

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	U	T	T	R	L	T	T
Maximum Queue (ft)	113	63	99	204	204	95	118	138	176
Average Queue (ft)	43	19	29	109	124	18	35	64	76
95th Queue (ft)	94	43	76	194	210	63	78	130	147
Link Distance (ft)	1148			241	241			3524	3524
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)		150	250			250	250		
Storage Blk Time (%)									
Queuing Penalty (veh)									

Intersection: 3: US 15-501 & Collection Center

Movement	WB	NB	SB
Directions Served	R	TR	L
Maximum Queue (ft)	140	27	104
Average Queue (ft)	63	1	48
95th Queue (ft)	113	9	92
Link Distance (ft)	1100	1104	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	274	323	445	200	150	161	151	101	350	422	395	104
Average Queue (ft)	229	259	128	87	28	72	66	47	143	300	267	42
95th Queue (ft)	304	340	320	165	89	128	125	89	323	412	380	84
Link Distance (ft)			1112				1183	1183		1129	1129	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225	225		100	100	100			250			250
Storage Blk Time (%)	3	19	9	5	0	8	1		0	18	9	
Queuing Penalty (veh)	10	56	69	38	0	5	2		0	23	10	

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	SB	SB	SB	SB
Directions Served	UL	T	T	R
Maximum Queue (ft)	252	288	278	85
Average Queue (ft)	100	178	184	34
95th Queue (ft)	163	255	257	76
Link Distance (ft)		1104	1104	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	275			275
Storage Blk Time (%)		0	0	
Queuing Penalty (veh)		1	0	

Intersection: 5: US 15-501 & Access #1

Movement	EB
Directions Served	R
Maximum Queue (ft)	22
Average Queue (ft)	12
95th Queue (ft)	25
Link Distance (ft)	988
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: US 15-501 & Access #2

Movement	EB
Directions Served	R
Maximum Queue (ft)	67
Average Queue (ft)	20
95th Queue (ft)	40
Link Distance (ft)	964
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 231

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	R	L	L	T	R	L	L	T	T
Maximum Queue (ft)	146	491	250	200	175	204	200	106	209	222	110	126
Average Queue (ft)	54	95	165	135	82	130	85	51	135	143	55	62
95th Queue (ft)	111	249	238	211	184	198	177	97	196	202	103	115
Link Distance (ft)		962					989				3524	3524
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		150	150	125	125		125	250	250		
Storage Blk Time (%)	3	6	13	4	2	16	3	0				
Queuing Penalty (veh)	19	34	20	6	5	30	8	0				

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	16	127	154	487	425	175
Average Queue (ft)	2	40	87	277	258	28
95th Queue (ft)	11	102	138	379	382	113
Link Distance (ft)				961	961	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	250	250	250			75
Storage Blk Time (%)				12	35	0
Queuing Penalty (veh)				15	26	1

Intersection: 2: US 15-501 & Old Lystra Road

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	U	T	T	R	L	T	T
Maximum Queue (ft)	177	150	77	135	118	53	74	377	369
Average Queue (ft)	73	36	30	63	59	10	27	195	206
95th Queue (ft)	132	88	65	114	106	36	62	342	359
Link Distance (ft)		1148		241	241			3524	3524
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150		250			250	250		
Storage Blk Time (%)	2	0						2	
Queuing Penalty (veh)	1	0						0	

Intersection: 3: US 15-501 & Collection Center

Movement	WB	NB	SB
Directions Served	R	TR	L
Maximum Queue (ft)	118	28	115
Average Queue (ft)	46	1	51
95th Queue (ft)	82	9	86
Link Distance (ft)	1100	1104	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	227	263	256	200	149	200	732	200	349	364	308	86
Average Queue (ft)	146	177	128	75	106	149	203	70	238	242	215	31
95th Queue (ft)	198	230	206	155	173	215	489	161	338	329	292	73
Link Distance (ft)			1112				1183			1129	1129	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225	225		100	100	100		100	250			250
Storage Blk Time (%)	0	1	20	4	9	36	34	1	10	6	3	
Queuing Penalty (veh)	0	2	104	21	21	87	100	3	45	16	3	

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	SB	SB	SB	SB
Directions Served	UL	T	T	R
Maximum Queue (ft)	374	384	333	217
Average Queue (ft)	193	236	234	137
95th Queue (ft)	326	346	336	220
Link Distance (ft)		1104	1104	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	275			275
Storage Blk Time (%)	3	4	5	
Queuing Penalty (veh)	17	10	20	

Intersection: 5: US 15-501 & Access #1

Movement	EB
Directions Served	R
Maximum Queue (ft)	66
Average Queue (ft)	15
95th Queue (ft)	42
Link Distance (ft)	988
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 6: US 15-501 & Access #2

Movement	EB
Directions Served	R
Maximum Queue (ft)	107
Average Queue (ft)	26
95th Queue (ft)	73
Link Distance (ft)	964
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Network Summary

Network wide Queuing Penalty: 613

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	R	L	L	T	R	L	L	T	T
Maximum Queue (ft)	140	191	240	200	48	103	89	110	299	349	456	460
Average Queue (ft)	62	35	155	132	6	30	23	26	142	176	205	215
95th Queue (ft)	117	104	227	220	27	73	62	64	234	270	337	344
Link Distance (ft)		962					989				3524	3524
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		150	150	125	125		125	250	250		
Storage Blk Time (%)	6	2	10	1				0	0	1	2	3
Queuing Penalty (veh)	31	12	13	1				0	1	8	10	0

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	17	31	133	218	156	30
Average Queue (ft)	2	6	56	138	102	4
95th Queue (ft)	9	26	111	211	168	21
Link Distance (ft)				961	961	
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	250	250	250			75
Storage Blk Time (%)					17	
Queuing Penalty (veh)					5	

Intersection: 2: US 15-501 & Old Lystra Road

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	U	T	T	R	L	T	T
Maximum Queue (ft)	111	138	239	322	331	241	113	178	160
Average Queue (ft)	62	34	38	227	225	57	39	60	64
95th Queue (ft)	116	82	107	335	337	209	86	133	127
Link Distance (ft)		1148		241	241			3524	3524
Upstream Blk Time (%)			0	7	7	0			
Queuing Penalty (veh)			0	88	88	0			
Storage Bay Dist (ft)	150		250			250	250		
Storage Blk Time (%)		0	0	7	7	0			
Queuing Penalty (veh)		0	0	3	10	2			

Intersection: 3: US 15-501 & Collection Center

Movement	WB	NB	SB	SB	SB
Directions Served	R	TR	L	T	T
Maximum Queue (ft)	184	30	249	332	284
Average Queue (ft)	93	2	157	106	64
95th Queue (ft)	159	13	271	315	241
Link Distance (ft)	1100	1104		290	290
Upstream Blk Time (%)				3	0
Queuing Penalty (veh)				16	0
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			42	5	
Queuing Penalty (veh)			237	5	

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	275	325	1164	200	149	200	405	200	350	1144	1137	400
Average Queue (ft)	274	324	1106	128	53	120	177	107	256	714	693	235
95th Queue (ft)	276	326	1274	212	129	211	326	172	479	1104	1070	526
Link Distance (ft)			1112				1183			1129	1129	
Upstream Blk Time (%)			44							1	0	
Queuing Penalty (veh)			0							0	0	
Storage Bay Dist (ft)	225	225		100	100	100		100	250			300
Storage Blk Time (%)	46	57	23	15	6	16	29	24		51	47	
Queuing Penalty (veh)	173	214	236	145	10	26	62	52		81	66	

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	SB	SB	SB	SB
Directions Served	UL	T	T	R
Maximum Queue (ft)	500	637	627	153
Average Queue (ft)	472	428	309	78
95th Queue (ft)	541	695	562	138
Link Distance (ft)		1104	1104	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	400			350
Storage Blk Time (%)	73	0	0	
Queuing Penalty (veh)	340	0	1	

Intersection: 5: US 15-501 & Site Access #1

Movement	EB	NB	NB
Directions Served	R	T	T
Maximum Queue (ft)	64	124	112
Average Queue (ft)	14	12	10
95th Queue (ft)	35	61	55
Link Distance (ft)	988	552	552
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: US 15-501 & Site Access #2

Movement	EB	SB
Directions Served	R	T
Maximum Queue (ft)	44	50
Average Queue (ft)	18	4
95th Queue (ft)	38	23
Link Distance (ft)	964	552
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1939

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	T	R	R	L	L	T	R	L	L	T	T
Maximum Queue (ft)	200	683	250	200	174	225	423	225	256	259	176	182
Average Queue (ft)	81	276	223	180	110	156	161	90	132	145	99	110
95th Queue (ft)	179	564	281	225	195	234	327	194	206	211	147	163
Link Distance (ft)		962					989				3524	3524
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	100		150	150	125	125		125	250	250		
Storage Blk Time (%)	4	36	33	15	3	26	33	7	0	0		
Queuing Penalty (veh)	32	274	64	30	8	63	116	25	1	0		

Intersection: 1: US 15-501 & Smith Level Rd/Wal-Mart Parking Lot

Movement	NB	SB	SB	SB	SB	SB
Directions Served	R	L	L	T	T	R
Maximum Queue (ft)	17	144	350	1013	932	175
Average Queue (ft)	2	43	227	665	626	67
95th Queue (ft)	11	109	443	1027	951	186
Link Distance (ft)				961	961	
Upstream Blk Time (%)				1		
Queuing Penalty (veh)				0		
Storage Bay Dist (ft)	250	250	250			75
Storage Blk Time (%)				42	50	2
Queuing Penalty (veh)				66	45	13

Intersection: 2: US 15-501 & Old Lystra Road

Movement	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	U	T	T	R	L	T	T
Maximum Queue (ft)	250	650	115	97	143	31	349	1448	1434
Average Queue (ft)	248	396	38	45	52	6	79	559	578
95th Queue (ft)	257	593	81	92	101	24	256	1169	1196
Link Distance (ft)		1148		241	241			3524	3524
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	150		250			250	250		
Storage Blk Time (%)	96	0						20	
Queuing Penalty (veh)	56	0						6	

Intersection: 3: US 15-501 & Collection Center

Movement	WB	NB	SB	SB	SB
Directions Served	R	TR	L	T	T
Maximum Queue (ft)	96	31	250	324	312
Average Queue (ft)	52	2	110	217	219
95th Queue (ft)	88	13	254	423	425
Link Distance (ft)	1100	1104		290	290
Upstream Blk Time (%)				5	7
Queuing Penalty (veh)				63	89
Storage Bay Dist (ft)			150		
Storage Blk Time (%)			0	27	
Queuing Penalty (veh)			1	47	

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	R	L	L	T	R	L	T	T	R
Maximum Queue (ft)	275	325	1151	200	150	200	1235	200	350	1181	1163	398
Average Queue (ft)	248	288	631	95	82	188	1113	112	349	1101	1079	83
95th Queue (ft)	335	386	1312	197	160	247	1492	249	350	1293	1312	264
Link Distance (ft)			1112				1183			1129	1129	
Upstream Blk Time (%)			23				79			68	17	
Queuing Penalty (veh)			0				0			0	0	
Storage Bay Dist (ft)	225	225		100	100	100		100	250			300
Storage Blk Time (%)	49	62	28	12	11	31	88	3	89	2	3	
Queuing Penalty (veh)	189	239	184	73	32	95	328	13	481	8	4	

Intersection: 4: US 15-501 & Manns Chapel Road/Plaza Drive

Movement	SB	SB	SB	SB
Directions Served	UL	T	T	R
Maximum Queue (ft)	500	1117	1125	450
Average Queue (ft)	391	989	1002	431
95th Queue (ft)	630	1362	1359	524
Link Distance (ft)		1104	1104	
Upstream Blk Time (%)		7	9	
Queuing Penalty (veh)		80	110	
Storage Bay Dist (ft)	400			350
Storage Blk Time (%)	11	42	50	0
Queuing Penalty (veh)	84	136	266	2

Intersection: 5: US 15-501 & Access #1

Movement	EB	SB	SB
Directions Served	R	T	T
Maximum Queue (ft)	166	264	251
Average Queue (ft)	45	67	90
95th Queue (ft)	122	211	242
Link Distance (ft)	988	241	241
Upstream Blk Time (%)		0	1
Queuing Penalty (veh)		1	8
Storage Bay Dist (ft)			
Storage Blk Time (%)			6
Queuing Penalty (veh)			3

Intersection: 6: US 15-501 & Access #2

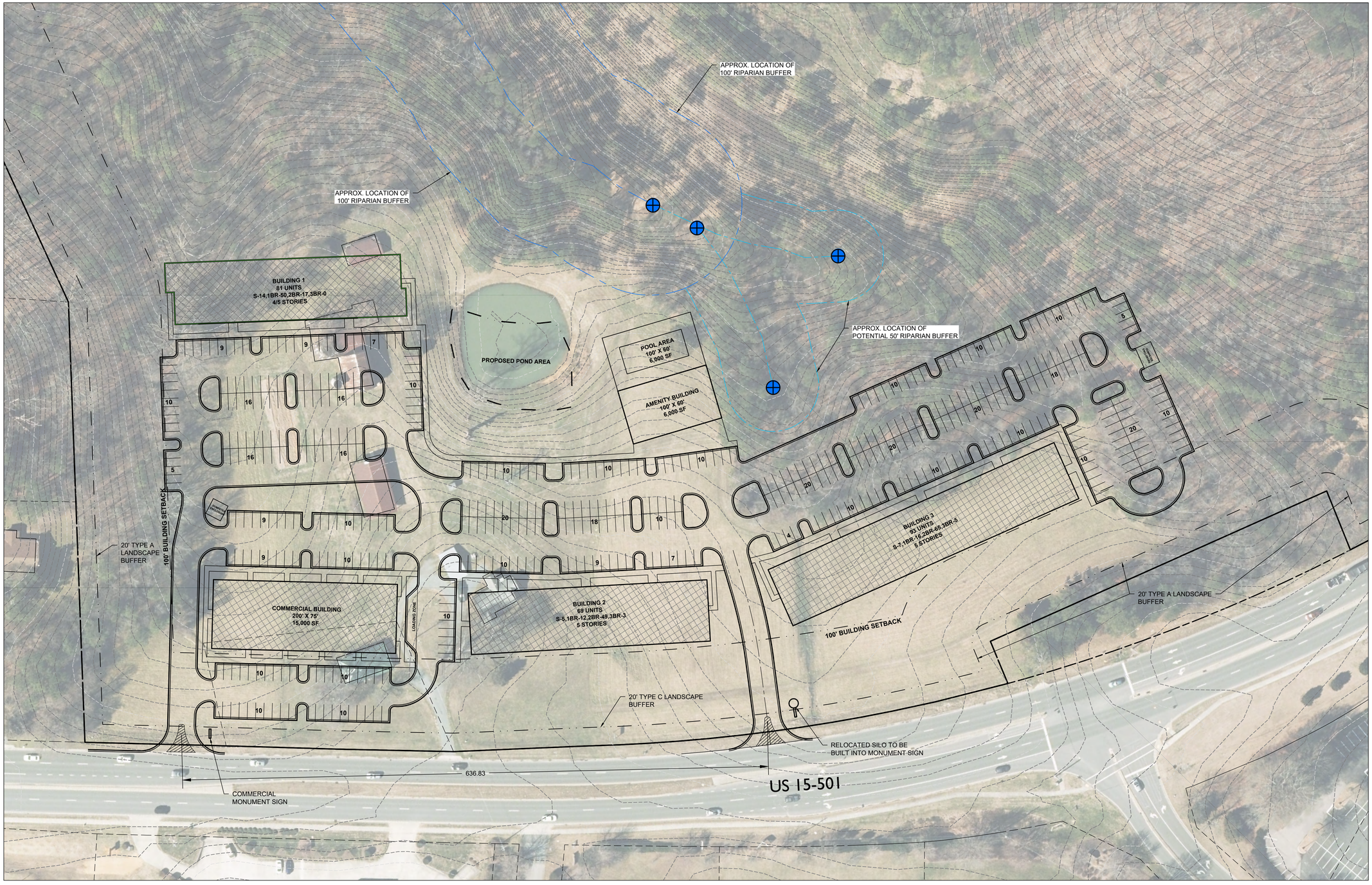
Movement	EB	SB	SB	SB
Directions Served	R	T	T	R
Maximum Queue (ft)	280	575	575	125
Average Queue (ft)	101	330	339	12
95th Queue (ft)	233	711	715	74
Link Distance (ft)	964	552	552	
Upstream Blk Time (%)		1	2	
Queuing Penalty (veh)		18	28	
Storage Bay Dist (ft)				25
Storage Blk Time (%)			26	
Queuing Penalty (veh)			9	

Network Summary

Network wide Queuing Penalty: 3392

Appendix C: Site Plan

C



SITE DATA

CURRENT PROPERTY OWNER:

WOMBLE AURTHER & MOLLY &
EDWARDS ROSALIE & WALTER
11785 US 15-501 N
CHAPEL HILL, NC 27517

DEVELOPER:

CATALYST CAPITAL PARTNERS
1600 CAMDEN ROAD, SUITE 200
CHARLOTTE, NC 28203
CONTACT: KEVIN CHRISTIANSEN
PHONE: (775) 301-8622

CURRENT ZONING: R-2
PROPOSED ZONING: CD-MU

AKPAR: 2646 AND 2647

GROSS TRACT AREA: 56.2 ACRES (PER GIS)
PROPERTY ADDRESS: 11785 US 15-501 N

PLAT/DEED REFERENCE: DB 1005 PG 0245

PROPOSED MULTIFAMILY UNITS:
BUILDING 1: 81 UNITS (STUDIO-14, 1BR-50, 2BR-17, 3BR-0)
BUILDING 2A: 81 UNITS (STUDIO-6, 1BR-14, 2BR-57, 3BR-4)
BUILDING 2B: 81 UNITS (STUDIO-6, 1BR-14, 2BR-57, 3BR-4)

TOTAL: 243 UNITS

UNIT MIX:
STUDIO: 26
1BR: 78
2BR: 131
3BR: 8

******IN NO CIRCUMSTANCES SHALL A BUILDING HAVE A HEIGHT GREATER THAN SIXTY (60) FEET******

PARKING FOR APARTMENT DEVELOPMENT (PER DEVELOPER):
REQUIRED: 1.7 PARKING SPACES PER UNIT OR 1 SPACE/ BEDROOM

243 UNITS x 1.7 PARKING SPACES = 413 SPACES
390 BEDROOMS x 1 PARKING SPACE = 390 SPACES

PROVIDED: 415 SPACES

PROPOSED COMMERCIAL AREA:
BUILDING AREA: 15,000 SF

PARKING REQUIRED: 5 SPACES/1000 SF x 15,000 SF = 75 SPACES

PARKING PROVIDED: 78 SPACES

DISTURBED AREAS:(DOES NOT INCLUDE SEWER/SEPTIC AREAS)

APARTMENTS:	+/- 8.7 AC (15.5% OF PARCEL)
COMMERCIAL:	+/- 1.9 AC (3.4% OF PARCEL)
TOTAL DISTURBED AREA	+/- 10.6 AC (18.9% OF PARCEL)

IMPERVIOUS AREAS

APARTMENTS:	+/- 5.0 AC (8.9% OF PARCEL)
COMMERCIAL:	+/- 1.7 AC (3.0% OF PARCEL)
	(25.4% OF TOTAL; 20% REQUIRED)
TOTAL IMPERVIOUS AREA	+/- 6.7 AC (11.9% OF PARCEL)

******BUILT UPON AREA SHALL NOT EXCEED TWELVE PERCENT (12%)******

******AT A MINIMUM, TWENTY PERCENT (20%) OF THE TOTAL BUILT UPON AREA OF THE DEVELOPMENT MUST BE OCCUPIED BY OR USED FOR NON-RESIDENTIAL USES******

WASTEWATER DATA

STANDARD SEWAGE FLOW RATE FOR A DWELLING UNIT: 120 GALLONS PER DAY (GPD) PER BEDROOM, WITH A MINIMUM OF 240 GPD PER DWELLING UNIT

MINIMUM ALLOWABLE DESIGN DAILY FLOW FOR NON-RESIDENTIAL USES:
- MEDICAL OR DENTAL OFFICES: 250 GAL/PRACTITIONER/SHIFT
- GENERAL BUSINESS AND OFFICE: 25 GAL/EMPLOYEE/SHIFT

RESIDENTIAL SEWER FLOW:

STUDIO: 24 UNITS x 240 GPD/UNIT =	6,240 GPD
1 BEDROOM: 72 UNITS x 240 GPD/UNIT =	18,720 GPD
2 BEDROOM: 109 UNITS x 240 GPD/UNIT =	31,1400 GPD
3 BEDROOM: 6 UNITS x 360 GPD/UNIT =	2,880 GPD
SUB-TOTAL:	59,280 GPD

NON-RESIDENTIAL SEWER FLOW:

15,000 SF MEDICAL OFFICE: 10 PRACTITIONERS(1 SHIFT) x 250 GPD =	2,500 GPD
SUB-TOTAL:	2,500 GPD
TOTAL SEWER FLOW:	61,780 GPD

******MAXIMUM FLOW TO AQUA TREATMENT PLANT: 40,000 GPD******

ASSUMED THAT NO REDUCTION WILL BE GRANTED FOR NON-RESIDENTIAL FLOWS DUE TO LACK OF FLOW DATA FOR REPRESENTATIVE FACILITY.

WITH NO FLOW REDUCTION, ON-SITE TREATMENT FACILITY WILL NEED TO TREAT 21,780 GPD

TO USE AQUA TREATMENT PLANT ONLY, RESIDENTIAL SEWER FLOW WILL NEED TO BE REDUCED TO 75 GPD/BEDROOM (150 GPD/UNIT MIN.) OR LESS.

SCALE: 1" = 50'

0 25 50 100 200

NORTH

DATE: 06.07.2022

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

McKIM & CREED

Womble Farm-Chatham County
CONCEPT PLAN

Appendix D: NCDOT TIA Checklist and MOA

D

NCDOT Traffic Impact Analysis Need Screening / Scoping Request

TIA Need Screening → TIA Scoping → TIA Submittal

A Traffic Impact Analysis (TIA) may be required for developments based on the site trip generation estimates, site context, or at the discretion of the NCDOT District Engineer. The Applicant or the TIA Consultant shall submit this form along with the site plan to the District Engineer to determine the TIA need and, if a TIA is required, initiate the TIA scoping process. Without an approved scope, the TIA is incomplete and will be rejected until the study is revised to conform to NCDOT's TIA requirements.

Project Name: Womble Parcel **Previous Name:** If Applicable

Location: US 15-501 N **County:** Chatham **Municipality:**

Project Description: LUC 221 Miltifamily Mid Rise with 243 units and 15,000 SF Medical-Dental Office LUC with 106 Units

Project Contact:	Applicant	TIA Consultant
Company Name	Catalyst Capital Partners, Inc.	Gannett Fleming, Inc.
Contact Person	Kevin Christiansen	Jeffrey H. Moore, P. E.
Phone Number	775-301-8622	828-674-0229
Email	kevin@catalystcp.com	jemoore@gfnet.com
Mailing Address	1600 Camden Road, Suite 200 Charlotte, NC 28203	28 Schenck Parkway, Suite 200 Asheville, NC 28803

Site Plan Prepared By: Mckim & Creed **Site Plan Date:** June 7, 2022

See site plan/vicinity map requirements on page 2.

Parcel Size: 56.2 Acre(s) **Anticipated Build-Out Year:** 2026

Weekday Site Trip Generation - Do NOT adjust for mode split, pass-by, internal capture, or diverted trips.

ITE LUC	Proposed Land Use	Size	Unit	Daily Trips	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
221	Multifamily Mid	243	Units	1113	Adj. Street	22	73	95	58	37	95	ITE Equation
720	Medical-Dental	15	KSF	540	Adj. Street	35	9	44	17	41	58	ITE Rate
Total				1653		57	82	139	75	78	153	

Refer to the current *NCDOT Congestion Management Capacity Analysis Guidelines* for acceptable trip calculation methods and data sources.

**Explain local or other data sources, if used:

☐ The estimated site trips meet NCDOT's TIA trip threshold of 3,000 daily trips.

☒ The estimated site trips meet the municipal TIA trip threshold of Rezoning

☒ This project is located in a known STIP and/ or local CIP project # U-6192

☐ This project includes a rezoning request.

NCDOT Traffic Impact Analysis Need Screening / Scoping Request

TIA Need Screening → TIA Scoping → TIA Submittal

☐ The proposed site access is located within 1,000 feet of an interchange.

☐ The Applicant requests for a new or modified control-of-access break.

☐ The Applicant requests for a new or modified median break.

Kevin Christiansen	Kevin Christiansen	6/22/2022
Applicant's Signature	Print Name	Date

Site Plan/Vicinity Map Requirement for TIA Need Screening: While the site plan may not be finalized during the TIA scoping stage, the graphic representation of the proposed development shall provide adequate details on the development scope and context. More specifically, the site plan/map shall clearly show the location and type of each access point, spacing to adjacent and opposing driveways or intersections, internal street network, proposed buildings/parcels with their anticipated uses and sizes at full build-out and, if applicable, any nearby interstate, US, NC or Secondary Roads (SR).

Project Name: Womble Parcel **Project Reference Number:** _____

☒ **A TIA is Required by the Local Government.** In addition, the study area is expected to include NCDOT maintained transportation facilities.

☐ **A TIA is Required by NCDOT,** per the *Policy on Street and Driveway Access to North Carolina Highways*.

If either or both of the boxes above are checked, the Applicant/TIA Consultant is hereby requested to fill out as much as possible of the following TIA scoping checklist, and return it along with the supporting documents to NCDOT prior to the scoping meeting.

☐ **A TIA is NOT required**. This decision is based on the development information presented above. Changes in the development plan will require re-evaluation of the TIA need, and may necessitate a TIA. The Applicant should inform the District Engineer of any significant changes in a timely fashion to avoid delays or rejections of the driveway permit / encroachment agreement applications.

Additional Comments:

The TIA need decision is made by the NCDOT Division 8 District 1 on _____.

_____ _____

NCDOT District Representative's Signature | Print Name

Email concurrence may be used in lieu of the signature.

NCDOT TIA Scoping Checklist

TIA Need Screening → TIA Scoping → TIA Submittal

Project Name: Womble Parcel **TIA Scoping Date:** 6-21-2022

☒ **TIA Need Screening Forms are Attached.** Project Reference #: _____ Decision Date: _____

☒ **Site Plan and Access**

☒ Provide a site plan illustrating site access, internal and external roadways, buildings and land uses.
Refer to NCDOT's *Policy on Street and Driveway Access to North Carolina Highways* pages 14 and 15 for site plan requirements.

☒ Identify site access.

New Access	On Road	Access Type		Driveway Spacing		
	Road Name	Permitted Movements	Traffic Control	Distance (ft)	Direction	Nearest Intersection / Access
Access A	US 15-501	RIRO	2-Way Stop	300	South	Old Lystra Road
Access B	US 15-501	RIRO	2-Way Stop	950	South	Old Lystra Road
Access C						
Access D						
Access E						
Access F						
Access G						
Access H						

Existing Access	Existing Intersection of		Access Modification	**Proposed Interconnectivity** (If Applicable)		
	Road A	Road B		Connector #	Road Connected	Adjacent Development
Access 1			Please Select	Connector 1		
Access 2				Connector 2		
Access 3				Connector 3		
Access 4				Connector 4		

☐ Additional access clarifications and provisions (e.g., proposed control-of-access or median breaks, modifications of existing access, loading/unloading area access, bike/pedestrian accommodation).

☐

Proposed K-12 School Site

☐ NCDOT MSTA School Traffic Calculator for Select School Type shall be used.

☐ Peak Hour Factors (PHFs) shall be adjusted/weighted for new school trips (0.5 PHF by default).

☐ Internal school circulation analysis is required, and should be submitted in advance or concurrent with the TIA submittal.

☐ Clarify traffic operation plans (e.g. traffic circulation pattern, pedestrian access, drop-off/pick-up zone location and configuration, queue storage area and, if applicable, staggered start times).

☒ Trip Generation

The TIA Consultant shall prepare trip generation estimates following the current *NCDOT Congestion Management Capacity Analysis Guidelines*, and submit the calculation sheets and supporting information to the District Engineer for approval prior to capacity analysis.

ITE LUC	Proposed Land Use	Size	Unit	Daily Trips	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
221	Multifamily Mid	243	Units	1113	Adj. Street	22	73	95	58	37	95	ITE Equation
720	Medical - Dental	15	KSF	540	Adj. Street	35	9	44	17	41	58	ITE Rate
Unadjusted Site Trips				1653		57	82	139	75	78	153	
Internal Capture Trips (Attach Calculation Sheets)				0		0	0	0	0	0	0	Please Select
Internal Capture % of Unadjusted Site Trips				0 %		0 %			0 %			
LUC	Proposed Land Use	Any Internal Trips?		Pass-By % of External Trips								
221	Multifamily Mid	Not Applicable		%		%			%			
720	Medical - Dental	Not Applicable		%		%			%			
				%		%			%			
				%		%			%			
				%		%			%			
Pass-By Trips (Attach Calculation Sheets)				0		0	0	0	0	0	0	
Adjacent Street Volumes												Please Select
Non-Pass-By Primary Trips				1653		57	82	139	75	78	153	
Diverted Trips, if Applicable and Justifiable				0								Please Select

**Explain local or other data sources, if used:

☐ Existing Site Trip Information for Redevelopment Projects (Attach separate sheets as needed)

ITE LUC	Existing Land Use	Size	Unit	Daily Trips	Peak Hour Type	AM Peak Hour Trips			PM Peak Hour Trips			Data Source
						Enter	Exit	Total	Enter	Exit	Total	
					Please Select							Please Select
Total Existing Site Trips												

☒ **Trip Distribution**

☒ Trip distribution diagrams are submitted concurrently with this document (attach separate sheets).

☐ Trip distribution diagrams will be submitted separately, along with supporting information, to the District Engineer for review and approval prior to capacity analysis. The trip distribution shall be based on the current and anticipated traffic patterns, as well as instructions noted below.

If required by the District Engineer, the following additional diagrams shall also be submitted:

☐ Mixed-Use Developments (separate diagrams for residential, commercial, and office trips)

☐ Inter-Development Trips (if 'internal" trips cross public streets)

☐ Pass-By Trips

☐ Diverted Trips

☐ Each Analysis Period

☐ **Mode Split**

☐ Provide Data Source and Justification

Mode / Period	Auto		
AM Peak	%	%	%
PM Peak	%	%	%
Daily	%	%	%
	%	%	%

☐ Identify proper infrastructure and accommodation for other modes of travel.

☒ **Analysis Peak Periods:**

☒ Weekday AM Peak 7-9 AM

☒ Weekday PM Peak 4-6 PM

☐ Weekday Midday Peak _____

☐ Weekday PM School Peak _____

☐ Weekend _____ Peak _____

☐ Other _____

☒ Study Area Intersections and Data Collection

The study area shall include the site access intersections (both new and existing) identified under "Site Plan and Access" on page 1, as well as the following external and, if applicable, internal intersections.

External Intersection	Intersection of		Traffic Control	Intersection Turning Movement Counts			Notes
	Road A	Road B		New / Existing	Date of Counts	Growth Adjustment	
#1	US 15-501	SR 1919	Signal	Use Existing Counts	6/21	N/A	
#2	US 15-501	SR 1724	Signal	Use Existing Counts	6/21	N/A	
#3	US 15-501	Collection Center	2-Way Stop	Require New Counts		N/A	
#4	US 15-501	SR 1532	Signal	Use Existing Counts	6/21	N/A	
#5							
#6							
#7							
#8							
#9							
#10							
#11							
#12							

Internal Intersection	Intersection of		Access Type		Intersection Spacing		
	Road A	Road B	Traffic Control	Permitted Movements	Distance (ft)	Direction	Nearest Intersection
#101			Please Select	Please Select		Please Select	
#102							
#103							
#104							
#105							

The following data will be collected:

☒ New traffic turning movement counts in ☒ 15-min intervals ☐ 5-min intervals (near schools)
Unless otherwise noted above, new traffic counts shall be collected at the existing study intersections during the analysis periods. Weekday counts shall avoid Mondays, Fridays, holidays, school breaks, road closures, and major weather events.

☐ To account for the impact of existing and/or proposed school traffic, PHFs will be adjusted for:

intersections numbered: _____

and access points numbered: _____

☐ Traffic Forecast Data for TIP: _____

☒ Roadway/Intersection Configuration & Traffic Control

☒ Traffic Signal Phasing & Timing Data

☐ Crash Data: _____ Period: _____

☐ Other:

☒ Future Year Conditions

☒ Project Build-Out Year: 2026

☒ Future Analysis Year(s): 2045

☒ Identify below any funded/committed future transportation improvements, as well as any approved but incomplete developments near the site.

Funded STIP / Local CIP Project	Project Description	Year Complete
U-6192	US 15-501 from Smith Level Rd to US 64 Byp in Chatham Co	Fut

Nearby Approved Development	Location	Future Land Use (exclude any completed phases)	Committed Improvements

☒ Annual Growth Factor: 4 %

Justification/Data Source: http://NCDOT.maps.arcgis.com/apps/webapviewer/index.html

☐ Local Comprehensive Transportation Plan Compliance

☐ Identify Applicable Local Transportation Planning Documents

☐ Identify Applicable Roadways inside the Study Area

Road Name	Classification	Speed Limit	Proposed Cross-Section	Proposed Right-of-Way	Compliance Requirements	Affect Study Intersection #

☒ Study Method

The traffic analysis shall follow the current *NCDOT Congestion Management Capacity Analysis Guidelines*, *Policy on Street and Driveway Access to North Carolina Highways*, and use the current approved version of analysis software (e.g. Synchro/SimTraffic, HCS, Sidra Intersection, TransModeler).

The study shall include the following analysis scenarios for each analysis period.

1. Existing Conditions
2. Future No-Build Conditions (existing + background growth + approved developments + committed or funded improvements)
3. Future Build Conditions (future no-build + site trips)
4. Future Build with Improvements Conditions (future build traffic with improvements to mitigate the proposed development's impacts) and, if applicable:

☒ 5. TIP Design Year Analysis 2045

☐ 6. Alternative Access Scenario (without proposed control-of-access or median break / modification)

The following additional analysis/outputs should be provided as warranted:

- ☐ Signal Warrant Analysis for accesses/intersections _____
- ☐ Multi-Modal Level of Service Analysis
- ☐ School Loading Zone Traffic Simulation
- ☐ Phasing Analysis (scope separately as needed)
- ☐ Safety/Crash Analysis
- ☐ Control-of-Access Modification Justification
- ☐ Median Break / Modification Justification
- ☐ Other _____

☒ Submittals

In addition to the hardcopies required below, the TIA Consultant shall provide the District Engineer and, if required, the local government an electronic copy of the study documents, including the latest site plan, figures and appendices, in searchable PDF files and the original traffic analysis files (e.g., Synchro, HCS). To expedite review, the NCDOT electronic submittals shall also be delivered concurrently to:

☐ Div. Traffic Engr ☐ Regional Traffic Engr ☐ Congestion Management ☐ Other _____

Submittals	NCDOT		Local Government	
	Electronic	Hardcopy	Electronic	Hardcopy
Trip Generation & Distribution	Required		Required	
Draft TIA Report	Required		Required	
Final Sealed TIA Report	Required		Required	

☐ **Additional Comments** (municipal TIA requirements, approved variations from NCDOT guidelines)

Agreement by All Parties

The undersigned agree to the contents and methodology described above for completing the required traffic impact analysis for the proposed development identified herein. Any changes to the above methodology contemplated by the Applicant or the TIA Consultant must be submitted to the District Engineer in writing. If approved by NCDOT, then such changes may be accepted for the TIA report. Subsequent revisions to the development plan (e.g. land use, density, site access, or schedule) may require additional scoping and analysis, and may modify the TIA requirements.

This agreement shall become effective on the date approved by NCDOT, and shall expire ____ months after the effective date or upon significant changes to the roadway network and/or development assumptions, whichever occurs first. Once expired, renewal or re-scoping will be required for subsequent TIA submittals.

APPLICANT

Signature	Print Name	Date
Kevin Christiansen	Kevin Christiansen	6/22/2022

TIA CONSULTANT

Signature	Print Name	Date
Jeffrey H. Moore	Jeffrey H. Moore, P. E.	6-21-22

LOCAL GOVERNMENT REPRESENTATIVE (If Applicable)

Signature	Print Name	Date

Email concurrence may be used in lieu of the signature.

NCDOT DISTRICT REPRESENTATIVE

Reviewed and approved by the NCDOT Division ____ District ____ on _____.

Signature	Print Name

Email concurrence may be used in lieu of the signature.

NCDOT TIA Submittal Checklist

TIA Need Screening → TIA Scoping → TIA Submittal

Submittal: Final Sealed TIA Report **Document Date:** _____

Project Name: Womble Parcel **Previous Name:** If Applicable _____

NCDOT Division: 8 **District:** 1 **County:** Chatham **Municipality:** _____

TIA Consultant: Gannett Fleming Submitted By: Jeffrey H. Moore, P. E.

Phone Number: 828-674-0229 Email: jemoore@gfnet.com

TIA Scoping Checklist Approval Date: _____ **Unadjusted Daily Site Trips:** 1,898

☒ The approved TIA Scoping Checklist is included in this submittal.

☒ LOS D or better is expected at all study intersections after proposed mitigations.

☒ The study report is sealed by a NC Professional Engineer with expertise in traffic engineering.

☒ This study has identified all known deficiencies with and without the proposed development.

☒ This study has identified mitigation measures to adequately accommodate the site trips.

Explain here if any of the boxes above are unchecked:

The undersigned affirms that, except for the deviations noted below, the TIA submittal conforms to the current *NCDOT Congestion Management Capacity Analysis Guidelines*, *Policy on Street and Driveway Access to North Carolina Highways*, and the TIA Scoping Checklist approved by the NCDOT District Office. The undersigned also acknowledges that the TIA will be rejected if the deviations and justifications are not properly documented and approved by NCDOT.

Deviations and Justifications (e.g., changes in site plan, development schedule, site trip and off-site trip estimates, study area, data collection, analysis period and method. Attached separate sheets if needed.)

TIA Consultant's Signature (Professional Engineer of TIA Record)	Print Name	Date

GANNETT FLEMING

Excellence Delivered As Promised

July 6, 2022

To: Mr. Jason Sullivan, Planning Director
Mr. R. J. "Jeron" Monroe, District Supervisor, NCDOT
Mr. Kevin Christiansen, Catalyst Capital Partners, LLC

From: Jeffrey H. Moore, P. E.

Subject: **MEMORANDUM OF ASSUMPTIONS** for Womble Parcel Traffic Impact Analysis Gannett Fleming Project # 072395)

Introduction

Womble Parcel, a proposed residential / Medical Office development, is planned to be constructed on the west side of US 15-501 in Chatham County, NC (refer to MOA Figure 1 – Site Location). The project involves rezoning the subject property.

The proposed Residential Development will consist of 243 units of Multifamily Mid-Rise (ITE Land Use Code 210) and 15,000 SF Medical – Dental Office (ITE Land Use Code 720).

The ***Site Plan***, prepared by McKim & Creed, dated June 7, 2022, indicates two proposed right-in/right-out accesses on US 15-501. The ***Site Plan***, dated June 7, 2022, is illustrated on MOA Figure 2.

Study Area Intersections

To determine the potential impact of the Womble Parcel development, the following intersections will be studied:

- US 15-501 at SR 1919 (Smith Level Road) (signalized intersection) (Orange County)
- US 15-501 at SR 1724 (Old Lystra Road) (signalized intersection)
- US 15-501 at SR 1532 (Manns Chapel Road) (signalized intersection)
- US 15-501 at Chatham County Collection Site (unsignalized intersection)

The proposed study area intersections are illustrated on MOA Figure 1.

AM & PM Peak Hour Turning Movement Counts

Gannett Fleming will obtain turning movement traffic counts taken during the AM (7-9am), PM (4-6pm) peak hours at the following study area intersections:

- US 15-501 at SR 1919 (Smith Level Road) (signalized intersection) (Orange County)
- US 15-501 at SR 1724 (Old Lystra Road) (signalized intersection)
- US 15-501 at SR 1532 (Manns Chapel Road) (signalized intersection)
- US 15-501 at Chatham County Collection Site (unsignalized intersection)

28 Schenck Parkway, Suite 200, Asheville, NC 28803 | 828.776.2791

Study Year Scenarios

- 2022 Existing Condition
- 2026 No-Build Condition
- 2026 Buildout Condition
- 2045 Design Year Analysis

Capacity Analysis

Capacity analysis, using Synchro/SimTraffic, will be performed for the AM and PM peak hours at the following intersections for each study year scenario:

- US 15-501 at SR 1919 (Smith Level Road) (signalized intersection) (Orange County)
- US 15-501 at SR 1724 (Old Lystra Road) (signalized intersection)
- US 15-501 at SR 1532 (Manns Chapel Road) (signalized intersection)
- US 15-501 at Chatham County Collection Site (unsignalized intersection)

Trip Generation

Preliminary trip generation estimates for the proposed development have been developed using the *ITE Trip Generation Manual, 11th Edition*. The following table illustrates the trip generation estimates:

Table 1 - ITE Trip Generation Summary

LUC	Description	Density	Variable	PK HR	METHOD	Daily	AM In	AM Out	AM Total	PM In	PM Out	PM Total
221	Multifamily Mid-Rise New Trips	243	Units	Adj	EQN	1113	22	73	95	58	37	95
	Pass-by Adjustment AM (0%) PM (0%)						0	0	0	0	0	0
	Multifamily Mid-Rise New Trips						22	73	95	58	37	95
720	Medical-Dental Office New Trips	15	KSF	Adj	Rate	540	35	9	44	17	41	58
	Pass-by Adjustment AM (0%) PM (0%)						0	0	0	0	0	0
	Medical-Dental Office New Trips						35	9	44	17	41	58
	Total New Trips					1653	57	82	139	75	78	153

The trip generation noted in Table 1 was developed using the suggested method as outlined in the *NCDOT Congestion Management Rate vs Equation Spreadsheet*, dated August 24, 2021.

Pass-by / Internal Capture

Pass-by trips are not applicable for Land Use Code 221 Multifamily Mid-Rise and Land Use Code 720 Medical-Dental Office. Therefore, pass-by trips will not be considered.

Internal capture is only applicable for mixed-use developments. Therefore, no internal capture will be considered.

Growth Rates

Facility	% Growth	2019	2017	2015	2013	2011	2009
US 15-501 (S of Old Lystra Rd)	4.4%		26000	24000	26000	22000	21000
US 15-501 (N of Old Lystra Rd)	3.5%	22500	25000	20000	19000	17000	16000
SR 1919 (Smith LevelRd) (W of US 15)	3.0%	9400	8400	7700	6800	7100	7000
SR 1532 (Manns Chapel Rd) (W of US 15)	5.2%	10500	7100	6000	7000	6400	-
Average Growth Rate	4.0%						

As illustrated in the preceding table, the traffic on study area roadways has increased over the past years. After consideration of NCDOT AADT Volumes, Gannett Fleming recommends a 4% compounded annual growth rate to be used on study area and intersections.

This annual growth rate is not atypical for suburban areas in North Carolina. Following is the link to the historical annual daily traffic (AADT) on study area roadways: https://ncdot.maps.arcgis.com/apps/webappviewer/index.html?id=964881960f0549de8c3583bf46ef5ed4),

Approved Developments

No developments are known at this time in the study area.

Approved Transportation Projects

U-6192 (US 15-501 from Smith Level Road to US 64 Bypass in Chatham County. Convert remaining non-synchronized sections to synchronized street) is planned to begin right of way acquisition in 2026 in the study area. Construction is unfunded in future years.

Directions of Approach and Departure

The proposed AM and PM entering and exiting distributions are as follows:

Facility and Direction of Approach and Departure	Percentage of Site Traffic
US 15-501 (north)	65%
US 15-501 (south)	35%
SR 1754 (Old Lystra Road) (east)	5%
SR 1532 (Manns Chapel Road) (west)	5%
SR 1919 (Smith Level Road) (west)	15%

Traffic distribution above is based on review of NCDOT AADT Volumes (https://ncdot.maps.arcgis.com/apps/webappviewer/index.html?id=964881960f0549de8c3583bf46ef5ed4), review of previous TIA's, and Gannett Fleming's local knowledge of the area. When Gannett Fleming obtains the existing traffic counts for the study area intersections, the directions of approach and departure will be reviewed and adjusted as necessary before submitting to Buncombe County and NCDOT for concurrence. The proposed directions of approach and departure are illustrated in MOA Figure 3.

Auxiliary Turn Lane Analysis

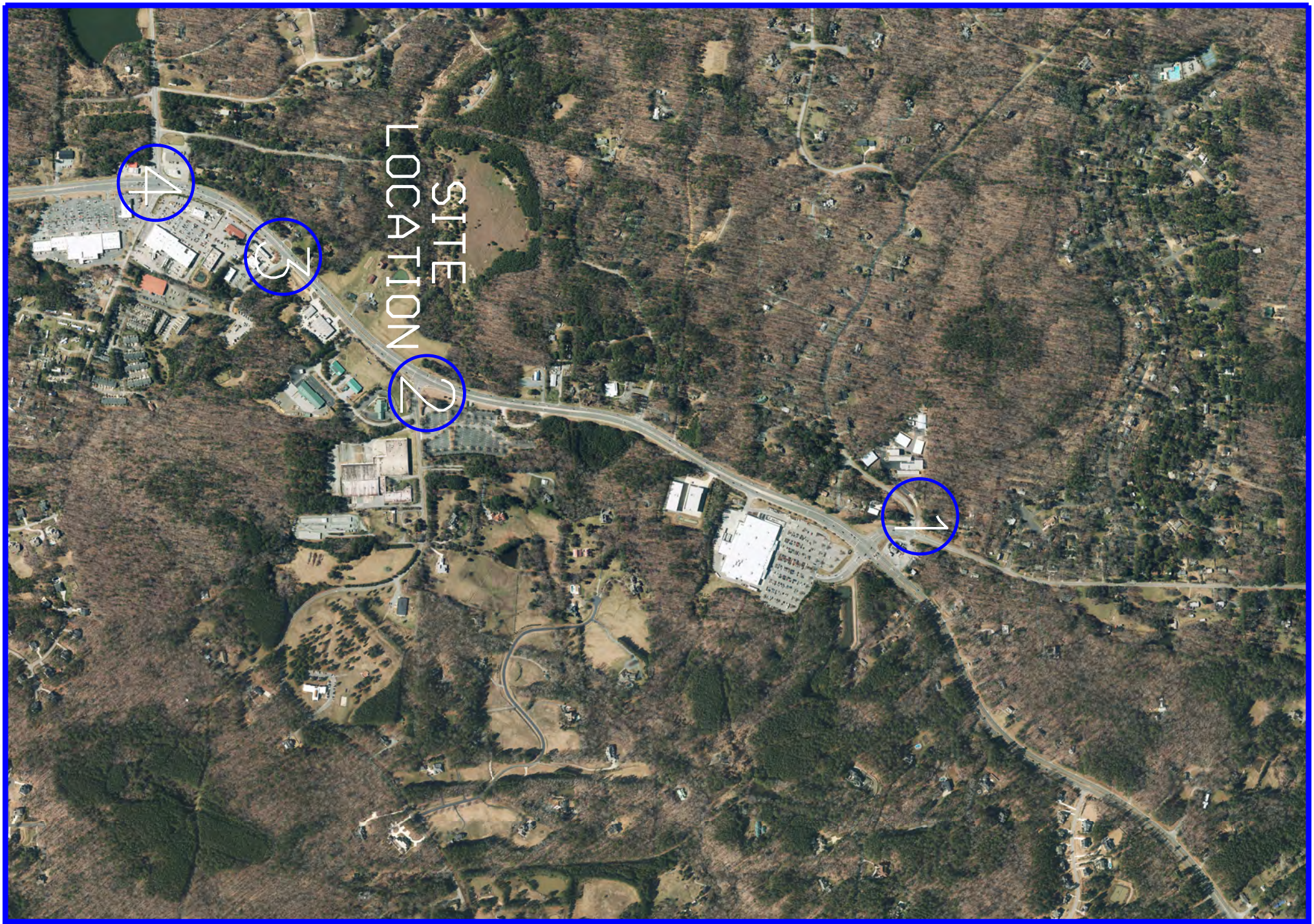
NCDOT Left and Right Turn Lane Warrants will be used to determine the need for left and right-turn lanes at the proposed accesses on US 15-501 and other study area roadways.

Other Issues

The TIA will address Finding of Fact in the Conclusions section.

This concludes the **Memorandum of Assumptions**. Please review and provide your concurrence at your earliest convenience. If you have any questions, please feel free to contact me at jemoore@gfnet.com or 828-674-0229.

Attachments – As noted



PLANS PREPARED BY:
GANNETT FLEMING
Excellence Delivered As Promised
28 Schenck Parkway
Suite 200
Asheville NC 28803
(828) 771-0871
NC Lic. No. F-0270

TRAFFIC IMPACT ANALYSIS
WOMBLE PARCEL
CHAPEL HILL, NC

MOA FIGURE 1

STUDY INTERSECTIONS

SCALE:
NONE

SITE DATA

CURRENT PROPERTY OWNER:

WOMBLE AURTHER & MOLLY S
EDWARDS ROSALIE & WALTER
11785 US 15-501 N
CHAPEL HILL, NC 27517

DEVELOPER:

CATALYST CAPITAL PARTNERS
1600 CAMDEN ROAD, SUITE 200
CHARLOTTE, NC 28203
CONTACT: KEVIN CHRISTIANSEN
PHONE: (775) 301-9822

CURRENT ZONING: R-2
PROPOSED ZONING: CD-MU

AKPAR: 2646 AND 2647

GROSS TRACT AREA: 56.2 ACRES (PER GIS)
PROPERTY ADDRESS: 11785 US 15-501 N

PLAT/DEED REFERENCE: DB 1005 PG 0245

PROPOSED MULTIFAMILY UNITS:
BUILDING 1: 81 UNITS (STUDIO-14, 1BR-50, 2BR-17, 3BR-0)
BUILDING 2A: 81 UNITS (STUDIO-8, 1BR-14, 2BR-57, 3BR-4)
BUILDING 2B: 81 UNITS (STUDIO-8, 1BR-14, 2BR-57, 3BR-4)

TOTAL: 243 UNITS

UNIT MIX:
STUDIO: 26
1BR: 79
2BR: 131
3BR: 9

******IN NO CIRCUMSTANCES SHALL A BUILDING HAVE A HEIGHT GREATER THAN SIXTY (60) FEET******

PARKING FOR APARTMENT DEVELOPMENT (PER DEVELOPER)
REQUIRED: 1.7 PARKING SPACES PER UNIT OR 1 SPACE/ BEDROOM

243 UNITS x 1.7 PARKING SPACES = 413 SPACES
390 BEDROOMS x 1 PARKING SPACE = 390 SPACES

PROVIDED: 415 SPACES

PROPOSED COMMERCIAL AREA:
BUILDING AREA: 15,000 SF

PARKING REQUIRED: 5 SPACES/1000 SF x 15,000 SF = 75 SPACES

PARKING PROVIDED: 78 SPACES

DISTURBED AREAS (DOES NOT INCLUDE SEWER/SEPTIC AREAS)
APARTMENTS: +/- 8.7 AC (15.5% OF PARCEL)
COMMERCIAL: +/- 1.8 AC (3.4% OF PARCEL)
TOTAL DISTURBED AREA +/- 10.6 AC (18.9% OF PARCEL)

IMPERVIOUS AREAS
APARTMENTS: +/- 5.0 AC (8.9% OF PARCEL)
COMMERCIAL: +/- 1.7 AC (3.0% OF PARCEL)
(35.4% OF TOTAL, 20% REQUIRED)
TOTAL IMPERVIOUS AREA +/- 6.7 AC (11.9% OF PARCEL)

******BUILT UPON AREA SHALL NOT EXCEED TWELVE PERCENT (12%)******

******AT A MINIMUM, TWENTY PERCENT (20%) OF THE TOTAL BUILT UPON AREA OF THE DEVELOPMENT MUST BE OCCUPIED BY OR USED FOR NON-RESIDENTIAL USES******

WASTEWATER DATA

STANDARD SEWAGE FLOW RATE FOR A DWELLING UNIT: 120 GALLONS PER DAY (GPD) PER BEDROOM, WITH A MINIMUM OF 240 GPD PER DWELLING UNIT

MINIMUM ALLOWABLE DESIGN DAILY FLOW FOR NON-RESIDENTIAL USES:
- MEDICAL OR DENTAL OFFICES: 250 GAL/PRACTITIONER/SHIFT
- GENERAL BUSINESS AND OFFICE: 25 GAL/EMPLOYEE/SHIFT

RESIDENTIAL SEWER FLOW:
STUDIO: 24 UNITS x 240 GPD/UNIT = 6,240 GPD
1 BEDROOM: 72 UNITS x 240 GPD/UNIT = 19,720 GPD
2 BEDROOM: 109 UNITS x 240 GPD/UNIT = 31,1400 GPD
3 BEDROOM: 8 UNITS x 360 GPD/UNIT = 2,880 GPD
SUB-TOTAL: 59,280 GPD

NON-RESIDENTIAL SEWER FLOW:
10,000 SF MEDICAL OFFICE: 10 PRACTITIONERS/(1 SHIFT) x 250 GPD = 2,500 GPD
SUB-TOTAL: 2,500 GPD

TOTAL SEWER FLOW: 61,780 GPD

******MAXIMUM FLOW TO AQUA TREATMENT PLANT: 40,000 GPD******

ASSUMED THAT NO REDUCTION WILL BE GRANTED FOR NON-RESIDENTIAL FLOWS DUE TO LACK OF FLOW DATA FOR REPRESENTATIVE FACILITY

WITH NO FLOW REDUCTION, ON-SITE TREATMENT FACILITY WILL NEED TO TREAT 21,780 GPD

TO USE AQUA TREATMENT PLANT ONLY, RESIDENTIAL SEWER FLOW WILL NEED TO BE REDUCED TO 75 GPD/BEDROOM (150 GPD/UNIT MIN.) OR LESS.

SCALE: 1" = 50'

0 25 50 100 200

NORTH

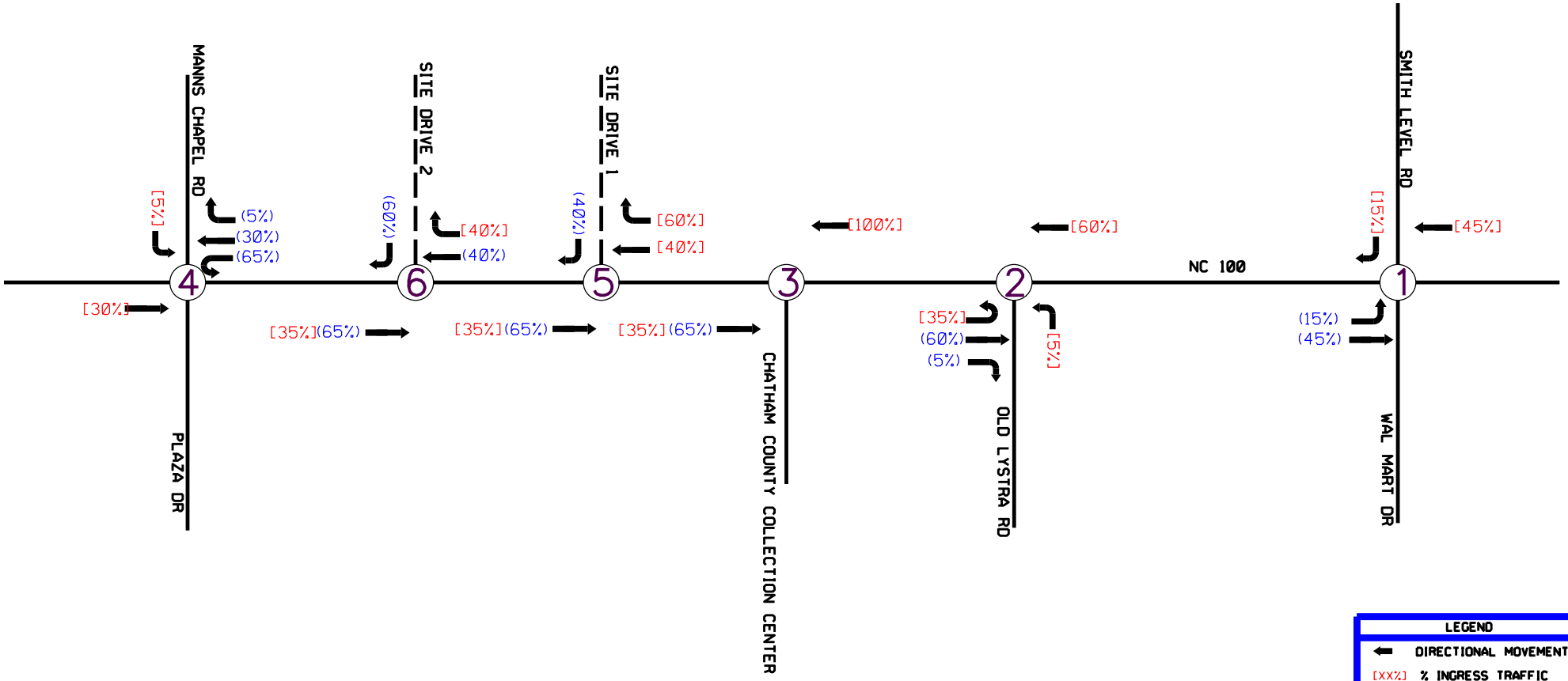
DATE: 06.07.2022

NOTE: THIS PLAN IS CONCEPTUAL IN NATURE AND SUBJECT TO CHANGE.

McKIM & CREED

Womble Farm-Chatham County
CONCEPT PLAN

	TRAFFIC IMPACT ANALYSIS WOMBLE PARCEL CHAPEL HILL, NC	MOA FIGURE 2	PROPOSED SITE PLAN	SCALE: NONE



PLANS PREPARED BY:
GANNETT FLEMING
Excellence Delivered As Promised
28 Schenck Parkway
Suite 200
Asheville NC 28803
(828) 771-0871
NC Lic. No. F-0270

TRAFFIC IMPACT ANALYSIS
WOMBLE PARCEL
CHAPEL HILL, NC

MOA FIGURE 3

LAND USE TRAFFIC DISTRIBUTION

SCALE: NONE

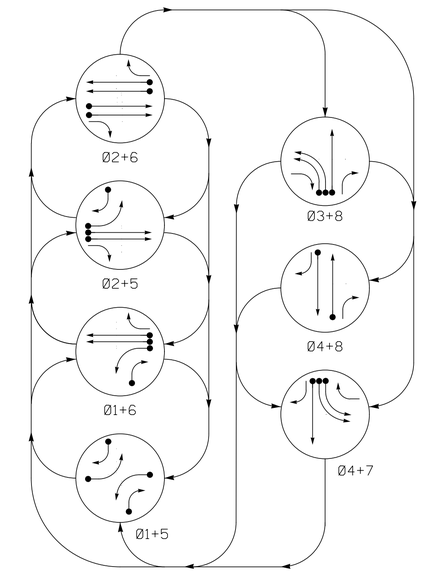
Appendix E: NCDOT Traffic Signal Plans

E

PROJECT REFERENCE NO.	SHEET NO.
US 15-501/SR 1532	SIG. 1.1

7 Phase
Fully Actuated
(US 15-501 Closed Loop System)
Signal System #: D08-22_Near Pittsboro

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

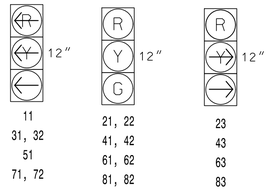
- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø1+5	Ø1+6	Ø2+5	Ø2+6	Ø3+8	Ø4+8	Ø4+7	FLASH
11	←	←	R	R	R	R	R	R
21, 22	R	R	G	G	R	R	R	Y
23	R	R	→	→	→	R	R	Y
31, 32	R	R	R	R	←	R	R	R
41, 42	R	R	R	R	R	G	G	R
43	→	R	→	R	R	→	→	R
51	←	R	←	R	R	R	R	R
61, 62	R	G	R	G	R	R	R	Y
63	R	→	R	→	R	R	→	Y
71, 72	R	R	R	R	R	R	←	R
81, 82	R	R	R	R	G	G	R	R
83	→	→	R	R	→	→	R	R

SIGNAL FACE I.D.

ALL HEADS L.E.D.



OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING: PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X60	0	2-4-2	-	1	Y	Y	-	-	-	-	-
1B	6X40	0	2-4-2	Y	1	Y	Y	-	-	15	-	Y
2A	6X6	300	EXIST	-	2	Y	Y	-	-	-	-	-
2B	6X6	300	EXIST	-	2	Y	Y	-	-	-	-	-
3A	6X40	+5	2-4-2	Y	3	Y	Y	-	-	-	-	-
3B	6X40	+5	2-4-2	Y	3	Y	Y	-	-	-	-	-
4A	6X60	+10	2-4-2	-	4	Y	Y	-	-	-	-	-
5A	6X60	0	2-4-2	-	5	Y	Y	-	-	-	-	-
5B	6X60	+10	2-4-2	-	5	Y	Y	-	-	15	-	-
6A	6X6	300	EXIST	-	6	Y	Y	-	-	-	-	-
6B	6X6	300	EXIST	-	6	Y	Y	-	-	-	-	-
7A	6X60	+10	2-4-2	-	7	Y	Y	-	-	-	-	-
7B	6X60	+10	2-4-2	-	7	Y	Y	-	-	-	-	-
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	-	-	-
S7	6X6	+280	EXIST	-	-	-	-	-	-	-	Y	-
S8	6X6	+280	EXIST	-	-	-	-	-	-	-	Y	-
S9	6X6	+280	EXIST	-	-	-	-	-	-	-	Y	-
S10	6X6	+280	EXIST	-	-	-	-	-	-	-	Y	-

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018, "Standard Specifications for Roads and Structures" dated January 2018, and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: https://connect.ncdot.gov/resources/safety/Pages/ITS-Design-Resources.aspx
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. The order of phase 3 and phase 7 may be reversed, but phase 3 and phase 7 shall not operate simultaneously.
5. Reposition existing signal heads 21, 41, 61, 81, and 82.
6. Set all detector units to presence mode.
7. In the event of loop replacement, refer to the current ITS and Signals Design Manual and submit a Plan of Record to the Signal Design Section.
8. Pavement markings are existing unless otherwise shown.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
10. Closed loop system data:
    Controller Asset #0356.
11. Relabel existing signal heads as follows:
    signal heads 33, 34 to 81, 82, respectively
    signal heads 41, 42 to 71, 72, respectively
    signal head 43 to 41
12. Renumber existing detectors 4A, 4B, 4C to 7A, 7B, 4A, respectively.

LEGEND

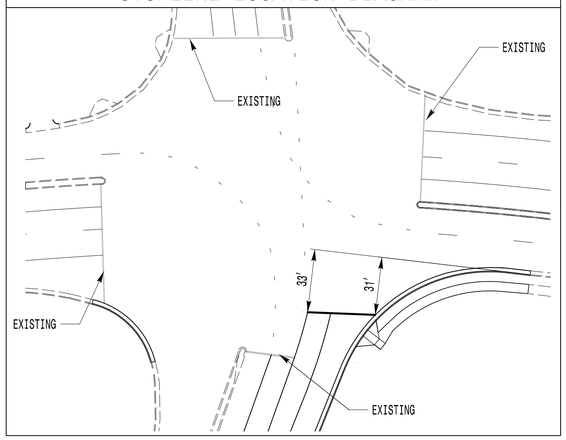
PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
□↓	Pedestrian Signal Head With Push Button & Sign	■↓
○	Metal Strain Pole	◘
▭	Inductive Loop Detector	▭
⊠	Controller & Cabinet	⊠
□	Junction Box	■
·-·-·	2-in Underground Conduit	·-·-·
N/A	Right of Way	- - - -
→	Directional Arrow	→
Ⓐ	"U-TURN YIELD TO RIGHT TURN" Sign (R10-16)	Ⓐ

OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6	7	8
Min Green 1 *	7	12	7	7	7	12	7	7
Extension 1 *	1.0	6.0	2.0	1.0	1.0	6.0	1.0	2.0
Max Green 1 *	25	120	25	45	25	120	25	45
Yellow Clearance	3.0	4.4	3.0	4.4	3.0	4.6	3.0	3.7
Red Clearance	3.3	2.3	3.8	2.0	3.6	2.1	3.8	2.2
Walk 1 *	-	-	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-	-	-
Seconds Per Actuation *	-	1.6	-	-	-	1.6	-	-
Max Variable Initial *	-	34	-	-	-	34	-	-
Time Before Reduction *	-	15	-	-	-	15	-	-
Time To Reduce *	-	45	-	-	-	45	-	-
Minimum Gap	-	3.0	-	-	-	3.0	-	-
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL	-	-
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW	-	-
Dual Entry	-	-	-	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON	ON	ON	ON	ON

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

STOPLINE LOCATION DIAGRAM



NC Dept of Transportation
Division of Highways
Final Drawing Date: 3/28/2022
DocuSigned by: Cliff S Turpin
ITS & Signals Unit

PLANS PREPARED IN THE OFFICE OF:
Kimley»Horn
NC License #F-0102
421 Fayetteville Street, Suite 600
Raleigh, NC 27601
(919) 677-2000

Signal Upgrade

Prepared for the Offices of:
Transportation Mobility and Safety Division
Signal Design Section

750 N.Greenfield Pkwy,Garner,NC 27529

SCALE 0 40 1"=40'

US 15-501
at
SR 1532 (Manns Chapel Road)
and SR 1889 (Plaza Drive)

Division 8 Chatham County S of Chapel Hill

PLAN DATE: December 2021 REVIEWED BY: KP Baumann
PREPARED BY: SP Pennington REVIEWED BY:

REVISIONS	INIT.	DATE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NORTH CAROLINA PROFESSIONAL SEAL 044434 ENGINEER KEVIN P. BAUMANN
DocuSigned by: Kevin Baumann EDC70DA5B8CB447...
3/17/2022
SIGNATURE DATE

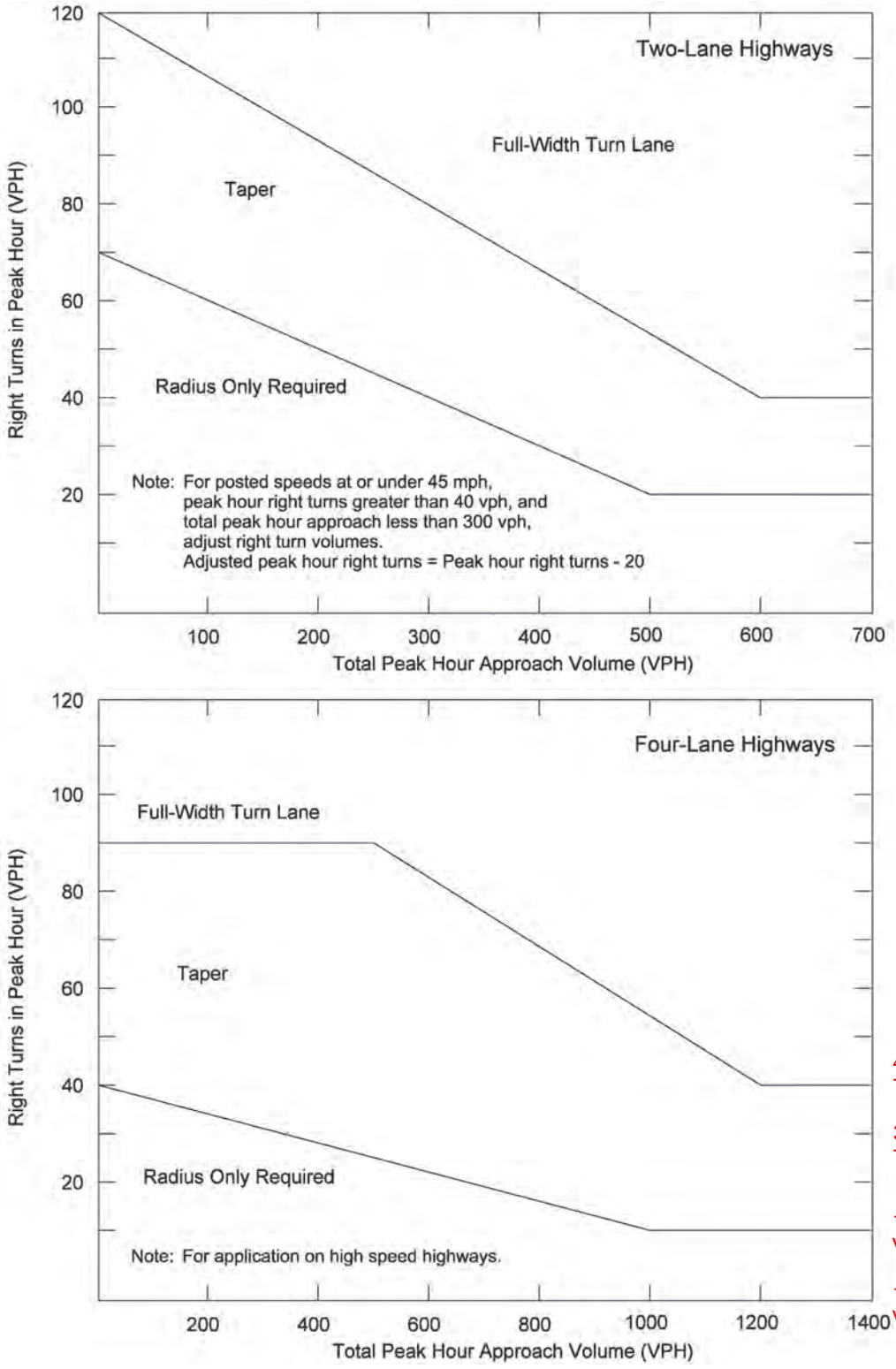
SIG. INVENTORY NO. 08-0356

Appendix F: NCDOT Turn Lane Warrants

F

Refer to TRB NCHRP *Report 707 Guidelines on the Use of Auxiliary Through Lanes at Signalized Intersections* for guidance on auxiliary through lanes that drop beyond signalized intersections.

Figure 8-8 Right Turn Lane Warrants



45 Right Turns Access #1 Turn Lane Warranted

30 Right Turns Access #2 Taper Warranted

1,827 Total Peak Hour Volume Access #1

1,813 Total Peak Hour Volume Access #2