DAVENPORT

February 28, 2022

TRANSPORTATION IMPACT ANALYSIS

920 Brookstown Avenue Apartments

Winston-Salem, NC

Prepared for DPJ Residential, LLC

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Project #: 210086

Transportation Impact Analysis

920 Brookstown Avenue Apartments
Winston-Salem, NC

Prepared for DPJ Residential, LLC
February 28, 2022

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920 Brookstown Avenue Apartments – Transportation Impact Analysis
Winston-Salem, NC
Prepared for DPJ Residential, LLC
February 28, 2022

Executive Summary

The proposed development is located on the west side of Second Street between First Street and Brookstown Avenue in Winston-Salem, North Carolina. This transportation impact analysis (TIA) considers up to 279 apartments and a parking deck adjacent to Second Street. The concept plan shows two (2) accesses to the parking deck: one (1) access point on Brookstown Avenue and one (1) access point on Fayette Street. The first access, proposed to be a full access, is located approximately 225 feet, measured center-to-center, west of Second Street on Brookstown Avenue. The second access, proposed to be a full access, is located approximately 150 feet north of the First Street on Fayette Street. The expected build-out year for this development is 2024.

Trip Generation

Based on trip generation rates and equations published in Trip Generation (Institute of Transportation Engineers, 11th Edition), this development has a trip generation potential of 1,864 daily trips, with 109 trips in the AM peak hour and 141 trips in the PM peak hour.

Capacity Analysis and Recommendations

This analysis has been conducted based on the and Winston-Salem Department of Transportation (WSDOT) guidelines and has identified the potential traffic impacts of this development. Overall, the analysis indicates LOS D or better can be expected at the study intersections during the future build peaks. Analysis indicates that with the committed improvements associated with the Downtown Two-Way Street Conversion, there will be adequate capacity at the study intersections to accommodate the traffic associated with the approved developments and the proposed development traffic.

Per the North Carolina Department of Transportation (NCDOT) turn lane warrant criteria, the projected traffic volumes on Brookstown Avenue and Fayette Street do not warrant auxiliary turn lanes at the site accesses.

Conclusion

This TIA was performed in order to assess transportation impacts of the proposed site as well as background and approved development traffic. With the committed improvements associated with Downtown Two-Way Street Conversion, the proposed site is not expected to have a detrimental effect on transportation capacity and mobility in the study area. The recommended improvements for the development are shown in Figure A. Please note that the access points to the site are recommended to be designed according to WSDOT standards as applicable.

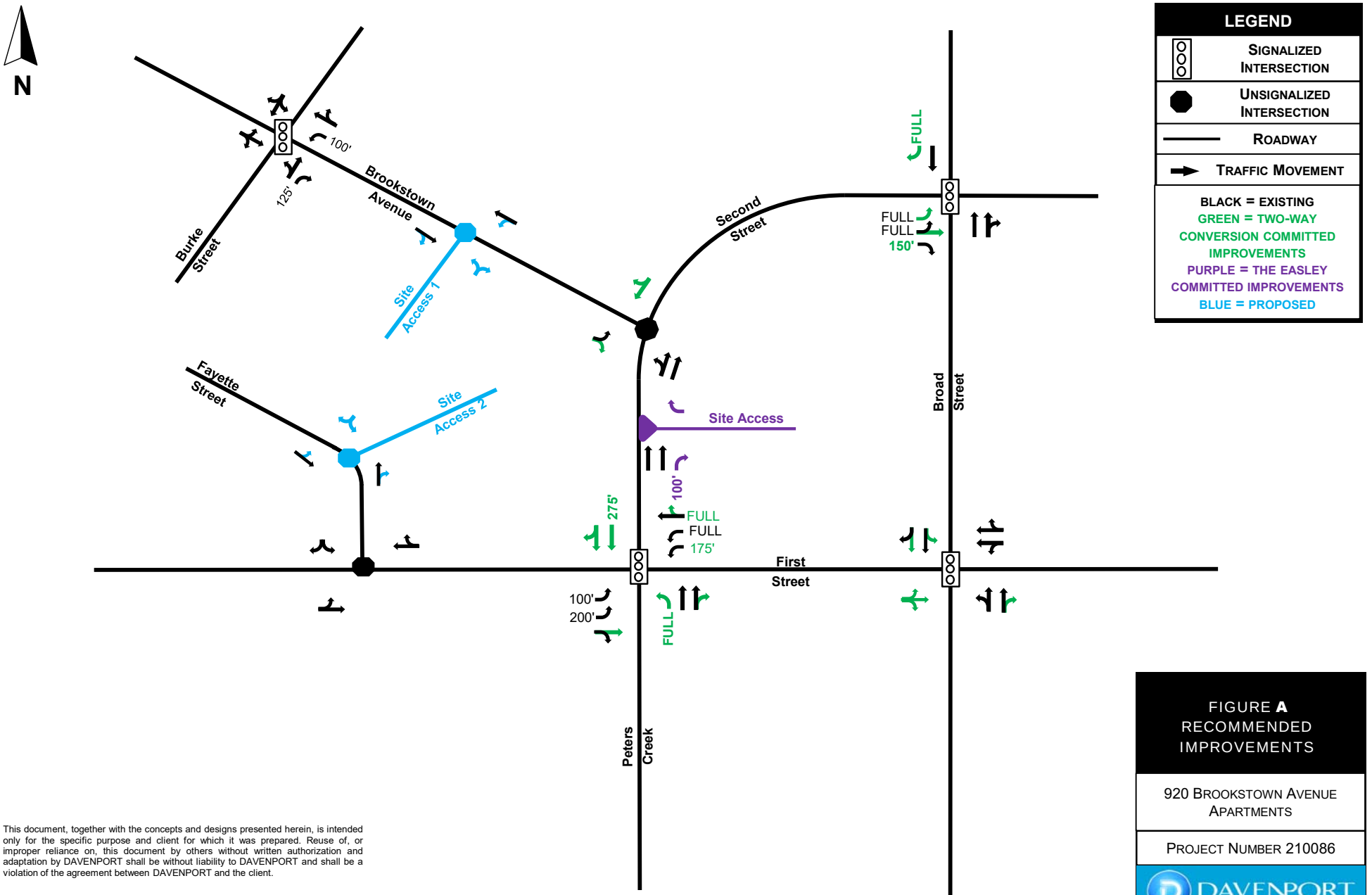


FIGURE **A**
RECOMMENDED IMPROVEMENTS

920 BROOKSTOWN AVENUE APARTMENTS

PROJECT NUMBER 210086

DAVENPORT

*** NOT TO SCALE ***

920 Brookstown Avenue Apartments – Transportation Impact Analysis
Winston-Salem, NC
Prepared for DPJ Residential, LLC
February 28, 2022

Introduction

The purpose of this memorandum is to assess the transportation impact of the proposed 920 Brookstown Avenue Apartments. The proposed development is located on the west side of Second Street between First Street and Brookstown Avenue in Winston-Salem, North Carolina. This transportation impact analysis (TIA) considers up to 279 apartments and a parking deck adjacent to Second Street. The concept plan shows two (2) accesses to the parking deck: one (1) access point on Brookstown Avenue and one (1) access point on Fayette Street. The first access, proposed to be a full access, is located approximately 225 feet, measured center-to-center, west of Second Street on Brookstown Avenue. The second access, proposed to be a full access, is located approximately 150 feet north of the First Street on Fayette Street. The expected build-out year for this development is 2024. Figure 1 presents the site plan. Figure 2A and 2B shows the site location map and vicinity map, respectively.

City of Winston-Salem is in the process of converting several one-way downtown streets to two-way traffic. They are:

- First Street, between Peters Creek Parkway and Spruce Street.
- Portions of Second Street, including the connector between Peters Creek Parkway and Broad Street.
- Main Street, between Martin Luther King Jr. Drive and Brookstown Avenue.
- Liberty Street, between Martin Luther King Jr. Drive and Brookstown Avenue.

Based on Downtown Two-Way Street Conversion's current schedule, traffic on the above sections will be converted to the new two-way configuration during the full build-out of the site. Therefore, the improvements related to this project were included in future conditions.

Traffic conditions were assessed during the weekday AM (7-9 AM) and PM (4-6 PM) peak hours for the following conditions:

- 2024 Future No Build with Two-Way Conversion Downtown in place
- 2024 Future Build with Two-Way Conversion Downtown in place

The study was conducted according to the standards and best practices utilized in the transportation engineering profession. Field data were collected consistent with industry standards and best practices. Trip generation was calculated using the *Trip Generation Manual, 11th Edition* published by the Institute of Transportation Engineers (ITE). This is the industry-standard method for trip generation. Data were analyzed using the methodology outlined in the *Highway Capacity Manual, 6th Edition* (HCM) published by

the Transportation Research Board (TRB). Both publications are industry-standard publications and are routinely used by Winston-Salem Department of Transportation (WSDOT). Capacity and level of service are the design criteria for this traffic study. Modeling and intersection analyses were performed using Synchro (Version 10.3), a state-of-the-art software package widely used and accepted by WSDOT, in addition to transportation professionals and governments all over the United States and the world. These data sources and tools are adequate to reach the conclusions contained within this study.

The scope for this development was determined through coordination with WSDOT staff. This is documented in the Appendix. Information regarding the proposed development was provided by the developer, DPJ Residential, LLC.

First Street at Fayette Street Facing North

Existing Study Area

Based on the scoping and coordination with WSDOT, the study area included the following intersections:

- Broad Street at Second Street
- First Street at Peters Creek Parkway/Second Street
- Broad Street at First Street
- Second Street at Brookstown Avenue
- First Street at Fayette Street
- Burke Street at Brookstown Avenue
- Brookstown Avenue at Site Access 1
- Fayette Street at Site Access 2

A field investigation was conducted by DAVENPORT staff to determine the existing roadway conditions in the study area. Table 1 summarizes this information. Figure 3 shows the existing lane geometry.

Table 1 - Street Inventory

Facility Name	Typical Cross Section	Pavement Width	Speed Limit	Maintained By
First Street	3-lane undivided (one-way)	Approx. 35’	35 MPH	WSDOT
Peters Creek Parkway	5-lane divided	Approx. 60’	35 MPH	WSDOT
Second Street	3-lane undivided (one-way)	Approx. 48’	35 MPH	WSDOT
Brookstown Avenue	2-lane undivided with on-street parking	Varies from 29’ to 44’	35 MPH	WSDOT
Broad Street	4-lane undivided	Approx. 40’	35 MPH	WSDOT
Fayette Street	2-lane undivided	Approx. 36’	35 MPH	WSDOT
Burke Street	2 lane undivided with on-street parking	Varies from 29’ to 41’	35 MPH	WSDOT

2024 Projected Traffic Volumes

2024 projected traffic volumes at the following study intersections were obtained from the TIA completed by DAVENPORT for Brookstown Mixed-Use Development dated May 09, 2016:

- Broad Street at Second Street
- First Street at Peters Creek Parkway/Second Street
- Broad Street at First Street

The TIA provided the Downtown Two-Way Street Conversion for the 2040 conditions. The 2040 volumes in the TIA were developed using Business 40 Reconstruction Traffic Forecast Report prepared by RS&H in June 2013 and Winston-Salem Downtown Street Study prepared by DAVENPORT in December 2015.

The 2024 future no-build traffic volumes were estimated by linearly extrapolating the 2040 conditions traffic volumes using the growth rates calculated based on the PTRM model runs as detailed in the Business 40 Reconstruction Traffic Forecast Report. The following growth rates were utilized:

- Broad Street and Brookstown Avenue – 1%
- Peters Creek Parkway – 1.5%
- First and Second Streets – 2.5%

Additionally, the traffic volumes were rerouted at the study intersections based on knowledge of the area and using engineering to appropriately reflect the latest roadway improvements proposed with the Downtown Two-Way Street Conversion.

New turning movement counts were collected by DAVENPORT at the following intersections on 01/25/2022:

- Second Street at Brookstown Avenue
- First Street at Fayette Street
- Burke Street at Brookstown Avenue

The traffic movements at the above-mentioned intersections were projected using a 2% growth rate to represent 2024 future-no build conditions.

Traffic volumes were then balanced at all study intersections by using the greater of adjacent volumes. These balance represent conditions with school in session. Figure 4 shows future no-build volumes for the AM and PM peak hours. More information can be found in the Traffic Volume Data section of the appendix.

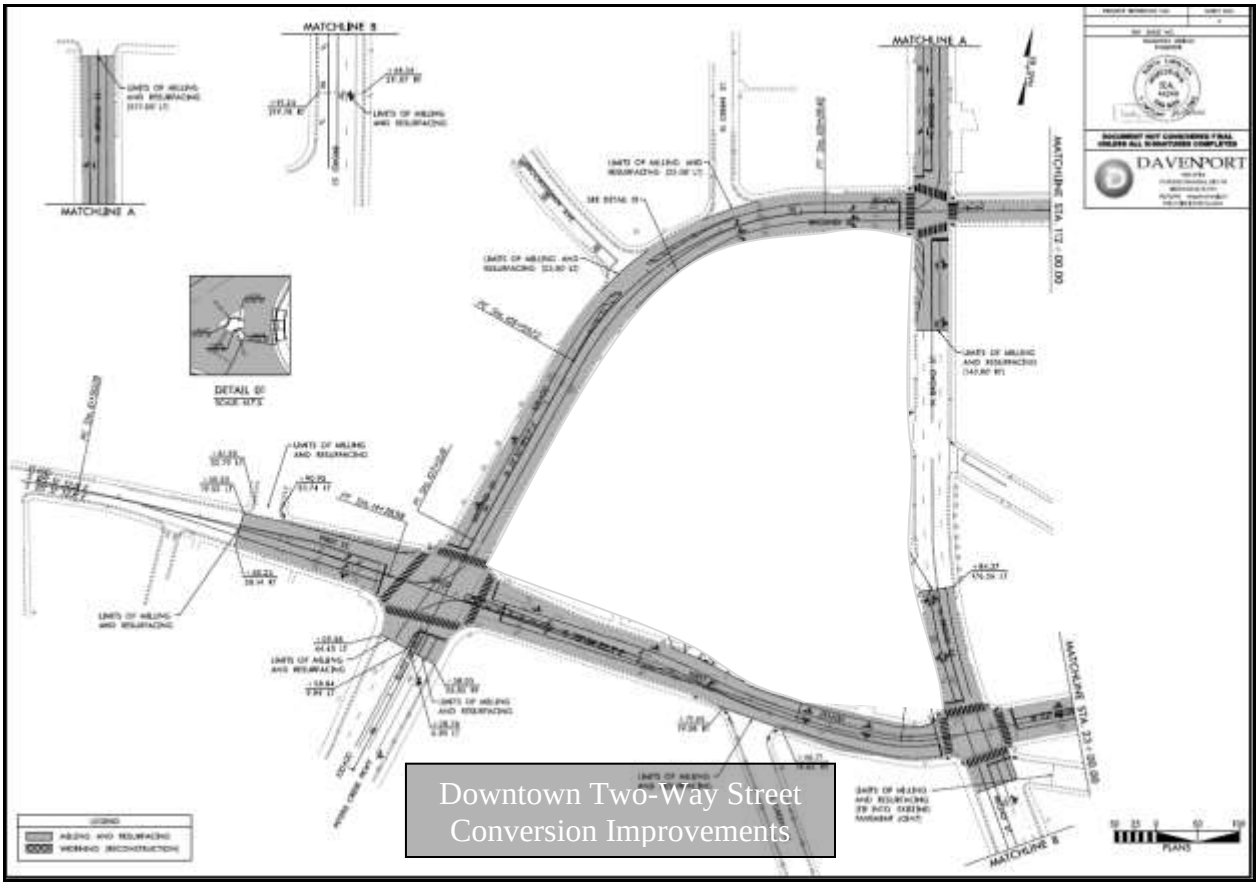
Approved Developments, Committed Improvements and Planned Improvements

Approved Developments

Approved developments are developments that have been recently approved in the area, but not yet constructed. There is one (1) nearby development to account for in future conditions: **The Easley**. The approved development was zoned to consist of a 300-apartment development. This development is under construction and the site is bound by Second Street, Broad Street and First Street. A TIA was completed by DAVENPORT for this project in August 2019. Future traffic associated with the site was incorporated into the future no-build and build analysis based on the TIA since the site is not yet built out.

Committed Improvements

Committed Improvements are improvements that are committed by North Carolina Department of Transportation (NCDOT), WSDOT, or a developer in the area, but not yet constructed. Per WSDOT staff, the roadway improvements associated with **Downtown Two-Way Street Conversion** was to be accounted for in the future conditions. Figure 3 shows the 2024 future no-build conditions lane geometry.



Methodology

The analysis for this TIA was conducted utilizing WSDOT standards. The following table contains a summary of the base assumptions:

Table 2 – Assumptions and Parameters	
Peak Hour Factor	0.90
Background Traffic Annual Growth Rate	2.0% per year for all roadways
Analysis Software	Synchro/SimTraffic Version 10.3
Lane widths	12-feet unless measured otherwise
Truck percentages	2%

Trip Generation

As mentioned previously, the development is planned to consist of 279 apartments adjacent to Second Street. The trip generation potential of this site was projected based on the most recent edition (11th Edition) of the ITE *Trip Generation Manual,* which is the industry-standard methodology. Also, NCDOT Congestion Management provides guidance on the selection of appropriate rates and equations from the *Trip Generation Manual,* and these guidelines were applied. Table 3 presents the results.

Table 3 - ITE Trip Generation

920 Brookstown Avenue Apartments, Winston-Salem, NC

Average Weekday Driveway Volumes					24 Hour Two-Way	AM Peak Hour		PM Peak Hour	
Land Use	ITE Land Code	Size		Data Source	Volume	Enter	Exit	Enter	Exit
Apartments	220	279	Dwelling Units	Adjacent-Equation	1,864	26	83	89	52
Total Trips					**1,864**	**26**	**83**	**89**	**52**

Future No Build Traffic

The 2024 future no-build traffic volumes were computed by summing the 2024 projected traffic volumes and approved development site trips. Figure 4 shows the 2024 future no-build traffic volumes for AM and PM peaks.

Trip Distribution

The trip distribution patterns for future site traffic were projected based on existing traffic patterns and engineering judgement. The directional percentages for site traffic are listed below.

- 30% to and from the east on First / Second Street
- 30% to and from the south on Peters Creek Parkway
- 10% to and from the north on Broad Street
- 10% to and from the west on First Street
- 10% to and from the west on Burke Street
- 5% to and from the south on Broad Street
- 3% to and from the west on Fayette Street
- 2% to and from the west on Brookstown Avenue

The trip distribution model for this project is shown in Figure 5.

Total Traffic

The 2024 build-out traffic volume was obtained by summing the 2024 future no-build traffic volumes and site trips due to this project. Site trips are shown in Figure 6. The resulting build volume totals for AM and PM peaks are shown in Figure 7. More information can be found in the Traffic Volume Data section of the appendix.

First Street at Fayette Street Facing South

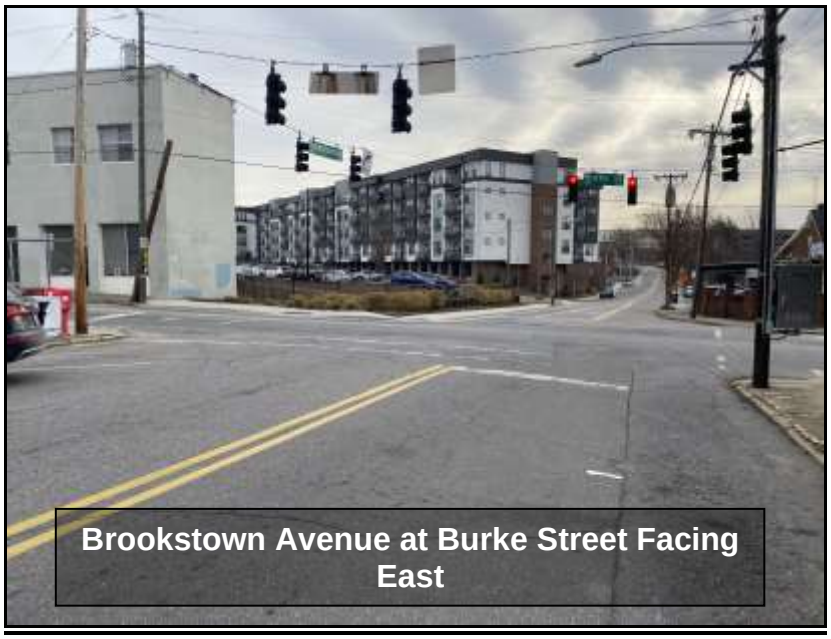
Capacity Analysis

Level of Service Evaluation Criteria

The Transportation Research Board's Highway Capacity Manual (HCM) utilizes a term "level of service" to measure how traffic operates in intersections and on roadway segments. There are currently six levels of service ranging from A to F. Level of service "A" represents low-volume traffic operations and Level of Service "F" represents high-volume, oversaturated traffic operations. Synchro Traffic Modeling software was used to determine the level of service for studied intersections. All worksheet reports from the analyses can be found in the Appendix.

Table 4 – Level of Service and Control Delay Criteria from Highway Capacity Manual

Levels of Service and Control Delay Criteria			
Signalized Intersection		**Unsignalized Intersection**	
Level of Service	Control Delay Per vehicle (sec)	Level of Service	Delay Range (sec)
A	≤ 10	A	≤ 10
B	> 10 and ≤ 20	B	> 10 and ≤ 15
C	> 20 and ≤ 35	C	> 15 and ≤ 25
D	> 35 and ≤ 55	D	> 25 and ≤ 35
E	> 55 and ≤ 80	E	> 35 and ≤ 50
F	> 80	F	> 50



Brookstown Avenue at Burke Street Facing East

Discussion of Results

Broad Street at Second Street

In future no-build and build scenarios, this signalized intersection is anticipated to operate at LOS B during the AM and PM peak hours. Analysis indicates that the committed improvements associated with Downtown Two-Way Street Conversion will be adequate to accommodate projected traffic in future conditions. No additional improvements are recommended as a result of this development.

First Street at Peters Creek Parkway/Second Street

In future no-build scenario, this signalized intersection is anticipated to operate at LOS C during the AM and PM peak hours. In future build scenario, this intersection is anticipated to LOS C during the AM peak hour and LOS D during the PM peak hour. Analysis indicates that the committed improvements associated with Downtown Two-Way Street Conversion will be adequate to accommodate projected traffic in future conditions. No additional improvements are recommended as a result of this development.

Broad Street at First Street

In future no-build scenario, this signalized intersection is anticipated to operate at LOS C during the AM and PM peak hours. In future build scenario, this intersection is anticipated to LOS D during the AM peak hour and LOS C during the PM peak hour. Analysis indicates that the committed improvements associated with Downtown Two-Way Street Conversion will be adequate to accommodate projected traffic in future conditions. No additional improvements are recommended as a result of this development.

Second Street at Brookstown Avenue

In future no-build and build scenarios, this unsignalized intersection is anticipated to operate at LOS C during the AM peak hour and LOS D during the PM peak hour. Analysis indicates that the committed improvements associated with Downtown Two-Way Street Conversion will be adequate to accommodate projected traffic in future conditions. No additional improvements are recommended as a result of this development.

First Street at Fayette Street

In future no-build and build scenarios, this signalized intersection is anticipated to operate at LOS B during the AM and PM peak hours. No improvements are recommended.

Burke Street at Brookstown Avenue

In future no-build and build scenarios, this signalized intersection is anticipated to operate at LOS B during the AM peak hour and LOS A during the PM peak hour. No improvements are recommended.

Brookstown Avenue at Site Access 1

In future build conditions, the unsignalized intersection is expected to operate at LOS A during the AM and PM peak hours. Per the NCDOT turn lane warrant criteria, the projected volumes on Brookstown Avenue do not warrant auxiliary turn lanes. This site access should be designed in accordance with WSDOT standards as applicable.

Fayette Street at Site Access 2

In future build conditions, the unsignalized intersection is expected to operate at LOS A during the AM and PM peak hours. Per the NCDOT turn lane warrant criteria, the projected volumes on Fayette Street do not warrant auxiliary turn lanes. This site access should be designed in accordance with WSDOT standards as applicable.

The recommended improvements at the study intersections are illustrated in Figure 8.

Level of Service Summary

Table 5 presents the summary of the level of service analysis for all study intersections:

Table 5 - Level of Service Summary		
AM Peak	2024 Future No Build	2024 Future Build
Broad Street at Second Street	B (16.5)	B (16.5)
First Street at Peters Creek Parkway/Second Street	C (28.9)	C (30.7)
Broad Street at First Street	C (34.9)	D (37.9)
Second Street at Brookstown Avenue	C (23.7) EB Approach	C (24.2) EB Approach
First Street at Fayette Street	B (11.1) SB Approach	B (11.8) SB Approach
Burke Street at Brookstown Avenue	B (10.4)	B (10.5)
Brookstown Avenue at Site Access 1		A (9.1) NB Approach
Fayette Street at Site Access 2		A (9.2) WB Approach
PM Peak	2024 Future No Build	2024 Future Build
Broad Street at Second Street	B (13.5)	B (13.5)
First Street at Peters Creek Parkway/Second Street	C (33.8)	D (35.2)
Broad Street at First Street	C (21.1)	C (21.5)
Second Street at Brookstown Avenue	D (29.9) EB Approach	D (32.9) EB Approach
First Street at Fayette Street	B (11.3) SB Approach	B (12.2) SB Approach
Burke Street at Brookstown Avenue	A (8.6)	A (8.7)
Brookstown Avenue at Site Access 1		A (9.2) NB Approach
Fayette Street at Site Access 2		A (9.4) WB Approach
LOS (delay in seconds) Note for unsignalized conditions, LOS and delay indicates only minor street approach with longest delay		

Summary and Conclusion

The proposed development is located on the west side of Second Street between First Street and Brookstown Avenue in Winston-Salem, North Carolina. This transportation impact analysis (TIA) considers up to 279 apartments and a parking deck adjacent to Second Street. The concept plan shows two (2) accesses to the parking deck: one (1) access point on Brookstown Avenue and one (1) access point on Fayette Street. The first access, proposed to be a full access, is located approximately 225 feet, measured center-to-center, west of Second Street on Brookstown Avenue. The second access, proposed to be a full access, is located approximately 150 feet north of the First Street on Fayette Street. The expected build-out year for this development is 2024.

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Conclusion

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Figures

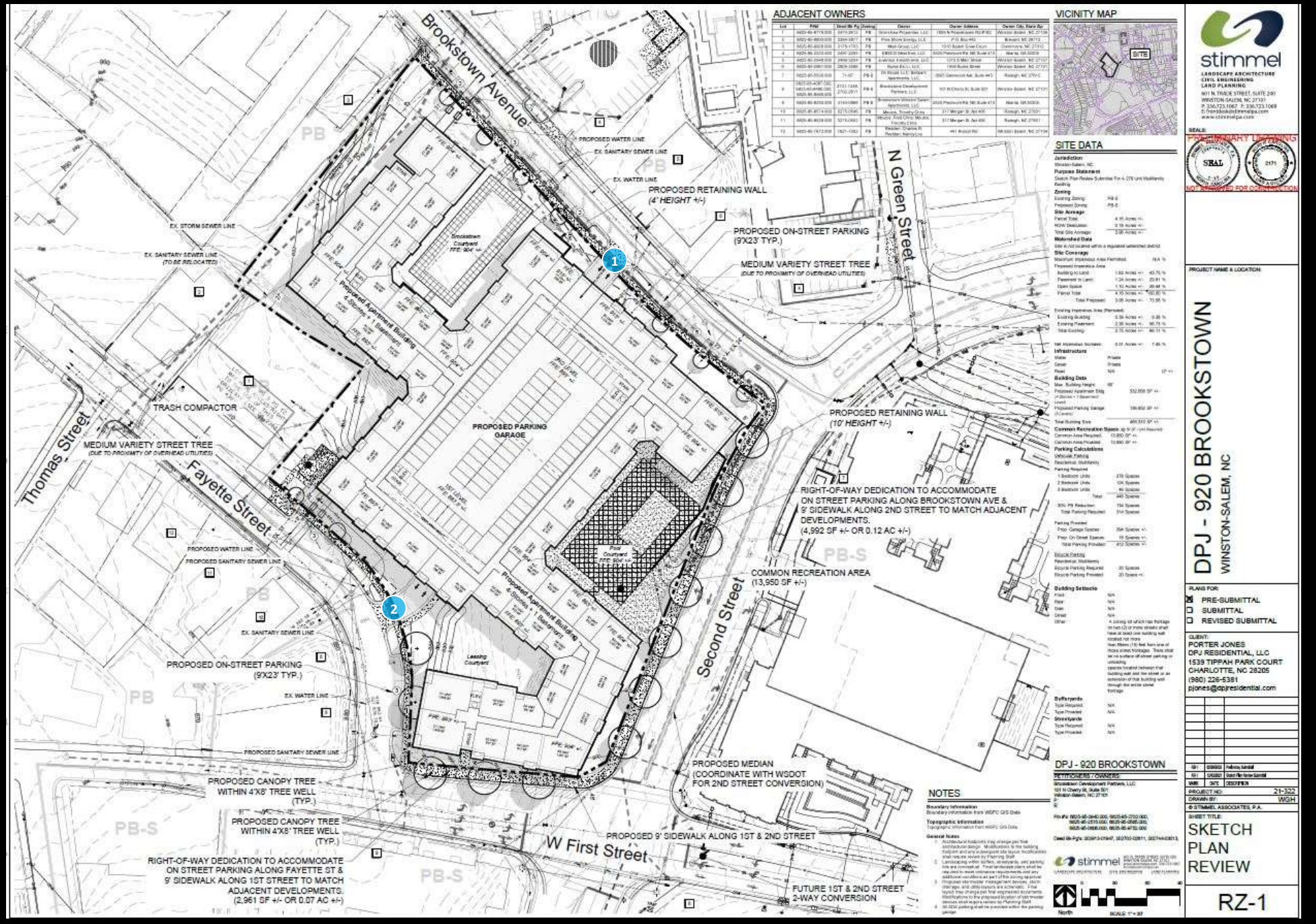

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FIGURE 1
CONCEPT PLAN

PROPOSED DRIVEWAY LOCATIONS

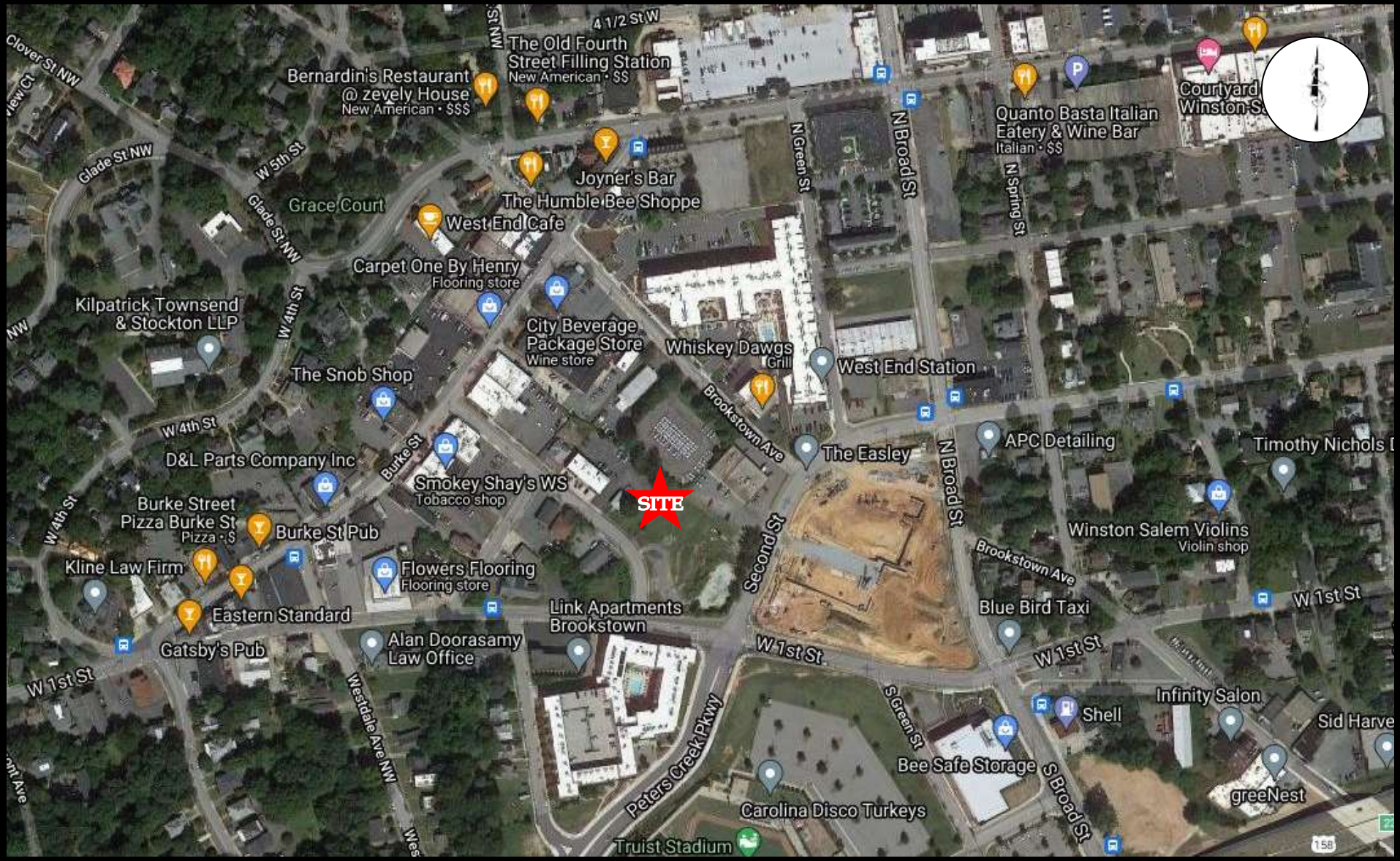

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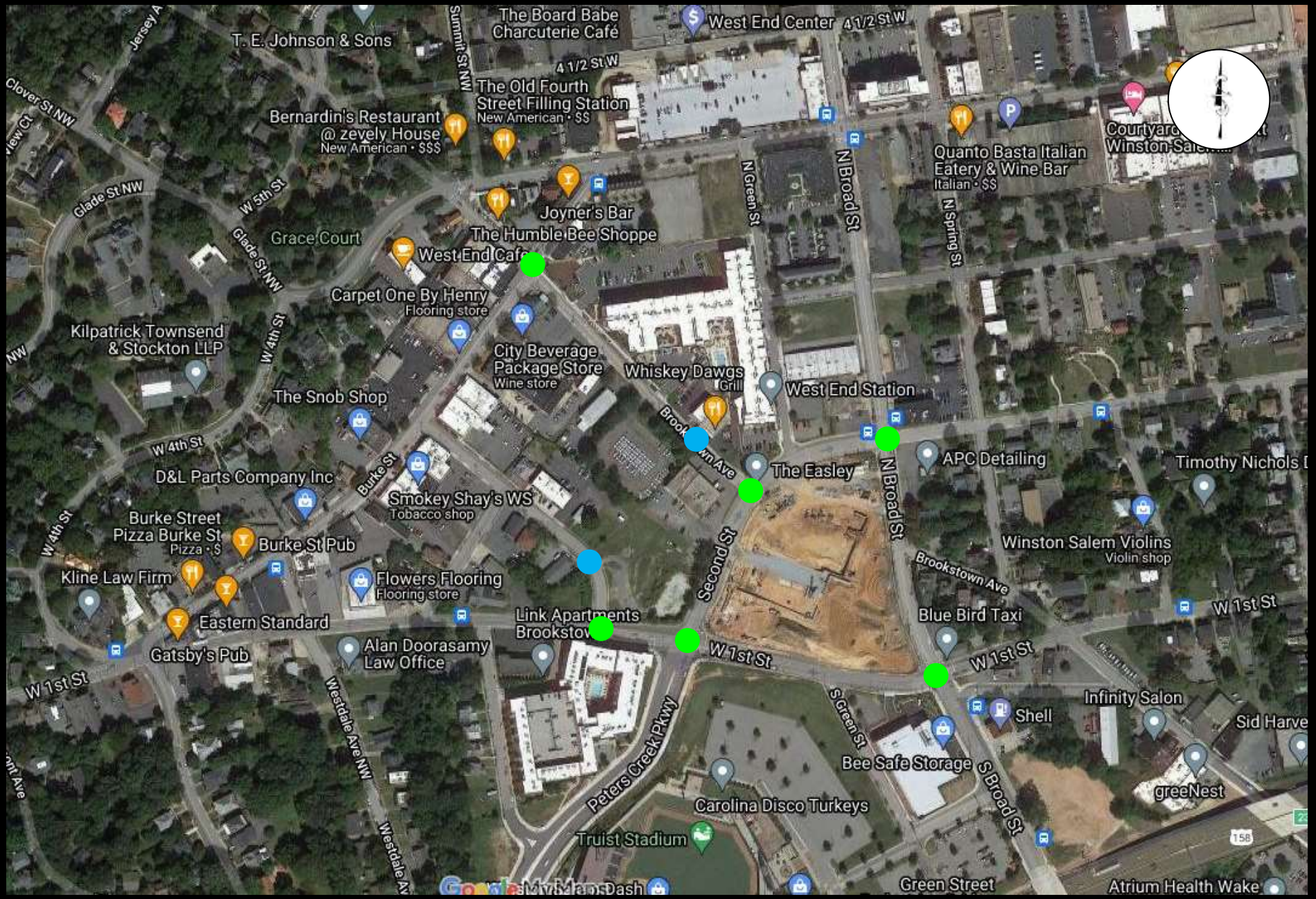
FIGURE 2A
SITE LOCATION MAP

SITE INDICATOR



DAVENPORT	FIGURE 2B VICINITY MAP	STUDY INTERSECTIONS EXISTING PROPOSED

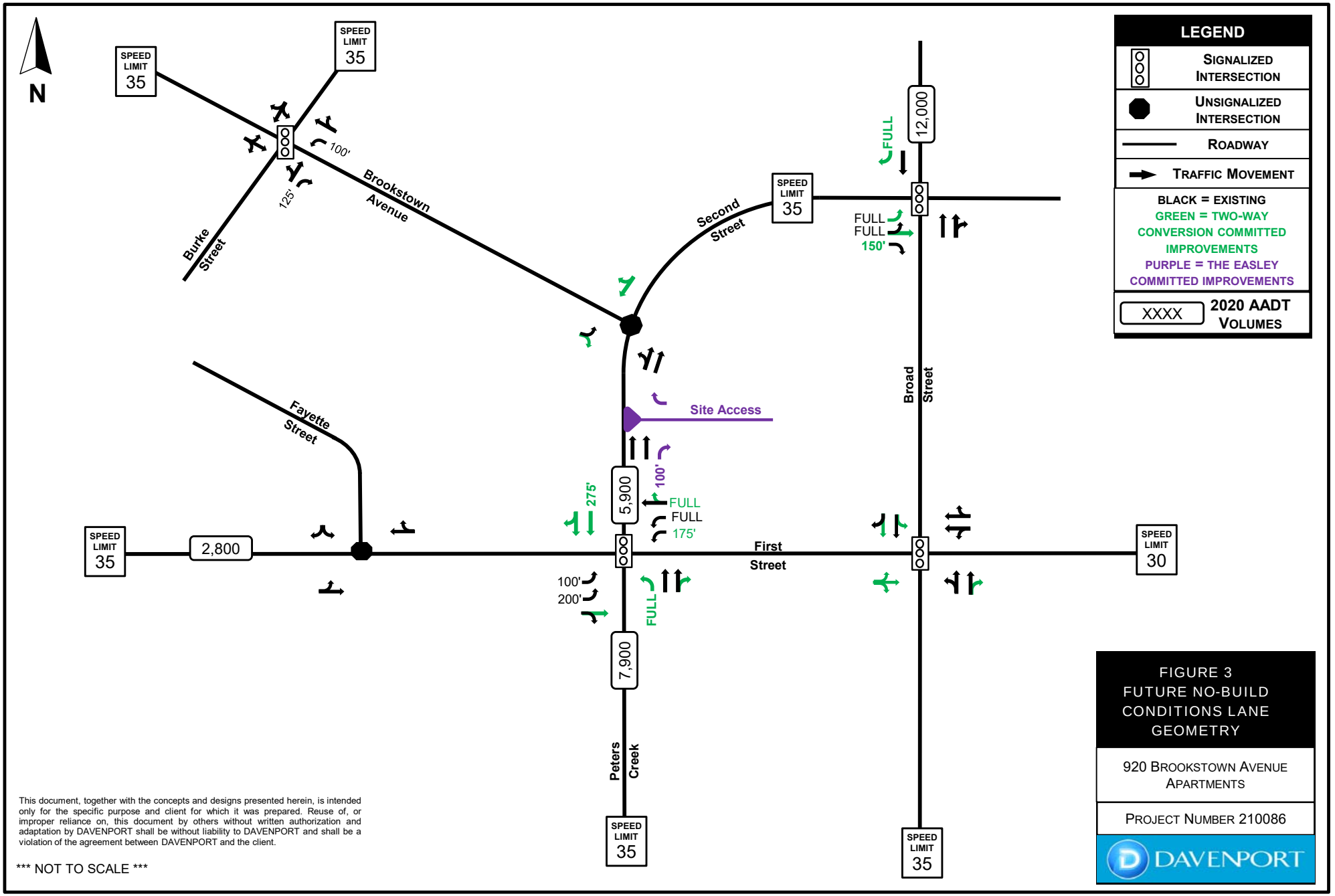


FIGURE 3
FUTURE NO-BUILD CONDITIONS LANE GEOMETRY

920 BROOKSTOWN AVENUE APARTMENTS

PROJECT NUMBER 210086

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*** NOT TO SCALE ***

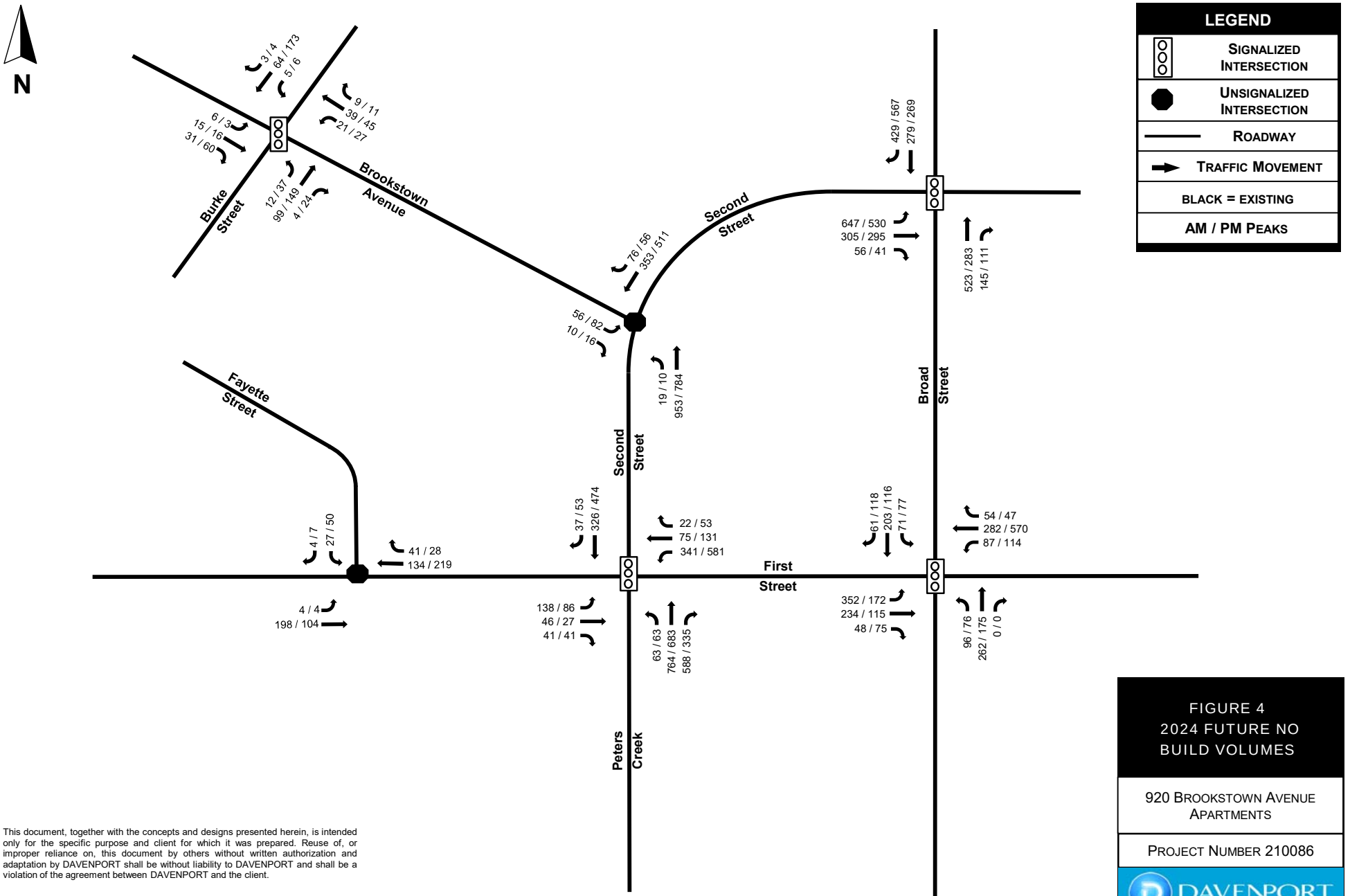

FIGURE 4
2024 FUTURE NO BUILD VOLUMES

920 BROOKSTOWN AVENUE APARTMENTS

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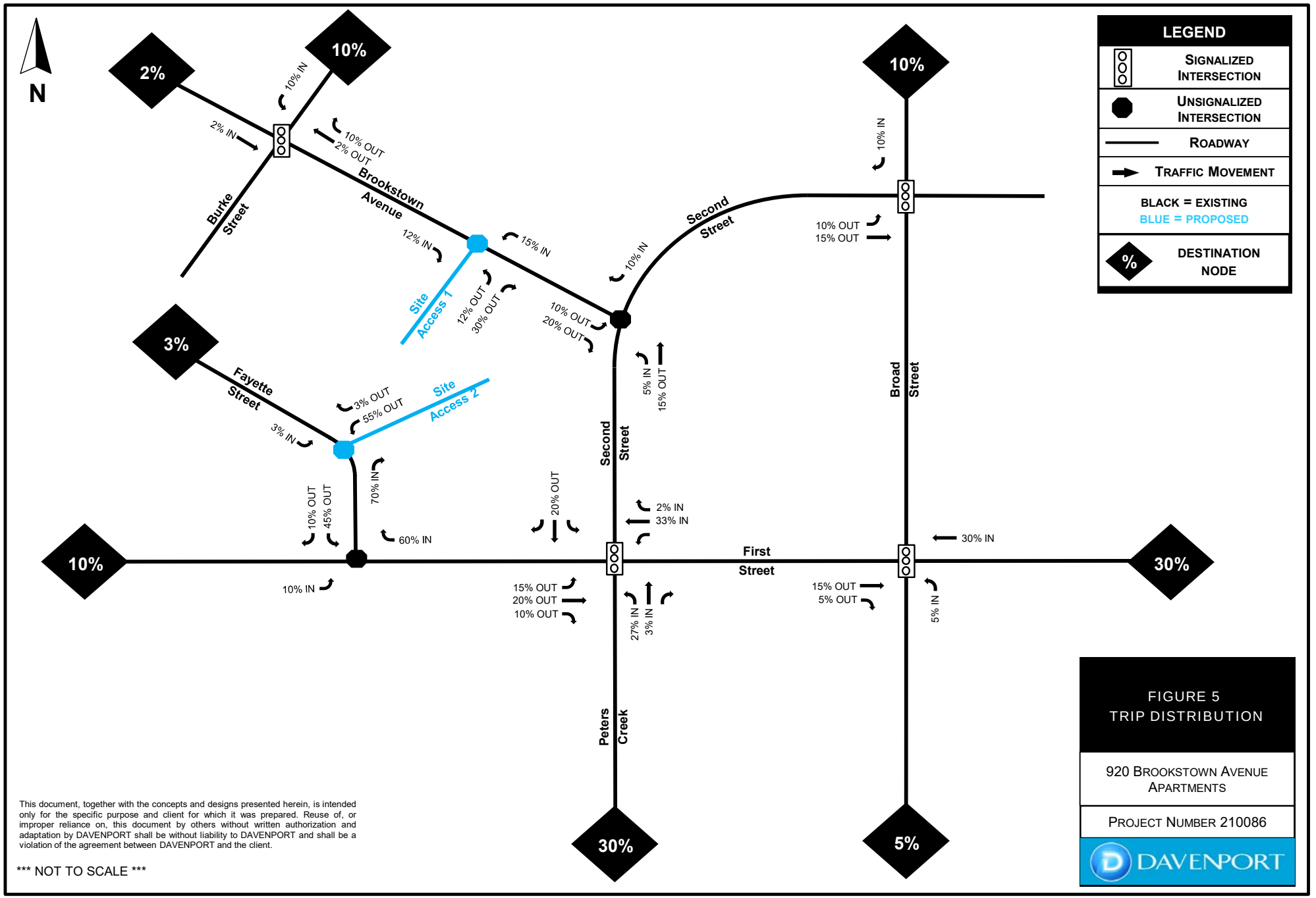

FIGURE 5
TRIP DISTRIBUTION

920 BROOKSTOWN AVENUE APARTMENTS

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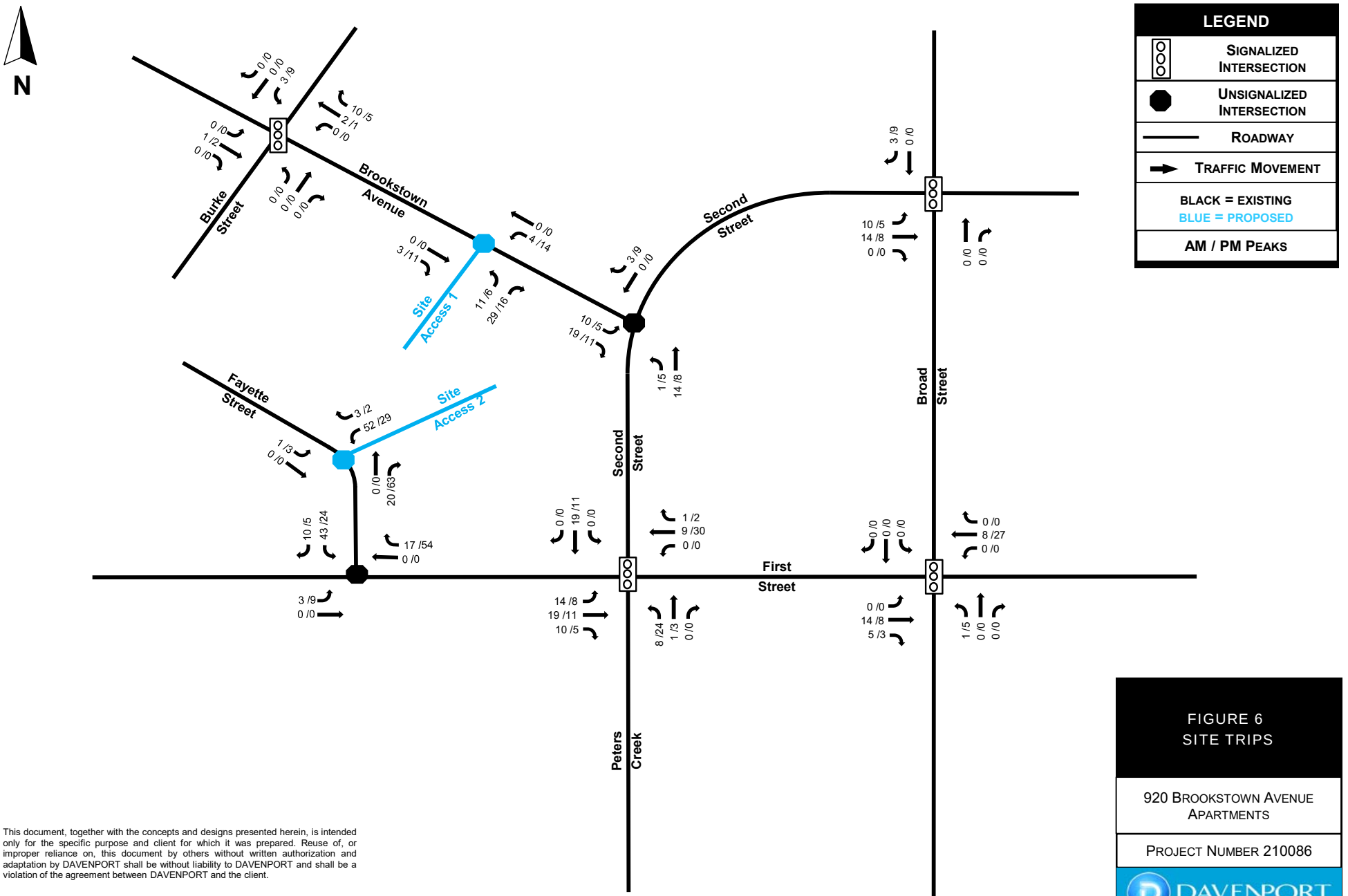

FIGURE 6
SITE TRIPS

920 BROOKSTOWN AVENUE APARTMENTS

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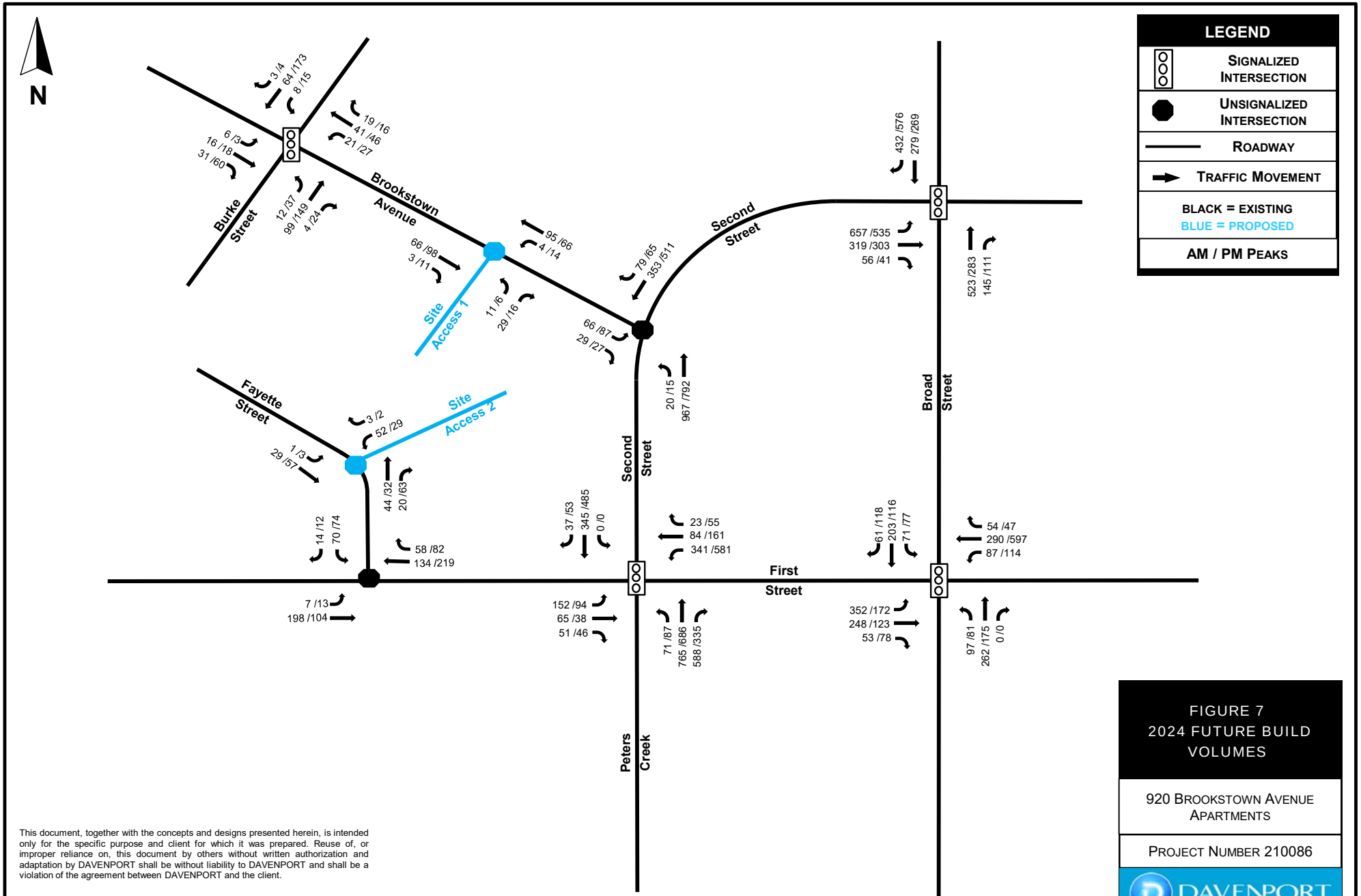

FIGURE 7
2024 FUTURE BUILD VOLUMES

920 BROOKSTOWN AVENUE APARTMENTS

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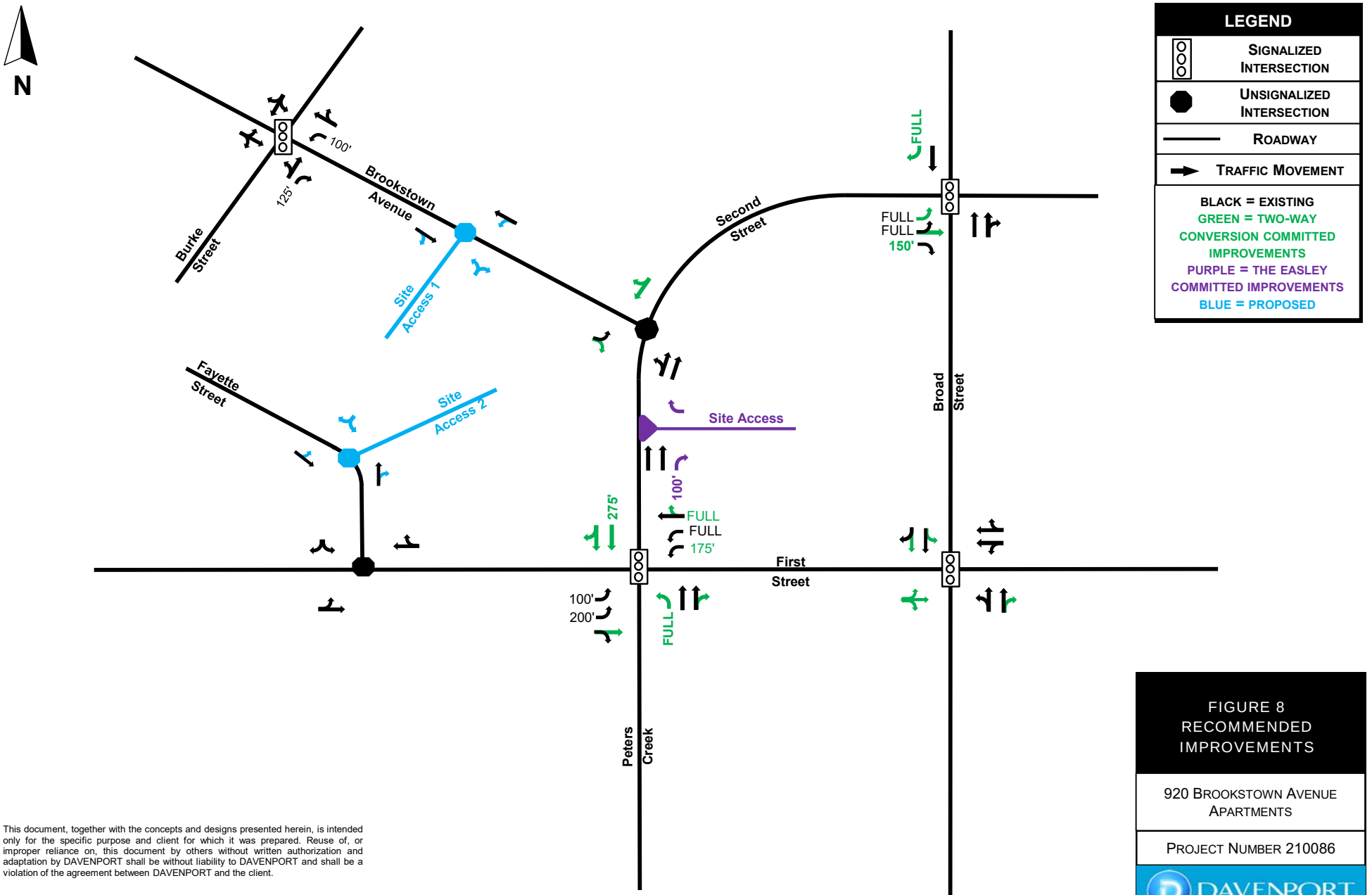

FIGURE 8
RECOMMENDED IMPROVEMENTS

920 BROOKSTOWN AVENUE APARTMENTS

PROJECT NUMBER 210086

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*** NOT TO SCALE ***

Appendix

Trip Generation

Table A - ITE Trip Generation									
920 Brookstown Avenue Apartments, Winston-Salem, NC									
Average Weekday Driveway Volumes					24 Hour Two-Way	AM Peak Hour		PM Peak Hour	
Land Use	ITE Land Code	Size		Data Source	Volume	Enter	Exit	Enter	Exit
Apartments	220	279	Dwelling Units	Adjacent-Equation	1,864	26	83	89	52
Total Trips					**1,864**	**26**	**83**	**89**	**52**

Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

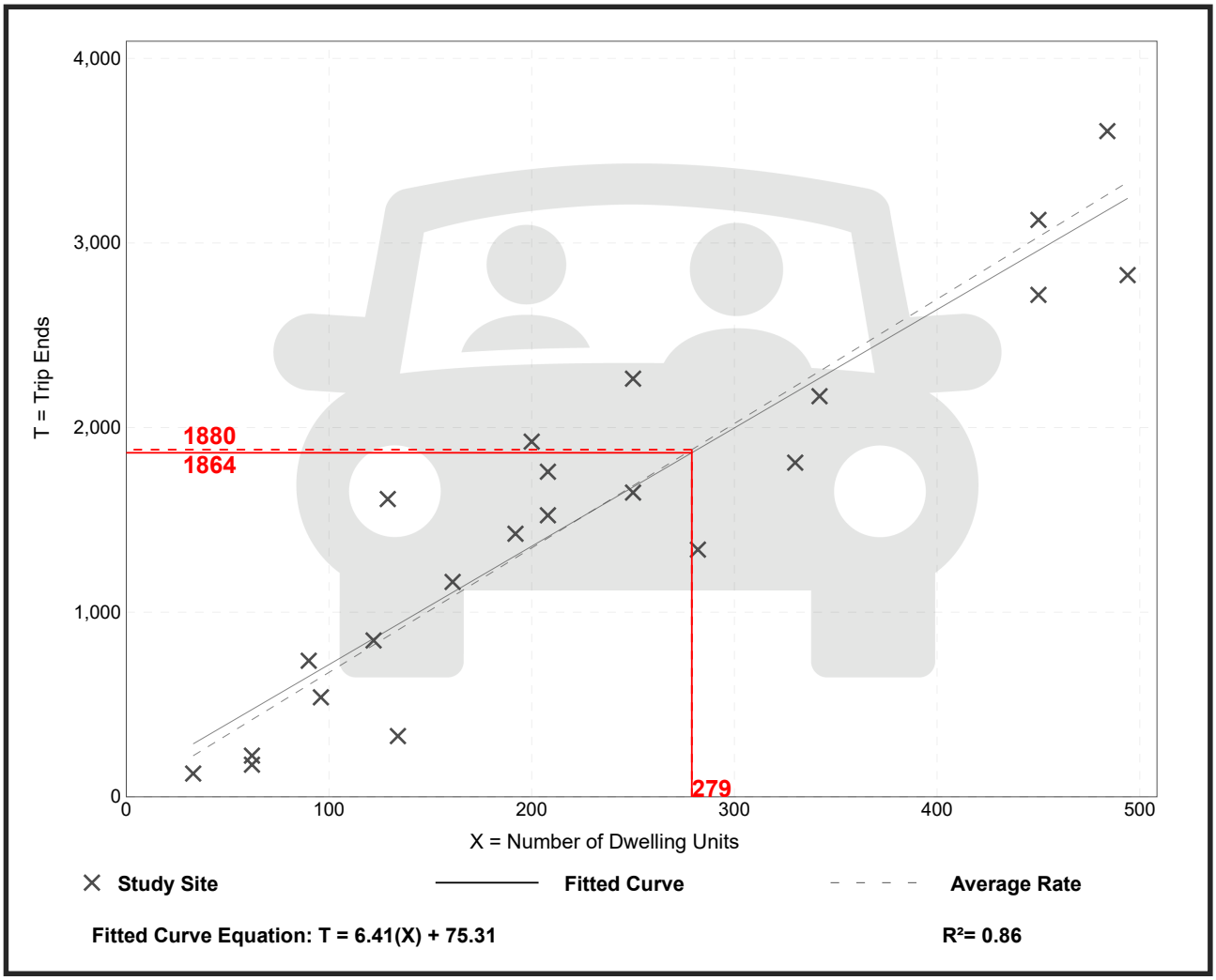
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 22
Avg. Num. of Dwelling Units: 229
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
6.74	2.46 - 12.50	1.79

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

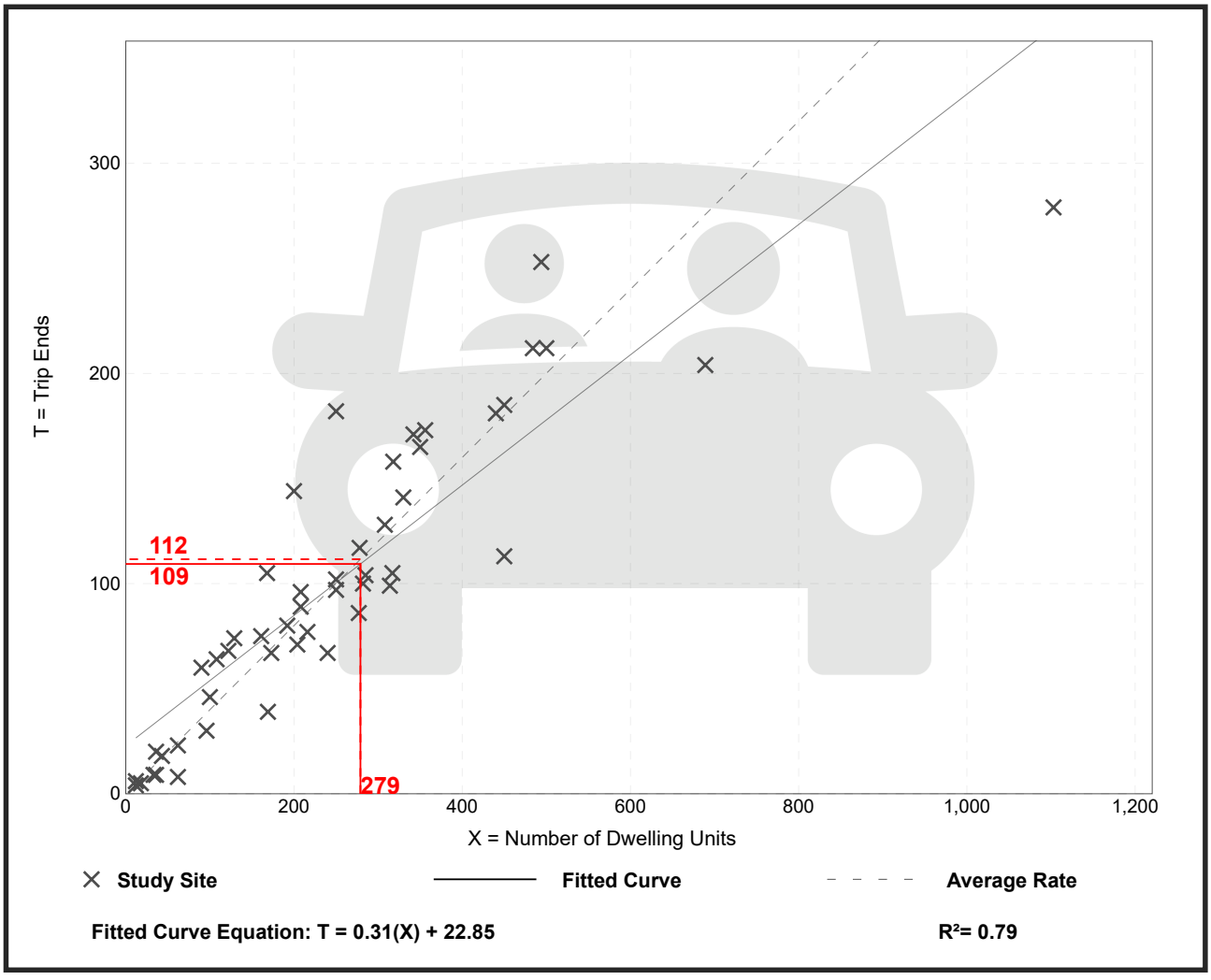
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 49
Avg. Num. of Dwelling Units: 249
Directional Distribution: 24% entering, 76% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.40	0.13 - 0.73	0.12

Data Plot and Equation



Trip Gen Manual, 11th Edition ● Institute of Transportation Engineers

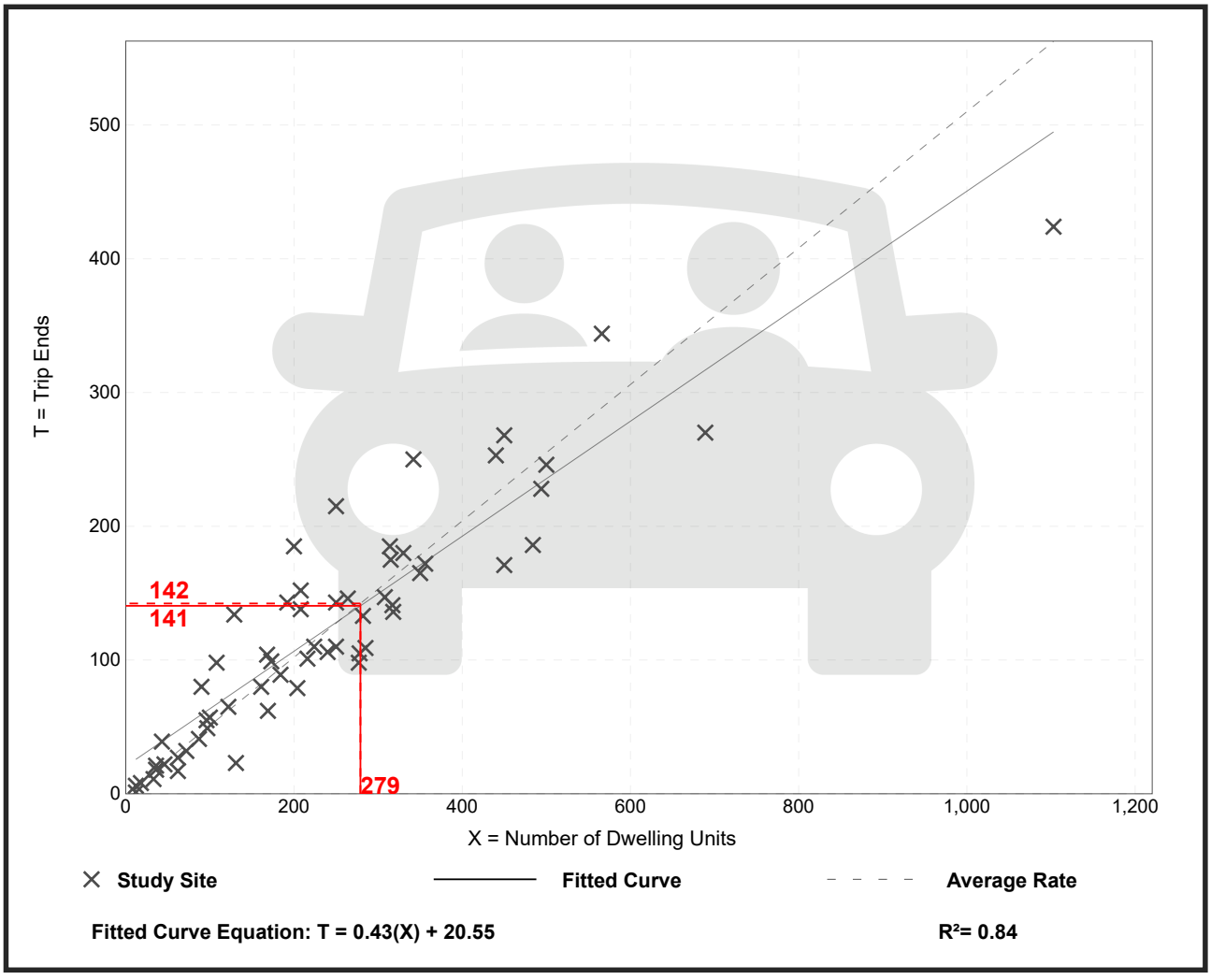
Multifamily Housing (Low-Rise)
Not Close to Rail Transit (220)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: **General Urban/Suburban**
Number of Studies: 59
Avg. Num. of Dwelling Units: 241
Directional Distribution: 63% entering, 37% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.51	0.08 - 1.04	0.15

Data Plot and Equation



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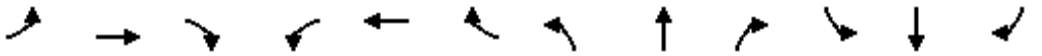
Level of Service Analysis

AM Future No-Build Conditions

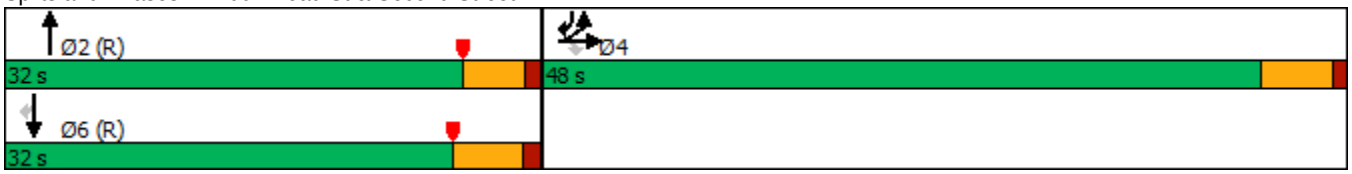


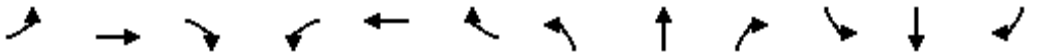
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	647	305	56	0	0	0	0	523	145	0	279	429
Future Volume (vph)	647	305	56	0	0	0	0	523	145	0	279	429
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt			0.850					0.967				0.850
Flt Protected	0.950	0.982										
Satd. Flow (prot)	1681	1738	1583	0	0	0	0	3422	0	0	1863	1583
Flt Permitted	0.950	0.982										
Satd. Flow (perm)	1681	1738	1583	0	0	0	0	3422	0	0	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		382			478			670			767	
Travel Time (s)		7.4			9.3			13.1			14.9	
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)	719	339	62	0	0	0	0	581	161	0	310	477
Shared Lane Traffic (%)	28%											
Lane Group Flow (vph)	518	540	62	0	0	0	0	742	0	0	310	477
Turn Type	Split	NA	Perm					NA			NA	pm+ov
Protected Phases	4	4						2			6	4
Permitted Phases			4									6
Detector Phase	4	4	4					2			6	4
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0			10.0	7.0
Minimum Split (s)	12.2	12.2	12.2					14.7			15.3	12.2
Total Split (s)	48.0	48.0	48.0					32.0			32.0	48.0
Total Split (%)	60.0%	60.0%	60.0%					40.0%			40.0%	60.0%
Maximum Green (s)	42.8	42.8	42.8					27.3			26.7	42.8
Yellow Time (s)	4.2	4.2	4.2					3.7			4.1	4.2
All-Red Time (s)	1.0	1.0	1.0					1.0			1.2	1.0
Lost Time Adjust (s)	-0.2	-0.2	-0.2					0.3			-0.3	-0.3
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	4.9
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Recall Mode	None	None	None					C-Max			C-Max	None
Act Effct Green (s)	36.3	36.3	36.3					33.7			33.7	80.0
Actuated g/C Ratio	0.45	0.45	0.45					0.42			0.42	1.00
v/c Ratio	0.68	0.69	0.09					0.51			0.39	0.30
Control Delay	21.3	21.4	10.4					18.8			20.1	0.5
Queue Delay	0.0	0.0	0.0					0.0			0.0	0.0
Total Delay	21.3	21.4	10.4					18.8			20.1	0.5
LOS	C	C	B					B			C	A
Approach Delay		20.8						18.8			8.2	
Approach LOS		C						B			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	194	204	16					129			110	0
Queue Length 95th (ft)	266	276	32					m186			196	0
Internal Link Dist (ft)		302			398			590			687	
Turn Bay Length (ft)			150									
Base Capacity (vph)	903	934	850					1442			785	1582
Starvation Cap Reductn	0	0	0					0			0	0
Spillback Cap Reductn	0	0	0					0			0	0
Storage Cap Reductn	0	0	0					0			0	0
Reduced v/c Ratio	0.57	0.58	0.07					0.51			0.39	0.30

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 2 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 16.5		Intersection LOS: B	
Intersection Capacity Utilization 53.4%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 100: Broad St & Second Street



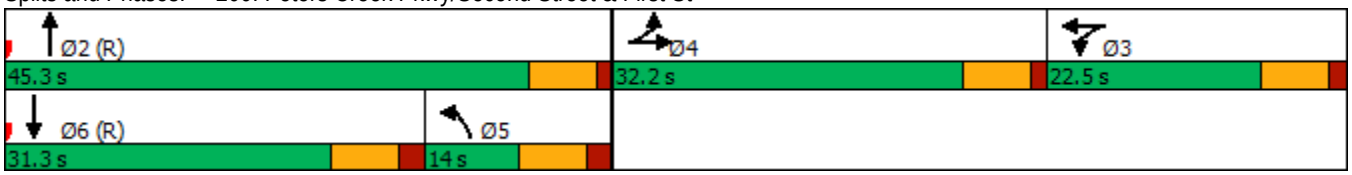


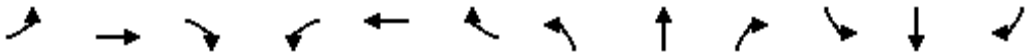
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	46	41	341	75	22	63	764	588	0	326	37
Future Volume (vph)	138	46	41	341	75	22	63	764	588	0	326	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	175		50	0		0	275		0
Storage Lanes	2		0	1		0	1		0	1		0
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	0.95	1.00	0.95	0.95
Frt		0.929			0.966			0.935			0.985	
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	3433	1730	0	3433	1799	0	1770	3309	0	0	3486	0
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	3433	1730	0	3433	1799	0	1770	3309	0	0	3486	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		213			664			672			446	
Travel Time (s)		4.1			12.9			13.1			8.7	
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)	153	51	46	379	83	24	70	849	653	0	362	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	153	97	0	379	107	0	70	1502	0	0	403	0
Turn Type	Split	NA		Split	NA		Prot	NA			NA	
Protected Phases	4	4		3	3		5	2			6	
Permitted Phases												
Detector Phase	4	4		3	3		5	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0			10.0	
Minimum Split (s)	32.2	32.2		22.5	22.5		14.0	23.3			29.0	
Total Split (s)	32.2	32.2		22.5	22.5		14.0	45.3			31.3	
Total Split (%)	32.2%	32.2%		22.5%	22.5%		14.0%	45.3%			31.3%	
Maximum Green (s)	26.0	26.0		16.0	16.0		7.0	39.0			24.3	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
All-Red Time (s)	1.2	1.2		1.5	1.5		2.0	1.3			2.0	
Lost Time Adjust (s)	-1.2	-1.2		-1.5	-1.5		-2.0	-1.3			-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag				Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0			3.0	
Recall Mode	None	None		None	None		None	C-Max			C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	26.0	26.0		16.0	16.0			17.0			22.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)	11.5	11.5		16.9	16.9		9.0	56.6			45.4	
Actuated g/C Ratio	0.12	0.12		0.17	0.17		0.09	0.57			0.45	
v/c Ratio	0.39	0.49		0.65	0.35		0.44	0.80			0.25	
Control Delay	43.2	49.3		43.9	39.0		52.4	23.1			19.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	43.2	49.3		43.9	39.0		52.4	23.1			19.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	D		D	D		D	C			B	
Approach Delay		45.6			42.8			24.4			19.7	
Approach LOS		D			D			C			B	
Queue Length 50th (ft)	47	59		118	61		43	372			84	
Queue Length 95th (ft)	75	106		156	105		88	#638			141	
Internal Link Dist (ft)		133			584			592			366	
Turn Bay Length (ft)				175								
Base Capacity (vph)	933	470		637	333		159	1872			1581	
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	0.16	0.21		0.59	0.32		0.44	0.80			0.25	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.80			
Intersection Signal Delay: 28.9		Intersection LOS: C	
Intersection Capacity Utilization 64.7%		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: 200: Peters Creek Pkwy/Second Street & First St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	352	234	48	87	282	54	96	262	0	71	203	61
Future Volume (vph)	352	234	48	87	282	54	96	262	0	71	203	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		400
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.990			0.981						0.973	
Flt Protected		0.973			0.990			0.987			0.990	
Satd. Flow (prot)	0	1794	0	0	3437	0	0	3493	0	0	3409	0
Flt Permitted		0.583			0.733			0.706			0.714	
Satd. Flow (perm)	0	1075	0	0	2545	0	0	2499	0	0	2459	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			30			35			35	
Link Distance (ft)		664			438			349			670	
Travel Time (s)		12.9			10.0			6.8			13.1	
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)	391	260	53	97	313	60	107	291	0	79	226	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	704	0	0	470	0	0	398	0	0	373	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.9	26.9		25.1	25.1		21.3	21.3		23.4	23.4	
Total Split (s)	56.0	56.0		56.0	56.0		24.0	24.0		24.0	24.0	
Total Split (%)	70.0%	70.0%		70.0%	70.0%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	50.1	50.1		50.9	50.9		18.7	18.7		18.6	18.6	
Yellow Time (s)	4.0	4.0		3.1	3.1		3.9	3.9		3.7	3.7	
All-Red Time (s)	1.9	1.9		2.0	2.0		1.4	1.4		1.7	1.7	
Lost Time Adjust (s)		-0.9			-0.1			-0.3			-0.4	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	14.0	14.0		13.0	13.0		9.0	9.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		51.0			51.0			19.0			19.0	
Actuated g/C Ratio		0.64			0.64			0.24			0.24	
v/c Ratio		1.03			0.29			0.67			0.64	
Control Delay		59.4			7.0			34.1			24.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		59.4			7.0			34.1			24.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E			A			C			C	
Approach Delay		59.4			7.0			34.1			24.4	
Approach LOS		E			A			C			C	
Queue Length 50th (ft)		~353			48			95			35	
Queue Length 95th (ft)		#586			71			143			76	
Internal Link Dist (ft)		584			358			269			590	
Turn Bay Length (ft)												
Base Capacity (vph)		685			1622			593			584	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		1.03			0.29			0.67			0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 34.9		Intersection LOS: C	
Intersection Capacity Utilization 83.1%		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: 300: Broad St & First St

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	56	10	19	953	353	76
Future Vol, veh/h	56	10	19	953	353	76
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	62	11	21	1059	392	84

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1006	434	476	0	-	0
Stage 1	434	-	-	-	-	-
Stage 2	572	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	252	621	1084	-	-	-
Stage 1	652	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	240	621	1084	-	-	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	621	-	-	-	-	-
Stage 2	529	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.7	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1084	-	265	-	-
HCM Lane V/C Ratio	0.019	-	0.277	-	-
HCM Control Delay (s)	8.4	0.2	23.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.1	-	-

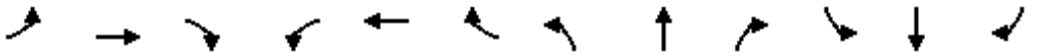
Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	198	134	41	27	4
Future Vol, veh/h	4	198	134	41	27	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	220	149	46	30	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	195	0	-	0	400	172
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	228	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1378	-	-	-	606	872
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	810	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1378	-	-	-	604	872
Mov Cap-2 Maneuver	-	-	-	-	604	-
Stage 1	-	-	-	-	855	-
Stage 2	-	-	-	-	810	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1378	-	-	-	629
HCM Lane V/C Ratio	0.003	-	-	-	0.055
HCM Control Delay (s)	7.6	0	-	-	11.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

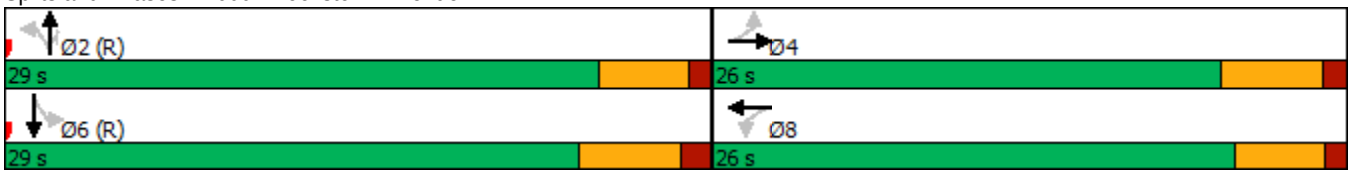


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	15	31	21	39	9	12	99	4	5	64	3
Future Volume (vph)	6	15	31	21	39	9	12	99	4	5	64	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		125	0		0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.921			0.972				0.850		0.995	
Flt Protected		0.994		0.950				0.995			0.996	
Satd. Flow (prot)	0	1705	0	1770	1811	0	0	1853	1583	0	1846	0
Flt Permitted		0.977		0.719				0.977			0.984	
Satd. Flow (perm)	0	1676	0	1339	1811	0	0	1820	1583	0	1824	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		342			819			326			338	
Travel Time (s)		6.7			16.0			6.4			6.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	17	34	23	43	10	13	110	4	6	71	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	58	0	23	53	0	0	123	4	0	80	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0	20.0	20.0	20.0	
Total Split (s)	26.0	26.0		26.0	26.0		29.0	29.0	29.0	29.0	29.0	
Total Split (%)	47.3%	47.3%		47.3%	47.3%		52.7%	52.7%	52.7%	52.7%	52.7%	
Maximum Green (s)	20.8	20.8		21.3	21.3		24.3	24.3	24.3	23.5	23.5	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.7	3.7	3.7	4.2	4.2	
All-Red Time (s)	1.1	1.1		1.0	1.0		1.0	1.0	1.0	1.3	1.3	
Lost Time Adjust (s)		-0.2		0.3	0.3			0.3	0.3		-0.5	
Total Lost Time (s)		5.0		5.0	5.0			5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		21.0		21.0	21.0			24.0	24.0		24.0	
Actuated g/C Ratio		0.38		0.38	0.38			0.44	0.44		0.44	
v/c Ratio		0.09		0.05	0.08			0.15	0.01		0.10	
Control Delay		11.4		11.1	11.3			10.1	8.8		9.6	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		11.4		11.1	11.3			10.1	8.8		9.6	
LOS		B		B	B			B	A		A	
Approach Delay		11.4			11.2			10.0			9.6	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)		12		5	11			23	1		15	
Queue Length 95th (ft)		30		16	28			49	5		35	
Internal Link Dist (ft)		262			739			246			258	
Turn Bay Length (ft)				100					125			
Base Capacity (vph)		639		511	691			794	690		795	

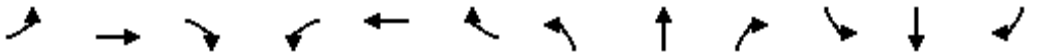
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.09		0.05	0.08			0.15	0.01		0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Pretimed			
Maximum v/c Ratio: 0.15			
Intersection Signal Delay: 10.4		Intersection LOS: B	
Intersection Capacity Utilization 35.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 600: Brookstown Avenue



AM Future Build Conditions

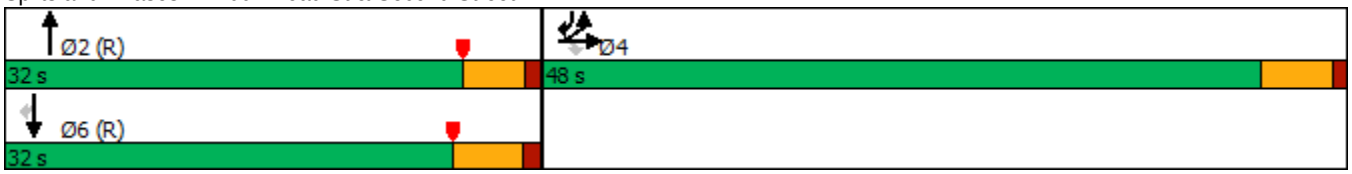


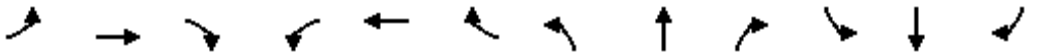
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	657	319	56	0	0	0	0	523	145	0	279	432
Future Volume (vph)	657	319	56	0	0	0	0	523	145	0	279	432
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt			0.850					0.967				0.850
Flt Protected	0.950	0.982										
Satd. Flow (prot)	1681	1738	1583	0	0	0	0	3422	0	0	1863	1583
Flt Permitted	0.950	0.982										
Satd. Flow (perm)	1681	1738	1583	0	0	0	0	3422	0	0	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		382			478			670			767	
Travel Time (s)		7.4			9.3			13.1			14.9	
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)	730	354	62	0	0	0	0	581	161	0	310	480
Shared Lane Traffic (%)	27%											
Lane Group Flow (vph)	533	551	62	0	0	0	0	742	0	0	310	480
Turn Type	Split	NA	Perm					NA			NA	pm+ov
Protected Phases	4	4						2			6	4
Permitted Phases			4									6
Detector Phase	4	4	4					2			6	4
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0			10.0	7.0
Minimum Split (s)	12.2	12.2	12.2					14.7			15.3	12.2
Total Split (s)	48.0	48.0	48.0					32.0			32.0	48.0
Total Split (%)	60.0%	60.0%	60.0%					40.0%			40.0%	60.0%
Maximum Green (s)	42.8	42.8	42.8					27.3			26.7	42.8
Yellow Time (s)	4.2	4.2	4.2					3.7			4.1	4.2
All-Red Time (s)	1.0	1.0	1.0					1.0			1.2	1.0
Lost Time Adjust (s)	-0.2	-0.2	-0.2					0.3			-0.3	-0.3
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	4.9
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Recall Mode	None	None	None					C-Max			C-Max	None
Act Effct Green (s)	36.9	36.9	36.9					33.1			33.1	80.0
Actuated g/C Ratio	0.46	0.46	0.46					0.41			0.41	1.00
v/c Ratio	0.69	0.69	0.09					0.52			0.40	0.30
Control Delay	21.2	21.1	10.2					19.1			20.5	0.5
Queue Delay	0.0	0.0	0.0					0.0			0.0	0.0
Total Delay	21.2	21.1	10.2					19.1			20.5	0.5
LOS	C	C	B					B			C	A
Approach Delay		20.6						19.1			8.3	
Approach LOS		C						B			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	197	204	16					132			112	0
Queue Length 95th (ft)	277	285	32					m183			196	0
Internal Link Dist (ft)		302			398			590			687	
Turn Bay Length (ft)			150									
Base Capacity (vph)	903	934	850					1415			770	1578
Starvation Cap Reductn	0	0	0					0			0	0
Spillback Cap Reductn	0	0	0					0			0	0
Storage Cap Reductn	0	0	0					0			0	0
Reduced v/c Ratio	0.59	0.59	0.07					0.52			0.40	0.30

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 2 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow			
Natural Cycle: 45			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.69			
Intersection Signal Delay: 16.5		Intersection LOS: B	
Intersection Capacity Utilization 54.0%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 100: Broad St & Second Street



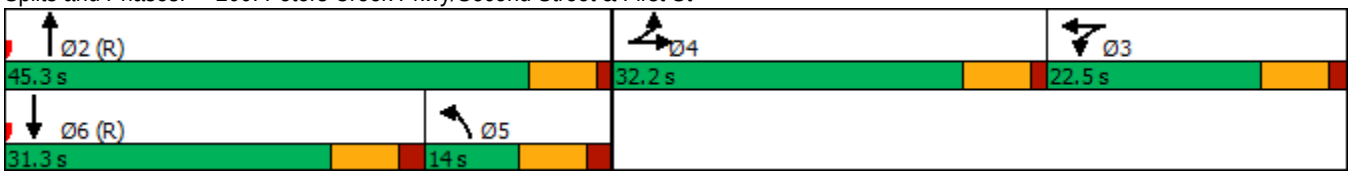


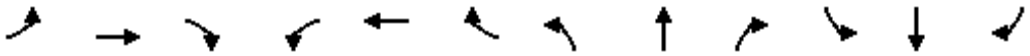
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	152	65	51	341	84	23	71	765	588	0	345	37
Future Volume (vph)	152	65	51	341	84	23	71	765	588	0	345	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	175		50	0		0	275		0
Storage Lanes	2		0	1		0	1		0	1		0
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	0.95	1.00	0.95	0.95
Frt		0.934			0.967			0.935			0.985	
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	3433	1740	0	3433	1801	0	1770	3309	0	0	3486	0
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	3433	1740	0	3433	1801	0	1770	3309	0	0	3486	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		213			664			672			446	
Travel Time (s)		4.1			12.9			13.1			8.7	
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)	169	72	57	379	93	26	79	850	653	0	383	41
Shared Lane Traffic (%)												
Lane Group Flow (vph)	169	129	0	379	119	0	79	1503	0	0	424	0
Turn Type	Split	NA		Split	NA		Prot	NA			NA	
Protected Phases	4	4		3	3		5	2			6	
Permitted Phases												
Detector Phase	4	4		3	3		5	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0			10.0	
Minimum Split (s)	32.2	32.2		22.5	22.5		14.0	23.3			29.0	
Total Split (s)	32.2	32.2		22.5	22.5		14.0	45.3			31.3	
Total Split (%)	32.2%	32.2%		22.5%	22.5%		14.0%	45.3%			31.3%	
Maximum Green (s)	26.0	26.0		16.0	16.0		7.0	39.0			24.3	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
All-Red Time (s)	1.2	1.2		1.5	1.5		2.0	1.3			2.0	
Lost Time Adjust (s)	-1.2	-1.2		-1.5	-1.5		-2.0	-1.3			-2.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
Lead/Lag	Lead	Lead		Lag	Lag		Lag				Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0			3.0	
Recall Mode	None	None		None	None		None	C-Max			C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	26.0	26.0		16.0	16.0			17.0			22.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)	13.0	13.0		16.9	16.9		9.0	55.0			43.8	
Actuated g/C Ratio	0.13	0.13		0.17	0.17		0.09	0.55			0.44	
v/c Ratio	0.38	0.57		0.65	0.39		0.50	0.83			0.28	
Control Delay	41.3	50.1		43.9	39.9		54.7	25.3			21.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	41.3	50.1		43.9	39.9		54.7	25.3			21.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	D		D	D		D	C			C	
Approach Delay		45.1			43.0			26.7			21.2	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	51	78		118	68		49	390			93	
Queue Length 95th (ft)	78	131		156	115		97	#666			154	
Internal Link Dist (ft)		133			584			592			366	
Turn Bay Length (ft)				175								
Base Capacity (vph)	933	473		637	334		159	1820			1527	
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	0.18	0.27		0.59	0.36		0.50	0.83			0.28	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 110			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.83			
Intersection Signal Delay: 30.7		Intersection LOS: C	
Intersection Capacity Utilization 64.7%		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: 200: Peters Creek Pkwy/Second Street & First St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	352	248	53	87	290	54	97	262	0	71	203	61
Future Volume (vph)	352	248	53	87	290	54	97	262	0	71	203	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		400
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.989			0.981						0.973	
Flt Protected		0.974			0.990			0.987			0.990	
Satd. Flow (prot)	0	1794	0	0	3437	0	0	3493	0	0	3409	0
Flt Permitted		0.587			0.730			0.706			0.714	
Satd. Flow (perm)	0	1081	0	0	2535	0	0	2499	0	0	2459	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			30			35			35	
Link Distance (ft)		664			438			349			670	
Travel Time (s)		12.9			10.0			6.8			13.1	
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)	391	276	59	97	322	60	108	291	0	79	226	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	726	0	0	479	0	0	399	0	0	373	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.9	26.9		25.1	25.1		21.3	21.3		23.4	23.4	
Total Split (s)	56.0	56.0		56.0	56.0		24.0	24.0		24.0	24.0	
Total Split (%)	70.0%	70.0%		70.0%	70.0%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	50.1	50.1		50.9	50.9		18.7	18.7		18.6	18.6	
Yellow Time (s)	4.0	4.0		3.1	3.1		3.9	3.9		3.7	3.7	
All-Red Time (s)	1.9	1.9		2.0	2.0		1.4	1.4		1.7	1.7	
Lost Time Adjust (s)		-0.9			-0.1			-0.3			-0.4	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	14.0	14.0		13.0	13.0		9.0	9.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		51.0			51.0			19.0			19.0	
Actuated g/C Ratio		0.64			0.64			0.24			0.24	
v/c Ratio		1.05			0.30			0.67			0.64	
Control Delay		67.3			7.1			34.2			24.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		67.3			7.1			34.2			24.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		E			A			C			C	
Approach Delay		67.3			7.1			34.2			24.2	
Approach LOS		E			A			C			C	
Queue Length 50th (ft)		~403			49			95			35	
Queue Length 95th (ft)		#609			73			144			76	
Internal Link Dist (ft)		584			358			269			590	
Turn Bay Length (ft)												
Base Capacity (vph)		689			1616			593			584	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		1.05			0.30			0.67			0.64	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 90			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.05			
Intersection Signal Delay: 37.9		Intersection LOS: D	
Intersection Capacity Utilization 84.4%		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: 300: Broad St & First St

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	66	29	20	967	353	79
Future Vol, veh/h	66	29	20	967	353	79
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	32	22	1074	392	88

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1017	436	480	0	-	0
Stage 1	436	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	248	619	1081	-	-	-
Stage 1	651	-	-	-	-	-
Stage 2	523	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	236	619	1081	-	-	-
Mov Cap-2 Maneuver	236	-	-	-	-	-
Stage 1	618	-	-	-	-	-
Stage 2	523	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.2	0.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1081	-	291	-	-
HCM Lane V/C Ratio	0.021	-	0.363	-	-
HCM Control Delay (s)	8.4	0.2	24.2	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.6	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	198	134	58	70	14
Future Vol, veh/h	7	198	134	58	70	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	220	149	64	78	16

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	213	0	-	0	417	181
Stage 1	-	-	-	-	181	-
Stage 2	-	-	-	-	236	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1357	-	-	-	592	862
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	803	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1357	-	-	-	588	862
Mov Cap-2 Maneuver	-	-	-	-	588	-
Stage 1	-	-	-	-	844	-
Stage 2	-	-	-	-	803	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.8
HCM LOS			B

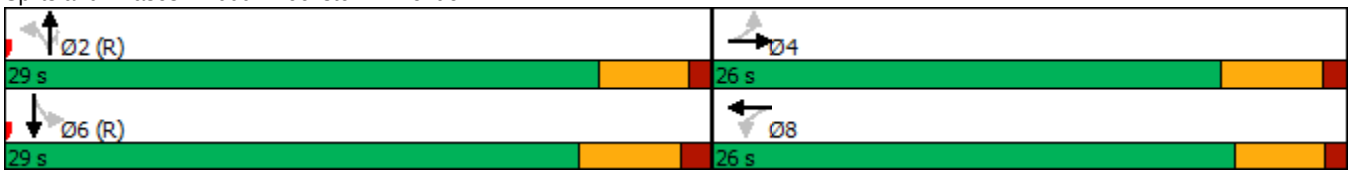
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1357	-	-	-	621
HCM Lane V/C Ratio	0.006	-	-	-	0.15
HCM Control Delay (s)	7.7	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	16	31	21	41	19	12	99	4	8	64	3
Future Volume (vph)	6	16	31	21	41	19	12	99	4	8	64	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		125	0		0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.922			0.953				0.850		0.995	
Flt Protected		0.994		0.950				0.995			0.995	
Satd. Flow (prot)	0	1707	0	1770	1775	0	0	1853	1583	0	1844	0
Flt Permitted		0.977		0.719				0.976			0.974	
Satd. Flow (perm)	0	1678	0	1339	1775	0	0	1818	1583	0	1805	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		342			612			326			338	
Travel Time (s)		6.7			11.9			6.4			6.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	18	34	23	46	21	13	110	4	9	71	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	59	0	23	67	0	0	123	4	0	83	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0	20.0	20.0	20.0	
Total Split (s)	26.0	26.0		26.0	26.0		29.0	29.0	29.0	29.0	29.0	
Total Split (%)	47.3%	47.3%		47.3%	47.3%		52.7%	52.7%	52.7%	52.7%	52.7%	
Maximum Green (s)	20.8	20.8		21.3	21.3		24.3	24.3	24.3	23.5	23.5	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.7	3.7	3.7	4.2	4.2	
All-Red Time (s)	1.1	1.1		1.0	1.0		1.0	1.0	1.0	1.3	1.3	
Lost Time Adjust (s)		-0.2		0.3	0.3			0.3	0.3		-0.5	
Total Lost Time (s)		5.0		5.0	5.0			5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		21.0		21.0	21.0			24.0	24.0		24.0	
Actuated g/C Ratio		0.38		0.38	0.38			0.44	0.44		0.44	
v/c Ratio		0.09		0.05	0.10			0.16	0.01		0.11	
Control Delay		11.5		11.1	11.5			10.1	8.8		9.7	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		11.5		11.1	11.5			10.1	8.8		9.7	
LOS		B		B	B			B	A		A	
Approach Delay		11.5			11.4			10.0			9.7	
Approach LOS		B			B			B			A	
Queue Length 50th (ft)		12		5	14			23	1		15	
Queue Length 95th (ft)		31		16	34			49	5		36	
Internal Link Dist (ft)		262			532			246			258	
Turn Bay Length (ft)				100					125			
Base Capacity (vph)		640		511	677			793	690		787	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.09		0.05	0.10			0.16	0.01		0.11	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 55			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Pretimed			
Maximum v/c Ratio: 0.16			
Intersection Signal Delay: 10.5		Intersection LOS: B	
Intersection Capacity Utilization 35.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 600: Brookstown Avenue



Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	66	3	4	95	11	29
Future Vol, veh/h	66	3	4	95	11	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	3	4	106	12	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	76	0	189	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	114	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1523	-	800	986
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	911	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1523	-	798	986
Mov Cap-2 Maneuver	-	-	-	-	798	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	908	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	926	-	-	1523	-
HCM Lane V/C Ratio	0.048	-	-	0.003	-
HCM Control Delay (s)	9.1	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	3.4

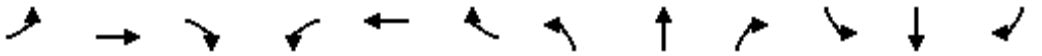
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	3	44	20	1	29
Future Vol, veh/h	52	3	44	20	1	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	58	3	49	22	1	32

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	94	60	0	0	71	0
Stage 1	60	-	-	-	-	-
Stage 2	34	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	906	1005	-	-	1529	-
Stage 1	963	-	-	-	-	-
Stage 2	988	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	905	1005	-	-	1529	-
Mov Cap-2 Maneuver	905	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	987	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	0.2
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	910	1529	-
HCM Lane V/C Ratio	-	-	0.067	0.001	-
HCM Control Delay (s)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0	-

PM Future No-Build Conditions

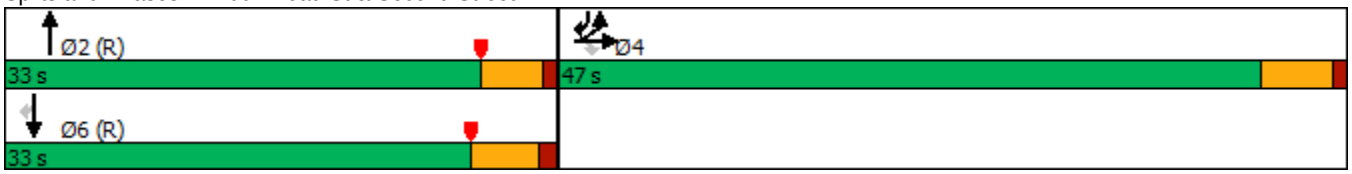


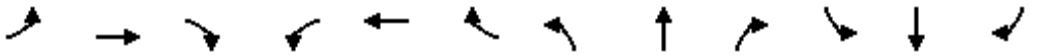
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	530	295	41	0	0	0	0	283	111	0	269	567
Future Volume (vph)	530	295	41	0	0	0	0	283	111	0	269	567
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt			0.850					0.958				0.850
Flt Protected	0.950	0.986										
Satd. Flow (prot)	1681	1745	1583	0	0	0	0	3391	0	0	1863	1583
Flt Permitted	0.950	0.986										
Satd. Flow (perm)	1681	1745	1583	0	0	0	0	3391	0	0	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		382			478			670			767	
Travel Time (s)		7.4			9.3			13.1			14.9	
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)	589	328	46	0	0	0	0	314	123	0	299	630
Shared Lane Traffic (%)	23%											
Lane Group Flow (vph)	454	463	46	0	0	0	0	437	0	0	299	630
Turn Type	Split	NA	Perm					NA			NA	pm+ov
Protected Phases	4	4						2			6	4
Permitted Phases			4									6
Detector Phase	4	4	4					2			6	4
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0			10.0	7.0
Minimum Split (s)	12.2	12.2	12.2					14.7			15.3	12.2
Total Split (s)	47.0	47.0	47.0					33.0			33.0	47.0
Total Split (%)	58.8%	58.8%	58.8%					41.3%			41.3%	58.8%
Maximum Green (s)	41.8	41.8	41.8					28.3			27.7	41.8
Yellow Time (s)	4.2	4.2	4.2					3.7			4.1	4.2
All-Red Time (s)	1.0	1.0	1.0					1.0			1.2	1.0
Lost Time Adjust (s)	-0.2	-0.2	-0.2					0.3			-0.3	-0.3
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	4.9
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Recall Mode	None	None	None					C-Max			C-Max	None
Act Effct Green (s)	34.0	34.0	34.0					36.0			36.0	80.0
Actuated g/C Ratio	0.42	0.42	0.42					0.45			0.45	1.00
v/c Ratio	0.63	0.62	0.07					0.29			0.36	0.40
Control Delay	21.3	20.9	11.0					13.0			18.4	0.7
Queue Delay	0.0	0.0	0.0					0.0			0.0	0.0
Total Delay	21.3	20.9	11.0					13.0			18.4	0.7
LOS	C	C	B					B			B	A
Approach Delay		20.6						13.0			6.4	
Approach LOS		C						B			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	174	177	13					56			98	0
Queue Length 95th (ft)	230	230	26					m100			185	0
Internal Link Dist (ft)		302			398			590			687	
Turn Bay Length (ft)			150									
Base Capacity (vph)	882	916	831					1524			837	1565
Starvation Cap Reductn	0	0	0					0			0	0
Spillback Cap Reductn	0	0	0					0			0	0
Storage Cap Reductn	0	0	0					0			0	0
Reduced v/c Ratio	0.51	0.51	0.06					0.29			0.36	0.40

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 2 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 44.9%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 100: Broad St & Second Street



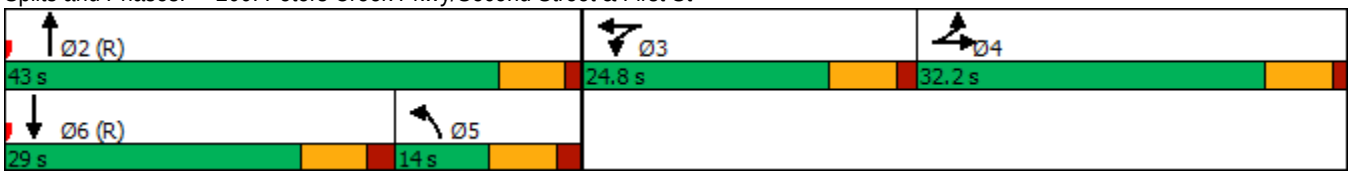


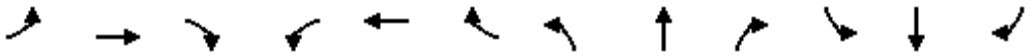
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	86	27	41	581	131	53	63	683	335	0	474	53
Future Volume (vph)	86	27	41	581	131	53	63	683	335	0	474	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	175		50	0		0	275		0
Storage Lanes	2		0	1		0	1		0	1		0
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	0.95	1.00	0.95	0.95
Frt		0.909			0.957			0.951			0.985	
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	3433	1693	0	3433	1783	0	1770	3366	0	0	3486	0
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	3433	1693	0	3433	1783	0	1770	3366	0	0	3486	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		213			664			672			446	
Travel Time (s)		4.1			12.9			13.1			8.7	
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)	96	30	46	646	146	59	70	759	372	0	527	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	96	76	0	646	205	0	70	1131	0	0	586	0
Turn Type	Split	NA		Split	NA		Prot	NA			NA	
Protected Phases	4	4		3	3		5	2			6	
Permitted Phases												
Detector Phase	4	4		3	3		5	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0			10.0	
Minimum Split (s)	32.2	32.2		22.5	22.5		14.0	23.3			29.0	
Total Split (s)	32.2	32.2		24.8	24.8		14.0	43.0			29.0	
Total Split (%)	32.2%	32.2%		24.8%	24.8%		14.0%	43.0%			29.0%	
Maximum Green (s)	26.0	26.0		18.3	18.3		7.0	36.7			22.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
All-Red Time (s)	1.2	1.2		1.5	1.5		2.0	1.3			2.0	
Lost Time Adjust (s)	-1.2	-1.2		-1.5	-1.5		-2.0	-1.3			-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		Lag				Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0			3.0	
Recall Mode	None	None		None	None		None	C-Max			C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	26.0	26.0		16.0	16.0			17.0			22.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)	10.5	10.5		19.8	19.8		9.0	54.7			43.5	
Actuated g/C Ratio	0.10	0.10		0.20	0.20		0.09	0.55			0.44	
v/c Ratio	0.27	0.43		0.95	0.58		0.44	0.61			0.39	
Control Delay	42.3	48.9		65.0	43.9		52.4	17.7			21.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	42.3	48.9		65.0	43.9		52.4	17.7			21.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	D		E	D		D	B			C	
Approach Delay		45.2			59.9			19.7			21.5	
Approach LOS		D			E			B			C	
Queue Length 50th (ft)	29	46		211	119		43	242			136	
Queue Length 95th (ft)	52	89		#321	194		88	338			196	
Internal Link Dist (ft)		133			584			592			366	
Turn Bay Length (ft)				175								
Base Capacity (vph)	933	460		679	353		159	1841			1516	
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	0.10	0.17		0.95	0.58		0.44	0.61			0.39	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 33.8		Intersection LOS: C	
Intersection Capacity Utilization 64.5%		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: 200: Peters Creek Pkwy/Second Street & First St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	115	75	114	570	47	76	175	0	77	116	118
Future Volume (vph)	172	115	75	114	570	47	76	175	0	77	116	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		400
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.972			0.990						0.943	
Flt Protected		0.977			0.992			0.985			0.988	
Satd. Flow (prot)	0	1769	0	0	3476	0	0	3486	0	0	3297	0
Flt Permitted		0.428			0.808			0.750			0.792	
Satd. Flow (perm)	0	775	0	0	2831	0	0	2654	0	0	2643	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			30			35			35	
Link Distance (ft)		664			438			349			670	
Travel Time (s)		12.9			10.0			6.8			13.1	
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)	191	128	83	127	633	52	84	194	0	86	129	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	402	0	0	812	0	0	278	0	0	346	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.9	26.9		25.1	25.1		21.3	21.3		23.4	23.4	
Total Split (s)	56.0	56.0		56.0	56.0		24.0	24.0		24.0	24.0	
Total Split (%)	70.0%	70.0%		70.0%	70.0%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	50.1	50.1		50.9	50.9		18.7	18.7		18.6	18.6	
Yellow Time (s)	4.0	4.0		3.1	3.1		3.9	3.9		3.7	3.7	
All-Red Time (s)	1.9	1.9		2.0	2.0		1.4	1.4		1.7	1.7	
Lost Time Adjust (s)		-0.9			-0.1			-0.3			-0.4	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	14.0	14.0		13.0	13.0		9.0	9.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		45.4			45.4			24.6			24.6	
Actuated g/C Ratio		0.57			0.57			0.31			0.31	
v/c Ratio		0.92			0.51			0.34			0.43	
Control Delay		42.5			11.2			25.1			16.4	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		42.5			11.2			25.1			16.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		D			B			C			B	
Approach Delay		42.5			11.2			25.1			16.4	
Approach LOS		D			B			C			B	
Queue Length 50th (ft)		140			100			61			30	
Queue Length 95th (ft)		#332			132			99			60	
Internal Link Dist (ft)		584			358			269			590	
Turn Bay Length (ft)												
Base Capacity (vph)		494			1804			817			814	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.81			0.45			0.34			0.43	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 70			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.92			
Intersection Signal Delay: 21.1		Intersection LOS: C	
Intersection Capacity Utilization 74.9%		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.			

Splits and Phases: 300: Broad St & First St

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	82	16	10	784	511	56
Future Vol, veh/h	82	16	10	784	511	56
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	91	18	11	871	568	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1057	599	630	0	-	0
Stage 1	599	-	-	-	-	-
Stage 2	458	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	234	501	950	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	604	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	229	501	950	-	-	-
Mov Cap-2 Maneuver	229	-	-	-	-	-
Stage 1	536	-	-	-	-	-
Stage 2	604	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	29.9	0.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	950	-	251	-	-
HCM Lane V/C Ratio	0.012	-	0.434	-	-
HCM Control Delay (s)	8.8	0.1	29.9	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0	-	2.1	-	-

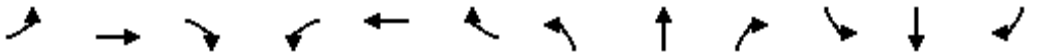
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	104	219	28	50	7
Future Vol, veh/h	4	104	219	28	50	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	116	243	31	56	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	274	0	-	0	383	259
Stage 1	-	-	-	-	259	-
Stage 2	-	-	-	-	124	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1289	-	-	-	620	780
Stage 1	-	-	-	-	784	-
Stage 2	-	-	-	-	902	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1289	-	-	-	618	780
Mov Cap-2 Maneuver	-	-	-	-	618	-
Stage 1	-	-	-	-	782	-
Stage 2	-	-	-	-	902	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1289	-	-	-	634
HCM Lane V/C Ratio	0.003	-	-	-	0.1
HCM Control Delay (s)	7.8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	16	60	27	45	11	37	149	24	6	173	4
Future Volume (vph)	3	16	60	27	45	11	37	149	24	6	173	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		125	0		0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.897			0.971				0.850		0.997	
Flt Protected		0.998		0.950				0.990			0.998	
Satd. Flow (prot)	0	1668	0	1770	1809	0	0	1844	1583	0	1853	0
Flt Permitted		0.991		0.700				0.919			0.989	
Satd. Flow (perm)	0	1656	0	1304	1809	0	0	1712	1583	0	1837	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		342			819			326			338	
Travel Time (s)		6.7			16.0			6.4			6.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	3	18	67	30	50	12	41	166	27	7	192	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	88	0	30	62	0	0	207	27	0	203	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	12.2	12.2		11.7	11.7		14.7	14.7	14.7	15.5	15.5	
Total Split (s)	16.0	16.0		16.0	16.0		24.0	24.0	24.0	24.0	24.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%	60.0%	60.0%	60.0%	
Maximum Green (s)	10.8	10.8		11.3	11.3		19.3	19.3	19.3	18.5	18.5	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.7	3.7	3.7	4.2	4.2	
All-Red Time (s)	1.1	1.1		1.0	1.0		1.0	1.0	1.0	1.3	1.3	
Lost Time Adjust (s)		-0.2		0.3	0.3			0.3	0.3		-0.5	
Total Lost Time (s)		5.0		5.0	5.0			5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		11.0		11.0	11.0			19.0	19.0		19.0	
Actuated g/C Ratio		0.28		0.28	0.28			0.48	0.48		0.48	
v/c Ratio		0.19		0.08	0.12			0.25	0.04		0.23	
Control Delay		12.5		11.4	11.6			7.3	5.8		7.1	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		12.5		11.4	11.6			7.3	5.8		7.1	
LOS		B		B	B			A	A		A	
Approach Delay		12.5			11.5			7.2			7.1	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		15		5	10			25	3		24	
Queue Length 95th (ft)		39		m13	23			53	11		51	
Internal Link Dist (ft)		262			739			246			258	
Turn Bay Length (ft)				100					125			
Base Capacity (vph)		455		358	497			813	751		872	

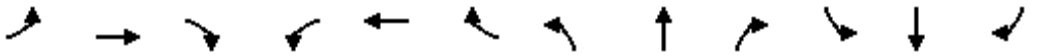
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.19		0.08	0.12			0.25	0.04		0.23	

Intersection Summary			
Area Type:	Other		
Cycle Length: 40			
Actuated Cycle Length: 40			
Offset: 24 (60%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Pretimed			
Maximum v/c Ratio: 0.25			
Intersection Signal Delay: 8.6		Intersection LOS: A	
Intersection Capacity Utilization 40.2%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 600: Brookstown Avenue

PM Future Build Conditions

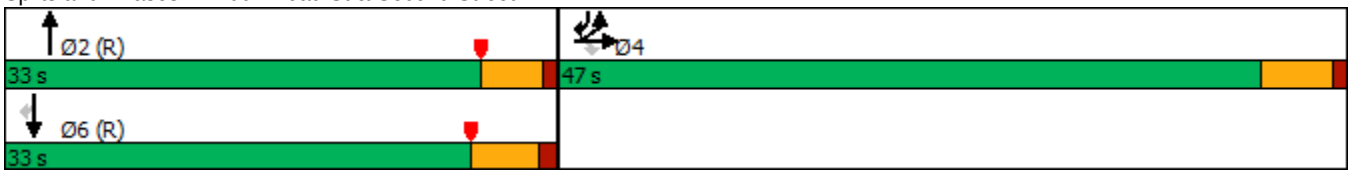


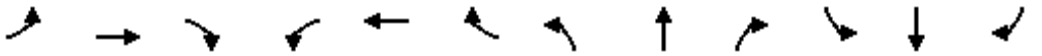
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	535	303	41	0	0	0	0	283	111	0	269	576
Future Volume (vph)	535	303	41	0	0	0	0	283	111	0	269	576
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		150	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt			0.850					0.958				0.850
Flt Protected	0.950	0.986										
Satd. Flow (prot)	1681	1745	1583	0	0	0	0	3391	0	0	1863	1583
Flt Permitted	0.950	0.986										
Satd. Flow (perm)	1681	1745	1583	0	0	0	0	3391	0	0	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		382			478			670			767	
Travel Time (s)		7.4			9.3			13.1			14.9	
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)	594	337	46	0	0	0	0	314	123	0	299	640
Shared Lane Traffic (%)	23%											
Lane Group Flow (vph)	457	474	46	0	0	0	0	437	0	0	299	640
Turn Type	Split	NA	Perm					NA			NA	pm+ov
Protected Phases	4	4						2			6	4
Permitted Phases			4									6
Detector Phase	4	4	4					2			6	4
Switch Phase												
Minimum Initial (s)	7.0	7.0	7.0					10.0			10.0	7.0
Minimum Split (s)	12.2	12.2	12.2					14.7			15.3	12.2
Total Split (s)	47.0	47.0	47.0					33.0			33.0	47.0
Total Split (%)	58.8%	58.8%	58.8%					41.3%			41.3%	58.8%
Maximum Green (s)	41.8	41.8	41.8					28.3			27.7	41.8
Yellow Time (s)	4.2	4.2	4.2					3.7			4.1	4.2
All-Red Time (s)	1.0	1.0	1.0					1.0			1.2	1.0
Lost Time Adjust (s)	-0.2	-0.2	-0.2					0.3			-0.3	-0.3
Total Lost Time (s)	5.0	5.0	5.0					5.0			5.0	4.9
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0	3.0					3.0			3.0	3.0
Recall Mode	None	None	None					C-Max			C-Max	None
Act Effct Green (s)	34.5	34.5	34.5					35.5			35.5	80.0
Actuated g/C Ratio	0.43	0.43	0.43					0.44			0.44	1.00
v/c Ratio	0.63	0.63	0.07					0.29			0.36	0.40
Control Delay	20.9	20.8	10.9					13.5			18.6	0.8
Queue Delay	0.0	0.0	0.0					0.0			0.0	0.0
Total Delay	20.9	20.8	10.9					13.5			18.6	0.8
LOS	C	C	B					B			B	A
Approach Delay		20.4						13.5			6.5	
Approach LOS		C						B			A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	173	178	12					56			100	0
Queue Length 95th (ft)	232	237	26					m101			185	0
Internal Link Dist (ft)		302			398			590			687	
Turn Bay Length (ft)			150									
Base Capacity (vph)	882	916	831					1504			826	1583
Starvation Cap Reductn	0	0	0					0			0	0
Spillback Cap Reductn	0	0	0					0			0	0
Storage Cap Reductn	0	0	0					0			0	0
Reduced v/c Ratio	0.52	0.52	0.06					0.29			0.36	0.40

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 2 (3%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow			
Natural Cycle: 40			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 45.3%		ICU Level of Service A	
Analysis Period (min) 15			
m Volume for 95th percentile queue is metered by upstream signal.			

Splits and Phases: 100: Broad St & Second Street



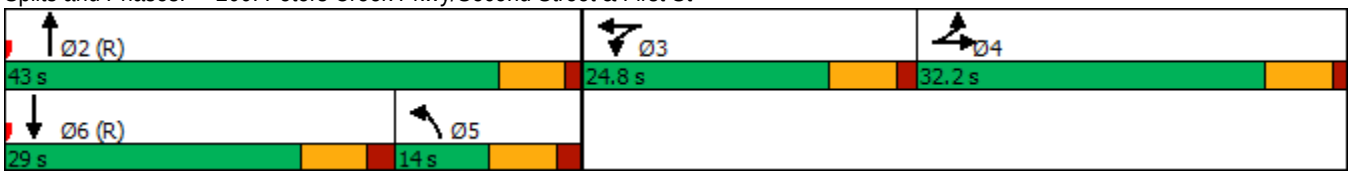


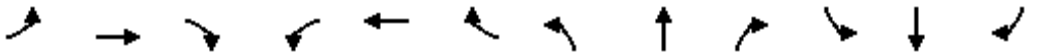
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	38	46	581	161	55	87	686	335	0	485	53
Future Volume (vph)	94	38	46	581	161	55	87	686	335	0	485	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	175		50	0		0	275		0
Storage Lanes	2		0	1		0	1		0	1		0
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	0.95	1.00	0.95	0.95
Frt		0.918			0.962			0.951			0.985	
Flt Protected	0.950			0.950			0.950					
Satd. Flow (prot)	3433	1710	0	3433	1792	0	1770	3366	0	0	3486	0
Flt Permitted	0.950			0.950			0.950					
Satd. Flow (perm)	3433	1710	0	3433	1792	0	1770	3366	0	0	3486	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		213			664			672			446	
Travel Time (s)		4.1			12.9			13.1			8.7	
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)	104	42	51	646	179	61	97	762	372	0	539	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	93	0	646	240	0	97	1134	0	0	598	0
Turn Type	Split	NA		Split	NA		Prot	NA			NA	
Protected Phases	4	4		3	3		5	2			6	
Permitted Phases												
Detector Phase	4	4		3	3		5	2			6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	10.0			10.0	
Minimum Split (s)	32.2	32.2		22.5	22.5		14.0	23.3			29.0	
Total Split (s)	32.2	32.2		24.8	24.8		14.0	43.0			29.0	
Total Split (%)	32.2%	32.2%		24.8%	24.8%		14.0%	43.0%			29.0%	
Maximum Green (s)	26.0	26.0		18.3	18.3		7.0	36.7			22.0	
Yellow Time (s)	5.0	5.0		5.0	5.0		5.0	5.0			5.0	
All-Red Time (s)	1.2	1.2		1.5	1.5		2.0	1.3			2.0	
Lost Time Adjust (s)	-1.2	-1.2		-1.5	-1.5		-2.0	-1.3			-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		Lag				Lead	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes				Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		2.0	3.0			3.0	
Recall Mode	None	None		None	None		None	C-Max			C-Max	
Walk Time (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Flash Dont Walk (s)	26.0	26.0		16.0	16.0			17.0			22.0	
Pedestrian Calls (#/hr)	0	0		0	0			0			0	
Act Effct Green (s)	11.3	11.3		19.8	19.8		9.0	53.9			42.7	
Actuated g/C Ratio	0.11	0.11		0.20	0.20		0.09	0.54			0.43	
v/c Ratio	0.27	0.48		0.95	0.68		0.61	0.63			0.40	
Control Delay	41.3	49.3		65.0	47.9		61.0	18.5			22.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	
Total Delay	41.3	49.3		65.0	47.9		61.0	18.5			22.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	D	D		E	D		E	B			C	
Approach Delay		45.1			60.4			21.8			22.3	
Approach LOS		D			E			C			C	
Queue Length 50th (ft)	31	57		211	143		61	248			142	
Queue Length 95th (ft)	55	102		#321	227		#127	350			205	
Internal Link Dist (ft)		133			584			592			366	
Turn Bay Length (ft)				175								
Base Capacity (vph)	933	465		679	354		159	1812			1487	
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	0.11	0.20		0.95	0.68		0.61	0.63			0.40	

Intersection Summary			
Area Type:	Other		
Cycle Length: 100			
Actuated Cycle Length: 100			
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green			
Natural Cycle: 100			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.95			
Intersection Signal Delay: 35.2		Intersection LOS: D	
Intersection Capacity Utilization 64.6%		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: 200: Peters Creek Pkwy/Second Street & First St





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	172	123	78	114	597	47	81	175	0	77	116	118
Future Volume (vph)	172	123	78	114	597	47	81	175	0	77	116	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		0	0		400
Storage Lanes	0		0	0		0	0		0	0		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.972			0.991						0.943	
Flt Protected		0.978			0.993			0.984			0.988	
Satd. Flow (prot)	0	1771	0	0	3483	0	0	3483	0	0	3297	0
Flt Permitted		0.427			0.809			0.727			0.789	
Satd. Flow (perm)	0	773	0	0	2837	0	0	2573	0	0	2633	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			30			35			35	
Link Distance (ft)		664			438			349			670	
Travel Time (s)		12.9			10.0			6.8			13.1	
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)	191	137	87	127	663	52	90	194	0	86	129	131
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	415	0	0	842	0	0	284	0	0	346	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	26.9	26.9		25.1	25.1		21.3	21.3		23.4	23.4	
Total Split (s)	56.0	56.0		56.0	56.0		24.0	24.0		24.0	24.0	
Total Split (%)	70.0%	70.0%		70.0%	70.0%		30.0%	30.0%		30.0%	30.0%	
Maximum Green (s)	50.1	50.1		50.9	50.9		18.7	18.7		18.6	18.6	
Yellow Time (s)	4.0	4.0		3.1	3.1		3.9	3.9		3.7	3.7	
All-Red Time (s)	1.9	1.9		2.0	2.0		1.4	1.4		1.7	1.7	
Lost Time Adjust (s)		-0.9			-0.1			-0.3			-0.4	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		2.0	2.0		2.0	2.0		2.0	2.0	
Recall Mode	None	None		None	None		C-Max	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Dont Walk (s)	14.0	14.0		13.0	13.0		9.0	9.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)		46.4			46.4			23.6			23.6	
Actuated g/C Ratio		0.58			0.58			0.30			0.30	
v/c Ratio		0.93			0.51			0.38			0.45	
Control Delay		43.9			10.8			26.1			17.0	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		43.9			10.8			26.1			17.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		D			B			C			B	
Approach Delay		43.9			10.8			26.1			17.0	
Approach LOS		D			B			C			B	
Queue Length 50th (ft)		143			101			64			30	
Queue Length 95th (ft)		#348			139			101			60	
Internal Link Dist (ft)		584			358			269			590	
Turn Bay Length (ft)												
Base Capacity (vph)		492			1808			757			775	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.84			0.47			0.38			0.45	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 80			
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow			
Natural Cycle: 75			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.93			
Intersection Signal Delay: 21.5		Intersection LOS: C	
Intersection Capacity Utilization 76.3%		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: 300: Broad St & First St

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	87	27	15	792	511	65
Future Vol, veh/h	87	27	15	792	511	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	97	30	17	880	568	72

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1078	604	640	0	-	0
Stage 1	604	-	-	-	-	-
Stage 2	474	-	-	-	-	-
Critical Hdwy	6.63	6.23	4.13	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.83	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	2.219	-	-	-
Pot Cap-1 Maneuver	227	497	942	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	593	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	219	497	942	-	-	-
Mov Cap-2 Maneuver	219	-	-	-	-	-
Stage 1	526	-	-	-	-	-
Stage 2	593	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	32.9	0.3	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	942	-	252	-	-
HCM Lane V/C Ratio	0.018	-	0.503	-	-
HCM Control Delay (s)	8.9	0.1	32.9	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.1	-	2.6	-	-

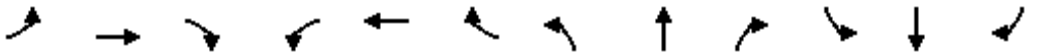
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	13	104	219	82	74	12
Future Vol, veh/h	13	104	219	82	74	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	116	243	91	82	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	334	0	-	0	433	289
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	144	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1225	-	-	-	580	750
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	883	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1225	-	-	-	573	750
Mov Cap-2 Maneuver	-	-	-	-	573	-
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	883	-

Approach	EB	WB	SB
HCM Control Delay, s	0.9	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1225	-	-	-	593
HCM Lane V/C Ratio	0.012	-	-	-	0.161
HCM Control Delay (s)	8	0	-	-	12.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	18	60	27	46	16	37	149	24	15	173	4
Future Volume (vph)	3	18	60	27	46	16	37	149	24	15	173	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	100		0	0		125	0		0
Storage Lanes	0		0	1		0	0		1	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.899			0.961				0.850		0.997	
Flt Protected		0.998		0.950				0.990			0.996	
Satd. Flow (prot)	0	1671	0	1770	1790	0	0	1844	1583	0	1850	0
Flt Permitted		0.991		0.699				0.917			0.971	
Satd. Flow (perm)	0	1660	0	1302	1790	0	0	1708	1583	0	1803	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		342			612			326			338	
Travel Time (s)		6.7			11.9			6.4			6.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	3	20	67	30	51	18	41	166	27	17	192	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	30	69	0	0	207	27	0	213	0
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2		2	6		
Minimum Split (s)	12.2	12.2		11.7	11.7		14.7	14.7	14.7	15.5	15.5	
Total Split (s)	16.0	16.0		16.0	16.0		24.0	24.0	24.0	24.0	24.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%		60.0%	60.0%	60.0%	60.0%	60.0%	
Maximum Green (s)	10.8	10.8		11.3	11.3		19.3	19.3	19.3	18.5	18.5	
Yellow Time (s)	4.1	4.1		3.7	3.7		3.7	3.7	3.7	4.2	4.2	
All-Red Time (s)	1.1	1.1		1.0	1.0		1.0	1.0	1.0	1.3	1.3	
Lost Time Adjust (s)		-0.2		0.3	0.3			0.3	0.3		-0.5	
Total Lost Time (s)		5.0		5.0	5.0			5.0	5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Act Effct Green (s)		11.0		11.0	11.0			19.0	19.0		19.0	
Actuated g/C Ratio		0.28		0.28	0.28			0.48	0.48		0.48	
v/c Ratio		0.20		0.08	0.14			0.26	0.04		0.25	
Control Delay		12.5		11.4	11.7			7.4	5.8		7.2	
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	
Total Delay		12.5		11.4	11.7			7.4	5.8		7.2	
LOS		B		B	B			A	A		A	
Approach Delay		12.5			11.6			7.2			7.3	
Approach LOS		B			B			A			A	
Queue Length 50th (ft)		15		5	12			25	3		25	
Queue Length 95th (ft)		39		m13	25			53	11		53	
Internal Link Dist (ft)		262			532			246			258	
Turn Bay Length (ft)				100					125			
Base Capacity (vph)		456		358	492			811	751		856	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Starvation Cap Reductn		0		0	0			0	0		0	
Spillback Cap Reductn		0		0	0			0	0		0	
Storage Cap Reductn		0		0	0			0	0		0	
Reduced v/c Ratio		0.20		0.08	0.14			0.26	0.04		0.25	

Intersection Summary			
Area Type:	Other		
Cycle Length: 40			
Actuated Cycle Length: 40			
Offset: 24 (60%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 40			
Control Type: Pretimed			
Maximum v/c Ratio: 0.26			
Intersection Signal Delay: 8.7		Intersection LOS: A	
Intersection Capacity Utilization 38.3%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 600: Brookstown Avenue

Intersection	
Int Delay, s/veh	1.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	98	11	14	66	6	16
Future Vol, veh/h	98	11	14	66	6	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	109	12	16	73	7	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	121	0	220	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	105	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1467	-	768	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	919	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1467	-	760	937
Mov Cap-2 Maneuver	-	-	-	-	760	-
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	909	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	881	-	-	1467	-
HCM Lane V/C Ratio	0.028	-	-	0.011	-
HCM Control Delay (s)	9.2	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	29	2	32	63	3	57
Future Vol, veh/h	29	2	32	63	3	57
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	2	36	70	3	63

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	140	71	0	0	106	0
Stage 1	71	-	-	-	-	-
Stage 2	69	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	853	991	-	-	1485	-
Stage 1	952	-	-	-	-	-
Stage 2	954	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	851	991	-	-	1485	-
Mov Cap-2 Maneuver	851	-	-	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	952	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	859	1485	-
HCM Lane V/C Ratio	-	-	0.04	0.002	-
HCM Control Delay (s)	-	-	9.4	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Traffic Volume Data

DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : 1st_Street_and_Fayette_Street
Site Code : 2100862
Start Date : 1/25/2022
Page No : 1

Groups Printed- Cars - Buses - Trucks

	Fayette Street Southbound					1st Street Westbound					T-Intersection Northbound					1st Street Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	7	0	0	0	7	0	9	5	0	14	0	0	0	0	0	0	14	0	0	14	35
07:15 AM	6	0	0	0	6	0	15	5	0	20	0	0	0	0	0	0	13	0	0	13	39
07:30 AM	7	0	1	0	8	0	14	5	0	19	0	0	0	0	0	0	18	0	0	18	45
07:45 AM	6	0	0	0	6	0	29	7	0	36	0	0	0	0	0	1	25	0	0	26	68
Total	26	0	1	0	27	0	67	22	0	89	0	0	0	0	0	1	70	0	0	71	187
08:00 AM	8	0	0	0	8	0	31	6	0	37	0	0	0	0	0	1	20	0	0	21	66
08:15 AM	5	0	1	0	6	0	37	11	0	48	0	0	0	0	0	1	28	0	0	29	83
08:30 AM	4	0	0	0	4	0	23	16	0	39	0	0	0	0	0	0	30	0	0	30	73
08:45 AM	8	0	0	0	8	0	29	6	0	35	0	0	0	0	0	0	26	0	0	26	69
Total	25	0	1	0	26	0	120	39	0	159	0	0	0	0	0	2	104	0	0	106	291
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : 1st_Street_and_Fayette_Street
Site Code : 2100862
Start Date : 1/25/2022
Page No : 2

Groups Printed- Cars - Buses - Trucks

	Fayette Street Southbound					1st Street Westbound					T-Intersection Northbound					1st Street Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	13	0	0	0	13	0	38	5	0	43	0	0	0	0	0	0	23	0	0	23	79
04:15 PM	14	0	0	0	14	0	44	7	0	51	0	0	0	0	0	0	37	0	0	37	102
04:30 PM	5	0	0	0	5	0	35	6	0	41	0	0	0	0	0	0	29	0	0	29	75
04:45 PM	11	0	1	0	12	0	35	3	0	38	0	0	0	0	0	1	27	0	0	28	78
Total	43	0	1	0	44	0	152	21	0	173	0	0	0	0	0	1	116	0	0	117	334
05:00 PM	18	0	1	0	19	0	40	6	0	46	0	0	0	0	0	1	40	0	0	41	106
05:15 PM	14	0	4	0	18	0	49	11	0	60	0	0	0	0	0	1	26	0	0	27	105
05:30 PM	11	0	0	0	11	0	27	4	0	31	0	0	0	0	0	1	25	0	0	26	68
05:45 PM	8	0	0	0	8	0	25	3	0	28	0	0	0	0	0	1	23	0	0	24	60
Total	51	0	5	0	56	0	141	24	0	165	0	0	0	0	0	4	114	0	0	118	339
Grand Total	145	0	8	0	153	0	480	106	0	586	0	0	0	0	0	8	404	0	0	412	1151
Apprch %	94.8	0	5.2	0		0	81.9	18.1	0		0	0	0	0		1.9	98.1	0	0		
Total %	12.6	0	0.7	0	13.3	0	41.7	9.2	0	50.9	0	0	0	0	0	0.7	35.1	0	0	35.8	
Cars	145	0	7	0	152	0	468	104	0	572	0	0	0	0	0	8	395	0	0	403	1127
% Cars	100	0	87.5	0	99.3	0	97.5	98.1	0	97.6	0	0	0	0	0	100	97.8	0	0	97.8	97.9
Buses	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	7	0	0	7	19
% Buses	0	0	0	0	0	0	2.5	0	0	2	0	0	0	0	0	0	1.7	0	0	1.7	1.7
Trucks	0	0	1	0	1	0	0	2	0	2	0	0	0	0	0	0	2	0	0	2	5
% Trucks	0	0	12.5	0	0.7	0	0	1.9	0	0.3	0	0	0	0	0	0	0.5	0	0	0.5	0.4

DAVENPORT

119 Brookstown Ave., Suite PH1,
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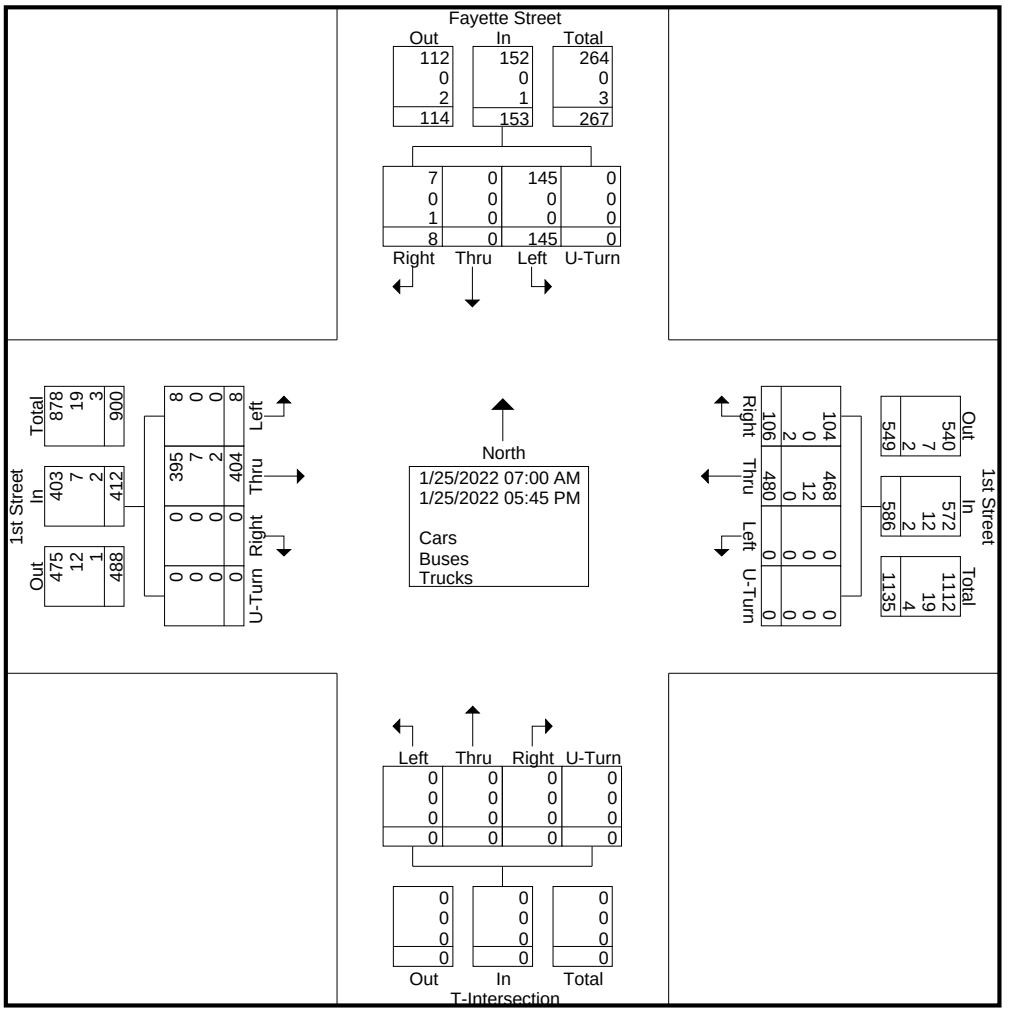
Ph: (336)744-1636

File Name : 1st_Street_and_Fayette_Street
Site Code : 2100862
Start Date : 1/25/2022
Page No : 3



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119 Brookstown Ave., Suite PH1,
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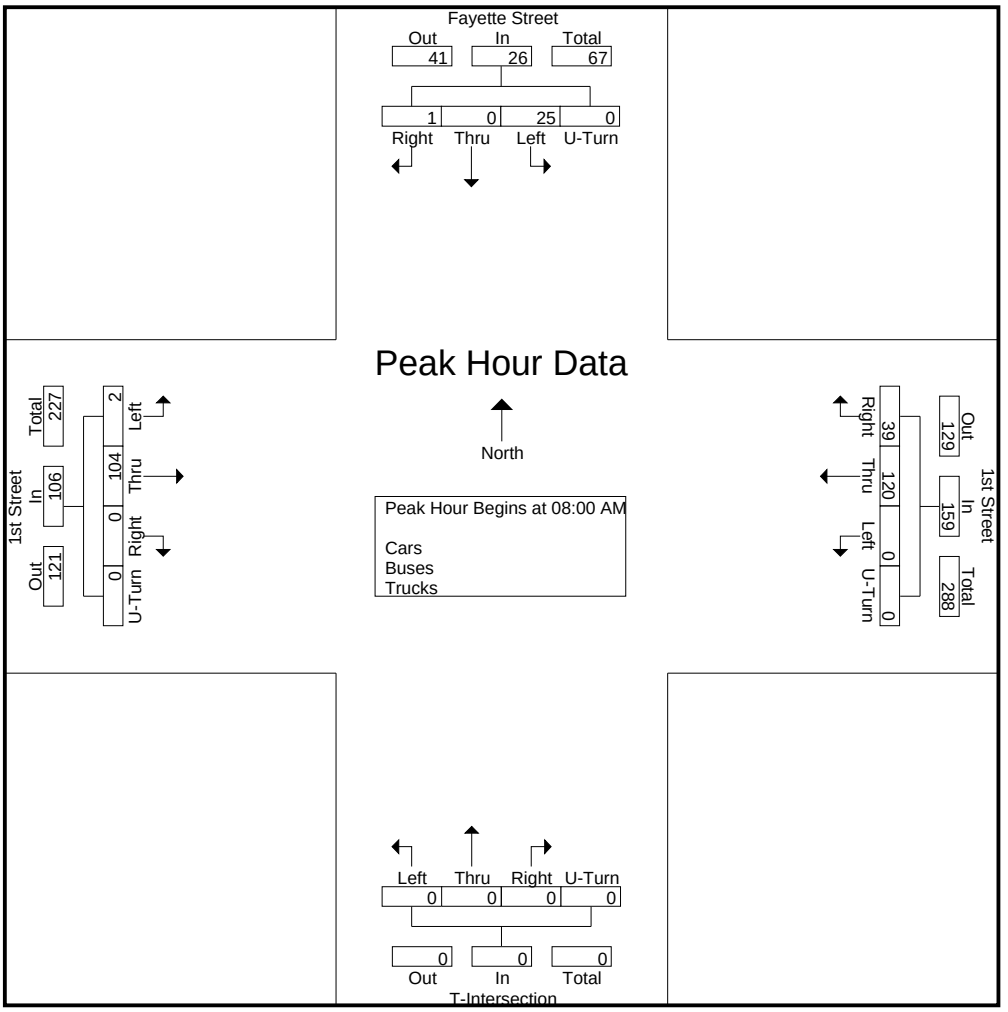
Ph: (336)744-1636

File Name : 1st_Street_and_Fayette_Street
Site Code : 2100862
Start Date : 1/25/2022
Page No : 4

	Fayette Street Southbound					1st Street Westbound					T-Intersection Northbound					1st Street Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**8**	0	0	0	**8**	0	31	6	0	37	0	0	0	0	0	**1**	20	0	0	21	66
08:15 AM	5	0	**1**	0	6	0	**37**	11	0	**48**	0	0	0	0	0	1	28	0	0	29	**83**
08:30 AM	4	0	0	0	4	0	23	**16**	0	39	0	0	0	0	0	0	**30**	0	0	**30**	73
08:45 AM	8	0	0	0	8	0	29	6	0	35	0	0	0	0	0	0	26	0	0	26	69
Total Volume	25	0	1	0	26	0	120	39	0	159	0	0	0	0	0	2	104	0	0	106	291
% App. Total	96.2	0	3.8	0		0	75.5	24.5	0		0	0	0	0		1.9	98.1	0	0		
PHF	.781	.000	.250	.000	.813	.000	.811	.609	.000	.828	.000	.000	.000	.000	.000	.500	.867	.000	.000	.883	.877



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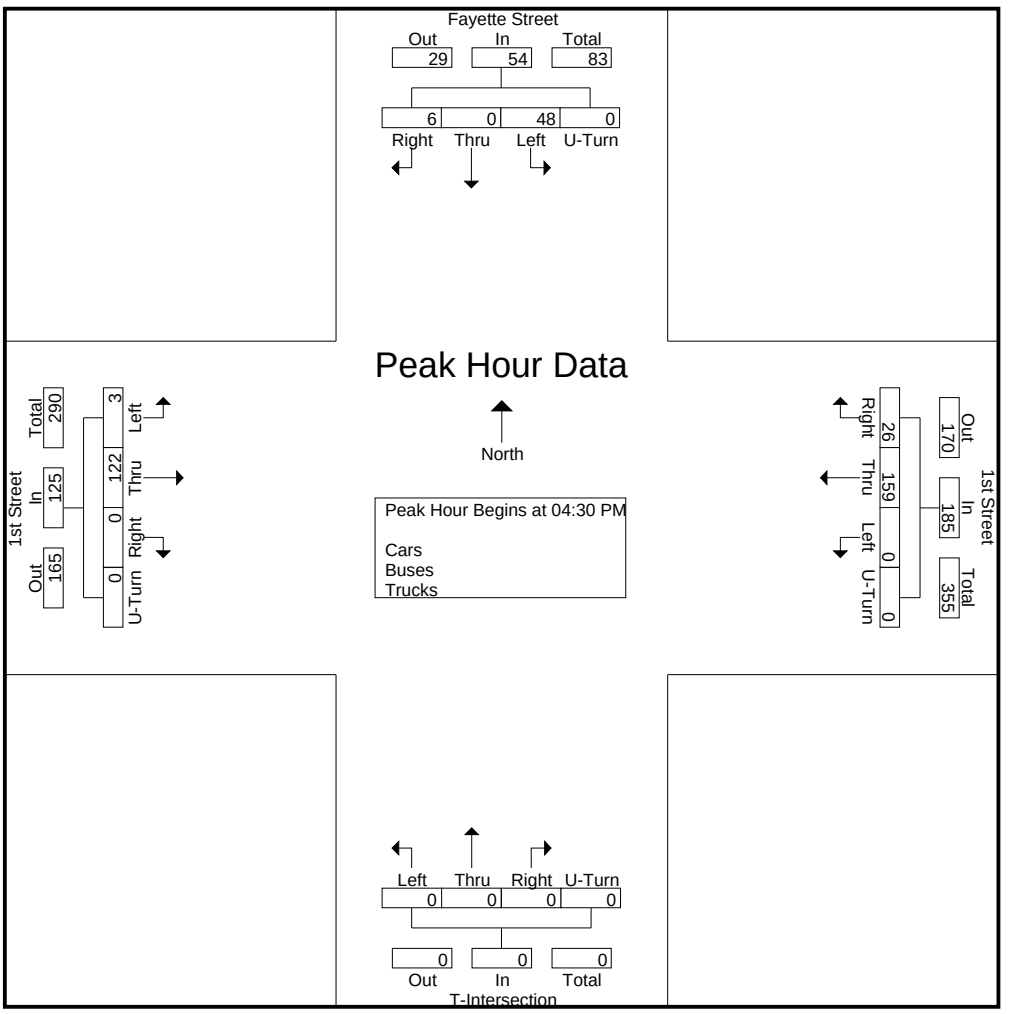
119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : 1st_Street_and_Fayette_Street
Site Code : 2100862
Start Date : 1/25/2022
Page No : 5

	Fayette Street Southbound					1st Street Westbound					T-Intersection Northbound					1st Street Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	5	0	0	0	5	0	35	6	0	41	0	0	0	0	0	0	29	0	0	29	75
04:45 PM	11	0	1	0	12	0	35	3	0	38	0	0	0	0	0	**1**	27	0	0	28	78
05:00 PM	**18**	0	1	0	**19**	0	40	6	0	46	0	0	0	0	0	1	**40**	0	0	**41**	**106**
05:15 PM	14	0	**4**	0	18	0	**49**	**11**	0	**60**	0	0	0	0	0	1	26	0	0	27	105
Total Volume	48	0	6	0	54	0	159	26	0	185	0	0	0	0	0	3	122	0	0	125	364
% App. Total	88.9	0	11.1	0		0	85.9	14.1	0		0	0	0	0		2.4	97.6	0	0		
PHF	.667	.000	.375	.000	.711	.000	.811	.591	.000	.771	.000	.000	.000	.000	.000	.750	.763	.000	.000	.762	.858



DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : 2nd_Street_and_Brookstown_Avenue
Site Code : 2100863
Start Date : 1/25/2022
Page No : 1

Groups Printed- Cars - Buses - Trucks

	2nd Street Southbound					T-Intersection Westbound					2nd Street Northbound					Brookstown Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	5	74	0	0	79	2	0	0	0	2	81
07:15 AM	0	0	0	0	0	0	0	0	0	0	10	125	0	0	135	7	0	0	0	7	142
07:30 AM	0	0	0	0	0	0	0	0	0	0	5	119	0	0	124	7	0	0	0	7	131
07:45 AM	0	0	0	0	0	0	0	0	0	0	7	185	0	0	192	8	0	0	0	8	200
Total	0	0	0	0	0	0	0	0	0	0	27	503	0	0	530	24	0	0	0	24	554
08:00 AM	0	0	0	0	0	0	0	0	0	0	4	142	0	0	146	7	0	0	0	7	153
08:15 AM	0	0	0	0	0	0	0	0	0	0	17	137	0	0	154	7	0	0	0	7	161
08:30 AM	0	0	0	0	0	0	0	0	0	0	13	136	0	0	149	4	0	0	0	4	153
08:45 AM	0	0	0	0	0	0	0	0	0	0	19	118	0	0	137	6	0	0	0	6	143
Total	0	0	0	0	0	0	0	0	0	0	53	533	0	0	586	24	0	0	0	24	610
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : 2nd_Street_and_Brookstown_Avenue
Site Code : 2100863
Start Date : 1/25/2022
Page No : 2

Groups Printed- Cars - Buses - Trucks

	2nd Street Southbound					T-Intersection Westbound					2nd Street Northbound					Brookstown Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	0	0	0	0	0	0	0	0	0	0	17	103	0	0	120	16	0	0	0	16	136
04:15 PM	0	0	0	0	0	0	0	0	0	0	14	122	0	0	136	10	0	0	0	10	146
04:30 PM	0	0	0	0	0	0	0	0	0	0	19	109	0	0	128	13	0	0	0	13	141
04:45 PM	0	0	0	0	0	0	0	0	0	0	11	91	0	0	102	9	0	0	0	9	111
Total	0	0	0	0	0	0	0	0	0	0	61	425	0	0	486	48	0	0	0	48	534
05:00 PM	0	0	0	0	0	0	0	0	0	0	13	147	0	0	160	10	0	0	0	10	170
05:15 PM	0	0	0	0	0	0	0	0	0	0	13	140	0	0	153	10	0	0	0	10	163
05:30 PM	0	0	0	0	0	0	0	0	0	0	26	133	0	0	159	13	0	0	0	13	172
05:45 PM	0	0	1	0	1	0	0	0	0	0	21	102	0	0	123	10	0	0	0	10	134
Total	0	0	1	0	1	0	0	0	0	0	73	522	0	0	595	43	0	0	0	43	639
Grand Total	0	0	1	0	1	0	0	0	0	0	214	1983	0	0	2197	139	0	0	0	139	2337
Apprch %	0	0	100	0		0	0	0	0		9.7	90.3	0	0		100	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	9.2	84.9	0	0	94	5.9	0	0	0	5.9	
Cars	0	0	1	0	1	0	0	0	0	0	209	1939									
% Cars	0	0	100	0	100	0	0	0	0	0	97.7	97.8	0	0	97.8	99.3	0	0	0	99.3	97.9
Buses	0	0	0	0	0	0	0	0	0	0	1	24	0	0	25	0	0	0	0	0	25
% Buses	0	0	0	0	0	0	0	0	0	0	0.5	1.2	0	0	1.1	0	0	0	0	0	1.1
Trucks	0	0	0	0	0	0	0	0	0	0	4	20	0	0	24	1	0	0	0	1	25
% Trucks	0	0	0	0	0	0	0	0	0	0	1.9	1	0	0	1.1	0.7	0	0	0	0.7	1.1

DAVENPORT

119 Brookstown Ave., Suite PH1,
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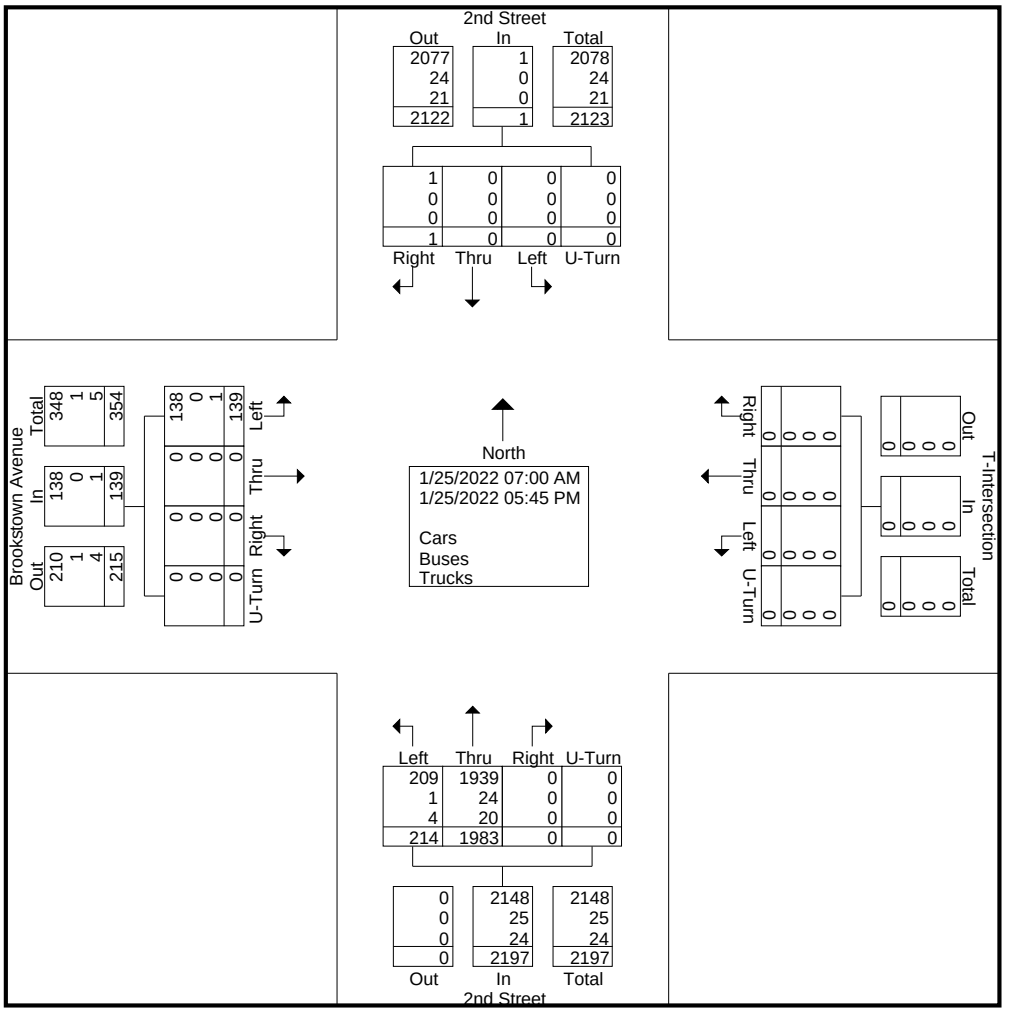
Ph: (336)744-1636

File Name : 2nd_Street_and_Brookstown_Avenue
Site Code : 2100863
Start Date : 1/25/2022
Page No : 3

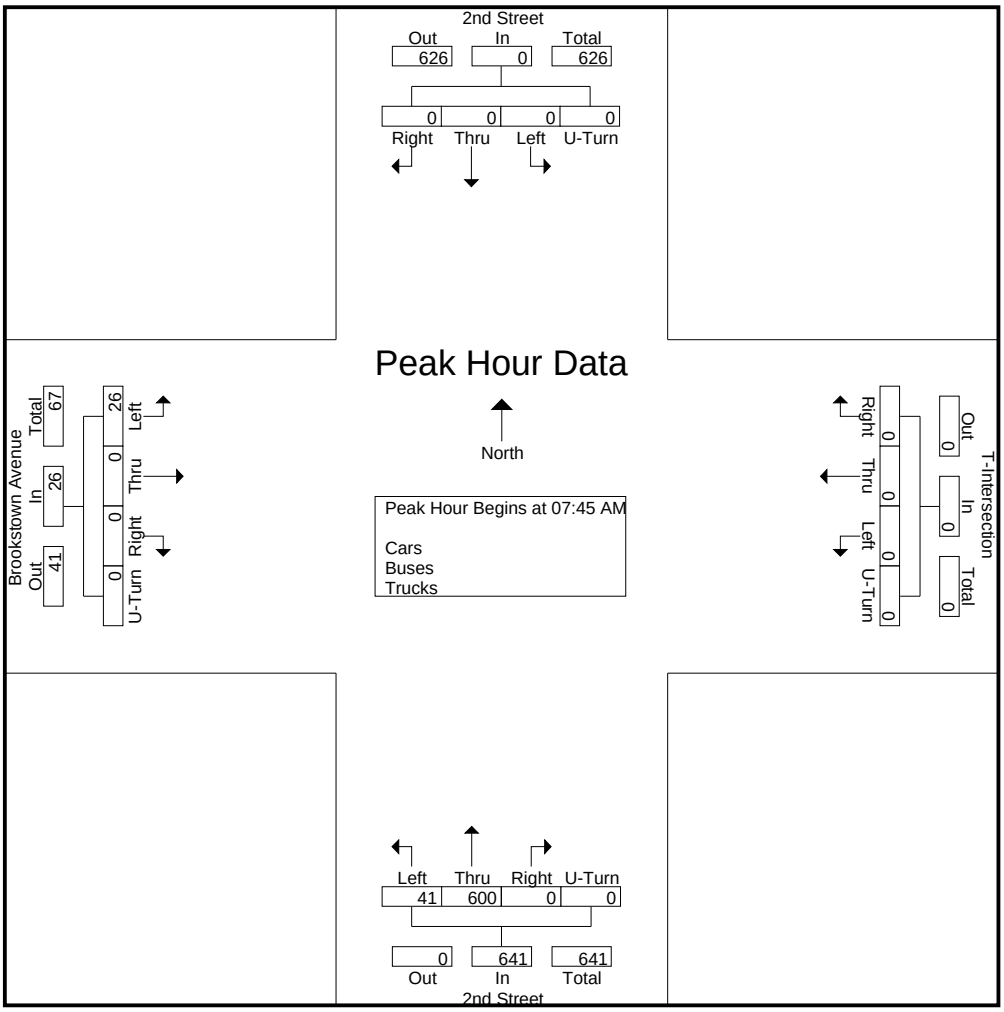


DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : 2nd_Street_and_Brookstown_Avenue
Site Code : 2100863
Start Date : 1/25/2022
Page No : 4

	2nd Street Southbound					T-Intersection Westbound					2nd Street Northbound					Brookstown Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	0	0	0	0	0	0	0	0	0	7	**185**	0	0	**192**	**8**	0	0	0	**8**	**200**
08:00 AM	0	0	0	0	0	0	0	0	0	0	4	142	0	0	146	7	0	0	0	7	153
08:15 AM	0	0	0	0	0	0	0	0	0	0	**17**	137	0	0	154	7	0	0	0	7	161
08:30 AM	0	0	0	0	0	0	0	0	0	0	13	136	0	0	149	4	0	0	0	4	153
Total Volume	0	0	0	0	0	0	0	0	0	0	41	600	0	0	641	26	0	0	0	26	667
% App. Total	0	0	0	0		0	0	0	0		6.4	93.6	0	0		100	0	0	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.603	.811	.000	.000	.835	.813	.000	.000	.000	.813	.834

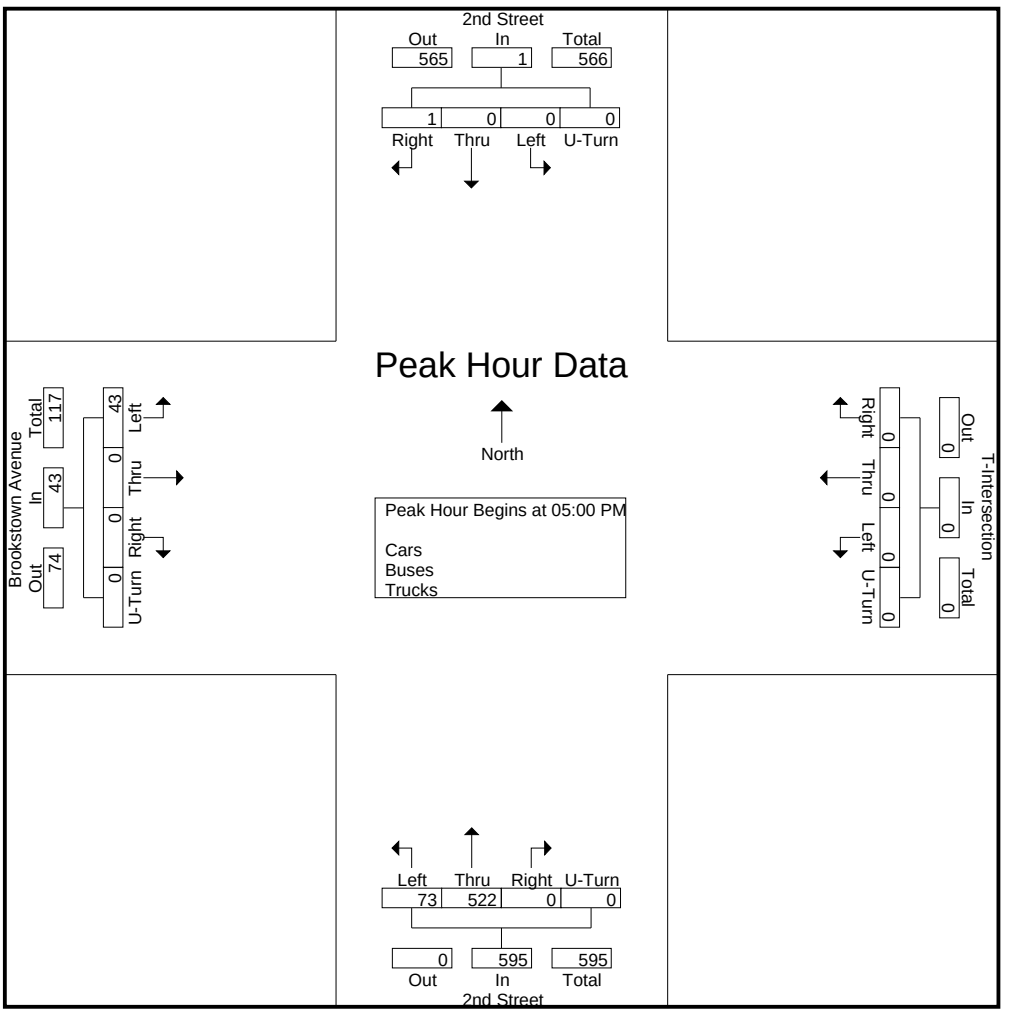


DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : 2nd_Street_and_Brookstown_Avenue
Site Code : 2100863
Start Date : 1/25/2022
Page No : 5

	2nd Street Southbound					T-Intersection Westbound					2nd Street Northbound					Brookstown Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	0	0	0	0	0	0	0	0	0	13	**147**	0	0	**160**	10	0	0	0	10	170
05:15 PM	0	0	0	0	0	0	0	0	0	0	13	140	0	0	153	10	0	0	0	10	163
05:30 PM	0	0	0	0	0	0	0	0	0	0	**26**	133	0	0	159	**13**	0	0	0	**13**	**172**
05:45 PM	0	0	**1**	0	**1**	0	0	0	0	0	21	102	0	0	123	10	0	0	0	10	134
Total Volume	0	0	1	0	1	0	0	0	0	0	73	522	0	0	595	43	0	0	0	43	639
% App. Total	0	0	100	0		0	0	0	0		12.3	87.7	0	0		100	0	0	0		
PHF	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.702	.888	.000	.000	.930	.827	.000	.000	.000	.827	.929



DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : Burke_Street_and_Brookstown_Avenue
Site Code : 2100861
Start Date : 1/25/2022
Page No : 1

Groups Printed- Cars - Buses - Trucks

	Burke Street Southbound					Brookstown Avenue Westbound					Burke Street Northbound					Brookstown Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
07:00 AM	1	8	0	0	9	5	5	2	0	12	1	12	0	0	13	1	0	5	0	6	40
07:15 AM	0	11	0	0	11	1	4	0	0	5	1	11	1	0	13	1	3	4	0	8	37
07:30 AM	0	13	0	0	13	6	3	0	0	9	2	12	1	0	15	1	1	5	0	7	44
07:45 AM	0	15	3	0	18	2	5	0	0	7	1	21	0	0	22	1	5	5	0	11	58
Total	1	47	3	0	51	14	17	2	0	33	5	56	2	0	63	4	9	19	0	32	179
08:00 AM	2	19	1	0	22	5	2	2	0	9	1	28	1	0	30	0	5	9	0	14	75
08:15 AM	1	13	0	0	14	8	12	1	0	21	2	26	2	0	30	1	2	9	0	12	77
08:30 AM	1	22	0	0	23	2	13	0	0	15	4	21	0	0	25	1	4	6	0	11	74
08:45 AM	0	7	1	0	8	5	10	5	0	20	4	20	0	0	24	3	3	5	0	11	63
Total	4	61	2	0	67	20	37	8	0	65	11	95	3	0	109	5	14	29	0	48	289
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : Burke_Street_and_Brookstown_Avenue
Site Code : 2100861
Start Date : 1/25/2022
Page No : 2

Groups Printed- Cars - Buses - Trucks

	Burke Street Southbound					Brookstown Avenue Westbound					Burke Street Northbound					Brookstown Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 PM	4	26	2	0	32	8	9	2	0	19	3	24	6	0	33	1	5	6	0	12	96
04:15 PM	2	29	2	0	33	6	8	3	0	17	7	26	1	0	34	0	8	9	0	17	101
04:30 PM	1	24	3	0	28	5	8	1	0	14	10	30	6	0	46	1	5	7	0	13	101
04:45 PM	2	46	1	0	49	6	10	2	0	18	8	34	6	0	48	2	4	14	0	20	135
Total	9	125	8	0	142	25	35	8	0	68	28	114	19	0	161	4	22	36	0	62	433
05:00 PM	2	39	0	0	41	9	10	2	0	21	9	26	7	0	42	0	5	17	0	22	126
05:15 PM	0	43	1	0	44	2	6	3	0	11	7	47	5	0	59	0	2	11	0	13	127
05:30 PM	1	38	1	0	40	8	17	3	0	28	11	36	5	0	52	0	4	15	0	19	139
05:45 PM	2	26	2	0	30	12	10	7	0	29	12	30	5	0	47	0	3	6	0	9	115
Total	5	146	4	0	155	31	43	15	0	89	39	139	22	0	200	0	14	49	0	63	507
Grand Total	19	379	17	0	415	90	132	33	0	255	83	404	46	0	533	13	59	133	0	205	1408
Apprch %	4.6	91.3	4.1	0		35.3	51.8	12.9	0		15.6	75.8	8.6	0		6.3	28.8	64.9	0		
Total %	1.3	26.9	1.2	0	29.5	6.4	9.4	2.3	0	18.1	5.9	28.7	3.3	0	37.9	0.9	4.2	9.4	0	14.6	
Cars	18	374	14	0	406	89	128	32	0	249	81	392	46	0	519	12	58	132	0	202	1376
% Cars	94.7	98.7	82.4	0	97.8	98.9	97	97	0	97.6	97.6	97	100	0	97.4	92.3	98.3	99.2	0	98.5	97.7
Buses	0	1	0	0	1	0	1	0	0	1	0	6	0	0	6	0	0	0	0	0	8
% Buses	0	0.3	0	0	0.2	0	0.8	0	0	0.4	0	1.5	0	0	1.1	0	0	0	0	0	0.6
Trucks	1	4	3	0	8	1	3	1	0	5	2	6	0	0	8	1	1	1	0	3	24
% Trucks	5.3	1.1	17.6	0	1.9	1.1	2.3	3	0	2	2.4	1.5	0	0	1.5	7.7	1.7	0.8	0	1.5	1.7

DAVENPORT

119 Brookstown Ave., Suite PH1,
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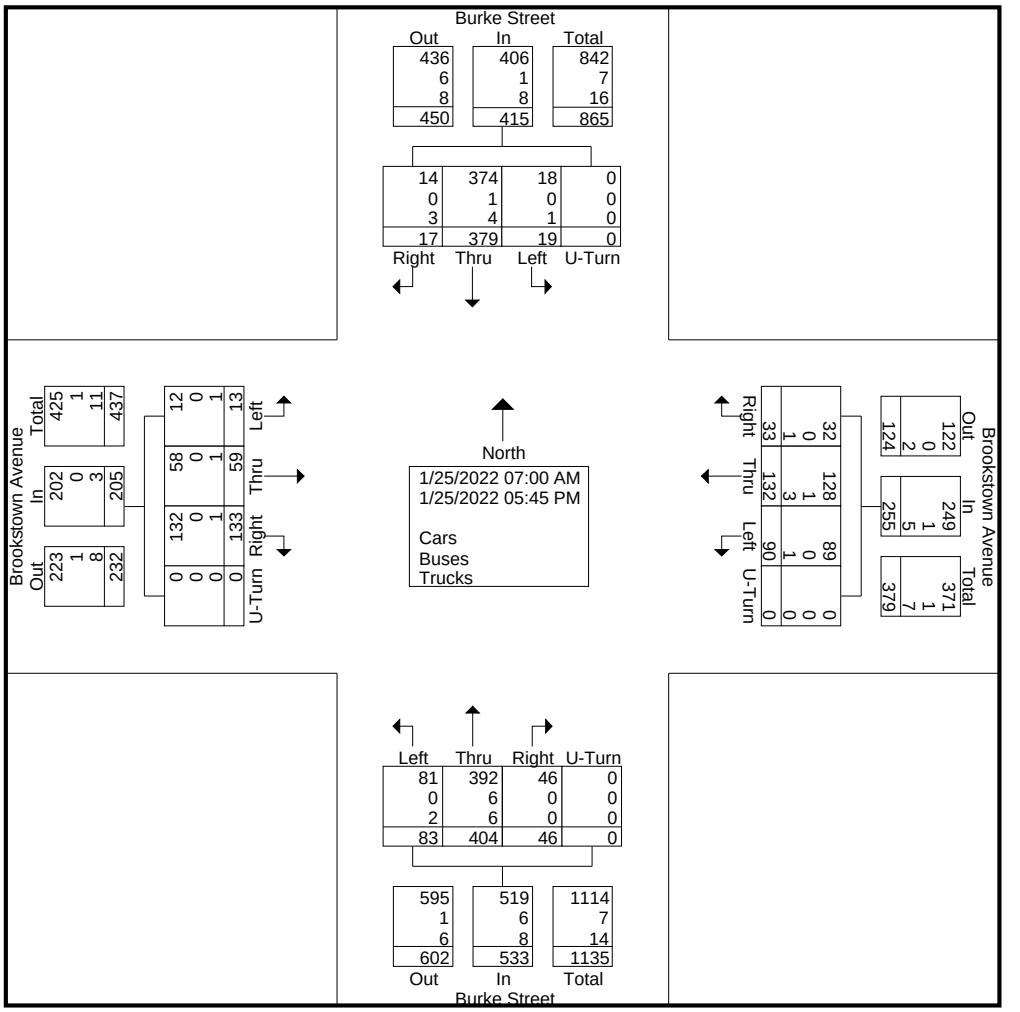
Ph: (336)744-1636

File Name : Burke_Street_and_Brookstown_Avenue
Site Code : 2100861
Start Date : 1/25/2022
Page No : 3

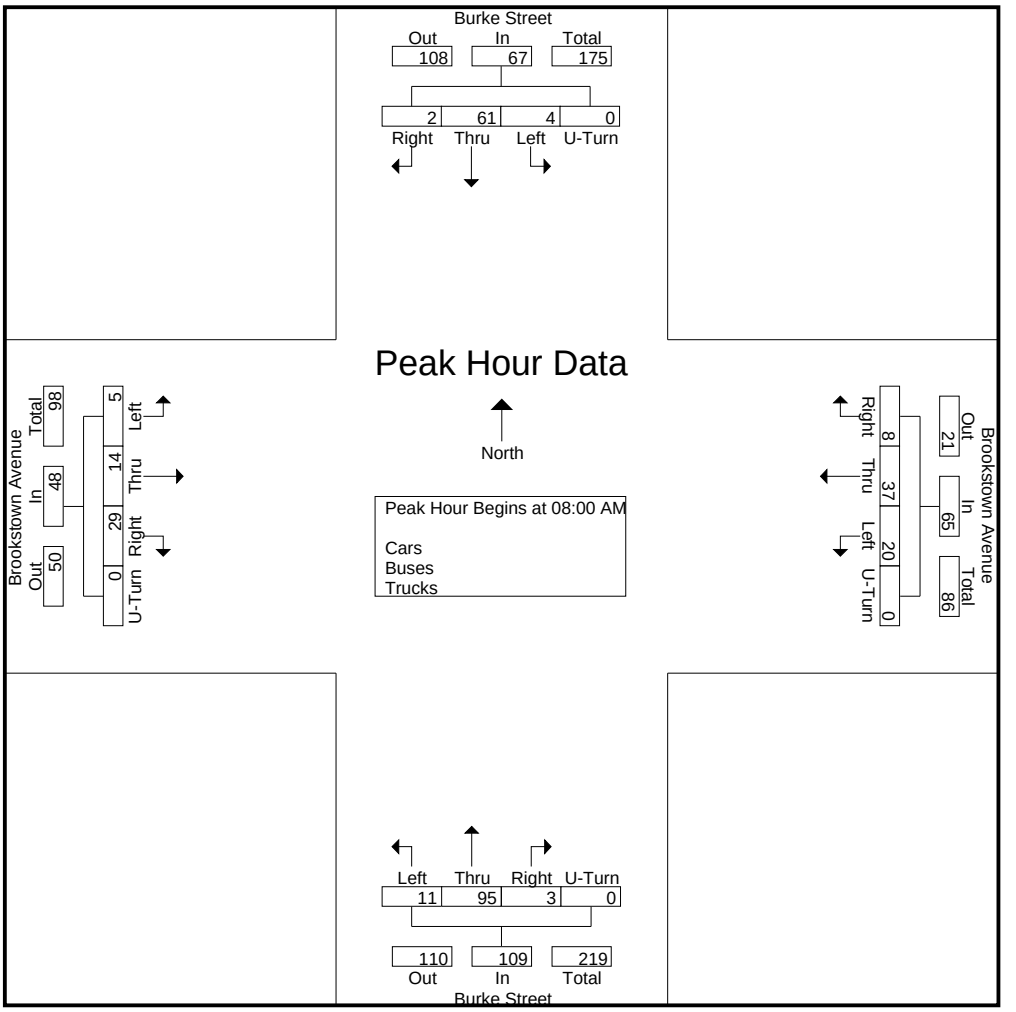


DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : Burke_Street_and_Brookstown_Avenue
Site Code : 2100861
Start Date : 1/25/2022
Page No : 4

	Burke Street Southbound					Brookstown Avenue Westbound					Burke Street Northbound					Brookstown Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**2**	19	**1**	0	22	5	2	2	0	9	1	**28**	1	0	**30**	0	**5**	**9**	0	**14**	75
08:15 AM	1	13	0	0	14	**8**	12	1	0	**21**	2	26	**2**	0	30	1	2	9	0	12	**77**
08:30 AM	1	**22**	0	0	**23**	2	**13**	0	0	15	**4**	21	0	0	25	1	4	6	0	11	74
08:45 AM	0	7	1	0	8	5	10	**5**	0	20	4	20	0	0	24	**3**	3	5	0	11	63
Total Volume	4	61	2	0	67	20	37	8	0	65	11	95	3	0	109	5	14	29	0	48	289
% App. Total	6	91	3	0		30.8	56.9	12.3	0		10.1	87.2	2.8	0		10.4	29.2	60.4	0		
PHF	.500	.693	.500	.000	.728	.625	.712	.400	.000	.774	.688	.848	.375	.000	.908	.417	.700	.806	.000	.857	.938

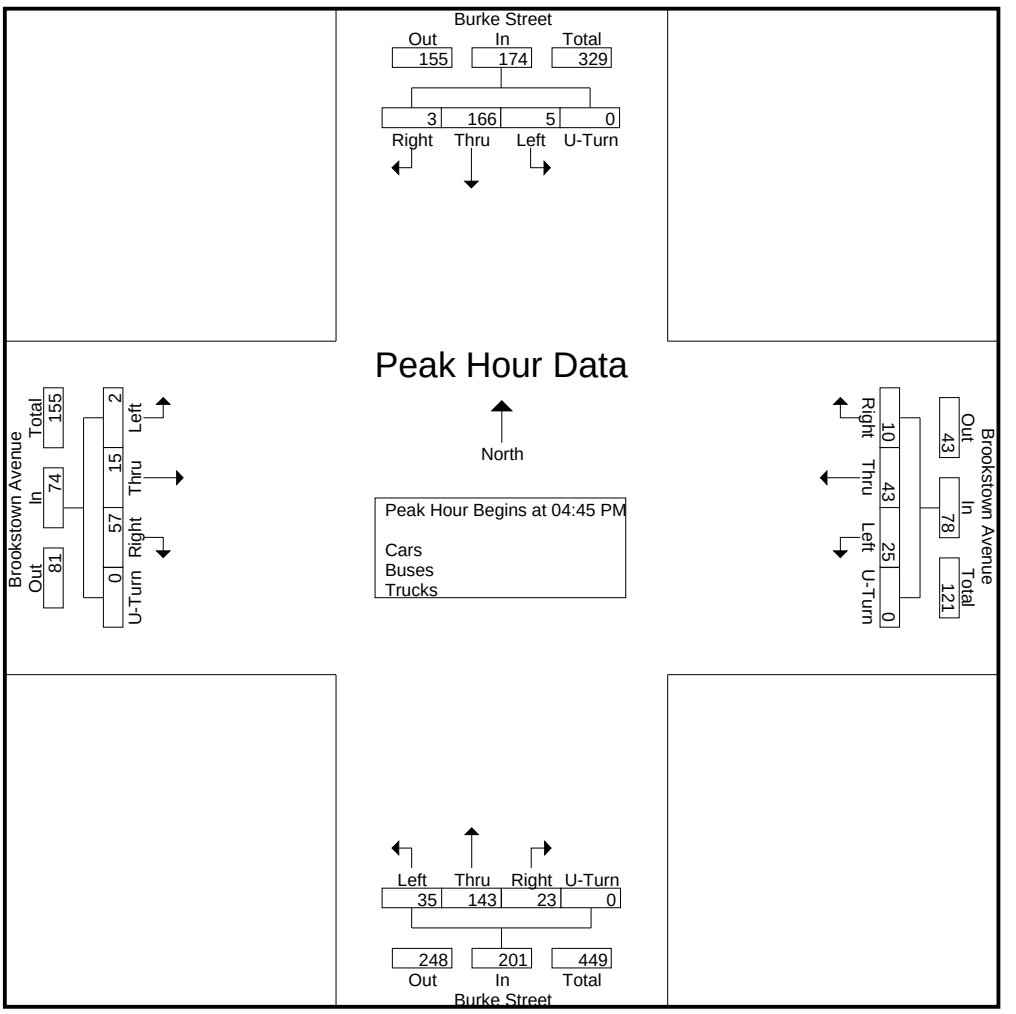


DAVENPORT

119 Brookstown Ave., Suite PH1,
Winston Salem NC, 27101
Ph: (336)744-1636

File Name : Burke_Street_and_Brookstown_Avenue
Site Code : 2100861
Start Date : 1/25/2022
Page No : 5

	Burke Street Southbound					Brookstown Avenue Westbound					Burke Street Northbound					Brookstown Avenue Eastbound					
Start Time	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Left	Thru	Right	U-Turn	App. Total	Int. Total
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
04:45 PM	**2**	**46**	**1**	0	**49**	6	10	2	0	18	8	34	6	0	48	**2**	4	14	0	20	135
05:00 PM	2	39	0	0	41	**9**	10	2	0	21	9	26	**7**	0	42	0	**5**	**17**	0	**22**	126
05:15 PM	0	43	1	0	44	2	6	**3**	0	11	7	**47**	5	0	**59**	0	2	11	0	13	127
05:30 PM	1	38	1	0	40	8	**17**	3	0	**28**	**11**	36	5	0	52	0	4	15	0	19	**139**
Total Volume	5	166	3	0	174	25	43	10	0	78	35	143	23	0	201	2	15	57	0	74	527
% App. Total	2.9	95.4	1.7	0		32.1	55.1	12.8	0		17.4	71.1	11.4	0		2.7	20.3	77	0		
PHF	.625	.902	.750	.000	.888	.694	.632	.833	.000	.696	.795	.761	.821	.000	.852	.250	.750	.838	.000	.841	.948



100

Broad Street at Second Street											
AM Peak	2040 Rerouted Base	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	950	634			634	13	647		10%	10	657
EBT	440	294			294	11	305		15%	14	319
EBR	10	7			7	49	56			0	56
WBL	0	0			0		0			0	0
WBT	0	0			0		0			0	0
WBR	0	0			0		0			0	0
NBL	0	0			0		0			0	0
NBT	200	171	352		523		523			0	523
NBR	170	145			145		145			0	145
SBL	70	60	-60		0		0			0	0
SBT	249	212	60	2	274	5	279			0	279
SBR	487	415	14		429		429	10%		3	432
Total	2576	1938	366	2	2306	78	2384	10%	25%	27	2411

200

First Street at Peters Creek Parkway/Second Street											
AM Peak	2040 Rerouted Base	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	203	136			136	2	138		15%	14	152
EBT	68	46			46		46		20%	19	65
EBR	60	41			41		41		10%	10	51
WBL	433	289	26		315	26	341			0	341
WBT	106	71			71	4	75	33%		9	84
WBR	10	7			7	15	22	2%		1	23
NBL	80	63			63		63	27%		8	71
NBT	1708	1341	-586		755	9	764	3%		1	765
NBR	3	2	586		588		588			0	588
SBL	0	0			0		0			0	0
SBT	487	326			326	0	326		20%	19	345
SBR	54	37			37		37			0	37
Total	3210	2359	26	0	2385	56	2441	65%	65%	80	2521

300

Broad Street at First Street											
AM Peak	2040 Rerouted Base	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	0	0	352		352		352			0	352
EBT	0	0	234		234		234		15%	14	248
EBR	70	47	1		48		48		5%	5	53
WBL	130	87			87		87			0	87
WBT	410	274			274	8	282	30%		8	290
WBR	80	54			54		54			0	54
NBL	110	94			94	2	96	5%		1	97
NBT	290	247	15		262		262			0	262
NBR	0	0			0		0			0	0
SBL	0	0	60		60	11	71			0	71
SBT	230	196			196	7	203			0	203
SBR	29	25			25	36	61			0	61
Total	1349	1024	662	0	1686	63	1750	35%	20%	29	1779

400

Second Street at Brookstown Avenue											
AM Peak	2040 Rerouted Base	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	64	55			55	1	56		10%	10	66
EBT		0			0		0			0	0
EBR	11	10			10		10		20%	19	29
WBL		0			0		0			0	0
WBT		0			0		0			0	0
WBR		0			0		0			0	0
NBL	21	18			18	1	19	5%		1	20
NBT		880			880	73	953		15%	14	967
NBR		0			0		0			0	0
SBL		0			0		0			0	0
SBT		339	14		353		353			0	353
SBR	89	76			76		76	10%		3	79
Total	185	1378	14	0	1392	75	1467	15%	45%	47	1514

500

First Street at Fayette Street											
AM Peak	2022 TMC	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	2	3	1		4		4	10%		3	7
EBT		196	0	0	196	2	198			0	198
EBR		0			0		0			0	0
WBL		0			0		0			0	0
WBT		130	0	0	130	4	134			0	134
WBR	39	41			41		41	60%		17	58
NBL		0			0		0			0	0
NBT		0			0		0			0	0
NBR		0			0		0			0	0
SBL	25	27			27		27		45%	43	70
SBT		0			0		0			0	0
SBR	1	2	2		4		4		10%	10	14
Total	67	399	3	0	402	6	408	70%	55%	72	480

600

Burke Street at Brookstown Avenue											
AM Peak	2022 TMC	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	5	6			6		6			0	6
EBT	14	15			15		15	2%		1	16
EBR	29	31			31		31			0	31
WBL	20	21			21		21			0	21
WBT	37	39			39		39		2%	2	41
WBR	8	9			9		9		10%	10	19
NBL	11	12			12		12			0	12
NBT	95	99			99		99			0	99
NBR	3	4			4		4			0	4
SBL	4	5			5		5	10%		3	8
SBT	61	64			64		64			0	64
SBR	2	3			3		3			0	3
Total	289	308	0	0	308	0	308	12%	12%	15	323

700

Brookstown Avenue at Site Access 1											
AM Peak	2022 TMC	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	[redacted]	0			0		0			0	0
EBT		65			65	1	66			0	66
EBR		0			0		0	12%		3	3
WBL		0			0		0	15%		4	4
WBT		94			94	1	95			0	95
WBR		0			0		0			0	0
NBL		0			0		0		12%	11	11
NBT		0			0		0			0	0
NBR		0			0		0		30%	29	29
SBL		0			0		0			0	0
SBT		0			0		0			0	0
SBR		0			0		0			0	0
Total	0	159	0	0	159	2	161	27%	42%	47	208

800

Fayette Street at Site Access 2											
AM Peak	2022 TMC	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	[redacted]	0			0		0			0	0
EBT		0			0		0			0	0
EBR		0			0		0			0	0
WBL		0			0		0		55%	52	52
WBT		0			0		0			0	0
WBR		0			0		0		3%	3	3
NBL		0			0		0			0	0
NBT		44			44	0	44			0	44
NBR		0			0		0	70%		20	20
SBL		0			0		0	3%		1	1
SBT		29			29	0	29			0	29
SBR		0			0		0			0	0
Total	0	73	0	0	73	0	73	73%	58%	76	149

100

North Broad Street at Second Street											
PM Peak	2040 Rerouted Base	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	780	521			521	9	530		10%	5	535
EBT	430	287			287	8	295		15%	8	303
EBR	10	7			7	34	41			0	41
WBL	0	0			0		0			0	0
WBT	0	0			0		0			0	0
WBR	0	0			0		0			0	0
NBL	0	0			0		0			0	0
NBT	130	111	172		283		283			0	283
NBR	130	111			111		111			0	111
SBL	80	69	-69		0		0			0	0
SBT	162	138	115	2	255	14	269			0	269
SBR	720	613	-46		567		567	10%		9	576
Total	2441	1857	172		2031	65	2096	10%	25%	22	2118

200

First Street at Peters Creek Parkway/Second Street											
PM Peak	2040 Rerouted Base	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	120	81			81	5	86		15%	8	94
EBT	40	27			27		27		20%	11	38
EBR	60	41			41		41		10%	5	46
WBL	740	494	69		563	18	581			0	581
WBT	191	128			128	3	131	33%		30	161
WBR	10	7			7	46	53	2%		2	55
NBL	80	63			63		63	27%		24	87
NBT	1200	943	-287		656	27	683	3%		3	686
NBR	60	48	287		335		335			0	335
SBL	0	0			0		0			0	0
SBT	710	474			474	0	474		20%	11	485
SBR	79	53			53		53			0	53
Total	3290	2359	69	0	2428	99	2527	65%	65%	93	2620

300

Broad Street at First Street											
PM Peak	2040 Rerouted Base	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	0	0	172		172		172			0	172
EBT	0	0	115		115		115		15%	8	123
EBR	100	67	8		75		75		5%	3	78
WBL	170	114			114		114			0	114
WBT	820	547			547	23	570	30%		27	597
WBR	70	47			47		47			0	47
NBL	80	69			69	7	76	5%		5	81
NBT	190	162		13	175		175			0	175
NBR	0	0			0		0			0	0
SBL	0	0	69		69	8	77			0	77
SBT	130	111			111	5	116			0	116
SBR	42	36	46		82	36	118			0	118
Total	1602	1153	410	13	1576	79	1655	35%	20%	42	1697

400

Second Street at Brookstown Avenue											
PM Peak	2040 Rerouted Base	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	93	80			80	2	82		10%	5	87
EBT		0			0		0			0	0
EBR	18	16			16		16		20%	11	27
WBL		0			0		0			0	0
WBT		0			0		0			0	0
WBR		0			0		0			0	0
NBL	10	9			9	1	10	5%		5	15
NBT		735			735	49	784		15%	8	792
NBR		0			0		0			0	0
SBL		0			0		0			0	0
SBT		557	-46		511		511			0	511
SBR	65	56			56		56	10%		9	65
Total	186	1453	-46	0	1407	52	1459	15%	45%	37	1496

500

First Street at Fayette Street											
PM Peak	2022 TMC	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	3	4			4		4	10%		9	13
EBT		99			99	5	104			0	104
EBR		0			0		0			0	0
WBL		0			0		0			0	0
WBT		216			216	3	219			0	219
WBR	26	28			28		28	60%		54	82
NBL		0			0		0			0	0
NBT		0			0		0			0	0
NBR		0			0		0			0	0
SBL	48	50			50		50		45%	24	74
SBT		0			0		0			0	0
SBR	6	7			7		7		10%	5	12
Total	83	404	0	0	404	8	412	70%	55%	92	504

600

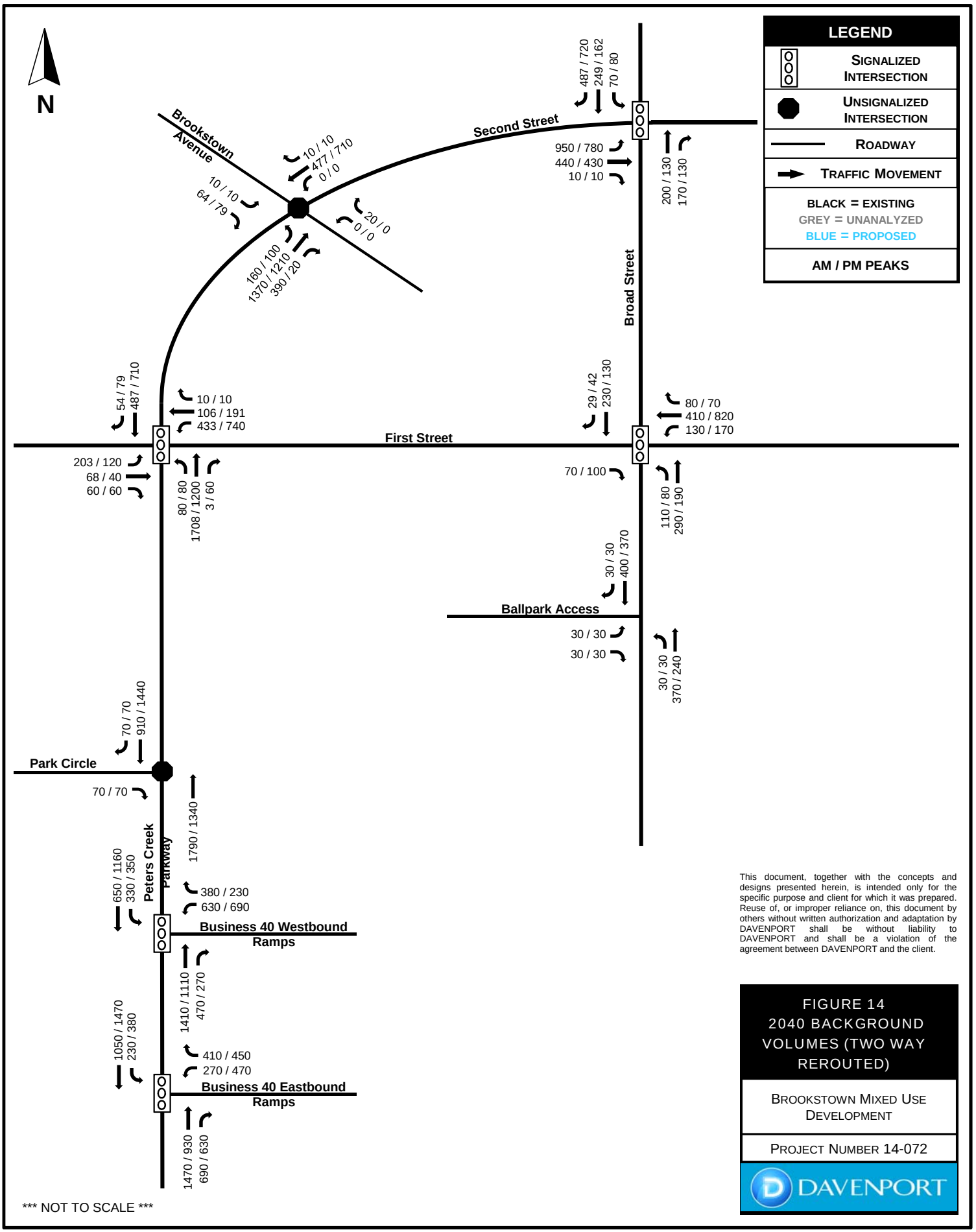
Burke Street at Brookstown Avenue											
PM Peak	2022 TMC	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	2	3			3		3			0	3
EBT	15	16			16		16	2%		2	18
EBR	57	60			60		60			0	60
WBL	25	27			27		27			0	27
WBT	43	45			45		45		2%	1	46
WBR	10	11			11		11		10%	5	16
NBL	35	37			37		37			0	37
NBT	143	149			149		149			0	149
NBR	23	24			24		24			0	24
SBL	5	6			6		6	10%		9	15
SBT	166	173			173		173			0	173
SBR	3	4			4		4			0	4
Total	527	555	0	0	555	0	555	12%	12%	17	572

700

Brookstown Avenue at Site Access 1											
PM Peak	2022 TMC	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	[redacted]	0			0		0			0	0
EBT		96			96	2	98			0	98
EBR		0			0		0	12%		11	11
WBL		0			0		0	15%		14	14
WBT		65			65	1	66			0	66
WBR		0			0		0			0	0
NBL		0			0		0		12%	6	6
NBT		0			0		0			0	0
NBR		0			0		0		30%	16	16
SBL		0			0		0			0	0
SBT		0			0		0			0	0
SBR		0			0		0			0	0
Total	0	161	0	0	161	3	164	27%	42%	47	211

800

Fayette Street at Site Access 2											
PM Peak	2022 TMC	2024 Projected	Rerouting	Balancing	2024 Base	App Dev - Easley	**2024 Future No Build**	Dist % IN	Dist % OUT	**Site Trips**	**2024 Future Build**
EBL	[redacted]	0			0		0			0	0
EBT		0			0		0			0	0
EBR		0			0		0			0	0
WBL		0			0		0		55%	29	29
WBT		0			0		0			0	0
WBR		0			0		0		3%	2	2
NBL		0			0		0			0	0
NBT		32			32	0	32			0	32
NBR		0			0		0	70%		63	63
SBL		0			0		0	3%		3	3
SBT		57			57	0	57			0	57
SBR		0			0		0			0	0
Total	0	89	0	0	89	0	89	73%	58%	96	185



*** NOT TO SCALE ***

FIGURE 14
2040 BACKGROUND VOLUMES (TWO WAY REROUTED)

BROOKSTOWN MIXED USE DEVELOPMENT

PROJECT NUMBER 14-072

DAVENPORT

MATCHLINE B - SHEET 3

MATCHLINE A - SHEET 2

Marshall St

Cherry St

Third St

Second St

Broad St

First St

Bus 40 WB Ramp

Bus 40 EB Ramp

Academy St

Peters Creek Pkwy

Wachovia St

High St

Brookstown Ave

#110 F
L - 270 (160)
R - 60 (60)
R - 10 (10)
T - 160 (270)
L - 920 (1,450)
T - 650 (1,160)
L - 330 (350)
L - 80 (80)
T - 1,710 (1,260)
R - 380 (230)
L - 630 (690)
#710 C
T - 1,410 (1,110)
R - 470 (270)

#120 B
R - 570 (1,250)
T - 140 (230)
#730 E
T - 790 (950)
L - 70 (80)
L - 950 (840)
T - 440 (460)
R - 80 (110)
T - 80 (20)
R - 170 (130)
R - 80 (70)
T - 410 (400)
L - 130 (170)
L - 110 (80)
T - 290 (190)

#130 C
R - 80 (230)
T - 550 (1,280)
T - 250 (700)
L - 110 (920)
#740 C
T - 420 (1,180)
L - 340 (130)
T - 540 (220)
R - 210 (330)
R - 350 (1,410)
T - 310 (790)
#1020 A

#140 B
R - 170 (250)
T - 100 (1,470)
#640 B
R - 110 (220)
T - 1,330 (810)
R - 10 (40)
L - 160 (110)
T - 720 (240)
#750 B
T - 1,180 (740)
R - 270 (80)
L - 260 (150)
T - 1,280 (570)
#1030 A
R - 490 (210)
T - 1,050 (510)

#700 C
T - 1,050 (1,470)
L - 230 (380)
R - 410 (450)
L - 270 (470)
150
T - 1,470 (930)
R - 690 (630)
R - 150 (220)
T - 990 (1,590)
L - 310 (310)
#690 D
R - 310 (310)
T - 110 (160)
L - 80 (120)
L - 220 (150)
T - 160 (110)
R - 190 (200)
L - 200 (190)
T - 1,590 (990)
R - 120 (80)

#800 A
R - 10 (10)
T - 240 (380)
L - 20 (10)
L - 10 (10)
T - 30 (20)
R - 10 (10)
R - 10 (20)
T - 10 (30)
L - 10 (10)
L - 10 (10)
T - 380 (240)
R - 10 (10)

#910 C
T - 70 (180)
L - 240 (610)
T - 980 (560)
R - 170 (170)
R - 50 (60)
R - 20 (20)
T - 120 (190)
L - 100 (140)
#900 B
L - 10 (10)
T - 20 (30)
R - 10 (20)
R - 20 (20)
T - 30 (20)
L - 10 (10)
L - 20 (10)
T - 20 (30)
R - 10 (10)

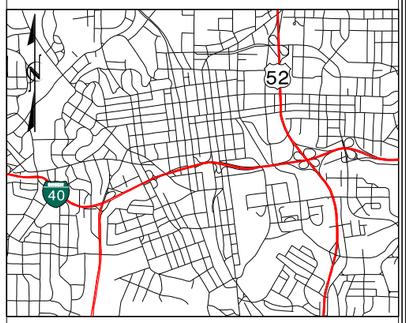
#950 F
L - 1,230 (1,190)
R - 40 (40)
T - 30 (30)
R - 30 (30)
L - 10 (10)
#940 A
R - 10 (10)
T - 160 (110)
L - 20 (20)
T - 120 (180)
#1090 A
T - 1,050 (510)
R - 210 (710)

Bus 40 EB Ramp

BUSINESS 40

Not To Scale

Forsyth County, Div. 9



2040
BUILD CONDITIONS ALTERNATIVE 1A
FIRST ST & SECOND ST ONE-WAY

PEAK HOUR TRAFFIC FLOW INTERSECTIONS

FIGURE 15 SHEET 1 OF 3

Traffic Volumes

00 AM Peak (vph)
(00) PM Peak (vph)

Control Devices

- Traffic Signal
- Roundabout
- Stop Sign

#00 Intersection Reference ID

Lane Use

- Existing
- Roadway improvements proposed by others
- Roadway improvements required by this study

Level of Service

A-D	E	F
Below capacity	At capacity	Above capacity

TIP: U-2827 B	**WBS:** 34872.1.1
COUNTY: Forsyth	**DIVISION:** 9
DATE: May 2015	
PREPARED BY: RS&H	
LOCATION: Reconstruct Business 40 between Fourth Street and Church Street	
PROJECT: Business 40 Reconstruction Study	

Supporting Documents

PROJECT REFERENCE NO.	SHEET NO.
	PMP-02
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 44249 ENGINEER TIMOTHY J. LOWE

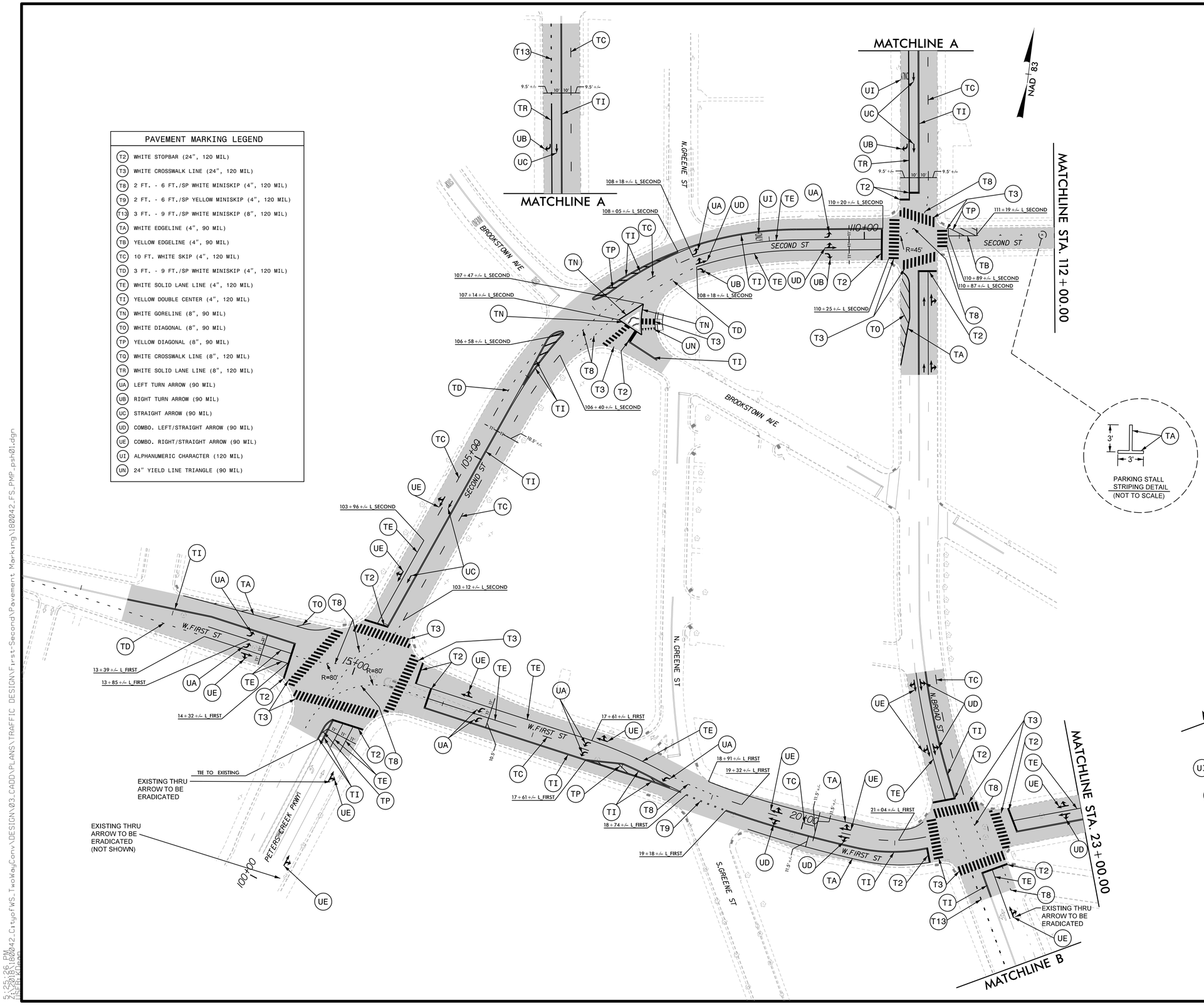
DocuSigned by: Timothy J. Lowe 11/14/2020

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

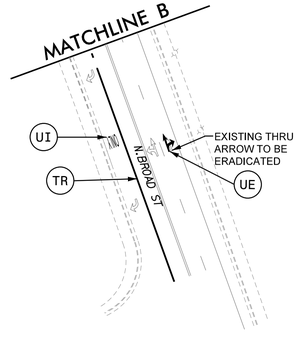
DAVENPORT
HOME OFFICE
119 BROOKSTOWN AVENUE, SUITE PH1
WINSTON-SALEM, NC 27101
336.744.1636 www.davenportworld.com
NCBELS FIRM LICENSE NO. C-2522

PAVEMENT MARKING LEGEND

T2	WHITE STOPBAR (24", 120 MIL)
T3	WHITE CROSSWALK LINE (24", 120 MIL)
T8	2 FT. - 6 FT./SP WHITE MINISKIP (4", 120 MIL)
T9	2 FT. - 6 FT./SP YELLOW MINISKIP (4", 120 MIL)
T13	3 FT. - 9 FT./SP WHITE MINISKIP (8", 120 MIL)
TA	WHITE EDGELINE (4", 90 MIL)
TB	YELLOW EDGELINE (4", 90 MIL)
TC	10 FT. WHITE SKIP (4", 120 MIL)
TD	3 FT. - 9 FT./SP WHITE MINISKIP (4", 120 MIL)
TE	WHITE SOLID LANE LINE (4", 120 MIL)
TI	YELLOW DOUBLE CENTER (4", 120 MIL)
TN	WHITE GORELINE (8", 90 MIL)
TO	WHITE DIAGONAL (8", 90 MIL)
TP	YELLOW DIAGONAL (8", 90 MIL)
TQ	WHITE CROSSWALK LINE (8", 120 MIL)
TR	WHITE SOLID LANE LINE (8", 120 MIL)
UA	LEFT TURN ARROW (90 MIL)
UB	RIGHT TURN ARROW (90 MIL)
UC	STRAIGHT ARROW (90 MIL)
UD	COMBO. LEFT/STRAIGHT ARROW (90 MIL)
UE	COMBO. RIGHT/STRAIGHT ARROW (90 MIL)
UI	ALPHANUMERIC CHARACTER (120 MIL)
UN	24" YIELD LINE TRIANGLE (90 MIL)



PARKING STALL STRIPING DETAIL
(NOT TO SCALE)



50 25 0 50 100

PLANS

5:25:26 PM
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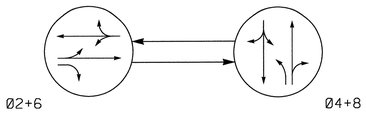
USER:RDean

PROJECT REFERENCE NO.	SHEET NO.
C-5224A	Sig. 356

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION			
SIGNAL FACE	PHASE Ø2+6	PHASE Ø4+8	FLASH
21,22	G	R	Y
41,42	R	G	R
61,62	G	R	Y
81,82	R	G	R

SIGNAL FACE I.D.

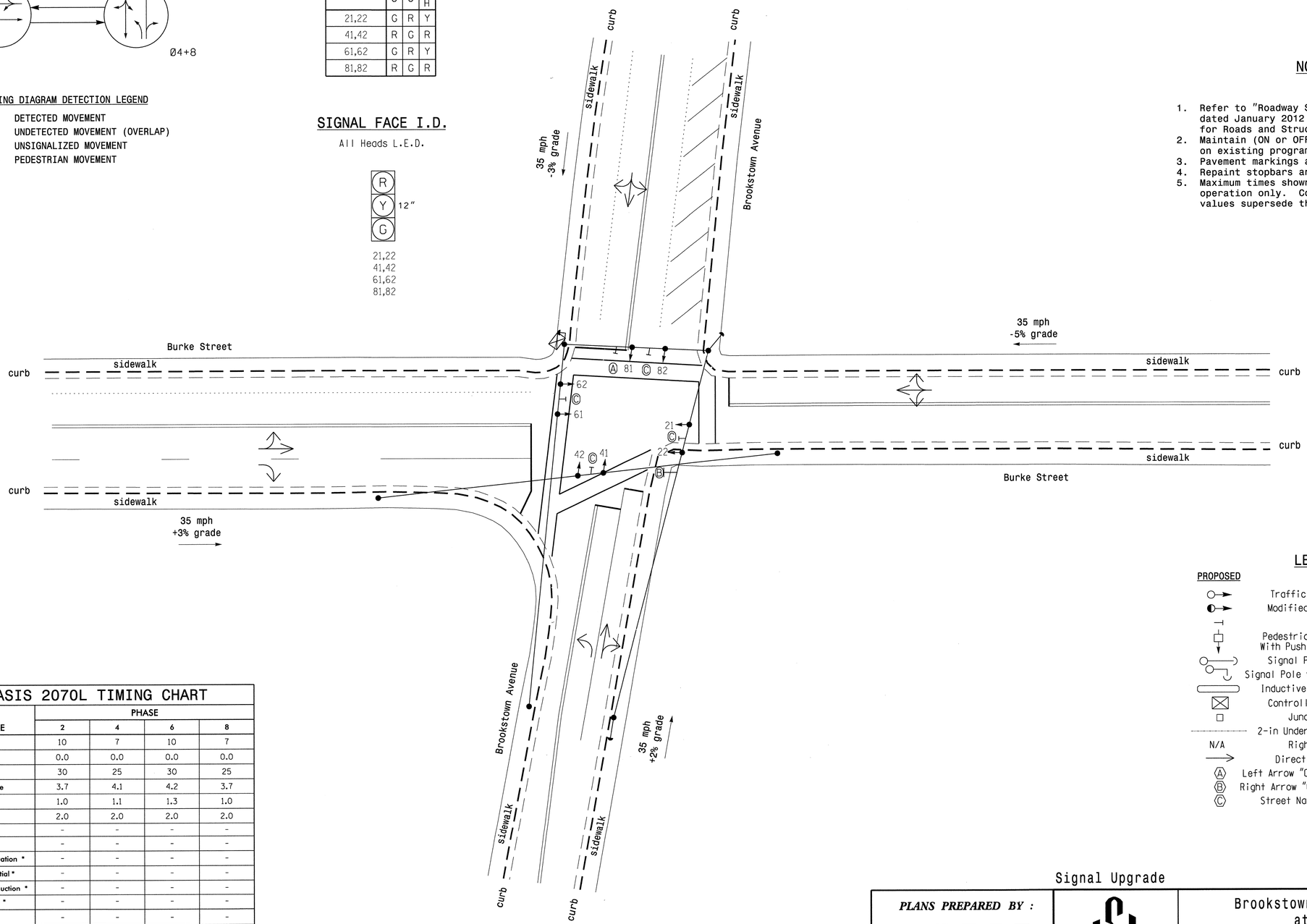
All Heads L.E.D.

21,22
41,42
61,62
81,82

2 Phase
Pretimed
(Winston-Salem Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Maintain (ON or OFF) TOD late night flash based on existing programming for this location.
3. Pavement markings are existing.
4. Repaint stopbars and/or crosswalks.
5. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



OASIS 2070L TIMING CHART				
FEATURE	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Min Green 1 *	10	7	10	7
Extension 1 *	0.0	0.0	0.0	0.0
Max Green 1 *	30	25	30	25
Yellow Clearance	3.7	4.1	4.2	3.7
Red Clearance	1.0	1.1	1.3	1.0
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	-	-	-	-
Don't Walk 1	-	-	-	-
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MAX RECALL	MAX RECALL	MAX RECALL	MAX RECALL
Vehicle Call Memory	N/A	N/A	N/A	N/A
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

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

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
Ⓐ	Left Arrow "ONLY" Sign (R3-5L)	Ⓐ
Ⓑ	Right Arrow "ONLY" Sign (R3-5R)	Ⓑ
Ⓒ	Street Name Sign (D3-1)	Ⓒ

Signal Upgrade

PLANS PREPARED BY :

RK&K

RUMMEL, KLEPPER & KAHL, LLP
900 RIDGEFIELD DRIVE SUITE 350
RALEIGH, NORTH CAROLINA 27609-3960
NC LICENSE NO. F-0112 • (919) 878-9560

Winston-Salem

SCALE 0 20 1"=20'

Brookstown Avenue
at
Burke Street

Division 09 Forsyth County Winston-Salem

PLAN DATE:	1/3/2013	REVIEWED BY:	KW Bisby
PREPARED BY:	N Harris	REVIEWED BY:	CB Holden

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 33753 ENGINEER CLIFFORD BYRON HOLDEN

SIGNATURE 1/3/2013 DATE

SIG. INVENTORY NO. C-175

2/7/2013
K:\wf_traffic\Signals\SIGNALS\Phase A\C-175.dgn
Fkeys

Intersection Inv. Number	Drop Address	Description	Port #	Developed By	Installed On
	175	Brookstown Ave & Burke St		LDW	12/11/2014

3 - PHASE TIMING - PAGE 1

(●) All phase timing information can be found in the field controller.

( ) Modify field controller timing information with provided table values.

PHASE(S)	1	2	3	4	5	6	7	8
MINIMUM GREEN 1		10		7		10		7
EXTENSION 1 (GAP 1)		0.0		0.0		0.0		0.0
MAX GREEN 1		30		25		30		25
YELLOW CLEARANCE		3.7		4.1		4.2		3.7
RED CLEARANCE		1.0		1.1		1.3		1.0
WALK 1								
DON'T WALK 1								
SECONDS PER ACTUATION								
MAX VARIABLE INITIAL								
TIME BEFORE REDUCTION								
TIME TO REDUCE								
MINIMUM GAP								
RECALL MODE		MAX				MAX		
VEHICLE CALL MEMORY		N/A				N/A		
DUAL ENTRY								
SIMULTANEOUS GAP		ON		ON		ON		ON

4 - PHASE SEQUENCE

PAGE	RING	Bar1	Bar2	Bar3	Bar4
1	R1	0200	0400	0000	0000
	R2	0600	0800	0000	0000
2	R1				
	R2				
3	R1				
	R2				
4	R1				
	R2				
5	R1				
	R2				
6	R1				
	R2				

PAGE	RING	Bar1	Bar2	Bar3	Bar4
7	R1				
	R2				
8	R1				
	R2				
9	R1				
	R2				
10	R1				
	R2				
11	R1				
	R2				
12	R1				
	R2				

COORDINATION PLANS AND TIME-OF-DAY SCHEDULE

( ) All coordination data, including splits, offsets, and schedule information can be found in the field controller.

(●) All coordination data, including splits, offsets, and schedule information should be installed as shown in the following tables.

9 - COORDINATION

PLAN #	1	2	3	4	5			9
CYCLE LENGTH	80		40	45	40			
OFFSET 1	43		32	0	24			
OFFSET 2								
OFFSET 3								
OFFSET 4								
SPLITS: PHASE 1								
PHASE 2	45		24	25	24			
PHASE 3								
PHASE 4	35		16	20	16			
PHASE 5								
PHASE 6	45		24	25	24			
PHASE 7								
PHASE 8	35		16	20	16			
COORDINATED PHASES	2…6		2…6	2…6	2…6			
OPTIONS (Y/N)								
SPLIT / TIMING IN PERCENT?	N	N	N	N	N			
PERMISSIVE MODE (0 - 4)*	0	0	0	0	0			
ENABLE TRANSITION PERMISSIVE MODE?	N	N	N	N	N			
ADJUST NON-COORDINATED SPLITS?	Y	Y	Y	Y	Y			
CYCLE ONCE PER CYCLE LENGTH?	Y	Y	Y	Y	Y			
ACTIVE PAGES								
PHASE SEQUENCE PAGE (1-12)	1	1	1	1	1			
PHASE TIMING PAGE (1-4)	1	1	1	1	1			
PHASE CONTROL PAGE (1-4)	1	1	1	1	1			
OVERLAP CONTROL PAGE (1-4)	1	1	1	1	1			
INPUT PAGE (1-4)	1	1	1	1	1			
OUTPUT PAGE (1-4)	1	1	1	1	1			

B - SCHEDULING

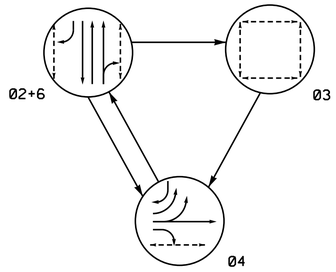
Event #	DATE Start	DATE End	TIME Start	TIME End	PRIORITY L-M-H	PLAN #	OFFSET #	DAY OF WEEK S	M	T	W	TH	F	S
1	1/1	12/31	6:30	7:00	L	4	1		X	X	X	X	X	
2	1/1	12/31	7:00	9:00	L	9	1		X	X	X	X	X	
3	1/1	12/31	9:00	11:30	L	3	1		X	X	X	X	X	
4	1/1	12/31	11:30	16:30	L	4	1		X	X	X	X	X	
5	1/1	12/31	16:30	19:00	L	5	1		X	X	X	X	X	
6	1/1	12/31	19:00	6:30	L	1	1		X	X	X	X	X	
7														
8	1/1	12/31	8:00	19:00	L	4	1							X
9	1/1	12/31	19:00	10:00	L	1	1							X
10	1/1	12/31	10:00	18:00	L	4	1	X						
11	1/1	12/31	18:00	6:30	L	1	1	X						
12														
13														
14														
15														
16														
17														
18														
19														
20														
21														
22														

Notes: HOLIDAY SCHEDULE - PROGRAM EVENTS AS PRIORITY LEVEL 2 (MED)

*PERMISSIVE MODE			
	0 = AUTO	2 = MANUAL	4 = WALK
	1 = OPEN	3 = WINDOW	

PROJECT REFERENCE NO.	SHEET NO.
	Sig. 6.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

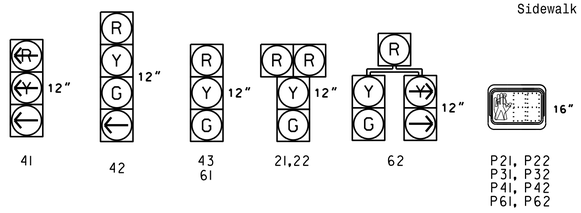
TABLE OF OPERATION

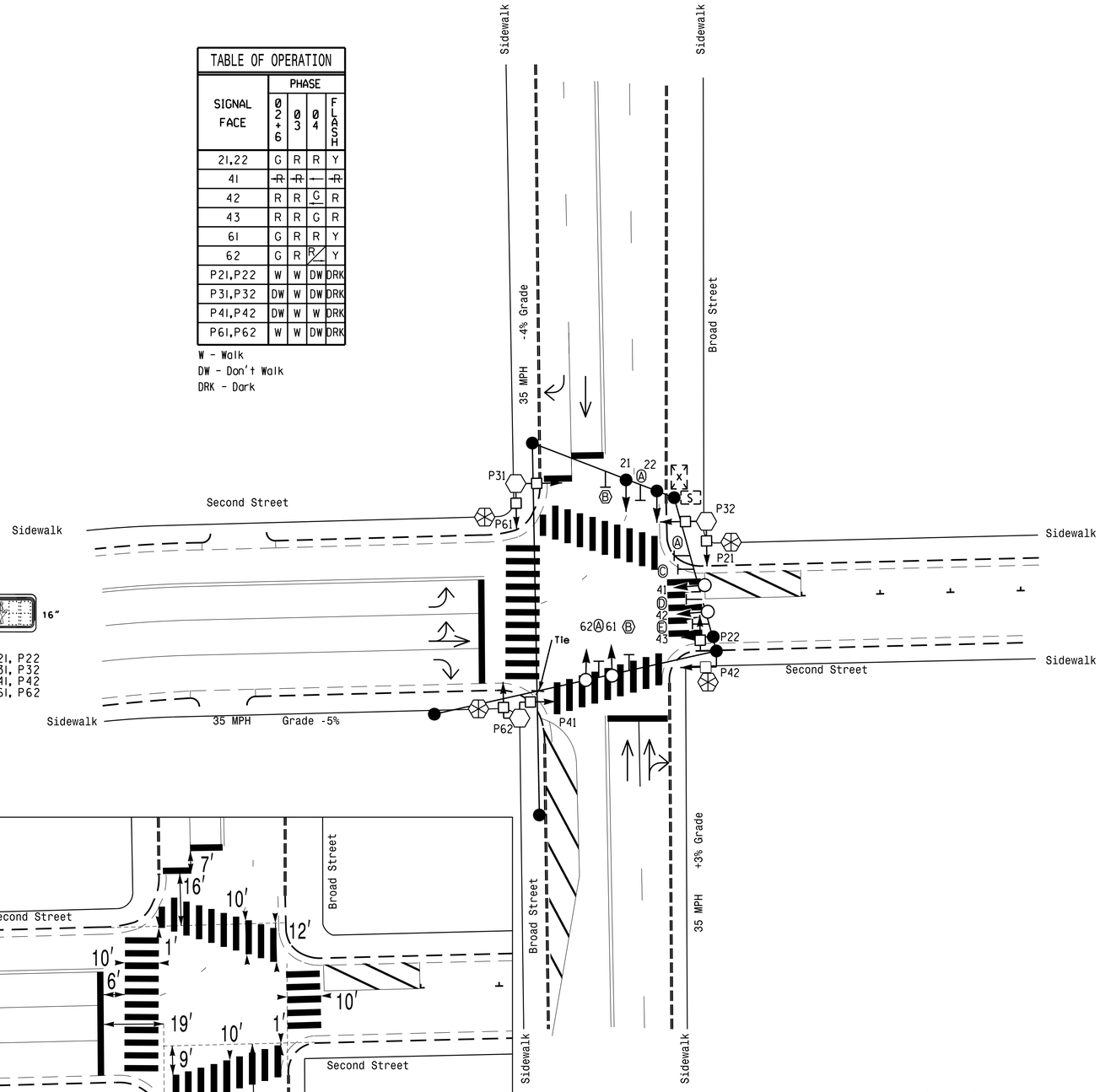
SIGNAL FACE	PHASE 02+6	PHASE 03	PHASE 04	FLASH
21,22	G	R	R	Y
41	~~R~~	~~R~~	—	~~R~~
42	R	R	G	R
43	R	R	G	R
61	G	R	R	Y
62	G	R	R	Y
P21,P22	W	W	DW	DRK
P31,P32	DW	W	DW	DRK
P41,P42	DW	W	W	DRK
P61,P62	W	W	DW	DRK

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

SIGNAL FACE I.D.

All Heads L.E.D.

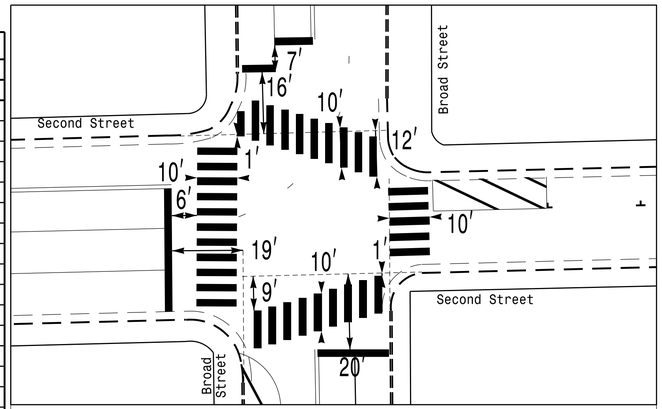




OASIS 2070L TIMING CHART

FEATURE	PHASE 2	PHASE 3	PHASE 4	PHASE 6
Min Green 1 *	10	7	7	10
Extension 1 *	0.0	0.0	0.0	0.0
Max Green 1 *	32	15	24	32
Yellow Clearance	3.7	3.0	4.2	4.1
Red Clearance	1.0	1.0	1.2	1.4
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	7	4	4	7
Don't Walk 1	5	9	9	12
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MAX RECALL	-	MAX RECALL	MAX RECALL
Vehicle Call Memory	-	-	-	-
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

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



PROPOSED STOP BAR AND CROSSWALK DIAGRAM
NOT TO SCALE

3 Phase w/ Exclusive Ped Phase
Pretimed
(Winston-Salem Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Maintain (ON or OFF) TOD late night flash based on existing programming for this location
3. The order of phase 3 and phase 4 may be reversed.
4. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
5. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
6. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
□↓	Pedestrian Signal Head With Push Button & Sign	■↓
○↓	Signal Pole with Guy	●↓
○↓	Signal Pole with Sidewalk Guy	●↓
▭	Inductive Loop Detector	▭
⊠	Controller & Cabinet	⊠
□	Junction Box	■
S	Splice Box	S
·····	2-in Underground Conduit	·····
N/A	Right of Way	-----
→	Directional Arrow	→
⊛	Type I Pushbutton Post	⊛
⬡	Type II Signal Pedestal	⬢
Ⓐ	Street Name Sign	Ⓐ
Ⓑ	No Left Turn Sign (R3-2)	Ⓑ
Ⓒ	Left Arrow "ONLY" Sign (R3-5L)	Ⓒ
Ⓓ	Combined Through and Left Arrow Sign (R3-6L)	Ⓓ
Ⓔ	Right Arrow "ONLY" Sign (R3-5R)	Ⓔ

Project #: 180042

DAVENPORT
HOME OFFICE:
119 BROOKSTOWN AVENUE, SUITE PH1
WINSTON-SALEM, NC 27101
336.744.1636 www.davenportworld.com
NCBELS FIRM LICENSE NO. C-2522

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared For:
Winston-Salem
100 E. First St. W-S, NC

Broad Street
at
Second Street

Division 9 Forsyth County Winston-Salem

PLAN DATE:	January 2020	REVIEWED BY:	A Hayes
PREPARED BY:	TS Warren	REVIEWED BY:	R Hinshaw

REVISIONS	INIT.	DATE

SCALE 0 20 1" = 20'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 044157 ENGINEER ANDREW D HAYES

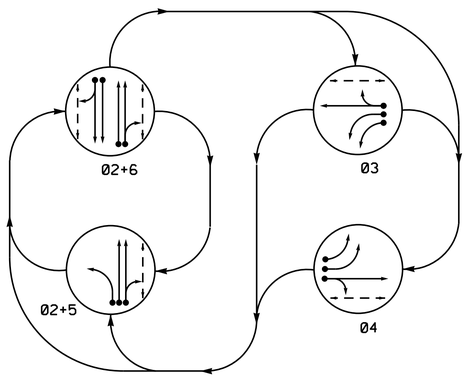
DocuSigned by: Andrew Hayes 01/09/2020
SIGNATURE DATE

SIG. INVENTORY NO. C-183

$$$$USERNAME$$$$
$$$$DGN$$$$
$$$$FILENAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
	Sig. 5.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

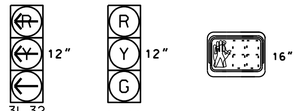
TABLE OF OPERATION

SIGNAL FACE	PHASE 02+5	PHASE 02+6	PHASE 03	PHASE 04	PHASE FLASH
21,22	G	G	R	R	Y
31,32	~~R~~	~~R~~	←	~~R~~	~~R~~
33,34	R	R	G	R	R
41,42	R	R	R	←	R
43,44	R	R	R	G	R
51	←	~~R~~	~~R~~	~~R~~	~~R~~
61,62	R	G	R	R	Y
P21,P22	W	W	DW	DW	DRK
P31,P32	DW	DW	W	DW	DRK
P41,P42	DW	DW	DW	W	DRK
P61,P62	DW	W	DW	DW	DRK

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

SIGNAL FACE I.D.

All Heads L.E.D.



31, 32
41, 42
51

21, 22
33, 34
43, 44
61, 62

P21, P22
P31, P32
P41, P42
P61, P62

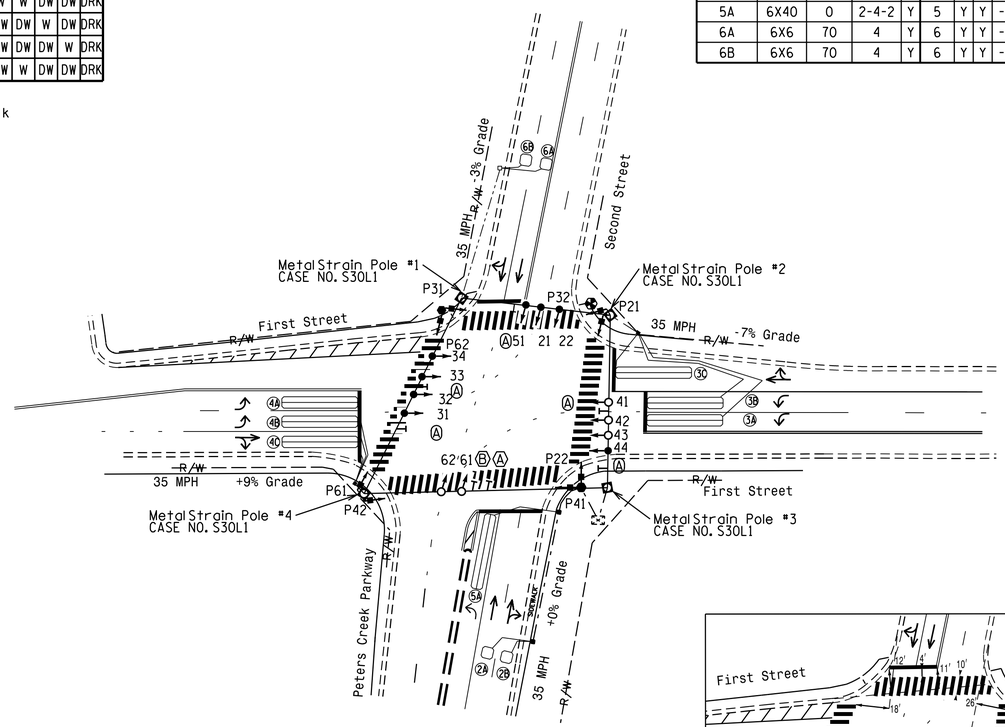
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

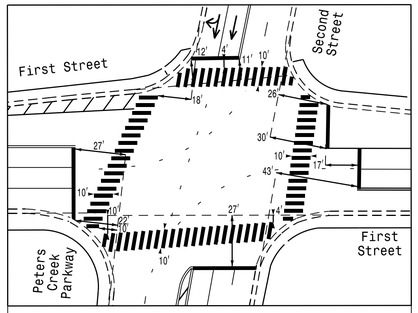
INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
2A	6X6	70	3	Y	2	Y	Y	-	-	-	-	-
2B	6X6	70	3	Y	2	Y	Y	-	-	-	-	-
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	3	-	-
3B	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
3C	6X40	0	2-4-2	Y	3	Y	Y	-	-	10	-	Y
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	3	-	-
4B	6X40	0	2-4-2	Y	4	Y	Y	-	-	-	-	-
4C	6X40	0	2-4-2	Y	4	Y	Y	-	-	10	-	-
5A	6X40	0	2-4-2	Y	5	Y	Y	-	-	-	-	-
6A	6X6	70	4	Y	6	Y	Y	-	-	-	-	-
6B	6X6	70	4	Y	6	Y	Y	-	-	-	-	-

4 Phase
Fully Actuated
(Winston-Salem Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Maintain (ON or OFF) TOD late night flash based on existing programming for this location.
3. The order of phase 3 and phase 4 may be reversed.
4. Reposition existing signal heads numbered 31 and 32.
5. Set all detector units to presence mode.
6. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
7. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
8. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.





PROPOSED STOP BAR AND CROSSWALK LOCATION DIAGRAM

LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
□↓	Pedestrian Signal Head With Push Button & Sign	■↓
▣	Metal Strain Pole	▣
⬡	Type II Signal Pedestal	⬢
⊛	Type I Pushbutton Post	⊛
▭	Inductive Loop Detector	▭
⊠	Controller & Cabinet	⊠
□	Junction Box	■
----	2-in Underground Conduit	----
N/A	Right of Way	----
→	Directional Arrow	→
Ⓐ	Street Name Sign (D3-1)	Ⓐ
Ⓑ	No Left Turn Sign (R3-2)	Ⓑ

OASIS 2070 TIMING CHART

FEATURE	PHASE 2	PHASE 3	PHASE 4	PHASE 5	PHASE 6
Min Green 1 *	10	7	7	7	10
Extension 1 *	3.0	2.0	2.0	2.0	3.0
Max Green 1 *	60	40	40	20	60
Yellow Clearance	3.8	4.4	3.4	3.0	4.1
Red Clearance	1.9	2.4	3.0	2.6	2.0
Red Revert	2.0	2.0	2.0	2.0	2.0
Walk 1 *	7	5	5	-	7
Don't Walk 1	17	16	26	-	22
Seconds Per Actuation *	-	-	-	-	-
Max Variable Initial *	-	-	-	-	-
Time Before Reduction *	-	-	-	-	-
Time To Reduce *	-	-	-	-	-
Minimum Gap	-	-	-	-	-
Recall Mode	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON	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.

$$$$USERNAME$$$$
$$$$DGN$$$$
$$$$FILENAME$$$$
$$$$USERNAME$$$$
$$$$DATE/TIME$$$$

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Project #: 180042

DAVENPORT
HOME OFFICE:
119 BROOKSTOWN AVENUE, SUITE PH1
WINSTON-SALEM, NC 27101
336.744.1636 www.davenportworld.com
NCBELS FIRM LICENSE NO. C-2522

Prepared For:
Winston-Salem
100 E. First St. W-S, NC

First Street
at
Second Street / Peters Creek Parkway
Division 9 Forsyth County Winston-Salem

PLAN DATE:	January 2020	REVIEWED BY:	R. Hinshaw
PREPARED BY:	A. Hayes	REVIEWED BY:	

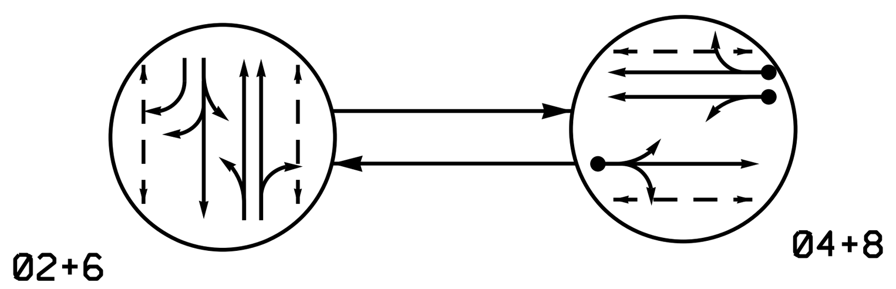
REVISIONS	INIT.	DATE

SCALE 0 40 1"=40'

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 044157 ENGINEER ANDREW D HAYES
DocuSigned by: Andrew Hayes
01/09/2020
SIGNATURE DATE
SIG. INVENTORY NO. C-193

PROJECT REFERENCE NO.	SHEET NO.
	Sig. 4.0

PHASING DIAGRAM



PHASING DIAGRAM DETECTION LEGEND

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

TABLE OF OPERATION

SIGNAL FACE	PHASE Ø2+6	PHASE Ø4+8	FLASH
21,22	G	R	Y
41,42	R	G	R
61,62	G	R	Y
81,82	R	G	R
P21,P22	W	DW	DRK
P41,P42	DW	W	DRK
P61,P62	W	DW	DRK
P81,P82	DW	W	DRK

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

SIGNAL FACE I.D.

All Heads L.E.D.

12" — 21, 22; 61, 62; 81, 82

12" — 41,42

16" — P21, P22; P41, P42; P61, P62; P81, P82

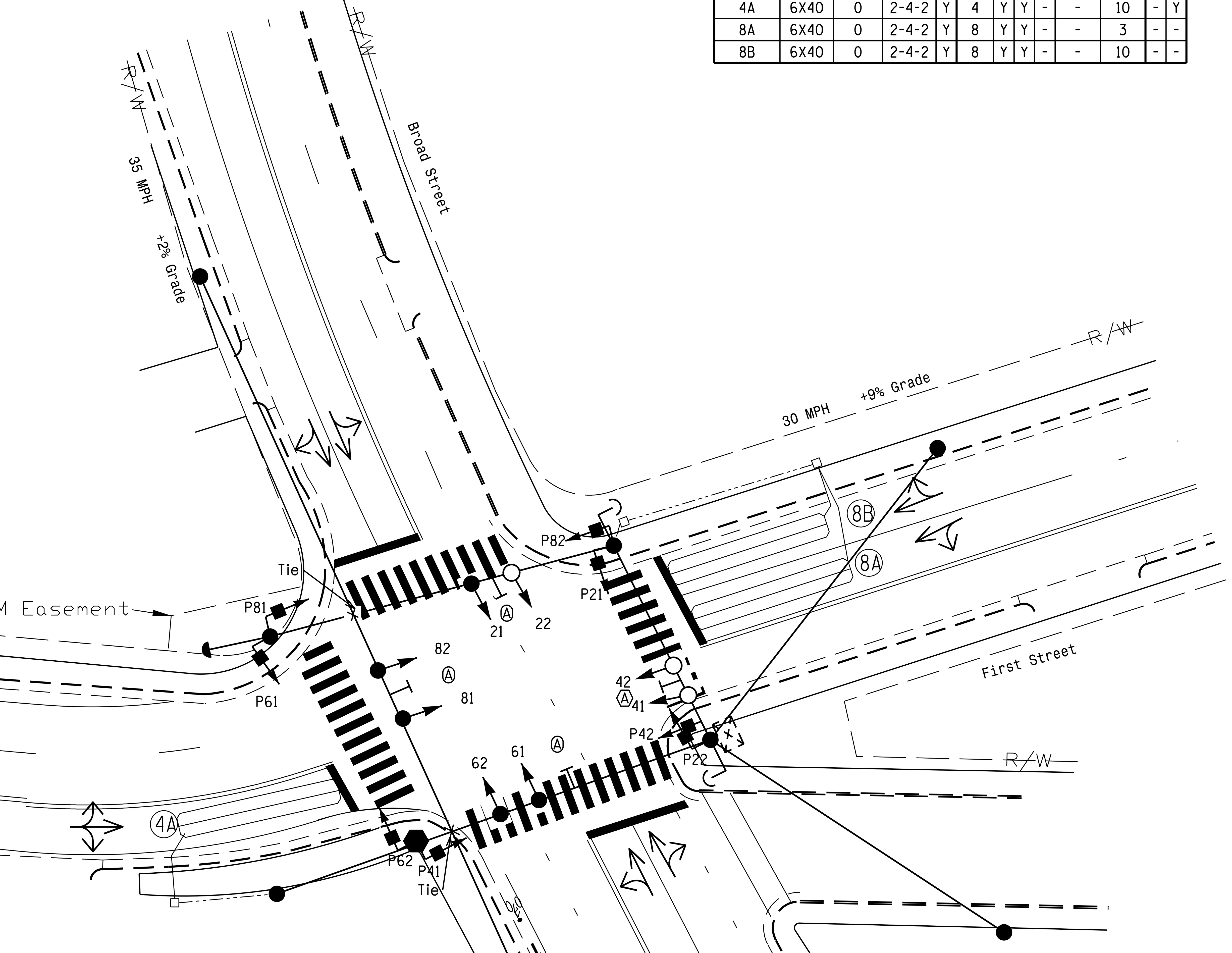
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
4A	6X40	0	2-4-2	Y	4	Y	Y	-	-	10	-	Y
8A	6X40	0	2-4-2	Y	8	Y	Y	-	-	3	-	-
8B	6X40	0	2-4-2	Y	8	Y	Y	-	-	10	-	-

2 Phase
Semi-Actuated
(Winston-Salem Signal System)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2018 and "Standard Specifications for Roads and Structures" dated January 2018.
2. Maintain (ON or OFF) TOD late night flash based on existing programming for this location.
3. Reposition existing signal heads numbered 81 and 82.
4. Set all detector units to presence mode.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.



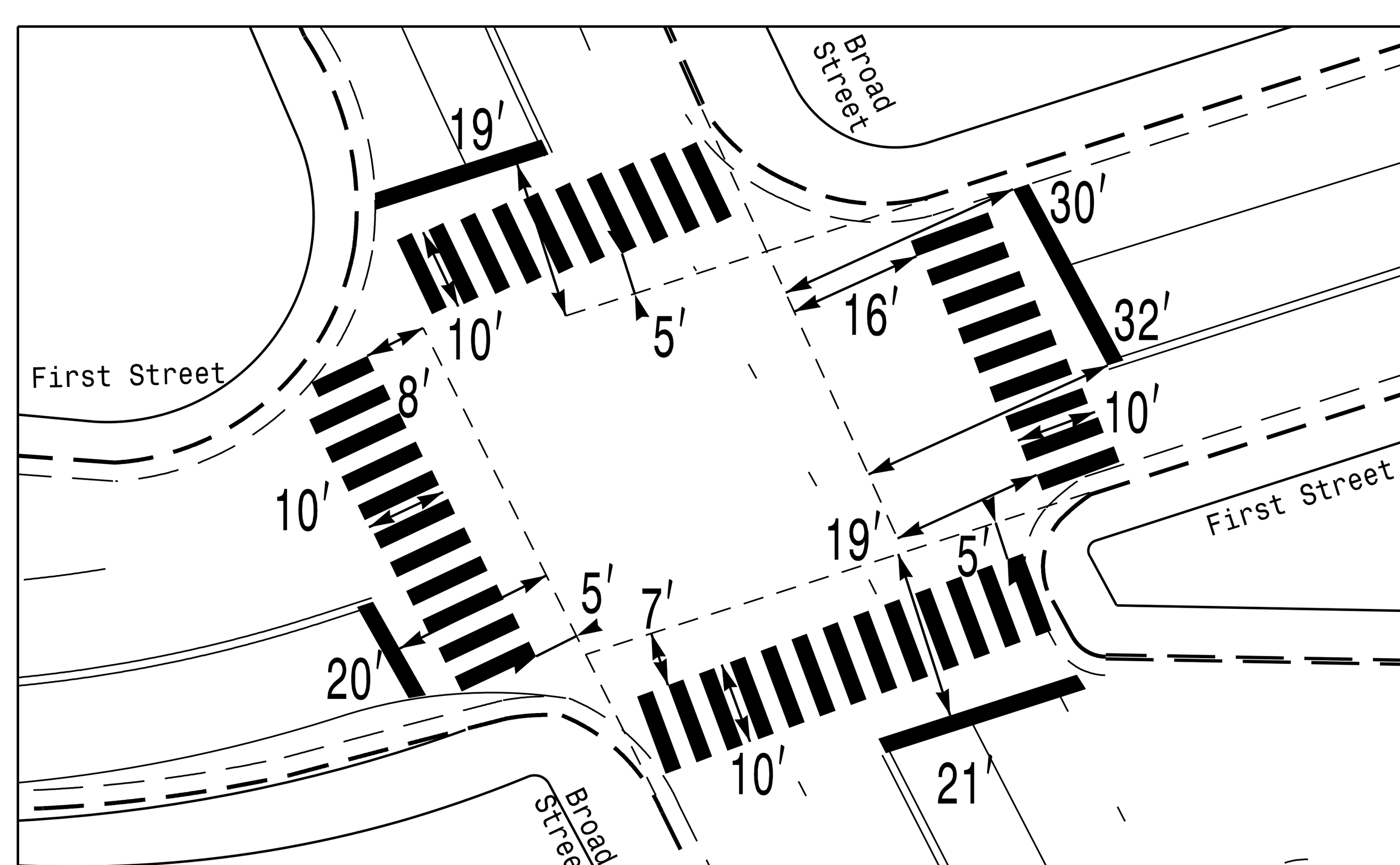
LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
S	Terminal Splice Box	S
	Type II Signal Pedestal	
A	Street Name Sign (D3-1)	A

OASIS 2070 TIMING CHART

FEATURE	PHASE 2	PHASE 4	PHASE 6	PHASE 8
Min Green 1 *	10	7	10	7
Extension 1 *	0.0	3.0	0.0	3.0
Max Green 1 *	50	35	50	35
Yellow Clearance	3.9	4.0	3.7	3.1
Red Clearance	1.4	1.9	1.7	2.0
Red Revert	2.0	2.0	2.0	2.0
Walk 1 *	7	7	7	7
Don't Walk 1	9	14	11	13
Seconds Per Actuation *	-	-	-	-
Max Variable Initial *	-	-	-	-
Time Before Reduction *	-	-	-	-
Time To Reduce *	-	-	-	-
Minimum Gap	-	-	-	-
Recall Mode	MAX RECALL	-	MAX RECALL	-
Vehicle Call Memory	-	-	-	-
Dual Entry	-	ON	-	ON
Simultaneous Gap	ON	ON	ON	ON

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



PROPOSED STOP BAR AND CROSSWALK DIAGRAM

Project #: 180042

DAVENPORT
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WINSTON-SALEM, NC 27101
336.744.1636 www.davenportworld.com
NCBELS FIRM LICENSE NO. C-2522

Signal Upgrade

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

Prepared For:
Winston-Salem
100 E. First St. W-S, NC

SCALE 0 20 1"=20'

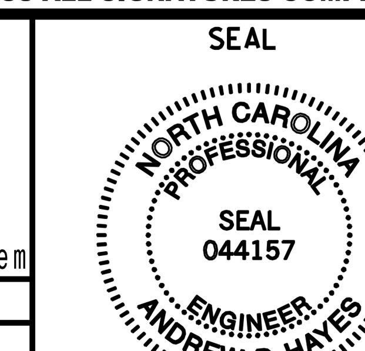
First Street
at
Broad Street

Division 9 Forsyth County Winston-Salem

PLAN DATE:	November 2019	REVIEWED BY:	R. Hinshaw
PREPARED BY:	A. Hayes	REVIEWED BY:	

REVISIONS	INIT.	DATE

SEAL



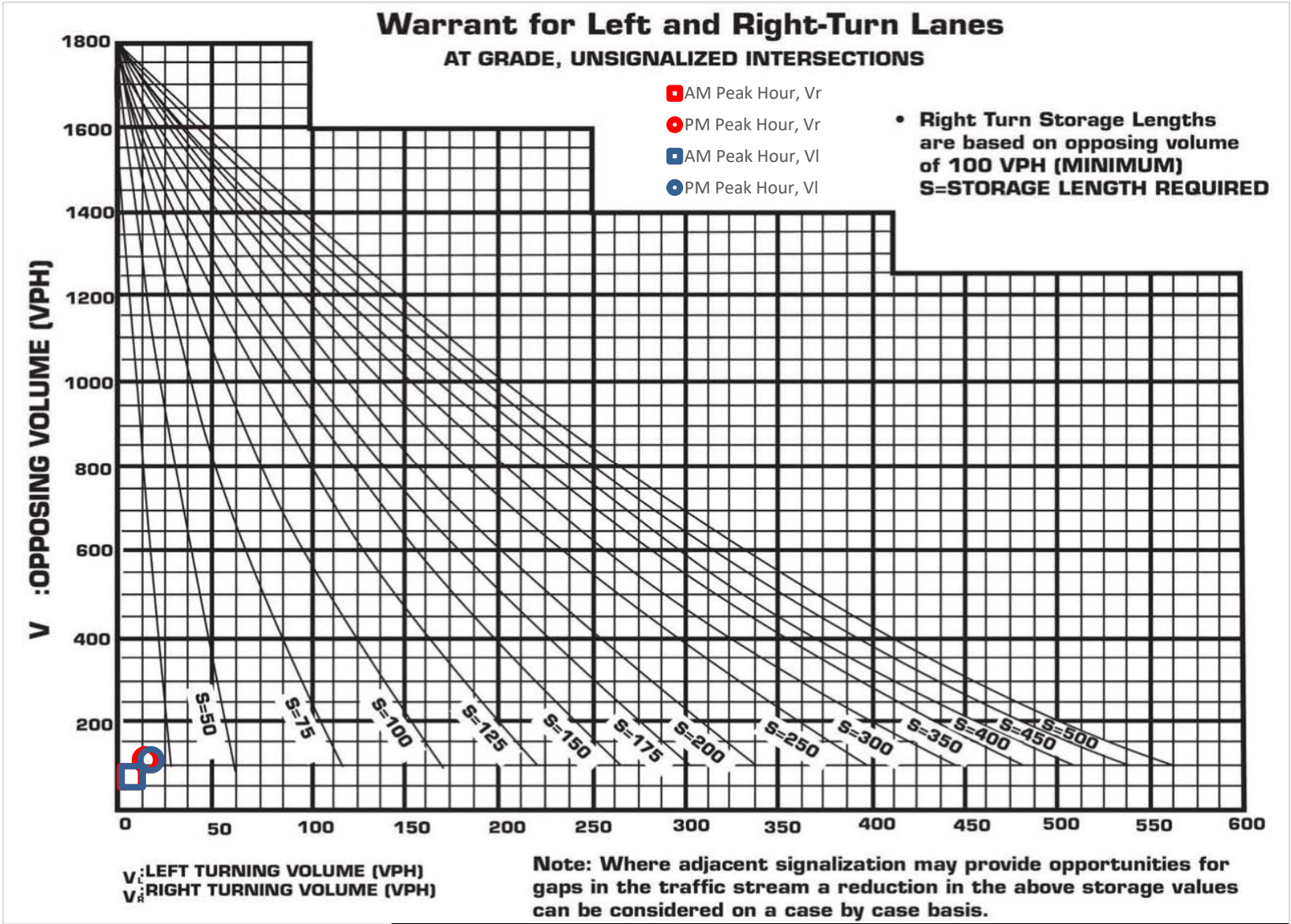
DocuSigned by: Andrew Hayes 01/09/2020
SIGNATURE DATE

SIG. INVENTORY NO. C-194

$$$$$SYSTIME$$$$$
$$$$$$$$$$$$$$$DGN$$$$$$$$$$$$$$$$
$$$$USERNAME$$$$

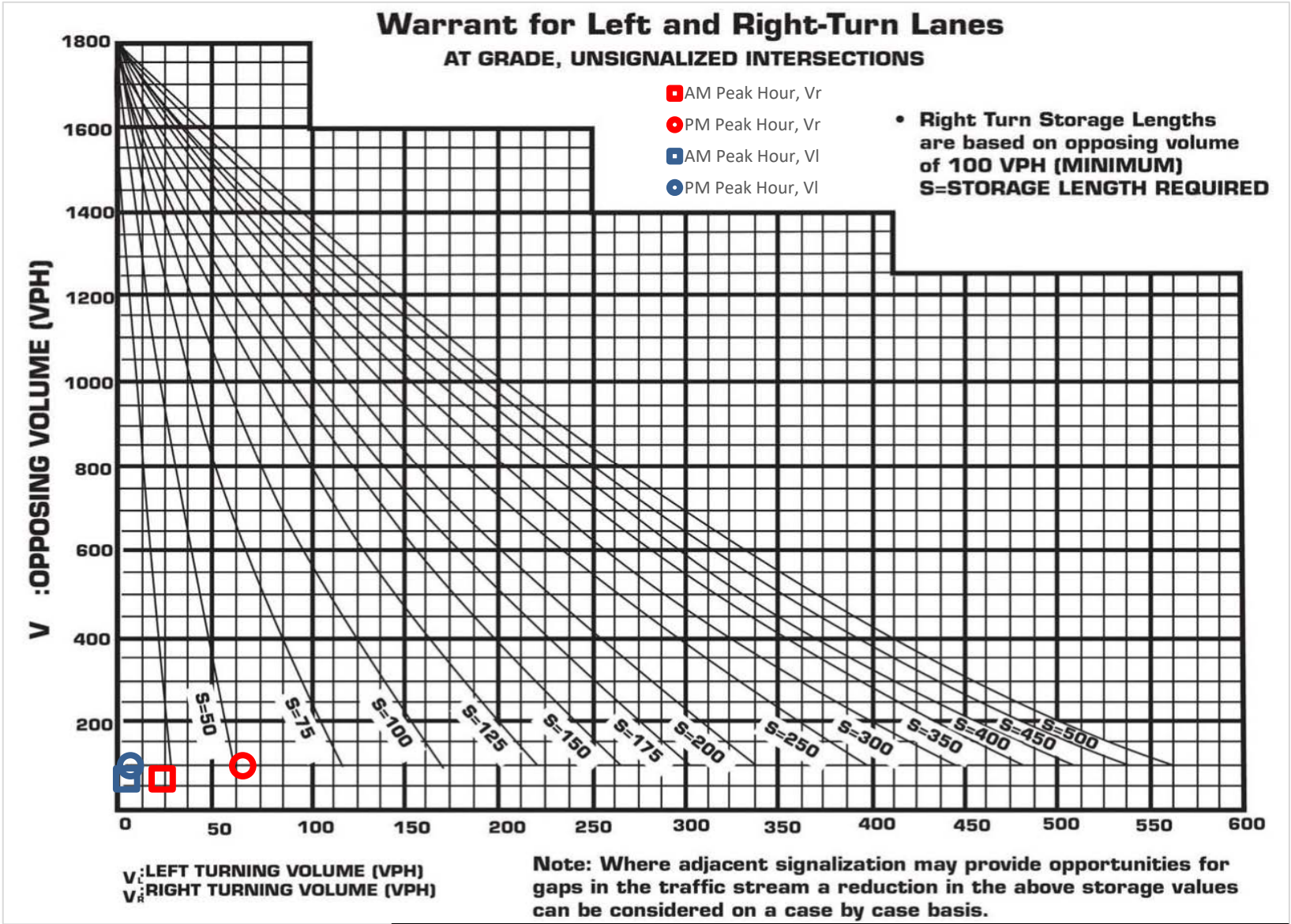
Peak Hour	Volumes	
	Opposing	Lefts
AM	69	4
PM	109	14

Peak Hour	Volumes	
	Opposing	Rights
AM	69	3
PM	109	11



Peak Hour	Volumes	
	Opposing	Lefts
AM	64	1
PM	95	3

Peak Hour	Volumes	
	Opposing	Rights
AM	64	20
PM	95	63



DAVENPORT	TURN LANE WARRANT SUMMARY	FAYETTE STREET AT SITE ACCESS 2