2040 Transportation Plan Update

February 2020

Kimley»Horn

TOWN OF
ASHLAND
VIRGINIA

2040 Transportation Plan Update

Town of Ashland

February 2020 | Final

Prepared for

TOWN OF ASHLAND VIRGINIA

101 Thompson Street
P.O. Box 1600
Ashland, VA 23005

Prepared by

Kimley»Horn

4525 Main Street
Suite 1000
Virginia Beach, VA 23462

Table of Contents

2040 Transportation Plan Update **1**

Introduction **1**

Background 1

What is the Transportation Plan Update? 1

Why is the Transportation Plan Update Important? 1

Plan Area 1

Plan Process 4

Where is Ashland Today?: Existing Conditions **5**

Previous Plans 5

Existing Transportation Network 7

Functional Classification *7*

Roadways *10*

Parking *10*

Bicycles and Pedestrians *11*

Freight and Passenger Rail *11*

Data Collection 15

Annual Average Daily Traffic Volumes *15*

Intersection Traffic Volumes *15*

Crash History *18*

Zoning and Land Use *24*

Traffic Analysis 26

Level of Service *26*

Volume-to-Capacity *31*

Conclusions *31*

Where does Ashland want to be?: Goals and Objectives **33**

Plan Goals and Objectives 33

Public Engagement 34

Engagement Strategies 34

Stakeholder Interviews *34*

Online Survey *34*

Citizen Information Meetings *35*

Engagement Feedback 35

What will it take Ashland to get there?: Recommendations **38**

Recommendations 38
Roadway *38*
Interchange *39*
Intersection *45*
Bicycle and Pedestrian *45*
Transit *53*
Railroad *53*
Cost Estimation 54
How does Ashland get there?: Funding 61
Funding Sources 61
Private Investment *61*
SMART SCALE *61*
Revenue Sharing *61*
Regional Surface Transportation Program (RSTP) *61*
Secondary Six-Year Plan (SSYP) *62*
Highway Safety Improvement Program (HSIP) *62*
Transportation Alternatives Program (TAP) *62*

APPENDICES

Appendix A: Traffic Data Collection

Appendix B: Existing Conditions Analysis

Appendix C: Public Engagement Comments

Appendix D: Project Sheets

List of Tables

Table 1: Previous Plan Review 5
Table 2: Functional Classification Descriptions 8
Table 3: Existing Roadways 10
Table 4: Roadway Level of Service Criteria 27
Table 5: Intersection Level of Service Criteria 27
Table 6: Volume-to-Capacity Description 31
Table 7: Engagement Strategies 34
Table 8: Priority Survey Rank Results 37
Table 9: Roadway Recommendations 41
Table 10: Trail Recommendations 48
Table 11: Sidewalk Recommendations 51
Table 12: Roadway Recommendation Cost Estimates (2020 Dollars) 55
Table 13: Interchange Recommendation Cost Estimate (2020 Dollars) 57
Table 14: Trail Recommendation Planning Level Cost Estimates (2020 Dollars) 58
Table 15: Sidewalk Recommendation Cost Estimates (2020 Dollars) 59

List of Figures

Figure 1: Study Area Map 3
Figure 2: Plan Process 4
Figure 3: Existing Ashland Functional Classifications 9
Figure 4: Existing Ashland Bicycle Trails 12
Figure 5: Existing U.S. Bicycle Routes 13
Figure 6: Existing Ashland Sidewalks and Trails 14
Figure 7: Existing Annual Average Daily Traffic 16
Figure 8: Existing AM and PM Peak Hour Intersection Traffic Volumes 17
Figure 9: Ashland Crash Density Heat Map 19
Figure 10: Ashland Crashes by Year 20
Figure 11: Ashland Crashes by Severity 20
Figure 12: Ashland Crashes by Type 21
Figure 13: I-95 Crash Density Heat Map 22
Figure 14: I-95 Crashes by Year 23
Figure 15: I-95 Crashes by Severity 23
Figure 16: I-95 Crashes by Type 24
Figure 17: Existing Zoning 25
Figure 18: Existing Roadway LOS 28
Figure 19: Existing AM Peak Hour Intersection LOS 29
Figure 20: Existing PM Peak Hour Intersection LOS 30
Figure 21: Existing Roadway V/C Ratio 32
Figure 22: Priority Survey Value Results 36
Figure 23: Priority Survey Rank Results 36
Figure 24: Roadway Recommendations 40
Figure 25: Interchange Recommendations 44
Figure 26: Trail Recommendations 47
Figure 27: Sidewalk Recommendations 50

INTRODUCTION

Background

It has been over twenty years since the Town of Ashland has revisited the existing ***Ashland 2020 Transportation Plan.*** Although this plan has served the Town well in planning, developing, and maintaining the Town's transportation network, it is important to reassess the Town's vision and goals as changes occur in population, employment, land use, and development characteristics. The ***Town of Ashland 2040 Transportation Plan Update (TPU)*** serves as the update to establish the long-term transportation vision of the Town and identify the incremental steps to achieve this vision.

What is the Transportation Plan Update?

The TPU identifies the transportation assets and needs for motorists, pedestrians, bicyclists, freight, and transit. The TPU includes recommendations regarding the following key transportation issues:

- Does the existing transportation network support the desired character and quality of life in the Town of Ashland today?
- What improvements in transportation facilities would support adopted strategic planning objectives of the Town of Ashland?
- How does the Town of Ashland plan, fund, and implement those transportation improvements?

The TPU will serve as a living document – one that the Town can revisit as goals and projects are implemented. When adopted, the TPU will become a part of the ***Town of Ashland Comprehensive Plan***.

Why is the Transportation Plan Update Important?

Having an established plan provides guidance to the Town leaders when making transportation-related decisions that will impact the community. With the TPU in place, each decision will work toward achieving the adopted vision and goals established by the Town in their Comprehensive Plan and supporting policies. The TPU provides residents and stakeholders the opportunity to reflect on the goals highlighted in past planning efforts while arriving at a vision that is representative of where the Town of Ashland is now and wants to be in the future. The planning period for this TPU is set to the horizon year of 2040 – and provides both short and long-term guidance and recommendations.

In addition to guiding future transportation decisions, the TPU can improve the Town's position to secure funding for improvements from regional, state, federal, and private sources. Obtaining funding is a highly competitive process, as the Town must compete with many other municipalities for limited funds based upon a complex determination of project need, costs, and effectiveness. The TPU provides the Town a competitive edge by showing that the Town has identified projects of high priority and demonstrated a clear vision of future needs.

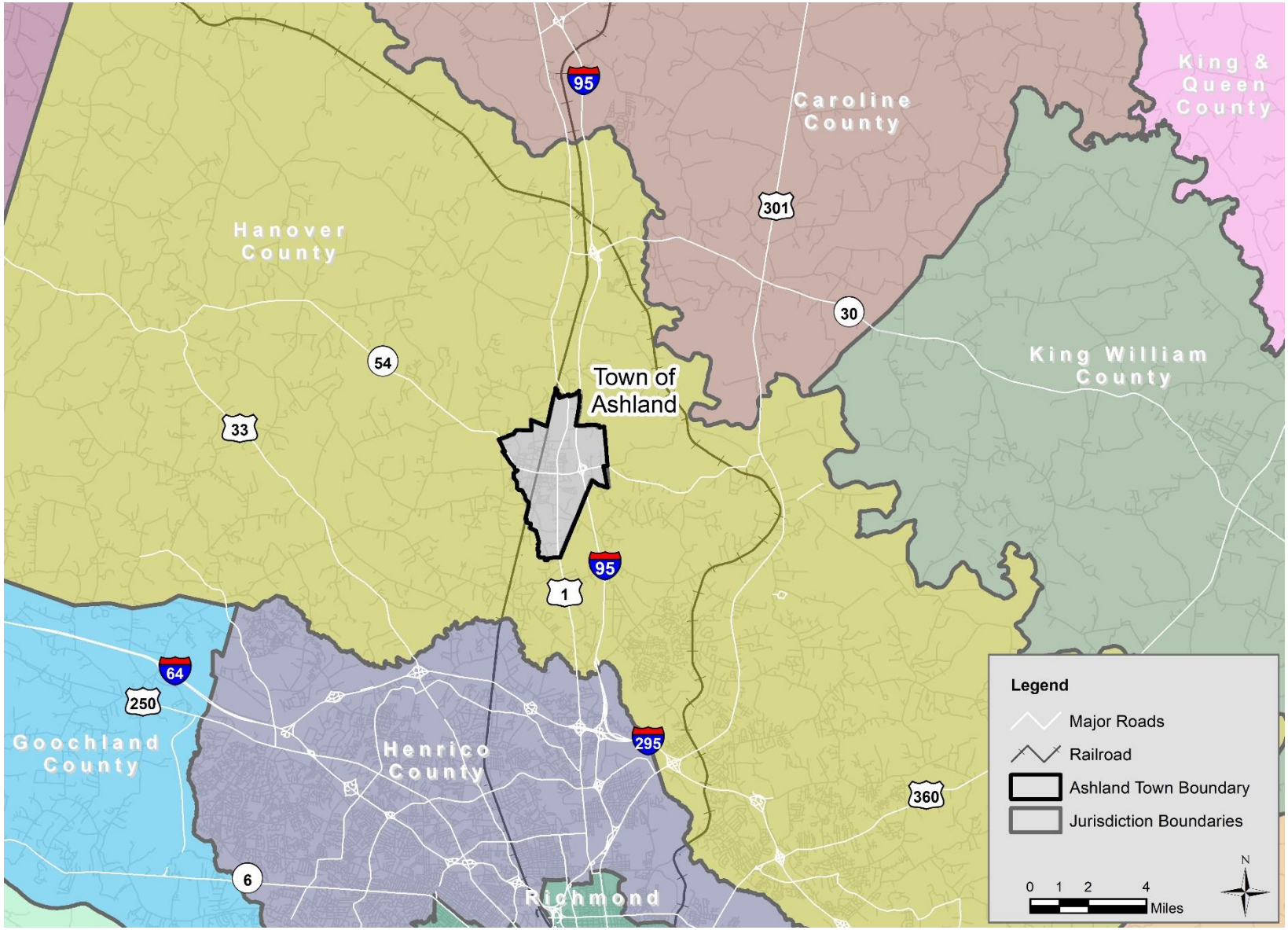
Plan Area

The Town of Ashland is centrally located in Virginia and is comprised of approximately 7,500 residents within 7 square miles. The Town is situated north of the City of Richmond within Hanover County. The Town's transportation network is part of a regionally significant network which

emphasizes the importance of planning for future transportation needs. As displayed in **Figure 1**, regionally significant roadways within the Town include the following:

- Interstate 95 (I-95) is a north-south interstate connecting North Carolina to Maryland. I-95 provides a local connection to State Route 54 (England Street) at the Exit 92 interchange within the Town limits.
- U.S. Route 1 (Washington Highway) traverses through the Town parallel to I-95 and is situated between I-95 and the active railroad tracks. U.S. Route 1 extends from North Carolina to Washington D.C. and is used by local and regional motorists.
- The active railroad tracks are oriented north-south through the Town's downtown area and adjacent to Center Street.

Figure 1: Study Area Map



Plan Process

The TPU process included a collaborative effort to identify a coordinated set of multi-modal improvements to achieve the vision set forth by the Town. As outlined in **Figure 2**, the process began with a review of the existing plans and policies and an assessment of the current transportation network. A set of objectives was developed ahead of creating the recommendations. Once the recommendations were developed, a prioritization process was created as a tool to help guide the Town to advocate for future funding.

Town Vision:

Ashland is a beautiful, historic, diverse community uniquely known as the Center of the Universe. Exceptional people and organizations gravitate to Ashland for our great neighborhoods, the thriving economy that meets their needs, excellent amenities, and vibrant cultural activities

Figure 2: Plan Process

Throughout the TPU process, the Study Team, comprised of Town planning and engineering staff, met with the Consultant team at milestone points to discuss the existing transportation assessment, study objectives, future recommendations, and prioritization.

Where is Ashland Today?: Existing Conditions

Previous Plans

The TPU used the previous planning efforts completed by the Town highlighting major transportation planning efforts as a foundation to help identify existing and future conditions. **Table 1** is a chronological summary of background information, prior studies, and transportation recommendations relevant to the TPU.

Table 1: Previous Plan Review

Name	Date	Relevant Background Information/Recommendations
Route 1 Widening	2018	▪ Conceptual design of Route 1 widening from Ashcake Road to Arbor Oak Drive
Ashcake Road Improvements	2018	▪ Proposed conceptual design of geometric and multimodal improvements for Ashcake Road between Center Street and U.S. Route 1
Lauradell Development Plat	2018	▪ Proposed site access, roadways, and multimodal facilities
Ashland Streetscape Plans	2018	▪ Existing streetscaping conditions
Walking Audit Summary	2018	▪ Ashcake Road was rated as medium and high-risk ▪ Ashcake Road could benefit from considerable infrastructure improvements ▪ Randolph Street and Snead Street were rated as medium risk and have considerable room for improvement
Community Livability Report	2017	▪ Assessment of the quality of life in Town based on survey of residents ▪ Identified Town priorities ▪ Residents rated mobility, walkability, and bicycle travel with positive ratings for the overall ease of travel in the Town ▪ Residents rated public transportation travel below average ▪ Identified importance of transportation improvements to accommodate growth

Table 1 Continued: Previous Plan Review

Name	Date	Relevant Background Information/Recommendations
Parks and Recreation Master Plan	2017	▪ Existing park, sidewalk, and trail facilities ▪ Proposed park, sidewalk, and trail facilities ▪ Ashland Trolley Line
Strategic Plan	2017	▪ Identified the vision, objectives, and initiatives of the Town
Greater Richmond Virginia (RVA) Transit Vision Plan	2016	▪ Established a regional vision for transit ▪ Identified proposed routes (high capacity and local), services, transportation demand management, and how to achieve the vision with policies, transit-oriented development, and enhancing ridership
I-95/State Route 54 Interchange Improvement Screening Study	2015	▪ Identified future geometric alternatives for the I-95/State Route 54 Interchange ▪ Preferred alternative was a Diverging Diamond Interchange
Greenacres Traffic Impact Analysis	2013	▪ Assessment of existing and future traffic conditions with the proposed Greenacres development which is now referred to as Lauradell
Vaughan Road Extension	2013	▪ Roadway geometric and typical section plans of Vaughan Road Extension
Comprehensive Plan 2016	2011	▪ Detailed description of the future plans and growth opportunities ▪ Establishes a vision and supporting goals for future plans
Ashcake Road Corridor Study	2011	▪ Identified potential concepts for Ashcake Road
Randolph-Macon College (R-MC) Master Plan Update	2009	▪ Displayed potential locations for campus facilities including recreation, dorms, parking, and street connections
Transit Services Plan	2008	▪ Outlined existing public transportation programs and providers ▪ Provided recommendation transit plan in terms of organization, services, circulator routes, capital, financial, and implementation

Table 1 Continued: Previous Plan Review

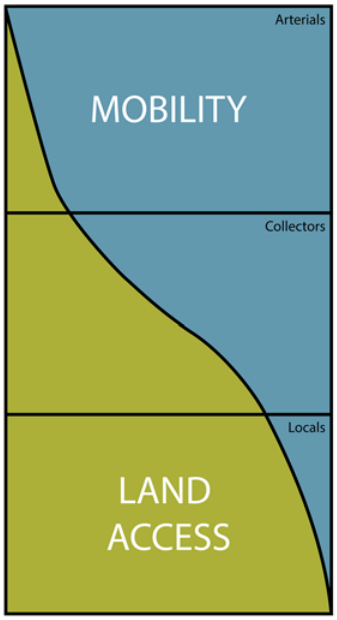
Name	Date	Relevant Background Information/Recommendations
Bicycle and Pedestrian Plan	1998	▪ Existing sidewalk and trail facilities ▪ Proposed sidewalk facilities ▪ Proposed trail facilities

Existing Transportation Network

The transportation network is key to maintaining mobility within the Town, across all modes of transportation, and can influence the overall Town character. Data collection efforts were performed to establish the most recent transportation conditions. Using existing infrastructure, collected data, and traffic analysis, existing conditions were established. The current state of transportation operations is essential to identify necessary improvements and inform policy, allowing the Town to obtain funding for transportation related improvements. The following sections describe the existing transportation network conditions.

Functional Classification

Functional classifications are defined by Federal Highway Administration (FHWA) and are used by VDOT to designate the characteristics and purposes of a roadways in a network. In Virginia, functional classification is also considered as part of identifying potential funding opportunities for transportation improvements.



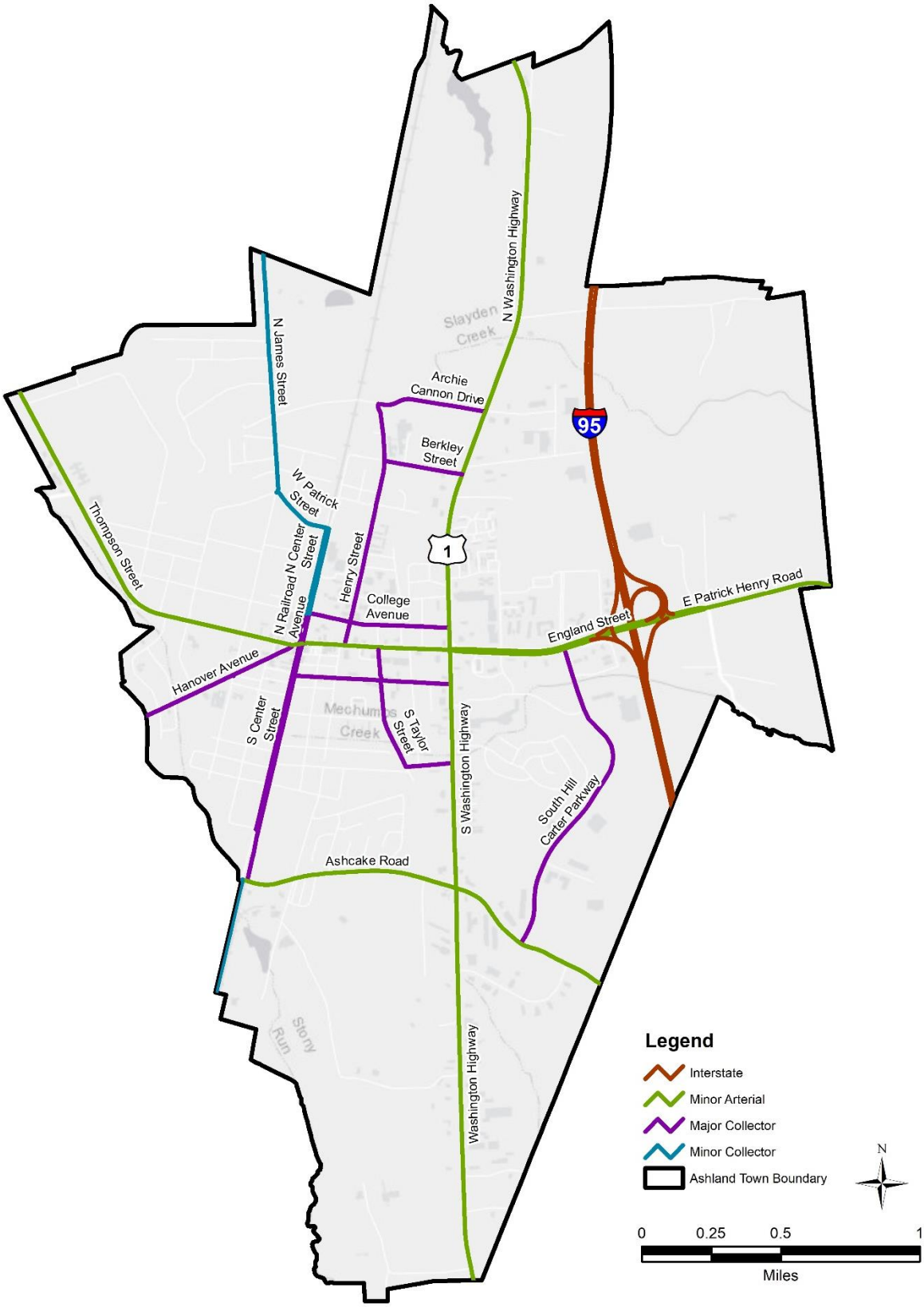
The functional classification system categorizes roadways in a general hierarchy based on mobility and accessibility that is used to identify the importance of each roadway to the overall network for planning purposes.

Mobility is measured in respect to ability of traffic to pass through a designated area in a reasonable amount of time. Mobility is often measured by operating speed, efficiency (level of service), and riding comfort (visibility). ***Accessibility*** is measured in terms of the capability to provide access to and between land use activities within a defined area. The following functional classifications are used for roadways within the Town of Ashland, as described in **Table 2** and illustrated **Figure 3**.

Table 2: Functional Classification Descriptions

Functional Classification	Description	Town Roadway Examples
Interstate	▪ Provides most mobility and least amount of access ▪ Access only available at interchanges or ramps ▪ Serves longer distance trips ▪ Supports intrastate/interstate/regional mobility	▪ I-95
Minor Arterial	▪ Serves moderate distance trips ▪ Intended to serve travel demand within local area ▪ Provides high level of access to adjacent land uses ▪ Connects collectors to interstate facilities	▪ U.S. Route 1 ▪ State Route 54 ▪ Ashcake Road
Major Collector	▪ Distributes traffic from arterials to their destination ▪ Collects traffic from local roads and channels it to the arterial system	▪ Archie Cannon Drive ▪ Hanover Avenue ▪ Hill Carter Parkway
Minor Collector	▪ Collects traffic from local roads ▪ Serves smaller communities ▪ Links local traffic generators	▪ James Street
Local	▪ Largest percentage of all roadways in miles ▪ Provides greatest access and least mobility ▪ Typically connect to other local roads or collectors ▪ Serves short distance trips	▪ Berkley Street ▪ Virginia Street

Figure 3: Existing Ashland Functional Classifications



Roadways

Four (4) major roadways are vital to vehicular traffic mobility to and from Ashland: Interstate 95, U.S. Route 1, State Route 54, and Ashcake Road. In addition to these major thoroughfares, Ashland's roadway network is made up of collector streets that move traffic within the Town limits and local roads providing access to residential areas. Key examples of existing roadways and their descriptions are described in **Table 3**.

Table 3: Existing Roadways

Roadway	2017 Average Annual Daily Traffic (Vehicles per day)	Typical Cross-Section	Multi-Modal Features	Speed (MPH)
I-95	111,000 to 119,000	6-lane divided	Not Applicable	70
U.S. Route 1	10,000 to 18,000	4-lane undivided	Sidewalks from Arbor Oak Dr to Omni Rd	35/45
State Route 54 (England Street & Thompson Street)	6,000 to 25,000	2-lane in west/ 2-lane with two-way left-turn lane (TWLTL) in downtown/ 4-lane divided in east	Sidewalks	25/35
Ashcake Road	6,000 to 8,200	2-lane undivided	Not Applicable	35
Hanover Avenue	1,600	2-lane undivided	Sidewalks	25
Center Street	1,100 to 1,400	2-lane divided by railroad tracks	Sidewalks	25
Henry Street	1,200 to 2,200	2-lane undivided	Sidewalks and On-Street Parking	25
Archie Cannon Drive/ W. Vaughan Road	1,600	2-lane undivided	Sidewalks in east	35/25

Parking

On-street and off-street parking is scattered throughout the downtown area and residential streets, in the form of private and public lots and both parallel and angled on-street parking. On-street parking is prohibited along England Street, between U.S. Route 1 and Center Street, with private and public parking lots serving the nearby businesses. On-street parking is allowed on England Street, west of Center Street.

In the areas surrounding Randolph-Macon College (R-MC), parking is important to accommodate both students, visitors and faculty. Existing facilities serving the College's

population include 14 parking lots throughout campus and on-street parking along Center Street and Henry Street. A parking plan is approved by the Town Council based off of student enrollment.

The Town of Ashland conducts several special events and festivities in the downtown area throughout the year. These events attract citizens from all over the area which increases the need for special event parking. The Town utilizes on-street and off-street municipal parking lots for special events.

Bicycles and Pedestrians

Non-motorized vehicle transportation plays a large role in the transportation network of Ashland. Home to the campus of R-MC, a walkable downtown area, U.S. and local bicycle routes, and traditional residential neighborhoods, Ashland is known for cyclist and pedestrian-friendly facilities. Maintaining this reputation and continual improvement of these facilities will preserve Ashland as a premier destination for cyclists and pedestrians.

Ashland has four (4) local bicycle routes within the Town. Two (2) of the routes are shorter in distance to accommodate younger or less experienced cyclists. All routes start and end at the Ashland/Hanover Visitors Center, just north of the State Route 54 and Railroad Avenue intersection, in the heart of downtown Ashland. Ashland is also home of the crossroads of two (2) interstate bicycle routes: United States Bicycle Routes (USBR) 1 and 76. USBR 1 runs north/south along the east coast. USBR 76 runs from Virginia towards western United States. The four (4) Ashland bicycle routes and the two (2) U.S. bicycle routes are shown in **Figure 4** and **Figure 5**, respectively.

Ashland currently provides sidewalks along many of its roads. However, the sidewalks are non-uniform and vary in age and condition. The sidewalk network is disconnected throughout the Town. An evaluation of the existing sidewalk was conducted to identify gaps in the network and identify a plan to improve and better connect the sidewalk network for pedestrians.

In addition to the existing sidewalks, Ashland has a number of trails (e.g., multi-use paths) throughout the Town. Similar to the sidewalks, the trail network is disconnected in some areas around Town. An evaluation of the existing trails was conducted to identify gaps in the network and identify a plan to improve and better connect the trail system to other trails, sidewalks, and desired destinations. **Figure 6** shows the existing sidewalks and trails in the Town of Ashland.

Freight and Passenger Rail

An active railroad is located within the heart of downtown Ashland, bifurcating Center Street and contributing to the history, brand, and character of the Town. The active railroad is situated in a north-south orientation extending from Washington D.C. to the City of Richmond. It is currently used by Amtrak and CSX with an Amtrak station on Center Street providing an alternative means for travel to and from urban areas throughout Virginia.

Figure 4: Existing Ashland Bicycle Trails

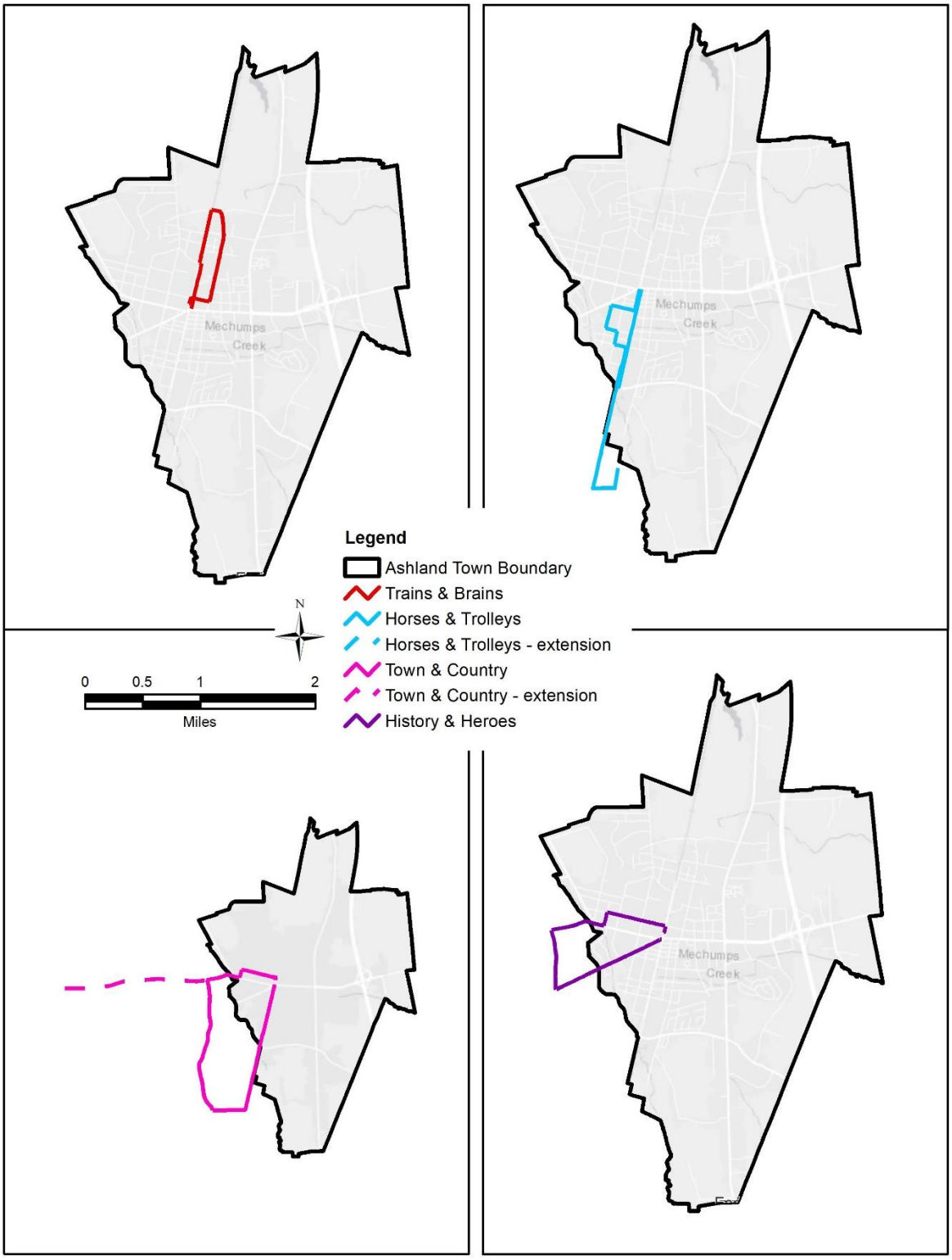


Figure 5: Existing U.S. Bicycle Routes

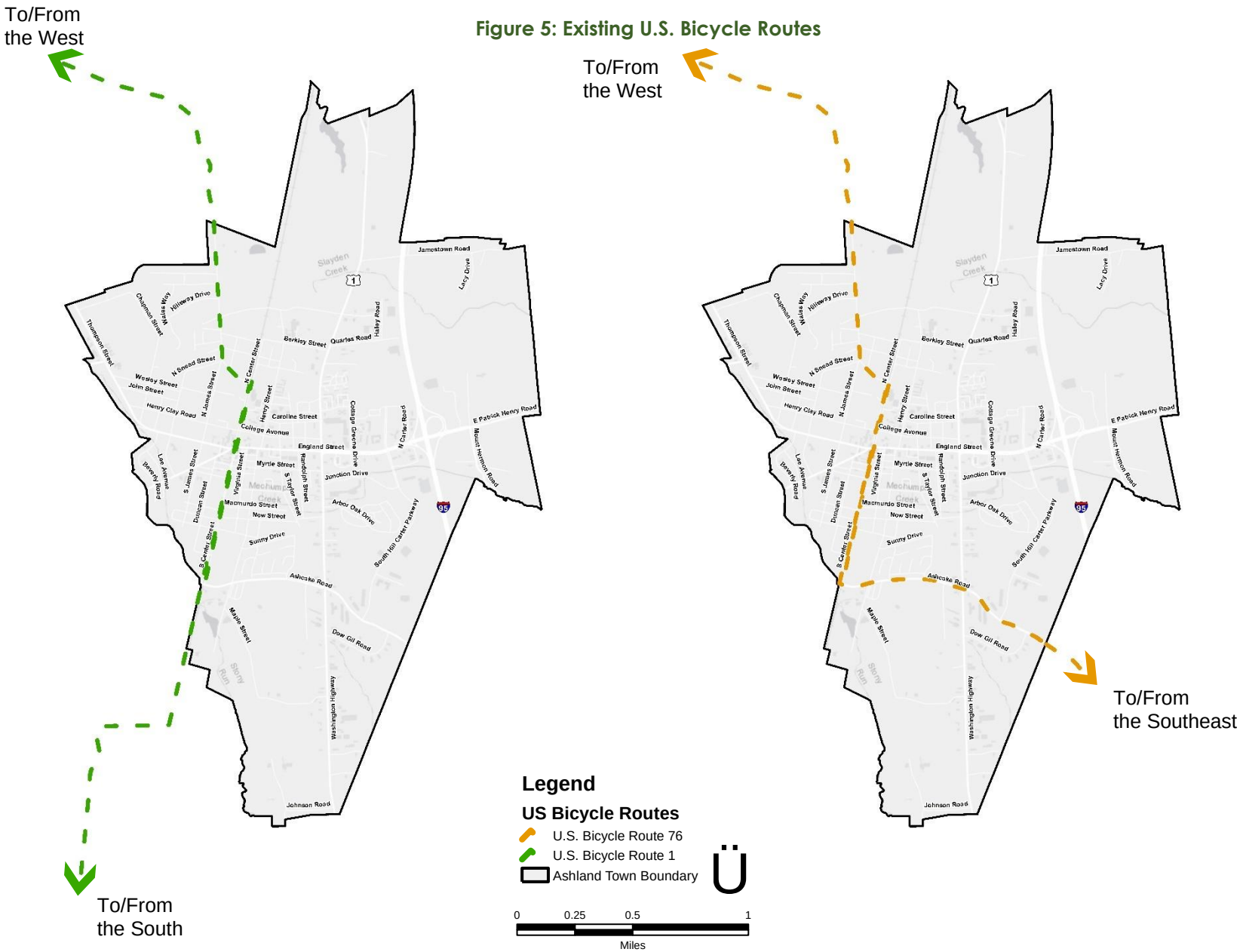
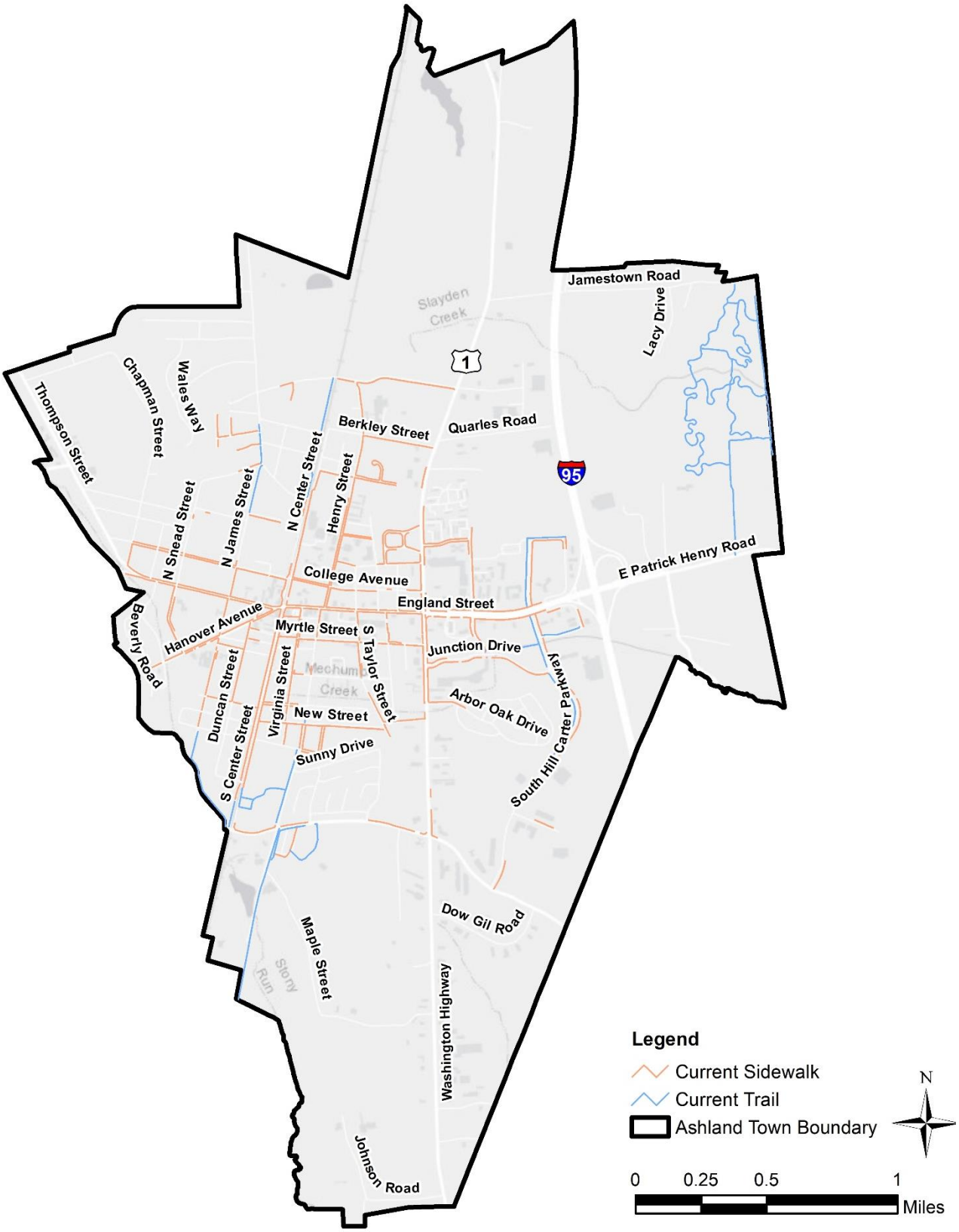


Figure 6: Existing Ashland Sidewalks and Trails



Data Collection

An inventory of the current infrastructure conditions in Ashland, was developed and data was collected to characterize the traffic conditions within the Town. Existing conditions were established through data synthesis using information gathered from a variety of sources, including online data sources, site visits, current plans, and traffic data collection.

Annual Average Daily Traffic Volumes

Annual Average Daily Traffic (AADT) estimates daily, two-way traffic volume on one day, averaged over the course of a year and is typically measured in vehicles per day (vpd). AADT for 2017 was obtained from the VDOT Average Daily Traffic Volumes with Vehicle Classification Data on Interstate, Arterial, and Primary Roadways publication. **Figure 7** summarizes the most recent year (2017) of VDOT's AADT data along Ashland's key roadways. Virginia Street was not included in VDOT's AADT counts; therefore, a 24-hour traffic count was conducted on Virginia Street on December 4, 2018.

As illustrated in **Figure 7**, England Street between I-95 and U.S. Route 1 carried the highest traffic volume (between 20,000 and 25,000 vpd) and U.S. Route 1, south of England Street, carried the second highest traffic volume (between 15,000 and 20,000 vpd) within the Town. These segments are the most traveled given the proximity to I-95, access to commercial land uses, and access to/from Richmond.

Intersection Traffic Volumes

VDOT's AADT data was supplemented with turning movement counts (TMC) collected from previous projects and newly collected traffic counts at 19 intersections in the Town. TMC data was collected to identify the AM and PM peak intersection traffic volumes and operations. The new TMC data was collected on Tuesday, December 4, 2018 during AM and PM peak traffic periods, from 7:00 AM - 9:00 AM and 4:00 PM - 6:00 PM while public school and R-MC were still in session. The identified AM and PM peak hours were 7:30 AM to 8:30 AM and 4:30 PM to 5:30 PM, respectively. **Figure 8** summarizes the AM and PM peak hour intersection volumes for the major intersections, identified by the Town. Detailed intersection traffic volumes are provided in **Appendix A**.

Figure 7: Existing Annual Average Daily Traffic

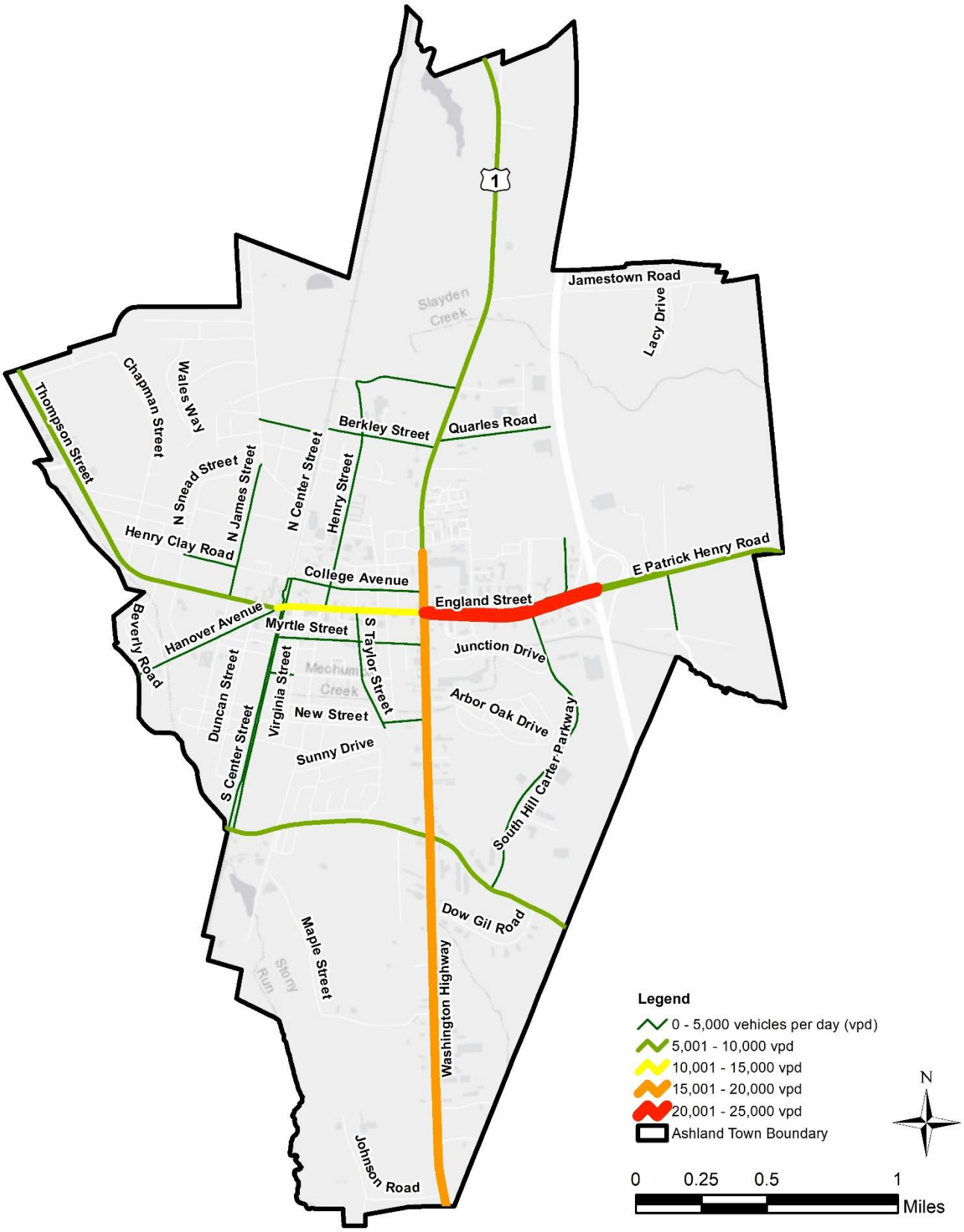
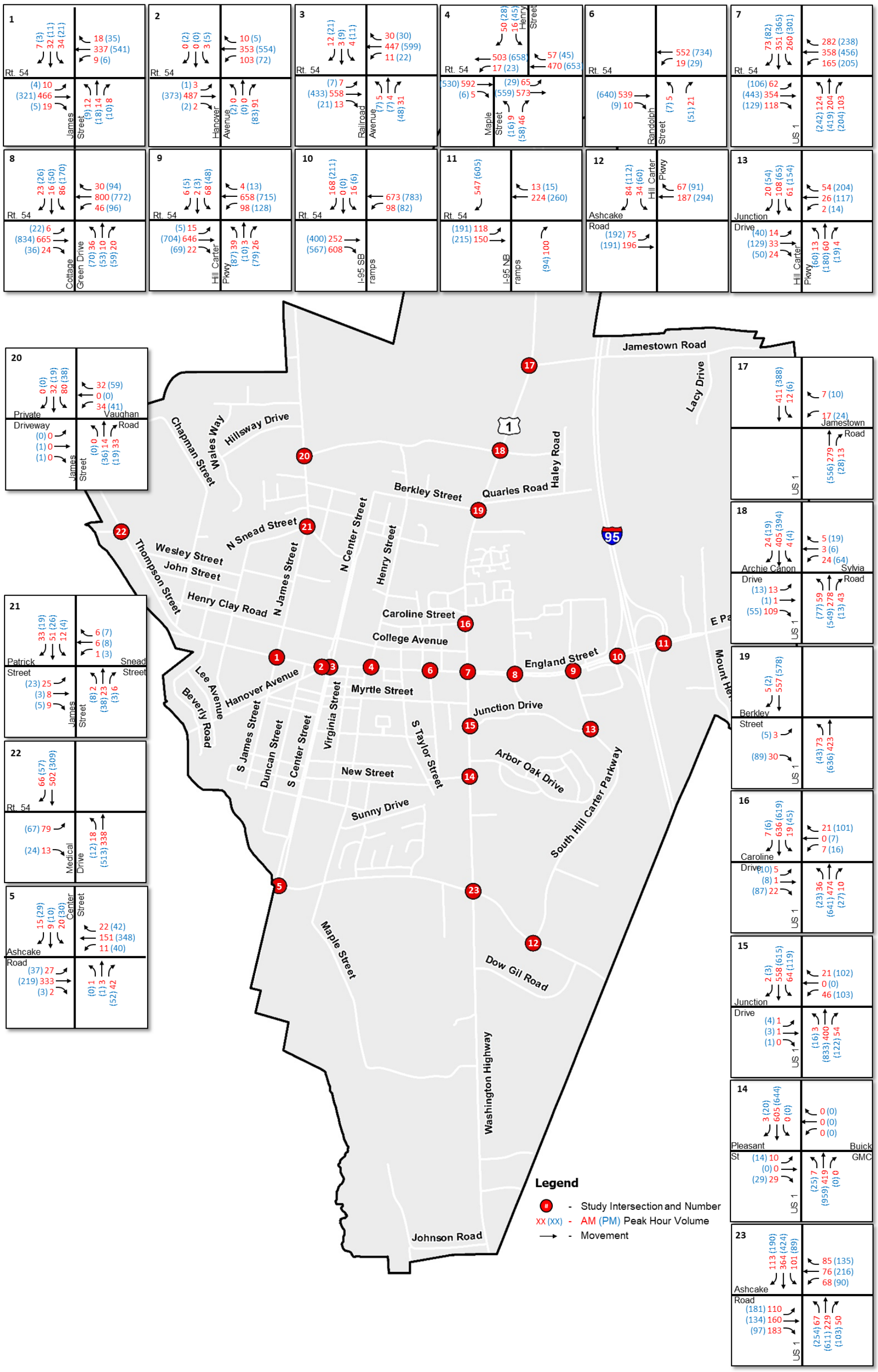


Figure 8: Existing AM and PM Peak Hour Intersection Traffic Volumes



Crash History

Safety conditions in the Town were also considered when establishing existing conditions and in planning future improvements. Historical crash data was collected from VDOT's crash database between 2013 and 2017. The crash data within the Town revealed several crash hotspots, primarily along U.S. Route 1, State Route 54, and Ashcake Road. **Figure 9** illustrates a crash density heat map, with red areas indicating higher crash density at a location.

The hot spots were concentrated at intersections along these major roadways. There are also areas of higher crash density near the I-95 interchange ramps. The total number of crashes was 570 crashes and the number of crashes remained consistent (101 to 122 crashes per year) between 2013 and 2017, as shown in **Figure 10**.

As shown in **Figure 11**, crashes were categorized based on the following severity types:

- ***K: Fatality***
- ***A: Ambulatory Injury*** – person experiences serious injuries and unable to leave the scene without assistance
- ***B: Visible Injury*** – person experiences visible injuries such as abrasions or lacerations
- ***C: Non-Visible Injury*** – person does not have visible injuries but complains of plan and able to leave scene without assistance
- ***PDO***: ***Property Damage Only*** – no injuries just property damage

Property Damage Only and Visible Injury crashes accounted for 49% and 34% of the total crashes, as displayed in **Figure 11**. Three fatal crashes occurred in Ashland within the five years.

As shown in **Figure 12**, angle crashes accounted for 40% of crashes in the five years of available data. There were also significant amounts of rear end crashes (28%), fixed object off-road crashes (11%), and sideswipes same direction crashes (8%). Angle and rear end crashes are typically concentrated at intersections which is consistent with the Ashland crash history data.

In addition to the Ashland crash data, crash data along I-95 was considered since crashes occurring on I-95 have the potential to impact traffic operations within the Town. Crashes along I-95 near the Town can cause traffic to detour off I-95 and through the Town. Crash data was collected on I-95 from Exit 89 (Lewistown Road) to Exit 98 (Kings Dominion Boulevard) between 2013 and 2017.

Figure 13 illustrates a crash density heat map of crashes for I-95. The hot spots are concentrated at the I-95 interchanges where merging, diverging, and weaving movements occur. The total number of crashes was 942 between 2013 and 2017. Yearly crash numbers were consistent between 2015 and 2017, as illustrated in **Figure 14**.

As shown in **Figure 15**, Property Damage Only crashed accounted for 77% of crashes in the five years of available data. Only three fatal crashes occurred on I-95 within the study timeframe.

Lastly, rear end crashes accounted for 44% of crashes in the five years of available data. There were also significant amounts of fixed object-off road crashes (26%) and sideswipe same direction crashes (16%).

Figure 9: Ashland Crash Density Heat Map

Figure 10: Ashland Crashes by Year

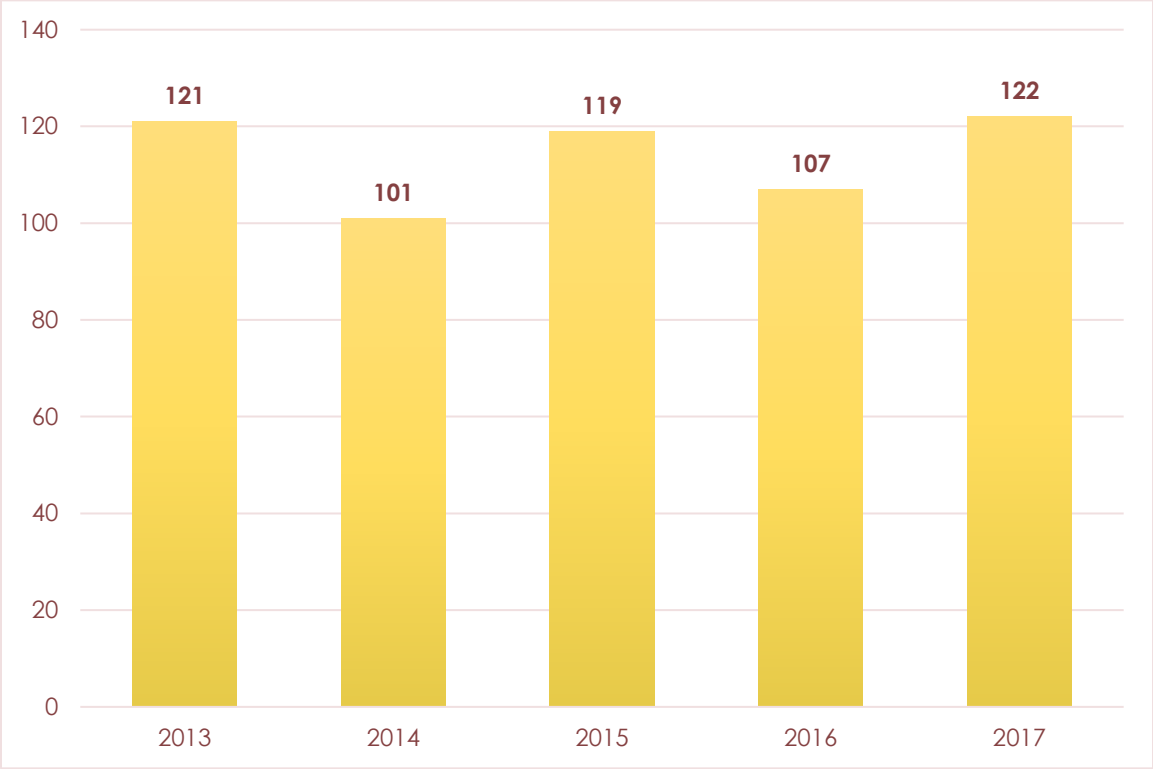


Figure 11: Ashland Crashes by Severity

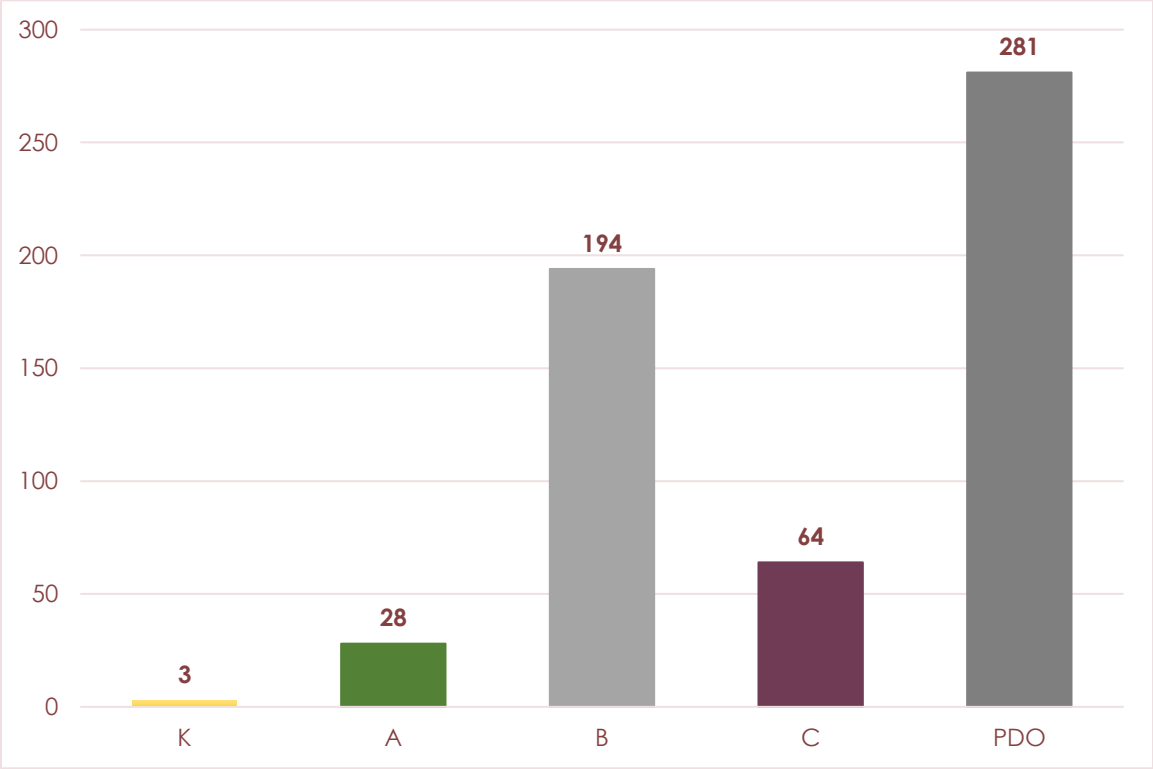


Figure 12: Ashland Crashes by Type

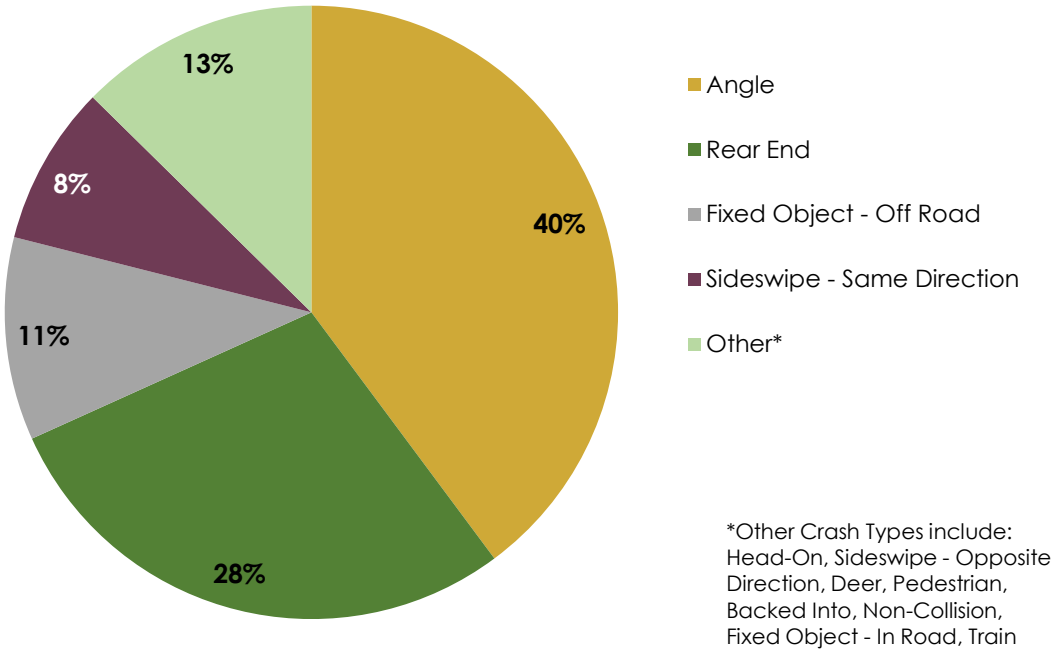


Figure 13: I-95 Crash Density Heat Map

Figure 14: I-95 Crashes by Year

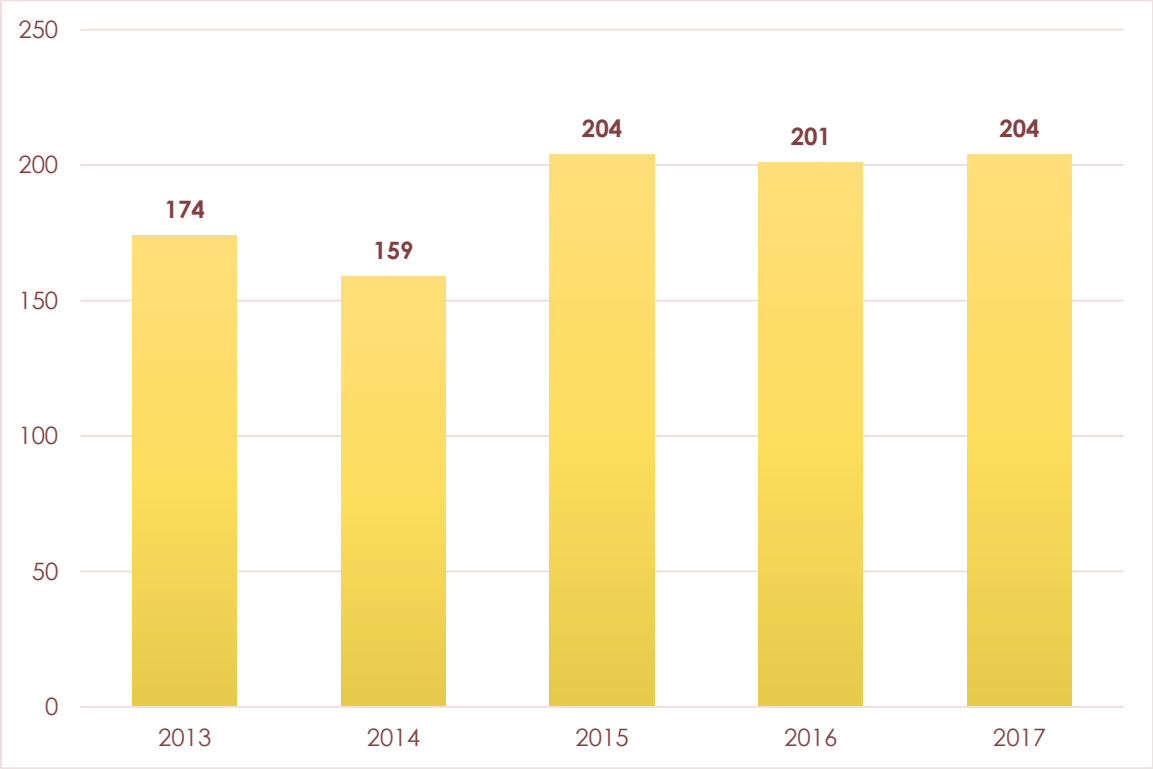


Figure 15: I-95 Crashes by Severity

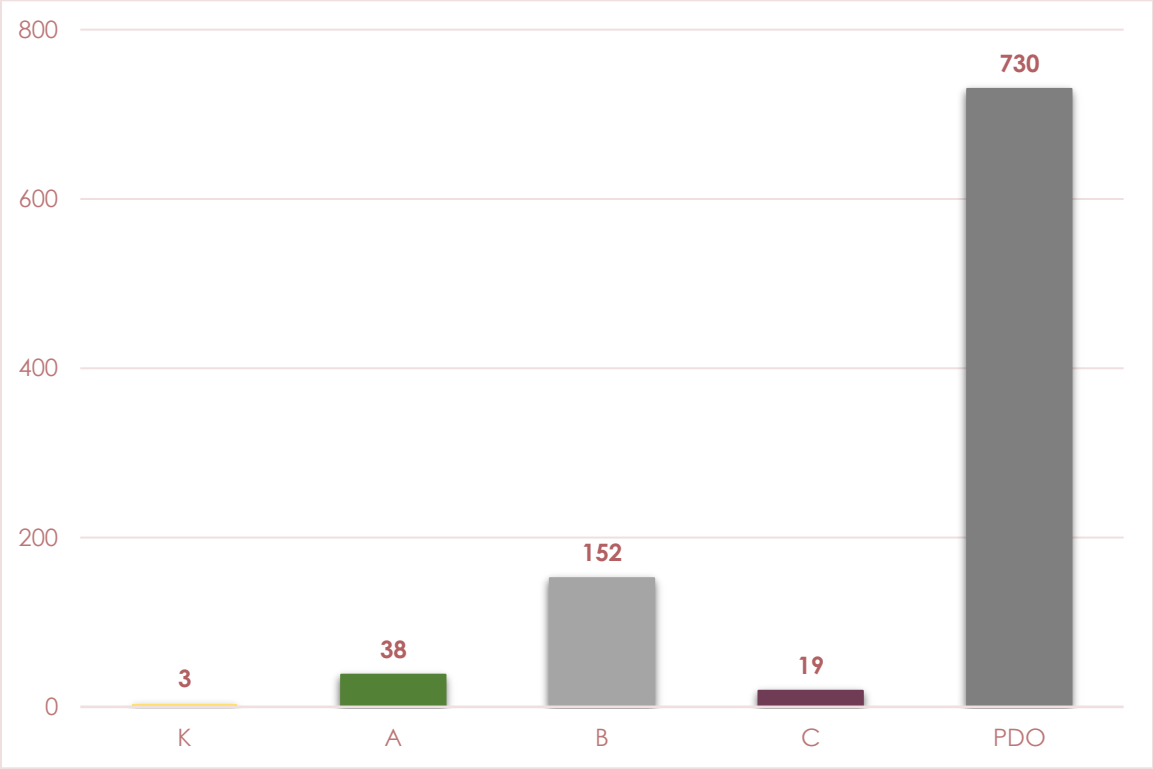
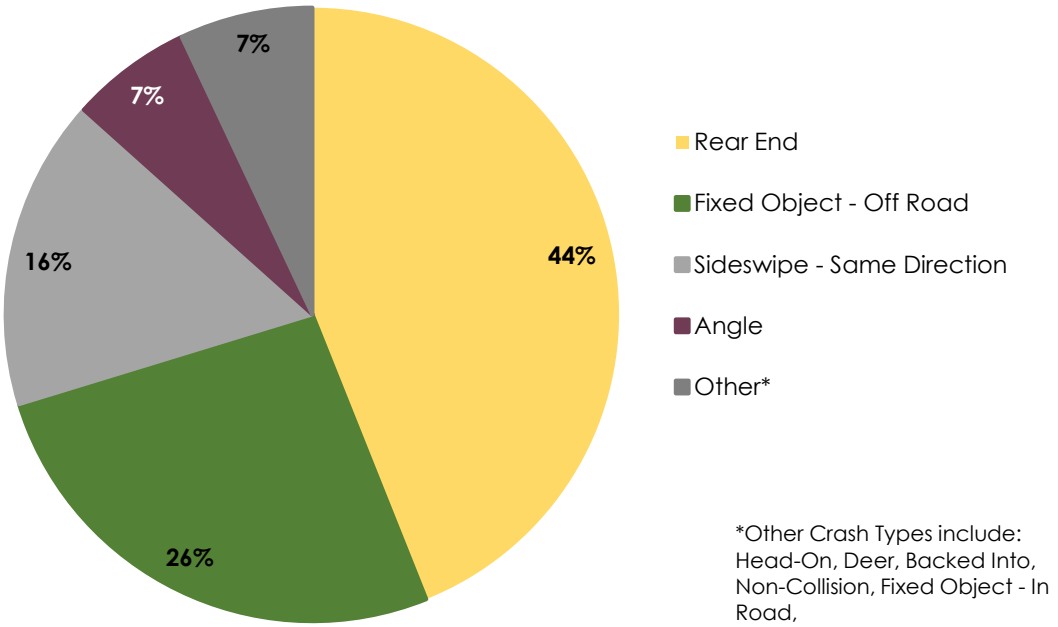


Figure 16: I-95 Crashes by Type

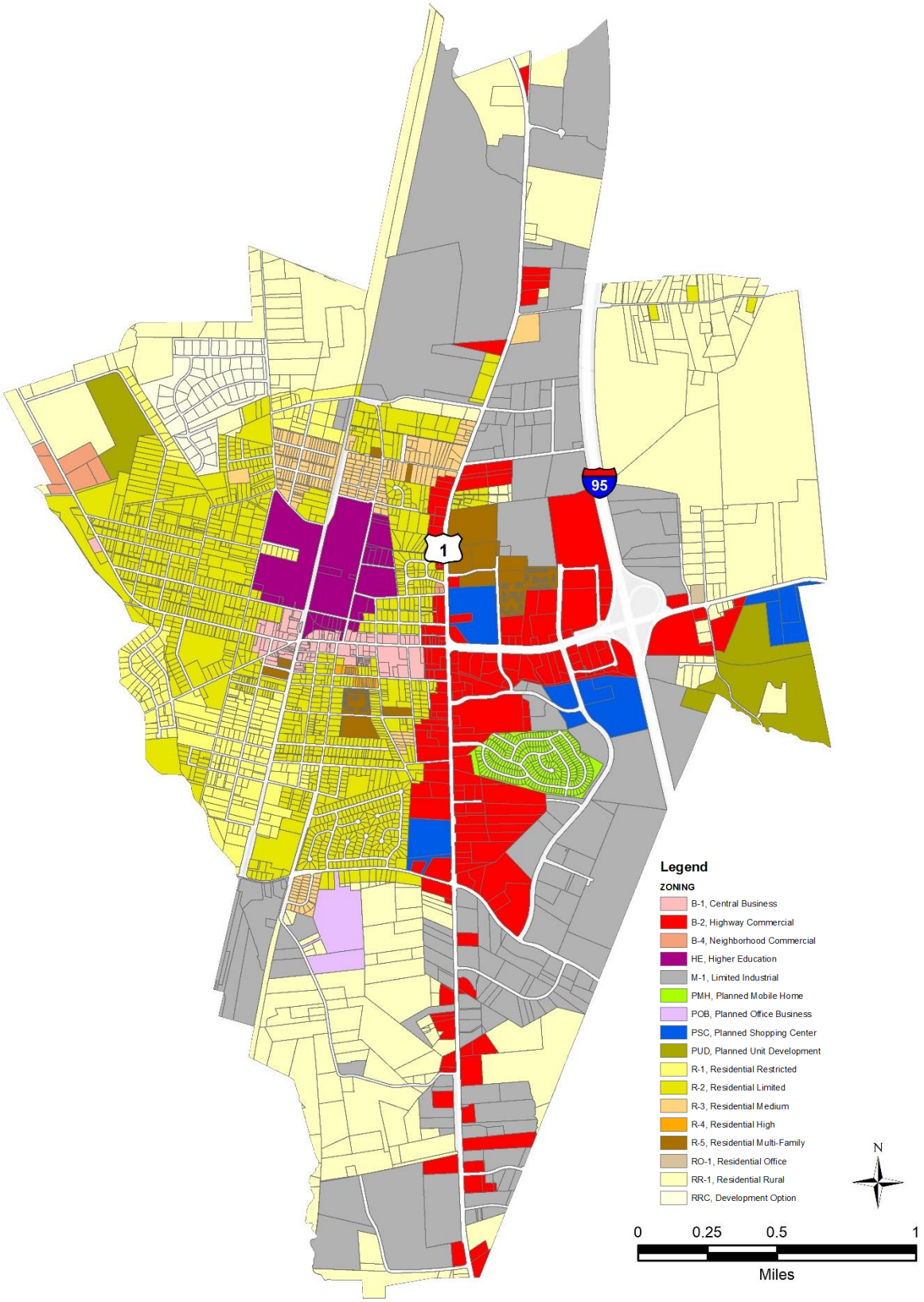


Zoning and Land Use

The existing zoning within Ashland consists primarily of residential, business/commercial, higher education, and limited industrial, as shown in **Figure 17**. The eastern, western, and southwestern outer edges of the Town are primarily residential zoning. Downtown Ashland is zoned as Central Business and is surrounded by residential, commercial, and higher education on the R-MC campus. The north and southeastern parts of the Town are primarily zoned light industrial, along Washington Highway.

Zoning and land use are indicators of expected land use patterns in the future, which in turn helps inform the types of transportation facilities needed to support those trends. Residential and downtown core areas also suggest context sensitive approaches to transportation planning to ensure that existing and proposed street sections, bike and pedestrian facilities not only address volume and capacity but align with neighborhood character.

Figure 17: Existing Zoning



Traffic Analysis

It is important to synthesize all collected data and information to establish how well the Town's transportation network is performing, in addition to the qualitative reports of the community. The following sections detail the existing traffic operations throughout the Town.

Level of Service

Level of Service (LOS) characterizes the operating conditions of roadways or intersections in terms of traffic performance measures related to speed, travel time, freedom to maneuver, traffic interruptions, and convenience. LOS is a letter designation given based on the operating conditions on a given roadway or intersection at a given time.

Roadway LOS was calculated by using industry standard measures based on volume of the roadway, available capacity of the roadway, and functional classification. LOS characteristics are described in the *Highway Capacity Manual (HCM) 10th Edition (2018)* in terms of ability of vehicle to maneuver, delay in travel time, speed, and volume-to-capacity ratio. Numerical analysis of traffic operations was completed using *Synchro 10.1 Professional*. Intersection LOS was calculated for both signalized and unsignalized intersections. Detailed LOS analysis results are provided in **Appendix B**.

There are six LOS designations, from LOS A to LOS F. The HCM defines six levels of service, LOS A through LOS F, with A having the best operating conditions from the traveler's perspective and F having the worst. The criteria for LOS on roadways and at intersections are described in **Table 4** and **Table 5**, respectively. LOS for the key roadways in Ashland are summarized in **Figure 18** and intersection LOS is summarized in **Figure 19** and **Figure 20**.

The only roadway segment in the Town that currently operates at LOS F is England Street between Washington Highway and Center Street. All other roadways operate at LOS D or better, which is typically the lowest acceptable LOS.

Both the AM and the PM peak periods were analyzed for intersection LOS. During the AM peak hour, only two intersections operate at LOS D: England Street/Washington Highway and Junction Drive/S Hill Carter Parkway. All others operate at LOS C or better, during the AM peak period. In the PM peak hour, only one intersection operates at LOS D: Ashcake Road/Washington Highway; the rest operate at LOS C or better.

Table 4: Roadway Level of Service Criteria

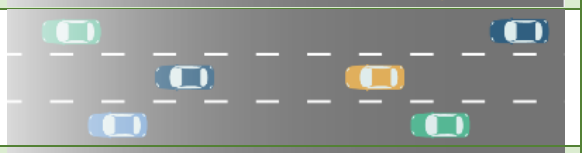
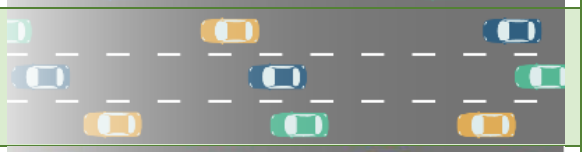
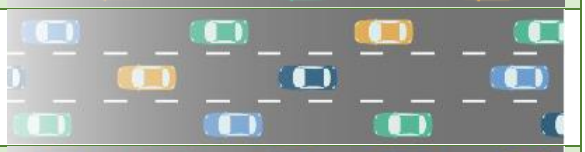
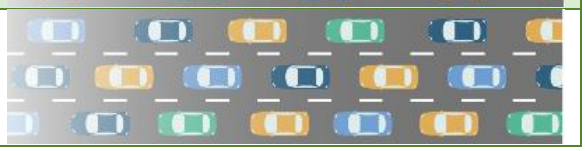
Level of Service (LOS)	General Operating Conditions	Graphical Representation
A	Free Flow	
B	Reasonably Free Flow	
C	Stable Flow	
D	Approaching Unstable Flow	
E	Unstable Flow	
F	Forced or Breakdown Flow	

Table 5: Intersection Level of Service Criteria

LOS	Signalized Intersections Average Control Delay (sec/veh)	Unsignalized Intersections Average Control Delay (sec/veh)	Relative Delay
A	≤ 10	≤ 10	Short Delay
B	> 10 – 20	> 10 – 15	
C	> 20 – 35	> 15 – 25	
D	> 35 – 55	> 25 – 35	Moderate Delay
E	> 55 – 80	> 35 – 50	
F	> 80	> 50	Long Delay

Figure 18: Existing Roadway LOS

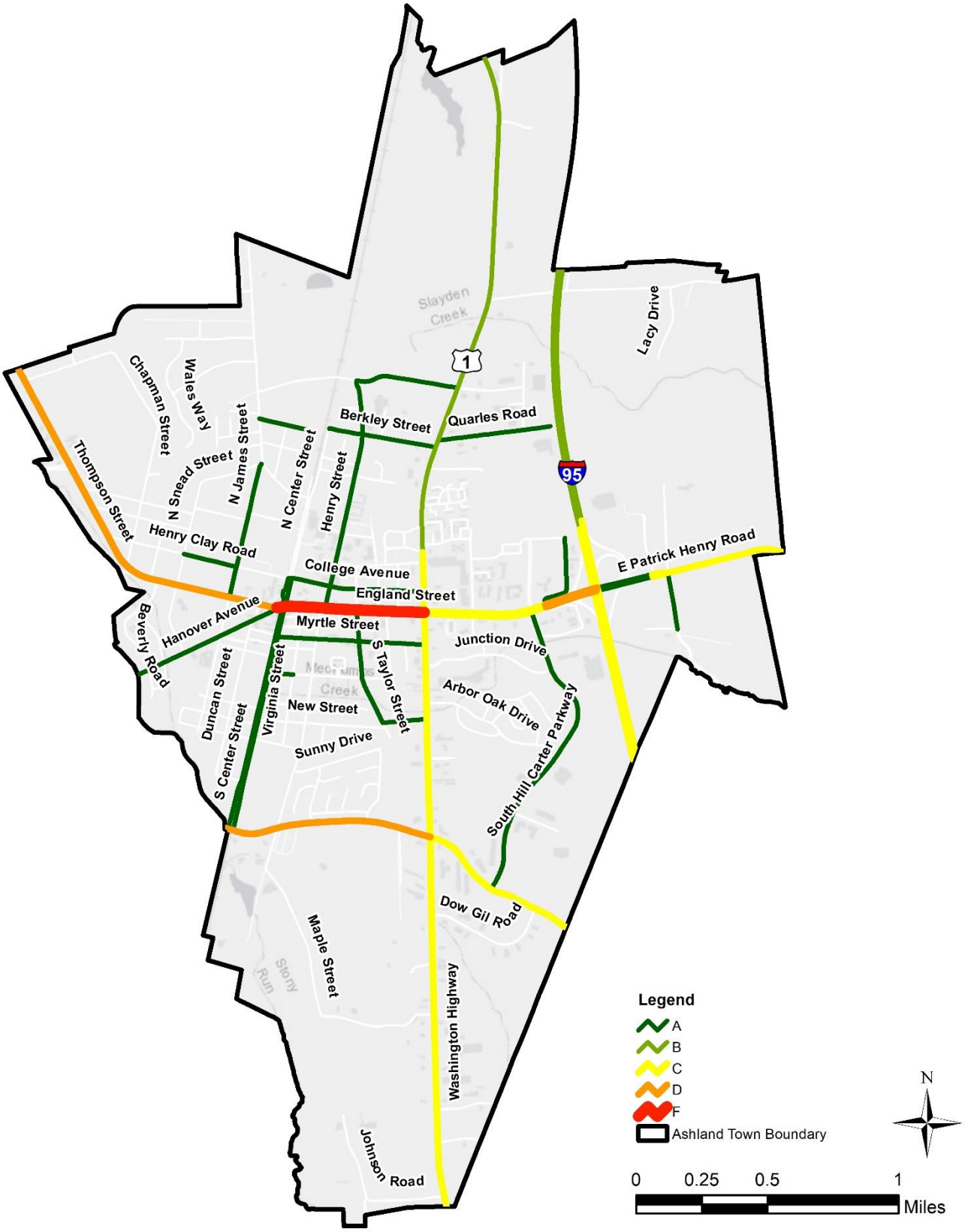


Figure 19: Existing AM Peak Hour Intersection LOS

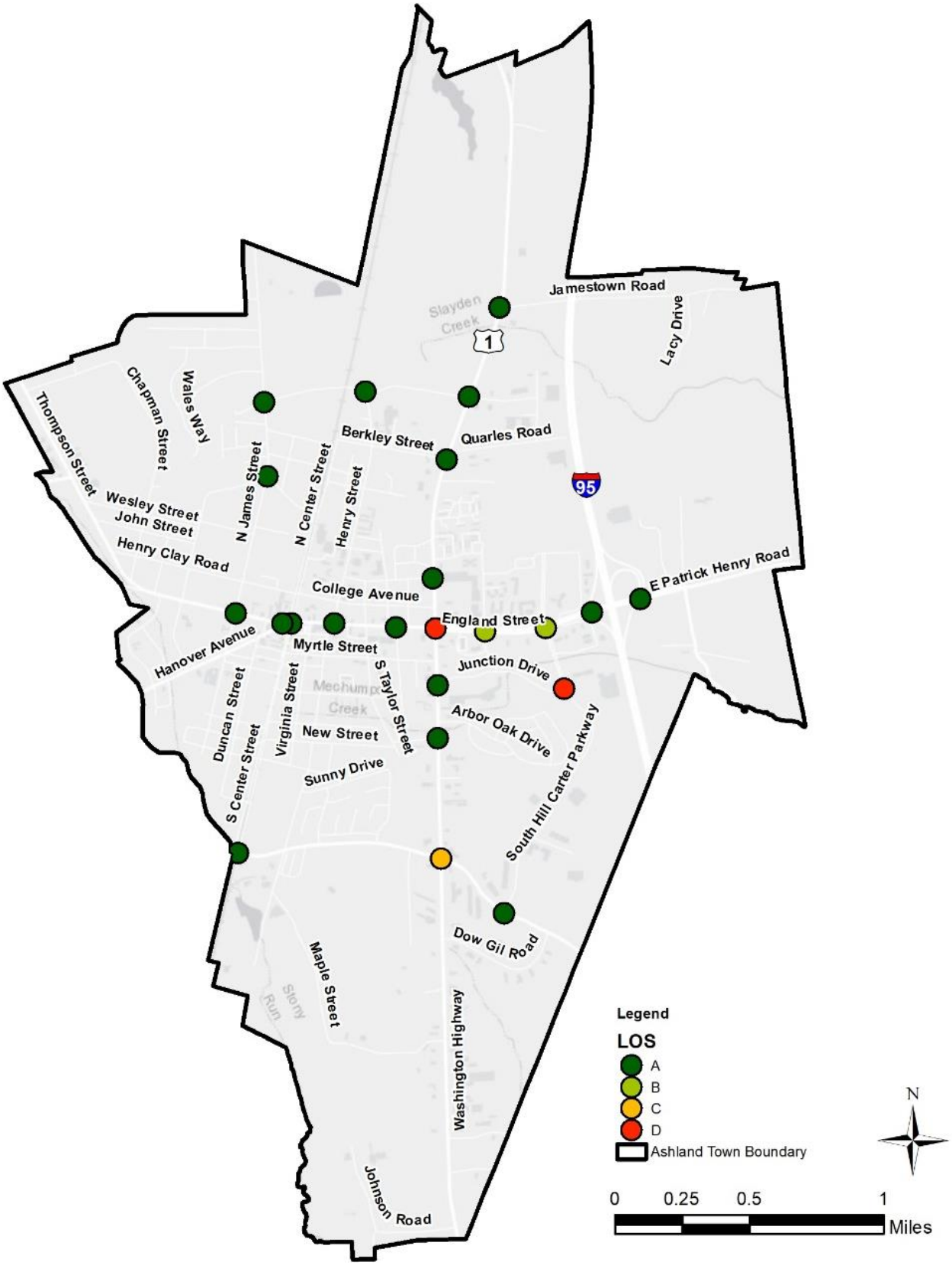
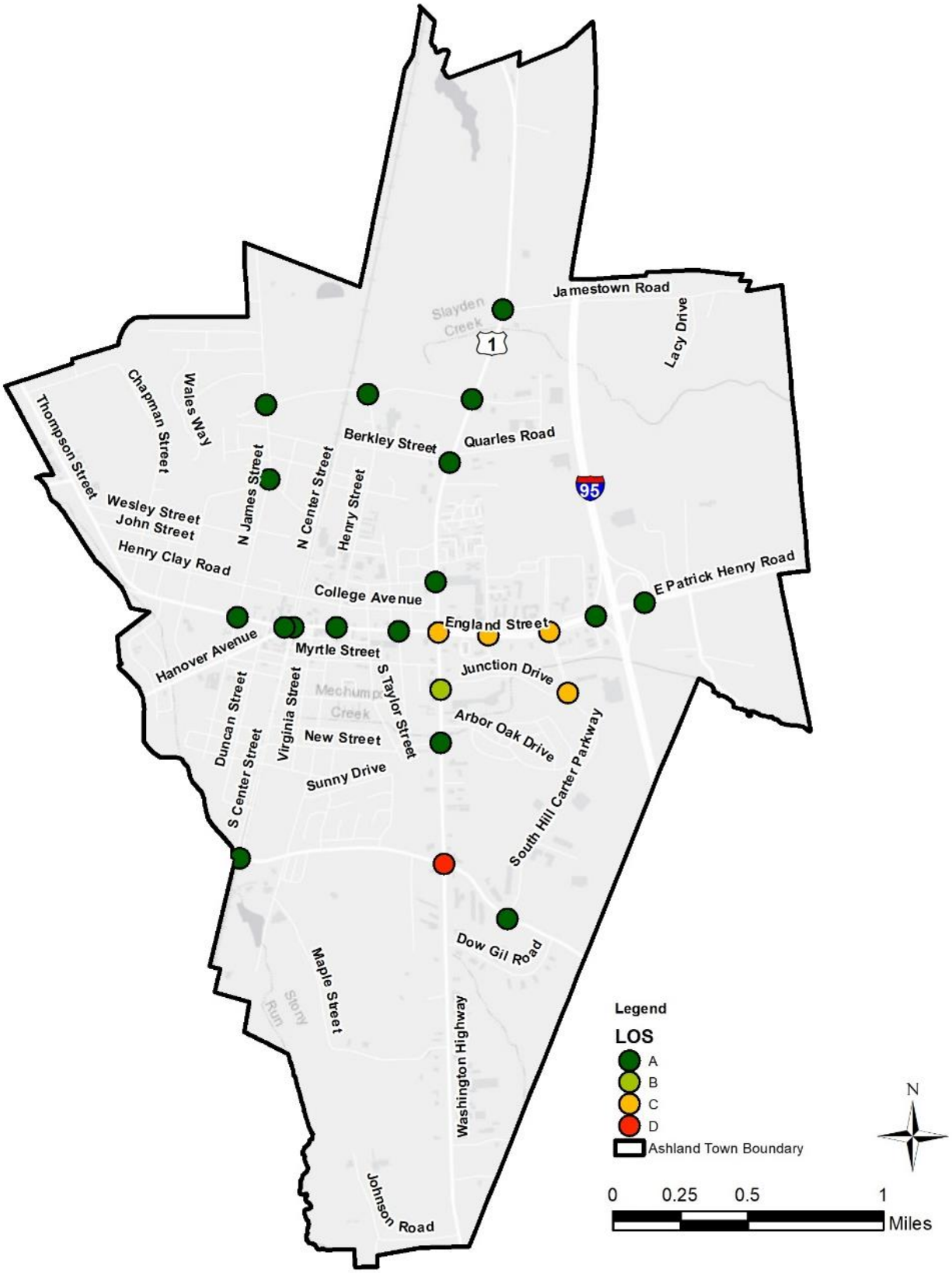


Figure 20: Existing PM Peak Hour Intersection LOS



Volume-to-Capacity

Volume-to-Capacity (V/C) compares roadway demand (vehicle volumes) with roadway supply (carrying capacity). Volume is defined as the actual number of vehicles known to occur over a given duration of time. Capacity is defined as the maximum rate (number of lanes and speed) at which vehicles can pass through a given point under prevailing conditions. The ratio of the two elements is described in **Table 6** with the associated condition.

Figure 21 illustrates the existing V/C ratios for the major Ashland roadways based on the collected data. Similar to the LOS analysis, the only segment operating at or above capacity is England Street between Washington Highway and Center Street. All other roadways in the Town are classified as below or very below capacity.

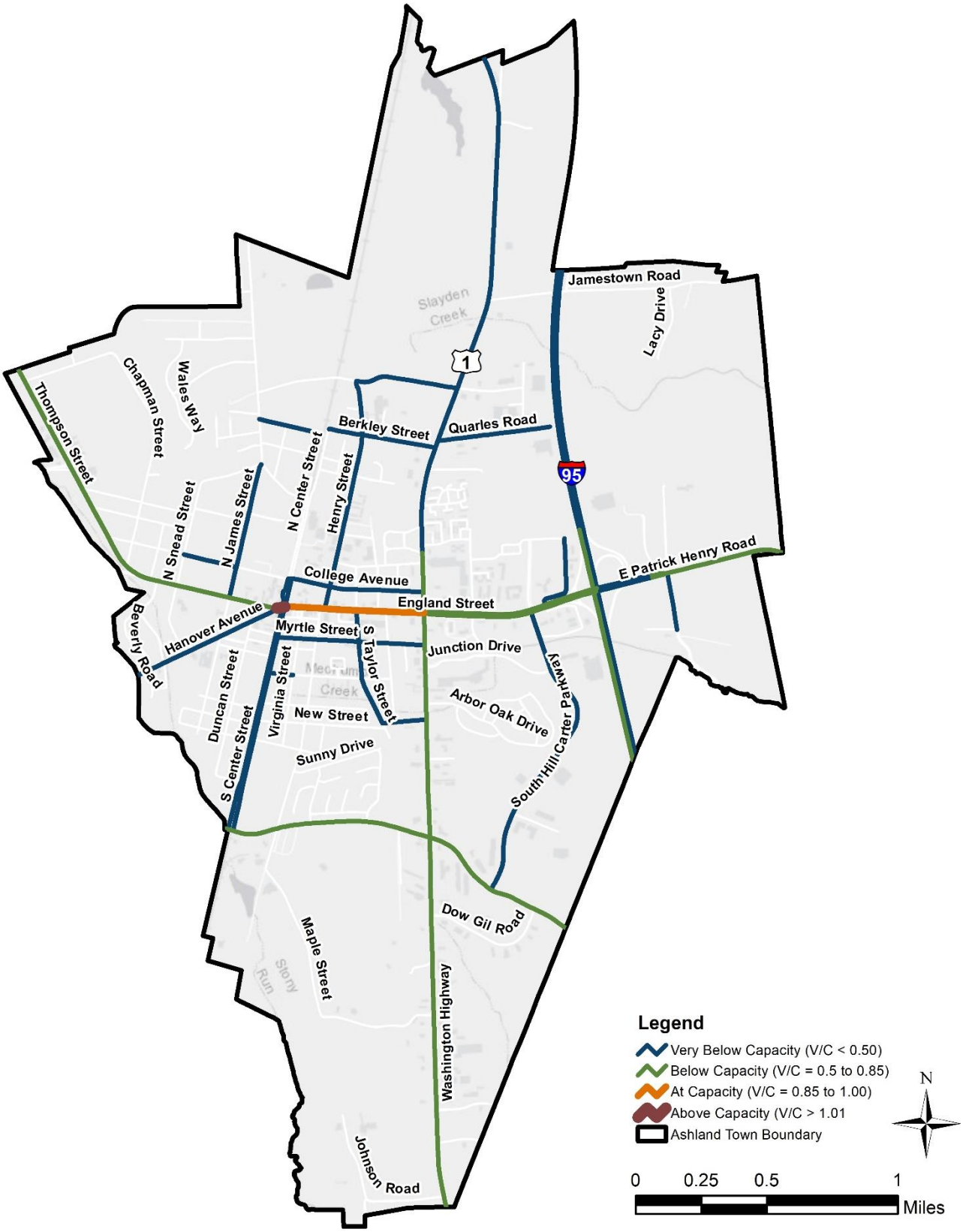
Table 6: Volume-to-Capacity Description

Category	Description
Very Below Capacity V/C < 0.50	A roadway with a V/C less than 0.50 typical operates with free-flowing conditions and is underutilizing available roadway capacity.
Below Capacity V/C = 0.50 to 0.85	A roadway with a V/C between 0.50 to 0.85 typically operates with efficiency and is not considered congested.
At Capacity V/C = 0.85 to 1.00	As the V/C nears 1.00, the roadway is becoming more congestion. A roadway approaching congestion may operate effectively during non-peak hours but be congested during peak travel periods.
Above Capacity V/C > 1.01	Roadways operating at capacity or slightly above capacity are heavily congested during peak periods and moderately congested during non-peak periods. A change in capacity due to incidents greatly impacts the travel flow on corridors operations with this V/C range.

Conclusions

As noted in the LOS and V/C analysis, majority of Ashland's roadways and intersections are operating at an acceptable level. The most concerning area is downtown, along England Street which experiences some of the highest traffic volumes in the Town, particularly between Washington Highway and Center Street (where analysis exhibited the poorest operations). England Street is reduced to a 2-lane roadway with a Two Way Left Turn Lane in this segment, reducing the capacity along England Street through the downtown area.

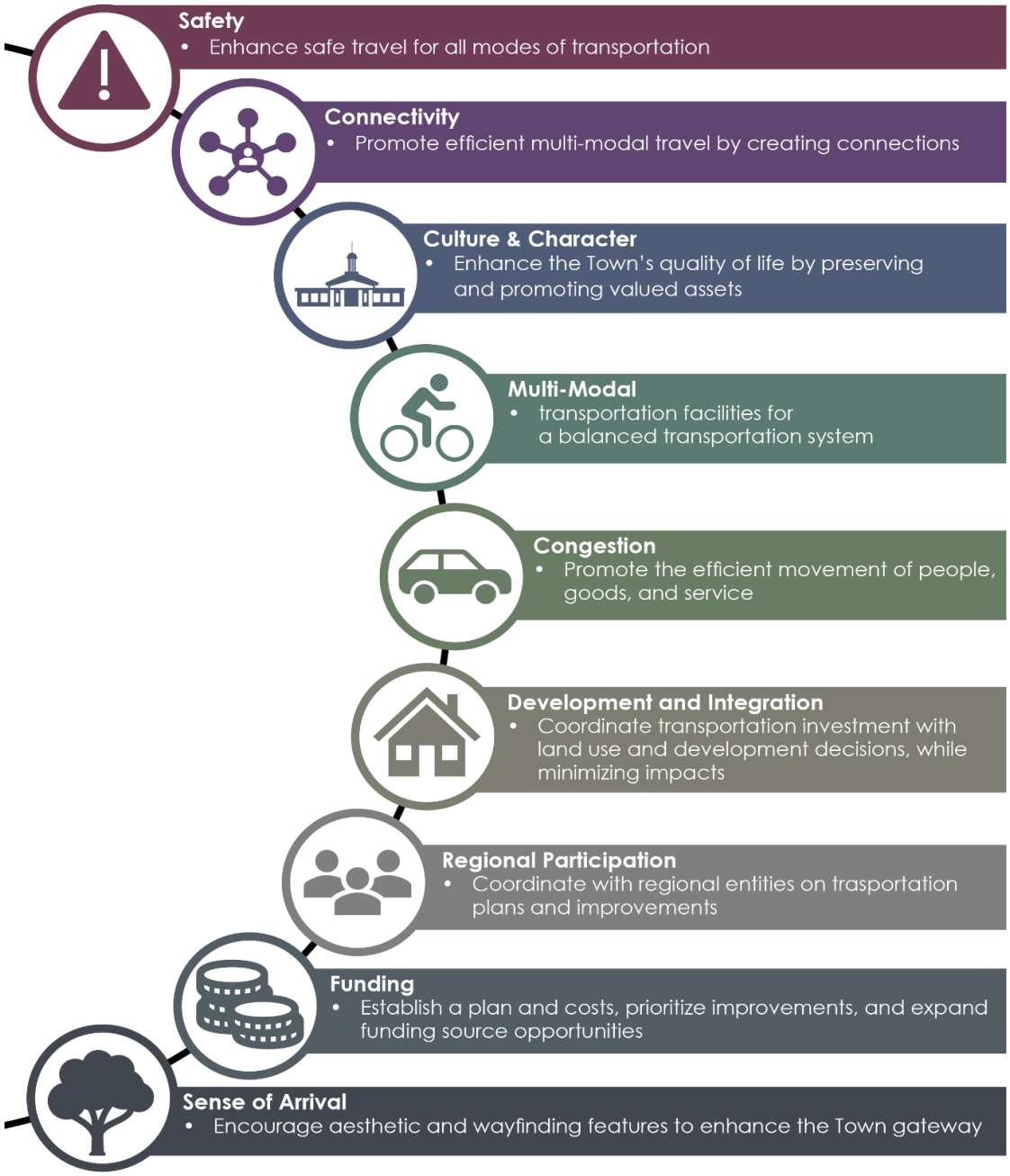
Figure 21: Existing Roadway V/C Ratio



Where does Ashland want to be?: Goals and Objectives

Plan Goals and Objectives

An important step in developing the TPU was to create a comprehensive vision and cohesive set of objectives to provide direction throughout the plan update process. The objectives were developed based on the previous Ashland 2020 Transportation Plan objectives, modified and refined with input from Town staff, and stakeholder engagement. The revised objectives for the TPU are as follows:



Public Engagement

Public outreach – whether through direct engagement or by input of community proxies – is an important part of a successful transportation plan. The two primary goals of engagement for the TPU were to inform and engage the public.

Informing the public required the thoughtful translation of engineering and planning vernacular into concepts and considerations relevant to the ways the general public interact with transportation on a daily basis. The initial step of informing the public is to communicate the purpose of the TPU and how it affects them. Once the public understands the value of the plan and its goals and objectives, they can engage in the planning process.

Engaging the public necessitated empowering them to communicate their ideas and concerns to the project team and, in return, be confident that their input would be valued and used to inform the planning process. The planning process included several avenues of public engagement to improve the likelihood that the feedback obtained was representation of the Town.

Engagement Strategies

The TPU included a variety of strategies, listed in **Table 7**, that intended to capture feedback from a cross-section of those who live, work, recreate, or have an investment in the Town's vision.

Table 7: Engagement Strategies

Strategy	Date(s)	Audience
Stakeholder Interviews	November 27, 2018	Select Town representatives
Online Survey	January 2019 – February 2019	Town at large
Citizen Information Meetings	January 16, 2019 May 15, 2019	Town at large
Plan Update Presentations	To be completed before Final report	Town Council and Planning Commission

Stakeholder Interviews

Stakeholder interviews were conducted with representatives that characterized various perspectives within the Town including residents, business owners, property owners, police, Town Council, Planning Commission, Randolph-Macon staff, and Hanover County staff. The Town representatives were selected by the Study Team, which aimed to obtain detailed information regarding existing transportation assets and issues and future vision of transportation components.

Online Survey

An interactive survey was available mid-January 2019 through mid-February 2019. A total of 175 participants offered input on community preference, opinions, and issues for the various

transportation components. The online survey was conducted to reach a wide spectrum of participants (residents, property owners, business owners, etc.) throughout the Town.

Citizen Information Meetings

Two citizen information meetings were held throughout the TPU process. The first meeting focused on describing the purpose and process of the TPU, highlighting the stakeholder interview findings, reviewing the existing conditions analyses, and obtaining input from the citizens on the Town vision and transportation needs.

The second meeting was conducted to review and gain input of the draft transportation recommendations. Both meetings were held in the same format: presentation of information, question and answer period, and open comment session at multiple information stations. This format was conducted in order to maximize the citizen comment period during each meeting.

Engagement Feedback

Public input was used, in addition to data analysis, to characterize how the existing traffic and infrastructure are currently preforming as well as the vision of Town stakeholders. The major themes identified by the stakeholders are described in subsequent sections. Detailed public engagement feedback is provided in **Appendix C**.

As part of the first citizen information meeting and survey, the public was asked to participate in a priority survey to identify and rank the items they value the most within the Town pertaining to transportation categories. As shown in **Figure 22**, facilities and preservation of Town character had the highest values of 24% and 21%, respectively. **Figure 23** displays the resulting category ranks from the public input. Similar to the most valued categories, pedestrian facilities and preservation of Town character were ranked highest. **Table 8** summarizes the highest priority issues for those participating in the survey, further illustrating the emphasis on pedestrian facilities and maintaining Town character. The four top priorities of the Town reflected in the survey are as follows:

- Pedestrian Facilities
- Preserve Town Character
- Reduced Congestion
- Bicycle Facilities

Figure 22: Priority Survey Value Results

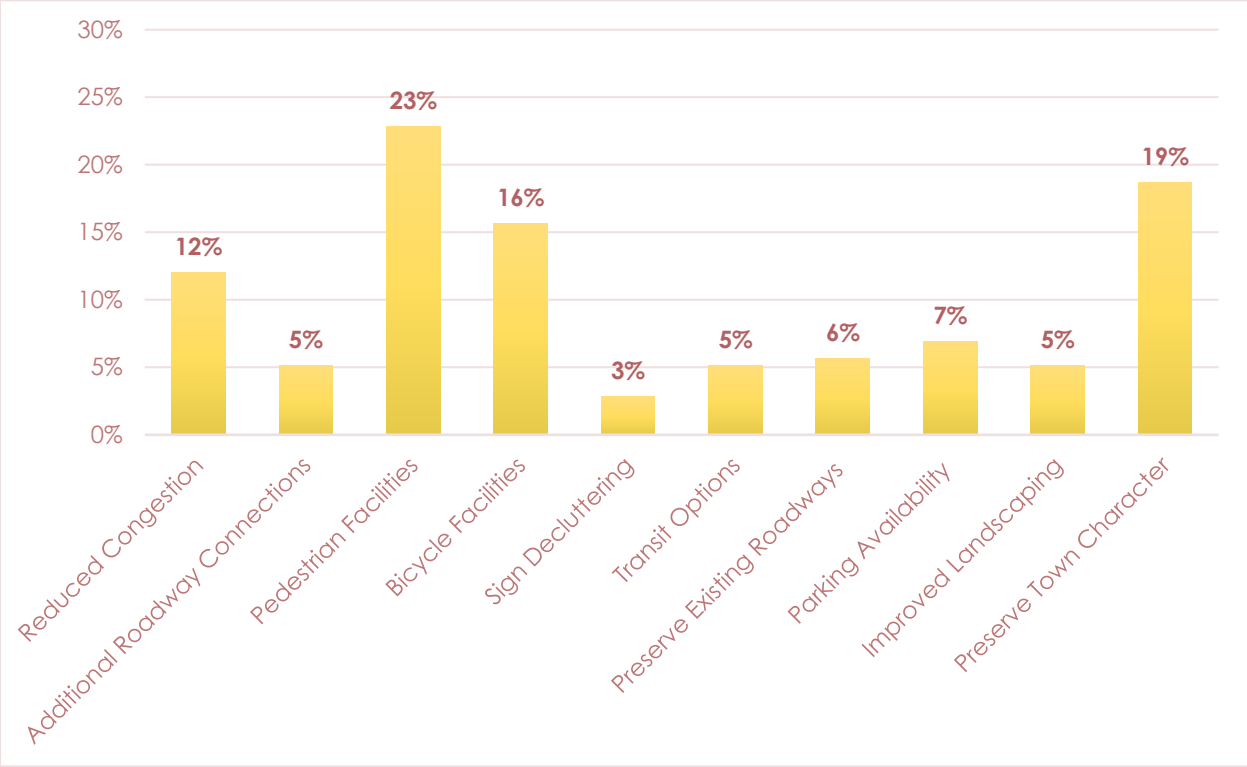


Figure 23: Priority Survey Rank Results

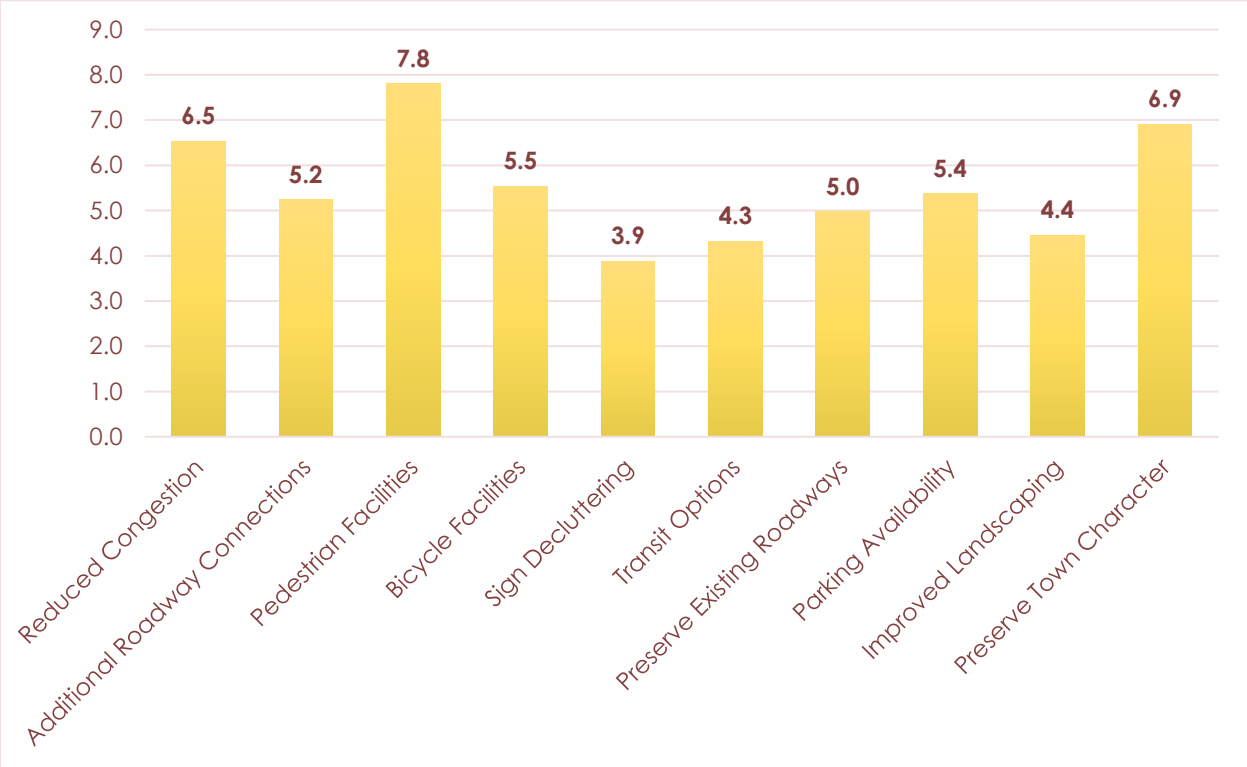


Table 8: Priority Survey Rank Results

Category	Most Valuable	Ranking
Pedestrian Facilities	1	1
Preserve Town Character	2	2
Reduced Congestion	4	3
Bicycle Facilities	3	4
Parking Availability	5	5
Additional Roadway Connections	7	6
Preserve Existing Roadways	6	7
Improved Landscaping	7	8
Transit Options	7	9
Sign Decluttering	10	10

In addition to the priority survey, public comments were collected as part of each engagement opportunity. The subsequent paragraphs summarize the common themes collected from the stakeholders.

Pedestrian and bicyclist safety and facility maintenance/improvements were noted as important to many of the stakeholders and the community including connectivity and crossing locations. Pedestrians and bicyclists travel throughout the Town for recreation and to destinations for businesses, services, and restaurants. The businesses and aesthetic of downtown Ashland caters towards welcoming bicyclists and encouraging pedestrians to explore the area.

The survey results were supported with public comments and stakeholder interviews to clearly express the idea that residents of Ashland, and visitors as well, value the scale, walkability, and character of their Town. Transportation issues are also important, but ultimately the significance of those topics is most often related back to impacts on community character and quality of life. Many of the public stakeholders moved to Ashland because of the Town character. Therefore, preservation of the Town character is vital for the future of Ashland.

The railroad tracks running through the Town along Center Street were also clearly associated with town character, brand, and public safety issues during public outreach. Unclear demarcation of the roadways has led to vehicles turning onto the tracks, posing both a safety concern and potential for increased delay. It was also noted that details of passenger rail service were unclear, and information was difficult to find, perhaps leading to underuse of the train service. Additionally, the pervasive use and reliance upon navigation applications was noted as a possible contributing factor to motorists making turns on to the tracks as a result of visual clutter at the crossing.

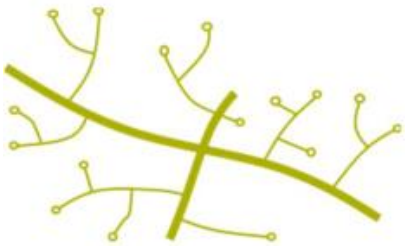
For students and faculty at R-MC, mobility within the Town and the surrounding areas (e.g. Richmond) is a key concern. Transit was noted as a desire, particularly for students to reach Richmond and other local destinations, both in the form of better passenger train service and bus transit services.

Another common theme heard during the public outreach phase of the TPU was regarding traffic from I-95. When incidents occur along the interstate, near the Ashland exits, traffic reroutes from I-95 through and around the Town to circumvent the incident and return to the interstate. This can lead to heavy traffic volumes using Route 54 and Washington Highway through Ashland, increasing delays.

WHAT WILL IT TAKE ASHLAND TO GET THERE?: RECOMMENDATIONS

Recommendations

Communities with successful transportation networks provide connected and multi-modal facilities to support the varying trip types (e.g., recreational, commuter, etc.). For the Town of Ashland, it is important to preserve the Town character and provide alternative modes of travel while balancing the increasing traffic demand which can be accomplished through a more connected transportation network.



Fragmented Street Network

A connected transportation network provides attractive and safe facilities for vehicular, bicycle, pedestrians, and transit users. The benefits of a connected network for the Town include the following:

Connected Street Network

- Preserves the existing Town character
- Enhances the existing grid system
- Improves accessibility and mobility
- Promotes a transportation system
- Provides alternative route options
- Encourages mode choice
- Redistributes users (local versus commuter) across the network
- Reduces trip length
- Improves emergency accessibility and response time

Transportation recommendations were developed for six categories to support the Town of Ashland connected network: roadways, interchange, intersections, bicycle and pedestrian, transit, and rail.

Roadway

As residential and commercial growth occurs in and around the Town and more vehicles take to the road, roadway improvements are needed to reduce traffic congestion, improve mobility, and improve safety. A unique challenge in creating a successful transportation system for the Town of Ashland is blending local and regional connectivity with preservation of the Town's unique character.

To develop a set of realistic and effective roadway recommendations, it was necessary to look beyond traffic operations to consider other important factors. Each of the following criteria was considered during the formulation of recommendations.

- Connectivity
- Mobility and Safety
- Land Use and Development
- Stakeholder and Public Input

The future roadway network for the TPU includes recommendations in five (5) major categories including new median, grade separation of existing roadways, roadway realignment, new roadways, and new private development roadways.

- ***New Median*** – a median was proposed to provide physical separation of traffic traveling in opposite directions, refuge for pedestrians or bicycles crossing the roadway, potential for turn lanes at key intersections, and streetscaping.
- ***Grade Separation*** – grade separation of a roadway was proposed to provide unimpeded east-west connections over the active railroad tracks to improve traffic operations, improve emergency responsiveness, and connectivity
- ***Roadway Realignment*** – realignment of a roadway was proposed to improve connectivity in the transportation network
- ***New Roadways*** – new roadways were proposed to increase capacity, improve traffic operations, improve connectivity, provide alternate routes and route choice, improve emergency responsiveness, and support future development

New Private Development Roadways – private development roadways were included in the roadway recommendations to illustrate possible future connections that could result from new land development projects. The Town of Ashland is not responsible for the cost and construction of these roadways as they are included in a planned development but does have review authority of proposed development plans and opportunity to help guide new roads to support the transportation plan goals. Thus, the recommended realigned and new roadways illustrated in the TPU receive an additional level of study with these new development plans as they occur, to evaluate the potential impacts of proposed improvements.

Figure 24 illustrates the roadways recommendations and **Table 9** details each roadways recommendation. **Table 9** provides the unique recommendation ID, roadway name, approximate location, category, roadway type, and improvement. The roadway type is based on the proposed functional classification of the roadway. For the TPU, all of the new roadways are proposed as local roads with an urban or rural typical section. The urban typical section includes curb and gutter while the rural typical section includes shoulders. Typical sections were identified based on the adjacent land uses and projected use of the roadway (e.g., residential, commercial, etc.) as well as surrounding typical sections for consistency. Detailed roadway recommendations and individual project sheets are provided in **Appendix D**.

Interchange

As traffic demand continues to increase, it is essential to continue to improve interchange traffic operations, promote interchange safety by eliminating movements or conflict points, and minimize impacts to right-of-way. Improved traffic operations and accessibility to I-95 is a major component of the Ashland and statewide transportation network.

The recommended interchange configuration for I-95 at State Route 54 is the Diverging Diamond Interchange (DDI) identified as the preferred alternative from the I-95/State Route 54 Interchange Improvement Screening Study completed in November 2015, as shown in **Figure 25**.

Figure 24: Roadway Recommendations

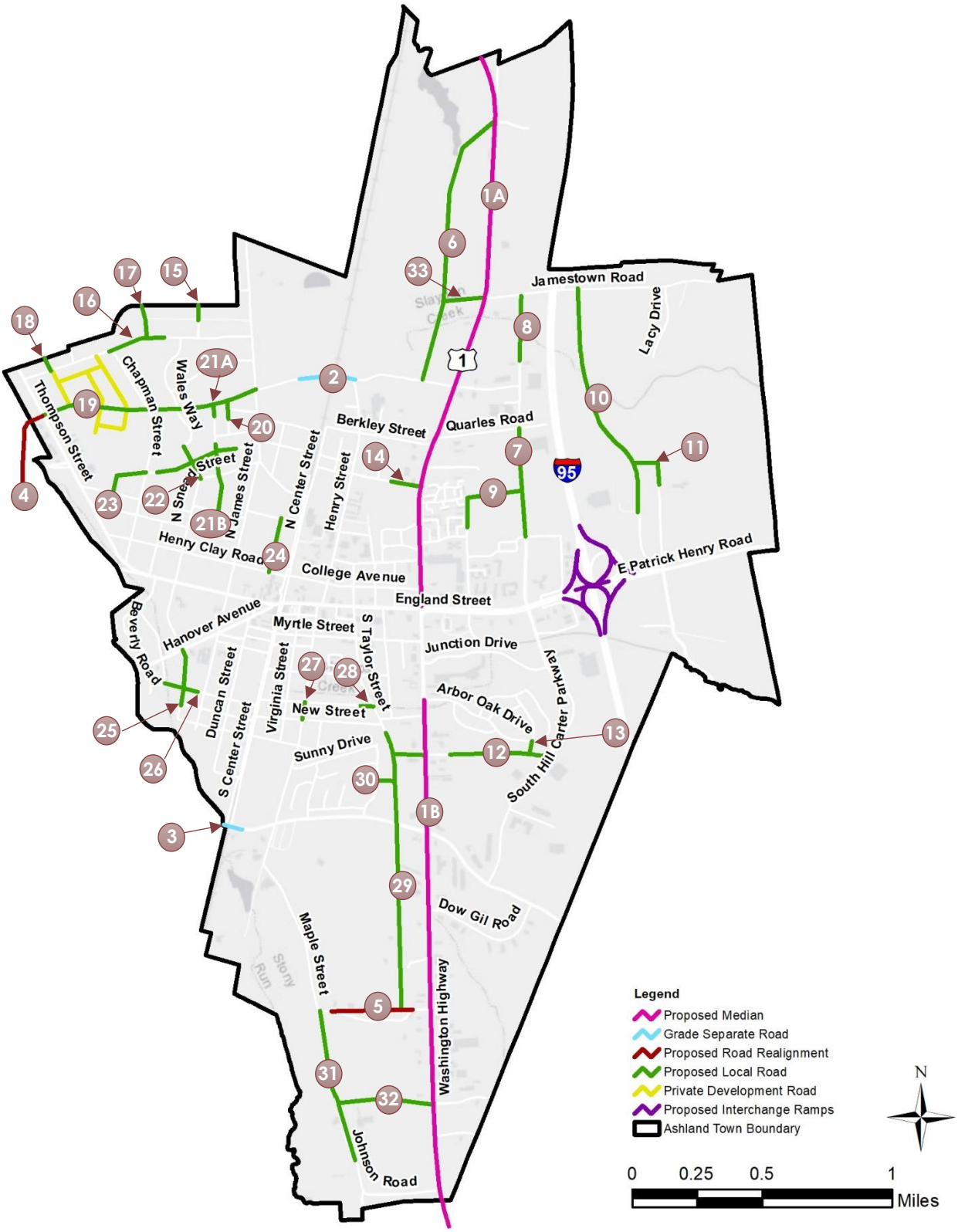


Table 9: Roadway Recommendations

ID	Roadway	Approximate Location	Category	Roadway Type	Improvement
RR-1A	U.S. Route 1	Northern Ashland Town Limit to England Street	Proposed Median	N/A	Construct 16' median to allow for turn lanes at key intersections
RR-1B	U.S. Route 1	Arbor Oaks Drive to North Lakeridge Parkway	Proposed Median	N/A	Construct 16' median to allow for turn lanes at key intersections
RR-2	West Vaughan Road	James Street to Henry Street	Grade Separation	N/A	Grade separate roadway over railroad tracks
RR-3	Ashcake Road	Over Center Street	Grade Separation	N/A	Grade separate roadway over railroad tracks
RR-4	Medical Drive Realignment	Vaughan Road Extension/Thompson Street to Elmont Road	Roadway Realignment	Local; Rural	Construct 2-lane, undivided roadway*
RR-5	Maple Street Realignment	Maple Street to U.S. Route 1	Roadway Realignment	Local; Rural	Construct 2-lane, undivided roadway
RR-6	New Road 1	Archie Cannon Drive to U.S. Route 1	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-7	Hill Carter Parkway Extension	Hill Carter Parkway to Quarles Road	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-8	Haley Road Extension	Haley Road to Jamestown Road	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-9	Cottage Greene Road Extension	Junction Drive to Haley Road Extension	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-10	Telcourt Road Extension	Telcourt Road to Jamestown Road	Proposed Roadway	Local; Rural	Construct 2-lane, undivided rural roadway
RR-11	Frances Road Extension	Frances Road to Telcourt Road Extension	Proposed Roadway	Local; Rural	Construct 2-lane, undivided roadway
RR-12	Green Chimneys Court Extension	Taylor Street Extension to Hill Carter Parkway	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway

Table 9 Continued: Roadway Recommendations

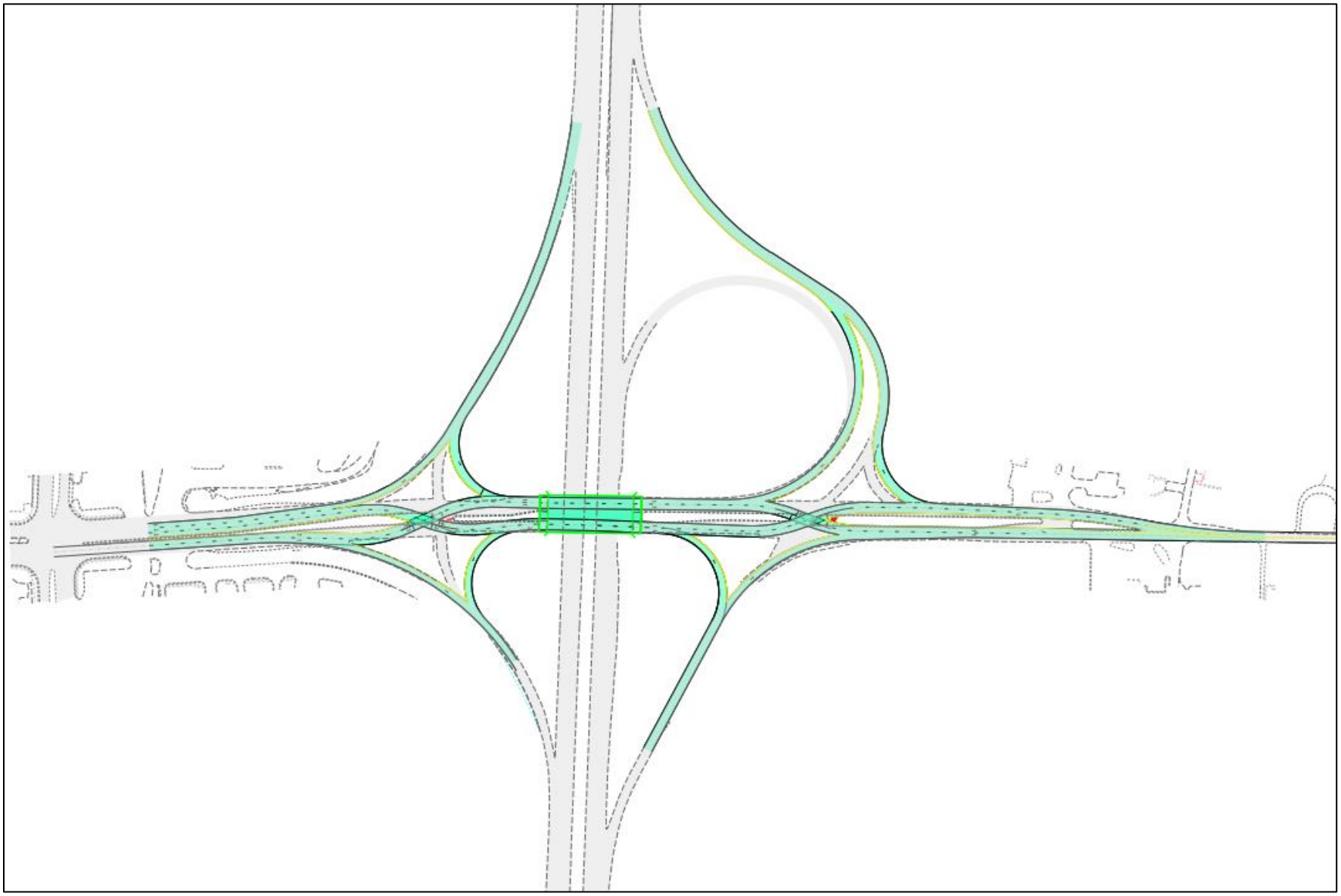
ID	Roadway	Approximate Location	Category	Roadway Type	Improvement
RR-13	Ten Oak Drive Extension	Ten Oak Drive to Green Chimneys Court Extension	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-14	Berkley Woods Drive Extension	Berkley Woods Drive to U.S. Route 1	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-15	Gamekeeper Place Extension	Gamekeeper Place to Northern Ashland Town Limit	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-16	Carter Forest Drive Extension	Carter Forest Drive to Chapman Street	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-17	New Road 2	Carter Forest Drive Extension to Northern Ashland Town Limit	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-18	New Road 3	Chapman Street to Northern Ashland Town Limit	Proposed Roadway	Local; Rural	Construct 2-lane, undivided roadway
RR-19	Vaughan Road Extension	Vaughan Road to Thompson Street	Proposed Roadway	Local, Urban	Construct 2-lane, undivided roadway
RR-20	Steyland Street Extension	Steyland Street to Vaughan Road Extension	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-21A	Calley Street Extension 1	Calley Street to Vaughan Road Extension	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-21B	Calley Street Extension 2	Calley Street to Wesley Street	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-22	Wales Way Extension	N Snead Street to Wales Way	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-23	Haley Court Extension	Haley Court to Wesley Street	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-24	New Road 4	Henry Clay Road to Mullen Drive	Proposed Roadway	Local; Rural	Construct 2-lane, undivided roadway
RR-25	S Snead Street Extension	Dale Avenue to Hanover Avenue	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-26	Howard Street Extension	Lee Avenue to Howard Street	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-27	Maple Street Extension 1	New Street to McMurdo Street	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway

Table 9 Continued: Roadway Recommendations

ID	Roadway	Approximate Location	Category	Roadway Type	Improvement
RR-28	McMurdo Street Extension	McMurdo Street to S Taylor Street	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-29	S Taylor Street Extension	S Taylor Street to Maple Street Realignment	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-30	Swannee Lane Extension	Swannee Drive to S Taylor Street Extension	Proposed Roadway	Local; Urban	Construct 2-lane, undivided roadway
RR-31	Maple Street Extension 2	Maple Street to Johnson Road	Proposed Roadway	Local; Rural	Construct 2-lane, undivided roadway
RR-32	Success Street Extension	Maple Street Extension 2 to U.S. Route 1	Proposed Roadway	Local; Rural	Construct 2-lane, undivided roadway
RR-33	Jamestown Road Extension	Jamestown Road to New Road 1	Proposed Roadway	Local; Rural	Construct 2-lane, undivided roadway

*In coordination with Hanover County, this road may become a 4-lane divided major collector, rural section, to match the Hanover County Major Thoroughfare Plan.

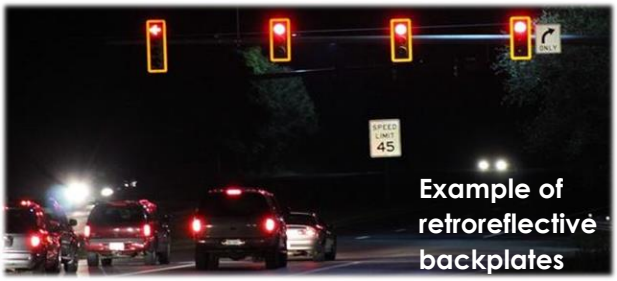
Figure 25: Interchange Recommendations



Intersection

Recommendations for the future system include improvements to critical intersections throughout the Town. Recommendations for these intersections were developed to promote intersection safety and improve visibility for vehicles, bicycle, and pedestrian traffic traversing the intersections. The following improvements are recommended for the study area intersections:

- Signalized Intersections
  - Install retroreflective backplates on signal heads
  - Improve signal progression by conducting signal retiming every three to five years
  - Upgrade signal equipment to allow for communication among signalized intersections



- Unsignalized Intersections
  - Implement traffic calming measures outlined in the Town's traffic calming guidelines, if needed

Additional details on intersection improvements will need to be determined through more in-depth safety and traffic analysis as the development occurs and projects progress.

Bicycle and Pedestrian

Providing enhanced multi-modal facilities such as sidewalks, shared-use paths, and bikeways is consistent with one of the Guiding Principles. The option to walk or bike is a key element to any healthy community's transportation system. These modes offer a practical transportation choice that provides benefits for both individuals and their communities. The benefits for having bicycle and pedestrian facilities include the following:

- ***Health*** – Regular physical activity helps reduce the risk of a variety of health issues (e.g., obesity).
- ***Transportation*** – Non-motorized accommodations can help reduce overall vehicle trips on the network, providing some relief to over-capacity streets that carry more traffic than they were designed to handle, resulting in congestion, wasted time, pollution, and driver frustration. Many of the every day trips in downtown areas are short enough to be accomplished on foot, by bike, or by public transportation for longer trips to reduce the number of single occupancy vehicles on the network
- ***Environmental*** – According to the Environmental Protection Agency, mobile transportation sources (cars, trucks, buses, and off-road equipment such as marine engines and construction equipment) are responsible for nearly 80% of carbon monoxide emissions in the U.S. An overall reduction in vehicle trips, congestion, and drive times, is an important strategy to reduce emissions.
- ***Economic*** – Expenses related to car ownership consumes a major portion of many family incomes. When safe facilities are provided to walk, bike, and take transit, more people

can rely on active travel and spend less on transportation, putting more money back into local economies.

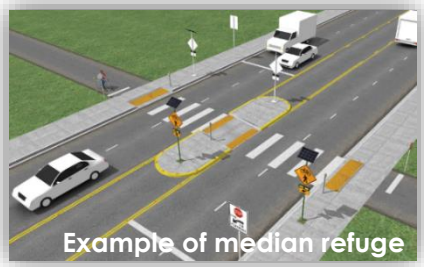
- ***Quality of life*** – The availability of active travel in a community is an indicator of its livability, which helps attract businesses and grow tourism-related activity. Providing bicycle, pedestrian, and transit facilities contribute to a healthy sense of identity and place.
- ***Social Justice*** – For those without the option to drive, such as adolescents, elderly, those unable to afford a car, and people with certain disabilities, these facilities provide travel choice and break down barriers to accessing jobs, health care, education, and recreation.

Bicycle and pedestrian recommendations were developed by identifying gaps in the existing networks, identifying connections to major attractions, providing alternative modes of travel and accessibility, and public input. **Figure 26** and **Table 10** illustrate and provide description of the trail recommendations, respectively. **Figure 27** and **Table 11** illustrate and detail the sidewalk recommendations, respectively (Note: Figure 27 does not include ID references from table 11 for specific sidewalk recommendations due to graphic limitations but street names can be used to identify sidewalk segments). Lastly, the sidewalks identified as private development sidewalks are included as part of the Lauradell development and the Town is not responsible for the cost or construction of these sidewalks.

It is equally important to provide safe bicycle and pedestrian facilities by providing the appropriate type, size, and location as well as accessibility features (e.g., curb ramps) and buffers between vehicular traffic and pedestrian/bicycle traffic.

In addition to the bicycle and pedestrian recommendations provided below, the following improvements should be considered for all facilities:

- Improvement of Crosswalks
  - Improve Striping
  - Construct Median Refuges, where applicable
  - Enhance Signage
- Improve Safety
  - Install Lighting
  - Enhance Signage
- Amenities
  - Provide Bike Racks
  - Implement Bike Share Program


Example of median refuge

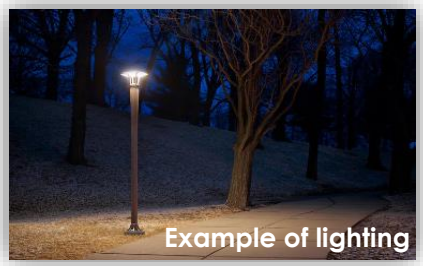

Example of lighting

Figure 26: Trail Recommendations

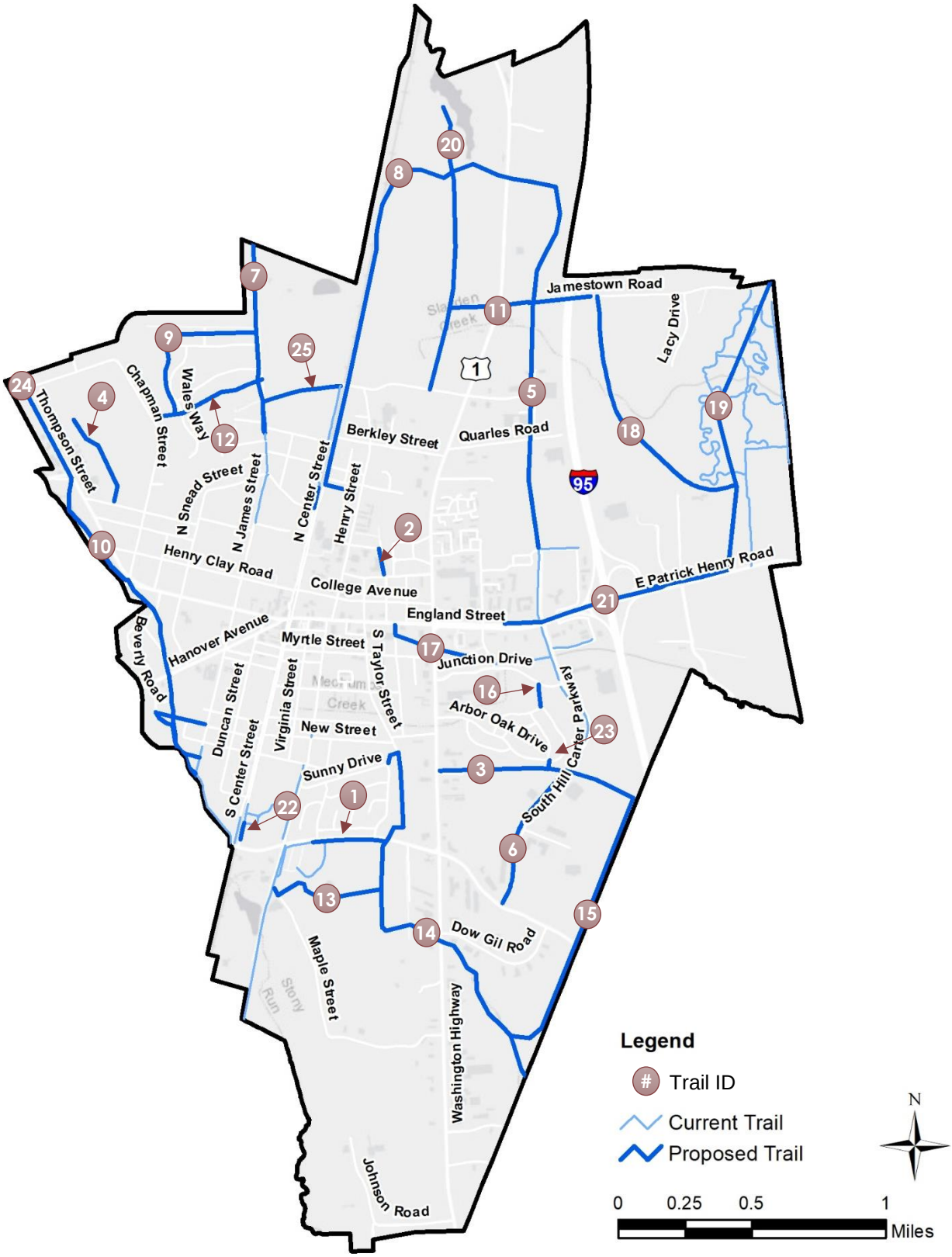


Table 10: Trail Recommendations

ID	Trail	Approximate Location	Category	Improvement
TR-1	Ashcake Road	Slash Drive to U.S. Route 1	Proposed Trail	Construct 10-foot, shared use path
TR-2	Calhoun Street	Caroline Street to E Patrick Street	Proposed Trail	Construct 10-foot, shared use path
TR-3	Green Chimneys Court	U.S. Route 1 to Eastern Ashland Town Limit	Proposed Trail	Construct 10-foot, shared use path
TR-4	Haley Court connection	Wesley Street to Vaughan Road Extension	Proposed Trail	Construct 10-foot, shared use path
TR-5	Hill Carter Parkway/Haley Road	Hill Carter Parkway/Kitty Hamilton Lane to TR-11/Jamestown Road	Proposed Trail	Construct 10-foot, shared use path
TR-6	Hill Carter Parkway	Ashcake Road to Green Chimneys Court	Proposed Trail	Construct 10-foot, shared use path
TR-7	James Street	Elm Street to Northern Ashland Town Limit	Proposed Trail	Construct 10-foot, shared use path
TR-8	N Center Street	Smith Street northeast across U.S. Route 1 to Jamestown Road	Proposed Trail	Construct 10-foot, shared use path
TR-9	New Trail 00	Vaughan Road Extension to James Street	Proposed Trail	Construct 10-foot, shared use path
TR-10	New Trail 01	Medical Drive/Thompson Street intersection to Southwestern Ashland Town Limit	Proposed Trail	Construct 10-foot, shared use path
TR-11	New Trail 02	Jamestown Road to proposed roadway RR-7	Proposed Trail	Construct 10-foot, shared use path
TR-12	New Trail 03	Vaughan Road Extension/Chapman Street to James Street	Proposed Trail	Construct 10-foot, shared use path
TR-13	New Trail 04	Maple Street/Walden Lane intersection to TR-14	Proposed Trail	Construct 10-foot, shared use path
TR-14	New Trail 05	Swannee Drive/Sunny Drive intersection to Southeastern Ashland Town Limits	Proposed Trail	Construct 10-foot, shared use path
TR-15	New Trail 06	TR-14 to TR-3 along Eastern Ashland Town Limit	Proposed Trail	Construct 10-foot, shared use path

Table 10 Continued: Trail Recommendations

ID	Trail	Approximate Location	Category	Improvement
TR-16	New Trail 07	Junction Drive to Winter Oak Drive	Proposed Trail	Construct 10-foot, shared use path
TR-17	New Trail 08	Route 54/Randolph Street intersection to Junction Drive/Cottage Green Drive intersection	Proposed Trail	Construct 10-foot, shared use path
TR-18	New Trail 09	TR-19 to Jamestown Road/Proposed Telcourt Road intersection	Proposed Trail	Construct 10-foot, shared use path
TR-19	New Trail 10	Route 54 to Jamestown Road	Proposed Trail	Construct 10-foot, shared use path
TR-20	New Trail 11	Archie Canon Drive towards Northern Ashland Town Limit	Proposed Trail	Construct 10-foot, shared use path
TR-21	Route 54	KFC Driveway to TR-19	Proposed Trail	Construct 10-foot, shared use path
TR-22	S Center Street	Ashcake Road to the north 0.6 miles	Proposed Trail	Construct 10-foot, shared use path
TR-23	Ten Oak Drive	TR-3 to Ten Oak Drive/Arbor Oak Drive intersection	Proposed Trail	Construct 10-foot, shared use path
TR-24	Thompson Street	Medical Drive/Thompson Street intersection to Northwest Ashland Town Limit	Proposed Trail	Construct 10-foot, shared use path
TR-25	Vaughan Road	Center Street to James Street	Proposed Trail	Construct 10-foot, shared use path

Figure 27: Sidewalk Recommendations

It should be noted that proposed sidewalks associated with roadway recommendations or proposed roads are not labelled in this figure or shown in the associated table. These sidewalk costs are included in the roadway projects. The sidewalks labelled in this figure and shown in the table below are independent of roadway projects.

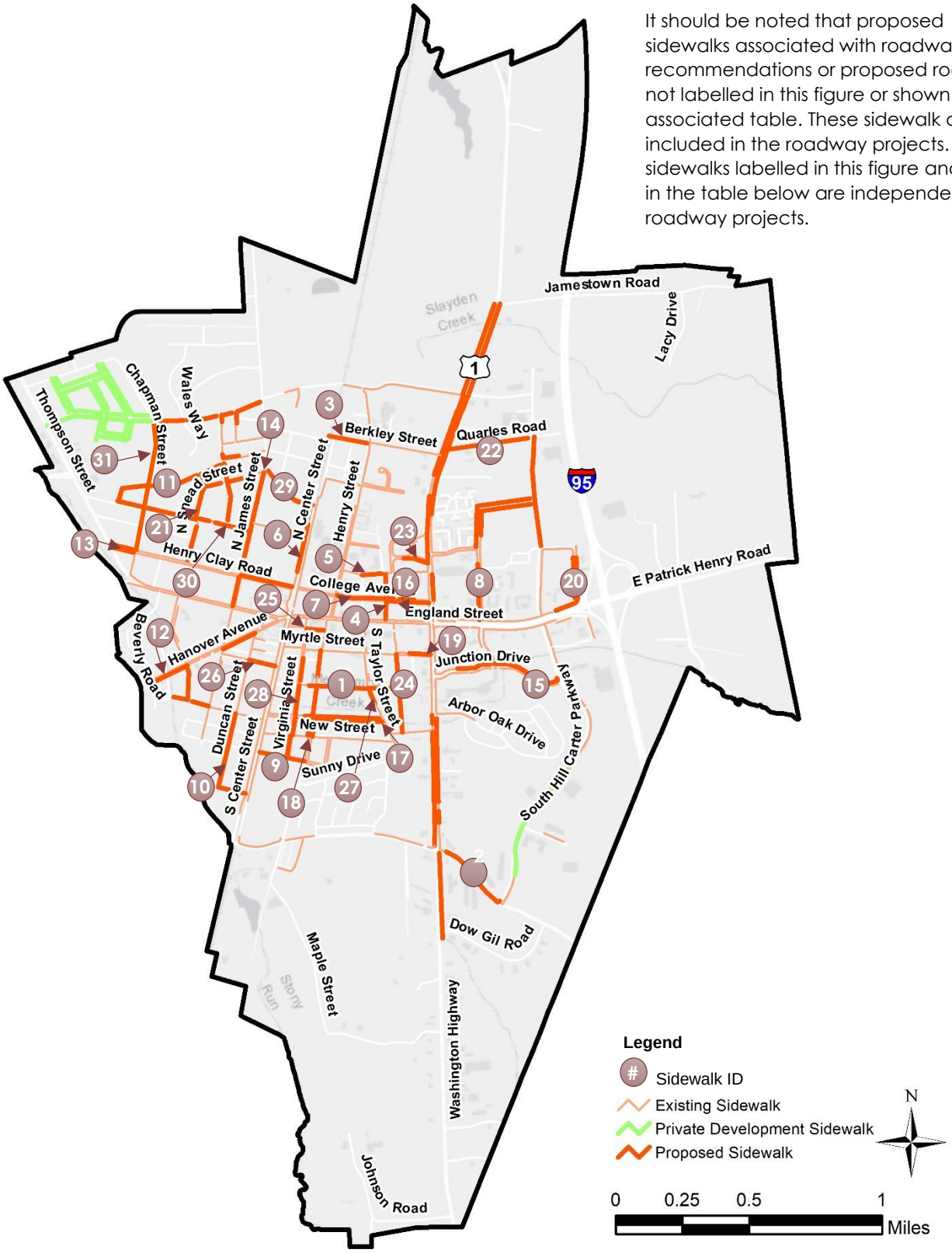


Table 11: Sidewalk Recommendations

ID	Sidewalk	Approximate Location	Category	Improvement
SW-1	Arlington Street	Virginia Street to Randolph Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-2	Ashcake Road	U.S. Route 1 to South Hill Carter Parkway	Proposed Sidewalk	Construct 5-foot sidewalk
SW-3	Berkley Street	N Center Street to Henry Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-4	Calhoun Street	England Street to Caroline Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-5	Caroline Street	N Taylor Street to Calhoun Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-6	N Center Street	Henry Clay Road to W Patrick Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-7	College Avenue	Henry Street to U.S. Route 1	Proposed Sidewalk	Construct 5-foot sidewalk
SW-8	Cottage Green Drive	Omni Road to England Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-9	E Francis Street	S Center Street to Maple Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-10	Early Street/ Duncan Street	Howard Street to S Center Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-11	Haley Court	N James Street to Haley Court Extension	Proposed Sidewalk	Construct 5-foot sidewalk
SW-12	Hanover Avenue	Beverly Road to S Snead Street and S James Street to Duncan Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-13	Henry Clay Road	Thompson Street to Chapman Street and N James Street to N Center Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-14	James Street	Thompson Street to N Snead Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-15	Junction Drive	U.S. Route 1 to South Hill Carter Parkway	Proposed Sidewalk	Construct 5-foot sidewalk
SW-16	Louisiana Street	College Avenue to England Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-17	McMurdo Street	Virginia Street to S Taylor Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-18	Maple Street	McMurdo Street to Myrtle Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-19	Myrtle Street	Short Street to U.S. Route 1	Proposed Sidewalk	Construct 5-foot sidewalk
SW-20	N Carter Road	England Street to the end of N Carter Road	Proposed Sidewalk	Construct 5-foot sidewalk
SW-21	N Snead Street	Henry Clay Road to N James Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-22	Quarles Road	U.S. Route 1 to Haley Road	Proposed Sidewalk	Construct 5-foot sidewalk
SW-23	Randolph Circle	Macon Circle to U.S. Route 1	Proposed Sidewalk	Construct 5-foot sidewalk
SW-24	Randolph Street	Myrtle Street to Pleasant Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-25	Robinson Street	Virginia Street to Maple Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-26	Stebbins Street	Duncan Street to S Center Street	Proposed Sidewalk	Construct 5-foot sidewalk

Table 11 Continued: Sidewalk Recommendations

ID	Sidewalk	Approximate Location	Category	Improvement
SW-27	S Taylor Street/ Dabney Lane	Arlington Street to McMurdo Street Extension	Proposed Sidewalk	Construct 5-foot sidewalk
SW-28	Virginia Street	E Francis Street to Maiden Lane	Proposed Sidewalk	Construct 5-foot sidewalk
SW-29	W Patrick Street	N James Street to N Center Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-30	Wesley Street	Haley Court Extension to N James Street	Proposed Sidewalk	Construct 5-foot sidewalk
SW-31	Chapman Street	Henry Clay Road to Vaughan Road Extension	Proposed Sidewalk	Construct 5-foot sidewalk

Transit

Currently, limited transit service is available for the Town of Ashland. Through partnership with Greater Richmond Transit Company (GRTC), a seasonal transit service route, Kings Dominion Express (Route 102x), is provided from September to December. Route 102x traverses between the Southside Plaza in the City of Richmond to Kings Dominion with a stop in Ashland at the Ashland Junction Shopping Center.

However, based on public input, suggesting some latent demand for service, and increasing traffic congestion, implementing additional transit service within the Town could provide the following:

- Enhanced connectivity within the Town
- Connectivity to Downtown Richmond and other regional attractions/areas
- Alternative mode of transportation to help reduce congestion and reduce vehicle trips.

The following transit improvements were determined based on previous transit studies and public input:

- Provide local bus circulator within the Town limits
- Collaborate and coordinate with regional agencies to provide external transit service to/from the Town
  - Coordinate with GRTC and Department of Rail and Public Transportation (DRPT) on the proposed Express Route to Ashland along Route 1 due to its high priority action item the regional transit plan.

Railroad

As rail traffic is anticipated to increase in the future, it is important to continue to improve the safety of the pedestrians, vehicles, and trains by reducing the number of conflicts, and potential for vehicles to enter the track areas.

Currently, DRPT and the Federal Railroad Administration (FRA) are conducting a Southeast High Speed Rail (SESHR) project with a segment that connects Washington, DC to Richmond (DC2RVA). During the alternative's development phase of this project, the unique nature of the Town and community concerns of the introduction of a third rail line at the ingress and egress of the Town steered DRPT and FRA to recommend a more intensive review of the alternatives including identifying new options and suggesting mitigation strategies to address project impacts. The Town's concerns of the introduction of a third rail ingress and egress at the existing two rails include the increased train traffic resulting in the overcapacity of the existing two rails and potential delays and queues along England Street. Given these concerns, the Town is in support of DRPT and FRA identifying new options and mitigation strategies for the DC2RVA project.

Based on these goals, the following railroad improvements are recommended:

- Continuous maintenance of pavement markings
- Install delineators between tracks
- Maintain two railroad tracks and passenger rail
- Partner with DRPT and FRA to identify new options and mitigation strategies of the DC2RVA project

- Partner with Waze, Google, or other map services to add the railroad crossing to the maps

Example of delineators between tracks

Cost Estimation

Planning level cost estimates were developed for each of the recommendations using the VDOT Transportation and Mobility Planning Division (TMPD) Statewide Planning Level Cost Estimates. The estimates for each recommendation have been prepared in a project information sheet format using an Excel spreadsheet, which will allow the Town to easily update, add, or delete projects, as needed. The project information sheets include the planning level cost estimates with information about the project description, a project location map, proposed typical section of the roadway, inputs into the cost calculations, and assumptions. Key assumptions included the following:

- Minimum roadway standards shall be in accordance with the most recent version of the VDOT Road Design Manual standards
- Cost in 2020 dollars
- Annual inflation rate is 3.0% annually
- No lighting, streetscape, signalization, storm water management, or utility betterments are included in the cost estimations

Project lengths and other quantities were estimated from aerial imagery, as needed. Planning level construction costs include 25% for preliminary engineering (PE) and 20% for construction (CN) contingencies. Utility and right-of-way impact costs were each estimated as 50% of the construction cost. In addition, 20% of the planning level costs was added for construction engineering and inspection (CEI).

Planning level cost estimates are provided for each roadway, interchange, trail, and sidewalk improvement in **Table 12**,

Table 13, **Table 14**, and **Table 15**, respectively. It should be noted that sidewalk costs are included in the urban two-lane typical section cost estimate. However, a more detailed

breakdown of the each of the planning level cost estimates is provided on the associated project information sheet in **Appendix D**.

Table 12: Roadway Recommendation Cost Estimates (2020 Dollars)

ID	Recommendation	Preliminary Engineering	Construction	Construction Contingency	CEI	Total R/W & Utility Relocation	Total Cost Opinion	Priority	Responsibility
	Assumptions	*25% of CN+Contingency*	*CN*	*20% of CN*	*20% of CN*	*50% of CN*			
RR-1A	U.S. Route 1 Proposed Median	$5,014,400	$16,714,500	$3,342,900	$3,342,900	$8,357,300	$36,772,000	Long	VDOT
RR-1B	U.S. Route 1 Proposed Median	$4,786,400	$15,954,800	$3,191,000	$3,191,000	$7,977,400	$35,100,600	Short	VDOT
RR-2	West Vaughan Road Grade Separation	$3,239,100	$10,797,200	$2,159,400	$2,159,400	$5,398,600	$23,753,700	Mid	VDOT
RR-3	Ashcake Road Grade Separation	$1,245,800	$4,152,800	$830,600	$830,600	$2,076,400	$9,136,200	Long	VDOT
RR-4	Medical Drive Realignment	$269,400	$897,900	$179,600	$179,600	$449,000	$1,975,500	Long	Public/Private
RR-5	Maple Street Realignment	$285,700	$952,400	$190,500	$190,500	$476,200	$2,095,300	Long	Private
RR-6	New Road 1	$681,600	$2,272,100	$454,400	$454,400	$1,136,000	$4,998,500	Short	Private
RR-7	Hill Carter Pkwy Extension	$443,200	$1,477,300	$295,500	$295,500	$738,600	$3,250,100	Short	Public/Private
RR-8	Haley Rd Extension	$173,500	$578,300	$115,700	$115,700	$289,200	$1,272,400	Mid	Public/Private
RR-9	Cottage Greene Dr Extension	$459,000	$1,530,000	$306,000	$306,000	$765,000	$3,366,000	Long	Private
RR-10	Telcourt Rd Extension	$759,200	$2,530,500	$506,100	$506,100	$1,265,300	$5,567,200	Long	Private
RR-11	Frances Rd Extension	$163,300	$544,200	$108,800	$108,800	$272,100	$1,197,200	Long	Private
RR-12	Green Chimneys Ct Extension	$322,200	$1,074,100	$214,800	$214,800	$537,000	$2,362,900	Mid	Private
RR-13	Ten Oak Dr Extension	$31,000	$103,300	$20,700	$20,700	$51,600	$227,300	Mid	Private
RR-14	Berkley Woods Dr Extension	$74,400	$247,900	$49,600	$49,600	$123,900	$545,400	Long	Private
RR-15	Gamekeeper Place Extension	$43,400	$144,600	$28,900	$28,900	$72,300	$318,100	Long	Private
RR-16	Carter Forest Dr Extension	$148,700	$495,800	$99,200	$99,200	$247,900	$1,090,800	Long	Private

Table 12 Continued: Roadway Recommendation Cost Estimates (2020 Dollars)

ID	Recommendation	Preliminary Engineering	Construction	Construction Contingency	CEI	Total R/W & Utility Relocation	Total Cost Estimate	Priority	Responsibility
	Assumptions	*25% of CN+Contingency*	*CN*	*20% of CN*	*20% of CN*	*50% of CN*			
RR-17	New Road 2	$123,900	$413,100	$82,600	$82,600	$206,600	$908,800	Long	Private
RR-18	New Road 3	$57,200	$190,500	$38,100	$38,100	$95,300	$419,200	Long	Private
RR-19	Vaughan Rd Extension	$1,134,000	$3,780,000	$756,000	$756,000	$1,890,000	$8,316,000	Mid	Public/Private
RR-20	Steyland St Extension	$78,800	$262,700	$52,500	$52,500	$131,300	$577,800	Long	Private
RR-21A	Calley St Extension 1	$64,000	$197,000	$59,100	$39,400	$98,500	$458,000	Long	Private
RR-21B	Calley St Extension 2	$438,800	$1,350,000	$405,000	$270,000	$675,000	$3,138,800	Long	Private
RR-22	Wales Way Extension	$120,300	$401,100	$80,200	$80,200	$200,600	$882,400	Long	Private
RR-23	Haley Ct Extension	$742,500	$2,475,000	$495,000	$495,000	$1,237,500	$5,445,000	Long	Private
RR-24	New Road 4	$179,600	$598,700	$119,700	$119,700	$299,300	$1,317,000	Mid	Private
RR-25	S Snead St Extension	$200,600	$668,600	$133,700	$133,700	$334,300	$1,470,900	Long	Private
RR-26	Howard St Extension	$157,600	$525,200	$105,000	$105,000	$262,600	$1,155,400	Long	Private
RR-27	Maple St Extension 1	$108,000	$360,000	$72,000	$72,000	$180,000	$792,000	Mid/Long	Public
RR-28	McMurdo St Extension	$67,500	$225,000	$45,000	$45,000	$112,500	$495,000	Long	Private
RR-29	S Taylor St Extension	$681,600	$2,272,100	$454,400	$454,400	$1,136,000	$4,998,500	Long	Private
RR-30	Swannee Ln Extension	$62,000	$206,600	$41,300	$41,300	$103,300	$454,500	Long	Private
RR-31	Maple St Extension 2	$489,800	$1,632,600	$326,500	$326,500	$816,300	$3,591,700	Long	Private
RR-32	Success St Extension	$326,500	$1,088,400	$217,700	$217,700	$544,200	$2,394,500	Long	Private
RR-33	Jamestown Road Extension	$123,900	$413.100	$82,600	$82,600	$206,600	$908,800	Short	Private
Totals	**$23,664,200**	**$78,751,900**	**$15,905,000**	**$15,750,300**	**$39,376,000**	**$173,447,400**	**$168,147,400**		

Table 13: Interchange Recommendation Cost Estimate (2020 Dollars)

Recommendation	Preliminary Engineering	Construction	Construction Contingency	CEI	Total R/W & Utility Relocation	Total Cost Estimate
Assumptions	*PE*	*CN*	*20% of CN*	*20% of CN*	*50% of CN*	
Diverging Diamond Interchange	$4,491,990	$7,485,340	$1,497,100	$1,497,100	$3,742,670	$18,714,200
Totals	**$4,491,990**	**$7,485,340**	**$1,497,100**	**$1,497,100**	**$3,742,670**	**$18,714,200**

Table 14: Trail Recommendation Planning Level Cost Estimates (2020 Dollars)

ID	Recommendation	Preliminary Engineering	Construction	Construction Contingency	CEI	Total R/W & Utility Relocation	Total Cost Estimate	Priority	Responsibility
	Assumptions	*25% of CN+Contingency*	*CN*	*20% of CN*	*20% of CN*	*50% of CN*			
TR-1	Ashcake Road	$227,400	$758,000	$151,600	$151,600	$379,000	$1,667,600	Short	Public
TR-2	Calhoun Street	$80,900	$269,600	$53,900	$53,900	$134,800	$593,100	Mid/ Long	Private (RMC)/Public
TR-3	Green Chimney Court	$621,300	$2,071,200	$414,200	$414,200	$1,035,600	$4,556,500	Long	Private
TR-4	Haley Court connection	$244,900	$816,200	$163,200	$163,200	$408,100	$1,795,600	Short	Private
TR-5	Haley Road	$766,800	$2,556,100	$511,200	$511,200	$1,278,000	$5,623,300	Long	Private
TR-6	Hill Carter Parkway	$472,200	$1,574,100	$314,800	$314,800	$787,100	$3,463,000	Mid	Public
TR-7	James Street	$684,800	$2,282,500	$456,500	$456,500	$1,141,300	$5,021,600	Mid	Public
TR-8	N Center Street	$2,017,300	$6,724,300	$1,344,900	$1,344,900	$3,362,100	$14,793,500	Long	Private
TR-9	New Trail 00	$422,500	$1,408,500	$281,700	$281,700	$704,200	$3,098,600	Long	Private
TR-10	New Trail 01	$1,291,400	$4,304,700	$860,900	$860,900	$2,152,300	$9,470,200	Long	Public
TR-11	New Trail 02	$355,100	$1,183,600	$236,700	$236,700	$591,800	$2,603,900	Long	Private/Public
TR-12	New Trail 03	$286,800	$956,100	$191,200	$191,200	$478,100	$2,103,400	Long	Private
TR-13	New Trail 04	$308,600	$1,028,800	$205,800	$205,800	$514,400	$2,263,400	Long	Private
TR-14	New Trail 05	$1,363,800	$4,545,800	$909,200	$909,200	$2,272,900	$10,000,900	Long	Private
TR-15	New Trail 06	$713,900	$2,379,700	$475,900	$475,900	$1,189,900	$5,235,300	Long	Private/Public
TR-16	New Trail 07	$55,700	$185,600	$37,100	$37,100	$92,800	$408,300	Long	Private
TR-17	New Trail 08	$278,200	$927,400	$185,500	$185,500	$463,700	$2,040,300	Long	Public
TR-18	New Trail 09	$836,200	$2,787,500	$557,500	$557,500	$1,393,700	$6,132,400	Long	Private
TR-19	New Trail 10	$760,000	$2,533,200	$506,600	$506,600	$1,266,600	$5,573,000	Long	Hanover
TR-20	New Trail 11	$895,500	$2,984,900	$597,000	$597,000	$1,492,500	$6,566,900	Long	Private
TR-21	Route 54	$784,400	$2,614,800	$523,000	$523,000	$1,307,400	$5,752,600	Long	Public
TR-22	S Center Street	$52,600	$175,500	$35,100	$35,100	$87,700	$386,000	Mid	Public
TR-23	Ten Oak Drive	$27,700	$92,400	$18,500	$18,500	$46,200	$203,300	Long	Public
TR-24	Thompson Street	$356,700	$1,188,900	$237,800	$237,800	$594,500	$2,615,700	Long	Public
TR-25	Vaughan Road	$248,900	$829,700	$165,900	$165,900	$414,800	$1,825,200	Long	Public
	Totals	**$14,153,600**	**$47,179,100**	**$9,435,700**	**$9,435,700**	**$23,589,500**	**$103,793,600**		

Table 15: Sidewalk Recommendation Cost Estimates (2020 Dollars)

ID	Recommendation	Preliminary Engineering	Construction	Construction Contingency	CEI	Total R/W & Utility Relocation	Total Cost Estimate	Priority	Responsibility
	Assumptions	*25% of CN+Contingency*	*CN*	*20% of CN*	*20% of CN*	*50% of CN*			
SW-1	Arlington Street	$165,300	$551,100	$110,200	$82,700	$275,600	$1,184,900	Short/Mid	Public/Private
SW-2	Ashcake Road	$109,800	$366,000	$73,200	$54,900	$183,000	$786,900	Long	Private
SW-3	Berkley Street	$39,900	$132,900	$26,600	$19,900	$66,400	$285,700	Long	Public
SW-4	Calhoun Street	$54,000	$180,100	$36,000	$27,000	$90,100	$387,200	Mid	Public
SW-5	Caroline Street	$54,000	$179,800	$36,000	$27,000	$89,900	$386,700	Mid	Public
SW-6	N Center Street	$133,500	$444,900	$89,000	$66,700	$222,400	$956,500	Mid	Public
SW-7	College Avenue	$204,800	$682,600	$136,500	$102,400	$341,300	$1,467,600	Mid	Private
SW-8	Cottage Green Drive	$165,900	$552,900	$110,600	$82,900	$276,400	$1,188,700	Long	Public
SW-9	E Francis Street	$67,100	$223,600	$44,700	$33,500	$111,800	$480,700	Long	Public
SW-10	Early Street/Duncan Street	$106,200	$353,900	$70,800	$53,100	$177,000	$761,000	Mid	Public
SW-11	Haley Court	$36,500	$121,700	$24,300	$18,300	$60,900	$261,700	Mid	Public
SW-12	Hanover Avenue	$164,700	$549,100	$109,800	$82,400	$274,600	$1,180,600	Mid	Public/Private
SW-13	Henry Clay Road	$200,200	$667,300	$133,500	$100,100	$333,600	$1,434,700	Mid	Public
SW-14	James Street	$151,800	$506,100	$101,200	$75,900	$253,000	$1,088,000	Short	Public
SW-15	Junction Drive	$286,700	$955,700	$191,100	$143,400	$477,900	$2,054,800	Mid/Long	Public
SW-16	Louisiana Street	$9,800	$32,500	$6,500	$4,900	$16,300	$70,000	Mid	Private
SW-17	McMurdo Street	$136,900	$456,400	$91,300	$68,500	$228,200	$981,300	Short	Public
SW-18	Maple Street	$140,600	$468,600	$93,700	$70,300	$234,300	$1,007,500	Mid/Long	Public
SW-19	Myrtle Street	$53,800	$179,400	$35,900	$26,900	$89,700	$385,700	Mid	Public
SW-20	N Carter Road	$201,400	$671,300	$134,300	$100,700	$335,700	$1,443,400	Long	Public
SW-21	N Snead Street	$97,500	$324,900	$65,000	$48,700	$162,500	$698,600	Mid	Private
SW-22	Quarles Road	$82,900	$276,400	$55,300	$41,500	$138,200	$594,300	Long	Public
SW-23	Randolph Circle	$42,900	$142,900	$28,600	$21,400	$71,500	$307,300	Mid	Public/Private
SW-24	Randolph Street	$80,300	$267,800	$53,600	$40,200	$133,900	$575,800	Long	Public/Private
SW-25	Robinson Street	$44,400	$148,100	$29,600	$22,200	$74,000	$318,300	Short	Public

Table 15 Continued: Sidewalk Recommendation Cost Estimates (2020 Dollars)

ID	Recommendation	Preliminary Engineering	Construction	Construction Contingency	CEI	Total R/W & Utility Relocation	Total Cost Estimate	Priority	Responsibility
	Assumptions	*25% of CN+Contingency*	*CN*	*20% of CN*	*20% of CN*	*50% of CN*			
SW-26	Stebbins Street	$27,200	$90,700	$18,100	$13,600	$45,300	$194,900	Long	Public
SW-27	S Taylor St/Dabney Lane	$17,900	$59,800	$12,000	$9,000	$29,900	$128,600	Long	Public/Private
SW-28	Virginia Street	$184,400	$614,800	$123,000	$92,200	$307,400	$1,321,800	Long	Public
SW-29	W Patrick Street	$56,600	$188,800	$37,800	$28,300	$94,400	$405,900	Short/Mid	Public/Private
SW-30	Wesley Street	$85,900	$286,200	$57,200	$42,900	$143,100	$572,300	Long	Public
SW-31	Chapman Street	$34,900	$232,800	$46,600	$34,900	$116,400	$465,600	Mid	Public
Totals		**$3,335,700**	**$11,378,700**	**$2,275,900**	**$1,706,900**	**$5,689,500**	**$24,386,700**		

How does Ashland get there?

Prioritization

Improvements were categorized by the following timeframes to help determine the higher priority improvements.

- Short-Term Improvements: 1 to 5 years
- Mid-Term Improvements: 5 to 10 years
- Long-Term Improvements: > 10 years

It is expected that projects listed as Private Responsibility will be built as part of future developments. Public Responsibility improvements will be funded and prioritized through the Capital Improvement Program process.

Funding Sources

The funding to implement the recommendations in the TPU update will likely come from a combination of local, state, and federal programs as well as through receipt of development contributions or improvements in lieu of contributions. The following funding sources should be considered for improvement projects identified in this study.

Private Investment

Developer contributions to the funding, construction, and implementation of transportation infrastructure can be utilized to accommodate new or infill growth from their respective properties. This plan serves as a tool for the Town to clearly communicate with developers and identify improvements needed to accommodate their future growth.

SMART SCALE

SMART SCALE is a competitive application process to allocate State transportation funds. SMART SCALE allocates funding from the construction District Grants Program (DGP) and High-Priority Projects Program (HPPP) to transportation projects based on a scoring process. The scoring process evaluates, scores and ranks projects based on congestion mitigation, economic development, accessibility, safety, environmental quality, and land use factors. The location of the project determines the weight of each of these scoring factors in the calculation of the total score. For the Town of Ashland, the scoring factors with the highest weight are economic development (25%), accessibility (25%), and safety (25%).

Revenue Sharing

Revenue sharing is a program that provides a dollar for dollar state match to local funds for transportation projects (i.e., Revenue Share funds one-half the cost of a project). Projects eligible for Revenue Sharing funds include construction, reconstruction, improvement, and maintenance projects.

Regional Surface Transportation Program (RSTP)

RSTP provides federal transportation funds allocated to the regional RRTPO partnership to allocate throughout the region. These funds can be used for a wide variety of highway and transit projects.

Secondary Six-Year Plan (SSYP)

Each locality develops a SSYP for non-competitive direct State allocation. However, this funding has been significantly reduced in recent years.

Highway Safety Improvement Program (HSIP)

HSIP provides funding for improvements that correct or improve safety on a section of roadway or intersection with a high incidence of crashes.

Transportation Alternatives Program (TAP)

The Transportation Alternative Program is intended to help local sponsors fund community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historical, and environmental aspects of the transportation infrastructure. It focuses on providing for pedestrian and bicycle facilities, community improvements, and mitigating negative impacts of the highway system.

APPENDIX A:
TRAFFIC DATA COLLECTION

Peggy Malone & Associates
(888) 247-8602

File Name : 1-US 1 and Jamestown Rd AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Jamestown Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
07:00 AM	4	1	0	5	68	1	0	69	0	75	0	75	149
07:15 AM	2	1	0	3	83	2	0	85	1	93	0	94	182
07:30 AM	2	1	0	3	48	3	0	51	4	105	0	109	163
07:45 AM	5	2	0	7	68	4	0	72	3	107	0	110	189
Total	13	5	0	18	267	10	0	277	8	380	0	388	683
08:00 AM	4	3	0	7	69	1	0	70	4	87	0	91	168
08:15 AM	3	1	0	4	61	3	0	64	0	79	0	79	147
08:30 AM	1	1	0	2	41	3	0	44	2	61	0	63	109
08:45 AM	1	1	0	2	47	2	0	49	1	58	0	59	110
Total	9	6	0	15	218	9	0	227	7	285	0	292	534
Grand Total	22	11	0	33	485	19	0	504	15	665	0	680	1217
Apprch %	66.7	33.3	0		96.2	3.8	0		2.2	97.8	0		
Total %	1.8	0.9	0	2.7	39.9	1.6	0	41.4	1.2	54.6	0	55.9	

	Jamestown Rd Westbound			US 1 Northbound			US 1 Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	2	1	3	**83**	2	**85**	1	93	94	182
07:30 AM	2	1	3	48	3	51	**4**	105	109	163
07:45 AM	**5**	2	**7**	68	**4**	72	3	**107**	**110**	**189**
08:00 AM	4	**3**	7	69	1	70	4	87	91	168
Total Volume	13	7	20	268	10	278	12	392	404	702
% App. Total	65	35		96.4	3.6		3	97		
PHF	.650	.583	.714	.807	.625	.818	.750	.916	.918	.929

Peggy Malone & Associates
(888) 247-8602

File Name : 1-US 1 and Jamestown Rd AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Jamestown Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	6	0	0	6	0	13	0	13	19
07:15 AM	0	0	0	0	8	0	0	8	1	6	0	7	15
07:30 AM	0	0	0	0	14	2	0	16	1	11	0	12	28
07:45 AM	2	0	0	2	6	0	0	6	0	6	0	6	14
Total	2	0	0	2	34	2	0	36	2	36	0	38	76
08:00 AM	0	0	0	0	8	0	0	8	0	6	0	6	14
08:15 AM	1	0	0	1	5	0	0	5	0	10	0	10	16
08:30 AM	0	0	0	0	11	1	0	12	0	13	0	13	25
08:45 AM	0	0	0	0	8	0	0	8	0	10	0	10	18
Total	1	0	0	1	32	1	0	33	0	39	0	39	73
Grand Total	3	0	0	3	66	3	0	69	2	75	0	77	149
Apprch %	100	0	0		95.7	4.3	0		2.6	97.4	0		
Total %	2	0	0	2	44.3	2	0	46.3	1.3	50.3	0	51.7	

	Jamestown Rd Westbound			US 1 Northbound			US 1 Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:00 AM										
07:00 AM	0	0	0	6	0	6	0	**13**	**13**	19
07:15 AM	0	0	0	8	0	8	**1**	6	7	15
07:30 AM	0	0	0	**14**	**2**	**16**	1	11	12	**28**
07:45 AM	**2**	0	**2**	6	0	6	0	6	6	14
Total Volume	2	0	2	34	2	36	2	36	38	76
% App. Total	100	0		94.4	5.6		5.3	94.7		
PHF	.250	.000	.250	.607	.250	.563	.500	.692	.731	.679

Peggy Malone & Associates
(888) 247-8602

File Name : 1-US 1 and Jamestown Rd AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Jamestown Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
07:00 AM	4	1	0	5	74	1	0	75	0	88	0	88	168
07:15 AM	2	1	0	3	91	2	0	93	2	99	0	101	197
07:30 AM	2	1	0	3	62	5	0	67	5	116	0	121	191
07:45 AM	7	2	0	9	74	4	0	78	3	113	0	116	203
Total	15	5	0	20	301	12	0	313	10	416	0	426	759
08:00 AM	4	3	0	7	77	1	0	78	4	93	0	97	182
08:15 AM	4	1	0	5	66	3	0	69	0	89	0	89	163
08:30 AM	1	1	0	2	52	4	0	56	2	74	0	76	134
08:45 AM	1	1	0	2	55	2	0	57	1	68	0	69	128
Total	10	6	0	16	250	10	0	260	7	324	0	331	607
Grand Total	25	11	0	36	551	22	0	573	17	740	0	757	1366
Apprch %	69.4	30.6	0		96.2	3.8	0		2.2	97.8	0		
Total %	1.8	0.8	0	2.6	40.3	1.6	0	41.9	1.2	54.2	0	55.4	

	Jamestown Rd Westbound			US 1 Northbound			US 1 Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	2	1	3	**91**	2	**93**	2	99	101	197
07:30 AM	2	1	3	62	**5**	67	**5**	**116**	**121**	191
07:45 AM	**7**	2	**9**	74	4	78	3	113	116	**203**
08:00 AM	4	**3**	7	77	1	78	4	93	97	182
Total Volume	15	7	22	304	12	316	14	421	435	773
% App. Total	68.2	31.8		96.2	3.8		3.2	96.8		
PHF	.536	.583	.611	.835	.600	.849	.700	.907	.899	.952

Peggy Malone & Associates
(888) 247-8602

File Name : 1-US 1 and Jamestown Rd PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Jamestown Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
04:00 PM	7	2	0	9	123	6	0	129	0	77	0	77	215
04:15 PM	6	2	0	8	103	3	0	106	2	85	0	87	201
04:30 PM	11	4	0	15	128	7	0	135	3	100	0	103	253
04:45 PM	5	2	0	7	128	8	0	136	0	83	0	83	226
Total	29	10	0	39	482	24	0	506	5	345	0	350	895
05:00 PM	7	0	0	7	143	7	0	150	0	124	0	124	281
05:15 PM	1	2	0	3	132	5	0	137	2	61	0	63	203
05:30 PM	2	1	0	3	109	6	0	115	2	69	0	71	189
05:45 PM	4	1	0	5	87	8	0	95	2	72	0	74	174
Total	14	4	0	18	471	26	0	497	6	326	0	332	847
Grand Total	43	14	0	57	953	50	0	1003	11	671	0	682	1742
Apprch %	75.4	24.6	0		95	5	0		1.6	98.4	0		
Total %	2.5	0.8	0	3.3	54.7	2.9	0	57.6	0.6	38.5	0	39.2	

	Jamestown Rd Westbound			US 1 Northbound			US 1 Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**11**	**4**	**15**	128	7	135	**3**	100	103	253
04:45 PM	5	2	7	128	**8**	136	0	83	83	226
05:00 PM	7	0	7	**143**	7	**150**	0	**124**	**124**	**281**
05:15 PM	1	2	3	132	5	137	2	61	63	203
Total Volume	24	8	32	531	27	558	5	368	373	963
% App. Total	75	25		95.2	4.8		1.3	98.7		
PHF	.545	.500	.533	.928	.844	.930	.417	.742	.752	.857

Peggy Malone & Associates
(888) 247-8602

File Name : 1-US 1 and Jamestown Rd PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Jamestown Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	7	0	0	7	0	7	0	7	14
04:15 PM	0	1	0	1	6	0	0	6	0	7	0	7	14
04:30 PM	0	1	0	1	5	0	0	5	1	6	0	7	13
04:45 PM	0	0	0	0	7	1	0	8	0	4	0	4	12
Total	0	2	0	2	25	1	0	26	1	24	0	25	53
05:00 PM	0	1	0	1	8	0	0	8	0	2	0	2	11
05:15 PM	0	0	0	0	5	0	0	5	0	8	0	8	13
05:30 PM	0	0	0	0	6	0	0	6	0	1	0	1	7
05:45 PM	0	0	0	0	6	0	0	6	0	4	0	4	10
Total	0	1	0	1	25	0	0	25	0	15	0	15	41
Grand Total	0	3	0	3	50	1	0	51	1	39	0	40	94
Apprch %	0	100	0		98	2	0		2.5	97.5	0		
Total %	0	3.2	0	3.2	53.2	1.1	0	54.3	1.1	41.5	0	42.6	

	Jamestown Rd Westbound			US 1 Northbound			US 1 Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	0	0	**7**	0	7	0	**7**	**7**	**14**
04:15 PM	0	**1**	**1**	6	0	6	0	7	7	14
04:30 PM	0	1	1	5	0	5	**1**	6	7	13
04:45 PM	0	0	0	7	**1**	**8**	0	4	4	12
Total Volume	0	2	2	25	1	26	1	24	25	53
% App. Total	0	100		96.2	3.8		4	96		
PHF	.000	.500	.500	.893	.250	.813	.250	.857	.893	.946

Peggy Malone & Associates
(888) 247-8602

File Name : 1-US 1 and Jamestown Rd PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Jamestown Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Right	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Int. Total
04:00 PM	7	2	0	9	130	6	0	136	0	84	0	84	229
04:15 PM	6	3	0	9	109	3	0	112	2	92	0	94	215
04:30 PM	11	5	0	16	133	7	0	140	4	106	0	110	266
04:45 PM	5	2	0	7	135	9	0	144	0	87	0	87	238
Total	29	12	0	41	507	25	0	532	6	369	0	375	948
05:00 PM	7	1	0	8	151	7	0	158	0	126	0	126	292
05:15 PM	1	2	0	3	137	5	0	142	2	69	0	71	216
05:30 PM	2	1	0	3	115	6	0	121	2	70	0	72	196
05:45 PM	4	1	0	5	93	8	0	101	2	76	0	78	184
Total	14	5	0	19	496	26	0	522	6	341	0	347	888
Grand Total	43	17	0	60	1003	51	0	1054	12	710	0	722	1836
Apprch %	71.7	28.3	0		95.2	4.8	0		1.7	98.3	0		
Total %	2.3	0.9	0	3.3	54.6	2.8	0	57.4	0.7	38.7	0	39.3	

	Jamestown Rd Westbound			US 1 Northbound			US 1 Southbound			
Start Time	Left	Right	App. Total	Thru	Right	App. Total	Left	Thru	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**11**	**5**	**16**	133	7	140	**4**	106	110	266
04:45 PM	5	2	7	135	**9**	144	0	87	87	238
05:00 PM	7	1	8	**151**	7	**158**	0	**126**	**126**	**292**
05:15 PM	1	2	3	137	5	142	2	69	71	216
Total Volume	24	10	34	556	28	584	6	388	394	1012
% App. Total	70.6	29.4		95.2	4.8		1.5	98.5		
PHF	.545	.500	.531	.921	.778	.924	.375	.770	.782	.866

Peggy Malone & Associates
(888) 247-8602

File Name : 2-US 1 and Archie Cannon_Sylvia Rd AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Archie Cannon Dr Eastbound					Sylvia Rd Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	0	31	0	33	2	0	0	0	2	8	71	14	0	93	1	74	4	0	79	207
07:15 AM	1	2	36	0	39	3	0	0	0	3	12	74	26	0	112	6	87	4	0	97	251
07:30 AM	3	0	40	0	43	5	1	2	0	8	17	48	13	0	78	2	108	4	0	114	243
07:45 AM	3	0	45	0	48	3	0	2	0	5	20	74	6	0	100	2	101	8	0	111	264
Total	9	2	152	0	163	13	1	4	0	18	57	267	59	0	383	11	370	20	0	401	965
08:00 AM	3	0	10	0	13	8	0	1	0	9	10	66	11	0	87	0	88	4	0	92	201
08:15 AM	3	1	10	0	14	3	0	0	0	3	6	57	7	0	70	0	77	5	0	82	169
08:30 AM	2	1	14	6	23	10	0	0	0	10	5	50	4	0	59	1	59	2	0	62	154
08:45 AM	2	2	10	0	14	11	1	0	0	12	9	45	5	0	59	0	60	0	0	60	145
Total	10	4	44	6	64	32	1	1	0	34	30	218	27	0	275	1	284	11	0	296	669
Grand Total	19	6	196	6	227	45	2	5	0	52	87	485	86	0	658	12	654	31	0	697	1634
Apprch %	8.4	2.6	86.3	2.6		86.5	3.8	9.6	0		13.2	73.7	13.1	0		1.7	93.8	4.4	0		
Total %	1.2	0.4	12	0.4	13.9	2.8	0.1	0.3	0	3.2	5.3	29.7	5.3	0	40.3	0.7	40	1.9	0	42.7	

	Archie Cannon Dr Eastbound				Sylvia Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	0	31	33	2	0	0	2	8	71	14	93	1	74	4	79	207
07:15 AM	1	**2**	36	39	3	0	0	3	12	**74**	**26**	**112**	**6**	87	4	97	251
07:30 AM	**3**	0	40	43	**5**	**1**	**2**	**8**	17	48	13	78	2	**108**	4	**114**	243
07:45 AM	3	0	**45**	**48**	3	0	2	5	**20**	74	6	100	2	101	**8**	111	**264**
Total Volume	9	2	152	163	13	1	4	18	57	267	59	383	11	370	20	401	965
% App. Total	5.5	1.2	93.3		72.2	5.6	22.2		14.9	69.7	15.4		2.7	92.3	5		
PHF	.750	.250	.844	.849	.650	.250	.500	.563	.713	.902	.567	.855	.458	.856	.625	.879	.914

Peggy Malone & Associates
(888) 247-8602

File Name : 2-US 1 and Archie Cannon_Sylvia Rd AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Archie Cannon Dr Eastbound					Sylvia Rd Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	1	0	1	1	0	0	0	1	0	5	0	0	5	0	14	0	0	14	21
07:15 AM	0	0	2	0	2	0	0	0	0	0	3	11	0	0	14	0	7	0	0	7	23
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	15	2	0	17	0	9	1	0	10	28
07:45 AM	0	0	0	0	0	2	1	0	0	3	3	5	1	0	9	0	7	1	0	8	20
Total	0	0	3	0	3	4	1	0	0	5	6	36	3	0	45	0	37	2	0	39	92
08:00 AM	0	0	2	0	2	2	1	0	0	3	2	9	1	0	12	0	5	0	0	5	22
08:15 AM	1	0	2	0	3	0	0	0	0	0	1	4	2	0	7	0	10	1	0	11	21
08:30 AM	0	0	1	0	1	0	0	0	0	0	2	13	1	0	16	0	12	0	0	12	29
08:45 AM	0	0	1	0	1	2	0	0	0	2	1	8	2	0	11	0	11	0	0	11	25
Total	1	0	6	0	7	4	1	0	0	5	6	34	6	0	46	0	38	1	0	39	97
Grand Total	1	0	9	0	10	8	2	0	0	10	12	70	9	0	91	0	75	3	0	78	189
Apprch %	10	0	90	0		80	20	0	0		13.2	76.9	9.9	0		0	96.2	3.8	0		
Total %	0.5	0	4.8	0	5.3	4.2	1.1	0	0	5.3	6.3	37	4.8	0	48.1	0	39.7	1.6	0	41.3	

	Archie Cannon Dr Eastbound				Sylvia Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	**2**	2	**2**	**1**	0	**3**	**2**	9	1	12	0	5	0	5	22
08:15 AM	**1**	0	2	**3**	0	0	0	0	1	4	**2**	7	0	10	**1**	11	21
08:30 AM	0	0	1	1	0	0	0	0	2	**13**	1	**16**	0	**12**	0	**12**	**29**
08:45 AM	0	0	1	1	2	0	0	2	1	8	2	11	0	11	0	11	25
Total Volume	1	0	6	7	4	1	0	5	6	34	6	46	0	38	1	39	97
% App. Total	14.3	0	85.7		80	20	0		13	73.9	13		0	97.4	2.6		
PHF	.250	.000	.750	.583	.500	.250	.000	.417	.750	.654	.750	.719	.000	.792	.250	.813	.836

Peggy Malone & Associates
(888) 247-8602

File Name : 2-US 1 and Archie Cannon_Sylvia Rd AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Archie Cannon Dr Eastbound					Sylvia Rd Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	0	32	0	34	3	0	0	0	3	8	76	14	0	98	1	88	4	0	93	228
07:15 AM	1	2	38	0	41	3	0	0	0	3	15	85	26	0	126	6	94	4	0	104	274
07:30 AM	3	0	40	0	43	6	1	2	0	9	17	63	15	0	95	2	117	5	0	124	271
07:45 AM	3	0	45	0	48	5	1	2	0	8	23	79	7	0	109	2	108	9	0	119	284
Total	9	2	155	0	166	17	2	4	0	23	63	303	62	0	428	11	407	22	0	440	1057
08:00 AM	3	0	12	0	15	10	1	1	0	12	12	75	12	0	99	0	93	4	0	97	223
08:15 AM	4	1	12	0	17	3	0	0	0	3	7	61	9	0	77	0	87	6	0	93	190
08:30 AM	2	1	15	6	24	10	0	0	0	10	7	63	5	0	75	1	71	2	0	74	183
08:45 AM	2	2	11	0	15	13	1	0	0	14	10	53	7	0	70	0	71	0	0	71	170
Total	11	4	50	6	71	36	2	1	0	39	36	252	33	0	321	1	322	12	0	335	766
Grand Total	20	6	205	6	237	53	4	5	0	62	99	555	95	0	749	12	729	34	0	775	1823
Apprch %	8.4	2.5	86.5	2.5		85.5	6.5	8.1	0		13.2	74.1	12.7	0		1.5	94.1	4.4	0		
Total %	1.1	0.3	11.2	0.3	13	2.9	0.2	0.3	0	3.4	5.4	30.4	5.2	0	41.1	0.7	40	1.9	0	42.5	

	Archie Cannon Dr Eastbound				Sylvia Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	0	32	34	3	0	0	3	8	76	14	98	1	88	4	93	228
07:15 AM	1	**2**	38	41	3	0	0	3	15	**85**	**26**	**126**	**6**	94	4	104	274
07:30 AM	**3**	0	40	43	**6**	**1**	**2**	**9**	17	63	15	95	2	**117**	5	**124**	271
07:45 AM	3	0	**45**	**48**	5	1	2	8	**23**	79	7	109	2	108	**9**	119	**284**
Total Volume	9	2	155	166	17	2	4	23	63	303	62	428	11	407	22	440	1057
% App. Total	5.4	1.2	93.4		73.9	8.7	17.4		14.7	70.8	14.5		2.5	92.5	5		
PHF	.750	.250	.861	.865	.708	.500	.500	.639	.685	.891	.596	.849	.458	.870	.611	.887	.930

Peggy Malone & Associates
(888) 247-8602

File Name : 2-US 1 and Archie Cannon_Sylvia Rd PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Archie Cannon Dr Eastbound					Sylvia Rd Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	5	1	6	0	12	27	0	2	0	29	11	129	1	0	141	3	82	0	0	85	267
04:15 PM	5	0	6	0	11	15	1	1	0	17	12	96	1	0	109	2	84	5	0	91	228
04:30 PM	4	1	9	0	14	17	1	2	0	20	20	137	1	0	158	0	115	1	0	116	308
04:45 PM	3	0	14	0	17	10	3	5	0	18	18	123	4	0	145	0	82	8	0	90	270
Total	17	2	35	0	54	69	5	10	0	84	61	485	7	0	553	5	363	14	0	382	1073
05:00 PM	3	0	17	0	20	21	0	10	0	31	21	135	4	0	160	1	124	7	0	132	343
05:15 PM	2	0	13	0	15	14	2	2	0	18	17	127	3	0	147	2	57	2	0	61	241
05:30 PM	3	0	15	0	18	0	0	2	0	2	28	119	5	0	152	2	74	2	0	78	250
05:45 PM	3	0	5	0	8	5	0	0	0	5	22	94	3	0	119	2	70	4	0	76	208
Total	11	0	50	0	61	40	2	14	0	56	88	475	15	0	578	7	325	15	0	347	1042
Grand Total	28	2	85	0	115	109	7	24	0	140	149	960	22	0	1131	12	688	29	0	729	2115
Apprch %	24.3	1.7	73.9	0		77.9	5	17.1	0		13.2	84.9	1.9	0		1.6	94.4	4	0		
Total %	1.3	0.1	4	0	5.4	5.2	0.3	1.1	0	6.6	7	45.4	1	0	53.5	0.6	32.5	1.4	0	34.5	

	Archie Cannon Dr Eastbound				Sylvia Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**4**	**1**	9	14	17	1	2	20	20	**137**	1	158	0	115	1	116	308
04:45 PM	3	0	14	17	10	**3**	5	18	18	123	**4**	145	0	82	**8**	90	270
05:00 PM	3	0	**17**	**20**	**21**	0	**10**	**31**	**21**	135	4	**160**	1	**124**	7	**132**	**343**
05:15 PM	2	0	13	15	14	2	2	18	17	127	3	147	**2**	57	2	61	241
Total Volume	12	1	53	66	62	6	19	87	76	522	12	610	3	378	18	399	1162
% App. Total	18.2	1.5	80.3		71.3	6.9	21.8		12.5	85.6	2		0.8	94.7	4.5		
PHF	.750	.250	.779	.825	.738	.500	.475	.702	.905	.953	.750	.953	.375	.762	.563	.756	.847

Peggy Malone & Associates
(888) 247-8602

File Name : 2-US 1 and Archie Cannon_Sylvia Rd PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Archie Cannon Dr Eastbound					Sylvia Rd Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	1	7	0	0	8	0	6	0	0	6	14
04:15 PM	0	0	1	0	1	0	0	0	0	0	1	5	1	0	7	1	6	0	0	7	15
04:30 PM	0	0	1	0	1	0	0	0	0	0	0	6	1	0	7	0	6	0	0	6	14
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	1	3	0	0	4	12
Total	0	0	2	0	2	0	0	0	0	0	2	26	2	0	30	2	21	0	0	23	55
05:00 PM	0	0	0	0	0	1	0	0	0	1	1	10	0	0	11	0	0	1	0	1	13
05:15 PM	1	0	1	0	2	1	0	0	0	1	0	3	0	0	3	0	7	0	0	7	13
05:30 PM	0	0	1	0	1	0	0	0	0	0	0	9	0	0	9	0	1	0	0	1	11
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	4	0	0	4	8
Total	1	0	2	0	3	2	0	0	0	2	1	26	0	0	27	0	12	1	0	13	45
Grand Total	1	0	4	0	5	2	0	0	0	2	3	52	2	0	57	2	33	1	0	36	100
Apprch %	20	0	80	0		100	0	0	0		5.3	91.2	3.5	0		5.6	91.7	2.8	0		
Total %	1	0	4	0	5	2	0	0	0	2	3	52	2	0	57	2	33	1	0	36	

	Archie Cannon Dr Eastbound				Sylvia Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	**1**	7	0	**8**	0	**6**	0	6	14
04:15 PM	0	0	**1**	**1**	0	0	0	0	1	5	**1**	7	**1**	6	0	**7**	**15**
04:30 PM	0	0	1	1	0	0	0	0	0	6	1	7	0	6	0	6	14
04:45 PM	0	0	0	0	0	0	0	0	0	**8**	0	8	1	3	0	4	12
Total Volume	0	0	2	2	0	0	0	0	2	26	2	30	2	21	0	23	55
% App. Total	0	0	100		0	0	0		6.7	86.7	6.7		8.7	91.3	0		
PHF	.000	.000	.500	.500	.000	.000	.000	.000	.500	.813	.500	.938	.500	.875	.000	.821	.917

Peggy Malone & Associates
(888) 247-8602

File Name : 2-US 1 and Archie Cannon_Sylvia Rd PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Archie Cannon Dr Eastbound					Sylvia Rd Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	5	1	6	0	12	27	0	2	0	29	12	136	1	0	149	3	88	0	0	91	281
04:15 PM	5	0	7	0	12	15	1	1	0	17	13	101	2	0	116	3	90	5	0	98	243
04:30 PM	4	1	10	0	15	17	1	2	0	20	20	143	2	0	165	0	121	1	0	122	322
04:45 PM	3	0	14	0	17	10	3	5	0	18	18	131	4	0	153	1	85	8	0	94	282
Total	17	2	37	0	56	69	5	10	0	84	63	511	9	0	583	7	384	14	0	405	1128
05:00 PM	3	0	17	0	20	22	0	10	0	32	22	145	4	0	171	1	124	8	0	133	356
05:15 PM	3	0	14	0	17	15	2	2	0	19	17	130	3	0	150	2	64	2	0	68	254
05:30 PM	3	0	16	0	19	0	0	2	0	2	28	128	5	0	161	2	75	2	0	79	261
05:45 PM	3	0	5	0	8	5	0	0	0	5	22	98	3	0	123	2	74	4	0	80	216
Total	12	0	52	0	64	42	2	14	0	58	89	501	15	0	605	7	337	16	0	360	1087
Grand Total	29	2	89	0	120	111	7	24	0	142	152	1012	24	0	1188	14	721	30	0	765	2215
Apprch %	24.2	1.7	74.2	0		78.2	4.9	16.9	0		12.8	85.2	2	0		1.8	94.2	3.9	0		
Total %	1.3	0.1	4	0	5.4	5	0.3	1.1	0	6.4	6.9	45.7	1.1	0	53.6	0.6	32.6	1.4	0	34.5	

	Archie Cannon Dr Eastbound				Sylvia Rd Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**4**	**1**	10	15	17	1	2	20	20	143	2	165	0	121	1	122	322
04:45 PM	3	0	14	17	10	**3**	5	18	18	131	**4**	153	1	85	**8**	94	282
05:00 PM	3	0	**17**	**20**	**22**	0	**10**	**32**	**22**	**145**	4	**171**	1	**124**	8	**133**	**356**
05:15 PM	3	0	14	17	15	2	2	19	17	130	3	150	**2**	64	2	68	254
Total Volume	13	1	55	69	64	6	19	89	77	549	13	639	4	394	19	417	1214
% App. Total	18.8	1.4	79.7		71.9	6.7	21.3		12.1	85.9	2		1	94.5	4.6		
PHF	.813	.250	.809	.863	.727	.500	.475	.695	.875	.947	.813	.934	.500	.794	.594	.784	.853

Peggy Malone & Associates
(888) 247-8602

File Name : 3-N James St and Vaughan Rd AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Vaughan Rd Eastbound					Vaughan Rd Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	2	0	3	0	5	0	3	4	0	7	25	6	0	0	31	43
07:15 AM	0	0	0	0	0	2	0	3	0	5	0	0	12	0	12	33	7	0	0	40	57
07:30 AM	0	0	0	0	0	9	0	5	0	14	0	1	13	0	14	34	3	0	0	37	65
07:45 AM	0	0	0	0	0	14	0	9	0	23	0	3	10	0	13	25	9	0	0	34	70
Total	0	0	0	0	0	27	0	20	0	47	0	7	39	0	46	117	25	0	0	142	235
08:00 AM	0	0	0	0	0	5	0	10	0	15	0	4	4	0	8	7	9	0	0	16	39
08:15 AM	0	0	0	0	0	4	0	5	0	9	0	5	2	0	7	12	8	0	0	20	36
08:30 AM	0	1	0	0	1	4	0	3	0	7	0	2	6	0	8	9	4	0	0	13	29
08:45 AM	0	0	0	0	0	1	0	7	0	8	0	5	3	0	8	8	7	0	0	15	31
Total	0	1	0	0	1	14	0	25	0	39	0	16	15	0	31	36	28	0	0	64	135
Grand Total	0	1	0	0	1	41	0	45	0	86	0	23	54	0	77	153	53	0	0	206	370
Apprch %	0	100	0	0		47.7	0	52.3	0		0	29.9	70.1	0		74.3	25.7	0	0		
Total %	0	0.3	0	0	0.3	11.1	0	12.2	0	23.2	0	6.2	14.6	0	20.8	41.4	14.3	0	0	55.7	

	Vaughan Rd Eastbound				Vaughan Rd Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	2	0	3	5	0	**3**	4	7	25	6	0	31	43
07:15 AM	0	0	0	0	2	0	3	5	0	0	12	12	33	7	0	**40**	57
07:30 AM	0	0	0	0	9	0	5	14	0	1	**13**	**14**	**34**	3	0	37	65
07:45 AM	0	0	0	0	**14**	0	**9**	**23**	0	3	10	13	25	**9**	0	34	**70**
Total Volume	0	0	0	0	27	0	20	47	0	7	39	46	117	25	0	142	235
% App. Total	0	0	0		57.4	0	42.6		0	15.2	84.8		82.4	17.6	0		
PHF	.000	.000	.000	.000	.482	.000	.556	.511	.000	.583	.750	.821	.860	.694	.000	.888	.839

Peggy Malone & Associates
(888) 247-8602

File Name : 3-N James St and Vaughan Rd AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Vaughan Rd Eastbound					Vaughan Rd Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	3
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	0	0	0	0	2
07:45 AM	0	0	0	0	0	1	0	1	0	2	0	0	2	0	2	0	2	0	0	2	6
Total	0	0	0	0	0	2	0	1	0	3	0	1	4	0	5	2	2	0	0	4	12
08:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1	0	0	0	1	2
08:15 AM	0	0	0	0	0	0	0	1	0	1	0	1	1	0	2	1	1	0	0	2	5
08:30 AM	0	0	0	0	0	0	0	3	0	3	0	0	2	0	2	2	0	0	0	2	7
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	2
Total	0	0	0	0	0	0	0	5	0	5	0	1	3	0	4	6	1	0	0	7	16
Grand Total	0	0	0	0	0	2	0	6	0	8	0	2	7	0	9	8	3	0	0	11	28
Apprch %	0	0	0	0		25	0	75	0		0	22.2	77.8	0		72.7	27.3	0	0		
Total %	0	0	0	0	0	7.1	0	21.4	0	28.6	0	7.1	25	0	32.1	28.6	10.7	0	0	39.3	

	Vaughan Rd Eastbound				Vaughan Rd Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	**1**	0	1	2	0	0	**2**	**2**	0	**2**	0	**2**	6
08:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	2
08:15 AM	0	0	0	0	0	0	1	1	0	**1**	1	2	1	1	0	2	5
08:30 AM	0	0	0	0	0	0	**3**	**3**	0	0	2	2	**2**	0	0	2	**7**
Total Volume	0	0	0	0	1	0	6	7	0	1	5	6	4	3	0	7	20
% App. Total	0	0	0		14.3	0	85.7		0	16.7	83.3		57.1	42.9	0		
PHF	.000	.000	.000	.000	.250	.000	.500	.583	.000	.250	.625	.750	.500	.375	.000	.875	.714

Peggy Malone & Associates
(888) 247-8602

File Name : 3-N James St and Vaughan Rd AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Vaughan Rd Eastbound					Vaughan Rd Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	2	0	3	0	5	0	4	4	0	8	27	6	0	0	33	46
07:15 AM	0	0	0	0	0	2	0	3	0	5	0	0	13	0	13	33	7	0	0	40	58
07:30 AM	0	0	0	0	0	10	0	5	0	15	0	1	14	0	15	34	3	0	0	37	67
07:45 AM	0	0	0	0	0	15	0	10	0	25	0	3	12	0	15	25	11	0	0	36	76
Total	0	0	0	0	0	29	0	21	0	50	0	8	43	0	51	119	27	0	0	146	247
08:00 AM	0	0	0	0	0	5	0	11	0	16	0	4	4	0	8	8	9	0	0	17	41
08:15 AM	0	0	0	0	0	4	0	6	0	10	0	6	3	0	9	13	9	0	0	22	41
08:30 AM	0	1	0	0	1	4	0	6	0	10	0	2	8	0	10	11	4	0	0	15	36
08:45 AM	0	0	0	0	0	1	0	7	0	8	0	5	3	0	8	10	7	0	0	17	33
Total	0	1	0	0	1	14	0	30	0	44	0	17	18	0	35	42	29	0	0	71	151
Grand Total	0	1	0	0	1	43	0	51	0	94	0	25	61	0	86	161	56	0	0	217	398
Apprch %	0	100	0	0		45.7	0	54.3	0		0	29.1	70.9	0		74.2	25.8	0	0		
Total %	0	0.3	0	0	0.3	10.8	0	12.8	0	23.6	0	6.3	15.3	0	21.6	40.5	14.1	0	0	54.5	

	Vaughan Rd Eastbound				Vaughan Rd Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	0	0	0	2	0	3	5	0	**4**	4	8	27	6	0	33	46
07:15 AM	0	0	0	0	2	0	3	5	0	0	13	13	33	7	0	**40**	58
07:30 AM	0	0	0	0	10	0	5	15	0	1	**14**	**15**	**34**	3	0	37	67
07:45 AM	0	0	0	0	**15**	0	**10**	**25**	0	3	12	15	25	**11**	0	36	**76**
Total Volume	0	0	0	0	29	0	21	50	0	8	43	51	119	27	0	146	247
% App. Total	0	0	0		58	0	42		0	15.7	84.3		81.5	18.5	0		
PHF	.000	.000	.000	.000	.483	.000	.525	.500	.000	.500	.768	.850	.875	.614	.000	.913	.813

Peggy Malone & Associates
(888) 247-8602

File Name : 3-N James St and Vaughan Rd PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Vaughan Rd Eastbound					Vaughan Rd Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	3	0	11	0	14	0	5	1	0	6	3	3	0	0	6	26
04:15 PM	0	0	1	0	1	6	0	7	0	13	0	3	6	0	9	4	7	0	0	11	34
04:30 PM	0	0	1	0	1	7	0	13	0	20	0	5	6	0	11	5	5	0	0	10	42
04:45 PM	0	0	0	0	0	12	0	15	0	27	0	7	4	0	11	8	2	0	0	10	48
Total	0	0	2	0	2	28	0	46	0	74	0	20	17	0	37	20	17	0	0	37	150
05:00 PM	0	0	0	0	0	8	0	17	0	25	0	13	3	0	16	13	6	0	0	19	60
05:15 PM	0	1	0	0	1	13	0	14	0	27	0	10	6	0	16	10	4	0	0	14	58
05:30 PM	0	0	0	0	0	5	0	16	0	21	0	4	5	0	9	15	6	0	0	21	51
05:45 PM	0	0	0	0	0	5	0	27	0	32	0	2	7	0	9	1	1	0	0	2	43
Total	0	1	0	0	1	31	0	74	0	105	0	29	21	0	50	39	17	0	0	56	212
Grand Total	0	1	2	0	3	59	0	120	0	179	0	49	38	0	87	59	34	0	0	93	362
Apprch %	0	33.3	66.7	0		33	0	67	0		0	56.3	43.7	0		63.4	36.6	0	0		
Total %	0	0.3	0.6	0	0.8	16.3	0	33.1	0	49.4	0	13.5	10.5	0	24	16.3	9.4	0	0	25.7	

	Vaughan Rd Eastbound				Vaughan Rd Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	12	0	15	**27**	0	7	4	11	8	2	0	10	48
05:00 PM	0	0	0	0	8	0	**17**	25	0	**13**	3	**16**	13	**6**	0	19	**60**
05:15 PM	0	**1**	0	**1**	**13**	0	14	27	0	10	**6**	16	10	4	0	14	58
05:30 PM	0	0	0	0	5	0	16	21	0	4	5	9	**15**	6	0	**21**	51
Total Volume	0	1	0	1	38	0	62	100	0	34	18	52	46	18	0	64	217
% App. Total	0	100	0		38	0	62		0	65.4	34.6		71.9	28.1	0		
PHF	.000	.250	.000	.250	.731	.000	.912	.926	.000	.654	.750	.813	.767	.750	.000	.762	.904

Peggy Malone & Associates
(888) 247-8602

File Name : 3-N James St and Vaughan Rd PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Vaughan Rd Eastbound					Vaughan Rd Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	1	0	1	0	1	1	0	2	1	0	0	0	1	4
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	1	1	0	0	2	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	1	0	1	0	4	2	0	6	3	2	0	0	5	12
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	2
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
05:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	1	0	2	0	1	0	0	1	2	1	0	0	3	6
Grand Total	0	0	0	0	0	1	0	2	0	3	0	5	2	0	7	5	3	0	0	8	18
Apprch %	0	0	0	0		33.3	0	66.7	0		0	71.4	28.6	0		62.5	37.5	0	0		
Total %	0	0	0	0	0	5.6	0	11.1	0	16.7	0	27.8	11.1	0	38.9	27.8	16.7	0	0	44.4	

	Vaughan Rd Eastbound				Vaughan Rd Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	**1**	**1**	0	1	**1**	2	**1**	0	0	1	4
04:15 PM	0	0	0	0	0	0	0	0	0	**2**	1	**3**	1	**1**	0	**2**	**5**
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	0	0	0	0	0	0	1	1	0	4	2	6	3	2	0	5	12
% App. Total	0	0	0		0	0	100		0	66.7	33.3		60	40	0		
PHF	.000	.000	.000	.000	.000	.000	.250	.250	.000	.500	.500	.500	.750	.500	.000	.625	.600

Peggy Malone & Associates
(888) 247-8602

File Name : 3-N James St and Vaughan Rd PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Vaughan Rd Eastbound					Vaughan Rd Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	3	0	12	0	15	0	6	2	0	8	4	3	0	0	7	30
04:15 PM	0	0	1	0	1	6	0	7	0	13	0	5	7	0	12	5	8	0	0	13	39
04:30 PM	0	0	1	0	1	7	0	13	0	20	0	5	6	0	11	6	6	0	0	12	44
04:45 PM	0	0	0	0	0	12	0	15	0	27	0	8	4	0	12	8	2	0	0	10	49
Total	0	0	2	0	2	28	0	47	0	75	0	24	19	0	43	23	19	0	0	42	162
05:00 PM	0	0	0	0	0	8	0	17	0	25	0	13	3	0	16	13	7	0	0	20	61
05:15 PM	0	1	0	0	1	14	0	14	0	28	0	10	6	0	16	11	4	0	0	15	60
05:30 PM	0	0	0	0	0	5	0	16	0	21	0	5	5	0	10	16	6	0	0	22	53
05:45 PM	0	0	0	0	0	5	0	28	0	33	0	2	7	0	9	1	1	0	0	2	44
Total	0	1	0	0	1	32	0	75	0	107	0	30	21	0	51	41	18	0	0	59	218
Grand Total	0	1	2	0	3	60	0	122	0	182	0	54	40	0	94	64	37	0	0	101	380
Apprch %	0	33.3	66.7	0		33	0	67	0		0	57.4	42.6	0		63.4	36.6	0	0		
Total %	0	0.3	0.5	0	0.8	15.8	0	32.1	0	47.9	0	14.2	10.5	0	24.7	16.8	9.7	0	0	26.6	

	Vaughan Rd Eastbound				Vaughan Rd Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	12	0	15	27	0	8	4	12	8	2	0	10	49
05:00 PM	0	0	0	0	8	0	**17**	25	0	**13**	3	**16**	13	**7**	0	20	**61**
05:15 PM	0	**1**	0	**1**	**14**	0	14	**28**	0	10	**6**	16	11	4	0	15	60
05:30 PM	0	0	0	0	5	0	16	21	0	5	5	10	**16**	6	0	**22**	53
Total Volume	0	1	0	1	39	0	62	101	0	36	18	54	48	19	0	67	223
% App. Total	0	100	0		38.6	0	61.4		0	66.7	33.3		71.6	28.4	0		
PHF	.000	.250	.000	.250	.696	.000	.912	.902	.000	.692	.750	.844	.750	.679	.000	.761	.914

Peggy Malone & Associates
(888) 247-8602

File Name : 4-N James St and N Snead_W Patrick AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	N Snead St Eastbound					W Patrick St Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	2	2	0	6	0	0	0	0	0	1	2	0	0	3	1	10	3	0	14	23
07:15 AM	10	2	3	0	15	1	4	1	0	6	0	0	0	0	0	1	9	9	0	19	40
07:30 AM	8	2	0	0	10	1	0	1	0	2	0	3	0	0	3	1	9	10	0	20	35
07:45 AM	8	0	5	0	13	0	2	1	0	3	1	8	2	0	11	2	19	8	0	29	56
Total	28	6	10	0	44	2	6	3	0	11	2	13	2	0	17	5	47	30	0	82	154
08:00 AM	3	3	2	0	8	0	3	3	0	6	0	8	2	0	10	5	13	5	0	23	47
08:15 AM	3	3	2	0	8	0	1	1	0	2	1	4	2	0	7	4	8	9	0	21	38
08:30 AM	4	1	0	0	5	0	2	0	0	2	0	3	1	0	4	1	8	3	0	12	23
08:45 AM	3	0	0	0	3	1	0	0	0	1	0	6	0	0	6	1	12	2	0	15	25
Total	13	7	4	0	24	1	6	4	0	11	1	21	5	0	27	11	41	19	0	71	133
Grand Total	41	13	14	0	68	3	12	7	0	22	3	34	7	0	44	16	88	49	0	153	287
Apprch %	60.3	19.1	20.6	0		13.6	54.5	31.8	0		6.8	77.3	15.9	0		10.5	57.5	32	0		
Total %	14.3	4.5	4.9	0	23.7	1	4.2	2.4	0	7.7	1	11.8	2.4	0	15.3	5.6	30.7	17.1	0	53.3	

	N Snead St Eastbound				W Patrick St Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**10**	2	3	**15**	**1**	**4**	1	**6**	0	0	0	0	1	9	9	19	40
07:30 AM	8	2	0	10	1	0	1	2	0	3	0	3	1	9	**10**	20	35
07:45 AM	8	0	**5**	13	0	2	1	3	**1**	**8**	**2**	**11**	2	**19**	8	**29**	**56**
08:00 AM	3	**3**	2	8	0	3	**3**	6	0	8	2	10	**5**	13	5	23	47
Total Volume	29	7	10	46	2	9	6	17	1	19	4	24	9	50	32	91	178
% App. Total	63	15.2	21.7		11.8	52.9	35.3		4.2	79.2	16.7		9.9	54.9	35.2		
PHF	.725	.583	.500	.767	.500	.563	.500	.708	.250	.594	.500	.545	.450	.658	.800	.784	.795

Peggy Malone & Associates
(888) 247-8602

File Name : 4-N James St and N Snead_W Patrick AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	N Snead St Eastbound					W Patrick St Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
07:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
07:45 AM	1	0	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	2
Total	2	0	0	0	2	0	0	0	0	0	1	1	0	0	2	0	1	0	0	1	5
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2
08:15 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
08:30 AM	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	0	0	0	3	0	0	0	0	0	0	1	0	0	1	0	1	1	0	2	6
Grand Total	5	0	0	0	5	0	0	0	0	0	1	2	0	0	3	0	2	1	0	3	11
Apprch %	100	0	0	0		0	0	0	0		33.3	66.7	0	0		0	66.7	33.3	0		
Total %	45.5	0	0	0	45.5	0	0	0	0	0	9.1	18.2	0	0	27.3	0	18.2	9.1	0	27.3	

	N Snead St Eastbound				W Patrick St Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**1**	0	0	**1**	0	0	0	0	0	0	0	0	0	**1**	0	**1**	**2**
07:45 AM	1	0	0	1	0	0	0	0	**1**	0	0	**1**	0	0	0	0	2
08:00 AM	0	0	0	0	0	0	0	0	0	**1**	0	1	0	0	**1**	1	2
08:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total Volume	3	0	0	3	0	0	0	0	1	1	0	2	0	2	1	3	8
% App. Total	100	0	0		0	0	0		50	50	0		0	66.7	33.3		
PHF	.750	.000	.000	.750	.000	.000	.000	.000	.250	.250	.000	.500	.000	.500	.250	.750	1.00

Peggy Malone & Associates
(888) 247-8602

File Name : 4-N James St and N Snead_W Patrick AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	N Snead St Eastbound					W Patrick St Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	2	2	0	6	0	0	0	0	0	1	2	0	0	3	1	10	3	0	14	23
07:15 AM	10	2	3	0	15	1	4	1	0	6	0	1	0	0	1	1	9	9	0	19	41
07:30 AM	9	2	0	0	11	1	0	1	0	2	0	3	0	0	3	1	10	10	0	21	37
07:45 AM	9	0	5	0	14	0	2	1	0	3	2	8	2	0	12	2	19	8	0	29	58
Total	30	6	10	0	46	2	6	3	0	11	3	14	2	0	19	5	48	30	0	83	159
08:00 AM	3	3	2	0	8	0	3	3	0	6	0	9	2	0	11	5	13	6	0	24	49
08:15 AM	4	3	2	0	9	0	1	1	0	2	1	4	2	0	7	4	9	9	0	22	40
08:30 AM	6	1	0	0	7	0	2	0	0	2	0	3	1	0	4	1	8	3	0	12	25
08:45 AM	3	0	0	0	3	1	0	0	0	1	0	6	0	0	6	1	12	2	0	15	25
Total	16	7	4	0	27	1	6	4	0	11	1	22	5	0	28	11	42	20	0	73	139
Grand Total	46	13	14	0	73	3	12	7	0	22	4	36	7	0	47	16	90	50	0	156	298
Apprch %	63	17.8	19.2	0		13.6	54.5	31.8	0		8.5	76.6	14.9	0		10.3	57.7	32.1	0		
Total %	15.4	4.4	4.7	0	24.5	1	4	2.3	0	7.4	1.3	12.1	2.3	0	15.8	5.4	30.2	16.8	0	52.3	

	N Snead St Eastbound				W Patrick St Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**10**	2	3	**15**	**1**	**4**	1	**6**	0	1	0	1	1	9	9	19	41
07:30 AM	9	2	0	11	1	0	1	2	0	3	0	3	1	10	**10**	21	37
07:45 AM	9	0	**5**	14	0	2	1	3	**2**	8	**2**	**12**	2	**19**	8	**29**	**58**
08:00 AM	3	**3**	2	8	0	3	**3**	6	0	**9**	2	11	**5**	13	6	24	49
Total Volume	31	7	10	48	2	9	6	17	2	21	4	27	9	51	33	93	185
% App. Total	64.6	14.6	20.8		11.8	52.9	35.3		7.4	77.8	14.8		9.7	54.8	35.5		
PHF	.775	.583	.500	.800	.500	.563	.500	.708	.250	.583	.500	.563	.450	.671	.825	.802	.797

Peggy Malone & Associates
(888) 247-8602

File Name : 4-N James St and N Snead_W Patrick PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	N Snead St Eastbound					W Patrick St Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	2	1	0	0	3	0	2	2	0	4	0	10	2	0	12	3	3	2	0	8	27
04:15 PM	4	2	0	1	7	0	2	1	0	3	0	4	1	0	5	1	11	3	0	15	30
04:30 PM	3	0	1	0	4	1	3	1	0	5	1	7	1	1	10	2	4	5	1	12	31
04:45 PM	7	1	0	0	8	0	2	3	0	5	2	7	1	0	10	0	6	4	0	10	33
Total	16	4	1	1	22	1	9	7	0	17	3	28	5	1	37	6	24	14	1	45	121
05:00 PM	4	2	0	0	6	1	1	1	0	3	2	16	1	1	20	1	7	5	0	13	42
05:15 PM	9	0	4	0	13	1	2	2	0	5	3	7	0	0	10	1	7	5	0	13	41
05:30 PM	1	1	1	0	3	6	7	2	0	15	3	4	5	0	12	0	0	1	0	1	31
05:45 PM	2	8	3	0	13	3	7	0	0	10	1	1	7	0	9	2	1	0	2	5	37
Total	16	11	8	0	35	11	17	5	0	33	9	28	13	1	51	4	15	11	2	32	151
Grand Total	32	15	9	1	57	12	26	12	0	50	12	56	18	2	88	10	39	25	3	77	272
Apprch %	56.1	26.3	15.8	1.8		24	52	24	0		13.6	63.6	20.5	2.3		13	50.6	32.5	3.9		
Total %	11.8	5.5	3.3	0.4	21	4.4	9.6	4.4	0	18.4	4.4	20.6	6.6	0.7	32.4	3.7	14.3	9.2	1.1	28.3	

	N Snead St Eastbound				W Patrick St Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	4	2	0	6	1	1	1	3	2	**16**	1	**19**	1	**7**	**5**	**13**	**41**
05:15 PM	**9**	0	**4**	**13**	1	2	**2**	5	**3**	7	0	10	1	7	5	13	41
05:30 PM	1	1	1	3	**6**	**7**	2	**15**	3	4	5	12	0	0	1	1	31
05:45 PM	2	**8**	3	13	3	7	0	10	1	1	**7**	9	**2**	1	0	3	35
Total Volume	16	11	8	35	11	17	5	33	9	28	13	50	4	15	11	30	148
% App. Total	45.7	31.4	22.9		33.3	51.5	15.2		18	56	26		13.3	50	36.7		
PHF	.444	.344	.500	.673	.458	.607	.625	.550	.750	.438	.464	.658	.500	.536	.550	.577	.902

Peggy Malone & Associates
(888) 247-8602

File Name : 4-N James St and N Snead_W Patrick PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	N Snead St Eastbound					W Patrick St Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	1	0	0	0	1	0	0	0	0	0	1	3	0	0	4	0	0	0	0	0	5
04:15 PM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	2	1	0	3	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	2	0	0	0	2	0	0	0	0	0	1	5	0	0	6	0	3	1	0	4	12
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
05:45 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	1	0	1	0	1	0	0	1	2
Grand Total	2	0	0	0	2	0	0	0	0	0	1	5	1	0	7	0	4	1	0	5	14
Apprch %	100	0	0	0		0	0	0	0		14.3	71.4	14.3	0		0	80	20	0		
Total %	14.3	0	0	0	14.3	0	0	0	0	0	7.1	35.7	7.1	0	50	0	28.6	7.1	0	35.7	

	N Snead St Eastbound				W Patrick St Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	0	0	**1**	0	0	0	0	**1**	**3**	0	**4**	0	0	0	0	**5**
04:15 PM	1	0	0	1	0	0	0	0	0	1	0	1	0	**2**	**1**	**3**	5
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1
04:45 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
Total Volume	2	0	0	2	0	0	0	0	1	5	0	6	0	3	1	4	12
% App. Total	100	0	0		0	0	0		16.7	83.3	0		0	75	25		
PHF	.500	.000	.000	.500	.000	.000	.000	.000	.250	.417	.000	.375	.000	.375	.250	.333	.600

Peggy Malone & Associates
(888) 247-8602

File Name : 4-N James St and N Snead_W Patrick PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	N Snead St Eastbound					W Patrick St Westbound					N James St Northbound					N James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	3	1	0	0	4	0	2	2	0	4	1	13	2	0	16	3	3	2	0	8	32
04:15 PM	5	2	0	1	8	0	2	1	0	3	0	5	1	0	6	1	13	4	0	18	35
04:30 PM	3	0	1	0	4	1	3	1	0	5	1	7	1	1	10	2	5	5	1	13	32
04:45 PM	7	1	0	0	8	0	2	3	0	5	2	8	1	0	11	0	6	4	0	10	34
Total	18	4	1	1	24	1	9	7	0	17	4	33	5	1	43	6	27	15	1	49	133
05:00 PM	4	2	0	0	6	1	1	1	0	3	2	16	1	1	20	1	8	5	0	14	43
05:15 PM	9	0	4	0	13	1	2	2	0	5	3	7	0	0	10	1	7	5	0	13	41
05:30 PM	1	1	1	0	3	6	7	2	0	15	3	4	6	0	13	0	0	1	0	1	32
05:45 PM	2	8	3	0	13	3	7	0	0	10	1	1	7	0	9	2	1	0	2	5	37
Total	16	11	8	0	35	11	17	5	0	33	9	28	14	1	52	4	16	11	2	33	153
Grand Total	34	15	9	1	59	12	26	12	0	50	13	61	19	2	95	10	43	26	3	82	286
Apprch %	57.6	25.4	15.3	1.7		24	52	24	0		13.7	64.2	20	2.1		12.2	52.4	31.7	3.7		
Total %	11.9	5.2	3.1	0.3	20.6	4.2	9.1	4.2	0	17.5	4.5	21.3	6.6	0.7	33.2	3.5	15	9.1	1	28.7	

	N Snead St Eastbound				W Patrick St Westbound				N James St Northbound				N James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	4	2	0	6	1	1	1	3	2	**16**	1	**19**	1	**8**	**5**	**14**	**42**
05:15 PM	**9**	0	**4**	**13**	1	2	**2**	5	**3**	7	0	10	1	7	5	13	41
05:30 PM	1	1	1	3	**6**	**7**	2	**15**	3	4	6	13	0	0	1	1	32
05:45 PM	2	**8**	3	13	3	7	0	10	1	1	**7**	9	**2**	1	0	3	35
Total Volume	16	11	8	35	11	17	5	33	9	28	14	51	4	16	11	31	150
% App. Total	45.7	31.4	22.9		33.3	51.5	15.2		17.6	54.9	27.5		12.9	51.6	35.5		
PHF	.444	.344	.500	.673	.458	.607	.625	.550	.750	.438	.500	.671	.500	.500	.550	.554	.893

Peggy Malone & Associates
(888) 247-8602

File Name : 5-US 1 and Caroline St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Caroline St Eastbound					Parking Lot Entrance Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	1	1	2	0	0	1	2	3	2	115	0	0	117	1	121	1	0	123	245
07:15 AM	2	2	2	0	6	1	1	7	1	10	4	124	2	0	130	3	143	3	1	150	296
07:30 AM	1	1	3	0	5	1	0	7	0	8	7	96	2	0	105	6	174	1	0	181	299
07:45 AM	2	0	4	0	6	1	0	8	1	10	11	143	6	0	160	4	157	2	0	163	339
Total	5	3	10	1	19	3	1	23	4	31	24	478	10	0	512	14	595	7	1	617	1179
08:00 AM	1	0	7	0	8	1	0	2	1	4	11	102	1	0	114	4	143	1	0	148	274
08:15 AM	1	0	7	0	8	2	0	3	2	7	6	86	1	2	95	5	108	3	0	116	226
08:30 AM	2	0	5	0	7	3	0	4	2	9	7	68	2	0	77	5	93	0	0	98	191
08:45 AM	0	0	4	1	5	2	1	2	0	5	8	70	0	0	78	2	99	1	0	102	190
Total	4	0	23	1	28	8	1	11	5	25	32	326	4	2	364	16	443	5	0	464	881
Grand Total	9	3	33	2	47	11	2	34	9	56	56	804	14	2	876	30	1038	12	1	1081	2060
Apprch %	19.1	6.4	70.2	4.3		19.6	3.6	60.7	16.1		6.4	91.8	1.6	0.2		2.8	96	1.1	0.1		
Total %	0.4	0.1	1.6	0.1	2.3	0.5	0.1	1.7	0.4	2.7	2.7	39	0.7	0.1	42.5	1.5	50.4	0.6	0	52.5	

	Caroline St Eastbound				Parking Lot Entrance Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**2**	**2**	2	6	**1**	**1**	7	**9**	4	124	2	130	3	143	**3**	149	294
07:30 AM	1	1	3	5	1	0	7	8	7	96	2	105	**6**	**174**	1	**181**	299
07:45 AM	2	0	4	6	1	0	**8**	9	**11**	**143**	**6**	**160**	4	157	2	163	**338**
08:00 AM	1	0	**7**	**8**	1	0	2	3	11	102	1	114	4	143	1	148	273
Total Volume	6	3	16	25	4	1	24	29	33	465	11	509	17	617	7	641	1204
% App. Total	24	12	64		13.8	3.4	82.8		6.5	91.4	2.2		2.7	96.3	1.1		
PHF	.750	.375	.571	.781	1.00	.250	.750	.806	.750	.813	.458	.795	.708	.886	.583	.885	.891

Peggy Malone & Associates
(888) 247-8602

File Name : 5-US 1 and Caroline St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Caroline St Eastbound					Parking Lot Entrance Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	11	0	0	11	18
07:15 AM	1	0	0	0	1	0	0	0	0	0	0	10	0	0	10	0	12	0	0	12	23
07:30 AM	0	0	0	0	0	1	0	1	0	2	0	12	0	0	12	0	10	0	0	10	24
07:45 AM	0	0	0	0	0	1	0	0	0	1	0	12	0	0	12	0	11	0	0	11	24
Total	1	0	0	0	1	2	0	1	0	3	0	41	0	0	41	0	44	0	0	44	89
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	15	0	0	15	29
08:15 AM	0	0	1	0	1	0	0	0	0	0	1	9	0	0	10	0	18	0	0	18	29
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	16	2	0	18	0	16	0	0	16	34
08:45 AM	0	0	0	0	0	1	0	0	0	1	0	13	1	0	14	0	14	0	0	14	29
Total	0	0	1	0	1	1	0	0	0	1	1	52	3	0	56	0	63	0	0	63	121
Grand Total	1	0	1	0	2	3	0	1	0	4	1	93	3	0	97	0	107	0	0	107	210
Apprch %	50	0	50	0		75	0	25	0		1	95.9	3.1	0		0	100	0	0		
Total %	0.5	0	0.5	0	1	1.4	0	0.5	0	1.9	0.5	44.3	1.4	0	46.2	0	51	0	0	51	

	Caroline St Eastbound				Parking Lot Entrance Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	0	0	0	0	14	0	14	0	15	0	15	29
08:15 AM	0	0	**1**	**1**	0	0	0	0	**1**	9	0	10	0	**18**	0	**18**	29
08:30 AM	0	0	0	0	0	0	0	0	0	**16**	**2**	**18**	0	16	0	16	**34**
08:45 AM	0	0	0	0	**1**	0	0	**1**	0	13	1	14	0	14	0	14	29
Total Volume	0	0	1	1	1	0	0	1	1	52	3	56	0	63	0	63	121
% App. Total	0	0	100		100	0	0		1.8	92.9	5.4		0	100	0		
PHF	.000	.000	.250	.250	.250	.000	.000	.250	.250	.813	.375	.778	.000	.875	.000	.875	.890

Peggy Malone & Associates
(888) 247-8602

File Name : 5-US 1 and Caroline St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Caroline St Eastbound					Parking Lot Entrance Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	1	1	2	0	0	1	2	3	2	122	0	0	124	1	132	1	0	134	263
07:15 AM	3	2	2	0	7	1	1	7	1	10	4	134	2	0	140	3	155	3	1	162	319
07:30 AM	1	1	3	0	5	2	0	8	0	10	7	108	2	0	117	6	184	1	0	191	323
07:45 AM	2	0	4	0	6	2	0	8	1	11	11	155	6	0	172	4	168	2	0	174	363
Total	6	3	10	1	20	5	1	24	4	34	24	519	10	0	553	14	639	7	1	661	1268
08:00 AM	1	0	7	0	8	1	0	2	1	4	11	116	1	0	128	4	158	1	0	163	303
08:15 AM	1	0	8	0	9	2	0	3	2	7	7	95	1	2	105	5	126	3	0	134	255
08:30 AM	2	0	5	0	7	3	0	4	2	9	7	84	4	0	95	5	109	0	0	114	225
08:45 AM	0	0	4	1	5	3	1	2	0	6	8	83	1	0	92	2	113	1	0	116	219
Total	4	0	24	1	29	9	1	11	5	26	33	378	7	2	420	16	506	5	0	527	1002
Grand Total	10	3	34	2	49	14	2	35	9	60	57	897	17	2	973	30	1145	12	1	1188	2270
Apprch %	20.4	6.1	69.4	4.1		23.3	3.3	58.3	15		5.9	92.2	1.7	0.2		2.5	96.4	1	0.1		
Total %	0.4	0.1	1.5	0.1	2.2	0.6	0.1	1.5	0.4	2.6	2.5	39.5	0.7	0.1	42.9	1.3	50.4	0.5	0	52.3	

	Caroline St Eastbound				Parking Lot Entrance Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**3**	**2**	2	7	1	**1**	7	9	4	134	2	140	3	155	**3**	161	317
07:30 AM	1	1	3	5	**2**	0	**8**	**10**	7	108	2	117	**6**	**184**	1	**191**	323
07:45 AM	2	0	4	6	2	0	8	10	**11**	**155**	**6**	**172**	4	168	2	174	**362**
08:00 AM	1	0	**7**	**8**	1	0	2	3	11	116	1	128	4	158	1	163	302
Total Volume	7	3	16	26	6	1	25	32	33	513	11	557	17	665	7	689	1304
% App. Total	26.9	11.5	61.5		18.8	3.1	78.1		5.9	92.1	2		2.5	96.5	1		
PHF	.583	.375	.571	.813	.750	.250	.781	.800	.750	.827	.458	.810	.708	.904	.583	.902	.901

Peggy Malone & Associates
(888) 247-8602

File Name : 5-US 1 and Caroline St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Caroline St Eastbound					Parking Lot Entrance Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	3	4	11	1	19	2	4	26	0	32	4	134	6	0	144	9	136	1	0	146	341
04:15 PM	2	0	11	0	13	4	0	19	1	24	12	136	3	0	151	16	116	1	0	133	321
04:30 PM	4	3	19	0	26	3	2	20	0	25	6	154	9	0	169	9	165	1	0	175	395
04:45 PM	1	2	14	0	17	5	0	28	1	34	9	141	5	0	155	14	144	2	1	161	367
Total	10	9	55	1	75	14	6	93	2	115	31	565	23	0	619	48	561	5	1	615	1424
05:00 PM	1	0	26	0	27	1	1	30	2	34	3	160	5	2	170	7	170	2	0	179	410
05:15 PM	4	3	28	0	35	6	4	23	1	34	5	154	8	0	167	15	118	1	0	134	370
05:30 PM	3	3	13	0	19	7	0	20	2	29	7	138	1	0	146	12	104	3	0	119	313
05:45 PM	3	1	10	1	15	8	4	24	0	36	7	125	9	2	143	9	84	0	0	93	287
Total	11	7	77	1	96	22	9	97	5	133	22	577	23	4	626	43	476	6	0	525	1380
Grand Total	21	16	132	2	171	36	15	190	7	248	53	1142	46	4	1245	91	1037	11	1	1140	2804
Apprch %	12.3	9.4	77.2	1.2		14.5	6	76.6	2.8		4.3	91.7	3.7	0.3		8	91	1	0.1		
Total %	0.7	0.6	4.7	0.1	6.1	1.3	0.5	6.8	0.2	8.8	1.9	40.7	1.6	0.1	44.4	3.2	37	0.4	0	40.7	

	Caroline St Eastbound				Parking Lot Entrance Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**4**	**3**	19	26	3	2	20	25	6	154	**9**	**169**	9	165	1	175	395
04:45 PM	1	2	14	17	5	0	28	**33**	**9**	141	5	155	14	144	**2**	160	365
05:00 PM	1	0	26	27	1	1	**30**	32	3	**160**	5	168	7	**170**	2	**179**	**406**
05:15 PM	4	3	**28**	**35**	**6**	**4**	23	33	5	154	8	167	**15**	118	1	134	369
Total Volume	10	8	87	105	15	7	101	123	23	609	27	659	45	597	6	648	1535
% App. Total	9.5	7.6	82.9		12.2	5.7	82.1		3.5	92.4	4.1		6.9	92.1	0.9		
PHF	.625	.667	.777	.750	.625	.438	.842	.932	.639	.952	.750	.975	.750	.878	.750	.905	.945

Peggy Malone & Associates
(888) 247-8602

File Name : 5-US 1 and Caroline St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Caroline St Eastbound					Parking Lot Entrance Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	9	0	0	9	19
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	5	0	0	5	12
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	9	0	0	9	16
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	5	0	0	5	13
Total	0	0	0	0	0	0	0	0	0	0	0	32	0	0	32	0	28	0	0	28	60
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	0	1	0	0	1	12
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	6	0	0	6	0	7	0	0	7	14
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	2	0	0	2	11
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	3	0	0	3	9
Total	0	0	0	0	0	1	0	0	0	1	0	32	0	0	32	0	13	0	0	13	46
Grand Total	0	0	0	0	0	1	0	0	0	1	0	64	0	0	64	0	41	0	0	41	106
Apprch %	0	0	0	0		100	0	0	0		0	100	0	0		0	100	0	0		
Total %	0	0	0	0	0	0.9	0	0	0	0.9	0	60.4	0	0	60.4	0	38.7	0	0	38.7	

	Caroline St Eastbound				Parking Lot Entrance Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	0	0	0	0	0	**10**	0	**10**	0	**9**	0	**9**	**19**
04:15 PM	0	0	0	0	0	0	0	0	0	7	0	7	0	5	0	5	12
04:30 PM	0	0	0	0	0	0	0	0	0	7	0	7	0	9	0	9	16
04:45 PM	0	0	0	0	0	0	0	0	0	8	0	8	0	5	0	5	13
Total Volume	0	0	0	0	0	0	0	0	0	32	0	32	0	28	0	28	60
% App. Total	0	0	0		0	0	0		0	100	0		0	100	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.000	.800	.000	.800	.000	.778	.000	.778	.789

Peggy Malone & Associates
(888) 247-8602

File Name : 5-US 1 and Caroline St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Caroline St Eastbound					Parking Lot Entrance Westbound					US 1 Northbound					US 1 Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	3	4	11	1	19	2	4	26	0	32	4	144	6	0	154	9	145	1	0	155	360
04:15 PM	2	0	11	0	13	4	0	19	1	24	12	143	3	0	158	16	121	1	0	138	333
04:30 PM	4	3	19	0	26	3	2	20	0	25	6	161	9	0	176	9	174	1	0	184	411
04:45 PM	1	2	14	0	17	5	0	28	1	34	9	149	5	0	163	14	149	2	1	166	380
Total	10	9	55	1	75	14	6	93	2	115	31	597	23	0	651	48	589	5	1	643	1484
05:00 PM	1	0	26	0	27	1	1	30	2	34	3	171	5	2	181	7	171	2	0	180	422
05:15 PM	4	3	28	0	35	7	4	23	1	35	5	160	8	0	173	15	125	1	0	141	384
05:30 PM	3	3	13	0	19	7	0	20	2	29	7	147	1	0	155	12	106	3	0	121	324
05:45 PM	3	1	10	1	15	8	4	24	0	36	7	131	9	2	149	9	87	0	0	96	296
Total	11	7	77	1	96	23	9	97	5	134	22	609	23	4	658	43	489	6	0	538	1426
Grand Total	21	16	132	2	171	37	15	190	7	249	53	1206	46	4	1309	91	1078	11	1	1181	2910
Apprch %	12.3	9.4	77.2	1.2		14.9	6	76.3	2.8		4	92.1	3.5	0.3		7.7	91.3	0.9	0.1		
Total %	0.7	0.5	4.5	0.1	5.9	1.3	0.5	6.5	0.2	8.6	1.8	41.4	1.6	0.1	45	3.1	37	0.4	0	40.6	

	Caroline St Eastbound				Parking Lot Entrance Westbound				US 1 Northbound				US 1 Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**4**	**3**	19	26	3	2	20	25	6	161	**9**	176	9	**174**	1	**184**	411
04:45 PM	1	2	14	17	5	0	28	33	**9**	149	5	163	14	149	**2**	165	378
05:00 PM	1	0	26	27	1	1	**30**	32	3	**171**	5	**179**	7	171	2	180	**418**
05:15 PM	4	3	**28**	**35**	**7**	**4**	23	**34**	5	160	8	173	**15**	125	1	141	383
Total Volume	10	8	87	105	16	7	101	124	23	641	27	691	45	619	6	670	1590
% App. Total	9.5	7.6	82.9		12.9	5.6	81.5		3.3	92.8	3.9		6.7	92.4	0.9		
PHF	.625	.667	.777	.750	.571	.438	.842	.912	.639	.937	.750	.965	.750	.889	.750	.910	.951

Peggy Malone & Associates
(888) 247-8602

File Name : 6-Cottage Green Dr and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Cottage Green Dr Northbound					Cottage Green Dr Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	127	2	0	131	10	128	7	0	145	9	1	3	0	13	22	4	3	0	29	318
07:15 AM	1	170	2	0	173	8	179	2	0	189	2	4	4	0	10	13	4	2	0	19	391
07:30 AM	0	174	7	0	181	11	171	9	0	191	9	1	6	0	16	28	6	6	0	40	428
07:45 AM	2	144	6	0	152	11	224	10	0	245	9	3	2	0	14	23	5	5	0	33	444
Total	5	615	17	0	637	40	702	28	0	770	29	9	15	0	53	86	19	16	0	121	1581
08:00 AM	2	162	3	0	167	14	187	3	0	204	9	2	6	0	17	14	1	5	0	20	408
08:15 AM	2	140	4	0	146	9	171	7	2	189	8	3	5	0	16	16	4	6	0	26	377
08:30 AM	7	150	7	0	164	10	132	7	0	149	6	1	4	0	11	21	5	3	1	30	354
08:45 AM	1	91	5	1	98	6	128	10	0	144	6	3	7	0	16	13	4	2	0	19	277
Total	12	543	19	1	575	39	618	27	2	686	29	9	22	0	60	64	14	16	1	95	1416
Grand Total	17	1158	36	1	1212	79	1320	55	2	1456	58	18	37	0	113	150	33	32	1	216	2997
Apprch %	1.4	95.5	3	0.1		5.4	90.7	3.8	0.1		51.3	15.9	32.7	0		69.4	15.3	14.8	0.5		
Total %	0.6	38.6	1.2	0	40.4	2.6	44	1.8	0.1	48.6	1.9	0.6	1.2	0	3.8	5	1.1	1.1	0	7.2	

	England St Eastbound				England St Westbound				Cottage Green Dr Northbound				Cottage Green Dr Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	1	170	2	173	8	179	2	189	2	**4**	4	10	13	4	2	19	391
07:30 AM	0	**174**	**7**	**181**	11	171	9	191	**9**	1	**6**	16	**28**	**6**	**6**	**40**	428
07:45 AM	**2**	144	6	152	11	**224**	**10**	**245**	9	3	2	14	23	5	5	33	**444**
08:00 AM	2	162	3	167	**14**	187	3	204	9	2	6	**17**	14	1	5	20	408
Total Volume	5	650	18	673	44	761	24	829	29	10	18	57	78	16	18	112	1671
% App. Total	0.7	96.6	2.7		5.3	91.8	2.9		50.9	17.5	31.6		69.6	14.3	16.1		
PHF	.625	.934	.643	.930	.786	.849	.600	.846	.806	.625	.750	.838	.696	.667	.750	.700	.941

Peggy Malone & Associates
(888) 247-8602

File Name : 6-Cottage Green Dr and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Cottage Green Dr Northbound					Cottage Green Dr Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	14	0	0	14	0	12	1	0	13	0	0	0	0	0	0	0	0	0	0	27
07:15 AM	2	7	1	0	10	2	12	0	0	14	1	0	0	0	1	0	0	1	0	1	26
07:30 AM	0	13	2	0	15	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	26
07:45 AM	0	9	2	0	11	0	12	0	0	12	0	1	1	0	2	2	0	0	0	2	27
Total	2	43	5	0	50	2	47	1	0	50	1	1	1	0	3	2	0	1	0	3	106
08:00 AM	0	12	0	0	12	1	13	0	0	14	0	0	0	0	0	1	0	1	0	2	28
08:15 AM	0	11	0	0	11	0	11	1	0	12	1	0	0	0	1	2	0	0	0	2	26
08:30 AM	0	11	1	0	12	1	12	2	0	15	1	0	0	0	1	2	0	1	0	3	31
08:45 AM	1	16	1	0	18	2	9	2	0	13	0	0	0	0	0	0	0	0	0	0	31
Total	1	50	2	0	53	4	45	5	0	54	2	0	0	0	2	5	0	2	0	7	116
Grand Total	3	93	7	0	103	6	92	6	0	104	3	1	1	0	5	7	0	3	0	10	222
Apprch %	2.9	90.3	6.8	0		5.8	88.5	5.8	0		60	20	20	0		70	0	30	0		
Total %	1.4	41.9	3.2	0	46.4	2.7	41.4	2.7	0	46.8	1.4	0.5	0.5	0	2.3	3.2	0	1.4	0	4.5	

	England St Eastbound				England St Westbound				Cottage Green Dr Northbound				Cottage Green Dr Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	12	0	12	1	**13**	0	14	0	0	0	0	1	0	**1**	2	28
08:15 AM	0	11	0	11	0	11	1	12	**1**	0	0	**1**	**2**	0	0	2	26
08:30 AM	0	11	**1**	12	1	12	**2**	**15**	1	0	0	1	2	0	1	**3**	**31**
08:45 AM	**1**	**16**	1	**18**	**2**	9	2	13	0	0	0	0	0	0	0	0	31
Total Volume	1	50	2	53	4	45	5	54	2	0	0	2	5	0	2	7	116
% App. Total	1.9	94.3	3.8		7.4	83.3	9.3		100	0	0		71.4	0	28.6		
PHF	.250	.781	.500	.736	.500	.865	.625	.900	.500	.000	.000	.500	.625	.000	.500	.583	.935

Peggy Malone & Associates
(888) 247-8602

File Name : 6-Cottage Green Dr and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Cottage Green Dr Northbound					Cottage Green Dr Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	141	2	0	145	10	140	8	0	158	9	1	3	0	13	22	4	3	0	29	345
07:15 AM	3	177	3	0	183	10	191	2	0	203	3	4	4	0	11	13	4	3	0	20	417
07:30 AM	0	187	9	0	196	11	182	9	0	202	9	1	6	0	16	28	6	6	0	40	454
07:45 AM	2	153	8	0	163	11	236	10	0	257	9	4	3	0	16	25	5	5	0	35	471
Total	7	658	22	0	687	42	749	29	0	820	30	10	16	0	56	88	19	17	0	124	1687
08:00 AM	2	174	3	0	179	15	200	3	0	218	9	2	6	0	17	15	1	6	0	22	436
08:15 AM	2	151	4	0	157	9	182	8	2	201	9	3	5	0	17	18	4	6	0	28	403
08:30 AM	7	161	8	0	176	11	144	9	0	164	7	1	4	0	12	23	5	4	1	33	385
08:45 AM	2	107	6	1	116	8	137	12	0	157	6	3	7	0	16	13	4	2	0	19	308
Total	13	593	21	1	628	43	663	32	2	740	31	9	22	0	62	69	14	18	1	102	1532
Grand Total	20	1251	43	1	1315	85	1412	61	2	1560	61	19	38	0	118	157	33	35	1	226	3219
Apprch %	1.5	95.1	3.3	0.1		5.4	90.5	3.9	0.1		51.7	16.1	32.2	0		69.5	14.6	15.5	0.4		
Total %	0.6	38.9	1.3	0	40.9	2.6	43.9	1.9	0.1	48.5	1.9	0.6	1.2	0	3.7	4.9	1	1.1	0	7	

	England St Eastbound				England St Westbound				Cottage Green Dr Northbound				Cottage Green Dr Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**3**	177	3	183	10	191	2	203	3	**4**	4	11	13	4	3	20	417
07:30 AM	0	**187**	**9**	**196**	11	182	9	202	**9**	1	**6**	16	**28**	**6**	**6**	**40**	454
07:45 AM	2	153	8	163	11	**236**	**10**	**257**	9	4	3	16	25	5	5	35	**471**
08:00 AM	2	174	3	179	**15**	200	3	218	9	2	6	**17**	15	1	6	22	436
Total Volume	7	691	23	721	47	809	24	880	30	11	19	60	81	16	20	117	1778
% App. Total	1	95.8	3.2		5.3	91.9	2.7		50	18.3	31.7		69.2	13.7	17.1		
PHF	.583	.924	.639	.920	.783	.857	.600	.856	.833	.688	.792	.882	.723	.667	.833	.731	.944

Peggy Malone & Associates
(888) 247-8602

File Name : 6-Cottage Green Dr and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Cottage Green Dr Northbound					Cottage Green Dr Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	6	174	15	0	195	14	181	17	0	212	15	11	10	0	36	38	21	4	0	63	506
04:15 PM	3	137	11	0	151	21	173	19	0	213	12	10	13	1	36	38	15	8	2	63	463
04:30 PM	5	195	9	0	209	22	161	26	0	209	15	14	9	0	38	44	9	9	0	62	518
04:45 PM	11	191	12	0	214	20	189	20	0	229	24	21	9	1	55	39	13	3	0	55	553
Total	25	697	47	0	769	77	704	82	0	863	66	56	41	2	165	159	58	24	2	243	2040
05:00 PM	2	224	7	1	234	25	189	25	0	239	17	9	23	0	49	46	12	11	0	69	591
05:15 PM	4	201	7	0	212	22	205	23	0	250	14	9	16	0	39	41	16	3	0	60	561
05:30 PM	5	176	7	0	188	21	191	25	2	239	17	12	9	1	39	43	17	8	1	69	535
05:45 PM	6	146	8	0	160	25	181	25	2	233	18	9	12	0	39	32	13	4	0	49	481
Total	17	747	29	1	794	93	766	98	4	961	66	39	60	1	166	162	58	26	1	247	2168
Grand Total	42	1444	76	1	1563	170	1470	180	4	1824	132	95	101	3	331	321	116	50	3	490	4208
Apprch %	2.7	92.4	4.9	0.1		9.3	80.6	9.9	0.2		39.9	28.7	30.5	0.9		65.5	23.7	10.2	0.6		
Total %	1	34.3	1.8	0	37.1	4	34.9	4.3	0.1	43.3	3.1	2.3	2.4	0.1	7.9	7.6	2.8	1.2	0.1	11.6	

	England St Eastbound				England St Westbound				Cottage Green Dr Northbound				Cottage Green Dr Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**11**	191	**12**	214	20	189	20	229	**24**	**21**	9	**54**	39	13	3	55	552
05:00 PM	2	**224**	7	**233**	**25**	189	**25**	239	17	9	**23**	49	**46**	12	**11**	**69**	**590**
05:15 PM	4	201	7	212	22	**205**	23	**250**	14	9	16	39	41	16	3	60	561
05:30 PM	5	176	7	188	21	191	25	237	17	12	9	38	43	**17**	8	68	531
Total Volume	22	792	33	847	88	774	93	955	72	51	57	180	169	58	25	252	2234
% App. Total	2.6	93.5	3.9		9.2	81	9.7		40	28.3	31.7		67.1	23	9.9		
PHF	.500	.884	.688	.909	.880	.944	.930	.955	.750	.607	.620	.833	.918	.853	.568	.913	.947

Peggy Malone & Associates
(888) 247-8602

File Name : 6-Cottage Green Dr and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Cottage Green Dr Northbound					Cottage Green Dr Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	1	9	2	0	12	2	12	0	0	14	0	0	1	0	1	0	0	0	0	0	27
04:15 PM	0	6	0	0	6	1	5	0	0	6	0	0	0	0	0	0	0	0	0	0	12
04:30 PM	0	8	0	0	8	0	13	0	0	13	0	0	0	0	0	0	0	0	0	0	21
04:45 PM	0	6	0	0	6	2	5	0	0	7	0	0	2	0	2	0	0	0	0	0	15
Total	1	29	2	0	32	5	35	0	0	40	0	0	3	0	3	0	0	0	0	0	75
05:00 PM	0	5	0	0	5	2	5	0	0	7	0	0	0	0	0	0	0	0	0	0	12
05:15 PM	0	4	1	0	5	3	5	0	0	8	0	0	0	0	0	0	0	0	0	0	13
05:30 PM	0	4	0	0	4	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	7
05:45 PM	0	3	1	0	4	2	7	0	0	9	0	0	1	0	1	0	0	0	0	0	14
Total	0	16	2	0	18	7	19	1	0	27	0	0	1	0	1	0	0	0	0	0	46
Grand Total	1	45	4	0	50	12	54	1	0	67	0	0	4	0	4	0	0	0	0	0	121
Apprch %	2	90	8	0		17.9	80.6	1.5	0		0	0	100	0		0	0	0	0		
Total %	0.8	37.2	3.3	0	41.3	9.9	44.6	0.8	0	55.4	0	0	3.3	0	3.3	0	0	0	0	0	

	England St Eastbound				England St Westbound				Cottage Green Dr Northbound				Cottage Green Dr Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**9**	**2**	**12**	**2**	12	0	**14**	0	0	1	1	0	0	0	0	**27**
04:15 PM	0	6	0	6	1	5	0	6	0	0	0	0	0	0	0	0	12
04:30 PM	0	8	0	8	0	**13**	0	13	0	0	0	0	0	0	0	0	21
04:45 PM	0	6	0	6	2	5	0	7	0	0	**2**	**2**	0	0	0	0	15
Total Volume	1	29	2	32	5	35	0	40	0	0	3	3	0	0	0	0	75
% App. Total	3.1	90.6	6.2		12.5	87.5	0		0	0	100		0	0	0		
PHF	.250	.806	.250	.667	.625	.673	.000	.714	.000	.000	.375	.375	.000	.000	.000	.000	.694

Peggy Malone & Associates
(888) 247-8602

File Name : 6-Cottage Green Dr and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Cottage Green Dr Northbound					Cottage Green Dr Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	7	183	17	0	207	16	193	17	0	226	15	11	11	0	37	38	21	4	0	63	533
04:15 PM	3	143	11	0	157	22	178	19	0	219	12	10	13	1	36	38	15	8	2	63	475
04:30 PM	5	203	9	0	217	22	174	26	0	222	15	14	9	0	38	44	9	9	0	62	539
04:45 PM	11	197	12	0	220	22	194	20	0	236	24	21	11	1	57	39	13	3	0	55	568
Total	26	726	49	0	801	82	739	82	0	903	66	56	44	2	168	159	58	24	2	243	2115
05:00 PM	2	229	7	1	239	27	194	25	0	246	17	9	23	0	49	46	12	11	0	69	603
05:15 PM	4	205	8	0	217	25	210	23	0	258	14	9	16	0	39	41	16	3	0	60	574
05:30 PM	5	180	7	0	192	21	193	26	2	242	17	12	9	1	39	43	17	8	1	69	542
05:45 PM	6	149	9	0	164	27	188	25	2	242	18	9	13	0	40	32	13	4	0	49	495
Total	17	763	31	1	812	100	785	99	4	988	66	39	61	1	167	162	58	26	1	247	2214
Grand Total	43	1489	80	1	1613	182	1524	181	4	1891	132	95	105	3	335	321	116	50	3	490	4329
Apprch %	2.7	92.3	5	0.1		9.6	80.6	9.6	0.2		39.4	28.4	31.3	0.9		65.5	23.7	10.2	0.6		
Total %	1	34.4	1.8	0	37.3	4.2	35.2	4.2	0.1	43.7	3	2.2	2.4	0.1	7.7	7.4	2.7	1.2	0.1	11.3	

	England St Eastbound				England St Westbound				Cottage Green Dr Northbound				Cottage Green Dr Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	203	9	217	22	174	**26**	222	15	14	9	38	44	9	9	62	539
04:45 PM	**11**	197	**12**	220	22	194	20	236	**24**	**21**	11	**56**	39	13	3	55	567
05:00 PM	2	**229**	7	**238**	**27**	194	25	246	17	9	**23**	49	**46**	12	**11**	**69**	**602**
05:15 PM	4	205	8	217	25	**210**	23	**258**	14	9	16	39	41	**16**	3	60	574
Total Volume	22	834	36	892	96	772	94	962	70	53	59	182	170	50	26	246	2282
% App. Total	2.5	93.5	4		10	80.2	9.8		38.5	29.1	32.4		69.1	20.3	10.6		
PHF	.500	.910	.750	.937	.889	.919	.904	.932	.729	.631	.641	.813	.924	.781	.591	.891	.948

Peggy Malone & Associates
(888) 247-8602

File Name : 7-Washington Hwy and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Washington Hwy Northbound					Washington Hwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	11	74	24	2	111	22	42	70	0	134	17	40	22	0	79	48	63	15	0	126	450
07:15 AM	9	78	40	1	128	28	59	89	1	177	16	54	25	0	95	68	67	8	0	143	543
07:30 AM	9	99	23	0	131	30	74	73	0	177	30	39	24	0	93	67	91	17	0	175	576
07:45 AM	20	77	36	0	133	38	104	82	0	224	28	56	20	0	104	56	84	22	0	162	623
Total	49	328	123	3	503	118	279	314	1	712	91	189	91	0	371	239	305	62	0	606	2192
08:00 AM	16	90	29	1	136	43	89	72	0	204	31	38	26	0	95	56	83	18	1	158	593
08:15 AM	7	81	23	1	112	44	84	48	0	176	27	53	23	0	103	52	70	12	0	134	525
08:30 AM	20	98	40	0	158	31	70	32	0	133	19	44	29	0	92	45	49	6	0	100	483
08:45 AM	6	45	15	0	66	31	57	39	0	127	26	46	24	0	96	38	61	14	0	113	402
Total	49	314	107	2	472	149	300	191	0	640	103	181	102	0	386	191	263	50	1	505	2003
Grand Total	98	642	230	5	975	267	579	505	1	1352	194	370	193	0	757	430	568	112	1	1111	4195
Apprch %	10.1	65.8	23.6	0.5		19.7	42.8	37.4	0.1		25.6	48.9	25.5	0		38.7	51.1	10.1	0.1		
Total %	2.3	15.3	5.5	0.1	23.2	6.4	13.8	12	0	32.2	4.6	8.8	4.6	0	18	10.3	13.5	2.7	0	26.5	

	England St Eastbound				England St Westbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	9	78	**40**	127	28	59	**89**	176	16	54	25	95	**68**	67	8	143	541
07:30 AM	9	**99**	23	131	30	74	73	177	30	39	24	93	67	**91**	17	**175**	576
07:45 AM	**20**	77	36	133	38	**104**	82	**224**	28	**56**	20	**104**	56	84	**22**	162	**623**
08:00 AM	16	90	29	**135**	**43**	89	72	204	**31**	38	**26**	95	56	83	18	157	591
Total Volume	54	344	128	526	139	326	316	781	105	187	95	387	247	325	65	637	2331
% App. Total	10.3	65.4	24.3		17.8	41.7	40.5		27.1	48.3	24.5		38.8	51	10.2		
PHF	.675	.869	.800	.974	.808	.784	.888	.872	.847	.835	.913	.930	.908	.893	.739	.910	.935

Peggy Malone & Associates
(888) 247-8602

File Name : 7-Washington Hwy and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Washington Hwy Northbound					Washington Hwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	1	2	0	3	1	3	6	0	10	4	2	4	0	10	9	4	0	0	13	36
07:15 AM	0	4	1	0	5	3	5	6	0	14	1	5	2	0	8	5	3	0	0	8	35
07:30 AM	3	1	0	0	4	2	3	4	0	9	0	8	3	0	11	6	4	0	0	10	34
07:45 AM	2	3	3	0	8	2	3	9	0	14	2	4	2	0	8	9	3	2	0	14	44
Total	5	9	6	0	20	8	14	25	0	47	7	19	11	0	37	29	14	2	0	45	149
08:00 AM	2	1	1	0	4	4	0	9	0	13	5	4	3	0	12	7	6	0	0	13	42
08:15 AM	3	2	3	0	8	3	4	4	0	11	1	2	2	0	5	7	10	2	0	19	43
08:30 AM	3	1	7	0	11	3	2	8	0	13	4	9	4	0	17	7	5	2	0	14	55
08:45 AM	3	3	0	0	6	3	1	5	0	9	2	8	3	0	13	12	2	1	0	15	43
Total	11	7	11	0	29	13	7	26	0	46	12	23	12	0	47	33	23	5	0	61	183
Grand Total	16	16	17	0	49	21	21	51	0	93	19	42	23	0	84	62	37	7	0	106	332
Apprch %	32.7	32.7	34.7	0		22.6	22.6	54.8	0		22.6	50	27.4	0		58.5	34.9	6.6	0		
Total %	4.8	4.8	5.1	0	14.8	6.3	6.3	15.4	0	28	5.7	12.7	6.9	0	25.3	18.7	11.1	2.1	0	31.9	

	England St Eastbound				England St Westbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	2	**3**	3	8	2	3	**9**	**14**	2	4	2	8	**9**	3	**2**	14	44
08:00 AM	2	1	1	4	**4**	0	9	13	**5**	4	3	12	7	6	0	13	42
08:15 AM	**3**	2	3	8	3	**4**	4	11	1	2	2	5	7	**10**	2	**19**	43
08:30 AM	3	1	**7**	**11**	3	2	8	13	4	**9**	**4**	**17**	7	5	2	14	**55**
Total Volume	10	7	14	31	12	9	30	51	12	19	11	42	30	24	6	60	184
% App. Total	32.3	22.6	45.2		23.5	17.6	58.8		28.6	45.2	26.2		50	40	10		
PHF	.833	.583	.500	.705	.750	.563	.833	.911	.600	.528	.688	.618	.833	.600	.750	.789	.836

Peggy Malone & Associates
(888) 247-8602

File Name : 7-Washington Hwy and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Washington Hwy Northbound					Washington Hwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	11	75	26	2	114	23	45	76	0	144	21	42	26	0	89	57	67	15	0	139	486
07:15 AM	9	82	41	1	133	31	64	95	1	191	17	59	27	0	103	73	70	8	0	151	578
07:30 AM	12	100	23	0	135	32	77	77	0	186	30	47	27	0	104	73	95	17	0	185	610
07:45 AM	22	80	39	0	141	40	107	91	0	238	30	60	22	0	112	65	87	24	0	176	667
Total	54	337	129	3	523	126	293	339	1	759	98	208	102	0	408	268	319	64	0	651	2341
08:00 AM	18	91	30	1	140	47	89	81	0	217	36	42	29	0	107	63	89	18	1	171	635
08:15 AM	10	83	26	1	120	47	88	52	0	187	28	55	25	0	108	59	80	14	0	153	568
08:30 AM	23	99	47	0	169	34	72	40	0	146	23	53	33	0	109	52	54	8	0	114	538
08:45 AM	9	48	15	0	72	34	58	44	0	136	28	54	27	0	109	50	63	15	0	128	445
Total	60	321	118	2	501	162	307	217	0	686	115	204	114	0	433	224	286	55	1	566	2186
Grand Total	114	658	247	5	1024	288	600	556	1	1445	213	412	216	0	841	492	605	119	1	1217	4527
Apprch %	11.1	64.3	24.1	0.5		19.9	41.5	38.5	0.1		25.3	49	25.7	0		40.4	49.7	9.8	0.1		
Total %	2.5	14.5	5.5	0.1	22.6	6.4	13.3	12.3	0	31.9	4.7	9.1	4.8	0	18.6	10.9	13.4	2.6	0	26.9	

	England St Eastbound				England St Westbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	9	82	**41**	132	31	64	**95**	190	17	59	27	103	**73**	70	8	151	576
07:30 AM	12	**100**	23	135	32	77	77	186	30	47	27	104	73	**95**	17	**185**	610
07:45 AM	**22**	80	39	**141**	40	**107**	91	**238**	30	**60**	22	**112**	65	87	**24**	176	**667**
08:00 AM	18	91	30	139	**47**	89	81	217	**36**	42	**29**	107	63	89	18	170	633
Total Volume	61	353	133	547	150	337	344	831	113	208	105	426	274	341	67	682	2486
% App. Total	11.2	64.5	24.3		18.1	40.6	41.4		26.5	48.8	24.6		40.2	50	9.8		
PHF	.693	.883	.811	.970	.798	.787	.905	.873	.785	.867	.905	.951	.938	.897	.698	.922	.932

Peggy Malone & Associates
(888) 247-8602

File Name : 7-Washington Hwy and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Washington Hwy Northbound					Washington Hwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	22	120	34	0	176	46	99	58	0	203	47	83	25	0	155	65	66	20	0	151	685
04:15 PM	25	76	30	0	131	55	100	52	1	208	44	95	30	1	170	47	75	9	1	132	641
04:30 PM	29	119	37	0	185	50	101	49	0	200	50	110	39	0	199	72	92	25	0	189	773
04:45 PM	29	94	37	0	160	47	110	61	0	218	60	94	50	2	206	71	81	23	0	175	759
Total	105	409	138	0	652	198	410	220	1	829	201	382	144	3	730	255	314	77	1	647	2858
05:00 PM	22	99	24	0	145	48	116	56	1	221	64	113	67	0	244	69	111	14	1	195	805
05:15 PM	25	121	29	0	175	54	124	55	2	235	66	86	42	0	194	77	67	20	2	166	770
05:30 PM	23	94	37	0	154	49	97	62	2	210	50	87	43	0	180	55	59	14	2	130	674
05:45 PM	24	83	32	0	139	40	130	50	0	220	45	89	40	0	174	49	45	20	0	114	647
Total	94	397	122	0	613	191	467	223	5	886	225	375	192	0	792	250	282	68	5	605	2896
Grand Total	199	806	260	0	1265	389	877	443	6	1715	426	757	336	3	1522	505	596	145	6	1252	5754
Apprch %	15.7	63.7	20.6	0		22.7	51.1	25.8	0.3		28	49.7	22.1	0.2		40.3	47.6	11.6	0.5		
Total %	3.5	14	4.5	0	22	6.8	15.2	7.7	0.1	29.8	7.4	13.2	5.8	0.1	26.5	8.8	10.4	2.5	0.1	21.8	

	England St Eastbound				England St Westbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**29**	119	**37**	**185**	50	101	49	200	50	110	39	199	72	92	**25**	189	773
04:45 PM	29	94	37	160	47	110	**61**	218	60	94	50	204	71	81	23	175	757
05:00 PM	22	99	24	145	48	116	56	220	64	**113**	**67**	**244**	69	**111**	14	**194**	**803**
05:15 PM	25	**121**	29	175	**54**	**124**	55	**233**	**66**	86	42	194	**77**	67	20	164	766
Total Volume	105	433	127	665	199	451	221	871	240	403	198	841	289	351	82	722	3099
% App. Total	15.8	65.1	19.1		22.8	51.8	25.4		28.5	47.9	23.5		40	48.6	11.4		
PHF	.905	.895	.858	.899	.921	.909	.906	.935	.909	.892	.739	.862	.938	.791	.820	.930	.965

Peggy Malone & Associates
(888) 247-8602

File Name : 7-Washington Hwy and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Washington Hwy Northbound					Washington Hwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	6	0	0	6	1	6	4	0	11	2	6	2	0	10	4	9	3	0	16	43
04:15 PM	1	3	2	0	6	2	2	2	0	6	1	3	3	0	7	0	4	0	0	4	23
04:30 PM	1	3	1	0	5	5	1	6	0	12	0	1	2	0	3	3	6	0	0	9	29
04:45 PM	0	2	1	0	3	0	2	3	0	5	1	6	1	0	8	3	4	0	0	7	23
Total	2	14	4	0	20	8	11	15	0	34	4	16	8	0	28	10	23	3	0	36	118
05:00 PM	0	2	0	0	2	1	1	3	0	5	0	8	2	0	10	2	1	0	0	3	20
05:15 PM	0	3	0	0	3	0	1	5	0	6	1	1	1	0	3	4	3	0	0	7	19
05:30 PM	2	2	0	0	4	0	0	3	0	3	0	6	1	0	7	2	2	0	0	4	18
05:45 PM	0	0	0	0	0	0	1	5	0	6	0	2	1	0	3	2	2	0	0	4	13
Total	2	7	0	0	9	1	3	16	0	20	1	17	5	0	23	10	8	0	0	18	70
Grand Total	4	21	4	0	29	9	14	31	0	54	5	33	13	0	51	20	31	3	0	54	188
Apprch %	13.8	72.4	13.8	0		16.7	25.9	57.4	0		9.8	64.7	25.5	0		37	57.4	5.6	0		
Total %	2.1	11.2	2.1	0	15.4	4.8	7.4	16.5	0	28.7	2.7	17.6	6.9	0	27.1	10.6	16.5	1.6	0	28.7	

	England St Eastbound				England St Westbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**6**	0	**6**	1	**6**	4	11	**2**	**6**	2	**10**	**4**	**9**	**3**	**16**	**43**
04:15 PM	**1**	3	**2**	6	2	2	2	6	1	3	**3**	7	0	4	0	4	23
04:30 PM	1	3	1	5	**5**	1	**6**	**12**	0	1	2	3	3	6	0	9	29
04:45 PM	0	2	1	3	0	2	3	5	1	6	1	8	3	4	0	7	23
Total Volume	2	14	4	20	8	11	15	34	4	16	8	28	10	23	3	36	118
% App. Total	10	70	20		23.5	32.4	44.1		14.3	57.1	28.6		27.8	63.9	8.3		
PHF	.500	.583	.500	.833	.400	.458	.625	.708	.500	.667	.667	.700	.625	.639	.250	.563	.686

Peggy Malone & Associates
(888) 247-8602

File Name : 7-Washington Hwy and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Washington Hwy Northbound					Washington Hwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	22	126	34	0	182	47	105	62	0	214	49	89	27	0	165	69	75	23	0	167	728
04:15 PM	26	79	32	0	137	57	102	54	1	214	45	98	33	1	177	47	79	9	1	136	664
04:30 PM	30	122	38	0	190	55	102	55	0	212	50	111	41	0	202	75	98	25	0	198	802
04:45 PM	29	96	38	0	163	47	112	64	0	223	61	100	51	2	214	74	85	23	0	182	782
Total	107	423	142	0	672	206	421	235	1	863	205	398	152	3	758	265	337	80	1	683	2976
05:00 PM	22	101	24	0	147	49	117	59	1	226	64	121	69	0	254	71	112	14	1	198	825
05:15 PM	25	124	29	0	178	54	125	60	2	241	67	87	43	0	197	81	70	20	2	173	789
05:30 PM	25	96	37	0	158	49	97	65	2	213	50	93	44	0	187	57	61	14	2	134	692
05:45 PM	24	83	32	0	139	40	131	55	0	226	45	91	41	0	177	51	47	20	0	118	660
Total	96	404	122	0	622	192	470	239	5	906	226	392	197	0	815	260	290	68	5	623	2966
Grand Total	203	827	264	0	1294	398	891	474	6	1769	431	790	349	3	1573	525	627	148	6	1306	5942
Apprch %	15.7	63.9	20.4	0		22.5	50.4	26.8	0.3		27.4	50.2	22.2	0.2		40.2	48	11.3	0.5		
Total %	3.4	13.9	4.4	0	21.8	6.7	15	8	0.1	29.8	7.3	13.3	5.9	0.1	26.5	8.8	10.6	2.5	0.1	22	

	England St Eastbound				England St Westbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**30**	122	**38**	**190**	**55**	102	55	212	50	111	41	202	75	98	**25**	**198**	802
04:45 PM	29	96	38	163	47	112	**64**	223	61	100	51	212	74	85	23	182	780
05:00 PM	22	101	24	147	49	117	59	225	64	**121**	**69**	**254**	71	**112**	14	197	**823**
05:15 PM	25	**124**	29	178	54	**125**	60	**239**	**67**	87	43	197	**81**	70	20	171	785
Total Volume	106	443	129	678	205	456	238	899	242	419	204	865	301	365	82	748	3190
% App. Total	15.6	65.3	19		22.8	50.7	26.5		28	48.4	23.6		40.2	48.8	11		
PHF	.883	.893	.849	.892	.932	.912	.930	.940	.903	.866	.739	.851	.929	.815	.820	.944	.969

Peggy Malone & Associates
(888) 247-8602

File Name : 8-Randolph St and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound				England St Westbound				Randolph St Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	107	1	0	108	4	69	0	73	1	7	0	8	189
07:15 AM	127	1	0	128	1	82	0	83	0	5	0	5	216
07:30 AM	134	3	0	137	3	116	0	119	1	5	0	6	262
07:45 AM	137	2	0	139	7	156	0	163	1	7	0	8	310
Total	505	7	0	512	15	423	0	438	3	24	0	27	977
08:00 AM	131	1	0	132	3	138	0	141	2	3	0	5	278
08:15 AM	110	4	0	114	5	118	0	123	0	6	0	6	243
08:30 AM	154	2	0	156	1	90	0	91	3	4	0	7	254
08:45 AM	72	1	0	73	3	96	0	99	4	6	0	10	182
Total	467	8	0	475	12	442	0	454	9	19	0	28	957
Grand Total	972	15	0	987	27	865	0	892	12	43	0	55	1934
Apprch %	98.5	1.5	0		3	97	0		21.8	78.2	0		
Total %	50.3	0.8	0	51	1.4	44.7	0	46.1	0.6	2.2	0	2.8	

	England St Eastbound			England St Westbound			Randolph St Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	134	3	137	3	116	119	1	5	6	262
07:45 AM	**137**	2	**139**	**7**	**156**	**163**	1	**7**	**8**	**310**
08:00 AM	131	1	132	3	138	141	**2**	3	5	278
08:15 AM	110	**4**	114	5	118	123	0	6	6	243
Total Volume	512	10	522	18	528	546	4	21	25	1093
% App. Total	98.1	1.9		3.3	96.7		16	84		
PHF	.934	.625	.939	.643	.846	.837	.500	.750	.781	.881

Peggy Malone & Associates
(888) 247-8602

File Name : 8-Randolph St and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound				England St Westbound				Randolph St Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	4	0	0	4	0	7	0	7	0	0	0	0	11
07:15 AM	3	0	0	3	0	5	0	5	0	1	0	1	9
07:30 AM	6	0	0	6	0	2	0	2	0	0	0	0	8
07:45 AM	8	0	0	8	1	6	0	7	0	0	0	0	15
Total	21	0	0	21	1	20	0	21	0	1	0	1	43
08:00 AM	4	0	0	4	0	9	0	9	0	0	0	0	13
08:15 AM	9	0	0	9	0	7	0	7	1	0	0	1	17
08:30 AM	11	1	0	12	1	6	0	7	0	1	0	1	20
08:45 AM	7	0	0	7	0	4	0	4	0	0	0	0	11
Total	31	1	0	32	1	26	0	27	1	1	0	2	61
Grand Total	52	1	0	53	2	46	0	48	1	2	0	3	104
Apprch %	98.1	1.9	0		4.2	95.8	0		33.3	66.7	0		
Total %	50	1	0	51	1.9	44.2	0	46.2	1	1.9	0	2.9	

	England St Eastbound			England St Westbound			Randolph St Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	8	0	8	**1**	6	7	0	0	0	15
08:00 AM	4	0	4	0	**9**	**9**	0	0	0	13
08:15 AM	9	0	9	0	7	7	**1**	0	**1**	17
08:30 AM	**11**	**1**	**12**	1	6	7	0	**1**	1	**20**
Total Volume	32	1	33	2	28	30	1	1	2	65
% App. Total	97	3		6.7	93.3		50	50		
PHF	.727	.250	.688	.500	.778	.833	.250	.250	.500	.813

Peggy Malone & Associates
(888) 247-8602

File Name : 8-Randolph St and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound				England St Westbound				Randolph St Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	111	1	0	112	4	76	0	80	1	7	0	8	200
07:15 AM	130	1	0	131	1	87	0	88	0	6	0	6	225
07:30 AM	140	3	0	143	3	118	0	121	1	5	0	6	270
07:45 AM	145	2	0	147	8	162	0	170	1	7	0	8	325
Total	526	7	0	533	16	443	0	459	3	25	0	28	1020
08:00 AM	135	1	0	136	3	147	0	150	2	3	0	5	291
08:15 AM	119	4	0	123	5	125	0	130	1	6	0	7	260
08:30 AM	165	3	0	168	2	96	0	98	3	5	0	8	274
08:45 AM	79	1	0	80	3	100	0	103	4	6	0	10	193
Total	498	9	0	507	13	468	0	481	10	20	0	30	1018
Grand Total	1024	16	0	1040	29	911	0	940	13	45	0	58	2038
Apprch %	98.5	1.5	0		3.1	96.9	0		22.4	77.6	0		
Total %	50.2	0.8	0	51	1.4	44.7	0	46.1	0.6	2.2	0	2.8	

	England St Eastbound			England St Westbound			Randolph St Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	145	2	147	**8**	**162**	**170**	1	**7**	**8**	**325**
08:00 AM	135	1	136	3	147	150	2	3	5	291
08:15 AM	119	**4**	123	5	125	130	1	6	7	260
08:30 AM	**165**	3	**168**	2	96	98	**3**	5	8	274
Total Volume	564	10	574	18	530	548	7	21	28	1150
% App. Total	98.3	1.7		3.3	96.7		25	75		
PHF	.855	.625	.854	.563	.818	.806	.583	.750	.875	.885

Peggy Malone & Associates
(888) 247-8602

File Name : 8-Randolph St and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound				England St Westbound				Randolph St Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	170	3	0	173	5	161	0	166	2	8	0	10	349
04:15 PM	123	2	0	125	8	139	1	148	3	15	3	21	294
04:30 PM	174	2	0	176	8	166	0	174	2	10	0	12	362
04:45 PM	135	2	0	137	6	182	0	188	3	16	1	20	345
Total	602	9	0	611	27	648	1	676	10	49	4	63	1350
05:00 PM	157	2	0	159	8	192	1	201	0	12	0	12	372
05:15 PM	165	3	0	168	7	189	0	196	2	9	2	13	377
05:30 PM	142	2	0	144	5	169	0	174	3	11	0	14	332
05:45 PM	130	1	0	131	6	187	1	194	0	10	0	10	335
Total	594	8	0	602	26	737	2	765	5	42	2	49	1416
Grand Total	1196	17	0	1213	53	1385	3	1441	15	91	6	112	2766
Apprch %	98.6	1.4	0		3.7	96.1	0.2		13.4	81.2	5.4		
Total %	43.2	0.6	0	43.9	1.9	50.1	0.1	52.1	0.5	3.3	0.2	4	

	England St Eastbound			England St Westbound			Randolph St Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**174**	2	**176**	**8**	166	174	2	10	12	362
04:45 PM	135	2	137	6	182	188	**3**	**16**	**19**	344
05:00 PM	157	2	159	8	**192**	**200**	0	12	12	371
05:15 PM	165	**3**	168	7	189	196	2	9	11	**375**
Total Volume	631	9	640	29	729	758	7	47	54	1452
% App. Total	98.6	1.4		3.8	96.2		13	87		
PHF	.907	.750	.909	.906	.949	.948	.583	.734	.711	.968

Peggy Malone & Associates
(888) 247-8602

File Name : 8-Randolph St and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound				England St Westbound				Randolph St Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	6	0	0	6	0	9	0	9	0	0	0	0	15
04:15 PM	6	0	0	6	0	4	0	4	0	0	0	0	10
04:30 PM	2	0	0	2	0	1	0	1	0	2	0	2	5
04:45 PM	2	0	0	2	0	1	0	1	0	2	0	2	5
Total	16	0	0	16	0	15	0	15	0	4	0	4	35
05:00 PM	2	0	0	2	0	1	0	1	0	0	0	0	3
05:15 PM	3	0	0	3	0	2	0	2	0	0	0	0	5
05:30 PM	3	0	0	3	0	0	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
Total	8	0	0	8	0	4	0	4	0	0	0	0	12
Grand Total	24	0	0	24	0	19	0	19	0	4	0	4	47
Apprch %	100	0	0		0	100	0		0	100	0		
Total %	51.1	0	0	51.1	0	40.4	0	40.4	0	8.5	0	8.5	

	England St Eastbound			England St Westbound			Randolph St Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**6**	0	**6**	0	**9**	**9**	0	0	0	**15**
04:15 PM	6	0	6	0	4	4	0	0	0	10
04:30 PM	2	0	2	0	1	1	0	**2**	**2**	5
04:45 PM	2	0	2	0	1	1	0	2	2	5
Total Volume	16	0	16	0	15	15	0	4	4	35
% App. Total	100	0		0	100		0	100		
PHF	.667	.000	.667	.000	.417	.417	.000	.500	.500	.583

Peggy Malone & Associates
(888) 247-8602

File Name : 8-Randolph St and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound				England St Westbound				Randolph St Northbound				
Start Time	Thru	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	176	3	0	179	5	170	0	175	2	8	0	10	364
04:15 PM	129	2	0	131	8	143	1	152	3	15	3	21	304
04:30 PM	176	2	0	178	8	167	0	175	2	12	0	14	367
04:45 PM	137	2	0	139	6	183	0	189	3	18	1	22	350
Total	618	9	0	627	27	663	1	691	10	53	4	67	1385
05:00 PM	159	2	0	161	8	193	1	202	0	12	0	12	375
05:15 PM	168	3	0	171	7	191	0	198	2	9	2	13	382
05:30 PM	145	2	0	147	5	169	0	174	3	11	0	14	335
05:45 PM	130	1	0	131	6	188	1	195	0	10	0	10	336
Total	602	8	0	610	26	741	2	769	5	42	2	49	1428
Grand Total	1220	17	0	1237	53	1404	3	1460	15	95	6	116	2813
Apprch %	98.6	1.4	0		3.6	96.2	0.2		12.9	81.9	5.2		
Total %	43.4	0.6	0	44	1.9	49.9	0.1	51.9	0.5	3.4	0.2	4.1	

	England St Eastbound			England St Westbound			Randolph St Northbound			
Start Time	Thru	Right	App. Total	Left	Thru	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**176**	2	**178**	**8**	167	175	2	12	14	367
04:45 PM	137	2	139	6	183	189	**3**	**18**	**21**	349
05:00 PM	159	2	161	8	**193**	**201**	0	12	12	374
05:15 PM	168	**3**	171	7	191	198	2	9	11	**380**
Total Volume	640	9	649	29	734	763	7	51	58	1470
% App. Total	98.6	1.4		3.8	96.2		12.1	87.9		
PHF	.909	.750	.912	.906	.951	.949	.583	.708	.690	.967

Peggy Malone & Associates
(888) 247-8602

File Name : 9-Henry St and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Maple St Northbound					Henry St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	106	1	0	110	2	55	5	1	63	5	2	6	0	13	5	0	1	0	6	192
07:15 AM	7	111	0	0	118	1	62	9	0	72	2	2	9	0	13	4	1	1	0	6	209
07:30 AM	9	136	2	0	147	4	88	18	0	110	1	1	6	0	8	2	0	10	0	12	277
07:45 AM	20	138	1	0	159	4	132	11	0	147	1	3	10	0	14	3	1	9	0	13	333
Total	39	491	4	0	534	11	337	43	1	392	9	8	31	0	48	14	2	21	0	37	1011
08:00 AM	12	118	0	0	130	1	116	15	0	132	4	6	12	0	22	3	2	3	0	8	292
08:15 AM	8	120	2	0	130	3	102	12	1	118	2	2	5	1	10	7	0	7	1	15	273
08:30 AM	3	146	5	3	157	2	59	16	0	77	1	0	7	0	8	5	1	4	0	10	252
08:45 AM	6	77	1	0	84	2	75	12	0	89	2	0	6	0	8	1	0	5	1	7	188
Total	29	461	8	3	501	8	352	55	1	416	9	8	30	1	48	16	3	19	2	40	1005
Grand Total	68	952	12	3	1035	19	689	98	2	808	18	16	61	1	96	30	5	40	2	77	2016
Apprch %	6.6	92	1.2	0.3		2.4	85.3	12.1	0.2		18.8	16.7	63.5	1		39	6.5	51.9	2.6		
Total %	3.4	47.2	0.6	0.1	51.3	0.9	34.2	4.9	0.1	40.1	0.9	0.8	3	0	4.8	1.5	0.2	2	0.1	3.8	

	England St Eastbound				England St Westbound				Maple St Northbound				Henry St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	9	136	**2**	147	**4**	88	**18**	110	1	1	6	8	2	0	**10**	12	277
07:45 AM	**20**	**138**	1	**159**	4	**132**	11	**147**	1	3	10	14	3	1	9	13	**333**
08:00 AM	12	118	0	130	1	116	15	132	**4**	**6**	**12**	**22**	3	**2**	3	8	292
08:15 AM	8	120	2	130	3	102	12	117	2	2	5	9	**7**	0	7	**14**	270
Total Volume	49	512	5	566	12	438	56	506	8	12	33	53	15	3	29	47	1172
% App. Total	8.7	90.5	0.9		2.4	86.6	11.1		15.1	22.6	62.3		31.9	6.4	61.7		
PHF	.613	.928	.625	.890	.750	.830	.778	.861	.500	.500	.688	.602	.536	.375	.725	.839	.880

Peggy Malone & Associates
(888) 247-8602

File Name : 9-Henry St and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Maple St Northbound					Henry St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	4	0	0	4	1	6	0	0	7	0	0	0	0	0	0	0	1	0	1	12
07:15 AM	0	3	0	0	3	0	3	3	0	6	0	1	0	0	1	0	0	0	0	0	10
07:30 AM	3	8	0	0	11	1	2	1	0	4	0	0	0	0	0	1	0	11	0	12	27
07:45 AM	0	7	0	0	7	0	5	0	0	5	1	0	1	0	2	0	0	4	0	4	18
Total	3	22	0	0	25	2	16	4	0	22	1	1	1	0	3	1	0	16	0	17	67
08:00 AM	0	5	0	0	5	0	7	0	0	7	0	0	0	0	0	0	0	3	0	3	15
08:15 AM	1	7	0	0	8	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	13
08:30 AM	0	13	0	0	13	0	7	0	0	7	0	0	0	0	0	1	0	0	0	1	21
08:45 AM	0	6	0	0	6	0	3	0	0	3	0	0	2	0	2	0	0	0	0	0	11
Total	1	31	0	0	32	1	21	0	0	22	0	0	2	0	2	1	0	3	0	4	60
Grand Total	4	53	0	0	57	3	37	4	0	44	1	1	3	0	5	2	0	19	0	21	127
Apprch %	7	93	0	0		6.8	84.1	9.1	0		20	20	60	0		9.5	0	90.5	0		
Total %	3.1	41.7	0	0	44.9	2.4	29.1	3.1	0	34.6	0.8	0.8	2.4	0	3.9	1.6	0	15	0	16.5	

	England St Eastbound				England St Westbound				Maple St Northbound				Henry St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	**3**	**8**	0	**11**	**1**	2	**1**	4	0	0	0	0	**1**	0	**11**	**12**	**27**
07:45 AM	0	7	0	7	0	5	0	5	**1**	0	**1**	**2**	0	0	4	4	18
08:00 AM	0	5	0	5	0	**7**	0	**7**	0	0	0	0	0	0	3	3	15
08:15 AM	1	7	0	8	1	4	0	5	0	0	0	0	0	0	0	0	13
Total Volume	4	27	0	31	2	18	1	21	1	0	1	2	1	0	18	19	73
% App. Total	12.9	87.1	0		9.5	85.7	4.8		50	0	50		5.3	0	94.7		
PHF	.333	.844	.000	.705	.500	.643	.250	.750	.250	.000	.250	.250	.250	.000	.409	.396	.676

Peggy Malone & Associates
(888) 247-8602

File Name : 9-Henry St and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Maple St Northbound					Henry St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	110	1	0	114	3	61	5	1	70	5	2	6	0	13	5	0	2	0	7	204
07:15 AM	7	114	0	0	121	1	65	12	0	78	2	3	9	0	14	4	1	1	0	6	219
07:30 AM	12	144	2	0	158	5	90	19	0	114	1	1	6	0	8	3	0	21	0	24	304
07:45 AM	20	145	1	0	166	4	137	11	0	152	2	3	11	0	16	3	1	13	0	17	351
Total	42	513	4	0	559	13	353	47	1	414	10	9	32	0	51	15	2	37	0	54	1078
08:00 AM	12	123	0	0	135	1	123	15	0	139	4	6	12	0	22	3	2	6	0	11	307
08:15 AM	9	127	2	0	138	4	106	12	1	123	2	2	5	1	10	7	0	7	1	15	286
08:30 AM	3	159	5	3	170	2	66	16	0	84	1	0	7	0	8	6	1	4	0	11	273
08:45 AM	6	83	1	0	90	2	78	12	0	92	2	0	8	0	10	1	0	5	1	7	199
Total	30	492	8	3	533	9	373	55	1	438	9	8	32	1	50	17	3	22	2	44	1065
Grand Total	72	1005	12	3	1092	22	726	102	2	852	19	17	64	1	101	32	5	59	2	98	2143
Apprch %	6.6	92	1.1	0.3		2.6	85.2	12	0.2		18.8	16.8	63.4	1		32.7	5.1	60.2	2		
Total %	3.4	46.9	0.6	0.1	51	1	33.9	4.8	0.1	39.8	0.9	0.8	3	0	4.7	1.5	0.2	2.8	0.1	4.6	

	England St Eastbound				England St Westbound				Maple St Northbound				Henry St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	12	144	**2**	158	**5**	90	**19**	114	1	1	6	8	3	0	**21**	**24**	304
07:45 AM	**20**	**145**	1	**166**	4	**137**	11	**152**	2	3	11	16	3	1	13	17	**351**
08:00 AM	12	123	0	135	1	123	15	139	**4**	**6**	**12**	**22**	3	**2**	6	11	307
08:15 AM	9	127	2	138	4	106	12	122	2	2	5	9	**7**	0	7	14	283
Total Volume	53	539	5	597	14	456	57	527	9	12	34	55	16	3	47	66	1245
% App. Total	8.9	90.3	0.8		2.7	86.5	10.8		16.4	21.8	61.8		24.2	4.5	71.2		
PHF	.663	.929	.625	.899	.700	.832	.750	.867	.563	.500	.708	.625	.571	.375	.560	.688	.887

Peggy Malone & Associates
(888) 247-8602

File Name : 9-Henry St and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Maple St Northbound					Henry St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	2	142	2	0	146	5	131	12	1	149	7	1	23	0	31	10	1	10	0	21	347
04:15 PM	6	105	1	0	112	4	105	8	0	117	5	1	13	0	19	11	0	5	0	16	264
04:30 PM	6	130	1	1	138	3	140	12	0	155	3	0	23	1	27	18	3	5	0	26	346
04:45 PM	2	109	2	0	113	2	144	19	0	165	6	4	14	1	25	11	1	5	0	17	320
Total	16	486	6	1	509	14	520	51	1	586	21	6	73	2	102	50	5	25	0	80	1277
05:00 PM	8	121	1	0	130	5	174	5	0	184	4	2	12	0	18	9	3	10	0	22	354
05:15 PM	5	141	2	1	149	6	167	9	0	182	3	2	9	1	15	7	0	7	0	14	360
05:30 PM	4	117	0	0	121	1	152	12	0	165	3	0	5	0	8	13	3	3	0	19	313
05:45 PM	6	97	1	0	104	5	171	10	0	186	5	1	10	0	16	13	2	4	2	21	327
Total	23	476	4	1	504	17	664	36	0	717	15	5	36	1	57	42	8	24	2	76	1354
Grand Total	39	962	10	2	1013	31	1184	87	1	1303	36	11	109	3	159	92	13	49	2	156	2631
Apprch %	3.8	95	1	0.2		2.4	90.9	6.7	0.1		22.6	6.9	68.6	1.9		59	8.3	31.4	1.3		
Total %	1.5	36.6	0.4	0.1	38.5	1.2	45	3.3	0	49.5	1.4	0.4	4.1	0.1	6	3.5	0.5	1.9	0.1	5.9	

	England St Eastbound				England St Westbound				Maple St Northbound				Henry St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	6	130	1	137	3	140	12	155	3	0	**23**	**26**	**18**	**3**	5	**26**	344
04:45 PM	2	109	**2**	113	2	144	**19**	165	**6**	**4**	14	24	11	1	5	17	319
05:00 PM	**8**	121	1	130	5	**174**	5	**184**	4	2	12	18	9	3	**10**	22	354
05:15 PM	5	**141**	2	**148**	**6**	167	9	182	3	2	9	14	7	0	7	14	**358**
Total Volume	21	501	6	528	16	625	45	686	16	8	58	82	45	7	27	79	1375
% App. Total	4	94.9	1.1		2.3	91.1	6.6		19.5	9.8	70.7		57	8.9	34.2		
PHF	.656	.888	.750	.892	.667	.898	.592	.932	.667	.500	.630	.788	.625	.583	.675	.760	.960

Peggy Malone & Associates
(888) 247-8602

File Name : 9-Henry St and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Maple St Northbound					Henry St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	1	4	0	0	5	1	9	0	0	10	0	0	0	0	0	0	0	0	0	0	15
04:15 PM	0	1	0	0	1	0	3	0	0	3	0	1	2	0	3	1	0	0	0	1	8
04:30 PM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
04:45 PM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Total	1	9	0	0	10	1	14	0	0	15	0	1	2	0	3	1	0	0	0	1	29
05:00 PM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	1	0	1	5
05:30 PM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	7	0	0	7	0	3	0	0	3	0	0	0	0	0	0	0	1	0	1	11
Grand Total	1	16	0	0	17	1	17	0	0	18	0	1	2	0	3	1	0	1	0	2	40
Apprch %	5.9	94.1	0	0		5.6	94.4	0	0		0	33.3	66.7	0		50	0	50	0		
Total %	2.5	40	0	0	42.5	2.5	42.5	0	0	45	0	2.5	5	0	7.5	2.5	0	2.5	0	5	

	England St Eastbound				England St Westbound				Maple St Northbound				Henry St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	**4**	0	**5**	**1**	**9**	0	**10**	0	0	0	0	0	0	0	0	**15**
04:15 PM	0	1	0	1	0	3	0	3	0	**1**	**2**	**3**	**1**	0	0	**1**	8
04:30 PM	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
04:45 PM	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
Total Volume	1	9	0	10	1	14	0	15	0	1	2	3	1	0	0	1	29
% App. Total	10	90	0		6.7	93.3	0		0	33.3	66.7		100	0	0		
PHF	.250	.563	.000	.500	.250	.389	.000	.375	.000	.250	.250	.250	.250	.000	.000	.250	.483

Peggy Malone & Associates
(888) 247-8602

File Name : 9-Henry St and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Maple St Northbound					Henry St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	3	146	2	0	151	6	140	12	1	159	7	1	23	0	31	10	1	10	0	21	362
04:15 PM	6	106	1	0	113	4	108	8	0	120	5	2	15	0	22	12	0	5	0	17	272
04:30 PM	6	132	1	1	140	3	141	12	0	156	3	0	23	1	27	18	3	5	0	26	349
04:45 PM	2	111	2	0	115	2	145	19	0	166	6	4	14	1	25	11	1	5	0	17	323
Total	17	495	6	1	519	15	534	51	1	601	21	7	75	2	105	51	5	25	0	81	1306
05:00 PM	8	123	1	0	132	5	175	5	0	185	4	2	12	0	18	9	3	10	0	22	357
05:15 PM	5	143	2	1	151	6	169	9	0	184	3	2	9	1	15	7	0	8	0	15	365
05:30 PM	4	120	0	0	124	1	152	12	0	165	3	0	5	0	8	13	3	3	0	19	316
05:45 PM	6	97	1	0	104	5	171	10	0	186	5	1	10	0	16	13	2	4	2	21	327
Total	23	483	4	1	511	17	667	36	0	720	15	5	36	1	57	42	8	25	2	77	1365
Grand Total	40	978	10	2	1030	32	1201	87	1	1321	36	12	111	3	162	93	13	50	2	158	2671
Apprch %	3.9	95	1	0.2		2.4	90.9	6.6	0.1		22.2	7.4	68.5	1.9		58.9	8.2	31.6	1.3		
Total %	1.5	36.6	0.4	0.1	38.6	1.2	45	3.3	0	49.5	1.3	0.4	4.2	0.1	6.1	3.5	0.5	1.9	0.1	5.9	

	England St Eastbound				England St Westbound				Maple St Northbound				Henry St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	6	132	1	139	3	141	12	156	3	0	**23**	**26**	**18**	**3**	5	**26**	347
04:45 PM	2	111	**2**	115	2	145	**19**	166	**6**	**4**	14	24	11	1	5	17	322
05:00 PM	**8**	123	1	132	5	**175**	5	**185**	4	2	12	18	9	3	**10**	22	357
05:15 PM	5	**143**	2	**150**	**6**	169	9	184	3	2	9	14	7	0	8	15	**363**
Total Volume	21	509	6	536	16	630	45	691	16	8	58	82	45	7	28	80	1389
% App. Total	3.9	95	1.1		2.3	91.2	6.5		19.5	9.8	70.7		56.2	8.8	35		
PHF	.656	.890	.750	.893	.667	.900	.592	.934	.667	.500	.630	.788	.625	.583	.700	.769	.957

Peggy Malone & Associates
(888) 247-8602

File Name : 10-Railroad Ave and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Railroad Ave Northbound					Railroad Ave Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	99	1	0	103	3	54	5	4	66	1	1	5	0	7	3	0	1	0	4	180
07:15 AM	1	107	5	0	113	2	52	8	1	63	2	1	3	1	7	0	0	2	0	2	185
07:30 AM	0	133	2	0	135	3	87	3	0	93	0	0	11	0	11	0	0	0	0	0	239
07:45 AM	3	147	2	0	152	3	126	9	0	138	0	1	9	0	10	0	0	5	0	5	305
Total	7	486	10	0	503	11	319	25	5	360	3	3	28	1	35	3	0	8	0	11	909
08:00 AM	1	125	4	4	134	1	109	10	1	121	1	1	5	0	7	3	1	4	0	8	270
08:15 AM	3	122	5	7	137	3	91	8	5	107	1	2	5	1	9	1	1	3	0	5	258
08:30 AM	1	145	7	0	153	7	51	6	0	64	1	1	9	0	11	1	1	5	0	7	235
08:45 AM	2	69	0	1	72	5	53	7	0	65	0	2	6	0	8	3	0	0	0	3	148
Total	7	461	16	12	496	16	304	31	6	357	3	6	25	1	35	8	3	12	0	23	911
Grand Total	14	947	26	12	999	27	623	56	11	717	6	9	53	2	70	11	3	20	0	34	1820
Apprch %	1.4	94.8	2.6	1.2		3.8	86.9	7.8	1.5		8.6	12.9	75.7	2.9		32.4	8.8	58.8	0		
Total %	0.8	52	1.4	0.7	54.9	1.5	34.2	3.1	0.6	39.4	0.3	0.5	2.9	0.1	3.8	0.6	0.2	1.1	0	1.9	

	England St Eastbound				England St Westbound				Railroad Ave Northbound				Railroad Ave Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	133	2	135	**3**	87	3	93	0	0	**11**	**11**	0	0	0	0	239
07:45 AM	**3**	**147**	2	**152**	3	**126**	9	**138**	0	1	9	10	0	0	**5**	5	**305**
08:00 AM	1	125	4	130	1	109	**10**	120	**1**	1	5	7	**3**	**1**	4	**8**	265
08:15 AM	3	122	**5**	130	3	91	8	102	1	**2**	5	8	1	1	3	5	245
Total Volume	7	527	13	547	10	413	30	453	2	4	30	36	4	2	12	18	1054
% App. Total	1.3	96.3	2.4		2.2	91.2	6.6		5.6	11.1	83.3		22.2	11.1	66.7		
PHF	.583	.896	.650	.900	.833	.819	.750	.821	.500	.500	.682	.818	.333	.500	.600	.563	.864

Peggy Malone & Associates
(888) 247-8602

File Name : 10-Railroad Ave and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Railroad Ave Northbound					Railroad Ave Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	4	0	0	4	0	6	0	0	6	0	1	0	0	1	0	0	0	0	0	11
07:15 AM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	6
07:30 AM	0	8	0	0	8	0	11	0	0	11	0	0	1	0	1	0	0	0	0	0	20
07:45 AM	0	8	0	0	8	0	11	0	0	11	0	0	0	0	0	0	0	0	0	0	19
Total	0	23	0	0	23	0	31	0	0	31	0	1	1	0	2	0	0	0	0	0	56
08:00 AM	0	5	0	0	5	0	8	0	0	8	2	0	0	0	2	0	1	0	0	1	16
08:15 AM	0	10	0	0	10	1	4	0	0	5	1	0	0	0	1	0	0	0	0	0	16
08:30 AM	0	14	0	0	14	1	4	2	0	7	0	0	0	0	0	0	0	0	0	0	21
08:45 AM	0	5	0	0	5	0	3	0	0	3	0	0	0	0	0	1	0	0	0	1	9
Total	0	34	0	0	34	2	19	2	0	23	3	0	0	0	3	1	1	0	0	2	62
Grand Total	0	57	0	0	57	2	50	2	0	54	3	1	1	0	5	1	1	0	0	2	118
Apprch %	0	100	0	0		3.7	92.6	3.7	0		60	20	20	0		50	50	0	0		
Total %	0	48.3	0	0	48.3	1.7	42.4	1.7	0	45.8	2.5	0.8	0.8	0	4.2	0.8	0.8	0	0	1.7	

	England St Eastbound				England St Westbound				Railroad Ave Northbound				Railroad Ave Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	8	0	8	0	**11**	0	**11**	0	0	0	0	0	0	0	0	19
08:00 AM	0	5	0	5	0	8	0	8	**2**	0	0	**2**	0	**1**	0	**1**	16
08:15 AM	0	10	0	10	**1**	4	0	5	1	0	0	1	0	0	0	0	16
08:30 AM	0	**14**	0	**14**	1	4	**2**	7	0	0	0	0	0	0	0	0	**21**
Total Volume	0	37	0	37	2	27	2	31	3	0	0	3	0	1	0	1	72
% App. Total	0	100	0		6.5	87.1	6.5		100	0	0		0	100	0		
PHF	.000	.661	.000	.661	.500	.614	.250	.705	.375	.000	.000	.375	.000	.250	.000	.250	.857

Peggy Malone & Associates
(888) 247-8602

File Name : 10-Railroad Ave and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Railroad Ave Northbound					Railroad Ave Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	3	103	1	0	107	3	60	5	4	72	1	2	5	0	8	3	0	1	0	4	191
07:15 AM	1	110	5	0	116	2	55	8	1	66	2	1	3	1	7	0	0	2	0	2	191
07:30 AM	0	141	2	0	143	3	98	3	0	104	0	0	12	0	12	0	0	0	0	0	259
07:45 AM	3	155	2	0	160	3	137	9	0	149	0	1	9	0	10	0	0	5	0	5	324
Total	7	509	10	0	526	11	350	25	5	391	3	4	29	1	37	3	0	8	0	11	965
08:00 AM	1	130	4	4	139	1	117	10	1	129	3	1	5	0	9	3	2	4	0	9	286
08:15 AM	3	132	5	7	147	4	95	8	5	112	2	2	5	1	10	1	1	3	0	5	274
08:30 AM	1	159	7	0	167	8	55	8	0	71	1	1	9	0	11	1	1	5	0	7	256
08:45 AM	2	74	0	1	77	5	56	7	0	68	0	2	6	0	8	4	0	0	0	4	157
Total	7	495	16	12	530	18	323	33	6	380	6	6	25	1	38	9	4	12	0	25	973
Grand Total	14	1004	26	12	1056	29	673	58	11	771	9	10	54	2	75	12	4	20	0	36	1938
Apprch %	1.3	95.1	2.5	1.1		3.8	87.3	7.5	1.4		12	13.3	72	2.7		33.3	11.1	55.6	0		
Total %	0.7	51.8	1.3	0.6	54.5	1.5	34.7	3	0.6	39.8	0.5	0.5	2.8	0.1	3.9	0.6	0.2	1	0	1.9	

	England St Eastbound				England St Westbound				Railroad Ave Northbound				Railroad Ave Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	141	2	143	3	98	3	104	0	0	**12**	**12**	0	0	0	0	259
07:45 AM	**3**	**155**	2	**160**	3	**137**	9	**149**	0	1	9	10	0	0	**5**	5	**324**
08:00 AM	1	130	4	135	1	117	**10**	128	**3**	1	5	9	**3**	**2**	4	**9**	281
08:15 AM	3	132	**5**	140	**4**	95	8	107	2	**2**	5	9	1	1	3	5	261
Total Volume	7	558	13	578	11	447	30	488	5	4	31	40	4	3	12	19	1125
% App. Total	1.2	96.5	2.2		2.3	91.6	6.1		12.5	10	77.5		21.1	15.8	63.2		
PHF	.583	.900	.650	.903	.688	.816	.750	.819	.417	.500	.646	.833	.333	.375	.600	.528	.868

Peggy Malone & Associates
(888) 247-8602

File Name : 10-Railroad Ave and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Railroad Ave Northbound					Railroad Ave Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	2	124	10	0	136	6	115	6	0	127	0	2	7	1	10	7	2	3	0	12	285
04:15 PM	1	97	4	3	105	6	90	8	2	106	3	2	10	2	17	0	4	2	0	6	234
04:30 PM	0	107	5	3	115	4	130	8	3	145	1	1	14	2	18	4	0	6	1	11	289
04:45 PM	3	89	4	0	96	7	139	9	1	156	1	4	11	0	16	4	0	4	0	8	276
Total	6	417	23	6	452	23	474	31	6	534	5	9	42	5	61	15	6	15	1	37	1084
05:00 PM	4	102	6	0	112	4	171	5	0	180	1	2	11	0	14	3	4	6	0	13	319
05:15 PM	0	127	6	0	133	6	153	8	4	171	4	0	12	5	21	0	2	5	0	7	332
05:30 PM	0	109	9	2	120	10	144	12	0	166	2	0	11	1	14	5	0	4	0	9	309
05:45 PM	2	84	4	0	90	14	137	8	2	161	0	2	7	2	11	3	2	1	0	6	268
Total	6	422	25	2	455	34	605	33	6	678	7	4	41	8	60	11	8	16	0	35	1228
Grand Total	12	839	48	8	907	57	1079	64	12	1212	12	13	83	13	121	26	14	31	1	72	2312
Apprch %	1.3	92.5	5.3	0.9		4.7	89	5.3	1		9.9	10.7	68.6	10.7		36.1	19.4	43.1	1.4		
Total %	0.5	36.3	2.1	0.3	39.2	2.5	46.7	2.8	0.5	52.4	0.5	0.6	3.6	0.6	5.2	1.1	0.6	1.3	0	3.1	

	England St Eastbound				England St Westbound				Railroad Ave Northbound				Railroad Ave Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	3	89	4	96	7	139	9	155	1	**4**	11	**16**	4	0	4	8	275
05:00 PM	**4**	102	6	112	4	**171**	5	**180**	1	2	11	14	3	**4**	**6**	**13**	319
05:15 PM	0	**127**	6	**133**	6	153	8	167	**4**	0	**12**	16	0	2	5	7	**323**
05:30 PM	0	109	**9**	118	**10**	144	**12**	166	2	0	11	13	**5**	0	4	9	306
Total Volume	7	427	25	459	27	607	34	668	8	6	45	59	12	6	19	37	1223
% App. Total	1.5	93	5.4		4	90.9	5.1		13.6	10.2	76.3		32.4	16.2	51.4		
PHF	.438	.841	.694	.863	.675	.887	.708	.928	.500	.375	.938	.922	.600	.375	.792	.712	.947

Peggy Malone & Associates
(888) 247-8602

File Name : 10-Railroad Ave and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Railroad Ave Northbound					Railroad Ave Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	7	0	0	7	0	10	0	0	10	0	0	0	0	0	0	0	0	0	0	17
04:15 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	0	2	0	0	2	5
04:30 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	5
04:45 PM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	4
Total	0	12	0	0	12	0	15	0	0	15	0	0	0	0	0	0	4	0	0	4	31
05:00 PM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	4
05:15 PM	0	2	0	0	2	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	5
05:30 PM	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
Total	0	6	0	0	6	1	3	0	0	4	0	0	0	0	0	0	2	0	0	2	12
Grand Total	0	18	0	0	18	1	18	0	0	19	0	0	0	0	0	0	6	0	0	6	43
Apprch %	0	100	0	0		5.3	94.7	0	0		0	0	0	0		0	100	0	0		
Total %	0	41.9	0	0	41.9	2.3	41.9	0	0	44.2	0	0	0	0	0	0	14	0	0	14	

	England St Eastbound				England St Westbound				Railroad Ave Northbound				Railroad Ave Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**7**	0	**7**	0	**10**	0	**10**	0	0	0	0	0	0	0	0	**17**
04:15 PM	0	1	0	1	0	2	0	2	0	0	0	0	0	**2**	0	**2**	5
04:30 PM	0	2	0	2	0	2	0	2	0	0	0	0	0	1	0	1	5
04:45 PM	0	2	0	2	0	1	0	1	0	0	0	0	0	1	0	1	4
Total Volume	0	12	0	12	0	15	0	15	0	0	0	0	0	4	0	4	31
% App. Total	0	100	0		0	100	0		0	0	0		0	100	0		
PHF	.000	.429	.000	.429	.000	.375	.000	.375	.000	.000	.000	.000	.000	.500	.000	.500	.456

Peggy Malone & Associates
(888) 247-8602

File Name : 10-Railroad Ave and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Railroad Ave Northbound					Railroad Ave Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	2	131	10	0	143	6	125	6	0	137	0	2	7	1	10	7	2	3	0	12	302
04:15 PM	1	98	4	3	106	6	92	8	2	108	3	2	10	2	17	0	6	2	0	8	239
04:30 PM	0	109	5	3	117	4	132	8	3	147	1	1	14	2	18	4	1	6	1	12	294
04:45 PM	3	91	4	0	98	7	140	9	1	157	1	4	11	0	16	4	1	4	0	9	280
Total	6	429	23	6	464	23	489	31	6	549	5	9	42	5	61	15	10	15	1	41	1115
05:00 PM	4	104	6	0	114	4	172	5	0	181	1	2	11	0	14	3	5	6	0	14	323
05:15 PM	0	129	6	0	135	7	155	8	4	174	4	0	12	5	21	0	2	5	0	7	337
05:30 PM	0	111	9	2	122	10	144	12	0	166	2	0	11	1	14	5	0	4	0	9	311
05:45 PM	2	84	4	0	90	14	137	8	2	161	0	2	7	2	11	3	3	1	0	7	269
Total	6	428	25	2	461	35	608	33	6	682	7	4	41	8	60	11	10	16	0	37	1240
Grand Total	12	857	48	8	925	58	1097	64	12	1231	12	13	83	13	121	26	20	31	1	78	2355
Apprch %	1.3	92.6	5.2	0.9		4.7	89.1	5.2	1		9.9	10.7	68.6	10.7		33.3	25.6	39.7	1.3		
Total %	0.5	36.4	2	0.3	39.3	2.5	46.6	2.7	0.5	52.3	0.5	0.6	3.5	0.6	5.1	1.1	0.8	1.3	0	3.3	

	England St Eastbound				England St Westbound				Railroad Ave Northbound				Railroad Ave Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	3	91	4	98	7	140	9	156	1	**4**	11	**16**	4	1	4	9	279
05:00 PM	**4**	104	6	114	4	**172**	5	**181**	1	2	11	14	3	**5**	**6**	**14**	323
05:15 PM	0	**129**	6	**135**	7	155	8	170	**4**	0	**12**	16	0	2	5	7	**328**
05:30 PM	0	111	**9**	120	**10**	144	**12**	166	2	0	11	13	**5**	0	4	9	308
Total Volume	7	435	25	467	28	611	34	673	8	6	45	59	12	8	19	39	1238
% App. Total	1.5	93.1	5.4		4.2	90.8	5.1		13.6	10.2	76.3		30.8	20.5	48.7		
PHF	.438	.843	.694	.865	.700	.888	.708	.930	.500	.375	.938	.922	.600	.400	.792	.696	.944

Peggy Malone & Associates
(888) 247-8602

File Name : 11-Hanover Ave and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Hanover Ave Northbound					Southbound Approach Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	95	0	0	95	7	46	3	0	56	0	0	9	0	9	1	0	0	0	1	161
07:15 AM	0	107	1	1	109	12	40	2	0	54	0	0	7	0	7	0	0	0	0	0	170
07:30 AM	0	123	0	0	123	25	60	2	0	87	0	0	11	0	11	0	0	0	0	0	221
07:45 AM	1	123	2	4	130	32	96	2	0	130	0	0	32	0	32	1	0	0	1	2	294
Total	1	448	3	5	457	76	242	9	0	327	0	0	59	0	59	2	0	0	1	3	846
08:00 AM	2	103	0	3	108	17	97	2	0	116	0	0	24	0	24	1	0	0	1	2	250
08:15 AM	0	120	0	2	122	12	80	4	0	96	0	0	10	0	10	1	0	0	3	4	232
08:30 AM	0	140	0	0	140	6	48	1	0	55	0	0	14	2	16	0	0	0	0	0	211
08:45 AM	0	59	0	1	60	6	46	0	0	52	0	0	11	0	11	1	0	1	1	3	126
Total	2	422	0	6	430	41	271	7	0	319	0	0	59	2	61	3	0	1	5	9	819
Grand Total	3	870	3	11	887	117	513	16	0	646	0	0	118	2	120	5	0	1	6	12	1665
Apprch %	0.3	98.1	0.3	1.2		18.1	79.4	2.5	0		0	0	98.3	1.7		41.7	0	8.3	50		
Total %	0.2	52.3	0.2	0.7	53.3	7	30.8	1	0	38.8	0	0	7.1	0.1	7.2	0.3	0	0.1	0.4	0.7	

	England St Eastbound				England St Westbound				Hanover Ave Northbound				Southbound Approach Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	**123**	0	123	25	60	2	87	0	0	11	11	0	0	0	0	221
07:45 AM	1	123	**2**	**126**	**32**	96	2	**130**	0	0	**32**	**32**	**1**	0	0	**1**	**289**
08:00 AM	**2**	103	0	105	17	**97**	2	116	0	0	24	24	1	0	0	1	246
08:15 AM	0	120	0	120	12	80	**4**	96	0	0	10	10	1	0	0	1	227
Total Volume	3	469	2	474	86	333	10	429	0	0	77	77	3	0	0	3	983
% App. Total	0.6	98.9	0.4		20	77.6	2.3		0	0	100		100	0	0		
PHF	.375	.953	.250	.940	.672	.858	.625	.825	.000	.000	.602	.602	.750	.000	.000	.750	.850

Peggy Malone & Associates
(888) 247-8602

File Name : 11-Hanover Ave and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Hanover Ave Northbound					Southbound Approach Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	4	0	0	4	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	10
07:15 AM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	6
07:30 AM	0	8	0	0	8	11	0	0	0	11	0	0	1	0	1	0	0	0	0	0	20
07:45 AM	0	1	0	0	1	5	6	0	0	11	0	0	9	0	9	0	0	0	0	0	21
Total	0	16	0	0	16	16	15	0	0	31	0	0	10	0	10	0	0	0	0	0	57
08:00 AM	0	1	0	0	1	1	9	0	0	10	0	0	3	0	3	0	0	0	0	0	14
08:15 AM	0	8	0	0	8	0	5	0	0	5	0	0	1	0	1	0	0	0	0	0	14
08:30 AM	0	13	0	0	13	1	2	0	0	3	0	0	1	0	1	0	0	0	0	0	17
08:45 AM	0	4	0	0	4	0	4	0	0	4	0	0	1	0	1	0	0	0	0	0	9
Total	0	26	0	0	26	2	20	0	0	22	0	0	6	0	6	0	0	0	0	0	54
Grand Total	0	42	0	0	42	18	35	0	0	53	0	0	16	0	16	0	0	0	0	0	111
Apprch %	0	100	0	0		34	66	0	0		0	0	100	0		0	0	0	0		
Total %	0	37.8	0	0	37.8	16.2	31.5	0	0	47.7	0	0	14.4	0	14.4	0	0	0	0	0	

	England St Eastbound				England St Westbound				Hanover Ave Northbound				Southbound Approach Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	**8**	0	**8**	**11**	0	0	**11**	0	0	1	1	0	0	0	0	20
07:45 AM	0	1	0	1	5	6	0	11	0	0	**9**	**9**	0	0	0	0	**21**
08:00 AM	0	1	0	1	1	**9**	0	10	0	0	3	3	0	0	0	0	14
08:15 AM	0	8	0	8	0	5	0	5	0	0	1	1	0	0	0	0	14
Total Volume	0	18	0	18	17	20	0	37	0	0	14	14	0	0	0	0	69
% App. Total	0	100	0		45.9	54.1	0		0	0	100		0	0	0		
PHF	.000	.563	.000	.563	.386	.556	.000	.841	.000	.000	.389	.389	.000	.000	.000	.000	.821

Peggy Malone & Associates
(888) 247-8602

File Name : 11-Hanover Ave and England St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Hanover Ave Northbound					Southbound Approach Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	99	0	0	99	7	52	3	0	62	0	0	9	0	9	1	0	0	0	1	171
07:15 AM	0	110	1	1	112	12	43	2	0	57	0	0	7	0	7	0	0	0	0	0	176
07:30 AM	0	131	0	0	131	36	60	2	0	98	0	0	12	0	12	0	0	0	0	0	241
07:45 AM	1	124	2	4	131	37	102	2	0	141	0	0	41	0	41	1	0	0	1	2	315
Total	1	464	3	5	473	92	257	9	0	358	0	0	69	0	69	2	0	0	1	3	903
08:00 AM	2	104	0	3	109	18	106	2	0	126	0	0	27	0	27	1	0	0	1	2	264
08:15 AM	0	128	0	2	130	12	85	4	0	101	0	0	11	0	11	1	0	0	3	4	246
08:30 AM	0	153	0	0	153	7	50	1	0	58	0	0	15	2	17	0	0	0	0	0	228
08:45 AM	0	63	0	1	64	6	50	0	0	56	0	0	12	0	12	1	0	1	1	3	135
Total	2	448	0	6	456	43	291	7	0	341	0	0	65	2	67	3	0	1	5	9	873
Grand Total	3	912	3	11	929	135	548	16	0	699	0	0	134	2	136	5	0	1	6	12	1776
Apprch %	0.3	98.2	0.3	1.2		19.3	78.4	2.3	0		0	0	98.5	1.5		41.7	0	8.3	50		
Total %	0.2	51.4	0.2	0.6	52.3	7.6	30.9	0.9	0	39.4	0	0	7.5	0.1	7.7	0.3	0	0.1	0.3	0.7	

	England St Eastbound				England St Westbound				Hanover Ave Northbound				Southbound Approach Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	**131**	0	**131**	36	60	2	98	0	0	12	12	0	0	0	0	241
07:45 AM	1	124	**2**	127	**37**	102	2	**141**	0	0	**41**	**41**	**1**	0	0	**1**	**310**
08:00 AM	**2**	104	0	106	18	**106**	2	126	0	0	27	27	1	0	0	1	260
08:15 AM	0	128	0	128	12	85	**4**	101	0	0	11	11	1	0	0	1	241
Total Volume	3	487	2	492	103	353	10	466	0	0	91	91	3	0	0	3	1052
% App. Total	0.6	99	0.4		22.1	75.8	2.1		0	0	100		100	0	0		
PHF	.375	.929	.250	.939	.696	.833	.625	.826	.000	.000	.555	.555	.750	.000	.000	.750	.848

Peggy Malone & Associates
(888) 247-8602

File Name : 11-Hanover Ave and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	England St Eastbound					England St Westbound					Hanover Ave Northbound					Southbound Approach Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	105	0	0	105	15	104	0	0	119	0	0	28	0	28	3	0	0	0	3	255
04:15 PM	0	85	1	0	86	11	84	0	0	95	0	0	15	0	15	0	0	0	0	0	196
04:30 PM	0	93	1	4	98	20	121	1	0	142	0	0	16	0	16	3	0	1	1	5	261
04:45 PM	1	78	0	0	79	10	134	1	0	145	1	0	20	0	21	1	0	0	0	1	246
Total	1	361	2	4	368	56	443	2	0	501	1	0	79	0	80	7	0	1	1	9	958
05:00 PM	0	91	1	0	92	23	153	2	0	178	0	0	21	0	21	0	0	0	0	0	291
05:15 PM	0	104	0	1	105	19	140	1	0	160	1	0	25	0	26	1	0	1	0	2	293
05:30 PM	0	103	0	0	103	16	132	0	0	148	0	0	13	0	13	1	0	0	0	1	265
05:45 PM	0	75	1	3	79	22	115	0	0	137	0	0	15	1	16	0	0	0	0	0	232
Total	0	373	2	4	379	80	540	3	0	623	1	0	74	1	76	2	0	1	0	3	1081
Grand Total	1	734	4	8	747	136	983	5	0	1124	2	0	153	1	156	9	0	2	1	12	2039
Apprch %	0.1	98.3	0.5	1.1		12.1	87.5	0.4	0		1.3	0	98.1	0.6		75	0	16.7	8.3		
Total %	0	36	0.2	0.4	36.6	6.7	48.2	0.2	0	55.1	0.1	0	7.5	0	7.7	0.4	0	0.1	0	0.6	

	England St Eastbound				England St Westbound				Hanover Ave Northbound				Southbound Approach Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**1**	78	0	79	10	134	1	145	**1**	0	20	21	**1**	0	0	1	246
05:00 PM	0	91	**1**	92	**23**	**153**	**2**	**178**	0	0	21	21	0	0	0	0	291
05:15 PM	0	**104**	0	**104**	19	140	1	160	1	0	**25**	**26**	1	0	**1**	**2**	**292**
05:30 PM	0	103	0	103	16	132	0	148	0	0	13	13	1	0	0	1	265
Total Volume	1	376	1	378	68	559	4	631	2	0	79	81	3	0	1	4	1094
% App. Total	0.3	99.5	0.3		10.8	88.6	0.6		2.5	0	97.5		75	0	25		
PHF	.250	.904	.250	.909	.739	.913	.500	.886	.500	.000	.790	.779	.750	.000	.250	.500	.937

Peggy Malone & Associates
(888) 247-8602

File Name : 11-Hanover Ave and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	England St Eastbound					England St Westbound					Hanover Ave Northbound					Southbound Approach Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	5	0	0	5	1	8	0	0	9	0	0	2	0	2	0	0	0	0	0	16
04:15 PM	0	1	0	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
04:30 PM	0	2	0	0	2	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	4
04:45 PM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
Total	0	10	0	0	10	1	14	0	0	15	0	0	2	0	2	0	0	0	0	0	27
05:00 PM	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
05:15 PM	0	1	0	0	1	0	2	0	0	2	0	0	1	0	1	0	0	0	0	0	4
05:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	4	0	0	4	0	3	0	0	3	0	0	2	0	2	0	0	0	0	0	9
Grand Total	0	14	0	0	14	1	17	0	0	18	0	0	4	0	4	0	0	0	0	0	36
Apprch %	0	100	0	0		5.6	94.4	0	0		0	0	100	0		0	0	0	0		
Total %	0	38.9	0	0	38.9	2.8	47.2	0	0	50	0	0	11.1	0	11.1	0	0	0	0	0	

	England St Eastbound				England St Westbound				Hanover Ave Northbound				Southbound Approach Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**5**	0	**5**	**1**	**8**	0	**9**	0	0	**2**	**2**	0	0	0	0	**16**
04:15 PM	0	1	0	1	0	3	0	3	0	0	0	0	0	0	0	0	4
04:30 PM	0	2	0	2	0	2	0	2	0	0	0	0	0	0	0	0	4
04:45 PM	0	2	0	2	0	1	0	1	0	0	0	0	0	0	0	0	3
Total Volume	0	10	0	10	1	14	0	15	0	0	2	2	0	0	0	0	27
% App. Total	0	100	0		6.7	93.3	0		0	0	100		0	0	0		
PHF	.000	.500	.000	.500	.250	.438	.000	.417	.000	.000	.250	.250	.000	.000	.000	.000	.422

Peggy Malone & Associates
(888) 247-8602

File Name : 11-Hanover Ave and England St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	England St Eastbound					England St Westbound					Hanover Ave Northbound					Southbound Approach Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	110	0	0	110	16	112	0	0	128	0	0	30	0	30	3	0	0	0	3	271
04:15 PM	0	86	1	0	87	11	87	0	0	98	0	0	15	0	15	0	0	0	0	0	200
04:30 PM	0	95	1	4	100	20	123	1	0	144	0	0	16	0	16	3	0	1	1	5	265
04:45 PM	1	80	0	0	81	10	135	1	0	146	1	0	20	0	21	1	0	0	0	1	249
Total	1	371	2	4	378	57	457	2	0	516	1	0	81	0	82	7	0	1	1	9	985
05:00 PM	0	93	1	0	94	23	154	2	0	179	0	0	21	0	21	0	0	0	0	0	294
05:15 PM	0	105	0	1	106	19	142	1	0	162	1	0	26	0	27	1	0	1	0	2	297
05:30 PM	0	104	0	0	104	16	132	0	0	148	0	0	14	0	14	1	0	0	0	1	267
05:45 PM	0	75	1	3	79	22	115	0	0	137	0	0	15	1	16	0	0	0	0	0	232
Total	0	377	2	4	383	80	543	3	0	626	1	0	76	1	78	2	0	1	0	3	1090
Grand Total	1	748	4	8	761	137	1000	5	0	1142	2	0	157	1	160	9	0	2	1	12	2075
Apprch %	0.1	98.3	0.5	1.1		12	87.6	0.4	0		1.2	0	98.1	0.6		75	0	16.7	8.3		
Total %	0	36	0.2	0.4	36.7	6.6	48.2	0.2	0	55	0.1	0	7.6	0	7.7	0.4	0	0.1	0	0.6	

	England St Eastbound				England St Westbound				Hanover Ave Northbound				Southbound Approach Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**1**	80	0	81	10	135	1	146	**1**	0	20	21	**1**	0	0	1	249
05:00 PM	0	93	**1**	94	**23**	**154**	**2**	**179**	0	0	21	21	0	0	0	0	294
05:15 PM	0	**105**	0	**105**	19	142	1	162	1	0	**26**	**27**	1	0	**1**	**2**	**296**
05:30 PM	0	104	0	104	16	132	0	148	0	0	14	14	1	0	0	1	267
Total Volume	1	382	1	384	68	563	4	635	2	0	81	83	3	0	1	4	1106
% App. Total	0.3	99.5	0.3		10.7	88.7	0.6		2.4	0	97.6		75	0	25		
PHF	.250	.910	.250	.914	.739	.914	.500	.887	.500	.000	.779	.769	.750	.000	.250	.500	.934

Peggy Malone & Associates
(888) 247-8602

File Name : 12-James St and Thompson St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Thompson St Eastbound					Thompson St Westbound					James St Northbound					James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	82	0	0	83	1	39	3	0	43	0	0	1	0	1	12	3	1	0	16	143
07:15 AM	1	102	0	0	103	1	33	0	0	34	0	0	1	1	2	13	3	1	0	17	156
07:30 AM	1	126	6	0	133	3	52	2	0	57	1	1	2	0	4	8	6	0	0	14	208
07:45 AM	3	112	9	0	124	6	86	4	0	96	1	10	2	0	13	8	14	4	0	26	259
Total	6	422	15	0	443	11	210	9	0	230	2	11	6	1	20	41	26	6	0	73	766
08:00 AM	3	96	0	0	99	0	103	7	0	110	8	2	1	0	11	10	6	1	0	17	237
08:15 AM	2	115	3	0	120	0	76	4	0	80	1	1	2	0	4	8	4	2	1	15	219
08:30 AM	1	134	1	1	137	2	46	3	0	51	1	1	0	2	4	8	2	1	1	12	204
08:45 AM	3	67	2	0	72	2	48	3	0	53	2	3	1	0	6	4	4	2	0	10	141
Total	9	412	6	1	428	4	273	17	0	294	12	7	4	2	25	30	16	6	2	54	801
Grand Total	15	834	21	1	871	15	483	26	0	524	14	18	10	3	45	71	42	12	2	127	1567
Apprch %	1.7	95.8	2.4	0.1		2.9	92.2	5	0		31.1	40	22.2	6.7		55.9	33.1	9.4	1.6		
Total %	1	53.2	1.3	0.1	55.6	1	30.8	1.7	0	33.4	0.9	1.1	0.6	0.2	2.9	4.5	2.7	0.8	0.1	8.1	

	Thompson St Eastbound				Thompson St Westbound				James St Northbound				James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	1	**126**	6	**133**	3	52	2	57	1	1	**2**	4	8	6	0	14	208
07:45 AM	**3**	112	**9**	124	**6**	86	4	96	1	**10**	2	**13**	8	**14**	**4**	**26**	**259**
08:00 AM	3	96	0	99	0	**103**	**7**	**110**	**8**	2	1	11	**10**	6	1	17	237
08:15 AM	2	115	3	120	0	76	4	80	1	1	2	4	8	4	2	14	218
Total Volume	9	449	18	476	9	317	17	343	11	14	7	32	34	30	7	71	922
% App. Total	1.9	94.3	3.8		2.6	92.4	5		34.4	43.8	21.9		47.9	42.3	9.9		
PHF	.750	.891	.500	.895	.375	.769	.607	.780	.344	.350	.875	.615	.850	.536	.438	.683	.890

Peggy Malone & Associates
(888) 247-8602

File Name : 12-James St and Thompson St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Thompson St Eastbound					Thompson St Westbound					James St Northbound					James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	4	0	0	4	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	10
07:15 AM	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	6
07:30 AM	1	7	1	0	9	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	10
07:45 AM	0	1	0	0	1	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	7
Total	1	15	1	0	17	0	14	1	0	15	0	0	0	0	0	0	1	0	0	1	33
08:00 AM	0	1	0	0	1	0	10	0	0	10	1	0	0	0	1	0	0	0	0	0	12
08:15 AM	0	8	0	0	8	0	5	0	0	5	0	0	1	0	1	0	1	0	0	1	15
08:30 AM	0	13	0	0	13	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	17
08:45 AM	0	5	0	0	5	0	3	0	0	3	0	1	0	0	1	0	0	0	0	0	9
Total	0	27	0	0	27	0	21	0	0	21	1	2	1	0	4	0	1	0	0	1	53
Grand Total	1	42	1	0	44	0	35	1	0	36	1	2	1	0	4	0	2	0	0	2	86
Apprch %	2.3	95.5	2.3	0		0	97.2	2.8	0		25	50	25	0		0	100	0	0		
Total %	1.2	48.8	1.2	0	51.2	0	40.7	1.2	0	41.9	1.2	2.3	1.2	0	4.7	0	2.3	0	0	2.3	

	Thompson St Eastbound				Thompson St Westbound				James St Northbound				James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	1	0	1	0	**10**	0	**10**	**1**	0	0	**1**	0	0	0	0	12
08:15 AM	0	8	0	8	0	5	0	5	0	0	**1**	1	0	**1**	0	**1**	15
08:30 AM	0	**13**	0	**13**	0	3	0	3	0	**1**	0	1	0	0	0	0	**17**
08:45 AM	0	5	0	5	0	3	0	3	0	1	0	1	0	0	0	0	9
Total Volume	0	27	0	27	0	21	0	21	1	2	1	4	0	1	0	1	53
% App. Total	0	100	0		0	100	0		25	50	25		0	100	0		
PHF	.000	.519	.000	.519	.000	.525	.000	.525	.250	.500	.250	1.00	.000	.250	.000	.250	.779

Peggy Malone & Associates
(888) 247-8602

File Name : 12-James St and Thompson St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Thompson St Eastbound					Thompson St Westbound					James St Northbound					James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	86	0	0	87	1	45	3	0	49	0	0	1	0	1	12	3	1	0	16	153
07:15 AM	1	105	0	0	106	1	36	0	0	37	0	0	1	1	2	13	3	1	0	17	162
07:30 AM	2	133	7	0	142	3	52	2	0	57	1	1	2	0	4	8	7	0	0	15	218
07:45 AM	3	113	9	0	125	6	91	5	0	102	1	10	2	0	13	8	14	4	0	26	266
Total	7	437	16	0	460	11	224	10	0	245	2	11	6	1	20	41	27	6	0	74	799
08:00 AM	3	97	0	0	100	0	113	7	0	120	9	2	1	0	12	10	6	1	0	17	249
08:15 AM	2	123	3	0	128	0	81	4	0	85	1	1	3	0	5	8	5	2	1	16	234
08:30 AM	1	147	1	1	150	2	49	3	0	54	1	2	0	2	5	8	2	1	1	12	221
08:45 AM	3	72	2	0	77	2	51	3	0	56	2	4	1	0	7	4	4	2	0	10	150
Total	9	439	6	1	455	4	294	17	0	315	13	9	5	2	29	30	17	6	2	55	854
Grand Total	16	876	22	1	915	15	518	27	0	560	15	20	11	3	49	71	44	12	2	129	1653
Apprch %	1.7	95.7	2.4	0.1		2.7	92.5	4.8	0		30.6	40.8	22.4	6.1		55	34.1	9.3	1.6		
Total %	1	53	1.3	0.1	55.4	0.9	31.3	1.6	0	33.9	0.9	1.2	0.7	0.2	3	4.3	2.7	0.7	0.1	7.8	

	Thompson St Eastbound				Thompson St Westbound				James St Northbound				James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	**133**	7	**142**	3	52	2	57	1	1	2	4	8	7	0	15	218
07:45 AM	**3**	113	**9**	125	**6**	91	5	102	1	**10**	2	**13**	8	**14**	**4**	**26**	**266**
08:00 AM	3	97	0	100	0	**113**	**7**	**120**	**9**	2	1	12	**10**	6	1	17	249
08:15 AM	2	123	3	128	0	81	4	85	1	1	**3**	5	8	5	2	15	233
Total Volume	10	466	19	495	9	337	18	364	12	14	8	34	34	32	7	73	966
% App. Total	2	94.1	3.8		2.5	92.6	4.9		35.3	41.2	23.5		46.6	43.8	9.6		
PHF	.833	.876	.528	.871	.375	.746	.643	.758	.333	.350	.667	.654	.850	.571	.438	.702	.908

Peggy Malone & Associates
(888) 247-8602

File Name : 12-James St and Thompson St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Thompson St Eastbound					Thompson St Westbound					James St Northbound					James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	3	87	0	0	90	1	99	7	0	107	3	2	3	0	8	6	3	1	0	10	215
04:15 PM	2	78	2	0	82	1	77	6	0	84	0	3	1	0	4	9	2	1	0	12	182
04:30 PM	1	80	1	0	82	2	115	6	0	123	4	2	1	0	7	6	3	1	0	10	222
04:45 PM	1	72	0	2	75	1	135	5	0	141	0	2	2	0	4	1	5	0	0	6	226
Total	7	317	3	2	329	5	426	24	0	455	7	9	7	0	23	22	13	3	0	38	845
05:00 PM	1	72	3	0	76	1	146	13	0	160	2	9	4	0	15	7	1	0	0	8	259
05:15 PM	0	90	1	0	91	2	139	11	0	152	3	3	3	0	9	6	2	2	0	10	262
05:30 PM	1	96	2	0	99	0	119	10	0	129	1	6	1	0	8	3	2	0	0	5	241
05:45 PM	2	75	0	0	77	2	114	9	0	125	2	3	2	0	7	5	0	0	0	5	214
Total	4	333	6	0	343	5	518	43	0	566	8	21	10	0	39	21	5	2	0	28	976
Grand Total	11	650	9	2	672	10	944	67	0	1021	15	30	17	0	62	43	18	5	0	66	1821
Apprch %	1.6	96.7	1.3	0.3		1	92.5	6.6	0		24.2	48.4	27.4	0		65.2	27.3	7.6	0		
Total %	0.6	35.7	0.5	0.1	36.9	0.5	51.8	3.7	0	56.1	0.8	1.6	0.9	0	3.4	2.4	1	0.3	0	3.6	

	Thompson St Eastbound				Thompson St Westbound				James St Northbound				James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**1**	72	0	73	1	135	5	141	0	2	2	4	1	**5**	0	6	224
05:00 PM	1	72	**3**	76	1	**146**	**13**	**160**	2	**9**	**4**	**15**	**7**	1	0	8	259
05:15 PM	0	90	1	91	**2**	139	11	152	**3**	3	3	9	6	2	**2**	**10**	**262**
05:30 PM	1	**96**	2	**99**	0	119	10	129	1	6	1	8	3	2	0	5	241
Total Volume	3	330	6	339	4	539	39	582	6	20	10	36	17	10	2	29	986
% App. Total	0.9	97.3	1.8		0.7	92.6	6.7		16.7	55.6	27.8		58.6	34.5	6.9		
PHF	.750	.859	.500	.856	.500	.923	.750	.909	.500	.556	.625	.600	.607	.500	.250	.725	.941

Peggy Malone & Associates
(888) 247-8602

File Name : 12-James St and Thompson St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Thompson St Eastbound					Thompson St Westbound					James St Northbound					James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	4	0	0	4	0	7	1	0	8	0	1	0	0	1	0	0	0	0	0	13
04:15 PM	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	1	0	0	0	1	5
04:30 PM	0	1	0	0	1	0	2	0	0	2	0	0	0	0	0	1	0	0	0	1	4
04:45 PM	0	2	0	0	2	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	4
Total	0	8	0	0	8	0	12	1	0	13	0	3	0	0	3	2	0	0	0	2	26
05:00 PM	1	3	0	0	4	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5
05:15 PM	0	1	0	0	1	0	2	0	0	2	0	1	0	0	1	0	0	0	0	0	4
05:30 PM	0	1	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	5	0	0	6	0	4	0	0	4	0	1	0	0	1	0	0	0	0	0	11
Grand Total	1	13	0	0	14	0	16	1	0	17	0	4	0	0	4	2	0	0	0	2	37
Apprch %	7.1	92.9	0	0		0	94.1	5.9	0		0	100	0	0		100	0	0	0		
Total %	2.7	35.1	0	0	37.8	0	43.2	2.7	0	45.9	0	10.8	0	0	10.8	5.4	0	0	0	5.4	

	Thompson St Eastbound				Thompson St Westbound				James St Northbound				James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**4**	0	**4**	0	**7**	**1**	**8**	0	**1**	0	**1**	0	0	0	0	**13**
04:15 PM	0	1	0	1	0	2	0	2	0	1	0	1	**1**	0	0	**1**	5
04:30 PM	0	1	0	1	0	2	0	2	0	0	0	0	1	0	0	1	4
04:45 PM	0	2	0	2	0	1	0	1	0	1	0	1	0	0	0	0	4
Total Volume	0	8	0	8	0	12	1	13	0	3	0	3	2	0	0	2	26
% App. Total	0	100	0		0	92.3	7.7		0	100	0		100	0	0		
PHF	.000	.500	.000	.500	.000	.429	.250	.406	.000	.750	.000	.750	.500	.000	.000	.500	.500

Peggy Malone & Associates
(888) 247-8602

File Name : 12-James St and Thompson St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Thompson St Eastbound					Thompson St Westbound					James St Northbound					James St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	3	91	0	0	94	1	106	8	0	115	3	3	3	0	9	6	3	1	0	10	228
04:15 PM	2	79	2	0	83	1	79	6	0	86	0	4	1	0	5	10	2	1	0	13	187
04:30 PM	1	81	1	0	83	2	117	6	0	125	4	2	1	0	7	7	3	1	0	11	226
04:45 PM	1	74	0	2	77	1	136	5	0	142	0	3	2	0	5	1	5	0	0	6	230
Total	7	325	3	2	337	5	438	25	0	468	7	12	7	0	26	24	13	3	0	40	871
05:00 PM	2	75	3	0	80	1	147	13	0	161	2	9	4	0	15	7	1	0	0	8	264
05:15 PM	0	91	1	0	92	2	141	11	0	154	3	4	3	0	10	6	2	2	0	10	266
05:30 PM	1	97	2	0	100	0	120	10	0	130	1	6	1	0	8	3	2	0	0	5	243
05:45 PM	2	75	0	0	77	2	114	9	0	125	2	3	2	0	7	5	0	0	0	5	214
Total	5	338	6	0	349	5	522	43	0	570	8	22	10	0	40	21	5	2	0	28	987
Grand Total	12	663	9	2	686	10	960	68	0	1038	15	34	17	0	66	45	18	5	0	68	1858
Apprch %	1.7	96.6	1.3	0.3		1	92.5	6.6	0		22.7	51.5	25.8	0		66.2	26.5	7.4	0		
Total %	0.6	35.7	0.5	0.1	36.9	0.5	51.7	3.7	0	55.9	0.8	1.8	0.9	0	3.6	2.4	1	0.3	0	3.7	

	Thompson St Eastbound				Thompson St Westbound				James St Northbound				James St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	1	74	0	75	1	136	5	142	0	3	2	5	1	**5**	0	6	228
05:00 PM	**2**	75	**3**	80	1	**147**	**13**	**161**	2	**9**	**4**	**15**	**7**	1	0	8	264
05:15 PM	0	91	1	92	**2**	141	11	154	**3**	4	3	10	6	2	**2**	**10**	**266**
05:30 PM	1	**97**	2	**100**	0	120	10	130	1	6	1	8	3	2	0	5	243
Total Volume	4	337	6	347	4	544	39	587	6	22	10	38	17	10	2	29	1001
% App. Total	1.2	97.1	1.7		0.7	92.7	6.6		15.8	57.9	26.3		58.6	34.5	6.9		
PHF	.500	.869	.500	.868	.500	.925	.750	.911	.500	.611	.625	.633	.607	.500	.250	.725	.941

Peggy Malone & Associates
(888) 247-8602

File Name : 13-Washington St and Pig Lane_Junction Dr AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Pig Lane Eastbound					Junction Dr Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	9	0	3	0	12	0	78	7	0	85	17	111	0	0	128	225
07:15 AM	0	0	0	0	0	16	0	3	0	19	0	104	11	0	115	21	134	1	0	156	290
07:30 AM	0	0	0	0	0	8	0	5	0	13	0	82	9	0	91	8	138	1	0	147	251
07:45 AM	0	1	0	0	1	13	0	7	1	21	0	101	20	0	121	17	129	1	0	147	290
Total	0	1	0	0	1	46	0	18	1	65	0	365	47	0	412	63	512	3	0	578	1056
08:00 AM	1	0	0	0	1	10	0	2	0	12	0	100	9	0	109	17	111	0	0	128	250
08:15 AM	0	0	0	0	0	14	0	7	0	21	2	82	14	0	98	21	145	0	0	166	285
08:30 AM	0	0	1	0	1	19	0	7	0	26	1	76	16	0	93	16	123	2	0	141	261
08:45 AM	1	1	0	0	2	10	0	7	0	17	4	107	18	0	129	34	90	1	0	125	273
Total	2	1	1	0	4	53	0	23	0	76	7	365	57	0	429	88	469	3	0	560	1069
Grand Total	2	2	1	0	5	99	0	41	1	141	7	730	104	0	841	151	981	6	0	1138	2125
Apprch %	40	40	20	0		70.2	0	29.1	0.7		0.8	86.8	12.4	0		13.3	86.2	0.5	0		
Total %	0.1	0.1	0	0	0.2	4.7	0	1.9	0	6.6	0.3	34.4	4.9	0	39.6	7.1	46.2	0.3	0	53.6	

	Pig Lane Eastbound				Junction Dr Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**1**	0	**1**	13	0	**7**	20	0	**101**	**20**	**121**	17	129	1	147	**289**
08:00 AM	**1**	0	0	1	10	0	2	12	0	100	9	109	17	111	0	128	250
08:15 AM	0	0	0	0	14	0	7	21	**2**	82	14	98	**21**	**145**	0	**166**	285
08:30 AM	0	0	**1**	1	**19**	0	7	**26**	1	76	16	93	16	123	**2**	141	261
Total Volume	1	1	1	3	56	0	23	79	3	359	59	421	71	508	3	582	1085
% App. Total	33.3	33.3	33.3		70.9	0	29.1		0.7	85.3	14		12.2	87.3	0.5		
PHF	.250	.250	.250	.750	.737	.000	.821	.760	.375	.889	.738	.870	.845	.876	.375	.877	.939

Peggy Malone & Associates
(888) 247-8602

File Name : 13-Washington St and Pig Lane_Junction Dr AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Pig Lane Eastbound					Junction Dr Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	1	0	0	0	1	0	11	0	0	11	1	9	0	0	10	22
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	1	8	0	0	9	15
07:30 AM	0	0	0	0	0	1	0	0	0	1	0	8	0	0	8	1	3	0	0	4	13
07:45 AM	0	0	0	0	0	0	0	0	0	0	0	6	1	0	7	0	12	0	0	12	19
Total	0	0	0	0	0	2	0	0	0	2	0	31	1	0	32	3	32	0	0	35	69
08:00 AM	0	0	0	0	0	0	0	0	0	0	0	9	0	0	9	0	9	0	0	9	18
08:15 AM	0	0	0	0	0	0	0	0	0	0	1	12	1	0	14	0	11	0	0	11	25
08:30 AM	0	0	0	0	0	0	0	0	0	0	0	15	0	0	15	3	9	0	0	12	27
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	13	1	0	14	0	11	0	0	11	25
Total	0	0	0	0	0	0	0	0	0	0	1	49	2	0	52	3	40	0	0	43	95
Grand Total	0	0	0	0	0	2	0	0	0	2	1	80	3	0	84	6	72	0	0	78	164
Apprch %	0	0	0	0		100	0	0	0		1.2	95.2	3.6	0		7.7	92.3	0	0		
Total %	0	0	0	0	0	1.2	0	0	0	1.2	0.6	48.8	1.8	0	51.2	3.7	43.9	0	0	47.6	

	Pig Lane Eastbound				Junction Dr Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	0	0	0	0	0	9	0	9	0	9	0	9	18
08:15 AM	0	0	0	0	0	0	0	0	**1**	12	**1**	14	0	**11**	0	11	25
08:30 AM	0	0	0	0	0	0	0	0	0	**15**	0	**15**	**3**	9	0	**12**	**27**
08:45 AM	0	0	0	0	0	0	0	0	0	13	1	14	0	11	0	11	25
Total Volume	0	0	0	0	0	0	0	0	1	49	2	52	3	40	0	43	95
% App. Total	0	0	0		0	0	0		1.9	94.2	3.8		7	93	0		
PHF	.000	.000	.000	.000	.000	.000	.000	.000	.250	.817	.500	.867	.250	.909	.000	.896	.880

Peggy Malone & Associates
(888) 247-8602

File Name : 13-Washington St and Pig Lane_Junction Dr AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Pig Lane Eastbound					Junction Dr Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	10	0	3	0	13	0	89	7	0	96	18	120	0	0	138	247
07:15 AM	0	0	0	0	0	16	0	3	0	19	0	110	11	0	121	22	142	1	0	165	305
07:30 AM	0	0	0	0	0	9	0	5	0	14	0	90	9	0	99	9	141	1	0	151	264
07:45 AM	0	1	0	0	1	13	0	7	1	21	0	107	21	0	128	17	141	1	0	159	309
Total	0	1	0	0	1	48	0	18	1	67	0	396	48	0	444	66	544	3	0	613	1125
08:00 AM	1	0	0	0	1	10	0	2	0	12	0	109	9	0	118	17	120	0	0	137	268
08:15 AM	0	0	0	0	0	14	0	7	0	21	3	94	15	0	112	21	156	0	0	177	310
08:30 AM	0	0	1	0	1	19	0	7	0	26	1	91	16	0	108	19	132	2	0	153	288
08:45 AM	1	1	0	0	2	10	0	7	0	17	4	120	19	0	143	34	101	1	0	136	298
Total	2	1	1	0	4	53	0	23	0	76	8	414	59	0	481	91	509	3	0	603	1164
Grand Total	2	2	1	0	5	101	0	41	1	143	8	810	107	0	925	157	1053	6	0	1216	2289
Apprch %	40	40	20	0		70.6	0	28.7	0.7		0.9	87.6	11.6	0		12.9	86.6	0.5	0		
Total %	0.1	0.1	0	0	0.2	4.4	0	1.8	0	6.2	0.3	35.4	4.7	0	40.4	6.9	46	0.3	0	53.1	

	Pig Lane Eastbound				Junction Dr Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	**1**	0	**1**	13	0	**7**	20	0	107	**21**	**128**	17	141	1	159	308
08:00 AM	**1**	0	0	1	10	0	2	12	0	**109**	9	118	17	120	0	137	268
08:15 AM	0	0	0	0	14	0	7	21	**3**	94	15	112	**21**	**156**	0	**177**	**310**
08:30 AM	0	0	**1**	1	**19**	0	7	**26**	1	91	16	108	19	132	**2**	153	288
Total Volume	1	1	1	3	56	0	23	79	4	401	61	466	74	549	3	626	1174
% App. Total	33.3	33.3	33.3		70.9	0	29.1		0.9	86.1	13.1		11.8	87.7	0.5		
PHF	.250	.250	.250	.750	.737	.000	.821	.760	.333	.920	.726	.910	.881	.880	.375	.884	.947

Peggy Malone & Associates
(888) 247-8602

File Name : 13-Washington St and Pig Lane_Junction Dr PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Pig Lane Eastbound					Junction Dr Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	3	0	1	0	4	27	0	30	1	58	8	147	23	0	178	19	143	4	0	166	406
04:15 PM	3	1	0	0	4	31	0	27	0	58	3	167	25	1	196	23	122	1	0	146	404
04:30 PM	2	1	1	0	4	24	0	31	0	55	7	162	26	0	195	33	168	0	0	201	455
04:45 PM	1	2	0	1	4	23	0	23	0	46	4	221	28	0	253	29	143	0	0	172	475
Total	9	4	2	1	16	105	0	111	1	217	22	697	102	1	822	104	576	5	0	685	1740
05:00 PM	1	0	0	2	3	32	0	22	0	54	2	212	31	0	245	23	163	2	0	188	490
05:15 PM	0	0	0	0	0	23	0	24	0	47	3	213	33	0	249	34	123	1	0	158	454
05:30 PM	1	2	0	2	5	25	0	22	1	48	4	173	29	0	206	22	100	1	0	123	382
05:45 PM	1	0	0	0	1	24	0	29	2	55	2	132	23	0	157	30	98	2	0	130	343
Total	3	2	0	4	9	104	0	97	3	204	11	730	116	0	857	109	484	6	0	599	1669
Grand Total	12	6	2	5	25	209	0	208	4	421	33	1427	218	1	1679	213	1060	11	0	1284	3409
Apprch %	48	24	8	20		49.6	0	49.4	1		2	85	13	0.1		16.6	82.6	0.9	0		
Total %	0.4	0.2	0.1	0.1	0.7	6.1	0	6.1	0.1	12.3	1	41.9	6.4	0	49.3	6.2	31.1	0.3	0	37.7	

	Pig Lane Eastbound				Junction Dr Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**2**	1	**1**	**4**	24	0	**31**	**55**	**7**	162	26	195	33	**168**	0	**201**	455
04:45 PM	1	**2**	0	3	23	0	23	46	4	**221**	28	**253**	29	143	0	172	474
05:00 PM	1	0	0	1	**32**	0	22	54	2	212	31	245	23	163	**2**	188	**488**
05:15 PM	0	0	0	0	23	0	24	47	3	213	**33**	249	**34**	123	1	158	454
Total Volume	4	3	1	8	102	0	100	202	16	808	118	942	119	597	3	719	1871
% App. Total	50	37.5	12.5		50.5	0	49.5		1.7	85.8	12.5		16.6	83	0.4		
PHF	.500	.375	.250	.500	.797	.000	.806	.918	.571	.914	.894	.931	.875	.888	.375	.894	.959

Peggy Malone & Associates
(888) 247-8602

File Name : 13-Washington St and Pig Lane_Junction Dr PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Pig Lane Eastbound					Junction Dr Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	1	0	1	0	2	0	6	0	0	6	1	10	0	0	11	19
04:15 PM	0	0	1	0	1	0	0	0	0	0	0	8	1	0	9	0	5	1	0	6	16
04:30 PM	0	0	0	0	0	1	0	1	0	2	0	5	1	0	6	0	9	0	0	9	17
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	2	0	0	2	9
Total	0	0	1	0	1	2	0	2	0	4	0	26	2	0	28	1	26	1	0	28	61
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	8	2	0	10	0	3	0	0	3	13
05:15 PM	0	0	0	0	0	0	0	1	0	1	0	5	1	0	6	0	4	0	0	4	11
05:30 PM	0	0	0	0	0	0	0	1	0	1	0	4	0	0	4	0	4	0	0	4	9
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	3	1	0	4	8
Total	0	0	0	0	0	0	0	2	0	2	0	21	3	0	24	0	14	1	0	15	41
Grand Total	0	0	1	0	1	2	0	4	0	6	0	47	5	0	52	1	40	2	0	43	102
Apprch %	0	0	100	0		33.3	0	66.7	0		0	90.4	9.6	0		2.3	93	4.7	0		
Total %	0	0	1	0	1	2	0	3.9	0	5.9	0	46.1	4.9	0	51	1	39.2	2	0	42.2	

	Pig Lane Eastbound				Junction Dr Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	**1**	0	**1**	**2**	0	6	0	6	**1**	**10**	0	**11**	**19**
04:15 PM	0	0	**1**	**1**	0	0	0	0	0	**8**	**1**	**9**	0	5	**1**	6	16
04:30 PM	0	0	0	0	1	0	1	2	0	5	1	6	0	9	0	9	17
04:45 PM	0	0	0	0	0	0	0	0	0	7	0	7	0	2	0	2	9
Total Volume	0	0	1	1	2	0	2	4	0	26	2	28	1	26	1	28	61
% App. Total	0	0	100		50	0	50		0	92.9	7.1		3.6	92.9	3.6		
PHF	.000	.000	.250	.250	.500	.000	.500	.500	.000	.813	.500	.778	.250	.650	.250	.636	.803

Peggy Malone & Associates
(888) 247-8602

File Name : 13-Washington St and Pig Lane_Junction Dr PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Pig Lane Eastbound					Junction Dr Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	3	0	1	0	4	28	0	31	1	60	8	153	23	0	184	20	153	4	0	177	425
04:15 PM	3	1	1	0	5	31	0	27	0	58	3	175	26	1	205	23	127	2	0	152	420
04:30 PM	2	1	1	0	4	25	0	32	0	57	7	167	27	0	201	33	177	0	0	210	472
04:45 PM	1	2	0	1	4	23	0	23	0	46	4	228	28	0	260	29	145	0	0	174	484
Total	9	4	3	1	17	107	0	113	1	221	22	723	104	1	850	105	602	6	0	713	1801
05:00 PM	1	0	0	2	3	32	0	22	0	54	2	220	33	0	255	23	166	2	0	191	503
05:15 PM	0	0	0	0	0	23	0	25	0	48	3	218	34	0	255	34	127	1	0	162	465
05:30 PM	1	2	0	2	5	25	0	23	1	49	4	177	29	0	210	22	104	1	0	127	391
05:45 PM	1	0	0	0	1	24	0	29	2	55	2	136	23	0	161	30	101	3	0	134	351
Total	3	2	0	4	9	104	0	99	3	206	11	751	119	0	881	109	498	7	0	614	1710
Grand Total	12	6	3	5	26	211	0	212	4	427	33	1474	223	1	1731	214	1100	13	0	1327	3511
Apprch %	46.2	23.1	11.5	19.2		49.4	0	49.6	0.9		1.9	85.2	12.9	0.1		16.1	82.9	1	0		
Total %	0.3	0.2	0.1	0.1	0.7	6	0	6	0.1	12.2	0.9	42	6.4	0	49.3	6.1	31.3	0.4	0	37.8	

	Pig Lane Eastbound				Junction Dr Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	**2**	1	**1**	**4**	25	0	**32**	**57**	**7**	167	27	201	33	**177**	0	**210**	472
04:45 PM	1	**2**	0	3	23	0	23	46	4	**228**	28	**260**	29	145	0	174	483
05:00 PM	1	0	0	1	**32**	0	22	54	2	220	33	255	23	166	**2**	191	**501**
05:15 PM	0	0	0	0	23	0	25	48	3	218	**34**	255	**34**	127	1	162	465
Total Volume	4	3	1	8	103	0	102	205	16	833	122	971	119	615	3	737	1921
% App. Total	50	37.5	12.5		50.2	0	49.8		1.6	85.8	12.6		16.1	83.4	0.4		
PHF	.500	.375	.250	.500	.805	.000	.797	.899	.571	.913	.897	.934	.875	.869	.375	.877	.959

Peggy Malone & Associates
(888) 247-8602

File Name : 14-Hill Carter Pkwy and Ashcake Rd AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	11	37	0	48	47	9	0	56	6	9	0	15	119
07:15 AM	11	36	0	47	41	15	0	56	8	21	0	29	132
07:30 AM	14	57	0	71	34	13	0	47	8	21	0	29	147
07:45 AM	13	49	0	62	47	19	0	66	9	20	0	29	157
Total	49	179	0	228	169	56	0	225	31	71	0	102	555
08:00 AM	22	46	0	68	40	15	0	55	8	12	0	20	143
08:15 AM	24	36	0	60	51	15	0	66	8	28	0	36	162
08:30 AM	19	31	0	50	49	17	0	66	5	14	0	19	135
08:45 AM	18	21	0	39	52	10	0	62	7	24	0	31	132
Total	83	134	0	217	192	57	0	249	28	78	0	106	572
Grand Total	132	313	0	445	361	113	0	474	59	149	0	208	1127
Apprch %	29.7	70.3	0		76.2	23.8	0		28.4	71.6	0		
Total %	11.7	27.8	0	39.5	32	10	0	42.1	5.2	13.2	0	18.5	

	Ashcake Rd Eastbound			Ashcake Rd Westbound			Hill Carter Pkwy Southbound			
Start Time	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	14	**57**	**71**	34	13	47	8	21	29	147
07:45 AM	13	49	62	47	**19**	**66**	**9**	20	29	157
08:00 AM	22	46	68	40	15	55	8	12	20	143
08:15 AM	**24**	36	60	**51**	15	66	8	**28**	**36**	**162**
Total Volume	73	188	261	172	62	234	33	81	114	609
% App. Total	28	72		73.5	26.5		28.9	71.1		
PHF	.760	.825	.919	.843	.816	.886	.917	.723	.792	.940

Peggy Malone & Associates
(888) 247-8602

File Name : 14-Hill Carter Pkwy and Ashcake Rd AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	2	0	2	0	0	0	0	2
07:15 AM	0	1	0	1	2	0	0	2	0	1	0	1	4
07:30 AM	1	2	0	3	1	1	0	2	1	0	0	1	6
07:45 AM	0	4	0	4	4	3	0	7	0	2	0	2	13
Total	1	7	0	8	7	6	0	13	1	3	0	4	25
08:00 AM	0	1	0	1	6	1	0	7	0	1	0	1	9
08:15 AM	1	1	0	2	4	0	0	4	0	0	0	0	6
08:30 AM	0	7	0	7	1	1	0	2	2	0	0	2	11
08:45 AM	1	4	0	5	5	0	0	5	0	0	0	0	10
Total	2	13	0	15	16	2	0	18	2	1	0	3	36
Grand Total	3	20	0	23	23	8	0	31	3	4	0	7	61
Apprch %	13	87	0		74.2	25.8	0		42.9	57.1	0		
Total %	4.9	32.8	0	37.7	37.7	13.1	0	50.8	4.9	6.6	0	11.5	

	Ashcake Rd Eastbound			Ashcake Rd Westbound			Hill Carter Pkwy Southbound			
Start Time	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM										
07:45 AM	0	4	4	4	**3**	**7**	0	**2**	**2**	**13**
08:00 AM	0	1	1	**6**	1	7	0	1	1	9
08:15 AM	**1**	1	2	4	0	4	0	0	0	6
08:30 AM	0	**7**	**7**	1	1	2	**2**	0	2	11
Total Volume	1	13	14	15	5	20	2	3	5	39
% App. Total	7.1	92.9		75	25		40	60		
PHF	.250	.464	.500	.625	.417	.714	.250	.375	.625	.750

Peggy Malone & Associates
(888) 247-8602

File Name : 14-Hill Carter Pkwy and Ashcake Rd AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
07:00 AM	11	37	0	48	47	11	0	58	6	9	0	15	121
07:15 AM	11	37	0	48	43	15	0	58	8	22	0	30	136
07:30 AM	15	59	0	74	35	14	0	49	9	21	0	30	153
07:45 AM	13	53	0	66	51	22	0	73	9	22	0	31	170
Total	50	186	0	236	176	62	0	238	32	74	0	106	580
08:00 AM	22	47	0	69	46	16	0	62	8	13	0	21	152
08:15 AM	25	37	0	62	55	15	0	70	8	28	0	36	168
08:30 AM	19	38	0	57	50	18	0	68	7	14	0	21	146
08:45 AM	19	25	0	44	57	10	0	67	7	24	0	31	142
Total	85	147	0	232	208	59	0	267	30	79	0	109	608
Grand Total	135	333	0	468	384	121	0	505	62	153	0	215	1188
Apprch %	28.8	71.2	0		76	24	0		28.8	71.2	0		
Total %	11.4	28	0	39.4	32.3	10.2	0	42.5	5.2	12.9	0	18.1	

	Ashcake Rd Eastbound			Ashcake Rd Westbound			Hill Carter Pkwy Southbound			
Start Time	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:30 AM										
07:30 AM	15	**59**	**74**	35	14	49	**9**	21	30	153
07:45 AM	13	53	66	51	**22**	**73**	9	22	31	**170**
08:00 AM	22	47	69	46	16	62	8	13	21	152
08:15 AM	**25**	37	62	**55**	15	70	8	**28**	**36**	168
Total Volume	75	196	271	187	67	254	34	84	118	643
% App. Total	27.7	72.3		73.6	26.4		28.8	71.2		
PHF	.750	.831	.916	.850	.761	.870	.944	.750	.819	.946

Peggy Malone & Associates
(888) 247-8602

File Name : 14-Hill Carter Pkwy and Ashcake Rd PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	34	52	0	86	60	26	0	86	23	46	0	69	241
04:15 PM	32	39	0	71	64	25	0	89	17	28	0	45	205
04:30 PM	33	32	0	65	62	20	0	82	8	30	0	38	185
04:45 PM	54	50	0	104	85	22	0	107	14	25	0	39	250
Total	153	173	0	326	271	93	0	364	62	129	0	191	881
05:00 PM	60	68	0	128	74	26	0	100	14	26	0	40	268
05:15 PM	42	41	0	83	67	22	0	89	23	29	0	52	224
05:30 PM	38	37	0	75	54	24	0	78	17	34	0	51	204
05:45 PM	36	34	0	70	55	18	0	73	11	40	0	51	194
Total	176	180	0	356	250	90	0	340	65	129	0	194	890
Grand Total	329	353	0	682	521	183	0	704	127	258	0	385	1771
Apprch %	48.2	51.8	0		74	26	0		33	67	0		
Total %	18.6	19.9	0	38.5	29.4	10.3	0	39.8	7.2	14.6	0	21.7	

	Ashcake Rd Eastbound			Ashcake Rd Westbound			Hill Carter Pkwy Southbound			
Start Time	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	54	50	104	**85**	22	**107**	14	25	39	250
05:00 PM	**60**	**68**	**128**	74	**26**	100	14	26	40	**268**
05:15 PM	42	41	83	67	22	89	**23**	29	**52**	224
05:30 PM	38	37	75	54	24	78	17	**34**	51	204
Total Volume	194	196	390	280	94	374	68	114	182	946
% App. Total	49.7	50.3		74.9	25.1		37.4	62.6		
PHF	.808	.721	.762	.824	.904	.874	.739	.838	.875	.882

Peggy Malone & Associates
(888) 247-8602

File Name : 14-Hill Carter Pkwy and Ashcake Rd PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	1	2	0	3	1	1	0	2	0	1	0	1	6
04:15 PM	1	3	0	4	0	0	0	0	0	1	0	1	5
04:30 PM	1	0	0	1	1	0	0	1	1	0	0	1	3
04:45 PM	0	0	0	0	2	0	0	2	0	2	0	2	4
Total	3	5	0	8	4	1	0	5	1	4	0	5	18
05:00 PM	2	0	0	2	2	0	0	2	0	0	0	0	4
05:15 PM	0	0	0	0	1	1	0	2	0	0	0	0	2
05:30 PM	1	1	0	2	2	2	0	4	2	0	0	2	8
05:45 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
Total	3	2	0	5	5	3	0	8	2	0	0	2	15
Grand Total	6	7	0	13	9	4	0	13	3	4	0	7	33
Apprch %	46.2	53.8	0		69.2	30.8	0		42.9	57.1	0		
Total %	18.2	21.2	0	39.4	27.3	12.1	0	39.4	9.1	12.1	0	21.2	

	Ashcake Rd Eastbound			Ashcake Rd Westbound			Hill Carter Pkwy Southbound			
Start Time	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	**1**	2	3	1	**1**	**2**	0	1	1	**6**
04:15 PM	1	**3**	**4**	0	0	0	0	1	1	5
04:30 PM	1	0	1	1	0	1	**1**	0	1	3
04:45 PM	0	0	0	**2**	0	2	0	**2**	**2**	4
Total Volume	3	5	8	4	1	5	1	4	5	18
% App. Total	37.5	62.5		80	20		20	80		
PHF	.750	.417	.500	.500	.250	.625	.250	.500	.625	.750

Peggy Malone & Associates
(888) 247-8602

File Name : 14-Hill Carter Pkwy and Ashcake Rd PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Left	Right	Peds	App. Total	Int. Total
04:00 PM	35	54	0	89	61	27	0	88	23	47	0	70	247
04:15 PM	33	42	0	75	64	25	0	89	17	29	0	46	210
04:30 PM	34	32	0	66	63	20	0	83	9	30	0	39	188
04:45 PM	54	50	0	104	87	22	0	109	14	27	0	41	254
Total	156	178	0	334	275	94	0	369	63	133	0	196	899
05:00 PM	62	68	0	130	76	26	0	102	14	26	0	40	272
05:15 PM	42	41	0	83	68	23	0	91	23	29	0	52	226
05:30 PM	39	38	0	77	56	26	0	82	19	34	0	53	212
05:45 PM	36	35	0	71	55	18	0	73	11	40	0	51	195
Total	179	182	0	361	255	93	0	348	67	129	0	196	905
Grand Total	335	360	0	695	530	187	0	717	130	262	0	392	1804
Apprch %	48.2	51.8	0		73.9	26.1	0		33.2	66.8	0		
Total %	18.6	20	0	38.5	29.4	10.4	0	39.7	7.2	14.5	0	21.7	

	Ashcake Rd Eastbound			Ashcake Rd Westbound			Hill Carter Pkwy Southbound			
Start Time	Left	Thru	App. Total	Thru	Right	App. Total	Left	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:45 PM										
04:45 PM	54	50	104	**87**	22	**109**	14	27	41	254
05:00 PM	**62**	**68**	**130**	76	**26**	102	14	26	40	**272**
05:15 PM	42	41	83	68	23	91	**23**	29	52	226
05:30 PM	39	38	77	56	26	82	19	**34**	**53**	212
Total Volume	197	197	394	287	97	384	70	116	186	964
% App. Total	50	50		74.7	25.3		37.6	62.4		
PHF	.794	.724	.758	.825	.933	.881	.761	.853	.877	.886

Peggy Malone & Associates
(888) 247-8602

File Name : 15-Washington St and Ashcake Rd AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Ashcake Rd Eastbound					Ashcake Rd Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	28	34	35	0	97	11	16	18	0	45	8	36	6	0	50	20	88	24	0	132	324
07:15 AM	39	30	43	0	112	16	25	17	0	58	19	51	5	0	75	17	108	26	0	151	396
07:30 AM	34	39	48	0	121	20	22	14	0	56	15	37	14	0	66	24	94	28	0	146	389
07:45 AM	22	34	46	0	102	8	19	27	0	54	16	51	9	0	76	31	93	25	0	149	381
Total	123	137	172	0	432	55	82	76	0	213	58	175	34	0	267	92	383	103	0	578	1490
08:00 AM	29	40	40	0	109	9	13	15	0	37	16	60	17	0	93	22	69	19	0	110	349
08:15 AM	21	43	39	0	103	25	18	21	0	64	12	55	8	0	75	20	86	31	0	137	379
08:30 AM	23	26	29	0	78	6	21	22	0	49	12	59	8	0	79	20	88	27	0	135	341
08:45 AM	26	22	33	0	81	16	23	25	0	64	13	76	13	0	102	12	57	23	0	92	339
Total	99	131	141	0	371	56	75	83	0	214	53	250	46	0	349	74	300	100	0	474	1408
Grand Total	222	268	313	0	803	111	157	159	0	427	111	425	80	0	616	166	683	203	0	1052	2898
Apprch %	27.6	33.4	39	0		26	36.8	37.2	0		18	69	13	0		15.8	64.9	19.3	0		
Total %	7.7	9.2	10.8	0	27.7	3.8	5.4	5.5	0	14.7	3.8	14.7	2.8	0	21.3	5.7	23.6	7	0	36.3	

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**39**	30	43	112	16	**25**	17	**58**	**19**	51	5	75	17	**108**	26	**151**	**396**
07:30 AM	34	39	**48**	**121**	**20**	22	14	56	15	37	14	66	24	94	**28**	146	389
07:45 AM	22	34	46	102	8	19	**27**	54	16	51	9	76	**31**	93	25	149	381
08:00 AM	29	**40**	40	109	9	13	15	37	16	**60**	**17**	**93**	22	69	19	110	349
Total Volume	124	143	177	444	53	79	73	205	66	199	45	310	94	364	98	556	1515
% App. Total	27.9	32.2	39.9		25.9	38.5	35.6		21.3	64.2	14.5		16.9	65.5	17.6		
PHF	.795	.894	.922	.917	.663	.790	.676	.884	.868	.829	.662	.833	.758	.843	.875	.921	.956

Peggy Malone & Associates
(888) 247-8602

File Name : 15-Washington St and Ashcake Rd AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Ashcake Rd Eastbound					Ashcake Rd Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	1	1	0	4	0	0	0	0	0	1	6	0	0	7	0	9	1	0	10	21
07:15 AM	1	1	0	0	2	2	1	1	0	4	3	4	0	0	7	0	7	1	0	8	21
07:30 AM	1	1	1	0	3	2	1	1	0	4	1	9	2	0	12	0	4	0	0	4	23
07:45 AM	1	2	3	0	6	2	1	1	0	4	2	4	0	0	6	3	6	1	0	10	26
Total	5	5	5	0	15	6	3	3	0	12	7	23	2	0	32	3	26	3	0	32	91
08:00 AM	0	1	4	0	5	1	1	4	0	6	3	3	0	0	6	0	5	5	0	10	27
08:15 AM	2	0	2	0	4	1	1	2	0	4	2	10	0	0	12	1	7	4	0	12	32
08:30 AM	4	4	2	0	10	0	0	1	0	1	3	8	0	0	11	2	5	2	0	9	31
08:45 AM	6	2	3	0	11	1	1	1	0	3	2	7	2	0	11	3	5	3	0	11	36
Total	12	7	11	0	30	3	3	8	0	14	10	28	2	0	40	6	22	14	0	42	126
Grand Total	17	12	16	0	45	9	6	11	0	26	17	51	4	0	72	9	48	17	0	74	217
Apprch %	37.8	26.7	35.6	0		34.6	23.1	42.3	0		23.6	70.8	5.6	0		12.2	64.9	23	0		
Total %	7.8	5.5	7.4	0	20.7	4.1	2.8	5.1	0	12	7.8	23.5	1.8	0	33.2	4.1	22.1	7.8	0	34.1	

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	1	**4**	5	**1**	**1**	**4**	**6**	**3**	3	0	6	0	5	**5**	10	27
08:15 AM	2	0	2	4	1	1	2	4	2	**10**	0	**12**	1	**7**	4	**12**	32
08:30 AM	4	**4**	2	10	0	0	1	1	3	8	0	11	2	5	2	9	31
08:45 AM	**6**	2	3	**11**	1	1	1	3	2	7	**2**	11	**3**	5	3	11	**36**
Total Volume	12	7	11	30	3	3	8	14	10	28	2	40	6	22	14	42	126
% App. Total	40	23.3	36.7		21.4	21.4	57.1		25	70	5		14.3	52.4	33.3		
PHF	.500	.438	.688	.682	.750	.750	.500	.583	.833	.700	.250	.833	.500	.786	.700	.875	.875

Peggy Malone & Associates
(888) 247-8602

File Name : 15-Washington St and Ashcake Rd AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Ashcake Rd Eastbound					Ashcake Rd Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	30	35	36	0	101	11	16	18	0	45	9	42	6	0	57	20	97	25	0	142	345
07:15 AM	40	31	43	0	114	18	26	18	0	62	22	55	5	0	82	17	115	27	0	159	417
07:30 AM	35	40	49	0	124	22	23	15	0	60	16	46	16	0	78	24	98	28	0	150	412
07:45 AM	23	36	49	0	108	10	20	28	0	58	18	55	9	0	82	34	99	26	0	159	407
Total	128	142	177	0	447	61	85	79	0	225	65	198	36	0	299	95	409	106	0	610	1581
08:00 AM	29	41	44	0	114	10	14	19	0	43	19	63	17	0	99	22	74	24	0	120	376
08:15 AM	23	43	41	0	107	26	19	23	0	68	14	65	8	0	87	21	93	35	0	149	411
08:30 AM	27	30	31	0	88	6	21	23	0	50	15	67	8	0	90	22	93	29	0	144	372
08:45 AM	32	24	36	0	92	17	24	26	0	67	15	83	15	0	113	15	62	26	0	103	375
Total	111	138	152	0	401	59	78	91	0	228	63	278	48	0	389	80	322	114	0	516	1534
Grand Total	239	280	329	0	848	120	163	170	0	453	128	476	84	0	688	175	731	220	0	1126	3115
Apprch %	28.2	33	38.8	0		26.5	36	37.5	0		18.6	69.2	12.2	0		15.5	64.9	19.5	0		
Total %	7.7	9	10.6	0	27.2	3.9	5.2	5.5	0	14.5	4.1	15.3	2.7	0	22.1	5.6	23.5	7.1	0	36.1	

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	**40**	31	43	114	18	**26**	18	**62**	**22**	55	5	82	17	**115**	27	**159**	**417**
07:30 AM	35	40	**49**	**124**	**22**	23	15	60	16	46	16	78	24	98	**28**	150	412
07:45 AM	23	36	49	108	10	20	**28**	58	18	55	9	82	**34**	99	26	159	407
08:00 AM	29	**41**	44	114	10	14	19	43	19	**63**	**17**	**99**	22	74	24	120	376
Total Volume	127	148	185	460	60	83	80	223	75	219	47	341	97	386	105	588	1612
% App. Total	27.6	32.2	40.2		26.9	37.2	35.9		22	64.2	13.8		16.5	65.6	17.9		
PHF	.794	.902	.944	.927	.682	.798	.714	.899	.852	.869	.691	.861	.713	.839	.938	.925	.966

Peggy Malone & Associates
(888) 247-8602

File Name : 15-Washington St and Ashcake Rd PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Ashcake Rd Eastbound					Ashcake Rd Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	23	42	21	0	86	29	45	37	0	111	34	121	23	0	178	17	124	35	0	176	551
04:15 PM	44	34	25	0	103	25	36	46	2	109	49	113	17	0	179	27	99	40	0	166	557
04:30 PM	30	28	19	0	77	26	44	33	0	103	55	137	19	0	211	19	127	41	0	187	578
04:45 PM	41	30	24	0	95	23	58	36	0	117	63	153	26	0	242	30	90	34	0	154	608
Total	138	134	89	0	361	103	183	152	2	440	201	524	85	0	810	93	440	150	0	683	2294
05:00 PM	47	44	23	0	114	13	51	39	0	103	76	152	33	0	261	22	128	60	0	210	688
05:15 PM	54	30	26	1	111	23	62	23	0	108	58	151	24	0	233	18	68	49	0	135	587
05:30 PM	35	32	30	0	97	22	44	32	0	98	38	109	19	0	166	13	88	28	0	129	490
05:45 PM	46	32	27	0	105	17	49	18	0	84	42	94	20	0	156	14	68	34	0	116	461
Total	182	138	106	1	427	75	206	112	0	393	214	506	96	0	816	67	352	171	0	590	2226
Grand Total	320	272	195	1	788	178	389	264	2	833	415	1030	181	0	1626	160	792	321	0	1273	4520
Apprch %	40.6	34.5	24.7	0.1		21.4	46.7	31.7	0.2		25.5	63.3	11.1	0		12.6	62.2	25.2	0		
Total %	7.1	6	4.3	0	17.4	3.9	8.6	5.8	0	18.4	9.2	22.8	4	0	36	3.5	17.5	7.1	0	28.2	

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	30	28	19	77	**26**	44	33	103	55	137	19	211	19	127	41	187	578
04:45 PM	41	30	24	95	23	58	36	**117**	63	**153**	26	242	**30**	90	34	154	608
05:00 PM	47	**44**	23	**114**	13	51	**39**	103	**76**	152	**33**	**261**	22	**128**	**60**	**210**	**688**
05:15 PM	**54**	30	**26**	110	23	**62**	23	108	58	151	24	233	18	68	49	135	586
Total Volume	172	132	92	396	85	215	131	431	252	593	102	947	89	413	184	686	2460
% App. Total	43.4	33.3	23.2		19.7	49.9	30.4		26.6	62.6	10.8		13	60.2	26.8		
PHF	.796	.750	.885	.868	.817	.867	.840	.921	.829	.969	.773	.907	.742	.807	.767	.817	.894

Peggy Malone & Associates
(888) 247-8602

File Name : 15-Washington St and Ashcake Rd PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Ashcake Rd Eastbound					Ashcake Rd Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	1	1	0	0	2	0	1	1	0	2	0	6	2	0	8	2	5	6	0	13	25
04:15 PM	3	2	6	0	11	0	1	1	0	2	1	6	0	0	7	0	4	4	0	8	28
04:30 PM	1	0	2	0	3	0	0	1	0	1	0	6	1	0	7	0	7	4	0	11	22
04:45 PM	2	0	2	0	4	3	0	2	0	5	0	2	0	0	2	0	2	0	0	2	13
Total	7	3	10	0	20	3	2	5	0	10	1	20	3	0	24	2	18	14	0	34	88
05:00 PM	3	2	0	0	5	2	0	1	0	3	1	6	0	0	7	0	2	0	0	2	17
05:15 PM	3	0	1	0	4	0	1	0	0	1	1	4	0	0	5	0	0	2	0	2	12
05:30 PM	3	1	1	0	5	0	0	1	0	1	1	3	0	0	4	1	2	3	0	6	16
05:45 PM	1	0	0	0	1	0	0	0	0	0	0	1	0	0	1	1	4	0	0	5	7
Total	10	3	2	0	15	2	1	2	0	5	3	14	0	0	17	2	8	5	0	15	52
Grand Total	17	6	12	0	35	5	3	7	0	15	4	34	3	0	41	4	26	19	0	49	140
Apprch %	48.6	17.1	34.3	0		33.3	20	46.7	0		9.8	82.9	7.3	0		8.2	53.1	38.8	0		
Total %	12.1	4.3	8.6	0	25	3.6	2.1	5	0	10.7	2.9	24.3	2.1	0	29.3	2.9	18.6	13.6	0	35	

	Ashcake Rd Eastbound				Ashcake Rd Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	1	1	0	2	0	**1**	1	2	0	**6**	**2**	**8**	**2**	5	**6**	**13**	25
04:15 PM	**3**	**2**	**6**	**11**	0	1	1	2	**1**	6	0	7	0	4	4	8	**28**
04:30 PM	1	0	2	3	0	0	1	1	0	6	1	7	0	**7**	4	11	22
04:45 PM	2	0	2	4	**3**	0	**2**	**5**	0	2	0	2	0	2	0	2	13
Total Volume	7	3	10	20	3	2	5	10	1	20	3	24	2	18	14	34	88
% App. Total	35	15	50		30	20	50		4.2	83.3	12.5		5.9	52.9	41.2		
PHF	.583	.375	.417	.455	.250	.500	.625	.500	.250	.833	.375	.750	.250	.643	.583	.654	.786

Peggy Malone & Associates
(888) 247-8602

File Name : 15-Washington St and Ashcake Rd PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Ashcake Rd Eastbound					Ashcake Rd Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	24	43	21	0	88	29	46	38	0	113	34	127	25	0	186	19	129	41	0	189	576
04:15 PM	47	36	31	0	114	25	37	47	2	111	50	119	17	0	186	27	103	44	0	174	585
04:30 PM	31	28	21	0	80	26	44	34	0	104	55	143	20	0	218	19	134	45	0	198	600
04:45 PM	43	30	26	0	99	26	58	38	0	122	63	155	26	0	244	30	92	34	0	156	621
Total	145	137	99	0	381	106	185	157	2	450	202	544	88	0	834	95	458	164	0	717	2382
05:00 PM	50	46	23	0	119	15	51	40	0	106	77	158	33	0	268	22	130	60	0	212	705
05:15 PM	57	30	27	1	115	23	63	23	0	109	59	155	24	0	238	18	68	51	0	137	599
05:30 PM	38	33	31	0	102	22	44	33	0	99	39	112	19	0	170	14	90	31	0	135	506
05:45 PM	47	32	27	0	106	17	49	18	0	84	42	95	20	0	157	15	72	34	0	121	468
Total	192	141	108	1	442	77	207	114	0	398	217	520	96	0	833	69	360	176	0	605	2278
Grand Total	337	278	207	1	823	183	392	271	2	848	419	1064	184	0	1667	164	818	340	0	1322	4660
Apprch %	40.9	33.8	25.2	0.1		21.6	46.2	32	0.2		25.1	63.8	11	0		12.4	61.9	25.7	0		
Total %	7.2	6	4.4	0	17.7	3.9	8.4	5.8	0	18.2	9	22.8	3.9	0	35.8	3.5	17.6	7.3	0	28.4	

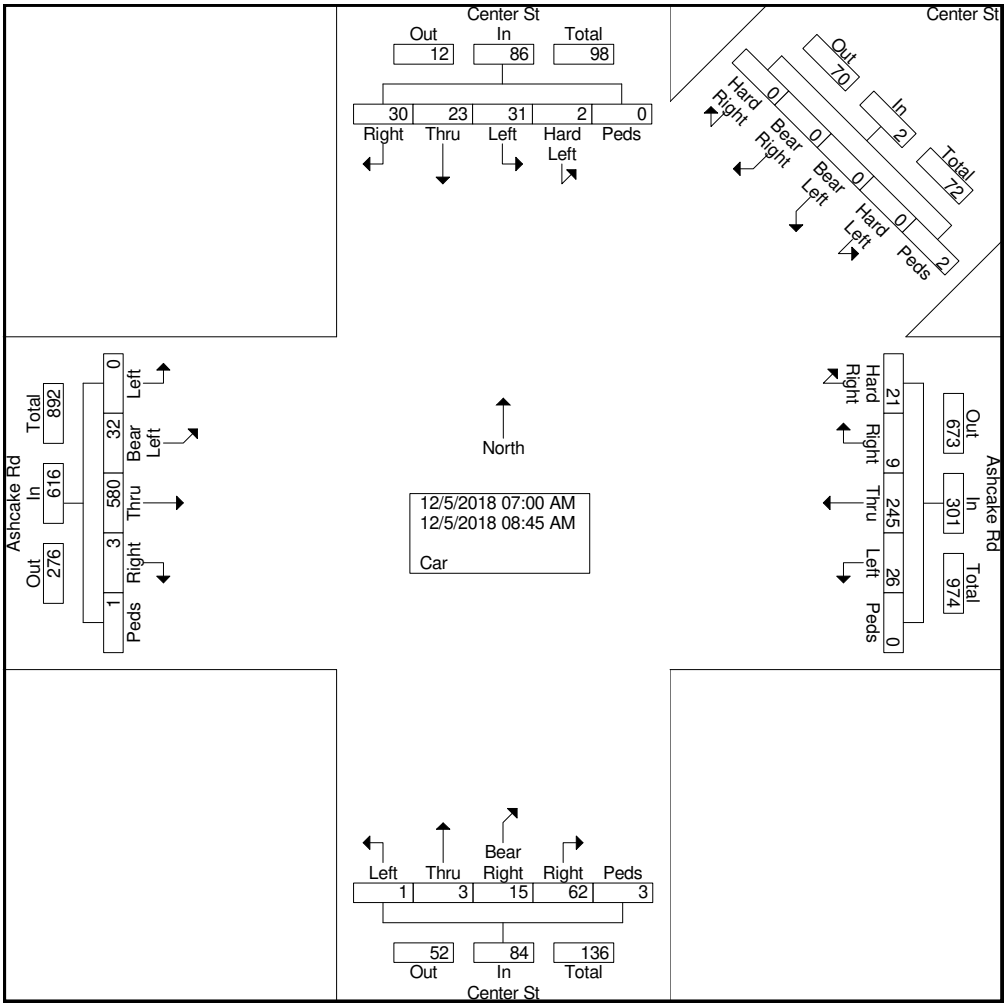
	Ashcake Rd Eastbound				Ashcake Rd Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	31	28	21	80	**26**	44	34	104	55	143	20	218	19	**134**	45	198	600
04:45 PM	43	30	26	99	26	58	38	**122**	63	155	26	244	**30**	92	34	156	621
05:00 PM	50	**46**	23	**119**	15	51	**40**	106	**77**	**158**	**33**	**268**	22	130	**60**	**212**	**705**
05:15 PM	**57**	30	**27**	114	23	**63**	23	109	59	155	24	238	18	68	51	137	598
Total Volume	181	134	97	412	90	216	135	441	254	611	103	968	89	424	190	703	2524
% App. Total	43.9	32.5	23.5		20.4	49	30.6		26.2	63.1	10.6		12.7	60.3	27		
PHF	.794	.728	.898	.866	.865	.857	.844	.904	.825	.967	.780	.903	.742	.791	.792	.829	.895

Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Ashcake Rd Eastbound						Ashcake Rd Westbound						Center St Northbound						Center St Southbound						Center St Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
07:00 AM	0	2	67	0	0	69	6	22	1	2	0	31	0	0	0	6	2	8	0	0	1	0	0	1	0	0	0	0	1	1	110
07:15 AM	0	3	94	0	0	97	4	38	2	0	0	44	0	0	0	7	0	7	0	4	5	6	0	15	0	0	0	0	0	0	163
07:30 AM	0	5	72	0	0	77	2	49	2	2	0	55	1	2	2	10	0	15	0	3	2	4	0	9	0	0	0	0	0	0	156
07:45 AM	0	2	80	0	1	83	4	29	1	1	0	35	0	0	2	12	0	14	1	9	2	5	0	17	0	0	0	0	0	0	149
Total	0	12	313	0	1	326	16	138	6	5	0	165	1	2	4	35	2	44	1	16	10	15	0	42	0	0	0	0	1	1	578
08:00 AM	0	6	78	0	0	84	3	34	0	4	0	41	0	0	1	9	0	10	1	0	3	3	0	7	0	0	0	0	0	0	142
08:15 AM	0	3	82	2	0	87	1	22	3	6	0	32	0	1	3	3	1	8	0	5	2	3	0	10	0	0	0	0	1	1	138
08:30 AM	0	7	57	1	0	65	3	22	0	1	0	26	0	0	4	8	0	12	0	3	5	4	0	12	0	0	0	0	0	0	115
08:45 AM	0	4	50	0	0	54	3	29	0	5	0	37	0	0	3	7	0	10	0	7	3	5	0	15	0	0	0	0	0	0	116
Total	0	20	267	3	0	290	10	107	3	16	0	136	0	1	11	27	1	40	1	15	13	15	0	44	0	0	0	0	1	1	511
Grand Total	0	32	580	3	1	616	26	245	9	21	0	301	1	3	15	62	3	84	2	31	23	30	0	86	0	0	0	0	2	2	1089
Apprch %	0	5.2	94.2	0.5	0.2		8.6	81.4	3	7	0		1.2	3.6	17.9	73.8	3.6		2.3	36	26.7	34.9	0		0	0	0	0	100		
Total %	0	2.9	53.3	0.3	0.1	56.6	2.4	22.5	0.8	1.9	0	27.6	0.1	0.3	1.4	5.7	0.3	7.7	0.2	2.8	2.1	2.8	0	7.9	0	0	0	0	0.2	0.2	



Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. AM
Site Code :
Start Date : 12/5/2018
Page No : 2

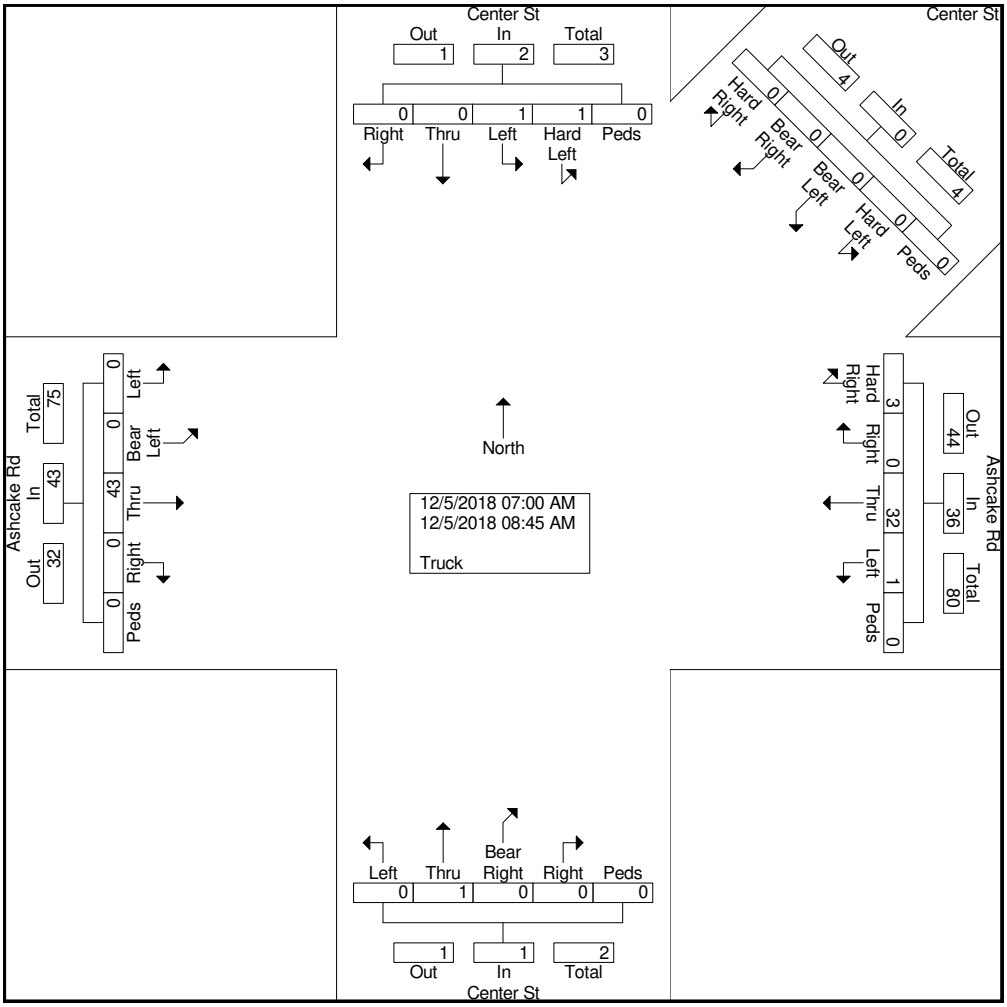
	Ashcake Rd Eastbound					Ashcake Rd Westbound					Center St Northbound					Center St Southbound					Center St Southwestbound					
Start Time	Left	Bear Left	Thru	Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:15 AM																										
07:15 AM	0	3	**94**	0	**97**	**4**	38	**2**	0	44	0	0	0	7	7	0	4	**5**	**6**	15	0	0	0	0	0	**163**
07:30 AM	0	5	72	0	77	2	**49**	2	2	**55**	**1**	**2**	**2**	10	**15**	0	3	2	4	9	0	0	0	0	0	156
07:45 AM	0	2	80	0	82	4	29	1	1	35	0	0	2	**12**	14	**1**	**9**	2	5	**17**	0	0	0	0	0	148
08:00 AM	0	**6**	78	0	84	3	34	0	**4**	41	0	0	1	9	10	1	0	3	3	7	0	0	0	0	0	142
Total Volume	0	16	324	0	340	13	150	5	7	175	1	2	5	38	46	2	16	12	18	48	0	0	0	0	0	609
% App. Total	0	4.7	95.3	0		7.4	85.7	2.9	4		2.2	4.3	10.9	82.6		4.2	33.3	25	37.5		0	0	0	0		
PHF	.000	.667	.862	.000	.876	.813	.765	.625	.438	.795	.250	.250	.625	.792	.767	.500	.444	.600	.750	.706	.000	.000	.000	.000	.000	.934

Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Ashcake Rd Eastbound						Ashcake Rd Westbound						Center St Northbound						Center St Southbound						Center St Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
07:00 AM	0	0	3	0	0	3	0	1	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5
07:15 AM	0	0	4	0	0	4	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
07:30 AM	0	0	5	0	0	5	1	3	0	1	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
07:45 AM	0	0	8	0	0	8	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
Total	0	0	20	0	0	20	1	11	0	1	0	13	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	34
08:00 AM	0	0	4	0	0	4	0	7	0	1	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
08:15 AM	0	0	4	0	0	4	0	5	0	1	0	6	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	11
08:30 AM	0	0	9	0	0	9	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	11
08:45 AM	0	0	6	0	0	6	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
Total	0	0	23	0	0	23	0	21	0	2	0	23	0	0	0	0	0	0	1	1	0	0	0	2	0	0	0	0	0	0	48
Grand Total	0	0	43	0	0	43	1	32	0	3	0	36	0	1	0	0	0	1	1	1	0	0	0	2	0	0	0	0	0	0	82
Apprch %	0	0	100	0	0		2.8	88.9	0	8.3	0		0	100	0	0	0		50	50	0	0	0		0	0	0	0	0		
Total %	0	0	52.4	0	0	52.4	1.2	39	0	3.7	0	43.9	0	1.2	0	0	0	1.2	1.2	1.2	0	0	0	2.4	0	0	0	0	0	0	



Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. AM
Site Code :
Start Date : 12/5/2018
Page No : 2

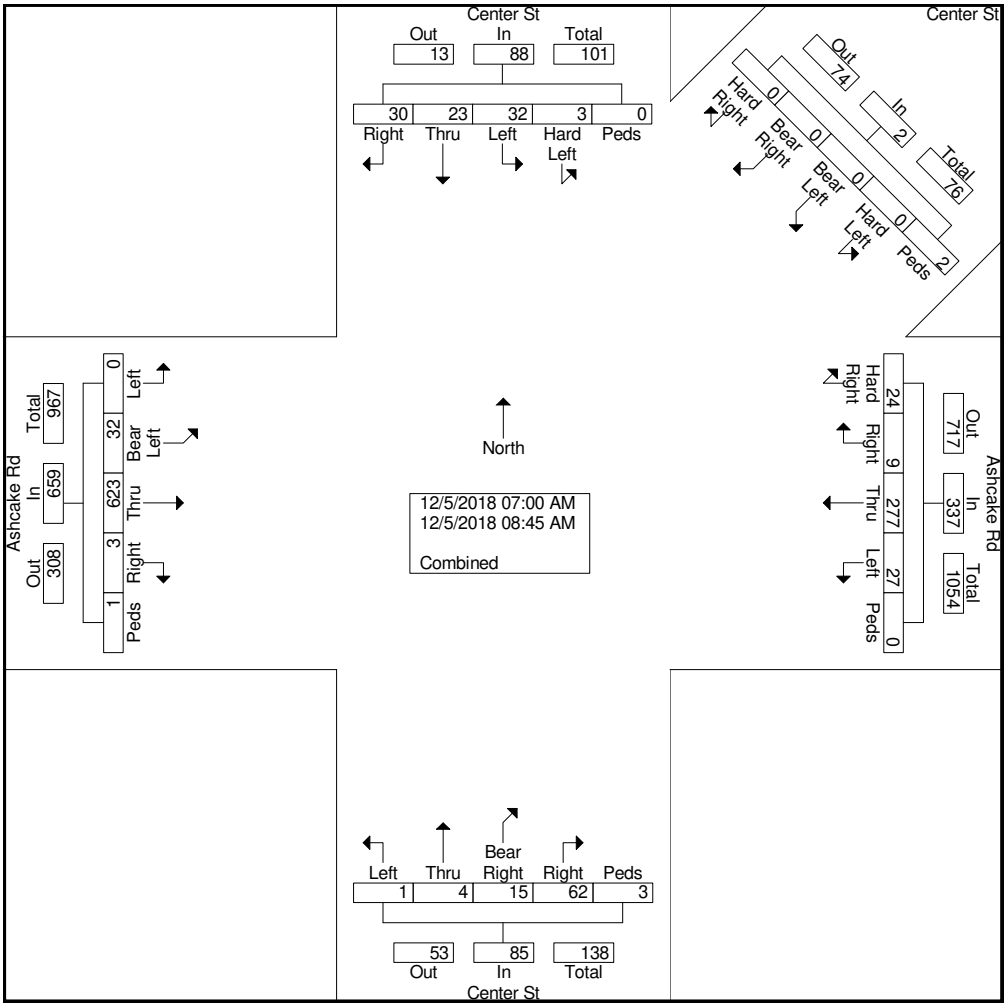
	Ashcake Rd Eastbound					Ashcake Rd Westbound					Center St Northbound					Center St Southbound					Center St Southwestbound					
Start Time	Left	Bear Left	Thru	Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 08:00 AM																										
08:00 AM	0	0	4	0	4	0	7	0	**1**	**8**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
08:15 AM	0	0	4	0	4	0	5	0	1	6	0	0	0	0	0	**1**	0	0	0	**1**	0	0	0	0	0	11
08:30 AM	0	0	**9**	0	**9**	0	1	0	0	1	0	0	0	0	0	0	**1**	0	0	1	0	0	0	0	0	11
08:45 AM	0	0	6	0	6	0	**8**	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**14**
Total Volume	0	0	23	0	23	0	21	0	2	23	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	48
% App. Total	0	0	100	0		0	91.3	0	8.7		0	0	0	0		50	50	0	0		0	0	0	0		
PHF	.000	.000	.639	.000	.639	.000	.656	.000	.500	.719	.000	.000	.000	.000	.000	.250	.250	.000	.000	.500	.000	.000	.000	.000	.000	.857

Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Ashcake Rd Eastbound						Ashcake Rd Westbound						Center St Northbound						Center St Southbound						Center St Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
07:00 AM	0	2	70	0	0	72	6	23	1	2	0	32	0	1	0	6	2	9	0	0	1	0	0	1	0	0	0	0	1	1	115
07:15 AM	0	3	98	0	0	101	4	43	2	0	0	49	0	0	0	7	0	7	0	4	5	6	0	15	0	0	0	0	0	0	172
07:30 AM	0	5	77	0	0	82	3	52	2	3	0	60	1	2	2	10	0	15	0	3	2	4	0	9	0	0	0	0	0	0	166
07:45 AM	0	2	88	0	1	91	4	31	1	1	0	37	0	0	2	12	0	14	1	9	2	5	0	17	0	0	0	0	0	0	159
Total	0	12	333	0	1	346	17	149	6	6	0	178	1	3	4	35	2	45	1	16	10	15	0	42	0	0	0	0	1	1	612
08:00 AM	0	6	82	0	0	88	3	41	0	5	0	49	0	0	1	9	0	10	1	0	3	3	0	7	0	0	0	0	0	0	154
08:15 AM	0	3	86	2	0	91	1	27	3	7	0	38	0	1	3	3	1	8	1	5	2	3	0	11	0	0	0	0	1	1	149
08:30 AM	0	7	66	1	0	74	3	23	0	1	0	27	0	0	4	8	0	12	0	4	5	4	0	13	0	0	0	0	0	0	126
08:45 AM	0	4	56	0	0	60	3	37	0	5	0	45	0	0	3	7	0	10	0	7	3	5	0	15	0	0	0	0	0	0	130
Total	0	20	290	3	0	313	10	128	3	18	0	159	0	1	11	27	1	40	2	16	13	15	0	46	0	0	0	0	1	1	559
Grand Total	0	32	623	3	1	659	27	277	9	24	0	337	1	4	15	62	3	85	3	32	23	30	0	88	0	0	0	0	2	2	1171
Apprch %	0	4.9	94.5	0.5	0.2		8	82.2	2.7	7.1	0		1.2	4.7	17.6	72.9	3.5		3.4	36.4	26.1	34.1	0		0	0	0	0	100		
Total %	0	2.7	53.2	0.3	0.1	56.3	2.3	23.7	0.8	2	0	28.8	0.1	0.3	1.3	5.3	0.3	7.3	0.3	2.7	2	2.6	0	7.5	0	0	0	0	0.2	0.2	



Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. AM
Site Code :
Start Date : 12/5/2018
Page No : 2

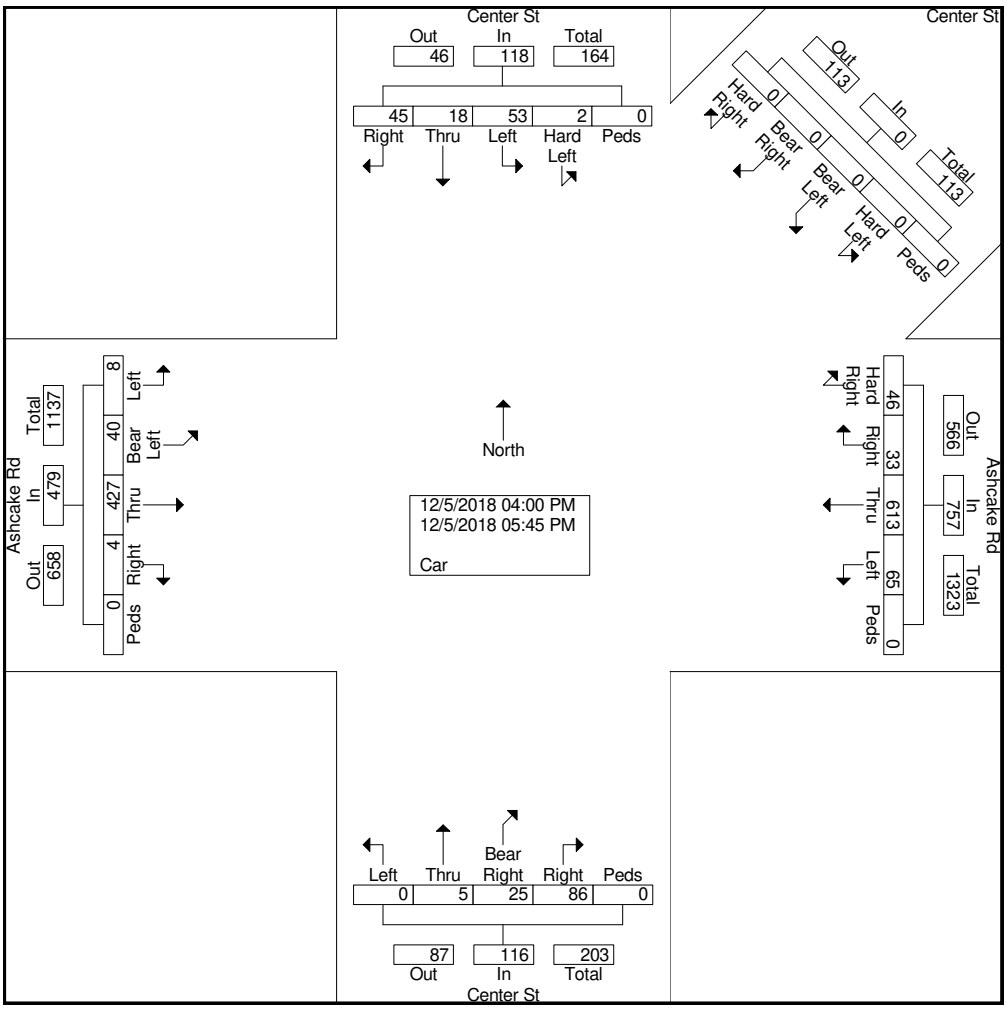
	Ashcake Rd Eastbound					Ashcake Rd Westbound					Center St Northbound					Center St Southbound					Center St Southwestbound					
Start Time	Left	Bear Left	Thru	Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 07:15 AM																										
07:15 AM	0	3	**98**	0	**101**	**4**	43	**2**	0	49	0	0	0	7	7	0	4	**5**	**6**	15	0	0	0	0	0	**172**
07:30 AM	0	5	77	0	82	3	**52**	2	3	**60**	**1**	**2**	**2**	10	**15**	0	3	2	4	9	0	0	0	0	0	166
07:45 AM	0	2	88	0	90	4	31	1	1	37	0	0	2	**12**	14	**1**	**9**	2	5	**17**	0	0	0	0	0	158
08:00 AM	0	**6**	82	0	88	3	41	0	**5**	49	0	0	1	9	10	1	0	3	3	7	0	0	0	0	0	154
Total Volume	0	16	345	0	361	14	167	5	9	195	1	2	5	38	46	2	16	12	18	48	0	0	0	0	0	650
% App. Total	0	4.4	95.6	0		7.2	85.6	2.6	4.6		2.2	4.3	10.9	82.6		4.2	33.3	25	37.5		0	0	0	0		
PHF	.000	.667	.880	.000	.894	.875	.803	.625	.450	.813	.250	.250	.625	.792	.767	.500	.444	.600	.750	.706	.000	.000	.000	.000	.000	.945

Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Ashcake Rd Eastbound						Ashcake Rd Westbound						Center St Northbound						Center St Southbound						Center St Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
04:00 PM	0	4	44	1	0	49	7	55	5	3	0	70	0	0	1	9	0	10	0	3	1	6	0	10	0	0	0	0	0	0	139
04:15 PM	0	4	61	0	0	65	4	68	2	6	0	80	0	3	4	10	0	17	0	8	3	6	0	17	0	0	0	0	0	0	179
04:30 PM	1	6	35	1	0	43	15	70	4	6	0	95	0	0	4	8	0	12	0	8	2	12	0	22	0	0	0	0	0	0	172
04:45 PM	0	3	56	2	0	61	6	81	5	1	0	93	0	1	0	10	0	11	0	10	3	5	0	18	0	0	0	0	0	0	183
Total	1	17	196	4	0	218	32	274	16	16	0	338	0	4	9	37	0	50	0	29	9	29	0	67	0	0	0	0	0	0	673
05:00 PM	4	2	43	0	0	49	10	68	4	6	0	88	0	0	3	9	0	12	0	4	1	10	0	15	0	0	0	0	0	0	164
05:15 PM	1	6	71	0	0	78	9	118	8	8	0	143	0	0	6	12	0	18	1	6	4	2	0	13	0	0	0	0	0	0	252
05:30 PM	1	4	57	0	0	62	9	75	3	9	0	96	0	1	4	21	0	26	0	8	1	4	0	13	0	0	0	0	0	0	197
05:45 PM	1	11	60	0	0	72	5	78	2	7	0	92	0	0	3	7	0	10	1	6	3	0	0	10	0	0	0	0	0	0	184
Total	7	23	231	0	0	261	33	339	17	30	0	419	0	1	16	49	0	66	2	24	9	16	0	51	0	0	0	0	0	0	797
Grand Total	8	40	427	4	0	479	65	613	33	46	0	757	0	5	25	86	0	116	2	53	18	45	0	118	0	0	0	0	0	0	1470
Apprch %	1.7	8.4	89.1	0.8	0		8.6	81	4.4	6.1	0		0	4.3	21.6	74.1	0		1.7	44.9	15.3	38.1	0		0	0	0	0	0		
Total %	0.5	2.7	29	0.3	0	32.6	4.4	41.7	2.2	3.1	0	51.5	0	0.3	1.7	5.9	0	7.9	0.1	3.6	1.2	3.1	0	8	0	0	0	0	0	0	



Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. PM
Site Code :
Start Date : 12/5/2018
Page No : 2

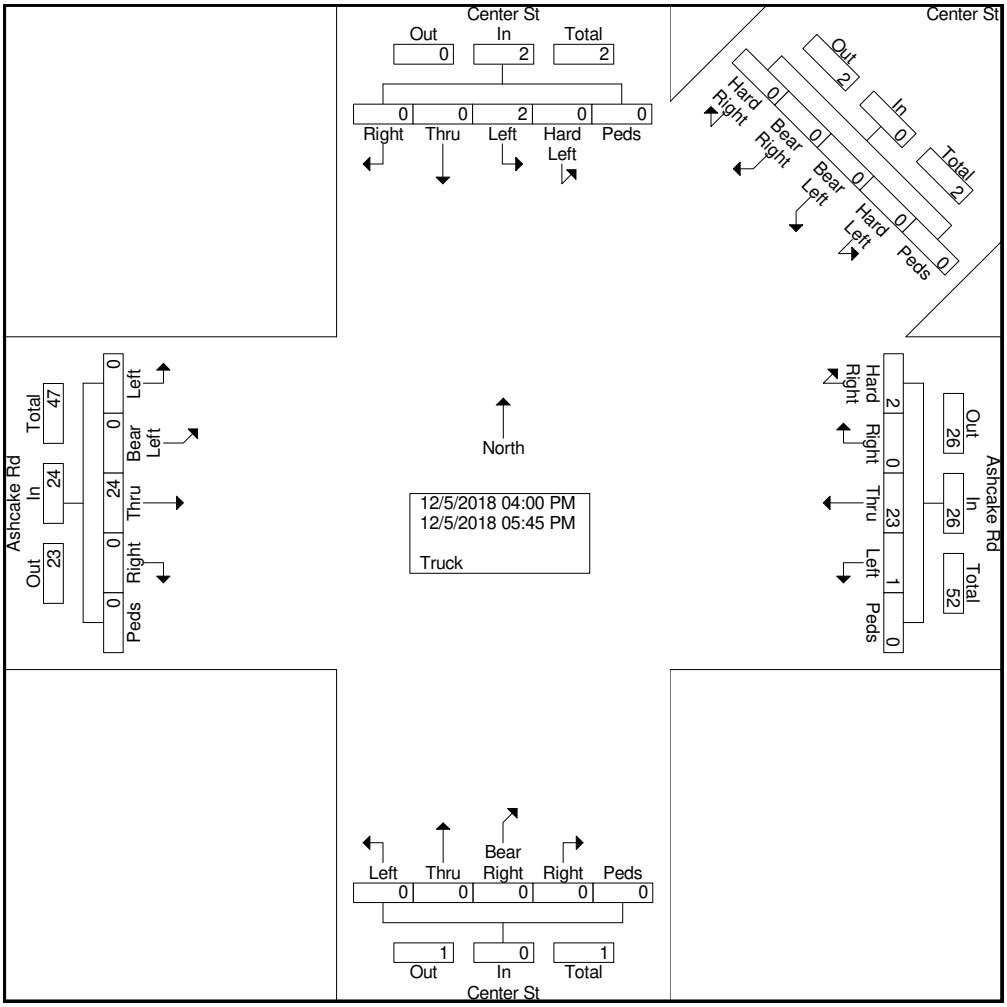
	Ashcake Rd Eastbound					Ashcake Rd Westbound					Center St Northbound					Center St Southbound					Center St Southwestbound					
Start Time	Left	Bear Left	Thru	Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 05:00 PM																										
05:00 PM	**4**	2	43	0	49	**10**	68	4	6	88	0	0	3	9	12	0	4	1	**10**	**15**	0	0	0	0	0	164
05:15 PM	1	6	**71**	0	**78**	9	**118**	**8**	8	**143**	0	0	**6**	12	18	**1**	6	**4**	2	13	0	0	0	0	0	**252**
05:30 PM	1	4	57	0	62	9	75	3	**9**	96	0	**1**	4	**21**	**26**	0	**8**	1	4	13	0	0	0	0	0	197
05:45 PM	1	**11**	60	0	72	5	78	2	7	92	0	0	3	7	10	1	6	3	0	10	0	0	0	0	0	184
Total Volume	7	23	231	0	261	33	339	17	30	419	0	1	16	49	66	2	24	9	16	51	0	0	0	0	0	797
% App. Total	2.7	8.8	88.5	0		7.9	80.9	4.1	7.2		0	1.5	24.2	74.2		3.9	47.1	17.6	31.4		0	0	0	0		
PHF	.438	.523	.813	.000	.837	.825	.718	.531	.833	.733	.000	.250	.667	.583	.635	.500	.750	.563	.400	.850	.000	.000	.000	.000	.000	.791

Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Ashcake Rd Eastbound						Ashcake Rd Westbound						Center St Northbound						Center St Southbound						Center St Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
04:00 PM	0	0	2	0	0	2	1	4	0	0	0	5	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	8
04:15 PM	0	0	6	0	0	6	0	4	0	2	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
04:30 PM	0	0	1	0	0	1	0	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
04:45 PM	0	0	4	0	0	4	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total	0	0	13	0	0	13	1	15	0	2	0	18	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	32
05:00 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	3
05:15 PM	0	0	7	0	0	7	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
05:30 PM	0	0	1	0	0	1	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:45 PM	0	0	1	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	11	0	0	11	0	8	0	0	0	8	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	20
Grand Total	0	0	24	0	0	24	1	23	0	2	0	26	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	52
Apprch %	0	0	100	0	0		3.8	88.5	0	7.7	0		0	0	0	0	0		0	100	0	0	0		0	0	0	0	0		
Total %	0	0	46.2	0	0	46.2	1.9	44.2	0	3.8	0	50	0	0	0	0	0	0	0	3.8	0	0	0	3.8	0	0	0	0	0	0	



Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. PM
Site Code :
Start Date : 12/5/2018
Page No : 2

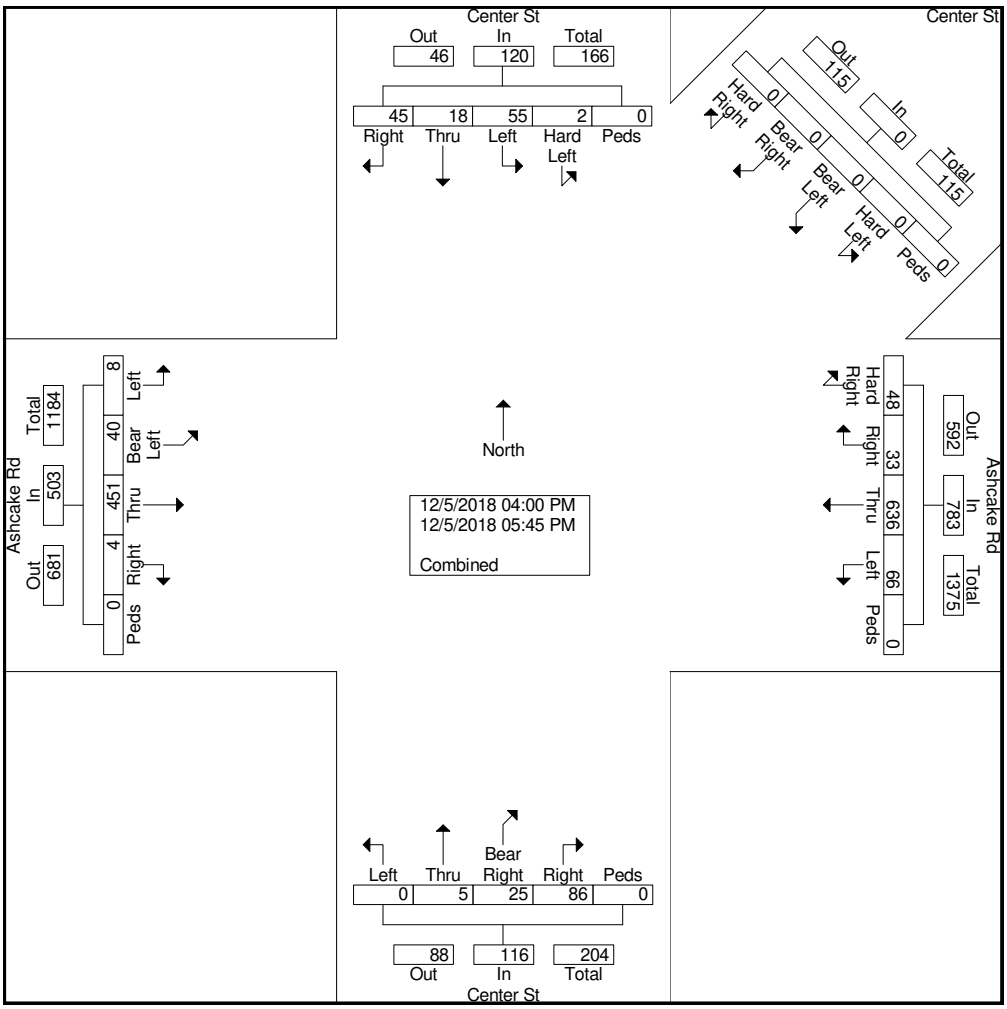
	Ashcake Rd Eastbound					Ashcake Rd Westbound					Center St Northbound					Center St Southbound					Center St Southwestbound					
Start Time	Left	Bear Left	Thru	Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:00 PM																										
04:00 PM	0	0	2	0	2	**1**	4	0	0	5	0	0	0	0	0	0	**1**	0	0	**1**	0	0	0	0	0	8
04:15 PM	0	0	**6**	0	**6**	0	4	0	**2**	**6**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**12**
04:30 PM	0	0	1	0	1	0	**6**	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
04:45 PM	0	0	4	0	4	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Total Volume	0	0	13	0	13	1	15	0	2	18	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	32
% App. Total	0	0	100	0		5.6	83.3	0	11.1		0	0	0	0		0	100	0	0		0	0	0	0		
PHF	.000	.000	.542	.000	.542	.250	.625	.000	.250	.750	.000	.000	.000	.000	.000	.000	.250	.000	.000	.250	.000	.000	.000	.000	.000	.667

Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Ashcake Rd Eastbound						Ashcake Rd Westbound						Center St Northbound						Center St Southbound						Center St Southwestbound						
Start Time	Left	Bear Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Hard Right	Peds	App. Total	Left	Thru	Bear Right	Right	Peds	App. Total	Hard Left	Left	Thru	Right	Peds	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	Peds	App. Total	Int. Total
04:00 PM	0	4	46	1	0	51	8	59	5	3	0	75	0	0	1	9	0	10	0	4	1	6	0	11	0	0	0	0	0	0	147
04:15 PM	0	4	67	0	0	71	4	72	2	8	0	86	0	3	4	10	0	17	0	8	3	6	0	17	0	0	0	0	0	0	191
04:30 PM	1	6	36	1	0	44	15	76	4	6	0	101	0	0	4	8	0	12	0	8	2	12	0	22	0	0	0	0	0	0	179
04:45 PM	0	3	60	2	0	65	6	82	5	1	0	94	0	1	0	10	0	11	0	10	3	5	0	18	0	0	0	0	0	0	188
Total	1	17	209	4	0	231	33	289	16	18	0	356	0	4	9	37	0	50	0	30	9	29	0	68	0	0	0	0	0	0	705
05:00 PM	4	2	45	0	0	51	10	68	4	6	0	88	0	0	3	9	0	12	0	5	1	10	0	16	0	0	0	0	0	0	167
05:15 PM	1	6	78	0	0	85	9	122	8	8	0	147	0	0	6	12	0	18	1	6	4	2	0	13	0	0	0	0	0	0	263
05:30 PM	1	4	58	0	0	63	9	78	3	9	0	99	0	1	4	21	0	26	0	8	1	4	0	13	0	0	0	0	0	0	201
05:45 PM	1	11	61	0	0	73	5	79	2	7	0	93	0	0	3	7	0	10	1	6	3	0	0	10	0	0	0	0	0	0	186
Total	7	23	242	0	0	272	33	347	17	30	0	427	0	1	16	49	0	66	2	25	9	16	0	52	0	0	0	0	0	0	817
Grand Total	8	40	451	4	0	503	66	636	33	48	0	783	0	5	25	86	0	116	2	55	18	45	0	120	0	0	0	0	0	0	1522
Apprch %	1.6	8	89.7	0.8	0		8.4	81.2	4.2	6.1	0		0	4.3	21.6	74.1	0		1.7	45.8	15	37.5	0		0	0	0	0	0		
Total %	0.5	2.6	29.6	0.3	0	33	4.3	41.8	2.2	3.2	0	51.4	0	0.3	1.6	5.7	0	7.6	0.1	3.6	1.2	3	0	7.9	0	0	0	0	0	0	



Peggy Malone & Associates
(888) 247-8602

File Name : 16-Center St. & Ashcake Rd. PM
Site Code :
Start Date : 12/5/2018
Page No : 2

	Ashcake Rd Eastbound					Ashcake Rd Westbound					Center St Northbound					Center St Southbound					Center St Southwestbound					
Start Time	Left	Bear Left	Thru	Right	App. Total	Left	Thru	Right	Hard Right	App. Total	Left	Thru	Bear Right	Right	App. Total	Hard Left	Left	Thru	Right	App. Total	Hard Left	Bear Left	Bear Right	Hard Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																										
Peak Hour for Entire Intersection Begins at 04:45 PM																										
04:45 PM	0	3	60	**2**	65	6	82	5	1	94	0	**1**	0	10	11	0	**10**	3	5	**18**	0	0	0	0	0	188
05:00 PM	**4**	2	45	0	51	**10**	68	4	6	88	0	0	3	9	12	0	5	1	**10**	16	0	0	0	0	0	167
05:15 PM	1	**6**	**78**	0	**85**	9	**122**	**8**	8	**147**	0	0	**6**	12	18	**1**	6	**4**	2	13	0	0	0	0	0	**263**
05:30 PM	1	4	58	0	63	9	78	3	**9**	99	0	1	4	**21**	**26**	0	8	1	4	13	0	0	0	0	0	201
Total Volume	6	15	241	2	264	34	350	20	24	428	0	2	13	52	67	1	29	9	21	60	0	0	0	0	0	819
% App. Total	2.3	5.7	91.3	0.8		7.9	81.8	4.7	5.6		0	3	19.4	77.6		1.7	48.3	15	35		0	0	0	0		
PHF	.375	.625	.772	.250	.776	.850	.717	.625	.667	.728	.000	.500	.542	.619	.644	.250	.725	.563	.525	.833	.000	.000	.000	.000	.000	.779

Peggy Malone & Associates
(888) 247-8602

File Name : 17-Washington Hwy and Berkeley St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Berkeley St Eastbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	4	0	5	4	118	0	122	109	0	0	109	236
07:15 AM	0	5	0	5	17	126	0	143	128	0	0	128	276
07:30 AM	0	10	0	10	19	90	0	109	155	1	0	156	275
07:45 AM	2	6	0	8	31	111	0	142	140	2	0	142	292
Total	3	25	0	28	71	445	0	516	532	3	0	535	1079
08:00 AM	0	4	0	4	13	95	0	108	124	2	0	126	238
08:15 AM	1	8	0	9	8	80	0	88	92	0	0	92	189
08:30 AM	1	6	0	7	4	61	0	65	86	0	0	86	158
08:45 AM	0	5	0	5	10	59	0	69	87	0	0	87	161
Total	2	23	0	25	35	295	0	330	389	2	0	391	746
Grand Total	5	48	0	53	106	740	0	846	921	5	0	926	1825
Apprch %	9.4	90.6	0		12.5	87.5	0		99.5	0.5	0		
Total %	0.3	2.6	0	2.9	5.8	40.5	0	46.4	50.5	0.3	0	50.7	

	Berkeley St Eastbound			Washington Hwy Northbound			Washington Hwy Southbound			
Start Time	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	5	5	17	**126**	**143**	128	0	128	276
07:30 AM	0	**10**	**10**	19	90	109	**155**	1	**156**	275
07:45 AM	**2**	6	8	**31**	111	142	140	**2**	142	**292**
08:00 AM	0	4	4	13	95	108	124	2	126	238
Total Volume	2	25	27	80	422	502	547	5	552	1081
% App. Total	7.4	92.6		15.9	84.1		99.1	0.9		
PHF	.250	.625	.675	.645	.837	.878	.882	.625	.885	.926

Peggy Malone & Associates
(888) 247-8602

File Name : 17-Washington Hwy and Berkeley St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Berkeley St Eastbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	1	0	1	0	6	0	6	12	0	0	12	19
07:15 AM	0	0	0	0	0	12	0	12	9	1	0	10	22
07:30 AM	0	0	0	0	0	16	0	16	10	0	0	10	26
07:45 AM	0	0	0	0	1	9	0	10	10	0	0	10	20
Total	0	1	0	1	1	43	0	44	41	1	0	42	87
08:00 AM	0	1	0	1	0	14	0	14	13	0	0	13	28
08:15 AM	0	1	0	1	1	8	0	9	13	0	0	13	23
08:30 AM	0	1	0	1	0	16	0	16	14	0	0	14	31
08:45 AM	0	1	0	1	1	13	0	14	14	2	0	16	31
Total	0	4	0	4	2	51	0	53	54	2	0	56	113
Grand Total	0	5	0	5	3	94	0	97	95	3	0	98	200
Apprch %	0	100	0		3.1	96.9	0		96.9	3.1	0		
Total %	0	2.5	0	2.5	1.5	47	0	48.5	47.5	1.5	0	49	

	Berkeley St Eastbound			Washington Hwy Northbound			Washington Hwy Southbound			
Start Time	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 08:00 AM										
08:00 AM	0	**1**	**1**	0	14	14	13	0	13	28
08:15 AM	0	1	1	**1**	8	9	13	0	13	23
08:30 AM	0	1	1	0	**16**	**16**	**14**	0	14	**31**
08:45 AM	0	1	1	1	13	14	14	**2**	**16**	31
Total Volume	0	4	4	2	51	53	54	2	56	113
% App. Total	0	100		3.8	96.2		96.4	3.6		
PHF	.000	1.00	1.00	.500	.797	.828	.964	.250	.875	.911

Peggy Malone & Associates
(888) 247-8602

File Name : 17-Washington Hwy and Berkeley St AM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Berkeley St Eastbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	5	0	6	4	124	0	128	121	0	0	121	255
07:15 AM	0	5	0	5	17	138	0	155	137	1	0	138	298
07:30 AM	0	10	0	10	19	106	0	125	165	1	0	166	301
07:45 AM	2	6	0	8	32	120	0	152	150	2	0	152	312
Total	3	26	0	29	72	488	0	560	573	4	0	577	1166
08:00 AM	0	5	0	5	13	109	0	122	137	2	0	139	266
08:15 AM	1	9	0	10	9	88	0	97	105	0	0	105	212
08:30 AM	1	7	0	8	4	77	0	81	100	0	0	100	189
08:45 AM	0	6	0	6	11	72	0	83	101	2	0	103	192
Total	2	27	0	29	37	346	0	383	443	4	0	447	859
Grand Total	5	53	0	58	109	834	0	943	1016	8	0	1024	2025
Apprch %	8.6	91.4	0		11.6	88.4	0		99.2	0.8	0		
Total %	0.2	2.6	0	2.9	5.4	41.2	0	46.6	50.2	0.4	0	50.6	

	Berkeley St Eastbound			Washington Hwy Northbound			Washington Hwy Southbound			
Start Time	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM										
07:15 AM	0	5	5	17	**138**	**155**	137	1	138	298
07:30 AM	0	**10**	**10**	19	106	125	**165**	1	**166**	301
07:45 AM	**2**	6	8	**32**	120	152	150	**2**	152	**312**
08:00 AM	0	5	5	13	109	122	137	2	139	266
Total Volume	2	26	28	81	473	554	589	6	595	1177
% App. Total	7.1	92.9		14.6	85.4		99	1		
PHF	.250	.650	.700	.633	.857	.894	.892	.750	.896	.943

Peggy Malone & Associates
(888) 247-8602

File Name : 17-Washington Hwy and Berkeley St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Car

	Berkeley St Eastbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	1	10	0	11	8	145	0	153	128	1	0	129	293
04:15 PM	0	12	0	12	9	118	0	127	116	2	0	118	257
04:30 PM	2	28	0	30	5	154	0	159	162	0	0	162	351
04:45 PM	1	25	0	26	10	146	0	156	123	0	0	123	305
Total	4	75	0	79	32	563	0	595	529	3	0	532	1206
05:00 PM	1	14	0	15	13	155	0	168	168	0	0	168	351
05:15 PM	1	22	0	23	15	147	0	162	104	1	0	105	290
05:30 PM	1	19	0	20	9	142	0	151	91	0	0	91	262
05:45 PM	0	13	0	13	7	119	0	126	82	1	0	83	222
Total	3	68	0	71	44	563	0	607	445	2	0	447	1125
Grand Total	7	143	0	150	76	1126	0	1202	974	5	0	979	2331
Apprch %	4.7	95.3	0		6.3	93.7	0		99.5	0.5	0		
Total %	0.3	6.1	0	6.4	3.3	48.3	0	51.6	41.8	0.2	0	42	

	Berkeley St Eastbound			Washington Hwy Northbound			Washington Hwy Southbound			
Start Time	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**2**	**28**	**30**	5	154	159	162	0	162	**351**
04:45 PM	1	25	26	10	146	156	123	0	123	305
05:00 PM	1	14	15	13	**155**	**168**	**168**	0	**168**	351
05:15 PM	1	22	23	**15**	147	162	104	**1**	105	290
Total Volume	5	89	94	43	602	645	557	1	558	1297
% App. Total	5.3	94.7		6.7	93.3		99.8	0.2		
PHF	.625	.795	.783	.717	.971	.960	.829	.250	.830	.924

Peggy Malone & Associates
(888) 247-8602

File Name : 17-Washington Hwy and Berkeley St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Truck

	Berkeley St Eastbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	2	0	2	0	10	0	10	8	0	0	8	20
04:15 PM	0	0	0	0	0	8	0	8	5	0	0	5	13
04:30 PM	0	0	0	0	0	7	0	7	8	0	0	8	15
04:45 PM	0	0	0	0	0	9	0	9	4	0	0	4	13
Total	0	2	0	2	0	34	0	34	25	0	0	25	61
05:00 PM	0	0	0	0	0	11	0	11	1	1	0	2	13
05:15 PM	0	0	0	0	0	7	0	7	8	0	0	8	15
05:30 PM	0	0	0	0	0	8	0	8	2	0	0	2	10
05:45 PM	0	0	0	0	0	6	0	6	6	0	0	6	12
Total	0	0	0	0	0	32	0	32	17	1	0	18	50
Grand Total	0	2	0	2	0	66	0	66	42	1	0	43	111
Apprch %	0	100	0		0	100	0		97.7	2.3	0		
Total %	0	1.8	0	1.8	0	59.5	0	59.5	37.8	0.9	0	38.7	

	Berkeley St Eastbound			Washington Hwy Northbound			Washington Hwy Southbound			
Start Time	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:00 PM										
04:00 PM	0	**2**	**2**	0	**10**	**10**	**8**	0	**8**	**20**
04:15 PM	0	0	0	0	8	8	5	0	5	13
04:30 PM	0	0	0	0	7	7	8	0	8	15
04:45 PM	0	0	0	0	9	9	4	0	4	13
Total Volume	0	2	2	0	34	34	25	0	25	61
% App. Total	0	100		0	100		100	0		
PHF	.000	.250	.250	.000	.850	.850	.781	.000	.781	.763

Peggy Malone & Associates
(888) 247-8602

File Name : 17-Washington Hwy and Berkeley St PM
Site Code :
Start Date : 12/4/2018
Page No : 1

Groups Printed- Combined

	Berkeley St Eastbound				Washington Hwy Northbound				Washington Hwy Southbound				
Start Time	Left	Right	Peds	App. Total	Left	Thru	Peds	App. Total	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	1	12	0	13	8	155	0	163	136	1	0	137	313
04:15 PM	0	12	0	12	9	126	0	135	121	2	0	123	270
04:30 PM	2	28	0	30	5	161	0	166	170	0	0	170	366
04:45 PM	1	25	0	26	10	155	0	165	127	0	0	127	318
Total	4	77	0	81	32	597	0	629	554	3	0	557	1267
05:00 PM	1	14	0	15	13	166	0	179	169	1	0	170	364
05:15 PM	1	22	0	23	15	154	0	169	112	1	0	113	305
05:30 PM	1	19	0	20	9	150	0	159	93	0	0	93	272
05:45 PM	0	13	0	13	7	125	0	132	88	1	0	89	234
Total	3	68	0	71	44	595	0	639	462	3	0	465	1175
Grand Total	7	145	0	152	76	1192	0	1268	1016	6	0	1022	2442
Apprch %	4.6	95.4	0		6	94	0		99.4	0.6	0		
Total %	0.3	5.9	0	6.2	3.1	48.8	0	51.9	41.6	0.2	0	41.9	

	Berkeley St Eastbound			Washington Hwy Northbound			Washington Hwy Southbound			
Start Time	Left	Right	App. Total	Left	Thru	App. Total	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1										
Peak Hour for Entire Intersection Begins at 04:30 PM										
04:30 PM	**2**	**28**	**30**	5	161	166	**170**	0	**170**	**366**
04:45 PM	1	25	26	10	155	165	127	0	127	318
05:00 PM	1	14	15	13	**166**	**179**	169	**1**	170	364
05:15 PM	1	22	23	**15**	154	169	112	1	113	305
Total Volume	5	89	94	43	636	679	578	2	580	1353
% App. Total	5.3	94.7		6.3	93.7		99.7	0.3		
PHF	.625	.795	.783	.717	.958	.948	.850	.500	.853	.924

Peggy Malone & Associates
(888) 247-8602

File Name : 18-Washingotn St and Pleasant St_Buick N Drive AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Pleasant St Eastbound					Buick Driveway Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	3	0	3	0	0	0	0	0	1	75	0	0	76	0	129	1	0	130	209
07:15 AM	1	0	13	1	15	0	0	0	0	0	0	94	0	0	94	0	141	0	0	141	250
07:30 AM	0	0	5	0	5	0	0	0	0	0	0	87	0	0	87	0	150	2	0	152	244
07:45 AM	1	0	7	0	8	0	0	0	0	0	1	101	0	0	102	0	149	0	0	149	259
Total	2	0	28	1	31	0	0	0	0	0	2	357	0	0	359	0	569	3	0	572	962
08:00 AM	4	0	4	0	8	0	0	0	1	1	3	103	0	0	106	0	115	1	0	116	231
08:15 AM	4	0	11	0	15	0	0	0	0	0	2	93	0	0	95	0	157	0	0	157	267
08:30 AM	0	0	5	0	5	0	0	0	0	0	2	97	0	0	99	0	135	0	0	135	239
08:45 AM	1	0	3	0	4	0	0	0	0	0	2	125	0	0	127	0	98	1	0	99	230
Total	9	0	23	0	32	0	0	0	1	1	9	418	0	0	427	0	505	2	0	507	967
Grand Total	11	0	51	1	63	0	0	0	1	1	11	775	0	0	786	0	1074	5	0	1079	1929
Apprch %	17.5	0	81	1.6		0	0	0	100		1.4	98.6	0	0		0	99.5	0.5	0		
Total %	0.6	0	2.6	0.1	3.3	0	0	0	0.1	0.1	0.6	40.2	0	0	40.7	0	55.7	0.3	0	55.9	

	Pleasant St Eastbound				Buick Driveway Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	5	5	0	0	0	0	0	87	0	87	0	150	**2**	152	244
07:45 AM	1	0	7	8	0	0	0	0	1	101	0	102	0	149	0	149	259
08:00 AM	**4**	0	4	8	0	0	0	0	**3**	**103**	0	**106**	0	115	1	116	230
08:15 AM	4	0	**11**	**15**	0	0	0	0	2	93	0	95	0	**157**	0	**157**	**267**
Total Volume	9	0	27	36	0	0	0	0	6	384	0	390	0	571	3	574	1000
% App. Total	25	0	75		0	0	0		1.5	98.5	0		0	99.5	0.5		
PHF	.563	.000	.614	.600	.000	.000	.000	.000	.500	.932	.000	.920	.000	.909	.375	.914	.936

Peggy Malone & Associates
(888) 247-8602

File Name : 18-Washingotn St and Pleasant St_Buick N Drive AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Pleasant St Eastbound					Buick Driveway Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	11	0	0	11	21
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	5	0	0	6	0	10	1	0	11	17
07:30 AM	1	0	0	0	1	0	0	0	0	0	0	8	0	0	8	0	4	0	0	4	13
07:45 AM	0	0	1	0	1	0	0	0	0	0	1	6	0	0	7	0	11	0	0	11	19
Total	1	0	1	0	2	0	0	0	0	0	2	29	0	0	31	0	36	1	0	37	70
08:00 AM	0	0	1	0	1	0	0	0	0	0	0	8	0	0	8	0	9	0	0	9	18
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	10	0	0	10	23
08:30 AM	0	0	0	0	0	0	0	0	0	0	1	15	0	0	16	0	9	0	0	9	25
08:45 AM	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	0	11	0	0	11	23
Total	0	0	1	0	1	0	0	0	0	0	1	48	0	0	49	0	39	0	0	39	89
Grand Total	1	0	2	0	3	0	0	0	0	0	3	77	0	0	80	0	75	1	0	76	159
Apprch %	33.3	0	66.7	0		0	0	0	0		3.8	96.2	0	0		0	98.7	1.3	0		
Total %	0.6	0	1.3	0	1.9	0	0	0	0	0	1.9	48.4	0	0	50.3	0	47.2	0.6	0	47.8	

	Pleasant St Eastbound				Buick Driveway Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	**1**	**1**	0	0	0	0	0	8	0	8	0	9	0	9	18
08:15 AM	0	0	0	0	0	0	0	0	0	13	0	13	0	10	0	10	23
08:30 AM	0	0	0	0	0	0	0	0	**1**	**15**	0	**16**	0	9	0	9	**25**
08:45 AM	0	0	0	0	0	0	0	0	0	12	0	12	0	**11**	0	**11**	23
Total Volume	0	0	1	1	0	0	0	0	1	48	0	49	0	39	0	39	89
% App. Total	0	0	100		0	0	0		2	98	0		0	100	0		
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.250	.800	.000	.766	.000	.886	.000	.886	.890

Peggy Malone & Associates
(888) 247-8602

File Name : 18-Washingotn St and Pleasant St_Buick N Drive AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Pleasant St Eastbound					Buick Driveway Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	3	0	3	0	0	0	0	0	1	85	0	0	86	0	140	1	0	141	230
07:15 AM	1	0	13	1	15	0	0	0	0	0	1	99	0	0	100	0	151	1	0	152	267
07:30 AM	1	0	5	0	6	0	0	0	0	0	0	95	0	0	95	0	154	2	0	156	257
07:45 AM	1	0	8	0	9	0	0	0	0	0	2	107	0	0	109	0	160	0	0	160	278
Total	3	0	29	1	33	0	0	0	0	0	4	386	0	0	390	0	605	4	0	609	1032
08:00 AM	4	0	5	0	9	0	0	0	1	1	3	111	0	0	114	0	124	1	0	125	249
08:15 AM	4	0	11	0	15	0	0	0	0	0	2	106	0	0	108	0	167	0	0	167	290
08:30 AM	0	0	5	0	5	0	0	0	0	0	3	112	0	0	115	0	144	0	0	144	264
08:45 AM	1	0	3	0	4	0	0	0	0	0	2	137	0	0	139	0	109	1	0	110	253
Total	9	0	24	0	33	0	0	0	1	1	10	466	0	0	476	0	544	2	0	546	1056
Grand Total	12	0	53	1	66	0	0	0	1	1	14	852	0	0	866	0	1149	6	0	1155	2088
Apprch %	18.2	0	80.3	1.5		0	0	0	100		1.6	98.4	0	0		0	99.5	0.5	0		
Total %	0.6	0	2.5	0	3.2	0	0	0	0	0	0.7	40.8	0	0	41.5	0	55	0.3	0	55.3	

	Pleasant St Eastbound				Buick Driveway Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	1	0	8	9	0	0	0	0	2	107	0	109	0	160	0	160	278
08:00 AM	**4**	0	5	9	0	0	0	0	**3**	111	0	114	0	124	**1**	125	248
08:15 AM	4	0	**11**	**15**	0	0	0	0	2	106	0	108	0	**167**	0	**167**	**290**
08:30 AM	0	0	5	5	0	0	0	0	3	**112**	0	**115**	0	144	0	144	264
Total Volume	9	0	29	38	0	0	0	0	10	436	0	446	0	595	1	596	1080
% App. Total	23.7	0	76.3		0	0	0		2.2	97.8	0		0	99.8	0.2		
PHF	.563	.000	.659	.633	.000	.000	.000	.000	.833	.973	.000	.970	.000	.891	.250	.892	.931

Peggy Malone & Associates
(888) 247-8602

File Name : 18-Washingotn St and Pleasant St_Buick N Drive PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Pleasant St Eastbound					Buick Driveway Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	3	0	6	0	9	0	0	0	2	2	11	170	0	0	181	1	170	2	0	173	365
04:15 PM	3	0	6	0	9	0	0	0	1	1	9	201	0	0	210	0	151	1	0	152	372
04:30 PM	4	0	8	1	13	0	0	0	0	0	9	199	0	0	208	0	175	12	0	187	408
04:45 PM	7	0	6	0	13	0	0	0	0	0	5	248	0	0	253	0	141	2	0	143	409
Total	17	0	26	1	44	0	0	0	3	3	34	818	0	0	852	1	637	17	0	655	1554
05:00 PM	1	0	9	0	10	0	0	0	0	0	5	255	0	0	260	0	175	3	0	178	448
05:15 PM	2	0	6	0	8	0	0	0	1	1	6	227	0	0	233	0	136	3	0	139	381
05:30 PM	3	0	1	0	4	0	0	0	1	1	4	189	0	0	193	0	116	4	1	121	319
05:45 PM	2	0	6	0	8	0	0	1	0	1	6	147	0	0	153	0	108	2	0	110	272
Total	8	0	22	0	30	0	0	1	2	3	21	818	0	0	839	0	535	12	1	548	1420
Grand Total	25	0	48	1	74	0	0	1	5	6	55	1636	0	0	1691	1	1172	29	1	1203	2974
Apprch %	33.8	0	64.9	1.4		0	0	16.7	83.3		3.3	96.7	0	0		0.1	97.4	2.4	0.1		
Total %	0.8	0	1.6	0	2.5	0	0	0	0.2	0.2	1.8	55	0	0	56.9	0	39.4	1	0	40.5	

	Pleasant St Eastbound				Buick Driveway Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	4	0	8	12	0	0	0	0	**9**	199	0	208	0	**175**	**12**	**187**	407
04:45 PM	**7**	0	6	**13**	0	0	0	0	5	248	0	253	0	141	2	143	409
05:00 PM	1	0	**9**	10	0	0	0	0	5	**255**	0	**260**	0	175	3	178	**448**
05:15 PM	2	0	6	8	0	0	0	0	6	227	0	233	0	136	3	139	380
Total Volume	14	0	29	43	0	0	0	0	25	929	0	954	0	627	20	647	1644
% App. Total	32.6	0	67.4		0	0	0		2.6	97.4	0		0	96.9	3.1		
PHF	.500	.000	.806	.827	.000	.000	.000	.000	.694	.911	.000	.917	.000	.896	.417	.865	.917

Peggy Malone & Associates
(888) 247-8602

File Name : 18-Washingotn St and Pleasant St_Buick N Drive PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Pleasant St Eastbound					Buick Driveway Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	1	0	1	0	2	0	0	0	0	0	0	7	0	0	7	0	12	0	0	12	21
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	10	0	0	10	0	7	0	0	7	17
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	10	0	0	10	17
04:45 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6	0	2	0	0	2	8
Total	1	0	1	0	2	0	0	0	0	0	0	30	0	0	30	0	31	0	0	31	63
05:00 PM	0	0	0	0	0	0	0	0	0	0	0	12	0	0	12	0	2	0	0	2	14
05:15 PM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	3	0	0	3	8
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	7	0	0	7	0	3	0	0	3	10
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	4	0	0	4	8
Total	0	0	0	0	0	0	0	0	0	0	0	28	0	0	28	0	12	0	0	12	40
Grand Total	1	0	1	0	2	0	0	0	0	0	0	58	0	0	58	0	43	0	0	43	103
Apprch %	50	0	50	0		0	0	0	0		0	100	0	0		0	100	0	0		
Total %	1	0	1	0	1.9	0	0	0	0	0	0	56.3	0	0	56.3	0	41.7	0	0	41.7	

	Pleasant St Eastbound				Buick Driveway Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**1**	0	**1**	**2**	0	0	0	0	0	7	0	7	0	**12**	0	**12**	**21**
04:15 PM	0	0	0	0	0	0	0	0	0	**10**	0	**10**	0	7	0	7	17
04:30 PM	0	0	0	0	0	0	0	0	0	7	0	7	0	10	0	10	17
04:45 PM	0	0	0	0	0	0	0	0	0	6	0	6	0	2	0	2	8
Total Volume	1	0	1	2	0	0	0	0	0	30	0	30	0	31	0	31	63
% App. Total	50	0	50		0	0	0		0	100	0		0	100	0		
PHF	.250	.000	.250	.250	.000	.000	.000	.000	.000	.750	.000	.750	.000	.646	.000	.646	.750

Peggy Malone & Associates
(888) 247-8602

File Name : 18-Washingotn St and Pleasant St_Buick N Drive PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Pleasant St Eastbound					Buick Driveway Westbound					Washington St Northbound					Washington St Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	4	0	7	0	11	0	0	0	2	2	11	177	0	0	188	1	182	2	0	185	386
04:15 PM	3	0	6	0	9	0	0	0	1	1	9	211	0	0	220	0	158	1	0	159	389
04:30 PM	4	0	8	1	13	0	0	0	0	0	9	206	0	0	215	0	185	12	0	197	425
04:45 PM	7	0	6	0	13	0	0	0	0	0	5	254	0	0	259	0	143	2	0	145	417
Total	18	0	27	1	46	0	0	0	3	3	34	848	0	0	882	1	668	17	0	686	1617
05:00 PM	1	0	9	0	10	0	0	0	0	0	5	267	0	0	272	0	177	3	0	180	462
05:15 PM	2	0	6	0	8	0	0	0	1	1	6	232	0	0	238	0	139	3	0	142	389
05:30 PM	3	0	1	0	4	0	0	0	1	1	4	196	0	0	200	0	119	4	1	124	329
05:45 PM	2	0	6	0	8	0	0	1	0	1	6	151	0	0	157	0	112	2	0	114	280
Total	8	0	22	0	30	0	0	1	2	3	21	846	0	0	867	0	547	12	1	560	1460
Grand Total	26	0	49	1	76	0	0	1	5	6	55	1694	0	0	1749	1	1215	29	1	1246	3077
Apprch %	34.2	0	64.5	1.3		0	0	16.7	83.3		3.1	96.9	0	0		0.1	97.5	2.3	0.1		
Total %	0.8	0	1.6	0	2.5	0	0	0	0.2	0.2	1.8	55.1	0	0	56.8	0	39.5	0.9	0	40.5	

	Pleasant St Eastbound				Buick Driveway Westbound				Washington St Northbound				Washington St Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	3	0	6	9	0	0	0	0	**9**	211	0	220	0	158	1	159	388
04:30 PM	4	0	8	12	0	0	0	0	9	206	0	215	0	**185**	**12**	**197**	424
04:45 PM	**7**	0	6	**13**	0	0	0	0	5	254	0	259	0	143	2	145	417
05:00 PM	1	0	**9**	10	0	0	0	0	5	**267**	0	**272**	0	177	3	180	**462**
Total Volume	15	0	29	44	0	0	0	0	28	938	0	966	0	663	18	681	1691
% App. Total	34.1	0	65.9		0	0	0		2.9	97.1	0		0	97.4	2.6		
PHF	.536	.000	.806	.846	.000	.000	.000	.000	.778	.878	.000	.888	.000	.896	.375	.864	.915

Peggy Malone & Associates
(888) 247-8602

File Name : 19-Hill Carter Pkwy and Junction Dr AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Junction Dr Eastbound					Junction Dr Westbound					Hill Carter Pkwy Northbound					Hill Carter Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	2	4	0	8	0	10	6	0	16	1	5	0	0	6	19	10	6	0	35	65
07:15 AM	2	7	7	0	16	0	1	12	0	13	5	9	3	1	18	17	25	4	0	46	93
07:30 AM	3	8	7	2	20	0	2	11	0	13	1	7	1	0	9	13	29	3	0	45	87
07:45 AM	6	4	10	0	20	0	11	16	0	27	4	6	0	1	11	9	26	7	0	42	100
Total	13	21	28	2	64	0	24	45	0	69	11	27	4	2	44	58	90	20	0	168	345
08:00 AM	4	7	5	0	16	0	2	11	0	13	6	14	2	0	22	16	21	4	0	41	92
08:15 AM	1	14	2	2	19	2	10	13	0	25	1	22	1	1	25	20	27	6	1	54	123
08:30 AM	5	13	2	0	20	2	2	18	0	22	4	17	2	1	24	27	15	8	0	50	116
08:45 AM	6	18	8	0	32	3	9	19	0	31	3	9	1	0	13	17	14	3	0	34	110
Total	16	52	17	2	87	7	23	61	0	91	14	62	6	2	84	80	77	21	1	179	441
Grand Total	29	73	45	4	151	7	47	106	0	160	25	89	10	4	128	138	167	41	1	347	786
Apprch %	19.2	48.3	29.8	2.6		4.4	29.4	66.2	0		19.5	69.5	7.8	3.1		39.8	48.1	11.8	0.3		
Total %	3.7	9.3	5.7	0.5	19.2	0.9	6	13.5	0	20.4	3.2	11.3	1.3	0.5	16.3	17.6	21.2	5.2	0.1	44.1	

	Junction Dr Eastbound				Junction Dr Westbound				Hill Carter Pkwy Northbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	4	7	5	16	0	2	11	13	**6**	14	**2**	22	16	21	4	41	92
08:15 AM	1	14	2	17	2	**10**	13	25	1	**22**	1	**24**	20	**27**	6	**53**	**119**
08:30 AM	5	13	2	20	2	2	18	22	4	17	2	23	**27**	15	**8**	50	115
08:45 AM	**6**	**18**	**8**	**32**	**3**	9	**19**	**31**	3	9	1	13	17	14	3	34	110
Total Volume	16	52	17	85	7	23	61	91	14	62	6	82	80	77	21	178	436
% App. Total	18.8	61.2	20		7.7	25.3	67		17.1	75.6	7.3		44.9	43.3	11.8		
PHF	.667	.722	.531	.664	.583	.575	.803	.734	.583	.705	.750	.854	.741	.713	.656	.840	.916

Peggy Malone & Associates
(888) 247-8602

File Name : 19-Hill Carter Pkwy and Junction Dr AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Junction Dr Eastbound					Junction Dr Westbound					Hill Carter Pkwy Northbound					Hill Carter Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	2	0	0	2	6
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	2
07:30 AM	0	0	0	0	0	0	1	1	0	2	0	3	0	0	3	0	2	0	0	2	7
07:45 AM	0	0	0	0	0	0	0	1	0	1	0	5	0	0	5	3	3	0	0	6	12
Total	0	1	0	0	1	0	1	2	0	3	0	11	0	0	11	3	8	1	0	12	27
08:00 AM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	2
08:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
08:30 AM	1	0	0	0	1	0	0	0	0	0	0	3	0	0	3	1	2	0	0	3	7
08:45 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	2
Total	1	0	0	0	1	0	0	2	0	2	1	6	0	0	7	1	3	0	0	4	14
Grand Total	1	1	0	0	2	0	1	4	0	5	1	17	0	0	18	4	11	1	0	16	41
Apprch %	50	50	0	0		0	20	80	0		5.6	94.4	0	0		25	68.8	6.2	0		
Total %	2.4	2.4	0	0	4.9	0	2.4	9.8	0	12.2	2.4	41.5	0	0	43.9	9.8	26.8	2.4	0	39	

	Junction Dr Eastbound				Junction Dr Westbound				Hill Carter Pkwy Northbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	**1**	0	**1**	0	0	0	0	0	3	0	3	0	2	0	2	6
07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	**1**	2	2
07:30 AM	0	0	0	0	0	**1**	**1**	**2**	0	3	0	3	0	2	0	2	7
07:45 AM	0	0	0	0	0	0	1	1	0	**5**	0	**5**	**3**	**3**	0	**6**	**12**
Total Volume	0	1	0	1	0	1	2	3	0	11	0	11	3	8	1	12	27
% App. Total	0	100	0		0	33.3	66.7		0	100	0		25	66.7	8.3		
PHF	.000	.250	.000	.250	.000	.250	.500	.375	.000	.550	.000	.550	.250	.667	.250	.500	.563

Peggy Malone & Associates
(888) 247-8602

File Name : 19-Hill Carter Pkwy and Junction Dr AM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Junction Dr Eastbound					Junction Dr Westbound					Hill Carter Pkwy Northbound					Hill Carter Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	3	4	0	9	0	10	6	0	16	1	8	0	0	9	19	12	6	0	37	71
07:15 AM	2	7	7	0	16	0	1	12	0	13	5	9	3	1	18	17	26	5	0	48	95
07:30 AM	3	8	7	2	20	0	3	12	0	15	1	10	1	0	12	13	31	3	0	47	94
07:45 AM	6	4	10	0	20	0	11	17	0	28	4	11	0	1	16	12	29	7	0	48	112
Total	13	22	28	2	65	0	25	47	0	72	11	38	4	2	55	61	98	21	0	180	372
08:00 AM	4	7	5	0	16	0	2	12	0	14	7	14	2	0	23	16	21	4	0	41	94
08:15 AM	1	14	2	2	19	2	10	13	0	25	1	25	1	1	28	20	27	6	1	54	126
08:30 AM	6	13	2	0	21	2	2	18	0	22	4	20	2	1	27	28	17	8	0	53	123
08:45 AM	6	18	8	0	32	3	9	20	0	32	3	9	1	0	13	17	15	3	0	35	112
Total	17	52	17	2	88	7	23	63	0	93	15	68	6	2	91	81	80	21	1	183	455
Grand Total	30	74	45	4	153	7	48	110	0	165	26	106	10	4	146	142	178	42	1	363	827
Apprch %	19.6	48.4	29.4	2.6		4.2	29.1	66.7	0		17.8	72.6	6.8	2.7		39.1	49	11.6	0.3		
Total %	3.6	8.9	5.4	0.5	18.5	0.8	5.8	13.3	0	20	3.1	12.8	1.2	0.5	17.7	17.2	21.5	5.1	0.1	43.9	

	Junction Dr Eastbound				Junction Dr Westbound				Hill Carter Pkwy Northbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	4	7	5	16	0	2	12	14	**7**	14	**2**	23	16	21	4	41	94
08:15 AM	1	14	2	17	2	**10**	13	25	1	**25**	1	**27**	20	**27**	6	**53**	**122**
08:30 AM	**6**	13	2	21	2	2	18	22	4	20	2	26	**28**	17	**8**	53	122
08:45 AM	6	**18**	**8**	**32**	**3**	9	**20**	**32**	3	9	1	13	17	15	3	35	112
Total Volume	17	52	17	86	7	23	63	93	15	68	6	89	81	80	21	182	450
% App. Total	19.8	60.5	19.8		7.5	24.7	67.7		16.9	76.4	6.7		44.5	44	11.5		
PHF	.708	.722	.531	.672	.583	.575	.788	.727	.536	.680	.750	.824	.723	.741	.656	.858	.922

Peggy Malone & Associates
(888) 247-8602

File Name : 19-Hill Carter Pkwy and Junction Dr PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Car

	Junction Dr Eastbound					Junction Dr Westbound					Hill Carter Pkwy Northbound					Hill Carter Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	10	28	10	0	48	10	39	43	0	92	9	46	3	1	59	35	28	5	0	68	267
04:15 PM	6	27	6	0	39	3	38	41	0	82	6	32	9	1	48	41	15	8	0	64	233
04:30 PM	6	34	12	0	52	4	42	39	0	85	8	36	0	0	44	32	14	14	1	61	242
04:45 PM	8	35	12	0	55	3	21	57	0	81	14	42	8	1	65	36	12	10	0	58	259
Total	30	124	40	0	194	20	140	180	0	340	37	156	20	3	216	144	69	37	1	251	1001
05:00 PM	8	30	10	0	48	2	24	46	0	72	23	54	7	0	84	43	15	16	0	74	278
05:15 PM	17	29	15	0	61	5	28	62	0	95	13	37	4	0	54	41	16	11	0	68	278
05:30 PM	8	26	11	0	45	4	34	43	0	81	7	41	4	1	53	45	15	13	0	73	252
05:45 PM	11	34	6	0	51	6	30	50	0	86	6	30	6	1	43	34	19	8	0	61	241
Total	44	119	42	0	205	17	116	201	0	334	49	162	21	2	234	163	65	48	0	276	1049
Grand Total	74	243	82	0	399	37	256	381	0	674	86	318	41	5	450	307	134	85	1	527	2050
Apprch %	18.5	60.9	20.6	0		5.5	38	56.5	0		19.1	70.7	9.1	1.1		58.3	25.4	16.1	0.2		
Total %	3.6	11.9	4	0	19.5	1.8	12.5	18.6	0	32.9	4.2	15.5	2	0.2	22	15	6.5	4.1	0	25.7	

	Junction Dr Eastbound				Junction Dr Westbound				Hill Carter Pkwy Northbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	8	**35**	12	55	3	21	57	81	14	42	**8**	64	36	12	10	58	258
05:00 PM	8	30	10	48	2	24	46	72	**23**	**54**	7	**84**	43	15	**16**	**74**	**278**
05:15 PM	**17**	29	**15**	**61**	**5**	28	**62**	**95**	13	37	4	54	41	**16**	11	68	278
05:30 PM	8	26	11	45	4	**34**	43	81	7	41	4	52	**45**	15	13	73	251
Total Volume	41	120	48	209	14	107	208	329	57	174	23	254	165	58	50	273	1065
% App. Total	19.6	57.4	23		4.3	32.5	63.2		22.4	68.5	9.1		60.4	21.2	18.3		
PHF	.603	.857	.800	.857	.700	.787	.839	.866	.620	.806	.719	.756	.917	.906	.781	.922	.958

Peggy Malone & Associates
(888) 247-8602

File Name : 19-Hill Carter Pkwy and Junction Dr PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Truck

	Junction Dr Eastbound					Junction Dr Westbound					Hill Carter Pkwy Northbound					Hill Carter Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	0	0	0	0	0	0	0	0	0	0	0	5	0	0	5	0	2	1	0	3	8
04:15 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	1	3	0	0	4	8
04:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	2	1	0	3	5
04:45 PM	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	1	3	2	0	6	9
Total	0	0	0	0	0	0	1	0	0	1	0	13	0	0	13	2	10	4	0	16	30
05:00 PM	1	1	1	0	3	0	0	0	0	0	1	6	0	0	7	0	1	0	0	1	11
05:15 PM	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	1	2	0	0	3	6
05:30 PM	0	0	2	0	2	0	0	1	0	1	0	2	0	0	2	0	2	0	0	2	7
05:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
Total	1	1	3	0	5	0	1	1	0	2	2	12	0	0	14	1	5	0	0	6	27
Grand Total	1	1	3	0	5	0	2	1	0	3	2	25	0	0	27	3	15	4	0	22	57
Apprch %	20	20	60	0		0	66.7	33.3	0		7.4	92.6	0	0		13.6	68.2	18.2	0		
Total %	1.8	1.8	5.3	0	8.8	0	3.5	1.8	0	5.3	3.5	43.9	0	0	47.4	5.3	26.3	7	0	38.6	

	Junction Dr Eastbound				Junction Dr Westbound				Hill Carter Pkwy Northbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	0	0	0	0	0	4	0	4	**1**	**3**	0	4	8
04:30 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	2	1	3	5
04:45 PM	0	0	0	0	0	**1**	0	**1**	0	2	0	2	1	3	**2**	**6**	9
05:00 PM	**1**	**1**	**1**	**3**	0	0	0	0	**1**	**6**	0	**7**	0	1	0	1	**11**
Total Volume	1	1	1	3	0	1	0	1	1	14	0	15	2	9	3	14	33
% App. Total	33.3	33.3	33.3		0	100	0		6.7	93.3	0		14.3	64.3	21.4		
PHF	.250	.250	.250	.250	.000	.250	.000	.250	.250	.583	.000	.536	.500	.750	.375	.583	.750

Peggy Malone & Associates
(888) 247-8602

File Name : 19-Hill Carter Pkwy and Junction Dr PM
Site Code :
Start Date : 12/5/2018
Page No : 1

Groups Printed- Combined

	Junction Dr Eastbound					Junction Dr Westbound					Hill Carter Pkwy Northbound					Hill Carter Pkwy Southbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
04:00 PM	10	28	10	0	48	10	39	43	0	92	9	51	3	1	64	35	30	6	0	71	275
04:15 PM	6	27	6	0	39	3	38	41	0	82	6	36	9	1	52	42	18	8	0	68	241
04:30 PM	6	34	12	0	52	4	42	39	0	85	8	38	0	0	46	32	16	15	1	64	247
04:45 PM	8	35	12	0	55	3	22	57	0	82	14	44	8	1	67	37	15	12	0	64	268
Total	30	124	40	0	194	20	141	180	0	341	37	169	20	3	229	146	79	41	1	267	1031
05:00 PM	9	31	11	0	51	2	24	46	0	72	24	60	7	0	91	43	16	16	0	75	289
05:15 PM	17	29	15	0	61	5	29	62	0	96	14	38	4	0	56	42	18	11	0	71	284
05:30 PM	8	26	13	0	47	4	34	44	0	82	7	43	4	1	55	45	17	13	0	75	259
05:45 PM	11	34	6	0	51	6	30	50	0	86	6	33	6	1	46	34	19	8	0	61	244
Total	45	120	45	0	210	17	117	202	0	336	51	174	21	2	248	164	70	48	0	282	1076
Grand Total	75	244	85	0	404	37	258	382	0	677	88	343	41	5	477	310	149	89	1	549	2107
Apprch %	18.6	60.4	21	0		5.5	38.1	56.4	0		18.4	71.9	8.6	1		56.5	27.1	16.2	0.2		
Total %	3.6	11.6	4	0	19.2	1.8	12.2	18.1	0	32.1	4.2	16.3	1.9	0.2	22.6	14.7	7.1	4.2	0	26.1	

	Junction Dr Eastbound				Junction Dr Westbound				Hill Carter Pkwy Northbound				Hill Carter Pkwy Southbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	8	**35**	12	55	3	22	57	82	14	44	**8**	66	37	15	12	64	267
05:00 PM	9	31	11	51	2	24	46	72	**24**	**60**	7	**91**	43	16	**16**	**75**	**289**
05:15 PM	**17**	29	**15**	**61**	**5**	29	**62**	**96**	14	38	4	56	42	**18**	11	71	284
05:30 PM	8	26	13	47	4	**34**	44	82	7	43	4	54	**45**	17	13	75	258
Total Volume	42	121	51	214	14	109	209	332	59	185	23	267	167	66	52	285	1098
% App. Total	19.6	56.5	23.8		4.2	32.8	63		22.1	69.3	8.6		58.6	23.2	18.2		
PHF	.618	.864	.850	.877	.700	.801	.843	.865	.615	.771	.719	.734	.928	.917	.813	.950	.950

Peggy Malone and Associates

WEEKLY SUMMARY FOR LANE 1 Page: 1
Starting: 12/4/2018

Station #: 000000023828
Site ID: 000000023828
Loc: Virginia St, S of Maiden Lane
Direction: NORTH

File: Virginia St, S of Maiden Lane.prn
Info: 18-431 TS Min
GPS: 37.75681, -77.48036

TIME	MON		TUE		WED		THU		FRI		SAT		SUN		WK TOT		WK AVG	
Lane 1	am	pm	am	4 pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
00:15			0	5											0	5	0	5
00:30			0	3											0	3	0	3
00:45			0	8											0	8	0	8
01:00			0	8											0	8	0	8
01:15			0	4											0	4	0	4
01:30			0	5											0	5	0	5
01:45			0	10											0	10	0	10
02:00			0	7											0	7	0	7
02:15			0	6											0	6	0	6
02:30			0	3											0	3	0	3
02:45			0	10											0	10	0	10
03:00			1	5											1	5	1	5
03:15			0	8											0	8	0	8
03:30			0	6											0	6	0	6
03:45			0	5											0	5	0	5
04:00			1	5											1	5	1	5
04:15			1	8											1	8	1	8
04:30			0	8											0	8	0	8
04:45			0	6											0	6	0	6
05:00			0	9											0	9	0	9
05:15			0	12											0	12	0	12
05:30			0	5											0	5	0	5
05:45			0	6											0	6	0	6
06:00			2	7											2	7	2	7
06:15			2	8											2	8	2	8
06:30			0	10											0	10	0	10
06:45			4	5											4	5	4	5
07:00			3	5											3	5	3	5
07:15			3	3											3	3	3	3
07:30			12	4											12	4	12	4
07:45			8	1											8	1	8	1
08:00			16	4											16	4	16	4
08:15			7	2											7	2	7	2
08:30			7	0											7	0	7	0
08:45			5	1											5	1	5	1
09:00			4	0											4	0	4	0
09:15			6	4											6	4	6	4
09:30			6	1											6	1	6	1
09:45			7	2											7	2	7	2
10:00			5	1											5	1	5	1
10:15			2	1											2	1	2	1
10:30			8	0											8	0	8	0
10:45			6	0											6	0	6	0
11:00			5	0											5	0	5	0
11:15			9	0											9	0	9	0
11:30			5	0											5	0	5	0
11:45			1	0											1	0	1	0
12:00			8	0											8	0	8	0
TOTALS			355												355		355	
AM Times			07:30												07:30		07:30	
AM Peaks			43												43		43	
AM PHF			0.67												0.67		0.67	
PM Times			16:30												16:30		16:30	
PM Peaks			35												35		35	
PM PHF			0.73												0.73		0.73	

Peggy Malone and Associates

WEEKLY SUMMARY FOR LANE 2
Starting: 12/4/2018

Station #: 000000023828
Site ID: 000000023828
Loc: Virginia St, S of Maiden Lane
Direction: SOUTH

File: Virginia St, S of Maiden Lane.prn
Info: 18-431 TS Min
GPS: 37.75681, -77.48036

TIME	MON		TUE		WED		THU		FRI		SAT		SUN		WK TOT		WK AVG	
Lane 2	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
			4															
00:15			0	1											0	1	0	1
00:30			0	5											0	5	0	5
00:45			0	7											0	7	0	7
01:00			0	11											0	11	0	11
01:15			0	6											0	6	0	6
01:30			0	5											0	5	0	5
01:45			0	6											0	6	0	6
02:00			0	12											0	12	0	12
02:15			0	7											0	7	0	7
02:30			0	6											0	6	0	6
02:45			0	8											0	8	0	8
03:00			0	10											0	10	0	10
03:15			0	8											0	8	0	8
03:30			0	1											0	1	0	1
03:45			0	13											0	13	0	13
04:00			0	10											0	10	0	10
04:15			1	15											1	15	1	15
04:30			1	15											1	15	1	15
04:45			0	13											0	13	0	13
05:00			1	14											1	14	1	14
05:15			0	15											0	15	0	15
05:30			2	14											2	14	2	14
05:45			0	11											0	11	0	11
06:00			0	8											0	8	0	8
06:15			1	13											1	13	1	13
06:30			0	11											0	11	0	11
06:45			4	12											4	12	4	12
07:00			2	7											2	7	2	7
07:15			5	5											5	5	5	5
07:30			5	6											5	6	5	6
07:45			1	5											1	5	1	5
08:00			9	6											9	6	9	6
08:15			3	7											3	7	3	7
08:30			4	9											4	9	4	9
08:45			6	2											6	2	6	2
09:00			4	5											4	5	4	5
09:15			7	2											7	2	7	2
09:30			2	1											2	1	2	1
09:45			5	1											5	1	5	1
10:00			5	0											5	0	5	0
10:15			7	3											7	3	7	3
10:30			9	0											9	0	9	0
10:45			2	2											2	2	2	2
11:00			4	2											4	2	4	2
11:15			8	1											8	1	8	1
11:30			7	0											7	0	7	0
11:45			11	0											11	0	11	0
12:00			9	1											9	1	9	1
TOTALS			447												447		447	
AM Times			11:15												11:15		11:15	
AM Peaks			35												35		35	
AM PHF			0.80												0.80		0.80	
PM Times			16:15												16:15		16:15	
PM Peaks			57												57		57	
PM PHF			0.95												0.95		0.95	

Appendix B:

Existing Condition Analysis

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	487	2	103	353	10	0	0	91	3	0	0
Future Volume (vph)	3	487	2	103	353	10	0	0	91	3	0	0
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					0.996				0.865			
Flt Protected				0.950							0.950	
Satd. Flow (prot)	0	1828	0	1543	1788	0	0	0	1429	0	1805	0
Flt Permitted				0.950							0.950	
Satd. Flow (perm)	0	1828	0	1543	1788	0	0	0	1429	0	1805	0
Adj. Flow (vph)	4	573	2	121	415	12	0	0	107	4	0	0
Lane Group Flow (vph)	0	579	0	121	427	0	0	0	107	0	4	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 58.4%	ICU Level of Service B
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	487	2	103	353	10	0	0	91	3	0	0
Future Volume (Veh/h)	3	487	2	103	353	10	0	0	91	3	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	573	2	121	415	12	0	0	107	4	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	427			575			1239	1251	574	1352	1246	421
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	427			575			1239	1251	574	1352	1246	421
tC, single (s)	4.1			4.3			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.4			3.5	4.0	3.4	3.5	4.0	3.3
p0 queue free %	100			87			100	100	78	96	100	100
cM capacity (veh/h)	1143			928			138	151	495	90	152	637

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	579	121	427	107	4
Volume Left	4	121	0	0	4
Volume Right	2	0	12	107	0
cSH	1143	928	1700	495	90
Volume to Capacity	0.00	0.13	0.25	0.22	0.04
Queue Length 95th (ft)	0	11	0	20	3
Control Delay (s)	0.1	9.5	0.0	14.3	46.7
Lane LOS	A	A		B	E
Approach Delay (s)	0.1	2.1		14.3	46.7
Approach LOS				B	E

Intersection Summary			
Average Delay	2.4		
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	79	13	18	338	502	66
Future Volume (vph)	79	13	18	338	502	66
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.981				0.984	
Flt Protected	0.959			0.997		
Satd. Flow (prot)	1752	0	0	1857	1833	0
Flt Permitted	0.959			0.997		
Satd. Flow (perm)	1752	0	0	1857	1833	0
Adj. Flow (vph)	87	14	20	371	552	73
Lane Group Flow (vph)	101	0	0	391	625	0
Sign Control	Stop			Free	Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 44.3%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	79	13	18	338	502	66
Future Volume (Veh/h)	79	13	18	338	502	66
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	87	14	20	371	552	73
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1000	588	625			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1000	588	625			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	67	97	98			
cM capacity (veh/h)	264	509	956			

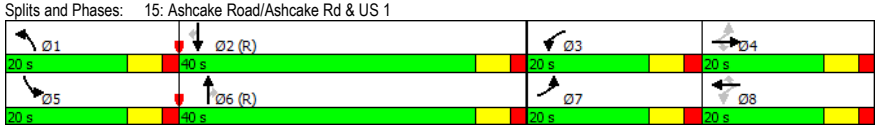
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	101	391	625
Volume Left	87	20	0
Volume Right	14	0	73
cSH	283	956	1700
Volume to Capacity	0.36	0.02	0.37
Queue Length 95th (ft)	39	2	0
Control Delay (s)	24.6	0.7	0.0
Lane LOS	C	A	
Approach Delay (s)	24.6	0.7	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	2.5		
Intersection Capacity Utilization	44.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	160	183	68	76	85	67	229	50	101	364	113
Future Volume (vph)	110	160	183	68	76	85	67	229	50	101	364	113
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1845	1538	1656	1810	1482	1612	3252	1553	1736	3406	1482
Flt Permitted	0.571			0.653			0.950			0.950		
Satd. Flow (perm)	1043	1845	1538	1138	1810	1482	1612	3252	1553	1736	3406	1482
Satd. Flow (RTOR)			189			164			164			164
Adj. Flow (vph)	113	165	189	70	78	88	69	236	52	104	375	116
Lane Group Flow (vph)	113	165	189	70	78	88	69	236	52	104	375	116
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6			2
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	40.0	40.0	20.0	40.0	40.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	24.7	15.7	15.7	20.0	11.5	11.5	9.6	45.7	45.7	11.0	46.9	46.9
Actuated g/C Ratio	0.25	0.16	0.16	0.20	0.12	0.12	0.10	0.46	0.46	0.11	0.47	0.47
v/c Ratio	0.34	0.57	0.47	0.26	0.38	0.28	0.45	0.16	0.07	0.55	0.23	0.15
Control Delay	29.3	47.8	9.8	27.9	45.2	2.2	50.9	19.3	0.2	45.4	18.4	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	29.3	47.8	9.8	27.9	45.2	2.2	50.9	19.3	0.2	45.4	18.4	6.8
LOS	C	D	A	C	D	A	D	B	A	D	B	A
Approach Delay		27.9			24.0			22.6			20.8	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 51 (51%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.57	
Intersection Signal Delay: 23.7	Intersection LOS: C
Intersection Capacity Utilization 50.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 15: Ashcake Road/Ashcake Rd & US 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	160	183	68	76	85	67	229	50	101	364	113
Future Volume (vph)	110	160	183	68	76	85	67	229	50	101	364	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	1845	1538	1656	1810	1482	1612	3252	1553	1736	3406	1482
Flt Permitted	0.57	1.00	1.00	0.65	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1044	1845	1538	1138	1810	1482	1612	3252	1553	1736	3406	1482
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	113	165	189	70	78	88	69	236	52	104	375	116
RTOR Reduction (vph)	0	0	159	0	0	77	0	0	29	0	0	64
Lane Group Flow (vph)	113	165	30	70	78	11	69	236	23	104	375	52
Heavy Vehicles (%)	4%	3%	5%	9%	5%	9%	12%	11%	4%	4%	6%	9%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6			2
Actuated Green, G (s)	26.1	15.7	15.7	20.1	12.7	12.7	8.5	43.3	43.3	9.6	44.4	44.4
Effective Green, g (s)	26.1	15.7	15.7	20.1	12.7	12.7	8.5	43.3	43.3	9.6	44.4	44.4
Actuated g/C Ratio	0.26	0.16	0.16	0.20	0.13	0.13	0.08	0.43	0.43	0.10	0.44	0.44
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	344	289	241	267	229	188	137	1408	672	166	1512	658
v/s Ratio Prot	c0.03	c0.09		0.02	0.04		0.04	0.07		c0.06	c0.11	
v/s Ratio Perm	0.05		0.02	0.03		0.01			0.01			0.03
v/c Ratio	0.33	0.57	0.12	0.26	0.34	0.06	0.50	0.17	0.03	0.63	0.25	0.08
Uniform Delay, d1	29.3	39.0	36.2	33.3	39.8	38.4	43.7	17.3	16.3	43.5	17.4	16.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.83	0.96	4.81
Incremental Delay, d2	0.6	2.7	0.2	0.5	0.9	0.1	2.9	0.3	0.1	7.1	0.4	0.2
Delay (s)	29.8	41.7	36.5	33.9	40.7	38.5	46.6	17.6	16.4	43.3	17.1	77.2
Level of Service	C	D	D	C	D	D	D	B	B	D	B	E
Approach Delay (s)		36.7			37.9			23.0			33.4	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM 2000 Control Delay	32.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	150	0	0	224	13	0	0	100	0	0	0
Future Volume (vph)	118	150	0	0	224	13	0	0	100	0	0	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.865			
Flt Protected	0.950											
Satd. Flow (prot)	1543	3282	0	0	3406	1429	0	0	1565	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	1543	3282	0	0	3406	1429	0	0	1565	0	0	0
Adj. Flow (vph)	133	169	0	0	252	15	0	0	112	0	0	0
Lane Group Flow (vph)	133	169	0	0	252	15	0	0	112	0	0	0
Sign Control		Free			Free			Yield			Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 46.7%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	118	150	0	0	224	13	0	0	100	0	0	0
Future Volume (Veh/h)	118	150	0	0	224	13	0	0	100	0	0	0
Sign Control		Free			Free			Yield			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	133	169	0	0	252	15	0	0	112	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	252			169			561	687	84	602	687	126
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	252			169			561	687	84	602	687	126
tC, single (s)	4.4			4.1			7.5	6.5	7.0	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.4			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	89			100			100	100	88	100	100	100
cM capacity (veh/h)	1208			1421			380	331	948	313	331	907

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	133	84	84	126	126	15	112
Volume Left	133	0	0	0	0	0	0
Volume Right	0	0	0	0	0	15	112
cSH	1208	1700	1700	1700	1700	1700	948
Volume to Capacity	0.11	0.05	0.05	0.07	0.07	0.01	0.12
Queue Length 95th (ft)	9	0	0	0	0	0	10
Control Delay (s)	8.3	0.0	0.0	0.0	0.0	0.0	9.3
Lane LOS	A						A
Approach Delay (s)	3.7			0.0			9.3
Approach LOS							A

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	252	608	98	673	0	0	0	0	16	0	168
Future Volume (vph)	0	252	608	98	673	0	0	0	0	16	0	168
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850								0.877	
Flt Protected				0.950							0.996	
Satd. Flow (prot)	0	3282	1455	1703	3406	0	0	0	0	0	1436	0
Flt Permitted				0.950							0.996	
Satd. Flow (perm)	0	3282	1455	1703	3406	0	0	0	0	0	1436	0
Adj. Flow (vph)	0	265	640	103	708	0	0	0	0	17	0	177
Lane Group Flow (vph)	0	265	640	103	708	0	0	0	0	0	194	0
Sign Control		Free			Free			Yield			Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 64.3%	ICU Level of Service C	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	252	608	98	673	0	0	0	0	16	0	168
Future Volume (Veh/h)	0	252	608	98	673	0	0	0	0	16	0	168
Sign Control		Free			Free			Yield			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	0	265	640	103	708	0	0	0	0	17	0	177
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		955										
pX, platoon unblocked												
vC, conflicting volume	708			265			825	1179	132	1046	1179	354
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	708			265			825	1179	132	1046	1179	354
tC, single (s)	4.1			4.2			7.5	6.5	6.9	7.7	6.7	7.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			3.5	4.0	3.3	3.6	4.1	3.5
p0 queue free %	100			92			100	100	100	89	100	71
cM capacity (veh/h)	900			1267			178	177	899	160	162	604

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	132	132	640	103	354	354	194
Volume Left	0	0	0	103	0	0	17
Volume Right	0	0	640	0	0	0	177
cSH	1700	1700	1700	1267	1700	1700	486
Volume to Capacity	0.08	0.08	0.38	0.08	0.21	0.21	0.40
Queue Length 95th (ft)	0	0	0	7	0	0	47
Control Delay (s)	0.0	0.0	0.0	8.1	0.0	0.0	17.3
Lane LOS				A			C
Approach Delay (s)	0.0			1.0			17.3
Approach LOS							C

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	0	268	224	0	0	547
Future Volume (vph)	0	268	224	0	0	547
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	3282	3406	0	0	1580
Flt Permitted						
Satd. Flow (perm)	0	3282	3406	0	0	1580
Adj. Flow (vph)	0	291	252	0	0	615
Lane Group Flow (vph)	0	291	252	0	0	615
Sign Control		Free	Free		Yield	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 46.7%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	0	268	224	0	0	547
Future Volume (Veh/h)	0	268	224	0	0	547
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.89	0.92	0.92	0.89
Hourly flow rate (vph)	0	291	252	0	0	615
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	252				398	126
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	252				398	126
tC, single (s)	4.1				6.8	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	31
cM capacity (veh/h)	1310				580	895

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SW 1
Volume Total	146	146	126	126	615
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	615
cSH	1700	1700	1700	1700	895
Volume to Capacity	0.09	0.09	0.07	0.07	0.69
Queue Length 95th (ft)	0	0	0	0	142
Control Delay (s)	0.0	0.0	0.0	0.0	17.4
Lane LOS					C
Approach Delay (s)	0.0		0.0		17.4
Approach LOS					C

Intersection Summary			
Average Delay	9.2		
Intersection Capacity Utilization	46.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	646	22	98	658	4	39	3	26	68	2	6
Future Volume (vph)	15	646	22	98	658	4	39	3	26	68	2	6
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	0.91	0.91	0.91	1.00	1.00	0.95	0.95
Frt			0.850		0.999				0.850		0.887	
Flt Protected	0.950			0.950			0.950	0.958		0.950		
Satd. Flow (prot)	1687	4848	1509	3273	4843	0	1564	3155	1538	1626	2885	0
Flt Permitted	0.950			0.950			0.950	0.958		0.950		
Satd. Flow (perm)	1687	4848	1509	3273	4843	0	1564	3155	1538	1626	2885	0
Satd. Flow (RTOR)			164		1				229		454	
Adj. Flow (vph)	16	687	23	104	700	4	41	3	28	72	2	6
Lane Group Flow (vph)	16	687	23	104	704	0	20	24	28	72	8	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2						3			
Total Split (s)	19.0	40.0	40.0	19.0	40.0		17.0	17.0	17.0	24.0	24.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	8.0	58.7	58.7	11.3	67.6		8.2	8.2	8.2	10.2	10.2	
Actuated g/C Ratio	0.08	0.59	0.59	0.11	0.68		0.08	0.08	0.08	0.10	0.10	
v/c Ratio	0.12	0.24	0.02	0.28	0.22		0.16	0.09	0.08	0.44	0.01	
Control Delay	32.7	8.7	1.2	42.3	10.3		45.6	43.3	0.5	49.9	0.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	32.7	8.7	1.2	42.3	10.3		45.6	43.3	0.5	49.9	0.0	
LOS	C	A	A	D	B		D	D	A	D	A	
Approach Delay		9.0			14.4			27.3			44.9	
Approach LOS		A			B			C			D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 43 (43%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.44	
Intersection Signal Delay: 14.1	Intersection LOS: B
Intersection Capacity Utilization 44.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 25: Hill Carter Parkway & England Street

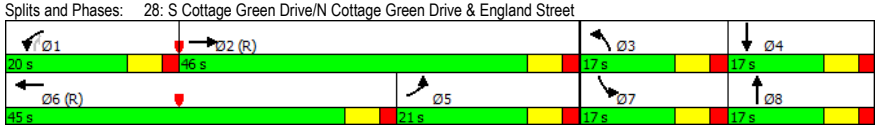
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	646	22	98	658	4	39	3	26	68	2	6
Future Volume (vph)	15	646	22	98	658	4	39	3	26	68	2	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91		0.91	0.91	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.89	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1687	4848	1509	3273	4844		1564	3155	1538	1626	2886	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1687	4848	1509	3273	4844		1564	3155	1538	1626	2886	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	16	687	23	104	700	4	41	3	28	72	2	6
RTOR Reduction (vph)	0	0	11	0	0	0	0	0	27	0	7	0
Lane Group Flow (vph)	16	687	12	104	704	0	20	24	1	72	1	0
Heavy Vehicles (%)	7%	7%	7%	7%	7%	7%	5%	5%	5%	11%	11%	11%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2						3			
Actuated Green, G (s)	3.2	50.3	50.3	12.1	59.2		5.0	5.0	5.0	8.6	8.6	
Effective Green, g (s)	3.2	50.3	50.3	12.1	59.2		5.0	5.0	5.0	8.6	8.6	
Actuated g/C Ratio	0.03	0.50	0.50	0.12	0.59		0.05	0.05	0.05	0.09	0.09	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	53	2438	759	396	2867		78	157	76	139	248	
v/s Ratio Prot	0.01	c0.14		0.03	c0.15		c0.01	0.01		c0.04	0.00	
v/s Ratio Perm			0.01						0.00			
v/c Ratio	0.30	0.28	0.02	0.26	0.25		0.26	0.15	0.02	0.52	0.00	
Uniform Delay, d1	47.3	14.4	12.4	39.9	9.7		45.7	45.5	45.2	43.7	41.8	
Progression Factor	0.72	0.59	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	3.1	0.3	0.0	0.4	0.2		1.7	0.5	0.1	3.2	0.0	
Delay (s)	37.1	8.8	12.5	40.3	9.9		47.5	45.9	45.3	47.0	41.8	
Level of Service	D	A	B	D	A		D	D	D	D	D	
Approach Delay (s)		9.5			13.8			46.1			46.4	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM 2000 Control Delay	14.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	44.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	665	24	46	800	30	36	10	20	86	16	23
Future Volume (vph)	6	665	24	46	800	30	36	10	20	86	16	23
Lane Util. Factor	1.00	0.91	0.91	0.97	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.995				0.850		0.912	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	4807	0	3433	4874	0	1752	1727	1538	1703	1693	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	4807	0	3433	4874	0	1752	1727	1538	1703	1693	0
Satd. Flow (RTOR)		6			6				229		24	
Adj. Flow (vph)	6	707	26	49	851	32	38	11	21	91	17	24
Lane Group Flow (vph)	6	733	0	49	883	0	38	11	21	91	41	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	custom	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									1			
Total Split (s)	21.0	46.0		20.0	45.0		17.0	17.0	20.0	17.0	17.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	6.4	63.9		6.9	71.5		7.7	6.2	6.9	14.5	8.1	
Actuated g/C Ratio	0.06	0.64		0.07	0.72		0.08	0.06	0.07	0.14	0.08	
v/c Ratio	0.05	0.24		0.21	0.25		0.28	0.10	0.07	0.37	0.26	
Control Delay	43.0	8.0		36.0	6.1		48.2	45.9	0.4	41.6	27.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	43.0	8.0		36.0	6.1		48.2	45.9	0.4	41.6	27.5	
LOS	D	A		D	A		D	D	A	D	C	
Approach Delay		8.2			7.6			33.5			37.2	
Approach LOS		A			A			C			D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 88 (88%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.37	
Intersection Signal Delay: 10.9	Intersection LOS: B
Intersection Capacity Utilization 41.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 28: S Cottage Green Drive/N Cottage Green Drive & England Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	665	24	46	800	30	36	10	20	86	16	23
Future Volume (vph)	6	665	24	46	800	30	36	10	20	86	16	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.91		0.97	0.91		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1805	4806		3433	4872		1752	1727	1538	1703	1694	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1805	4806		3433	4872		1752	1727	1538	1703	1694	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	6	707	26	49	851	32	38	11	21	91	17	24
RTOR Reduction (vph)	0	3	0	0	2	0	0	0	20	0	22	0
Lane Group Flow (vph)	6	730	0	49	881	0	38	11	1	91	19	0
Heavy Vehicles (%)	0%	7%	17%	2%	6%	3%	3%	10%	5%	6%	0%	4%
Turn Type	Prot	NA		Prot	NA		Prot	NA	custom	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									1			
Actuated Green, G (s)	1.8	55.5		5.8	59.5		5.3	1.5	5.8	13.2	9.4	
Effective Green, g (s)	1.8	55.5		5.8	59.5		5.3	1.5	5.8	13.2	9.4	
Actuated g/C Ratio	0.02	0.56		0.06	0.60		0.05	0.02	0.06	0.13	0.09	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	32	2667		199	2898		92	25	89	224	159	
v/s Ratio Prot	0.00	c0.15		0.01	c0.18		0.02	c0.01		c0.05	0.01	
v/s Ratio Perm									0.00			
v/c Ratio	0.19	0.27		0.25	0.30		0.41	0.44	0.01	0.41	0.12	
Uniform Delay, d1	48.4	11.7		45.0	10.0		45.8	48.8	44.4	39.8	41.5	
Progression Factor	0.98	0.69		0.78	0.71		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	2.6	0.2		0.6	0.3		3.0	11.9	0.1	1.2	0.3	
Delay (s)	50.1	8.3		35.7	7.4		48.8	60.7	44.5	41.0	41.9	
Level of Service	D	A		D	A		D	E	D	D	D	
Approach Delay (s)		8.7			8.9			49.4			41.3	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	41.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	17	7	279	13	12	411
Future Volume (vph)	17	7	279	13	12	411
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.958		0.993			
Flt Protected	0.967					0.999
Satd. Flow (prot)	1565	0	3197	0	0	3339
Flt Permitted	0.967					0.999
Satd. Flow (perm)	1565	0	3197	0	0	3339
Adj. Flow (vph)	18	8	303	14	13	447
Lane Group Flow (vph)	26	0	317	0	0	460
Sign Control	Stop		Free			Free

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 30.0%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	17	7	279	13	12	411
Future Volume (Veh/h)	17	7	279	13	12	411
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	18	8	303	14	13	447
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	560	158			317	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	560	158			317	
tC, single (s)	7.2	6.9			4.3	
tC, 2 stage (s)						
tF (s)	3.7	3.3			2.3	
p0 queue free %	96	99			99	
cM capacity (veh/h)	418	865			1198	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	26	202	115	162	298
Volume Left	18	0	0	13	0
Volume Right	8	0	14	0	0
cSH	497	1700	1700	1198	1700
Volume to Capacity	0.05	0.12	0.07	0.01	0.18
Queue Length 95th (ft)	4	0	0	1	0
Control Delay (s)	12.6	0.0	0.0	0.7	0.0
Lane LOS	B			A	
Approach Delay (s)	12.6	0.0		0.3	
Approach LOS	B				

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	1	109	24	3	5	59	278	43	4	405	24
Future Volume (vph)	13	1	109	24	3	5	59	278	43	4	405	24
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.979				0.850		0.992	
Flt Protected		0.955			0.964			0.991				
Satd. Flow (prot)	0	1688	1553	0	1463	0	0	3204	1417	0	3310	0
Flt Permitted		0.955			0.964			0.991				
Satd. Flow (perm)	0	1688	1553	0	1463	0	0	3204	1417	0	3310	0
Adj. Flow (vph)	15	1	128	28	4	6	69	327	51	5	476	28
Lane Group Flow (vph)	0	16	128	0	38	0	0	396	51	0	509	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 39.9%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	1	109	24	3	5	59	278	43	4	405	24
Future Volume (Veh/h)	13	1	109	24	3	5	59	278	43	4	405	24
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	15	1	128	28	4	6	69	327	51	5	476	28
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			9									
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	810	1016	252	714	979	164	504			378		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	810	1016	252	714	979	164	504			378		
tC, single (s)	7.7	6.5	7.0	7.9	7.8	6.9	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.7	4.7	3.3	2.3			2.2		
p0 queue free %	94	100	83	87	97	99	93			100		
cM capacity (veh/h)	240	222	742	222	150	859	1003			1192		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	144	38	178	218	51	243	266
Volume Left	15	28	69	0	0	5	0
Volume Right	128	6	0	0	51	0	28
cSH	834	238	1003	1700	1700	1192	1700
Volume to Capacity	0.17	0.16	0.07	0.13	0.03	0.00	0.16
Queue Length 95th (ft)	16	14	6	0	0	0	0
Control Delay (s)	12.0	23.0	3.8	0.0	0.0	0.2	0.0
Lane LOS	B	C	A			A	
Approach Delay (s)	12.0	23.0	1.5			0.1	
Approach LOS	B	C					

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	34	0	32	0	14	33	80	32	0
Future Volume (vph)	0	0	0	34	0	32	0	14	33	80	32	0
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					0.935			0.905				
Flt Protected					0.975						0.965	
Satd. Flow (prot)	0	1863	0	0	1698	0	0	1686	0	0	1798	0
Flt Permitted					0.975						0.965	
Satd. Flow (perm)	0	1863	0	0	1698	0	0	1686	0	0	1798	0
Adj. Flow (vph)	0	0	0	46	0	43	0	19	45	108	43	0
Lane Group Flow (vph)	0	0	0	0	89	0	0	64	0	0	151	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 23.3%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	34	0	32	0	14	33	80	32	0
Future Volume (Veh/h)	0	0	0	34	0	32	0	14	33	80	32	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Hourly flow rate (vph)	0	0	0	46	0	43	0	19	45	108	43	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	344	323	43	300	300	42	43			64		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	344	323	43	300	300	42	43			64		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	93	100	96	100			93		
cM capacity (veh/h)	554	553	1027	617	569	1029	1566			1538		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	0	89	64	151
Volume Left	0	46	0	108
Volume Right	0	43	45	0
cSH	1700	765	1566	1538
Volume to Capacity	0.00	0.12	0.00	0.07
Queue Length 95th (ft)	0	10	0	6
Control Delay (s)	0.0	10.3	0.0	5.5
Lane LOS	A	B		A
Approach Delay (s)	0.0	10.3	0.0	5.5
Approach LOS	A	B		

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	23.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	8	9	1	6	6	3	23	6	12	51	33
Future Volume (vph)	25	8	9	1	6	6	3	23	6	12	51	33
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		0.972			0.936			0.974			0.954	
Flt Protected		0.971			0.997			0.995			0.994	
Satd. Flow (prot)	0	1758	0	0	1738	0	0	1805	0	0	1766	0
Flt Permitted		0.971			0.997			0.995			0.994	
Satd. Flow (perm)	0	1758	0	0	1738	0	0	1805	0	0	1766	0
Adj. Flow (vph)	32	10	11	1	8	8	4	29	8	15	65	42
Lane Group Flow (vph)	0	53	0	0	17	0	0	41	0	0	122	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 23.4%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	25	8	9	1	6	6	3	23	6	12	51	33
Future Volume (Veh/h)	25	8	9	1	6	6	3	23	6	12	51	33
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Hourly flow rate (vph)	32	10	11	1	8	8	4	29	8	15	65	42
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	169	161	86	173	178	33	107			37		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	169	161	86	173	178	33	107			37		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	99	99	100	99	99	100			99		
cM capacity (veh/h)	775	722	973	766	707	1041	1484			1574		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	53	17	41	122
Volume Left	32	1	4	15
Volume Right	11	8	8	42
cSH	797	837	1484	1574
Volume to Capacity	0.07	0.02	0.00	0.01
Queue Length 95th (ft)	5	2	0	1
Control Delay (s)	9.8	9.4	0.7	1.0
Lane LOS	A	A	A	A
Approach Delay (s)	9.8	9.4	0.7	1.0
Approach LOS	A	A		

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	23.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	466	19	9	337	18	12	14	8	34	32	7
Future Volume (vph)	10	466	19	9	337	18	12	14	8	34	32	7
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		0.995			0.993			0.967			0.986	
Flt Protected		0.999			0.999			0.983			0.977	
Satd. Flow (prot)	0	1813	0	0	1781	0	0	1704	0	0	1783	0
Flt Permitted		0.999			0.999			0.983			0.977	
Satd. Flow (perm)	0	1813	0	0	1781	0	0	1704	0	0	1783	0
Adj. Flow (vph)	11	512	21	10	370	20	13	15	9	37	35	8
Lane Group Flow (vph)	0	544	0	0	400	0	0	37	0	0	80	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 42.9%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	466	19	9	337	18	12	14	8	34	32	7
Future Volume (Veh/h)	10	466	19	9	337	18	12	14	8	34	32	7
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	11	512	21	10	370	20	13	15	9	37	35	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	390			533			970	954	522	961	955	380
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	390			533			970	954	522	961	955	380
tC, single (s)	4.2			4.1			7.2	6.5	6.3	7.1	6.6	6.2
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.6	4.0	3.4	3.5	4.1	3.3
p0 queue free %	99			99			93	94	98	83	86	99
cM capacity (veh/h)	1126			1045			197	256	533	220	249	671

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	544	400	37	80
Volume Left	11	10	13	37
Volume Right	21	20	9	8
cSH	1126	1045	261	250
Volume to Capacity	0.01	0.01	0.14	0.32
Queue Length 95th (ft)	1	1	12	33
Control Delay (s)	0.3	0.3	21.0	26.1
Lane LOS	A	A	C	D
Approach Delay (s)	0.3	0.3	21.0	26.1
Approach LOS			C	D

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	558	13	11	447	30	5	4	31	4	3	12
Future Volume (vph)	7	558	13	11	447	30	5	4	31	4	3	12
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		0.997			0.991			0.868			0.914	
Flt Protected		0.999		0.950			0.950				0.989	
Satd. Flow (prot)	0	1789	0	1656	1751	0	1128	1607	0	0	1644	0
Flt Permitted		0.999		0.950			0.950				0.989	
Satd. Flow (perm)	0	1789	0	1656	1751	0	1128	1607	0	0	1644	0
Adj. Flow (vph)	8	641	15	13	514	34	6	5	36	5	3	14
Lane Group Flow (vph)	0	664	0	13	548	0	6	41	0	0	22	0
Sign Control		Free			Free			Stop			Stop	

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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	558	13	11	447	30	5	4	31	4	3	12
Future Volume (Veh/h)	7	558	13	11	447	30	5	4	31	4	3	12
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	8	641	15	13	514	34	6	5	36	5	3	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	548			656			1220	1238	648	1260	1229	531
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	548			656			1220	1238	648	1260	1229	531
tC, single (s)	4.1			4.2			7.7	6.5	6.2	7.1	6.8	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.3			4.0	4.0	3.3	3.5	4.3	3.3
p0 queue free %	99			99			95	97	92	96	98	97
cM capacity (veh/h)	1032			899			114	173	468	132	152	552

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	664	13	548	6	41	22
Volume Left	8	13	0	6	0	5
Volume Right	15	0	34	0	36	14
cSH	1032	899	1700	114	388	265
Volume to Capacity	0.01	0.01	0.32	0.05	0.11	0.08
Queue Length 95th (ft)	1	1	0	4	9	7
Control Delay (s)	0.2	9.1	0.0	38.4	15.4	19.8
Lane LOS	A	A		E	C	C
Approach Delay (s)	0.2	0.2		18.3		19.8
Approach LOS				C		C

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	47.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	65	573	470	57	16	50
Future Volume (vph)	65	573	470	57	16	50
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.985		0.898	
Flt Protected		0.995			0.988	
Satd. Flow (prot)	0	1795	1803	0	1295	0
Flt Permitted		0.995			0.988	
Satd. Flow (perm)	0	1795	1803	0	1295	0
Adj. Flow (vph)	73	644	528	64	18	56
Lane Group Flow (vph)	0	717	592	0	74	0
Sign Control		Free	Free		Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 75.9%		ICU Level of Service D
Analysis Period (min) 15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	65	573	470	57	16	50
Future Volume (Veh/h)	65	573	470	57	16	50
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	73	644	528	64	18	56
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	592				1350	560
vC1, stage 1 conf vol					560	
vC2, stage 2 conf vol					790	
vCu, unblocked vol	592				1350	560
tC, single (s)	4.2				6.5	6.6
tC, 2 stage (s)					5.5	
tF (s)	2.3				3.6	3.6
p0 queue free %	92				95	88
cM capacity (veh/h)	955				349	465

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	717	592	74
Volume Left	73	0	18
Volume Right	0	64	56
cSH	955	1700	430
Volume to Capacity	0.08	0.35	0.17
Queue Length 95th (ft)	6	0	15
Control Delay (s)	1.9	0.0	15.1
Lane LOS	A		C
Approach Delay (s)	1.9	0.0	15.1
Approach LOS			C

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	539	10	19	552	5	21
Future Volume (vph)	539	10	19	552	5	21
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1807	0	1719	1827	1504	1615
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1807	0	1719	1827	1504	1615
Adj. Flow (vph)	613	11	22	627	6	24
Lane Group Flow (vph)	624	0	22	627	6	24
Sign Control	Free			Free	Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 39.1%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	539	10	19	552	5	21
Future Volume (Veh/h)	539	10	19	552	5	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	613	11	22	627	6	24
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						4
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				762		
pX, platoon unblocked					0.82	
vC, conflicting volume			624		1290	618
vC1, stage 1 conf vol					618	
vC2, stage 2 conf vol					671	
vCu, unblocked vol			624		1243	618
tC, single (s)			4.1		6.6	6.2
tC, 2 stage (s)					5.6	
tF (s)			2.2		3.7	3.3
p0 queue free %			98		98	95
cM capacity (veh/h)			943		361	493

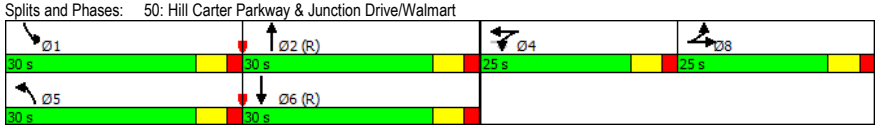
Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	624	22	627	30
Volume Left	0	22	0	6
Volume Right	11	0	0	24
cSH	1700	943	1700	616
Volume to Capacity	0.37	0.02	0.37	0.05
Queue Length 95th (ft)	0	2	0	4
Control Delay (s)	0.0	8.9	0.0	13.2
Lane LOS		A		B
Approach Delay (s)	0.0	0.3		13.2
Approach LOS				B

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	39.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	33	24	2	26	54	13	60	4	61	108	20
Future Volume (vph)	14	33	24	2	26	54	13	60	4	61	108	20
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.901			0.990			0.977	
Flt Protected	0.950				0.999		0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	0	3186	0	1770	3504	0	1770	3458	0
Flt Permitted	0.950				0.999		0.950			0.950		
Satd. Flow (perm)	1770	1863	1583	0	3186	0	1770	3504	0	1770	3458	0
Satd. Flow (RTOR)			149		63			5			18	
Adj. Flow (vph)	16	38	28	2	30	63	15	70	5	71	126	23
Lane Group Flow (vph)	16	38	28	0	95	0	15	75	0	71	149	0
Turn Type	Split	NA	custom	Split	NA		Prot	NA		Prot	NA	
Protected Phases	8	8		4	4		5	2		1	6	
Permitted Phases			4									
Total Split (s)	25.0	25.0	25.0	25.0	25.0		30.0	30.0		30.0	30.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	8.1	8.1	7.5		7.5		15.0	64.8		15.0	73.2	
Actuated g/C Ratio	0.07	0.07	0.07		0.07		0.14	0.59		0.14	0.67	
v/c Ratio	0.12	0.28	0.11		0.35		0.06	0.04		0.29	0.06	
Control Delay	49.0	52.9	0.9		23.6		42.2	12.8		46.5	9.4	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay	49.0	52.9	0.9		23.6		42.2	12.8		46.5	9.4	
LOS	D	D	A		C		D	B		D	A	
Approach Delay		34.4			23.6			17.7			21.4	
Approach LOS		C			C			B			C	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.35	
Intersection Signal Delay: 23.3	Intersection LOS: C
Intersection Capacity Utilization 39.2%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 50: Hill Carter Parkway & Junction Drive/Walmart



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	33	24	2	26	54	13	60	4	61	108	20
Future Volume (vph)	14	33	24	2	26	54	13	60	4	61	108	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	1.00	1.00		0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85		0.90		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583		3184		1770	3504		1770	3457	
Flt Permitted	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1863	1583		3184		1770	3504		1770	3457	
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	16	38	28	2	30	63	15	70	5	71	126	23
RTOR Reduction (vph)	0	0	26	0	59	0	0	2	0	0	7	0
Lane Group Flow (vph)	16	38	2	0	36	0	15	73	0	71	142	0
Turn Type	Split	NA	custom	Split	NA		Prot	NA		Prot	NA	
Protected Phases	8	8		4	4		5	2		1	6	
Permitted Phases			4									
Actuated Green, G (s)	5.3	5.3	7.5		7.5		6.0	61.2		12.0	67.2	
Effective Green, g (s)	5.3	5.3	7.5		7.5		6.0	61.2		12.0	67.2	
Actuated g/C Ratio	0.05	0.05	0.07		0.07		0.05	0.56		0.11	0.61	
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	85	89	107		217		96	1949		193	2111	
v/s Ratio Prot	0.01	c0.02			c0.01		0.01	0.02		c0.04	c0.04	
v/s Ratio Perm			0.00									
v/c Ratio	0.19	0.43	0.02		0.17		0.16	0.04		0.37	0.07	
Uniform Delay, d1	50.3	50.9	47.8		48.3		49.6	11.1		45.5	8.7	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.1	3.3	0.1		0.4		0.8	0.0		1.2	0.1	
Delay (s)	51.4	54.1	47.9		48.7		50.3	11.1		46.7	8.7	
Level of Service	D	D	D		D		D	B		D	A	
Approach Delay (s)		51.5			48.7			17.6			21.0	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM 2000 Control Delay	30.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.13		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	39.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	75	196	187	67	34	84
Future Volume (vph)	75	196	187	67	34	84
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	1583	1770	1583
Adj. Flow (vph)	79	206	197	71	36	88
Lane Group Flow (vph)	79	206	197	71	36	88
Sign Control		Free	Free		Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 27.3%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	75	196	187	67	34	84
Future Volume (Veh/h)	75	196	187	67	34	84
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	79	206	197	71	36	88
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	268				561	197
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	268				561	197
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	94				92	90
cM capacity (veh/h)	1296				459	844

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	79	206	197	71	36	88
Volume Left	79	0	0	0	36	0
Volume Right	0	0	0	71	0	88
cSH	1296	1700	1700	1700	459	844
Volume to Capacity	0.06	0.12	0.12	0.04	0.08	0.10
Queue Length 95th (ft)	5	0	0	0	6	9
Control Delay (s)	8.0	0.0	0.0	0.0	13.5	9.8
Lane LOS	A				B	A
Approach Delay (s)	2.2		0.0		10.8	
Approach LOS					B	

Intersection Summary			
Average Delay	2.9		
Intersection Capacity Utilization	27.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	22	7	0	21	36	474	10	19	636	7
Future Volume (vph)	5	1	22	7	0	21	36	474	10	19	636	7
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Frt		0.894				0.850		0.997			0.998	
Flt Protected		0.991			0.950		0.950				0.999	
Satd. Flow (prot)	0	1620	0	0	1399	1538	1752	3278	0	0	3342	0
Flt Permitted		0.991			0.950		0.950				0.999	
Satd. Flow (perm)	0	1620	0	0	1399	1538	1752	3278	0	0	3342	0
Adj. Flow (vph)	6	1	26	8	0	25	42	558	12	22	748	8
Lane Group Flow (vph)	0	33	0	0	8	25	42	570	0	0	778	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 44.4%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	1	22	7	0	21	36	474	10	19	636	7
Future Volume (Veh/h)	5	1	22	7	0	21	36	474	10	19	636	7
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1	26	8	0	25	42	558	12	22	748	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh)											2	
Upstream signal (ft)								997				
pX, platoon unblocked												
vC, conflicting volume	1184	1450	378	1092	1448	285	756			570		
vC1, stage 1 conf vol	796	796		648	648							
vC2, stage 2 conf vol	388	654		444	800							
vCu, unblocked vol	1184	1450	378	1092	1448	285	756			570		
tC, single (s)	7.5	6.5	7.0	8.1	6.5	7.0	4.2			4.1		
tC, 2 stage (s)	6.5	5.5		7.1	5.5							
tF (s)	3.5	4.0	3.3	3.8	4.0	3.3	2.2			2.2		
p0 queue free %	98	100	96	97	100	96	95			98		
cM capacity (veh/h)	305	304	611	287	292	703	844			1013		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	33	8	25	42	372	198	396	382
Volume Left	6	8	0	42	0	0	22	0
Volume Right	26	0	25	0	0	12	0	8
cSH	504	287	703	844	1700	1700	1013	1700
Volume to Capacity	0.07	0.03	0.04	0.05	0.22	0.12	0.02	0.22
Queue Length 95th (ft)	5	2	3	4	0	0	2	0
Control Delay (s)	12.6	17.9	10.3	9.5	0.0	0.0	0.7	0.0
Lane LOS	B	C	B	A			A	
Approach Delay (s)	12.6	12.2		0.7			0.4	
Approach LOS	B	B						

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	44.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	0	29	0	0	0	7	419	0	0	605	3
Future Volume (vph)	10	0	29	0	0	0	7	419	0	0	605	3
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.900									0.999	
Flt Protected		0.987						0.999				
Satd. Flow (prot)	0	1566	0	0	1900	0	0	3336	0	0	3403	0
Flt Permitted		0.987						0.999				
Satd. Flow (perm)	0	1566	0	0	1900	0	0	3336	0	0	3403	0
Adj. Flow (vph)	11	0	31	0	0	0	8	451	0	0	651	3
Lane Group Flow (vph)	0	42	0	0	0	0	0	459	0	0	654	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 26.8%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	0	29	0	0	0	7	419	0	0	605	3
Future Volume (Veh/h)	10	0	29	0	0	0	7	419	0	0	605	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	11	0	31	0	0	0	8	451	0	0	651	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											1055	
pX, platoon unblocked	0.97	0.97	0.97	0.97	0.97		0.97					
vC, conflicting volume	894	1120	327	824	1121	226	654			451		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	820	1053	233	747	1055	226	572			451		
tC, single (s)	7.7	6.5	7.0	7.5	6.5	6.9	4.4			4.1		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.4	3.5	4.0	3.3	2.3			2.2		
p0 queue free %	95	100	96	100	100	100	99			100		
cM capacity (veh/h)	243	218	728	280	218	784	888			1120		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	42	0	234	226	326	328
Volume Left	11	0	8	0	0	0
Volume Right	31	0	0	0	0	3
cSH	479	1700	888	1700	1120	1700
Volume to Capacity	0.09	0.00	0.01	0.13	0.00	0.19
Queue Length 95th (ft)	7	0	1	0	0	0
Control Delay (s)	13.2	0.0	0.4	0.0	0.0	0.0
Lane LOS	B	A	A			
Approach Delay (s)	13.2	0.0	0.2		0.0	
Approach LOS	B	A				

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	26.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	0	46	0	21	3	400	54	64	558	2
Future Volume (vph)	1	1	0	46	0	21	3	400	54	64	558	2
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt						0.850			0.850			
Flt Protected		0.976		0.950	0.950		0.950			0.950		
Satd. Flow (prot)	0	1854	0	1681	1681	1615	1357	3312	1553	1770	3406	0
Flt Permitted		0.976		0.950	0.950		0.417			0.502		
Satd. Flow (perm)	0	1854	0	1681	1681	1615	596	3312	1553	935	3406	0
Satd. Flow (RTOR)						229			164			
Adj. Flow (vph)	1	1	0	49	0	23	3	430	58	69	600	2
Lane Group Flow (vph)	0	2	0	24	25	23	3	430	58	69	602	0
Turn Type	Split	NA		Split	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases						3	6		2	2		
Total Split (s)	13.0	13.0		15.0	15.0	15.0	16.0	52.0	52.0	20.0	56.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)		5.7		7.1	7.1	7.1	80.8	71.9	71.9	76.0	78.8	
Actuated g/C Ratio		0.06		0.07	0.07	0.07	0.81	0.72	0.72	0.76	0.79	
v/c Ratio		0.02		0.20	0.21	0.07	0.01	0.18	0.05	0.09	0.22	
Control Delay		45.0		47.2	47.4	0.4	3.3	6.1	0.4	6.1	8.9	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		45.0		47.2	47.4	0.4	3.3	6.1	0.4	6.1	8.9	
LOS		D		D	D	A	A	A	A	A	A	
Approach Delay		45.0			32.3			5.4			8.6	
Approach LOS		D			C			A			A	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 83 (83%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.22	
Intersection Signal Delay: 8.8	Intersection LOS: A
Intersection Capacity Utilization 38.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 57: US 1 & Pig Lane/Junction Drive

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	0	46	0	21	3	400	54	64	558	2
Future Volume (vph)	1	1	0	46	0	21	3	400	54	64	558	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor		1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		1.00		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1854		1681	1681	1615	1357	3312	1553	1770	3405	
Flt Permitted		0.98		0.95	0.95	1.00	0.42	1.00	1.00	0.50	1.00	
Satd. Flow (perm)		1854		1681	1681	1615	596	3312	1553	934	3405	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	1	1	0	49	0	23	3	430	58	69	600	2
RTOR Reduction (vph)	0	0	0	0	0	22	0	0	21	0	0	0
Lane Group Flow (vph)	0	2	0	24	25	1	3	430	37	69	602	0
Heavy Vehicles (%)	0%	0%	0%	2%	0%	0%	33%	9%	4%	2%	6%	0%
Turn Type	Split	NA		Split	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases						3	6		2	2		
Actuated Green, G (s)		1.2		6.0	6.0	6.0	68.8	63.4	63.4	68.8	66.8	
Effective Green, g (s)		1.2		6.0	6.0	6.0	68.8	63.4	63.4	68.8	66.8	
Actuated g/C Ratio		0.01		0.06	0.06	0.06	0.69	0.63	0.63	0.69	0.67	
Clearance Time (s)		6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		22		100	100	96	425	2099	984	687	2274	
v/s Ratio Prot		c0.00		0.01	c0.01		0.00	c0.13		0.01	c0.18	
v/s Ratio Perm						0.00	0.00		0.02	0.06		
v/c Ratio		0.09		0.24	0.25	0.01	0.01	0.20	0.04	0.10	0.26	
Uniform Delay, d1		48.9		44.8	44.9	44.2	5.2	7.7	6.9	5.1	6.7	
Progression Factor		1.00		1.00	1.00	1.00	0.82	0.84	1.00	1.63	1.60	
Incremental Delay, d2		1.8		1.2	1.3	0.1	0.0	0.2	0.1	0.1	0.3	
Delay (s)		50.7		46.1	46.2	44.3	4.3	6.7	6.9	8.3	10.9	
Level of Service		D		D	D	D	A	A	A	A	B	
Approach Delay (s)		50.7			45.5			6.7			10.7	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	11.2	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	38.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	3	30	73	423	557	5
Future Volume (vph)	3	30	73	423	557	5
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.876				0.999	
Flt Protected	0.996			0.993		
Satd. Flow (prot)	1558	0	0	3264	3342	0
Flt Permitted	0.996			0.993		
Satd. Flow (perm)	1558	0	0	3264	3342	0
Adj. Flow (vph)	3	34	84	486	640	6
Lane Group Flow (vph)	37	0	0	570	646	0
Sign Control	Stop			Free	Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 42.7%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	30	73	423	557	5
Future Volume (Veh/h)	3	30	73	423	557	5
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	3	34	84	486	640	6
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1054	323	646			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1054	323	646			
tC, single (s)	6.8	7.0	4.2			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	99	95	91			
cM capacity (veh/h)	204	658	929			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	37	246	324	427	219
Volume Left	3	84	0	0	0
Volume Right	34	0	0	0	6
cSH	558	929	1700	1700	1700
Volume to Capacity	0.07	0.09	0.19	0.25	0.13
Queue Length 95th (ft)	5	7	0	0	0
Control Delay (s)	11.9	3.8	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.9	1.6		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	42.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	103	10	30	56	10	20
Future Volume (vph)	103	10	30	56	10	20
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.988				0.910	
Flt Protected				0.983	0.984	
Satd. Flow (prot)	1840	0	0	1831	1668	0
Flt Permitted				0.983	0.984	
Satd. Flow (perm)	1840	0	0	1831	1668	0
Adj. Flow (vph)	112	11	33	61	11	22
Lane Group Flow (vph)	123	0	0	94	33	0
Sign Control	Free			Free	Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 21.3%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	103	10	30	56	10	20
Future Volume (Veh/h)	103	10	30	56	10	20
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	112	11	33	61	11	22
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			123		244	118
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			123		244	118
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		98	98
cM capacity (veh/h)			1464		727	934

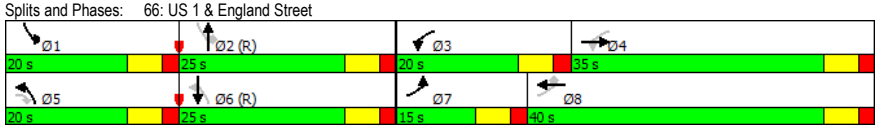
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	123	94	33
Volume Left	0	33	11
Volume Right	11	0	22
cSH	1700	1464	853
Volume to Capacity	0.07	0.02	0.04
Queue Length 95th (ft)	0	2	3
Control Delay (s)	0.0	2.8	9.4
Lane LOS		A	A
Approach Delay (s)	0.0	2.8	9.4
Approach LOS			A

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	21.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	354	118	165	358	282	124	204	103	260	351	73
Future Volume (vph)	62	354	118	165	358	282	124	204	103	260	351	73
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850			0.850			0.850		0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1556	3539	1524	1703	1863	1583	1703	3312	1468	1626	3297	0
Flt Permitted	0.282			0.443			0.416			0.615		
Satd. Flow (perm)	462	3539	1524	794	1863	1583	746	3312	1468	1053	3297	0
Satd. Flow (RTOR)			164			303			164		22	
Adj. Flow (vph)	67	381	127	177	385	303	133	219	111	280	377	78
Lane Group Flow (vph)	67	381	127	177	385	303	133	219	111	280	455	0
Turn Type	D.P+P	NA	custom	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	8		5	4		8	6		2	2		
Total Split (s)	15.0	35.0	20.0	20.0	40.0	40.0	20.0	25.0	25.0	20.0	25.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	35.2	21.9	10.1	34.0	28.5	28.5	42.0	27.8	27.8	42.0	31.9	
Actuated g/C Ratio	0.35	0.22	0.10	0.34	0.28	0.28	0.42	0.28	0.28	0.42	0.32	
v/c Ratio	0.27	0.49	0.42	0.47	0.73	0.45	0.32	0.24	0.21	0.54	0.43	
Control Delay	19.1	35.3	7.3	30.4	42.8	11.6	21.1	31.8	7.7	23.7	29.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.1	35.3	7.3	30.4	42.8	11.6	21.1	31.8	7.7	23.7	29.8	
LOS	B	D	A	C	D	B	C	C	A	C	C	
Approach Delay		27.3			29.3			22.9			27.5	
Approach LOS		C			C			C			C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 27.2	Intersection LOS: C
Intersection Capacity Utilization 69.9%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 66: US 1 & England Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	354	118	165	358	282	124	204	103	260	351	73
Future Volume (vph)	62	354	118	165	358	282	124	204	103	260	351	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1556	3539	1524	1703	1863	1583	1703	3312	1468	1626	3298	
Flt Permitted	0.28	1.00	1.00	0.44	1.00	1.00	0.42	1.00	1.00	0.61	1.00	
Satd. Flow (perm)	462	3539	1524	794	1863	1583	745	3312	1468	1052	3298	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	67	381	127	177	385	303	133	219	111	280	377	78
RTOR Reduction (vph)	0	0	114	0	0	217	0	0	81	0	15	0
Lane Group Flow (vph)	67	381	13	177	385	86	133	219	30	280	440	0
Heavy Vehicles (%)	16%	2%	6%	6%	2%	2%	6%	9%	10%	11%	7%	5%
Turn Type	D.P+P	NA	custom	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	8		5	4		8	6		2	2		
Actuated Green, G (s)	35.2	23.1	10.1	35.2	28.5	28.5	40.8	26.6	26.6	40.8	30.7	
Effective Green, g (s)	35.2	23.1	10.1	35.2	28.5	28.5	40.8	26.6	26.6	40.8	30.7	
Actuated g/C Ratio	0.35	0.23	0.10	0.35	0.28	0.28	0.41	0.27	0.27	0.41	0.31	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	235	817	153	389	530	451	400	880	390	510	1012	
v/s Ratio Prot	0.02	0.11		c0.05	c0.21		0.03	0.07		c0.08	c0.13	
v/s Ratio Perm	0.08		0.01	0.10		0.05	0.10		0.02	c0.15		
v/c Ratio	0.29	0.47	0.08	0.46	0.73	0.19	0.33	0.25	0.08	0.55	0.43	
Uniform Delay, d1	22.9	33.1	40.8	23.5	32.2	27.0	19.1	28.8	27.5	21.2	27.7	
Progression Factor	1.00	1.00	1.00	1.40	1.08	3.06	1.08	1.00	4.05	1.00	1.00	
Incremental Delay, d2	0.7	0.4	0.2	0.8	4.8	0.2	0.5	0.7	0.4	1.2	1.4	
Delay (s)	23.6	33.6	41.0	33.8	39.5	83.0	21.2	29.4	111.6	22.4	29.1	
Level of Service	C	C	D	C	D	F	C	C	F	C	C	
Approach Delay (s)		34.0			53.6			46.8			26.5	
Approach LOS		C			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	40.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	333	2	11	151	6	1	3	42	20	9	15
Future Volume (vph)	0	333	2	11	151	6	1	3	42	20	9	15
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		0.999			0.995			0.876			0.954	
Flt Protected					0.997			0.999			0.978	
Satd. Flow (prot)	0	1861	0	0	1848	0	0	1630	0	0	1738	0
Flt Permitted					0.997			0.999			0.978	
Satd. Flow (perm)	0	1861	0	0	1848	0	0	1630	0	0	1738	0
Adj. Flow (vph)	0	354	2	12	161	6	1	3	45	21	10	16
Lane Group Flow (vph)	0	356	0	0	179	0	0	49	0	0	47	0
Sign Control		Free			Stop			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 33.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	27	368	168	16	0	0
Future Volume (vph)	27	368	168	16	0	0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.988			
Flt Protected		0.997				
Satd. Flow (prot)	0	1857	1840	0	0	0
Flt Permitted		0.997				
Satd. Flow (perm)	0	1857	1840	0	0	0
Adj. Flow (vph)	29	391	179	17	0	0
Lane Group Flow (vph)	0	420	196	0	0	0
Sign Control		Stop	Free		Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 37.3%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	9	0	44	0
Future Volume (vph)	0	0	9	0	44	0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	0	0	1770	0	1863	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	1770	0	1863	0
Adj. Flow (vph)	0	0	10	0	48	0
Lane Group Flow (vph)	0	0	10	0	48	0
Sign Control	Stop			Free	Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 10.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	520	28	0	665
Future Volume (vph)	0	0	520	28	0	665
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt				0.850		
Flt Protected						
Satd. Flow (prot)	0	0	3539	1583	0	3539
Flt Permitted						
Satd. Flow (perm)	0	0	3539	1583	0	3539
Adj. Flow (vph)	0	0	565	30	0	723
Lane Group Flow (vph)	0	0	565	30	0	723
Sign Control	Free		Free			Free

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 21.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	0	43	44	0	0	0
Future Volume (vph)	0	43	44	0	0	0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Adj. Flow (vph)	0	47	48	0	0	0
Lane Group Flow (vph)	0	47	48	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 6.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	592	5	17	503	9	46
Future Volume (vph)	592	5	17	503	9	46
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999					0.850
Flt Protected				0.998	0.950	
Satd. Flow (prot)	1808	0	0	1818	1626	1568
Flt Permitted				0.998	0.950	
Satd. Flow (perm)	1808	0	0	1818	1626	1568
Adj. Flow (vph)	665	6	19	565	10	52
Lane Group Flow (vph)	671	0	0	584	10	52
Sign Control	Free			Free	Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 50.2%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	592	5	17	503	9	46
Future Volume (Veh/h)	592	5	17	503	9	46
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	665	6	19	565	10	52
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			671		1271	668
vC1, stage 1 conf vol					668	
vC2, stage 2 conf vol					603	
vCu, unblocked vol			671		1271	668
tC, single (s)			4.2		6.5	6.2
tC, 2 stage (s)					5.5	
tF (s)			2.3		3.6	3.3
p0 queue free %			98		97	89
cM capacity (veh/h)			865		385	456

Direction, Lane #	EB 1	WB 1	NB 1	NB 2
Volume Total	671	584	10	52
Volume Left	0	19	10	0
Volume Right	6	0	0	52
cSH	1700	865	385	456
Volume to Capacity	0.39	0.02	0.03	0.11
Queue Length 95th (ft)	0	2	2	10
Control Delay (s)	0.0	0.6	14.6	13.9
Lane LOS		A	B	B
Approach Delay (s)	0.0	0.6	14.0	
Approach LOS			B	

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	50.2%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	373	2	72	554	5	2	0	83	5	0	2
Future Volume (vph)	1	373	2	72	554	5	2	0	83	5	0	2
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		0.999			0.999				0.865		0.961	
Flt Protected				0.950				0.950			0.966	
Satd. Flow (prot)	0	1861	0	1805	1879	0	0	0	1627	0	1764	0
Flt Permitted				0.950				0.950			0.966	
Satd. Flow (perm)	0	1861	0	1805	1879	0	0	0	1627	0	1764	0
Adj. Flow (vph)	1	401	2	77	596	5	2	0	89	5	0	2
Lane Group Flow (vph)	0	404	0	77	601	0	0	2	89	0	7	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	373	2	72	554	5	2	0	83	5	0	2
Future Volume (Veh/h)	1	373	2	72	554	5	2	0	83	5	0	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	1	401	2	77	596	5	2	0	89	5	0	2
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	601			403			1156	1159	402	1246	1158	598
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	601			403			1156	1159	402	1246	1158	598
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			93			99	100	86	96	100	100
cM capacity (veh/h)	986			1167			166	184	650	125	185	506

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	SB 1
Volume Total	404	77	601	91	7
Volume Left	1	77	0	2	5
Volume Right	2	0	5	89	2
cSH	986	1167	1700	611	159
Volume to Capacity	0.00	0.07	0.35	0.15	0.04
Queue Length 95th (ft)	0	5	0	13	3
Control Delay (s)	0.0	8.3	0.0	11.9	28.7
Lane LOS	A	A		B	D
Approach Delay (s)	0.0	0.9		11.9	28.7
Approach LOS				B	D

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	67	24	12	513	309	57
Future Volume (vph)	67	24	12	513	309	57
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.964				0.979	
Flt Protected	0.965			0.999		
Satd. Flow (prot)	1733	0	0	1861	1824	0
Flt Permitted	0.965			0.999		
Satd. Flow (perm)	1733	0	0	1861	1824	0
Adj. Flow (vph)	69	25	12	529	319	59
Lane Group Flow (vph)	94	0	0	541	378	0
Sign Control	Stop			Free	Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 48.5%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	67	24	12	513	309	57
Future Volume (Veh/h)	67	24	12	513	309	57
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	69	25	12	529	319	59
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	902	348	378			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	902	348	378			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	77	96	99			
cM capacity (veh/h)	305	695	1180			

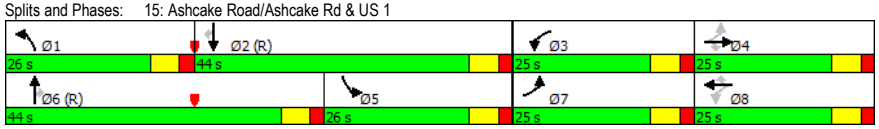
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	94	541	378
Volume Left	69	12	0
Volume Right	25	0	59
cSH	359	1180	1700
Volume to Capacity	0.26	0.01	0.22
Queue Length 95th (ft)	26	1	0
Control Delay (s)	18.6	0.3	0.0
Lane LOS	C	A	
Approach Delay (s)	18.6	0.3	0.0
Approach LOS	C		

Intersection Summary			
Average Delay	1.9		
Intersection Capacity Utilization	48.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	181	134	97	90	216	135	254	611	103	89	424	190
Future Volume (vph)	181	134	97	90	216	135	254	611	103	89	424	190
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1719	1881	1538	1703	1900	1568	1787	3505	1599	1805	3505	1568
Flt Permitted	0.215			0.662			0.950			0.950		
Satd. Flow (perm)	389	1881	1538	1187	1900	1568	1787	3505	1599	1805	3505	1568
Satd. Flow (RTOR)			191			191			136			211
Adj. Flow (vph)	201	149	108	100	240	150	282	679	114	99	471	211
Lane Group Flow (vph)	201	149	108	100	240	150	282	679	114	99	471	211
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6			2
Total Split (s)	25.0	25.0	25.0	25.0	25.0	25.0	26.0	44.0	44.0	26.0	44.0	44.0
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Act Effct Green (s)	40.2	24.2	24.2	28.6	18.2	18.2	21.0	41.4	41.4	20.0	40.4	40.4
Actuated g/C Ratio	0.34	0.20	0.20	0.24	0.15	0.15	0.18	0.34	0.34	0.17	0.34	0.34
v/c Ratio	0.64	0.39	0.23	0.31	0.83	0.38	0.90	0.56	0.18	0.33	0.40	0.32
Control Delay	39.0	44.5	1.2	30.0	73.3	5.3	80.7	35.0	3.8	37.7	23.1	7.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.0	44.5	1.2	30.0	73.3	5.3	80.7	35.0	3.8	37.7	23.1	7.5
LOS	D	D	A	C	E	A	F	D	A	D	C	A
Approach Delay		31.9			43.6			43.7			20.8	
Approach LOS		C			D			D			C	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 107 (89%), Referenced to phase 2:SBT and 6:NBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 35.4	Intersection LOS: D
Intersection Capacity Utilization 68.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 15: Ashcake Road/Ashcake Rd & US 1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	181	134	97	90	216	135	254	611	103	89	424	190
Future Volume (vph)	181	134	97	90	216	135	254	611	103	89	424	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1719	1881	1538	1703	1900	1568	1787	3505	1599	1805	3505	1568
Flt Permitted	0.22	1.00	1.00	0.66	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	389	1881	1538	1187	1900	1568	1787	3505	1599	1805	3505	1568
Peak-hour factor, PHF	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)	201	149	108	100	240	150	282	679	114	99	471	211
RTOR Reduction (vph)	0	0	86	0	0	127	0	0	75	0	0	140
Lane Group Flow (vph)	201	149	22	100	240	23	282	679	39	99	471	71
Heavy Vehicles (%)	5%	1%	5%	6%	0%	3%	1%	3%	1%	0%	3%	3%
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4		4	8		8			6			2
Actuated Green, G (s)	40.6	24.2	24.2	28.6	18.2	18.2	21.0	41.4	41.4	20.0	40.4	40.4
Effective Green, g (s)	40.6	24.2	24.2	28.6	18.2	18.2	21.0	41.4	41.4	20.0	40.4	40.4
Actuated g/C Ratio	0.34	0.20	0.20	0.24	0.15	0.15	0.18	0.34	0.34	0.17	0.34	0.34
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	313	379	310	327	288	237	312	1209	551	300	1180	527
v/s Ratio Prot	c0.09	0.08		0.03	c0.13		c0.16	c0.19		0.05	c0.13	
v/s Ratio Perm	0.13		0.01	0.05		0.01			0.02			0.05
v/c Ratio	0.64	0.39	0.07	0.31	0.83	0.10	0.90	0.56	0.07	0.33	0.40	0.13
Uniform Delay, d1	31.0	41.5	38.8	37.0	49.4	43.8	48.5	31.9	26.4	44.1	30.5	27.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.78	0.70	1.54
Incremental Delay, d2	4.5	0.7	0.1	0.5	18.3	0.2	27.8	1.9	0.3	0.6	1.0	0.5
Delay (s)	35.5	42.2	38.9	37.5	67.7	44.0	76.3	33.8	26.6	35.0	22.4	43.1
Level of Service	D	D	D	D	E	D	E	C	C	D	C	D
Approach Delay (s)		38.5			54.3			44.2			29.6	
Approach LOS		D			D			D			C	

Intersection Summary			
HCM 2000 Control Delay	41.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	191	215	0	0	260	15	0	0	94	0	0	0
Future Volume (vph)	191	215	0	0	260	15	0	0	94	0	0	0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.865			
Flt Protected	0.950											
Satd. Flow (prot)	1687	3438	0	0	3438	1524	0	0	1611	0	0	0
Flt Permitted	0.950											
Satd. Flow (perm)	1687	3438	0	0	3438	1524	0	0	1611	0	0	0
Adj. Flow (vph)	215	242	0	0	292	17	0	0	106	0	0	0
Lane Group Flow (vph)	215	242	0	0	292	17	0	0	106	0	0	0
Sign Control		Free			Free			Yield			Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 51.3%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	191	215	0	0	260	15	0	0	94	0	0	0
Future Volume (Veh/h)	191	215	0	0	260	15	0	0	94	0	0	0
Sign Control		Free			Free			Yield			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	215	242	0	0	292	17	0	0	106	0	0	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	292			242			818	964	121	843	964	146
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	292			242			818	964	121	843	964	146
tC, single (s)	4.2			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.3			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	83			100			100	100	88	100	100	100
cM capacity (veh/h)	1231			1336			235	212	908	199	212	881

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	215	121	121	146	146	17	106
Volume Left	215	0	0	0	0	0	0
Volume Right	0	0	0	0	0	17	106
cSH	1231	1700	1700	1700	1700	1700	908
Volume to Capacity	0.17	0.07	0.07	0.09	0.09	0.01	0.12
Queue Length 95th (ft)	16	0	0	0	0	0	10
Control Delay (s)	8.5	0.0	0.0	0.0	0.0	0.0	9.5
Lane LOS	A						A
Approach Delay (s)	4.0			0.0			9.5
Approach LOS							A

Intersection Summary			
Average Delay	3.3		
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	400	567	82	783	0	0	0	0	6	0	211
Future Volume (vph)	0	400	567	82	783	0	0	0	0	6	0	211
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850								0.869	
Flt Protected				0.950							0.999	
Satd. Flow (prot)	0	3438	1509	1719	3438	0	0	0	0	0	1554	0
Flt Permitted				0.950							0.999	
Satd. Flow (perm)	0	3438	1509	1719	3438	0	0	0	0	0	1554	0
Adj. Flow (vph)	0	435	616	89	851	0	0	0	0	7	0	229
Lane Group Flow (vph)	0	435	616	89	851	0	0	0	0	0	236	0
Sign Control		Free			Free			Yield			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 63.0%	ICU Level of Service B
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	400	567	82	783	0	0	0	0	6	0	211
Future Volume (Veh/h)	0	400	567	82	783	0	0	0	0	6	0	211
Sign Control		Free			Free			Yield			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	435	616	89	851	0	0	0	0	7	0	229
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)		955										
pX, platoon unblocked												
vC, conflicting volume	851			435			1038	1464	218	1246	1464	426
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	851			435			1038	1464	218	1246	1464	426
tC, single (s)	4.1			4.2			7.5	6.5	6.9	7.7	6.7	7.0
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.1	3.4
p0 queue free %	100			92			100	100	100	94	100	60
cM capacity (veh/h)	796			1100			105	119	793	113	108	566

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	SB 1
Volume Total	218	218	616	89	426	426	236
Volume Left	0	0	0	89	0	0	7
Volume Right	0	0	616	0	0	0	229
cSH	1700	1700	1700	1100	1700	1700	506
Volume to Capacity	0.13	0.13	0.36	0.08	0.25	0.25	0.47
Queue Length 95th (ft)	0	0	0	7	0	0	61
Control Delay (s)	0.0	0.0	0.0	8.6	0.0	0.0	18.2
Lane LOS				A			C
Approach Delay (s)	0.0			0.8			18.2
Approach LOS							C

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	63.0%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	406	260	0	0	605
Future Volume (vph)	0	406	260	0	0	605
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	3438	3539	0	0	1596
Flt Permitted						
Satd. Flow (perm)	0	3438	3539	0	0	1596
Adj. Flow (vph)	0	441	292	0	0	658
Lane Group Flow (vph)	0	441	292	0	0	658
Sign Control		Free	Free		Yield	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 51.3%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	406	260	0	0	605
Future Volume (Veh/h)	0	406	260	0	0	605
Sign Control		Free	Free		Yield	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.89	0.89	0.92	0.92
Hourly flow rate (vph)	0	441	292	0	0	658
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	292				512	146
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	292				512	146
tC, single (s)	4.1				6.8	7.0
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	24
cM capacity (veh/h)	1267				491	871

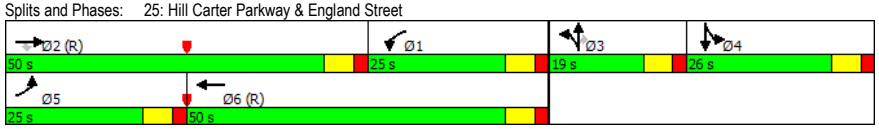
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1
Volume Total	220	220	146	146	658
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	658
cSH	1700	1700	1700	1700	871
Volume to Capacity	0.13	0.13	0.09	0.09	0.76
Queue Length 95th (ft)	0	0	0	0	182
Control Delay (s)	0.0	0.0	0.0	0.0	20.7
Lane LOS					C
Approach Delay (s)	0.0		0.0		20.7
Approach LOS					C

Intersection Summary			
Average Delay	9.8		
Intersection Capacity Utilization	51.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	704	69	128	715	13	87	10	79	48	3	5
Future Volume (vph)	5	704	69	128	715	13	87	10	79	48	3	5
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91	0.91	0.91	0.91	1.00	1.00	0.95	0.95
Frt			0.850		0.997				0.850		0.910	
Flt Protected	0.950			0.950			0.950	0.961		0.950		
Satd. Flow (prot)	1687	4848	1509	3242	4788	0	1564	3165	1538	1671	3042	0
Flt Permitted	0.950			0.950			0.950	0.961		0.950		
Satd. Flow (perm)	1687	4848	1509	3242	4788	0	1564	3165	1538	1671	3042	0
Satd. Flow (RTOR)			136		2				191		375	
Adj. Flow (vph)	6	869	85	158	883	16	107	12	98	59	4	6
Lane Group Flow (vph)	6	869	85	158	899	0	53	66	98	59	10	0
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2						3			
Total Split (s)	25.0	50.0	50.0	25.0	50.0		19.0	19.0	19.0	26.0	26.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	8.0	59.9	59.9	19.0	82.1		9.9	9.9	9.9	10.0	10.0	
Actuated g/C Ratio	0.07	0.50	0.50	0.16	0.68		0.08	0.08	0.08	0.08	0.08	
v/c Ratio	0.05	0.36	0.10	0.31	0.27		0.41	0.25	0.33	0.42	0.02	
Control Delay	45.4	13.8	4.2	46.6	9.3		61.5	53.3	2.9	61.0	0.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	45.4	13.8	4.2	46.6	9.3		61.5	53.3	2.9	61.0	0.0	
LOS	D	B	A	D	A		E	D	A	E	A	
Approach Delay		13.1			14.9			32.5			52.2	
Approach LOS		B			B			C			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 53 (44%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.42	
Intersection Signal Delay: 16.9	Intersection LOS: B
Intersection Capacity Utilization 45.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 25: Hill Carter Parkway & England Street



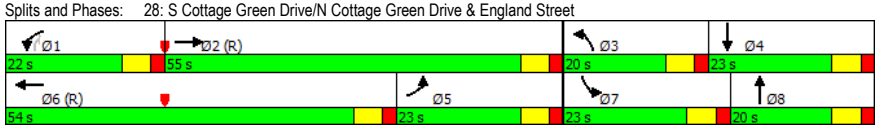
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	704	69	128	715	13	87	10	79	48	3	5
Future Volume (vph)	5	704	69	128	715	13	87	10	79	48	3	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.91	1.00	0.97	0.91		0.91	0.91	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00		1.00	1.00	0.85	1.00	0.91	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (prot)	1687	4848	1509	3242	4790		1564	3164	1538	1671	3042	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	0.96	1.00	0.95	1.00	
Satd. Flow (perm)	1687	4848	1509	3242	4790		1564	3164	1538	1671	3042	
Peak-hour factor, PHF	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
Adj. Flow (vph)	6	869	85	158	883	16	107	12	98	59	4	6
RTOR Reduction (vph)	0	0	47	0	1	0	0	0	90	0	9	0
Lane Group Flow (vph)	6	869	38	158	898	0	53	66	8	59	1	0
Heavy Vehicles (%)	7%	7%	7%	8%	8%	8%	5%	5%	5%	8%	8%	8%
Turn Type	Prot	NA	Perm	Prot	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases			2						3			
Actuated Green, G (s)	1.6	53.9	53.9	23.8	76.1		9.9	9.9	9.9	8.4	8.4	
Effective Green, g (s)	1.6	53.9	53.9	23.8	76.1		9.9	9.9	9.9	8.4	8.4	
Actuated g/C Ratio	0.01	0.45	0.45	0.20	0.63		0.08	0.08	0.08	0.07	0.07	
Clearance Time (s)	6.0	6.0	6.0	6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	22	2177	677	642	3037		129	261	126	116	212	
v/s Ratio Prot	0.00	c0.18		0.05	c0.19		c0.03	0.02		c0.04	0.00	
v/s Ratio Perm			0.03						0.01			
v/c Ratio	0.27	0.40	0.06	0.25	0.30		0.41	0.25	0.06	0.51	0.00	
Uniform Delay, d1	58.6	22.2	18.7	40.5	9.9		52.3	51.6	50.8	53.8	51.9	
Progression Factor	0.84	0.68	5.92	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	6.2	0.5	0.1	0.2	0.2		2.1	0.5	0.2	3.5	0.0	
Delay (s)	55.6	15.6	110.7	40.7	10.1		54.4	52.1	51.0	57.3	51.9	
Level of Service	E	B	F	D	B		D	D	D	E	D	
Approach Delay (s)		24.2			14.7			52.2			56.5	
Approach LOS		C			B			D			E	

Intersection Summary			
HCM 2000 Control Delay	23.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	834	36	96	772	94	70	53	59	170	50	26
Future Volume (vph)	22	834	36	96	772	94	70	53	59	170	50	26
Lane Util. Factor	1.00	0.91	0.91	0.97	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.994			0.984				0.850		0.949	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	5006	0	3273	4928	0	1805	1900	1568	1805	1803	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1805	5006	0	3273	4928	0	1805	1900	1568	1805	1803	0
Satd. Flow (RTOR)		6			21				191		18	
Adj. Flow (vph)	23	878	38	101	813	99	74	56	62	179	53	27
Lane Group Flow (vph)	23	916	0	101	912	0	74	56	62	179	80	0
Turn Type	Prot	NA		Prot	NA		Prot	NA	custom	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									1			
Total Split (s)	23.0	55.0		22.0	54.0		20.0	20.0	22.0	23.0	23.0	
Total Lost Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	12.5	64.9		9.1	66.2		10.2	8.9	9.1	15.4	13.1	
Actuated g/C Ratio	0.10	0.54		0.08	0.55		0.08	0.07	0.08	0.13	0.11	
v/c Ratio	0.12	0.34		0.41	0.33		0.48	0.40	0.21	0.77	0.38	
Control Delay	39.9	11.9		50.2	16.5		62.1	60.5	1.6	72.4	42.5	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay	39.9	11.9		50.2	16.5		62.1	60.5	1.6	72.4	42.5	
LOS	D	B		D	B		E	E	A	E	D	
Approach Delay		12.6			19.8			42.1			63.2	
Approach LOS		B			B			D			E	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 104 (87%), Referenced to phase 2:EBT and 6:WBT, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 52.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 28: S Cottage Green Drive/N Cottage Green Drive & England Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	22	834	36	96	772	94	70	53	59	170	50	26
Future Volume (vph)	22	834	36	96	772	94	70	53	59	170	50	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.91		0.97	0.91		1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	1.00	0.85	1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1805	5005		3273	4927		1805	1900	1568	1805	1804	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1805	5005		3273	4927		1805	1900	1568	1805	1804	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	23	878	38	101	813	99	74	56	62	179	53	27
RTOR Reduction (vph)	0	3	0	0	10	0	0	0	57	0	16	0
Lane Group Flow (vph)	23	913	0	101	902	0	74	56	5	179	64	0
Heavy Vehicles (%)	0%	3%	3%	7%	4%	0%	0%	0%	3%	0%	0%	0%
Turn Type	Prot	NA		Prot	NA		Prot	NA	custom	Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases									1			
Actuated Green, G (s)	10.2	63.7		9.1	62.6		9.0	7.8	9.1	15.4	14.2	
Effective Green, g (s)	10.2	63.7		9.1	62.6		9.0	7.8	9.1	15.4	14.2	
Actuated g/C Ratio	0.08	0.53		0.08	0.52		0.08	0.06	0.08	0.13	0.12	
Clearance Time (s)	6.0	6.0		6.0	6.0		6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	153	2656		248	2570		135	123	118	231	213	
v/s Ratio Prot	0.01	c0.18		0.03	c0.18		0.04	c0.03		c0.10	0.04	
v/s Ratio Perm									0.00			
v/c Ratio	0.15	0.34		0.41	0.35		0.55	0.46	0.04	0.77	0.30	
Uniform Delay, d1	50.9	16.2		52.9	16.8		53.5	54.1	51.4	50.6	48.4	
Progression Factor	0.84	0.69		0.86	0.90		1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.4	0.3		1.1	0.4		4.5	2.7	0.1	14.9	0.8	
Delay (s)	43.3	11.4		46.7	15.5		58.0	56.7	51.5	65.5	49.2	
Level of Service	D	B		D	B		E	E	D	E	D	
Approach Delay (s)		12.2			18.7			55.6			60.5	
Approach LOS		B			B			E			E	

Intersection Summary			
HCM 2000 Control Delay	23.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	52.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	24	10	556	28	6	388
Future Volume (vph)	24	10	556	28	6	388
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.962		0.993			
Flt Protected	0.965					0.999
Satd. Flow (prot)	1670	0	3447	0	0	3429
Flt Permitted	0.965					0.999
Satd. Flow (perm)	1670	0	3447	0	0	3429
Adj. Flow (vph)	28	11	639	32	7	446
Lane Group Flow (vph)	39	0	671	0	0	453
Sign Control	Stop		Free			Free

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 26.3%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	24	10	556	28	6	388
Future Volume (Veh/h)	24	10	556	28	6	388
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	28	11	639	32	7	446
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	892	336			671	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	892	336			671	
tC, single (s)	6.8	7.3			4.4	
tC, 2 stage (s)						
tF (s)	3.5	3.5			2.4	
p0 queue free %	90	98			99	
cM capacity (veh/h)	283	610			821	

Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	39	426	245	156	297
Volume Left	28	0	0	7	0
Volume Right	11	0	32	0	0
cSH	333	1700	1700	821	1700
Volume to Capacity	0.12	0.25	0.14	0.01	0.17
Queue Length 95th (ft)	10	0	0	1	0
Control Delay (s)	17.2	0.0	0.0	0.5	0.0
Lane LOS	C			A	
Approach Delay (s)	17.2	0.0		0.2	
Approach LOS	C				

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	26.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	1	55	64	6	19	77	549	13	4	394	19
Future Volume (vph)	13	1	55	64	6	19	77	549	13	4	394	19
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	0.95
Frt			0.850		0.971				0.850		0.993	
Flt Protected		0.955			0.965			0.994			0.999	
Satd. Flow (prot)	0	1688	1553	0	1743	0	0	3434	1495	0	3435	0
Flt Permitted		0.955			0.965			0.994			0.999	
Satd. Flow (perm)	0	1688	1553	0	1743	0	0	3434	1495	0	3435	0
Adj. Flow (vph)	15	1	65	75	7	22	91	646	15	5	464	22
Lane Group Flow (vph)	0	16	65	0	104	0	0	737	15	0	491	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 50.7%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	13	1	55	64	6	19	77	549	13	4	394	19
Future Volume (Veh/h)	13	1	55	64	6	19	77	549	13	4	394	19
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	15	1	65	75	7	22	91	646	15	5	464	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)			9									
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1016	1328	243	1070	1324	323	486			661		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1016	1328	243	1070	1324	323	486			661		
tC, single (s)	7.7	6.5	7.0	7.6	6.5	6.9	4.1			4.6		
tC, 2 stage (s)												
tF (s)	3.6	4.0	3.3	3.5	4.0	3.3	2.2			2.5		
p0 queue free %	91	99	91	49	95	97	92			99		
cM capacity (veh/h)	160	142	752	147	143	679	1080			784		

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	81	104	306	431	15	237	254
Volume Left	15	75	91	0	0	5	0
Volume Right	65	22	0	0	15	0	22
cSH	803	176	1080	1700	1700	784	1700
Volume to Capacity	0.10	0.59	0.08	0.25	0.01	0.01	0.15
Queue Length 95th (ft)	8	80	7	0	0	0	0
Control Delay (s)	14.2	51.4	3.2	0.0	0.0	0.3	0.0
Lane LOS	B	F	A			A	
Approach Delay (s)	14.2	51.4	1.3			0.1	
Approach LOS	B	F					

Intersection Summary			
Average Delay	5.3		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1	1	41	0	59	0	36	19	38	19	0
Future Volume (vph)	0	1	1	41	0	59	0	36	19	38	19	0
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		0.932			0.921			0.953				
Flt Protected					0.980						0.968	
Satd. Flow (prot)	0	1771	0	0	1701	0	0	1776	0	0	1718	0
Flt Permitted					0.980						0.968	
Satd. Flow (perm)	0	1771	0	0	1701	0	0	1776	0	0	1718	0
Adj. Flow (vph)	0	1	1	47	0	67	0	41	22	43	22	0
Lane Group Flow (vph)	0	2	0	0	114	0	0	63	0	0	65	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 29.0%	ICU Level of Service A
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	1	1	41	0	59	0	36	19	38	19	0
Future Volume (Veh/h)	0	1	1	41	0	59	0	36	19	38	19	0
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	0	1	1	47	0	67	0	41	22	43	22	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	227	171	22	162	160	52	22			63		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	227	171	22	162	160	52	22			63		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	94	100	93	100			97		
cM capacity (veh/h)	670	705	1061	785	715	1021	1607			1521		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	2	114	63	65
Volume Left	0	47	0	43
Volume Right	1	67	22	0
cSH	847	908	1607	1521
Volume to Capacity	0.00	0.13	0.00	0.03
Queue Length 95th (ft)	0	11	0	2
Control Delay (s)	9.3	9.5	0.0	5.0
Lane LOS	A	A		A
Approach Delay (s)	9.3	9.5	0.0	5.0
Approach LOS	A	A		

Intersection Summary			
Average Delay	5.9		
Intersection Capacity Utilization	29.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	3	5	3	8	7	8	38	3	4	26	19
Future Volume (vph)	23	3	5	3	8	7	8	38	3	4	26	19
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		0.977			0.946			0.993			0.948	
Flt Protected		0.964			0.993			0.992			0.996	
Satd. Flow (prot)	0	1789	0	0	1785	0	0	1829	0	0	1722	0
Flt Permitted		0.964			0.993			0.992			0.996	
Satd. Flow (perm)	0	1789	0	0	1785	0	0	1829	0	0	1722	0
Adj. Flow (vph)	26	3	6	3	9	8	9	43	3	5	30	22
Lane Group Flow (vph)	0	35	0	0	20	0	0	55	0	0	57	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 16.8%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	3	5	3	8	7	8	38	3	4	26	19
Future Volume (Veh/h)	23	3	5	3	8	7	8	38	3	4	26	19
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Hourly flow rate (vph)	26	3	6	3	9	8	9	43	3	5	30	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	126	115	41	121	124	44	52			46		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	126	115	41	121	124	44	52			46		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	100	99	100	99	99	99			100		
cM capacity (veh/h)	832	772	1036	846	763	1031	1567			1575		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	35	20	55	57
Volume Left	26	3	9	5
Volume Right	6	8	3	22
cSH	856	866	1567	1575
Volume to Capacity	0.04	0.02	0.01	0.00
Queue Length 95th (ft)	3	2	0	0
Control Delay (s)	9.4	9.3	1.2	0.7
Lane LOS	A	A	A	A
Approach Delay (s)	9.4	9.3	1.2	0.7
Approach LOS	A	A		

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	321	5	6	541	35	9	18	10	21	11	3
Future Volume (vph)	4	321	5	6	541	35	9	18	10	21	11	3
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		0.998			0.992			0.964			0.989	
Flt Protected		0.999			0.999			0.988			0.971	
Satd. Flow (prot)	0	1853	0	0	1866	0	0	1717	0	0	1771	0
Flt Permitted		0.999			0.999			0.988			0.971	
Satd. Flow (perm)	0	1853	0	0	1866	0	0	1717	0	0	1771	0
Adj. Flow (vph)	4	349	5	7	588	38	10	20	11	23	12	3
Lane Group Flow (vph)	0	358	0	0	633	0	0	41	0	0	38	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 45.0%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	321	5	6	541	35	9	18	10	21	11	3
Future Volume (Veh/h)	4	321	5	6	541	35	9	18	10	21	11	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	349	5	7	588	38	10	20	11	23	12	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	626			354			990	1000	352	1002	983	607
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	626			354			990	1000	352	1002	983	607
tC, single (s)	4.3			4.1			7.1	6.6	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.4			2.2			3.5	4.1	3.3	3.5	4.0	3.3
p0 queue free %	100			99			95	91	98	88	95	99
cM capacity (veh/h)	854			1216			216	232	697	199	248	500

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	358	633	41	38
Volume Left	4	7	10	23
Volume Right	5	38	11	3
cSH	854	1216	277	224
Volume to Capacity	0.00	0.01	0.15	0.17
Queue Length 95th (ft)	0	0	13	15
Control Delay (s)	0.2	0.2	20.3	24.3
Lane LOS	A	A	C	C
Approach Delay (s)	0.2	0.2	20.3	24.3
Approach LOS			C	C

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	45.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	433	21	22	599	30	7	7	48	11	9	21
Future Volume (vph)	7	433	21	22	599	30	7	7	48	11	9	21
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		0.994			0.993			0.870			0.931	
Flt Protected		0.999		0.950			0.950				0.987	
Satd. Flow (prot)	0	1852	0	1719	1869	0	1805	1653	0	0	1627	0
Flt Permitted		0.999		0.950			0.950				0.987	
Satd. Flow (perm)	0	1852	0	1719	1869	0	1805	1653	0	0	1627	0
Adj. Flow (vph)	8	466	23	24	644	32	8	8	52	12	10	23
Lane Group Flow (vph)	0	497	0	24	676	0	8	60	0	0	45	0
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 49.0%	ICU Level of Service A
Analysis Period (min) 15	

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	433	21	22	599	30	7	7	48	11	9	21
Future Volume (Veh/h)	7	433	21	22	599	30	7	7	48	11	9	21
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	8	466	23	24	644	32	8	8	52	12	10	23
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	676			489			1214	1218	478	1258	1213	660
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	676			489			1214	1218	478	1258	1213	660
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.8	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.3	3.3
p0 queue free %	99			98			94	95	91	91	93	95
cM capacity (veh/h)	925			1059			141	177	592	128	154	467

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	497	24	676	8	60	45
Volume Left	8	24	0	8	0	12
Volume Right	23	0	32	0	52	23
cSH	925	1059	1700	141	451	217
Volume to Capacity	0.01	0.02	0.40	0.06	0.13	0.21
Queue Length 95th (ft)	1	2	0	4	11	19
Control Delay (s)	0.3	8.5	0.0	32.0	14.2	25.9
Lane LOS	A	A		D	B	D
Approach Delay (s)	0.3	0.3		16.3		25.9
Approach LOS				C		D

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	49.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	29	559	653	45	45	28
Future Volume (vph)	29	559	653	45	45	28
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.991		0.948	
Flt Protected		0.998			0.970	
Satd. Flow (prot)	0	1861	1865	0	1721	0
Flt Permitted		0.998			0.970	
Satd. Flow (perm)	0	1861	1865	0	1721	0
Adj. Flow (vph)	30	582	680	47	47	29
Lane Group Flow (vph)	0	612	727	0	76	0
Sign Control		Free	Free		Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 63.9%		ICU Level of Service B
Analysis Period (min) 15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	29	559	653	45	45	28
Future Volume (Veh/h)	29	559	653	45	45	28
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	30	582	680	47	47	29
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		TWLTL	TWLTL			
Median storage veh)		2	2			
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	727				1346	704
vC1, stage 1 conf vol					704	
vC2, stage 2 conf vol					642	
vCu, unblocked vol	727				1346	704
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)	2.2				3.5	3.3
p0 queue free %	97				88	93
cM capacity (veh/h)	886				380	434

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	612	727	76
Volume Left	30	0	47
Volume Right	0	47	29
cSH	886	1700	399
Volume to Capacity	0.03	0.43	0.19
Queue Length 95th (ft)	3	0	17
Control Delay (s)	0.9	0.0	16.1
Lane LOS	A		C
Approach Delay (s)	0.9	0.0	16.1
Approach LOS			C

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	63.9%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	640	9	29	734	7	51
Future Volume (vph)	640	9	29	734	7	51
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998					0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	1878	0	1805	1881	1805	1495
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1878	0	1805	1881	1805	1495
Adj. Flow (vph)	660	9	30	757	7	53
Lane Group Flow (vph)	669	0	30	757	7	53
Sign Control	Free			Free	Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 48.6%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	640	9	29	734	7	51
Future Volume (Veh/h)	640	9	29	734	7	51
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	660	9	30	757	7	53
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						4
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)				762		
pX, platoon unblocked					0.68	
vC, conflicting volume			669		1482	664
vC1, stage 1 conf vol					664	
vC2, stage 2 conf vol					817	
vCu, unblocked vol			669		1473	664
tC, single (s)			4.1		6.4	6.3
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.4
p0 queue free %			97		98	88
cM capacity (veh/h)			931		323	450

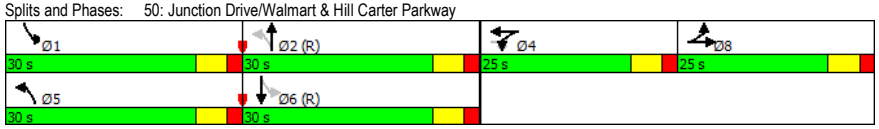
Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	669	30	757	60
Volume Left	0	30	0	7
Volume Right	9	0	0	53
cSH	1700	931	1700	509
Volume to Capacity	0.39	0.03	0.45	0.12
Queue Length 95th (ft)	0	2	0	10
Control Delay (s)	0.0	9.0	0.0	14.3
Lane LOS		A		B
Approach Delay (s)	0.0	0.3		14.3
Approach LOS				B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	129	50	14	117	204	60	180	19	154	65	54
Future Volume (vph)	40	129	50	14	117	204	60	180	19	154	65	54
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.909			0.986			0.932	
Flt Protected	0.950				0.998		0.950			0.950		
Satd. Flow (prot)	1752	1881	1583	0	3252	0	1752	3376	0	1787	3079	0
Flt Permitted	0.950				0.998		0.672			0.582		
Satd. Flow (perm)	1752	1881	1583	0	3252	0	1240	3376	0	1095	3079	0
Satd. Flow (RTOR)			149		217			9			57	
Adj. Flow (vph)	43	137	53	15	124	217	64	191	20	164	69	57
Lane Group Flow (vph)	43	137	53	0	356	0	64	211	0	164	126	0
Turn Type	Split	NA	custom	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		5	2		1	6	
Permitted Phases			4				2			6		
Total Split (s)	25.0	25.0	25.0	25.0	25.0		30.0	30.0		30.0	30.0	
Total Lost Time (s)	6.0	6.0	6.0		6.0		6.0	6.0		6.0	6.0	
Act Effct Green (s)	13.3	13.3	11.1		11.1		61.6	46.6		62.8	50.8	
Actuated g/C Ratio	0.12	0.12	0.10		0.10		0.56	0.42		0.57	0.46	
v/c Ratio	0.20	0.60	0.18		0.68		0.08	0.15		0.23	0.09	
Control Delay	44.2	56.5	1.4		24.9		10.9	20.7		11.5	12.7	
Queue Delay	0.0	0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay	44.2	56.5	1.4		24.9		10.9	20.7		11.5	12.7	
LOS	D	E	A		C		B	C		B	B	
Approach Delay		41.7			24.9			18.4			12.0	
Approach LOS		D			C			B			B	

Intersection Summary	
Cycle Length: 110	
Actuated Cycle Length: 110	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.68	
Intersection Signal Delay: 23.5	Intersection LOS: C
Intersection Capacity Utilization 62.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 50: Junction Drive/Walmart & Hill Carter Parkway



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	40	129	50	14	117	204	60	180	19	154	65	54
Future Volume (vph)	40	129	50	14	117	204	60	180	19	154	65	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0		6.0		6.0	6.0		6.0	6.0	
Lane Util. Factor	1.00	1.00	1.00		0.95		1.00	0.95		1.00	0.95	
Frt	1.00	1.00	0.85		0.91		1.00	0.99		1.00	0.93	
Flt Protected	0.95	1.00	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1752	1881	1583		3250		1752	3375		1787	3079	
Flt Permitted	0.95	1.00	1.00		1.00		0.67	1.00		0.58	1.00	
Satd. Flow (perm)	1752	1881	1583		3250		1240	3375		1095	3079	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	43	137	53	15	124	217	64	191	20	164	69	57
RTOR Reduction (vph)	0	0	48	0	195	0	0	5	0	0	31	0
Lane Group Flow (vph)	43	137	5	0	161	0	64	206	0	164	95	0
Heavy Vehicles (%)	3%	1%	2%	0%	2%	0%	3%	6%	0%	1%	12%	6%
Turn Type	Split	NA	custom	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	8	8		4	4		5	2		1	6	
Permitted Phases			4				2			6		
Actuated Green, G (s)	13.3	13.3	11.1		11.1		58.6	46.6		64.6	49.6	
Effective Green, g (s)	13.3	13.3	11.1		11.1		58.6	46.6		64.6	49.6	
Actuated g/C Ratio	0.12	0.12	0.10		0.10		0.53	0.42		0.59	0.45	
Clearance Time (s)	6.0	6.0	6.0		6.0		6.0	6.0		6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	211	227	159		327		716	1429		737	1388	
v/s Ratio Prot	0.02	c0.07			c0.05		0.01	0.06		c0.03	0.03	
v/s Ratio Perm			0.00				0.04			c0.10		
v/c Ratio	0.20	0.60	0.03		0.49		0.09	0.14		0.22	0.07	
Uniform Delay, d1	43.6	45.8	44.6		46.8		12.5	19.5		10.4	17.1	
Progression Factor	1.00	1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	4.5	0.1		1.2		0.1	0.2		0.2	0.1	
Delay (s)	44.1	50.3	44.7		47.9		12.5	19.7		10.5	17.2	
Level of Service	D	D	D		D		B	B		B	B	
Approach Delay (s)		47.9			47.9			18.0			13.4	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM 2000 Control Delay	32.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.32		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	62.0%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	192	191	294	91	60	112
Future Volume (vph)	192	191	294	91	60	112
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1900	1863	1599	1770	1583
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1900	1863	1599	1770	1583
Adj. Flow (vph)	223	222	342	106	70	130
Lane Group Flow (vph)	223	222	342	106	70	130
Sign Control		Free	Free		Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 39.4%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	192	191	294	91	60	112
Future Volume (Veh/h)	192	191	294	91	60	112
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Hourly flow rate (vph)	223	222	342	106	70	130
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	448				1010	342
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	448				1010	342
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	80				67	81
cM capacity (veh/h)	1112				213	701

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	223	222	342	106	70	130
Volume Left	223	0	0	0	70	0
Volume Right	0	0	0	106	0	130
cSH	1112	1700	1700	1700	213	701
Volume to Capacity	0.20	0.13	0.20	0.06	0.33	0.19
Queue Length 95th (ft)	19	0	0	0	34	17
Control Delay (s)	9.0	0.0	0.0	0.0	30.0	11.3
Lane LOS	A				D	B
Approach Delay (s)	4.5		0.0		17.9	
Approach LOS					C	

Intersection Summary			
Average Delay	5.1		
Intersection Capacity Utilization	39.4%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	10	8	87	16	7	101	23	641	27	45	619	6
Future Volume (vph)	10	8	87	16	7	101	23	641	27	45	619	6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Frt		0.888				0.850		0.994			0.999	
Flt Protected		0.995			0.966		0.950				0.997	
Satd. Flow (prot)	0	1679	0	0	1761	1615	1805	3424	0	0	3467	0
Flt Permitted		0.995			0.966		0.950				0.997	
Satd. Flow (perm)	0	1679	0	0	1761	1615	1805	3424	0	0	3467	0
Adj. Flow (vph)	11	8	92	17	7	106	24	675	28	47	652	6
Lane Group Flow (vph)	0	111	0	0	24	106	24	703	0	0	705	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 60.2%	ICU Level of Service B	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	8	87	16	7	101	23	641	27	45	619	6
Future Volume (Veh/h)	10	8	87	16	7	101	23	641	27	45	619	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	11	8	92	17	7	106	24	675	28	47	652	6
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			TWLTL	
Median storage veh)											2	
Upstream signal (ft)								997				
pX, platoon unblocked	0.92	0.92		0.92	0.92	0.92				0.92		
vC, conflicting volume	1244	1500	329	1253	1489	352	658			703		
vC1, stage 1 conf vol	749	749		737	737							
vC2, stage 2 conf vol	495	751		516	752							
vCu, unblocked vol	1094	1372	329	1104	1360	125	658			507		
tC, single (s)	7.5	6.5	6.9	7.6	6.5	6.9	4.1			4.1		
tC, 2 stage (s)	6.5	5.5		6.6	5.5							
tF (s)	3.5	4.0	3.3	3.6	4.0	3.3	2.2			2.2		
p0 queue free %	96	97	86	94	98	87	97			95		
cM capacity (veh/h)	306	307	673	300	311	837	939			984		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	NB 3	SB 1	SB 2
Volume Total	111	24	106	24	450	253	373	332
Volume Left	11	17	0	24	0	0	47	0
Volume Right	92	0	106	0	0	28	0	6
cSH	558	303	837	939	1700	1700	984	1700
Volume to Capacity	0.20	0.08	0.13	0.03	0.26	0.15	0.05	0.20
Queue Length 95th (ft)	18	6	11	2	0	0	4	0
Control Delay (s)	13.0	17.9	9.9	8.9	0.0	0.0	1.6	0.0
Lane LOS	B	C	A	A			A	
Approach Delay (s)	13.0	11.4		0.3			0.8	
Approach LOS	B	B						

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	60.2%	ICU Level of Service	B
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	14	0	29	0	0	0	25	959	0	0	644	20
Future Volume (vph)	14	0	29	0	0	0	25	959	0	0	644	20
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.908									0.995	
Flt Protected		0.984						0.999				
Satd. Flow (prot)	0	1698	0	0	1900	0	0	3504	0	0	3490	0
Flt Permitted		0.984						0.999				
Satd. Flow (perm)	0	1698	0	0	1900	0	0	3504	0	0	3490	0
Adj. Flow (vph)	15	0	32	0	0	0	27	1042	0	0	700	22
Lane Group Flow (vph)	0	47	0	0	0	0	0	1069	0	0	722	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 54.5%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	14	0	29	0	0	0	25	959	0	0	644	20
Future Volume (Veh/h)	14	0	29	0	0	0	25	959	0	0	644	20
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	15	0	32	0	0	0	27	1042	0	0	700	22
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											1055	
pX, platoon unblocked	0.96	0.96	0.96	0.96	0.96		0.96					
vC, conflicting volume	1286	1807	361	1478	1818	521	722			1042		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1212	1755	247	1412	1767	521	623			1042		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	100	96	100	100	100	97			100		
cM capacity (veh/h)	131	80	728	89	79	505	927			675		

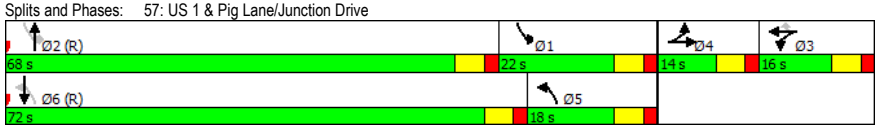
Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	47	0	548	521	350	372
Volume Left	15	0	27	0	0	0
Volume Right	32	0	0	0	0	22
cSH	297	1700	927	1700	675	1700
Volume to Capacity	0.16	0.00	0.03	0.31	0.00	0.22
Queue Length 95th (ft)	14	0	2	0	0	0
Control Delay (s)	19.4	0.0	0.8	0.0	0.0	0.0
Lane LOS	C	A	A			
Approach Delay (s)	19.4	0.0	0.4		0.0	
Approach LOS	C	A				

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	54.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	3	1	103	0	102	16	833	122	119	615	3
Future Volume (vph)	4	3	1	103	0	102	16	833	122	119	615	3
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt		0.983				0.850			0.850		0.999	
Flt Protected		0.976		0.950	0.950		0.950			0.950		
Satd. Flow (prot)	0	1823	0	1698	1698	1583	1805	3505	1568	1805	3502	0
Flt Permitted		0.976		0.950	0.950		0.395			0.285		
Satd. Flow (perm)	0	1823	0	1698	1698	1583	750	3505	1568	542	3502	0
Satd. Flow (RTOR)		1				136			136			
Adj. Flow (vph)	4	3	1	107	0	106	17	868	127	124	641	3
Lane Group Flow (vph)	0	8	0	53	54	106	17	868	127	124	644	0
Turn Type	Split	NA		Split	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases						3	6		2	2		
Total Split (s)	14.0	14.0		16.0	16.0	16.0	18.0	68.0	68.0	22.0	72.0	
Total Lost Time (s)		6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)		6.1		9.2	9.2	9.2	96.0	82.9	82.9	90.2	91.6	
Actuated g/C Ratio		0.05		0.08	0.08	0.08	0.80	0.69	0.69	0.75	0.76	
v/c Ratio		0.09		0.41	0.42	0.43	0.03	0.36	0.11	0.26	0.24	
Control Delay		52.8		61.4	61.8	9.4	3.0	7.1	1.2	9.1	6.8	
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay		52.8		61.4	61.8	9.4	3.0	7.1	1.2	9.1	6.8	
LOS		D		E	E	A	A	A	A	A	A	
Approach Delay		52.8			35.6			6.3			7.2	
Approach LOS		D			D			A			A	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 48 (40%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.43	
Intersection Signal Delay: 10.0	Intersection LOS: A
Intersection Capacity Utilization 49.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 57: US 1 & Pig Lane/Junction Drive



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	3	1	103	0	102	16	833	122	119	615	3
Future Volume (vph)	4	3	1	103	0	102	16	833	122	119	615	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor		1.00		0.95	0.95	1.00	1.00	0.95	1.00	1.00	0.95	
Frt		0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	
Flt Protected		0.98		0.95	0.95	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)		1822		1698	1698	1583	1805	3505	1568	1805	3503	
Flt Permitted		0.98		0.95	0.95	1.00	0.39	1.00	1.00	0.29	1.00	
Satd. Flow (perm)		1822		1698	1698	1583	750	3505	1568	542	3503	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	4	3	1	107	0	106	17	868	127	124	641	3
RTOR Reduction (vph)	0	1	0	0	0	98	0	0	48	0	0	0
Lane Group Flow (vph)	0	7	0	53	54	8	17	868	79	124	644	0
Heavy Vehicles (%)	0%	0%	0%	1%	0%	2%	0%	3%	3%	0%	3%	0%
Turn Type	Split	NA		Split	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	
Protected Phases	4	4		3	3		5	2		1	6	
Permitted Phases						3	6		2	2		
Actuated Green, G (s)		1.4		9.2	9.2	9.2	85.4	74.5	74.5	85.4	83.2	
Effective Green, g (s)		1.4		9.2	9.2	9.2	85.4	74.5	74.5	85.4	83.2	
Actuated g/C Ratio		0.01		0.08	0.08	0.08	0.71	0.62	0.62	0.71	0.69	
Clearance Time (s)		6.0		6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		21		130	130	121	553	2176	973	500	2428	
v/s Ratio Prot		c0.00		0.03	c0.03		0.00	c0.25		c0.02	0.18	
v/s Ratio Perm						0.01	0.02		0.05	0.15		
v/c Ratio		0.33		0.41	0.42	0.07	0.03	0.40	0.08	0.25	0.27	
Uniform Delay, d1		58.8		52.8	52.8	51.4	5.9	11.5	9.1	10.1	6.9	
Progression Factor		1.00		1.00	1.00	1.00	0.72	0.76	0.65	1.61	1.15	
Incremental Delay, d2		9.2		2.1	2.1	0.2	0.0	0.5	0.1	0.2	0.2	
Delay (s)		68.0		54.9	55.0	51.7	4.3	9.2	6.0	16.6	8.2	
Level of Service		E		D	D	D	A	A	A	B	A	
Approach Delay (s)		68.0			53.3			8.7			9.6	
Approach LOS		E			D			A			A	

Intersection Summary			
HCM 2000 Control Delay	14.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	49.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	89	43	636	578	2
Future Volume (vph)	5	89	43	636	578	2
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.872					
Flt Protected	0.998			0.997		
Satd. Flow (prot)	1653	0	0	3438	3466	0
Flt Permitted	0.998			0.997		
Satd. Flow (perm)	1653	0	0	3438	3466	0
Adj. Flow (vph)	5	97	47	691	628	2
Lane Group Flow (vph)	102	0	0	738	630	0
Sign Control	Stop			Free	Free	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 50.7%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	89	43	636	578	2
Future Volume (Veh/h)	5	89	43	636	578	2
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	97	47	691	628	2
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1068	315	630			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1068	315	630			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	86	95			
cM capacity (veh/h)	209	687	962			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	102	277	461	419	211
Volume Left	5	47	0	0	0
Volume Right	97	0	0	0	2
cSH	618	962	1700	1700	1700
Volume to Capacity	0.17	0.05	0.27	0.25	0.12
Queue Length 95th (ft)	15	4	0	0	0
Control Delay (s)	12.0	1.9	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	12.0	0.7		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	50.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	48	10	10	92	8	21
Future Volume (vph)	48	10	10	92	8	21
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.903	
Flt Protected				0.995	0.986	
Satd. Flow (prot)	1818	0	0	1853	1659	0
Flt Permitted				0.995	0.986	
Satd. Flow (perm)	1818	0	0	1853	1659	0
Adj. Flow (vph)	52	11	11	100	9	23
Lane Group Flow (vph)	63	0	0	111	32	0
Sign Control	Free			Free	Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 22.1%	ICU Level of Service A	
Analysis Period (min) 15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	48	10	10	92	8	21
Future Volume (Veh/h)	48	10	10	92	8	21
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	11	11	100	9	23
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			63		180	58
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			63		180	58
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	98
cM capacity (veh/h)			1540		804	1009

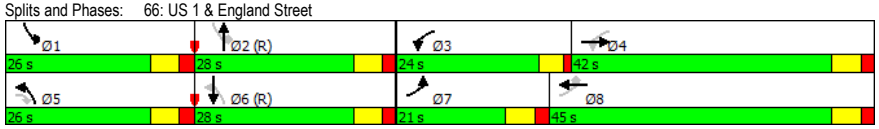
Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	63	111	32
Volume Left	0	11	9
Volume Right	11	0	23
cSH	1700	1540	941
Volume to Capacity	0.04	0.01	0.03
Queue Length 95th (ft)	0	1	3
Control Delay (s)	0.0	0.8	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.8	9.0
Approach LOS			A

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	22.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	443	129	205	456	238	242	419	204	301	365	82
Future Volume (vph)	106	443	129	205	456	238	242	419	204	301	365	82
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt			0.850			0.850			0.850		0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	3539	1583	1752	1881	1509	1787	3471	1568	1736	3398	0
Flt Permitted	0.265			0.418			0.319			0.328		
Satd. Flow (perm)	499	3539	1583	771	1881	1509	600	3471	1568	599	3398	0
Satd. Flow (RTOR)			136			245			210		20	
Adj. Flow (vph)	109	457	133	211	470	245	249	432	210	310	376	85
Lane Group Flow (vph)	109	457	133	211	470	245	249	432	210	310	461	0
Turn Type	D.P+P	NA	custom	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	8		5	4		8	6		2	2		
Total Split (s)	21.0	42.0	26.0	24.0	45.0	45.0	26.0	28.0	28.0	26.0	28.0	
Total Lost Time (s)	6.0	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Act Effct Green (s)	54.0	41.9	16.6	57.0	44.6	44.6	42.0	23.2	23.2	42.0	25.4	
Actuated g/C Ratio	0.45	0.35	0.14	0.48	0.37	0.37	0.35	0.19	0.19	0.35	0.21	
v/c Ratio	0.34	0.37	0.40	0.44	0.67	0.34	0.67	0.64	0.44	0.80	0.63	
Control Delay	19.2	30.9	10.6	37.1	58.8	27.3	37.6	55.1	25.2	43.8	46.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.2	30.9	10.6	37.1	58.8	27.3	37.6	55.1	25.2	43.8	46.2	
LOS	B	C	B	D	E	C	D	E	C	D	D	
Approach Delay		25.2			45.5			43.2			45.2	
Approach LOS		C			D			D			D	

Intersection Summary	
Cycle Length: 120	
Actuated Cycle Length: 120	
Offset: 0 (0%), Referenced to phase 2:NBSB and 6:NBSB, Start of Green	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.80	
Intersection Signal Delay: 40.5	Intersection LOS: D
Intersection Capacity Utilization 79.0%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 66: US 1 & England Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	106	443	129	205	456	238	242	419	204	301	365	82
Future Volume (vph)	106	443	129	205	456	238	242	419	204	301	365	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1787	3539	1583	1752	1881	1509	1787	3471	1568	1736	3399	
Flt Permitted	0.27	1.00	1.00	0.42	1.00	1.00	0.32	1.00	1.00	0.33	1.00	
Satd. Flow (perm)	499	3539	1583	771	1881	1509	601	3471	1568	599	3399	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	109	457	133	211	470	245	249	432	210	310	376	85
RTOR Reduction (vph)	0	0	115	0	0	154	0	0	169	0	16	0
Lane Group Flow (vph)	109	457	18	211	470	91	249	432	41	310	445	0
Heavy Vehicles (%)	1%	2%	2%	3%	1%	7%	1%	4%	3%	4%	4%	0%
Turn Type	D.P+P	NA	custom	D.P+P	NA	Perm	D.P+P	NA	Perm	D.P+P	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	8		5	4		8	6		2	2		
Actuated Green, G (s)	54.0	41.9	16.6	55.5	44.6	44.6	42.0	23.2	23.2	42.0	25.4	
Effective Green, g (s)	54.0	41.9	16.6	55.5	44.6	44.6	42.0	23.2	23.2	42.0	25.4	
Actuated g/C Ratio	0.45	0.35	0.14	0.46	0.37	0.37	0.35	0.19	0.19	0.35	0.21	
Clearance Time (s)	6.0	6.0	6.0	4.5	6.0	6.0	6.0	6.0	6.0	6.0	6.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	325	1235	218	467	699	560	374	671	303	387	719	
v/s Ratio Prot	0.03	0.13		c0.05	c0.25		0.09	0.12		c0.13	0.13	
v/s Ratio Perm	0.12		0.01	0.16		0.06	0.14		0.03	c0.15		
v/c Ratio	0.34	0.37	0.08	0.45	0.67	0.16	0.67	0.64	0.13	0.80	0.62	
Uniform Delay, d1	21.3	29.2	45.1	19.9	31.6	25.2	29.9	44.6	40.1	31.3	42.9	
Progression Factor	1.00	1.00	1.00	2.06	1.64	7.59	1.12	1.12	3.81	1.00	1.00	
Incremental Delay, d2	0.6	0.9	0.2	0.7	4.9	0.6	4.2	4.5	0.9	11.3	4.0	
Delay (s)	22.0	30.0	45.2	41.8	56.8	191.9	37.8	54.3	153.7	42.6	46.9	
Level of Service	C	C	D	D	E	F	D	D	F	D	D	
Approach Delay (s)		31.7			89.1			73.1			45.2	
Approach LOS		C			F			E			D	

Intersection Summary			
HCM 2000 Control Delay	62.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	6	219	3	40	348	21	0	1	52	30	10	29
Future Volume (vph)	6	219	3	40	348	21	0	1	52	30	10	29
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		0.998			0.993			0.867			0.943	
Flt Protected		0.999			0.995						0.979	
Satd. Flow (prot)	0	1791	0	0	1831	0	0	1647	0	0	1732	0
Flt Permitted		0.999			0.995						0.979	
Satd. Flow (perm)	0	1791	0	0	1831	0	0	1647	0	0	1732	0
Adj. Flow (vph)	8	288	4	53	458	28	0	1	68	39	13	38
Lane Group Flow (vph)	0	300	0	0	539	0	0	69	0	0	90	0
Sign Control		Free			Stop			Stop			Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 54.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	31	270	409	21	0	0
Future Volume (vph)	31	270	409	21	0	0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.993			
Flt Protected		0.995				
Satd. Flow (prot)	0	1794	1834	0	0	0
Flt Permitted		0.995				
Satd. Flow (perm)	0	1794	1834	0	0	0
Adj. Flow (vph)	41	355	538	28	0	0
Lane Group Flow (vph)	0	396	566	0	0	0
Sign Control		Stop	Free		Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 43.5%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	28	0	69	0
Future Volume (vph)	0	0	28	0	69	0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected			0.950			
Satd. Flow (prot)	0	0	1770	0	1863	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	0	1770	0	1863	0
Adj. Flow (vph)	0	0	30	0	75	0
Lane Group Flow (vph)	0	0	30	0	75	0
Sign Control	Stop			Free	Stop	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 11.6%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	691	72	0	748
Future Volume (vph)	0	0	691	72	0	748
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt				0.850		
Flt Protected						
Satd. Flow (prot)	0	0	3539	1583	0	3539
Flt Permitted						
Satd. Flow (perm)	0	0	3539	1583	0	3539
Adj. Flow (vph)	0	0	751	78	0	813
Lane Group Flow (vph)	0	0	751	78	0	813
Sign Control	Free		Free			Free

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 24.0%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Traffic Volume (vph)	0	52	52	0	0	0
Future Volume (vph)	0	52	52	0	0	0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	0	1863	1863	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1863	1863	0	0	0
Adj. Flow (vph)	0	57	57	0	0	0
Lane Group Flow (vph)	0	57	57	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 6.7%	ICU Level of Service A
Analysis Period (min) 15	

Intersection Sign configuration not allowed in HCM analysis.

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	530	6	23	658	16	58
Future Volume (vph)	530	6	23	658	16	58
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999					0.850
Flt Protected				0.998	0.950	
Satd. Flow (prot)	1861	0	0	1878	1805	1615
Flt Permitted				0.998	0.950	
Satd. Flow (perm)	1861	0	0	1878	1805	1615
Adj. Flow (vph)	552	6	24	685	17	60
Lane Group Flow (vph)	558	0	0	709	17	60
Sign Control	Free			Free	Stop	

Intersection Summary		
Control Type: Unsignalized		
Intersection Capacity Utilization 63.2%	ICU Level of Service B	
Analysis Period (min) 15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	530	6	23	658	16	58
Future Volume (Veh/h)	530	6	23	658	16	58
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	552	6	24	685	17	60
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	TWLTL			TWLTL		
Median storage veh)	2			2		
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			558		1288	555
vC1, stage 1 conf vol					555	
vC2, stage 2 conf vol					733	
vCu, unblocked vol			558		1288	555
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)					5.4	
tF (s)			2.2		3.5	3.3
p0 queue free %			98		96	89
cM capacity (veh/h)			1023		391	535

Direction, Lane #	EB 1	WB 1	NB 1	NB 2
Volume Total	558	709	17	60
Volume Left	0	24	17	0
Volume Right	6	0	0	60
cSH	1700	1023	391	535
Volume to Capacity	0.33	0.02	0.04	0.11
Queue Length 95th (ft)	0	2	3	9
Control Delay (s)	0.0	0.6	14.6	12.6
Lane LOS		A	B	B
Approach Delay (s)	0.0	0.6	13.0	
Approach LOS			B	

Intersection Summary			
Average Delay	1.1		
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		

APPENDIX C:

PUBLIC ENGAGEMENT COMMENTS

- **Vaughn Road Extension**
    - In the 2020 plan, the VRE is presented as a northern bypass of the Town. The Town now seems to be justifying the VRE as part of connectivity and not as a bypass. But the fact remains that, despite whatever traffic calming devices are utilized, the VRE will still be viewed as and used as a northern bypass by significant traffic volume. Please update the traffic study for VRE. I think Ashland needs a northern bypass. It made sense in 2020 and it makes sense now. But the route for a northern bypass should be moved north of the Town to match the movement northern of the town itself. With a true northern bypass in place the VRE would not need to be a vehicular roadway. It could perhaps connect Carters Hill and Lauradell with a bike path.
    - The connection of the roads from Snead to the Carter's Hill neighborhood pose a serious risk to the character, safety, and quality of life in our area of town. Children will not be able to ride bikes or walk dogs without the threat of speeding traffic if the VRE would occur. The added congestion and noise in our residential neighborhood will deter buyers looking for all that Ashland currently offers. Please, do not approve the Vaugh Road Extension or extend roads into Carter's Hill.
    - With the VRE and extension of Wales Way to Snead Road, we will no longer be living on a quiet street. The significant increase in vehicle traffic with the VRE will also impact the ability of kids to play safely throughout the neighborhood. It will affect both emissions and noise pollution, degrade the aesthetic value and sense of community in our neighborhood and negatively impact property values. I respectfully ask the count to vote down against the VRE proposal.
    - I strongly object to building the VRE through our neighborhood of Carter's Hill. When the VRE was proposed 20 years ago, Carter's Hill did not exist, it was woods. So the area west of Carter's Hill now soon to be developed as Lauradell with ~150 new housing units. So the VRE proposal in 1999 made sense. It would pose a considerable safety risk to our residents, pedestrians, joggers, cyclists, dog walkers, children on their way to the school bus. VRE would add both emissions and noise pollution, degrade the aesthetic value and sense of community in our neighborhood, and negatively impact property values. Today, the logical place to locate an east-west bypass of downtown Ashland is outside the Town limits, to the west of Town in the County. That addresses three issues: (1) Route 54 congestion relief; (2) a true bypass, through relatively open land with few controlled intersections, and at a reasonable speed for commuter and transient traffic; (3) avoids funneling that traffic through established high density residential neighborhoods.
    - I am opposed to build a bypass road through the neighborhood. The road would bisect our quiet and peaceful neighborhood, making it noisy, less safe, more polluted and aesthetically degraded.
    - The VRE would go right through the middle of our neighborhood and it would negatively impact our property values but most importantly it would compromise the safety of our neighborhood.
    - A commuter bypass through communities should not be even considered in the new plan. Options could be extending Mayers Road to Route 54 and improving Elmont down to Ashcake – currently a popular "cut through". Walkers, runners, bikers and children

regularly utilize the Carter Hill streets and we should not have to give up our neighborhood to accommodate a “commuter bypass”.

- It’s too late to use Vaughn Road as a bypass due to development. Choose a northern route instead and zone it so that the only development is for large office tracts(?) but no commercial and strip development to reduce the objections from the town businesses and adjacent farms. This may help avoid congestion due to the limits that exist.
- A bypass for Rte 54 needs to take thru traffic out of center of town.
- I would hope that you would look again at the Vaughn Road Bypass, with strict restrictions against commercial development, to give drivers an alternative to rushing through the town. Commercial development on a bypass eventually causes congestion. Chapel Hill NC has some bypasses without commercial development that work well.
- It’s important to not expand even more towards the farm land (where they’re building new homes past Kiddie Kingdom), the farms make Ashland beautiful.
- I am an Ashland resident from the Carter’s Hill community. I have major concerns about the proposed roadway intersecting and dividing my community due to safety. My young children enjoy riding their bikes and due to the low traffic, I feel comfortable that the likelihood they’ll come in contact with a moving vehicle is low. Additionally, the less traffic through my neighborhood, the lower amounts of criminal activity. I feel safe where I live and value that above all other interest such as easing congestion and creating more roads. Please consider my community and the wishes of the residents of this neighborhood when developing the 2040 plan. Thank you.
- As a resident of the one Carters Hill neighborhood in Ashland, I am very concerned about the negative impact that two proposed future road extensions will have on our neighborhood. I am concerned about the negative impact on the traffic that could potentially curtail children playing or potentially harm them if they are playing. I am specifically speaking about: --West Vaughan Road Extension which would cut across one of our roads, Wales Way and --Carter Forest Drive Extension to Chapman Street/Rt. 54. I have heard there may be sidewalks along N. James Street. The street has become extremely busy and will only become more so as development expands further north. I hope the Town is considering area for bike riding. Especially since there is great amount of bikers that are in town of Ashland or come through Ashland.
- Extending Vaughn to Bypass downtown will be problematic when Gandy incorporates Henry Clay
- Please don't extend West Vaughan through the peaceful and safe Carters Hill neighborhood. Thanks.
- The Town has a wonderful ‘Mayberry’ feel; I would hate to lose it and kill the small town feel by diverting traffic with alternative routes around the Town via Bi-pass or anything resembling.
- H. Carter – Jamestown – Meyers Road (?)
- The 1999 Vaughn Road Extension VRE project should be taken out of the plan since the land is now residential; Carters Hill Development would be negatively impacted.
- Issues with Vaughn Road alignment
- Don’t need bypass

    - Do not route traffic through existing neighborhoods. Routing traffic through existing neighborhoods would drop home values and devastate the character of that neighborhood
    - Need bypass for Route 54
    - To reduce rush hour congestion without harming local neighborhoods and changing the character and safety of the town itself, the town should consider a bypass north of the town line.
    - Pick Western bypass
    - Need VRE!
    - Concerns with typ(?) see of Vaughn being too small for traffic
    - Total western Bypass – no Vaughn extension
- **Street Parking**
    - In Town Square, eliminate one or two parking places where traffic turns on to Hanover Ave.
    - Tesla charging station in old downtown w/ signs about restaurants shops, etc. Tesla owners have money to spend.
    - It's impossible for 2 way traffic on the existing streets in Carters Hill. The parked cars on the side of streets take up so much room, only a single car can pass.
    - Parking needed for big events and for day to day in DT(?)
    - Need to rationalize and smooth traffic
- **Crosswalk/Biking Safety**
    - Speeding on Thompson Street
    - Carters Hill has no sidewalks, meaning a VRE through the neighborhood would introduce the risk of serious injury and/or fatalities to pedestrians
    - I would like to see more bike/walking paths that connect Carter's Hill to the town.
    - Lighting
    - I am walking these days and we need more crosswalks
    - More sidewalks are needed. Stop lights on England - it's nearly impossible to make a left hand turn. More crosswalks with flashing lights (which still doesn't stop people). Safer ways to cross Rt 1 (crosswalks).
    - Bicycle routes that don't subtract from major thoroughfares
    - Increased sidewalks for new surrounding neighborhoods within city limits. This would help to increase foot traffic downtown.
    - Bike-share (maybe put in Carter Park – these are used a lot in the city)
    - We need sidewalks for safety . We can do this and preserve Ashland's character . We need to create a county bypass road that goes through the county to serve the county, a road that will send county traffic around the town not through the town .
    - More crosswalks on Rte 1 (ex: going across Thompkins Jewelers to Food Lion parking lot
    - Ashcake needs a better sidewalk – on both sides of road
    - Please improve accessibility around town. There are areas which are inhospitable to folks in wheelchairs, or whom are pushing strollers, etc. For example, Maple street has a section with sidewalks only on one side, and there are telephone poles, and mailboxes embedded in the walk.

- Very fast and congested traffic on Thompson Street from tracks to Dry Cleaners, making it difficult to cross streets safely. Police are unable to fully enforce 25 mph speed limit.
- Please include street lights throughout Ashland's neighborhoods and streets. Steer lights create safer environments and, coupled with more sidewalks, would encourage Ashland residents to walk more throughout Ashland. See example in Bay Saint Louis, Mississippi - http://www.coastal90.com/bay-st-louis-street-lights/ Additionally, add more family-friendly areas play areas like at Willow Lawn Mall, and incentivize family-friendly restaurants to open in downtown Ashland.
- The creation of a pedestrian-friendly, walking-comfortable, environment on England St. is essential to the long term success of Downtown, and indeed for the sense of community for all of Ashland, This aspiration should include handsome sidewalks, improved appearance for both drivers and walkers, appropriately slow-moving traffic, and working crosswalks.
- Biking/walking safety in town. Better crosswalks and traffic lights for bikers/ walkers.
- Improve walking crossings for railroad.
- Being able to walk to places is very important in a small town, especially with a college. We need to be able to cross highway 1 safely to get to the busiest areas...Food lion etc. What about a pedestrian overpass!!
- I think there should be sidewalks available so that every household in town has access to town via walking. This seems to be the case for Randolph Macon and going south, but not necessarily in the North West corner of town. There's that lovely walking/bike path alongside the tracks in the North part of town, but there is only access with one neighborhood, not any of the new neighborhoods. As a side note, Vaughan Rd has a low speed limit and kids get on and off the bus and have to cross that road (often at locations with lower visibility due to hills). However, people FLY down that road, regardless of police presence. A speed hump or two in that location, and possibly other locations where the speed is set at 25 for safety, would be beneficial to the children in town.
- I like the side walk for safety reasons. Bike lanes should be installed so that young people can ride in the lanes for their safety, as well as car drivers.
- When I-95 exit is re-worked it should include biking and walking. Bikers and walkers are cut-off from anything to east of I-95. There are no good/safe options for bikers/walkers to go east over 95.
- Connectivity of sidewalks and bike trails.
- Improve walkability/bikeability to restaurants and shops as well.
- Work with region to expand trails.
- Look at adding shoulders for bikes on higher volume roads look to make the existing traveled bike lanes more accessible, safe, and welcoming to cyclists by increasing lane space for cyclists.
- Better sidewalks and streets lights for pedestrians on Ashcake Road
- Improve crossing to access Trolley Line Trail for Bike and Ped on Ashcake Road
- Joining of Bike Rte 1 and Bike Rte 76 - Accommodate this! People seek these destination outdoor activities
- Connect sidewalk on James St to new neighborhood

- Sidewalks along chapman and along 54 west to incorporate new development
- Thompson Street speed and congestion is not always due to trains! Traffic does not often stop at crosswalks. *Need more streetlights in the 200 block.
- Boldly change pedestrian passage from England street from Rte 1 to the tracks by using Arlington Street
- Elmont at Ashcake intersection crash and safety issue
    - Bad traffic on Ashcake
- Pedestrian access across Rte 54 bridge over I-95
- Trail connectivity – accessibility to restaurants and shops
- Some streets have only one sidewalk on one side of the street, needed on both sides
- Missing sidewalk along S Taylor St
- Missing sidewalk on Rte 1 between Plesant St and Ashcake Road - people walk there because they may not have a car
- Improved walkability w/ crosswalks
- Future tracks w/ region and beyond
- Enforce laws on bicyclists
- Crosswalks, across Route 1 with lights
- Bike share program
- Ashcake -> street lighting for peds and sidewalks
- Ped and Bike facilities and safety
- Walkability to walk to work and to restaurants/shops without having to own a vehicle.
- Traffic issue/safety on Hanover Avenue with school buses
- One larger connected trail
- More sidewalks and crosswalks
- Need safe places to walk – could be trial
- Bike lanes at England St/ Center St
- Destination adventure; support w/ bike facilities
- More multi-use trials (walk, run, bike)
- Some intersections and streets need better lighting (at night)
    - Drivers can't see us as well and it doesn't feel safe for pedestrians

- **Railroad**
    - A plan needs to be in place for 3rd rail, like a tunnel/ditch following route 1. 3-2-3 will not be a very long-term solution so a plan needs to be in place as an alternative.
    - Road grade change on Archie Cannon to avoid on-grade problems.
    - Lights at Center and England to aid visibility on the train tracks so people won't accidentally drive on the tracks
    - Lights on the side of the tracks and illuminate outlines/the edges of the access road over tracks to make it obvious where to drive like the illumination on an airline runway.
    - Don't need third rail in town
    - The continued train traffic is important to Ashland 's existence
    - Railroad gates that swivel horizontally across tracks (Europe example)
- **Big Trucks on Residential Streets**

- We have some industrial activities (palate factory on Henry Clay Road) that attracts big trucks. That kind of facility needs to be on the Carter Parkway area, not adjacent to a residential neighborhood.
- Traffic calming devices work better than do-not-enter or no-truck signs.
    - There used to be a no-truck sign at Rte 1 and college and we still had a big problem with trucks. When a right-in-right-out intersection was added to college at Rte 1, the semis and large panel trucks quit using College Ave to deliver to RMC or to go through town.
- Consider alternate route for trucks currently on England

- **Development for Future**
    - Make Route 1 four lanes.
    - Put 5th lane down the middle of Route 1 to accommodate I-95 traffic in time of overflow. (Like HOV lanes in D.C. Use lighted signs to direct traffic flow north or south depending upon direction of overflow traffic off I-95.
    - Make Archie Cannon and Vaughn Road four lanes (Rte 54 and Archie Cannon will be the future Patterson Avenue.
    - The town is unique in the metro area. Chesterfield and Henrico don't have small towns. Preservation of Ashland is important - both as an attraction to new residents and retention of the current ones - if we hope to retain that town status. Growth will happen, and practical people will accept that. A greater tax base will mean improved schools, less crime, and an overall better quality of life. Yet, council must always keep preservation of town character (neighborhoods, college property, rail, center street, etc.) in the back of their minds as decisions are made moving forward. There are MANY blighted properties that are ripe for a makeover and development. We don't need to be creating new roads and building strip retail. We need to rehab all that we currently have. If we do, we'll get growth and retain our town's charm.
    - With the street widening, keep in mind that Ashland is a small town with small pockets of commercial and small pockets of residential areas next to each other. Wide streets with lots of traffic or one-way traffic do not enhance such a community as ours.
    - Small neighborhoods, small streets, shade trees are important to our character. They need to be protected. So, when widening streets, think about that
        - Some grandfathered-in businesses (the pallet factor) are not in the best location. Thru zoning, we should encourage them to move.
    - Planning and attention to infrastructure to meet growth of businesses and traffic population
    - With the addition of the extension road, I'm concerned that biking and walking safely into town will no longer be an option. There are no bike lanes or sidewalks on James St that links our development to the trails and sidewalks closer to downtown. If the Vaughn Road extension becomes a reality, I request as a town resident to please consider adding a safe sidewalk/bike lane that will connect our subdivision to the downtown area.
    - Managing future congestion on Rte 54 when numerous housing developments take place west of town will be our most critical problem.

    - Do not disrupt existing and future housing developments with cut-through / bypass roads. Spend the Town money on things that will make living in Ashland pleasant.
    - Improving landscaping to help with the look for the town and for a good environment.
    - I'm concerned about the amount of traffic going through RT 54 with the new homes being built in Western Hanover. How can we add new roadways without disturbing the character of the town?
    - I highly doubt that "preserve town character" means the same thing to everyone. It does not seem measurable.
    - Utilize “empty” lots (green spaces)
    - Trees along England St (East of Rte 1)
    - Improved land use to promote in Town shopping and activities
- **Traffic Calming in Neighborhoods**
    - The intersection at College and Calhoun is a problem. Drivers coming up the hill traveling south on Calhoun cannot see the traffic on College. It would be a lot better if you would do a 4-way stop there. We’ve asked for it before and were told that the state doesn’t recommend them, but I know lots of localities that use them. It makes people stop and think. Any accidents would have to be very low speed.
    - The intersection at Louisiana and College is beginning to be a problem. Large panel trucks are using College to go to Louisiana and turn right to get to WaWa, I presume. They are not supposed to do that but it’s happening. I would like to see a mini circle there to make it very inconvenient for trucks and to really slow down traffic and make college and Louisiana inconvenient except for local traffic. VA Beach has a number of these where residential streets approach the business district and it forces drivers to stop and think.
    - 4 way stop sign at College and Calhoun
    - 4 way stops and small circles should be used
    - H Clay to College -> 4 Way Stop
- **Transit Options**
    - We need an option to combat drunk driving – Bus? More taxi options?
    - I also REALLY want to see addition transit options - rail connections to Richmond, Fredericksburg, etc.
    - 3 – 4 Bus stops (Town of Ashland, Food Lion, WaWa) locations
    - Transportation plan should provide safe alternatives to using/driving cars.
    - More Uber and Lift would be very welcome
- Other
    - Stop adding more things to your jobs and focus on enforcing current laws/rules. During the last snow storm cars were not towed, or ticketed on the snow routes. And only one or two houses in the entire town cleared the sidewalks in front of their homes. It’s ridiculous how the town council goes from one pet project to another. Stick to keeping the town safe and roads passable.
    - Please protect the character of existing town neighborhoods (eg. Carters Hill subdivision) when contemplating new roads or road improvements.

Appendix D:
Project Sheets

RR-1A: Project Description

Project Name:	U.S. Route 1 (Washington Highway) Proposed Median	**Date:**	July 2019
Project Limits From:	England Street	**To:**	Northern Ashland Town Limits
TPU Functional Classification:	Minor Arterial	**Length (mi.):**	2.20
Existing Lanes / Proposed Lanes:	4 Lanes Undivided / 4 Lanes Divided	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$5,014,350**
Construction Costs	**$16,714,500**
Additional Contingency (20%)	**$3,342,900**
Construction Contract Total	**$20,057,400**
CEI (20%)	**$3,342,900**
Total Construction	**$23,400,300**
Miscellaneous Costs	
Utilities (25%)	**$4,178,625**
Right-of-Way (25%)	**$4,178,625**
Total Construction	**$8,357,250**
Grand Total	***$36,771,900***

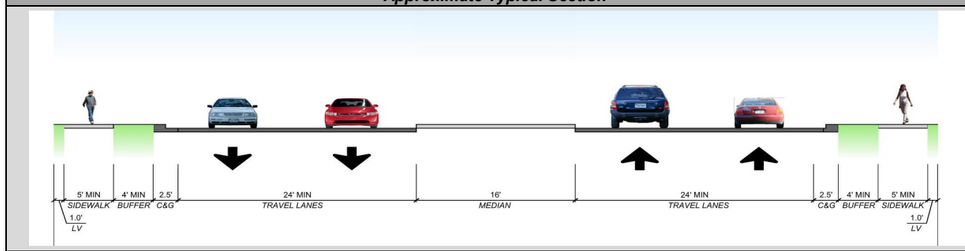
Cost Inputs

Project Length (Miles)	**2.20**
Shoulder Length (Miles)	**0.00**

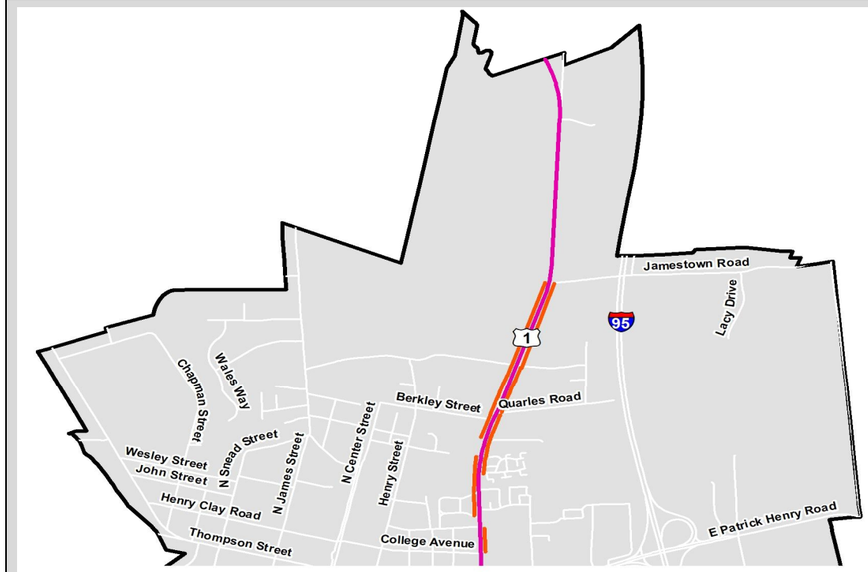
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs and 16' Raised Median included in roadway pay item; existing roadway has C&G, LOW Urban cost used*
- *The LOW per lane mile cost was used due to reuse of existing pavement*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-1B: Project Description

Project Name:	U.S. Route 1 (Washington Highway) Proposed Median	**Date:**	July 2019
Project Limits From:	N Lakeridge Pkwy	**To:**	Arbor Oaks Drive
TPU Functional Classification:	Minor Arterial	**Length (mi.):**	2.10
Existing Lanes / Proposed Lanes:	4 Lanes Undivided / 4 Lanes Divided	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$4,786,425**
Construction Costs	**$15,954,750**
Additional Contingency (20%)	**$3,190,950**
Construction Contract Total	**$19,145,700**
CEI (20%)	**$3,190,950**
Total Construction	**$22,336,650**
Miscellaneous Costs	
Utilities (25%)	**$3,988,688**
Right-of-Way (25%)	**$3,988,688**
Total Construction	**$7,977,375**
Grand Total	***$35,100,450***

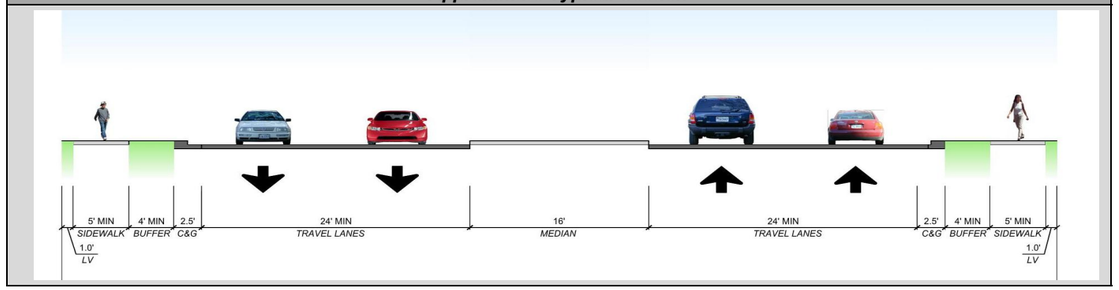
Cost Inputs

Project Length (Miles)	**2.10**
Shoulder Length (Miles)	**0.00**

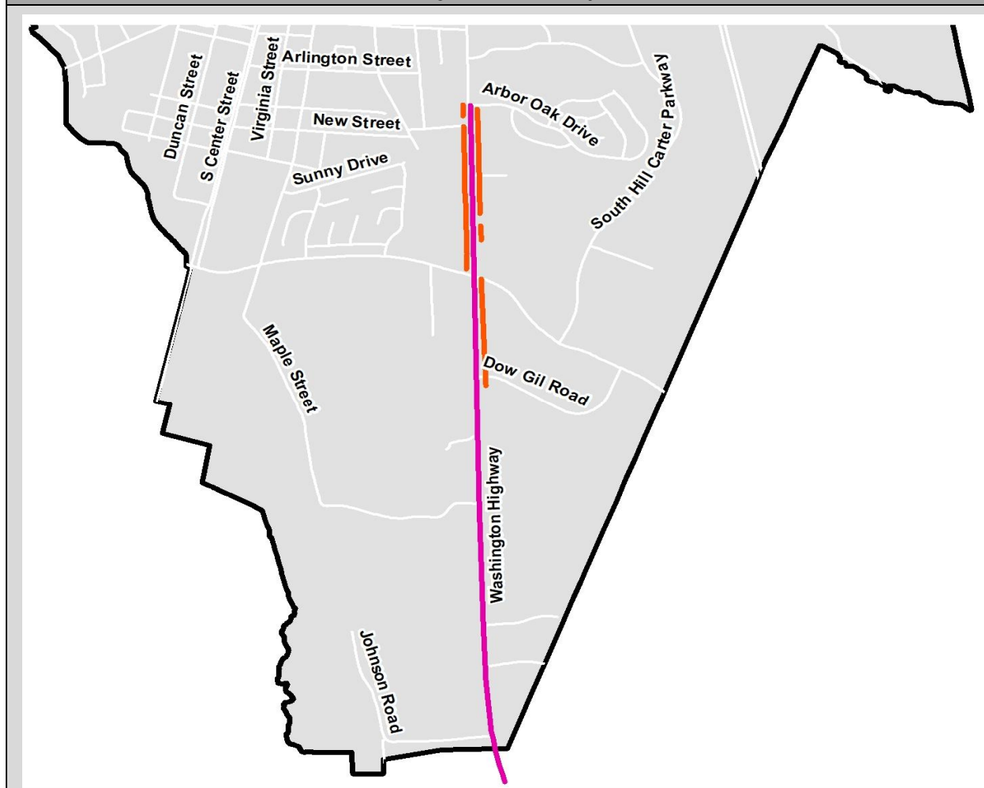
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs and 16' Raised Median included in roadway pay item; existing roadway has C&G, LOW Urban cost used*
- *The LOW per lane mile cost was used due to reuse of existing pavement*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-2: Project Description

Project Name:	West Vaughan Road Grade Separation	**Date:**	July 2019
Project Limits From:	James St	**To:**	Henry St
TPU Functional Classification:	Local	**Length (mi.):**	0.26
Existing Lanes / Proposed Lanes:	2 Lanes Undivided / 2 Lanes Undivided with Grade Separation	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$3,239,145**
Construction Costs	**$10,797,150**
Additional Contingency (20%)	**$2,159,430**
Construction Contract Total	**$12,956,580**
CEI (20%)	**$2,159,430**
Total Construction	**$15,116,010**
Miscellaneous Costs	
Utilities (25%)	**$2,699,288**
Right-of-Way (25%)	**$2,699,288**
Total Construction	**$5,398,575**
Grand Total	***$23,753,730***

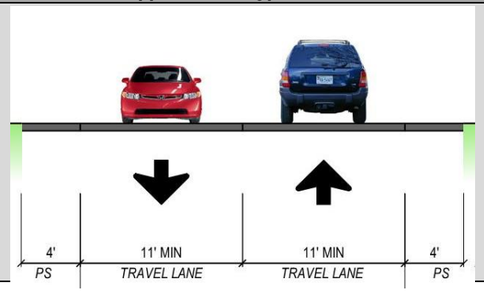
Cost Inputs

Project Length (Miles)	**0.26**
Shoulder Length (Miles)	**0.00**

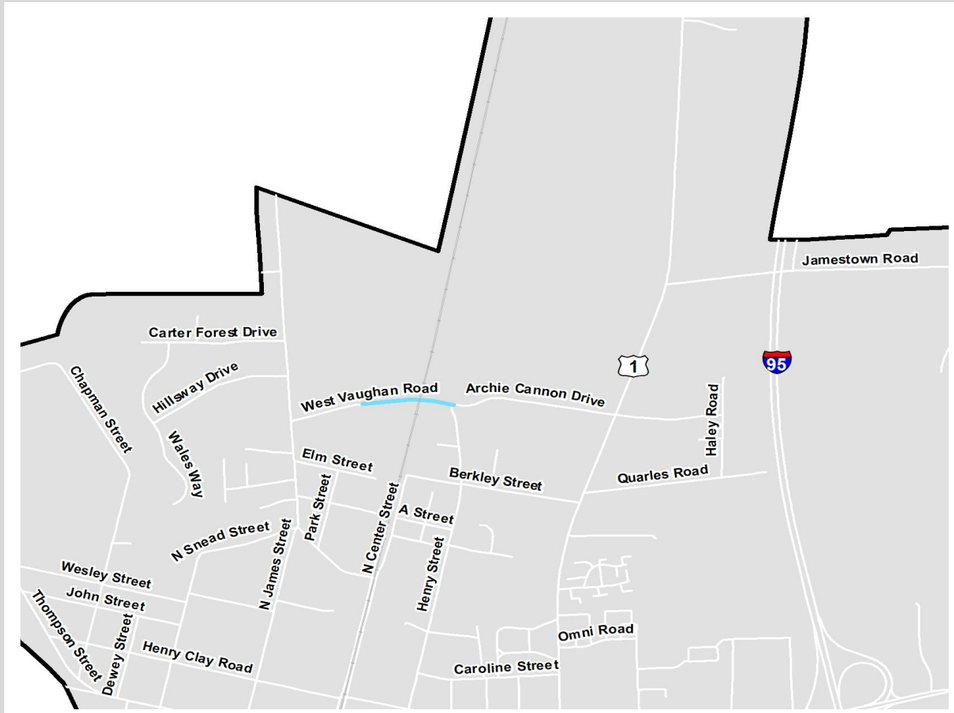
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-3: Project Description

Project Name:	Ashcake Road Grade Separation	**Date:**	July 2019
Project Limits From:	Over Center Street	**To:**	
TPU Functional Classification:	Local	**Length (mi.):**	0.10
Existing Lanes / Proposed Lanes:	2 Lanes Undivided / 2 Lanes Undivided with Grade Separation	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$1,245,825**
Construction Costs	**$4,152,750**
Additional Contingency (20%)	**$830,550**
Construction Contract Total	**$4,983,300**
CEI (20%)	**$830,550**
Total Construction	**$5,813,850**
Miscellaneous Costs	
Utilities (25%)	**$1,038,188**
Right-of-Way (25%)	**$1,038,188**
Total Construction	**$2,076,375**
Grand Total	***$9,136,050***

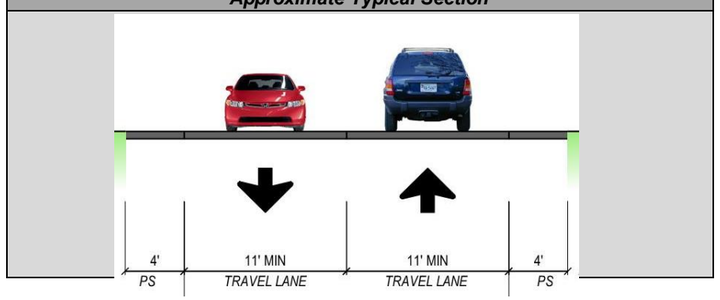
Cost Inputs

Project Length (Miles)	**0.10**
Shoulder Length (Miles)	**0.00**

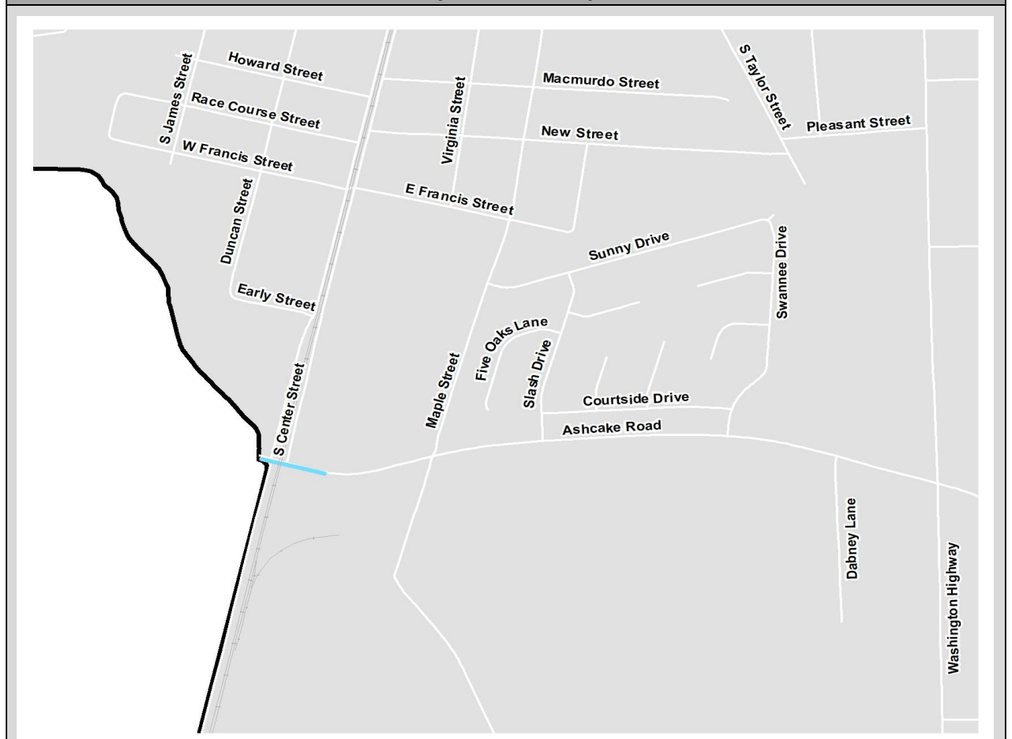
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-4: Project Description

Project Name:	Medical Drive Realignment	**Date:**	July 2019
Project Limits From:	Vaughan Road Extension/Thompson Street	**To:**	Elmont Road
TPU Functional Classification:	Local	**Length (mi.):**	0.33
Existing Lanes / Proposed Lanes:	New Alignment Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$269,370**
Construction Costs	**$897,900**
Additional Contingency (20%)	**$179,580**
Construction Contract Total	**$1,077,480**
CEI (20%)	**$179,580**
Total Construction	**$1,257,060**
Miscellaneous Costs	
Utilities (25%)	**$224,475**
Right-of-Way (25%)	**$224,475**
Total Construction	**$448,950**
Grand Total	***$1,975,380***

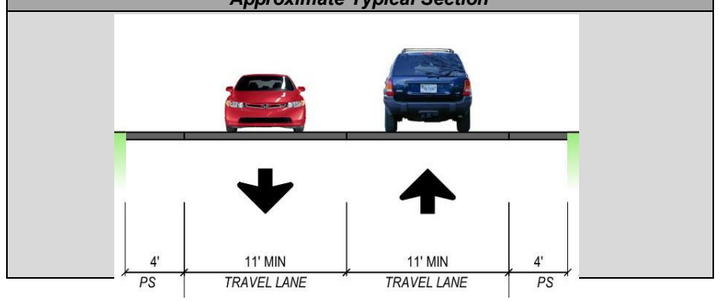
Cost Inputs

Project Length (Miles)	**0.33**
Shoulder Length (Miles)	**0.33**

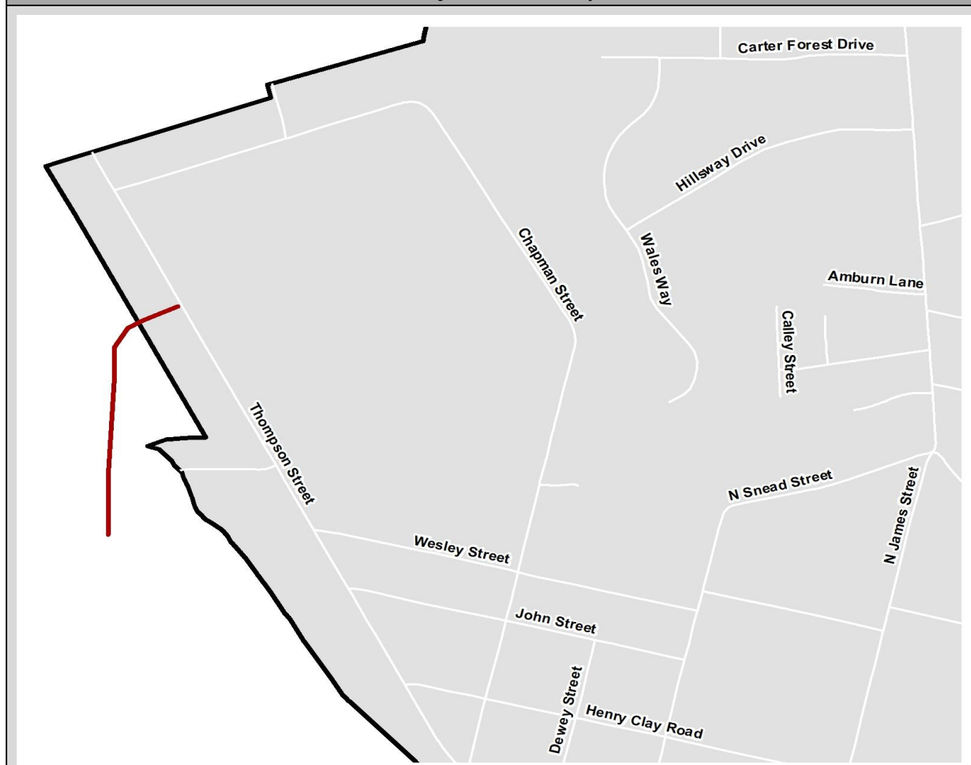
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-5: Project Description

Project Name:	Maple Street Realignment	**Date:**	July 2019
Project Limits From:	Maple Street	**To:**	U.S. Route 1
TPU Functional Classification:	Local	**Length (mi.):**	0.35
Existing Lanes / Proposed Lanes:	New Alignment Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$285,705**
Construction Costs	**$952,350**
Additional Contingency (20%)	**$190,470**
Construction Contract Total	**$1,142,820**
CEI (20%)	**$190,470**
Total Construction	**$1,333,290**
Miscellaneous Costs	
Utilities (25%)	**$238,088**
Right-of-Way (25%)	**$238,088**
Total Construction	**$476,175**
Grand Total	***$2,095,170***

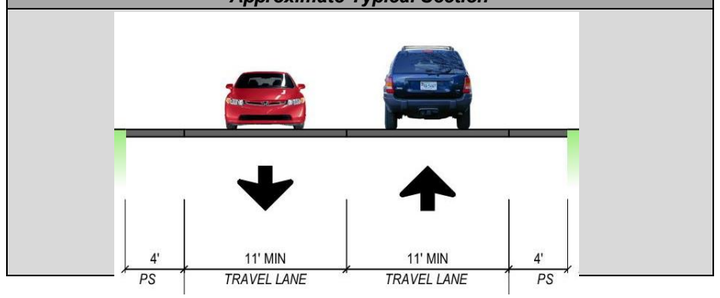
Cost Inputs

Project Length (Miles)	**0.35**
Shoulder Length (Miles)	**0.35**

General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map

Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-6: Project Description

Project Name:	Boxwood Farm Lane Realignment	**Date:**	July 2019
Project Limits From:	Laura Lane Extension	**To:**	U.S. Route 1
TPU Functional Classification:	Local	**Length (mi.):**	0.35
Existing Lanes / Proposed Lanes:	New Alignment Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$285,705**
Construction Costs	**$952,350**
Additional Contingency (20%)	**$190,470**
Construction Contract Total	**$1,142,820**
CEI (20%)	**$190,470**
Total Construction	**$1,333,290**
Miscellaneous Costs	
Utilities (25%)	**$238,088**
Right-of-Way (25%)	**$238,088**
Total Construction	**$476,175**
Grand Total	***$2,095,170***

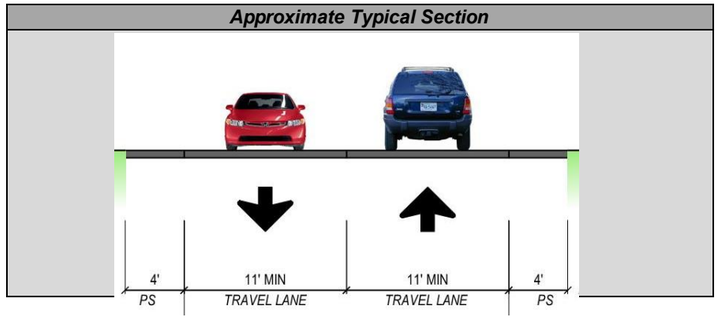
Cost Inputs

Project Length (Miles)	**0.35**
Shoulder Length (Miles)	**0.35**

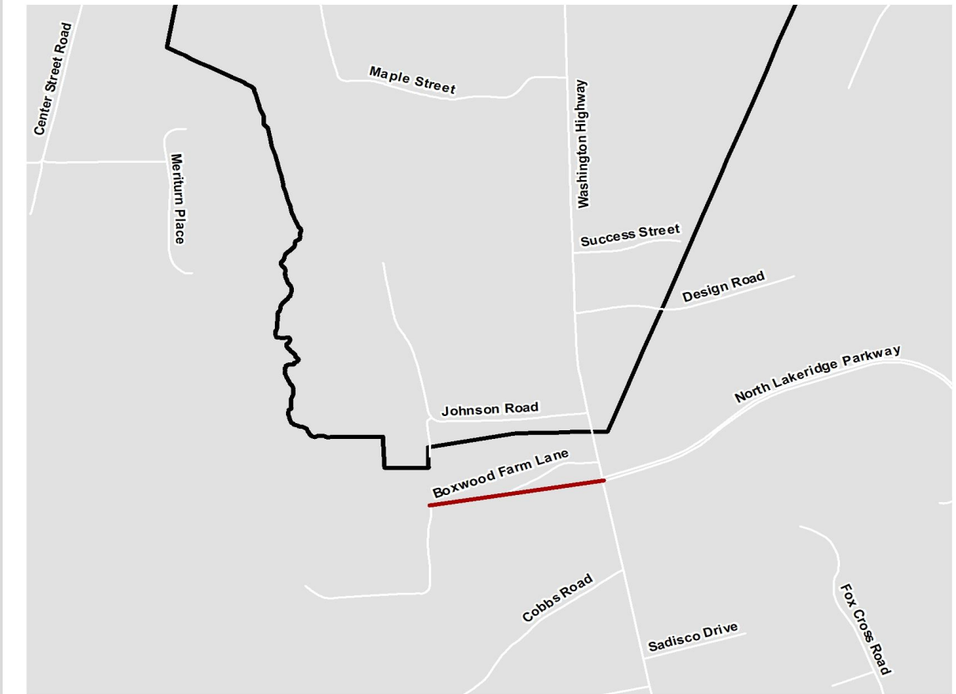
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-7: Project Description

Project Name:	New Road 1	**Date:**	July 2019
Project Limits From:	Archie Cannon Dr	**To:**	U.S. Route 1 & Vitamin Shoppe Way intersection
TPU Functional Classification:	Local	**Length (mi.):**	1.10
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$681,615**
Construction Costs	**$2,272,050**
Additional Contingency (20%)	**$454,410**
Construction Contract Total	**$2,726,460**
CEI (20%)	**$454,410**
Total Construction	**$3,180,870**
Miscellaneous Costs	
Utilities (25%)	**$568,013**
Right-of-Way (25%)	**$568,013**
Total Construction	**$1,136,025**
Grand Total	***$4,998,510***

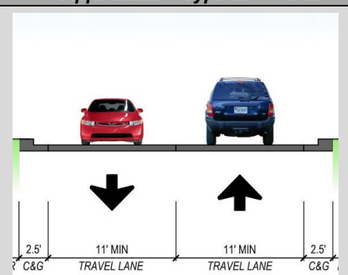
Cost Inputs

Project Length (Miles)	**1.10**
Shoulder Length (Miles)	**0.00**

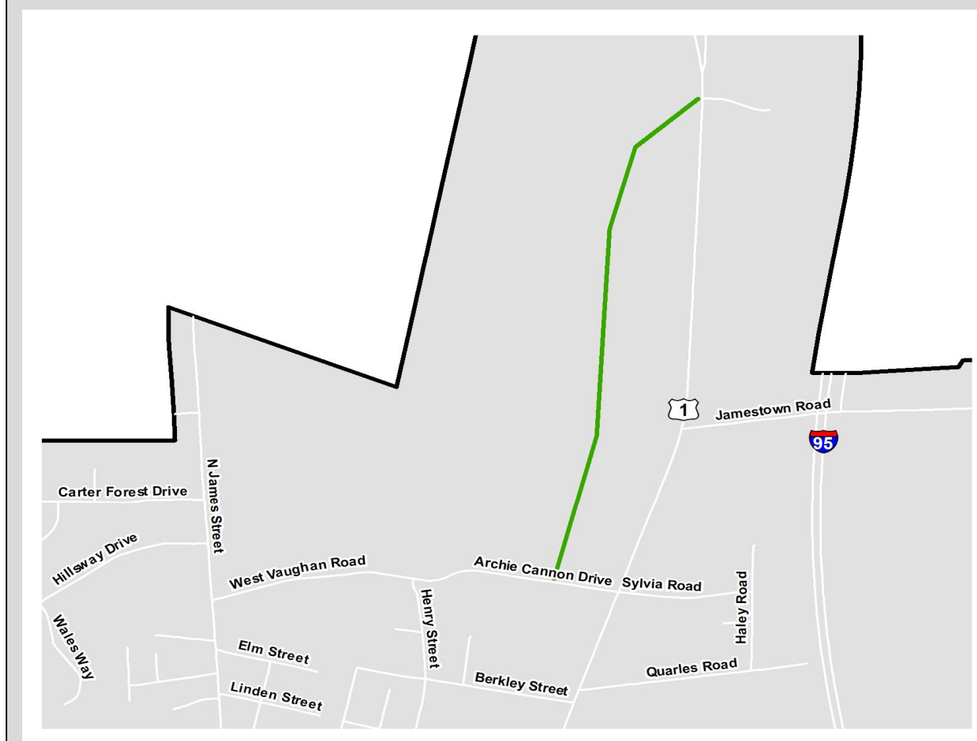
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-8: Project Description

Project Name:	Hill Carter Pkwy Extension	**Date:**	July 2019
Project Limits From:	Hill Carter Pkwy	**To:**	Quarles Rd
TPU Functional Classification:	Local	**Length (mi.):**	0.45
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes with Trail and Sidewalk	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$443,183**
Construction Costs	**$1,477,275**
Additional Contingency (20%)	**$295,455**
Construction Contract Total	**$1,772,730**
CEI (20%)	**$295,455**
Total Construction	**$2,068,185**
Miscellaneous Costs	
Utilities (25%)	**$369,319**
Right-of-Way (25%)	**$369,319**
Total Construction	**$738,638**
Grand Total	***$3,250,005***

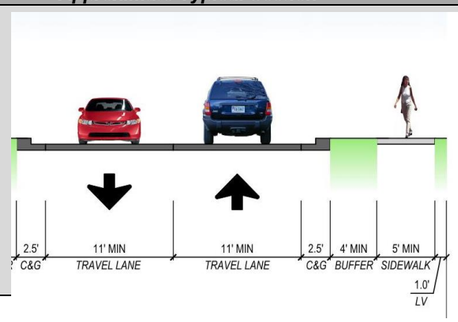
Cost Inputs

Project Length (Miles)	**0.45**
Shoulder Length (Miles)	**0.00**

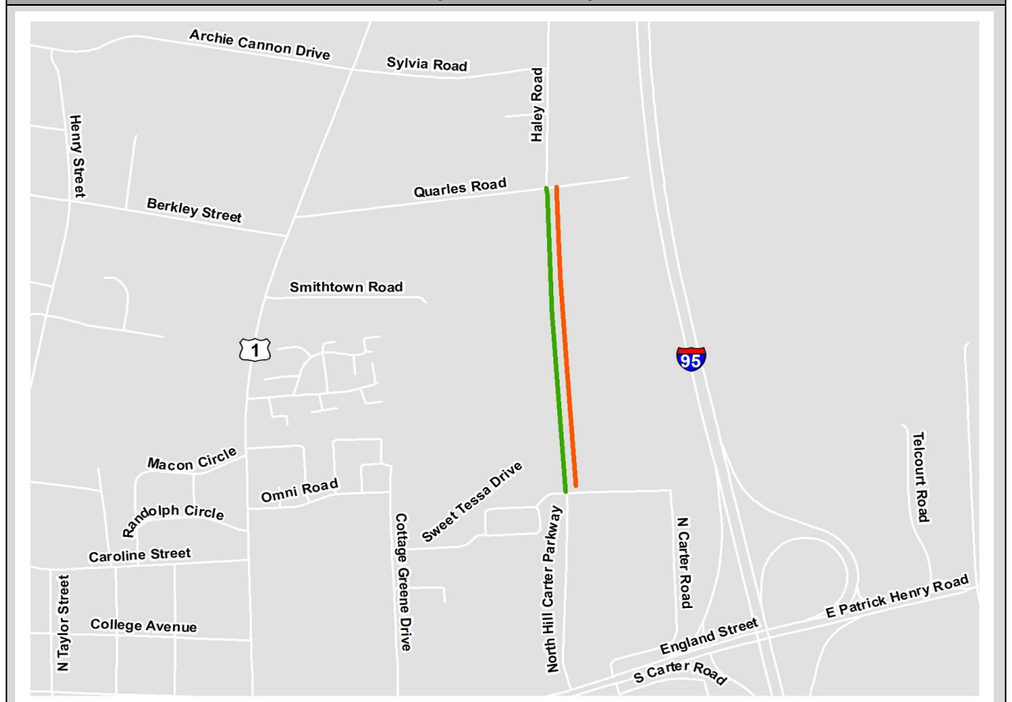
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-9: Project Description

Project Name:	Haley Rd Extension	**Date:**	July 2019
Project Limits From:	Haley Rd	**To:**	Jamestown Rd
TPU Functional Classification:	Local	**Length (mi.):**	0.28
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$173,498**
Construction Costs	**$578,325**
Additional Contingency (20%)	**$115,665**
Construction Contract Total	**$693,990**
CEI (20%)	**$115,665**
Total Construction	**$809,655**
Miscellaneous Costs	
Utilities (25%)	**$144,581**
Right-of-Way (25%)	**$144,581**
Total Construction	**$289,163**
Grand Total	***$1,272,315***

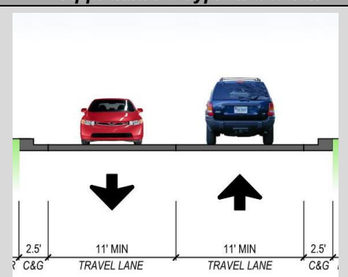
Cost Inputs

Project Length (Miles)	**0.28**
Shoulder Length (Miles)	**0.00**

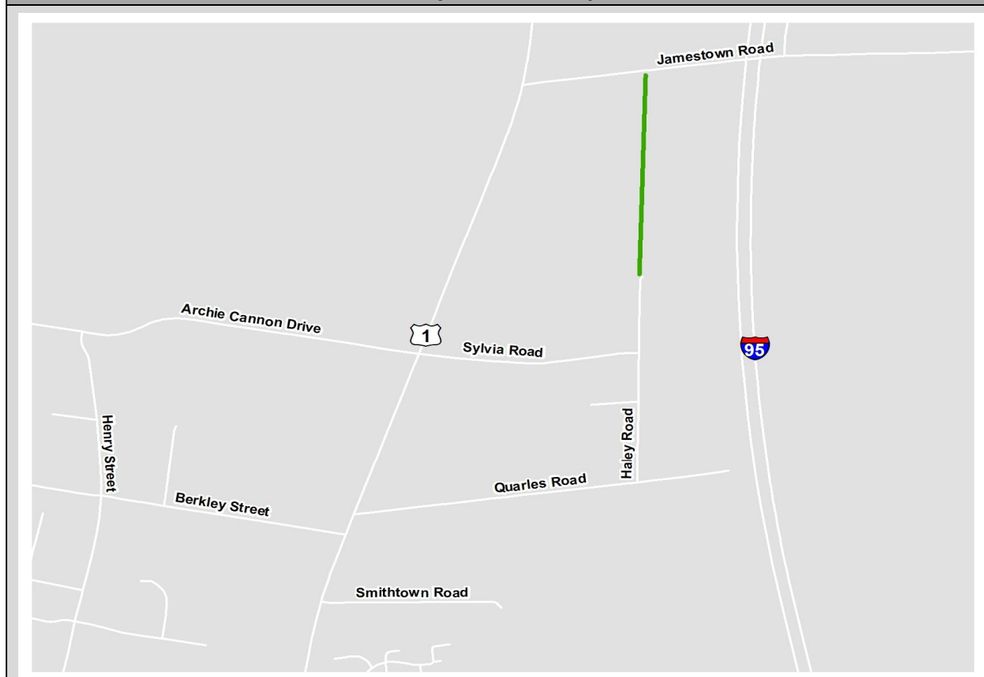
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-10: Project Description

Project Name:	Cottage Greene Dr Extension	**Date:**	July 2019
Project Limits From:	Junction Dr	**To:**	Haley Rd Extension
TPU Functional Classification:	Local	**Length (mi.):**	0.34
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$459,000**
Construction Costs	**$1,530,000**
Additional Contingency (20%)	**$306,000**
Construction Contract Total	**$1,836,000**
CEI (20%)	**$306,000**
Total Construction	**$2,142,000**
Miscellaneous Costs	
Utilities (25%)	**$382,500**
Right-of-Way (25%)	**$382,500**
Total Construction	**$765,000**
Grand Total	***$3,366,000***

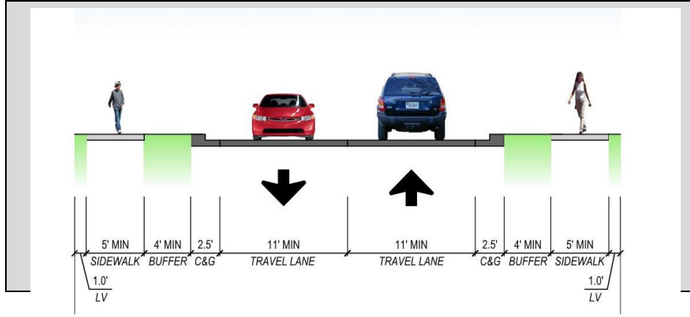
Cost Inputs

Project Length (Miles)	**0.34**
Shoulder Length (Miles)	**0.00**

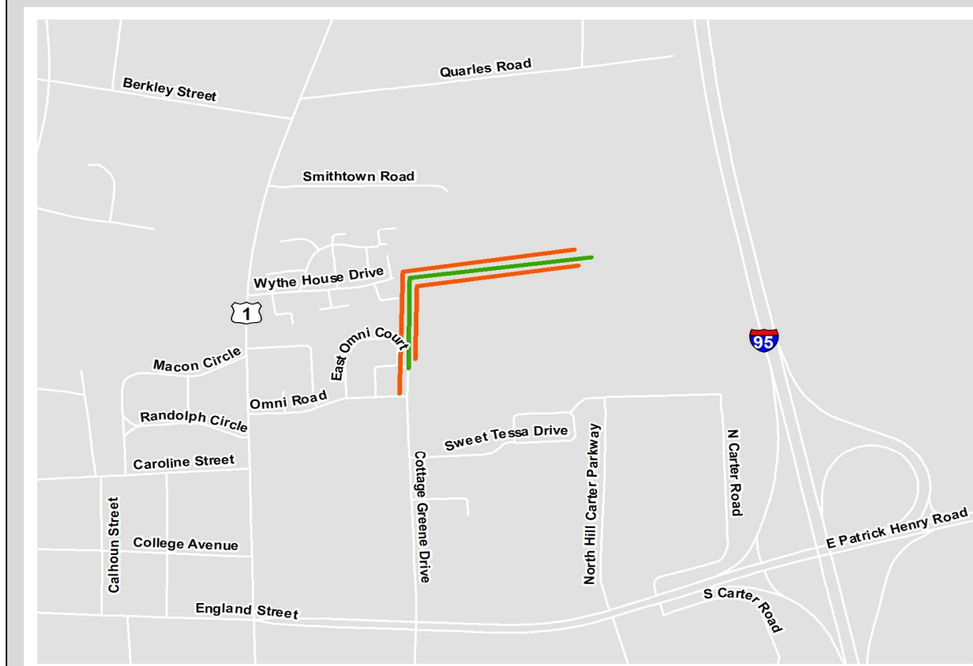
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-11: Project Description

Project Name:	Telcourt Rd Extension	**Date:**	July 2019
Project Limits From:	Telcourt Rd	**To:**	Jamestown Rd
TPU Functional Classification:	Local	**Length (mi.):**	0.93
Existing Lanes / Proposed Lanes:	New Roadway Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$759,150**
Construction Costs	**$2,530,500**
Additional Contingency (20%)	**$506,100**
Construction Contract Total	**$3,036,600**
CEI (20%)	**$506,100**
Total Construction	**$3,542,700**
Miscellaneous Costs	
Utilities (25%)	**$632,625**
Right-of-Way (25%)	**$632,625**
Total Construction	**$1,265,250**
Grand Total	***$5,567,100***

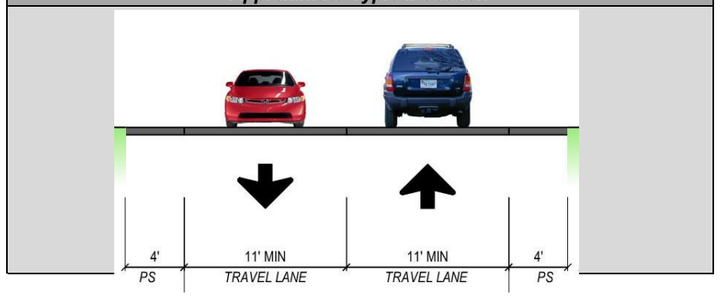
Cost Inputs

Project Length (Miles)	**0.93**
Shoulder Length (Miles)	**0.93**

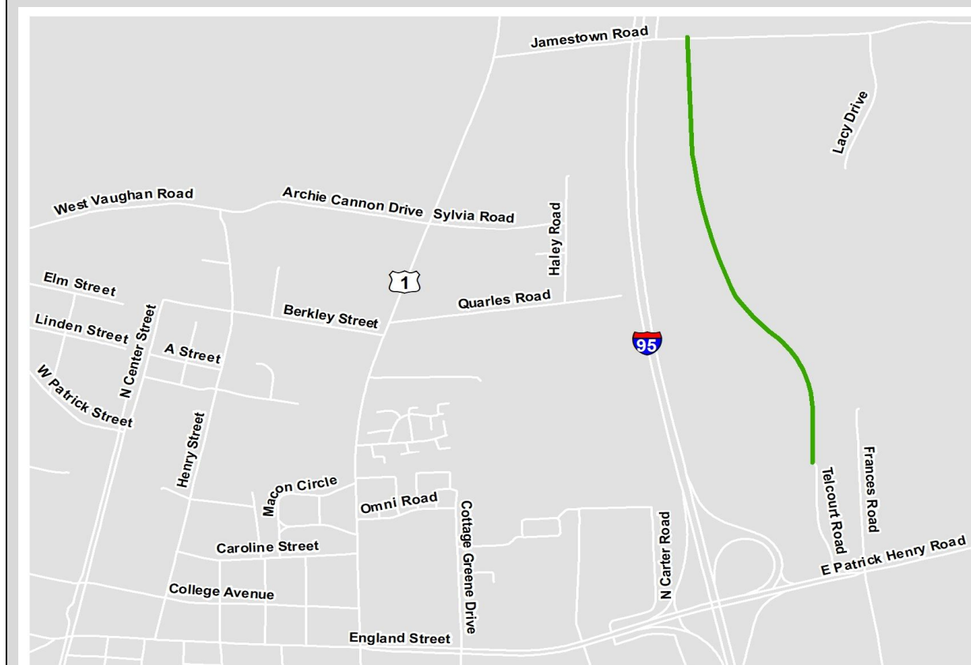
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has shoulder, HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-12: Project Description

Project Name:	Frances Rd Extension	**Date:**	July 2019
Project Limits From:	Frances Rd	**To:**	Proposed Telcourt Rd Extension
TPU Functional Classification:	Local	**Length (mi.):**	0.20
Existing Lanes / Proposed Lanes:	New Roadway Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$163,260**
Construction Costs	**$544,200**
Additional Contingency (20%)	**$108,840**
Construction Contract Total	**$653,040**
CEI (20%)	**$108,840**
Total Construction	**$761,880**
Miscellaneous Costs	
Utilities (25%)	**$136,050**
Right-of-Way (25%)	**$136,050**
Total Construction	**$272,100**
Grand Total	***$1,197,240***

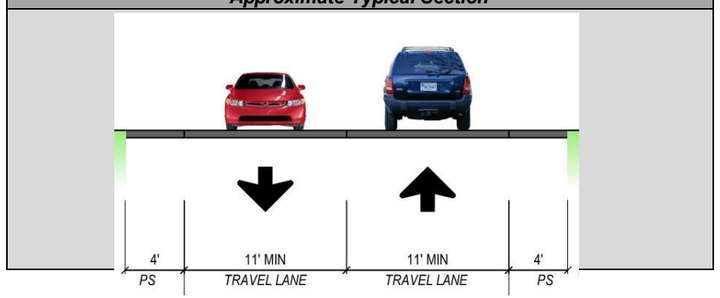
Cost Inputs

Project Length (Miles)	**0.20**
Shoulder Length (Miles)	**0.20**

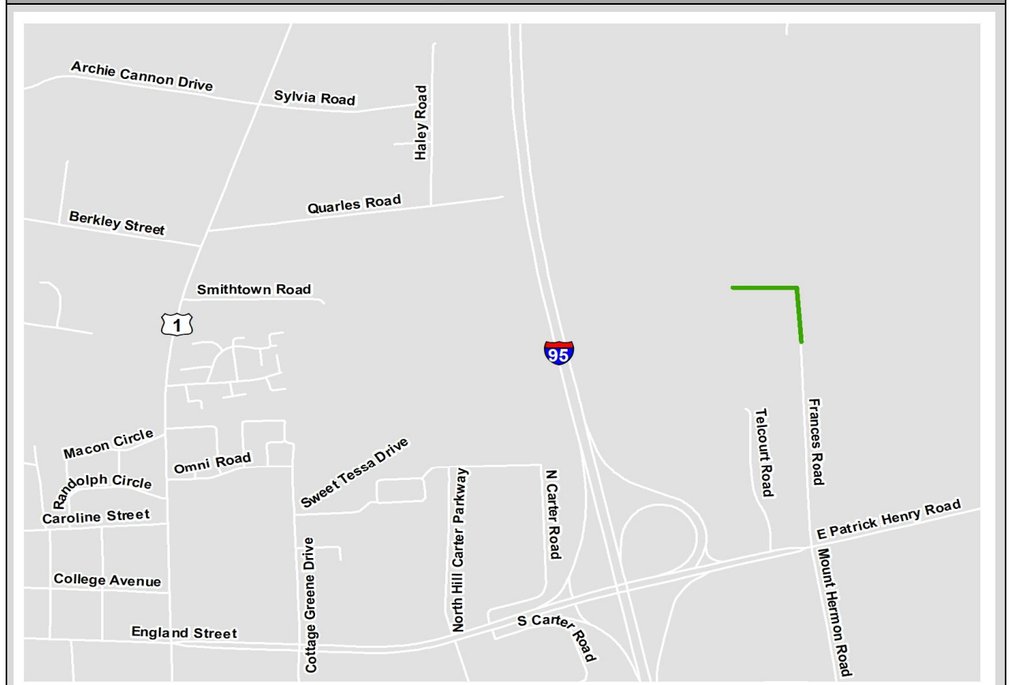
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has shoulder, HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-13: Project Description

Project Name:	Green Chimneys Ct Extension	**Date:**	July 2019
Project Limits From:	Taylor St Extension	**To:**	South Hill Carter Pkwy
TPU Functional Classification:	Local	**Length (mi.):**	0.52
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$322,223**
Construction Costs	**$1,074,075**
Additional Contingency (20%)	**$214,815**
Construction Contract Total	**$1,288,890**
CEI (20%)	**$214,815**
Total Construction	**$1,503,705**
Miscellaneous Costs	
Utilities (25%)	**$268,519**
Right-of-Way (25%)	**$268,519**
Total Construction	**$537,038**
Grand Total	***$2,362,965***

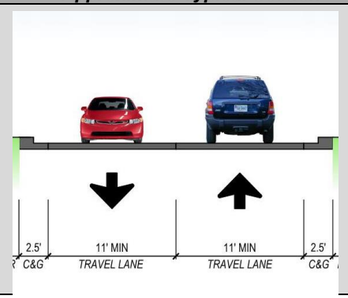
Cost Inputs

Project Length (Miles)	**0.52**
Shoulder Length (Miles)	**0.00**

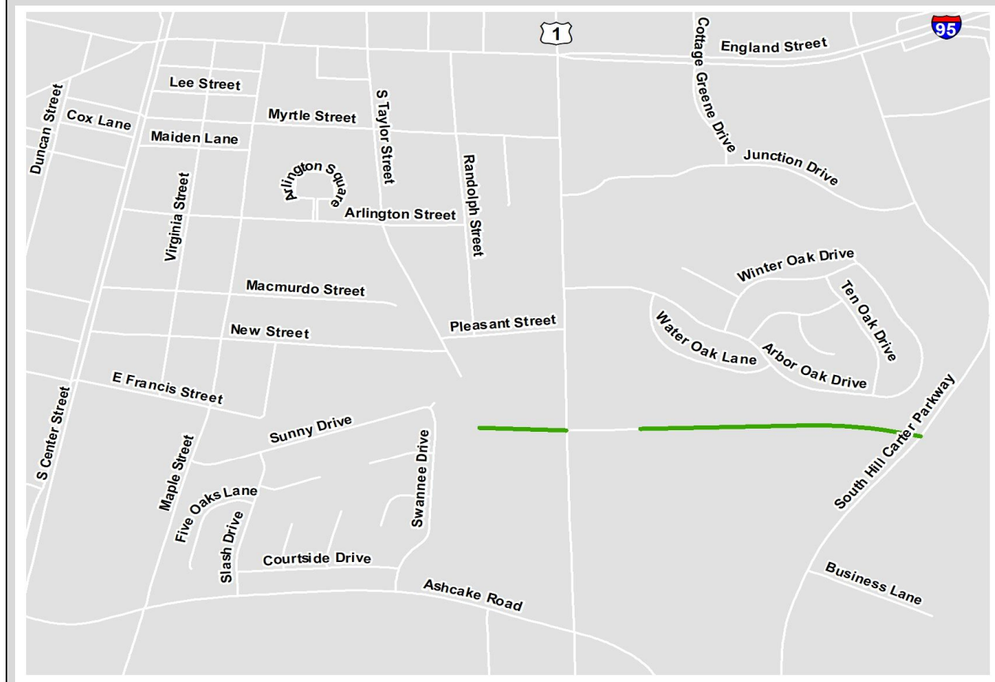
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-14: Project Description

Project Name:	Ten Oak Dr Extension	**Date:**	July 2019
Project Limits From:	Ten Oak Dr	**To:**	Green Chimneys Ct Extension
TPU Functional Classification:	Local	**Length (mi.):**	0.05
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$30,983**
Construction Costs	**$103,275**
Additional Contingency (20%)	**$20,655**
Construction Contract Total	**$123,930**
CEI (20%)	**$20,655**
Total Construction	**$144,585**
Miscellaneous Costs	
Utilities (25%)	**$25,819**
Right-of-Way (25%)	**$25,819**
Total Construction	**$51,638**
Grand Total	***$227,205***

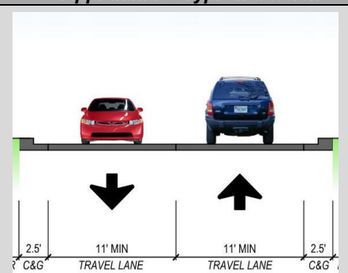
Cost Inputs

Project Length (Miles)	**0.05**
Shoulder Length (Miles)	**0.00**

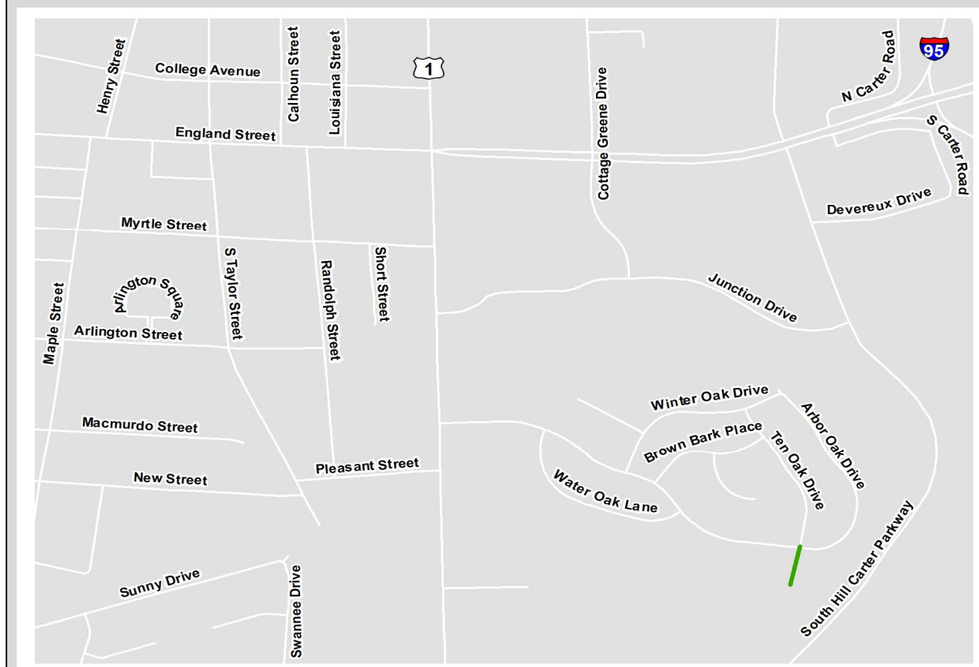
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-15: Project Description

Project Name:	Berkley Woods Dr Extension	**Date:**	July 2019
Project Limits From:	Berkley Wood Dr	**To:**	U.S. Route 1 (Washington Highway)
TPU Functional Classification:	Local	**Length (mi.):**	0.12
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$74,363**
Construction Costs	**$247,875**
Additional Contingency (20%)	**$49,575**
Construction Contract Total	**$297,450**
CEI (20%)	**$49,575**
Total Construction	**$347,025**
Miscellaneous Costs	
Utilities (25%)	**$61,969**
Right-of-Way (25%)	**$61,969**
Total Construction	**$123,938**
Grand Total	***$545,325***

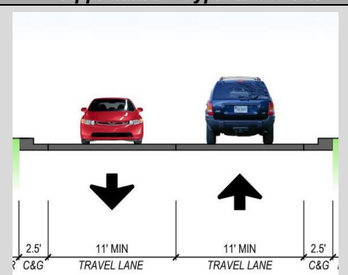
Cost Inputs

Project Length (Miles)	**0.12**
Shoulder Length (Miles)	**0.00**

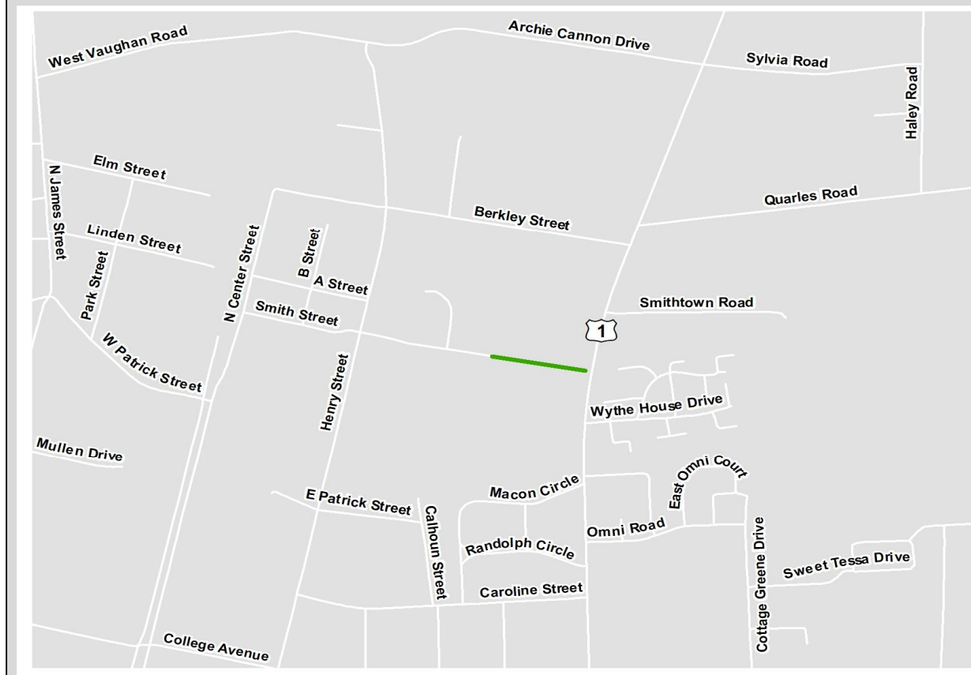
General Assumptions

- **Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards**
- **Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates**
- ***Cost in 2020 dollars***
- **Annual inflation rate is 3.0% annually**
- **No lighting, streetscape, signalization, storm water management or utility betterments are included**
- **Existing roadway has C&G, HIGH Urban cost used**
- **The HIGH per lane mile cost was used due to planning level of estimate**

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-16: Project Description

Project Name:	Gamekeeper Place Extension	**Date:**	July 2019
Project Limits From:	Gamekeeper Place	**To:**	Northern Ashland Town Limits
TPU Functional Classification:	Local	**Length (mi.):**	0.07
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$43,380**
Construction Costs	**$144,600**
Additional Contingency (20%)	**$28,920**
Construction Contract Total	**$173,520**
CEI (20%)	**$28,920**
Total Construction	**$202,440**
Miscellaneous Costs	
Utilities (25%)	**$36,150**
Right-of-Way (25%)	**$36,150**
Total Construction	**$72,300**
Grand Total	***$318,120***

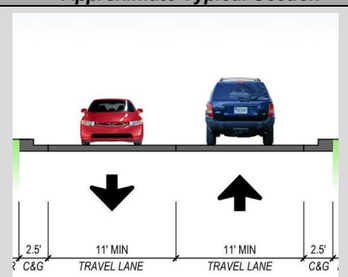
Cost Inputs

Project Length (Miles)	**0.07**
Shoulder Length (Miles)	**0.00**

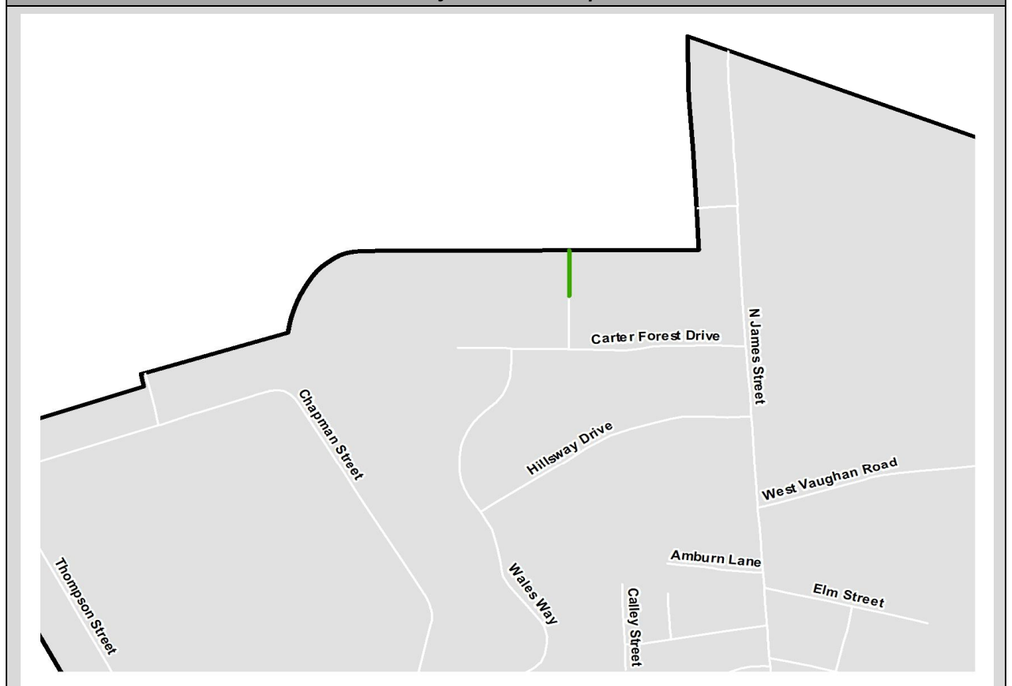
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-17: Project Description

Project Name:	Carter Forest Dr Extension	**Date:**	July 2019
Project Limits From:	Chapman St	**To:**	Carter Forest Dr
TPU Functional Classification:	Local	**Length (mi.):**	0.24
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$148,725**
Construction Costs	**$495,750**
Additional Contingency (20%)	**$99,150**
Construction Contract Total	**$594,900**
CEI (20%)	**$99,150**
Total Construction	**$694,050**
Miscellaneous Costs	
Utilities (25%)	**$123,938**
Right-of-Way (25%)	**$123,938**
Total Construction	**$247,875**
Grand Total	***$1,090,650***

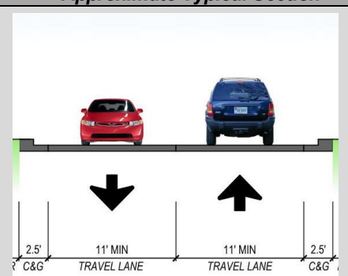
Cost Inputs

Project Length (Miles)	**0.24**
Shoulder Length (Miles)	**0.00**

General Assumptions

- **Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards**
- **Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates**
- ***Cost in 2020 dollars***
- **Annual inflation rate is 3.0% annually**
- **No lighting, streetscape, signalization, storm water management or utility betterments are included**
- **Existing roadway has C&G, HIGH Urban cost used**
- **The HIGH per lane mile cost was used due to planning level of estimate**

Approximate Typical Section



Project Location Map

Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-18: Project Description

Project Name:	New Road 2	**Date:**	July 2019
Project Limits From:	Carter Forest Dr Extension	**To:**	Northern Ashland Town Limit
TPU Functional Classification:	Local	**Length (mi.):**	0.20
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$123,930**
Construction Costs	**$413,100**
Additional Contingency (20%)	**$82,620**
Construction Contract Total	**$495,720**
CEI (20%)	**$82,620**
Total Construction	**$578,340**
Miscellaneous Costs	
Utilities (25%)	**$103,275**
Right-of-Way (25%)	**$103,275**
Total Construction	**$206,550**
Grand Total	***$908,820***

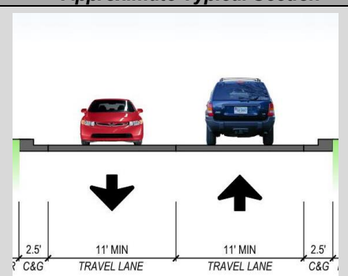
Cost Inputs

Project Length (Miles)	**0.20**
Shoulder Length (Miles)	**0.00**

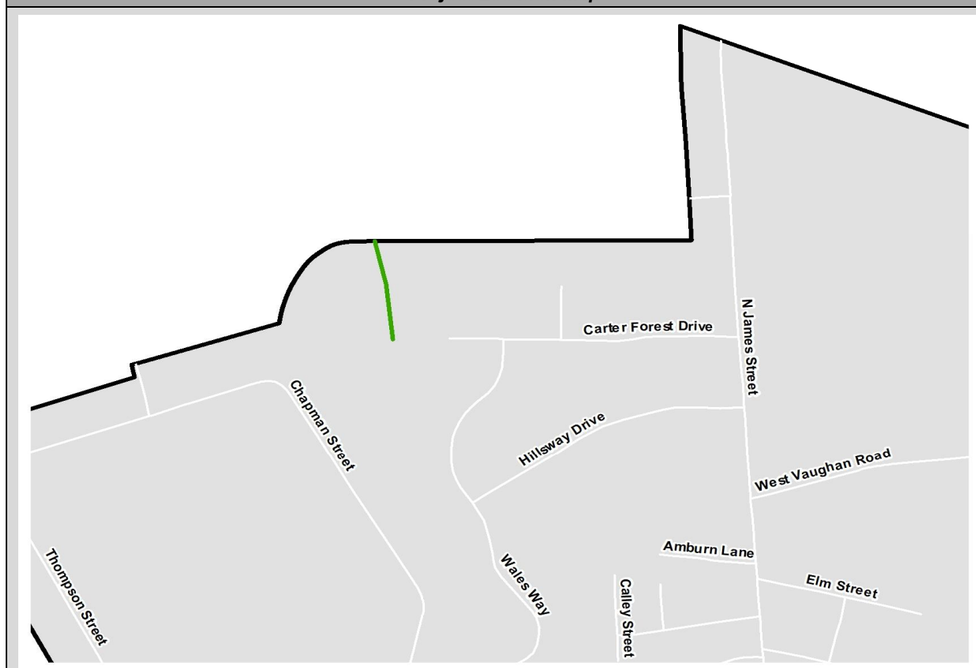
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-19: Project Description

Project Name:	New Road 3	**Date:**	July 2019
Project Limits From:	Chapman Street	**To:**	Northern Ashland Town Limits
TPU Functional Classification:	Local	**Length (mi.):**	0.07
Existing Lanes / Proposed Lanes:	New Roadway Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$57,150**
Construction Costs	**$190,500**
Additional Contingency (20%)	**$38,100**
Construction Contract Total	**$228,600**
CEI (20%)	**$38,100**
Total Construction	**$266,700**
Miscellaneous Costs	
Utilities (25%)	**$47,625**
Right-of-Way (25%)	**$47,625**
Total Construction	**$95,250**
Grand Total	***$419,100***

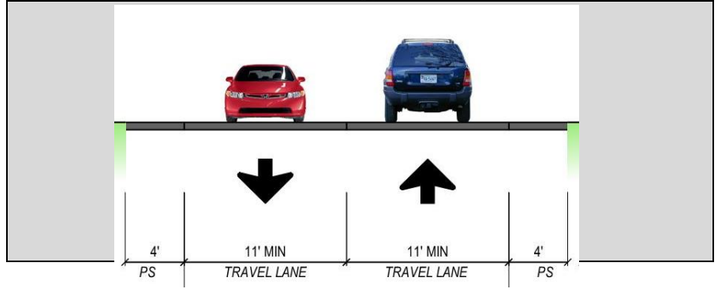
Cost Inputs

Project Length (Miles)	**0.07**
Shoulder Length (Miles)	**0.07**

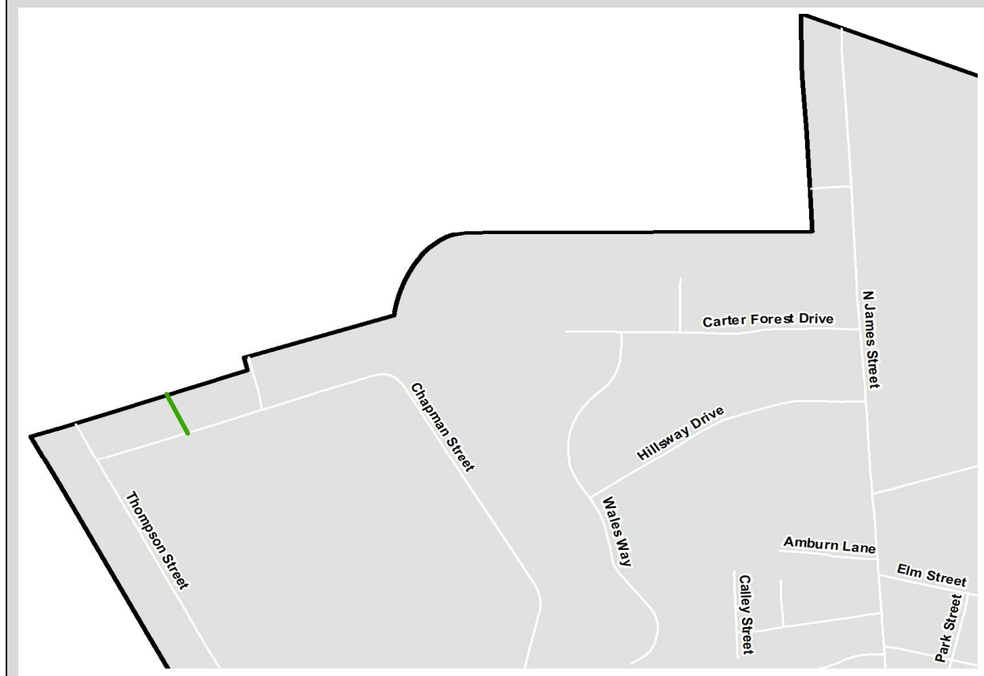
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has shoulder, HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-20: Project Description

Project Name:	Vaughan Rd Extension	**Date:**	July 2019
Project Limits From:	Vaughan Rd	**To:**	Thompson St
TPU Functional Classification:	Local	**Length (mi.):**	0.84
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$1,134,000**
Construction Costs	**$3,780,000**
Additional Contingency (20%)	**$756,000**
Construction Contract Total	**$4,536,000**
CEI (20%)	**$756,000**
Total Construction	**$5,292,000**
Miscellaneous Costs	
Utilities (25%)	**$945,000**
Right-of-Way (25%)	**$945,000**
Total Construction	**$1,890,000**
Grand Total	***$8,316,000***

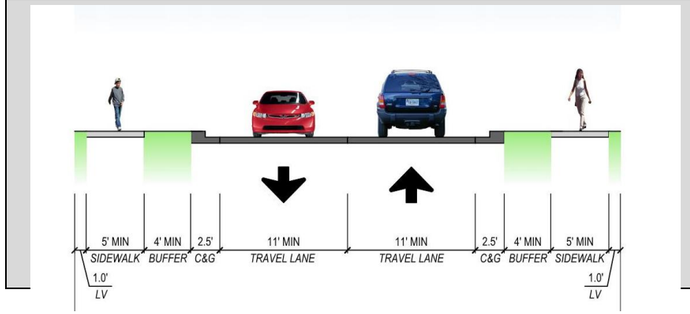
Cost Inputs

Project Length (Miles)	**0.84**
Shoulder Length (Miles)	**0.00**

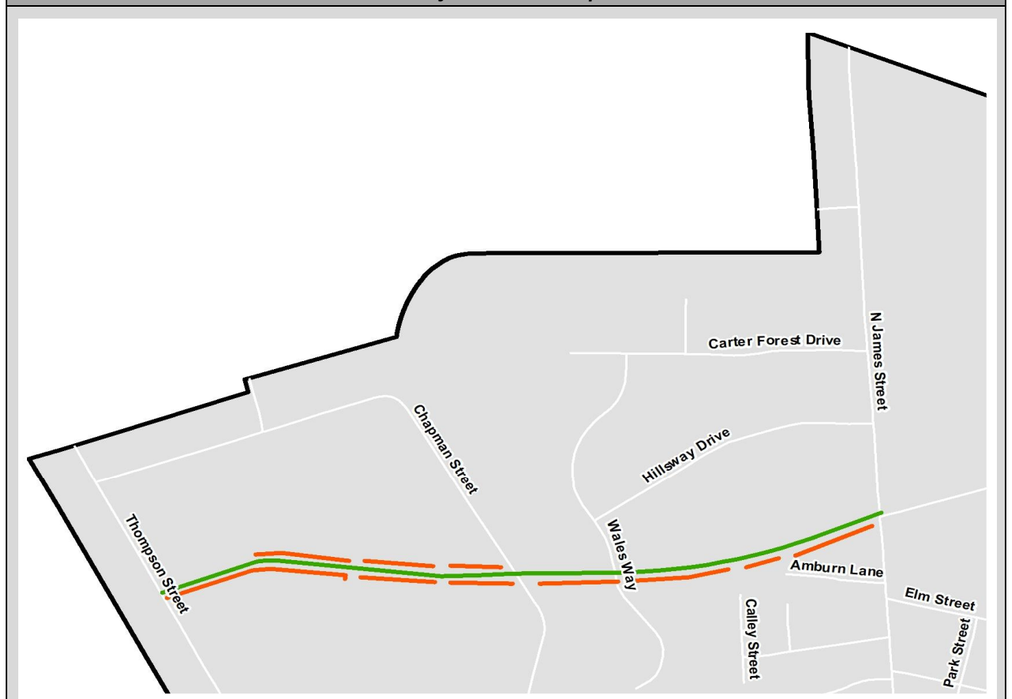
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-21: Project Description

Project Name:	Steyland St Extension	**Date:**	July 2019
Project Limits From:	Steyland St	**To:**	Vaughan Road Extension
TPU Functional Classification:	Local	**Length (mi.):**	0.08
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$78,795**
Construction Costs	**$262,650**
Additional Contingency (20%)	**$52,530**
Construction Contract Total	**$315,180**
CEI (20%)	**$52,530**
Total Construction	**$367,710**
Miscellaneous Costs	
Utilities (25%)	**$65,663**
Right-of-Way (25%)	**$65,663**
Total Construction	**$131,325**
Grand Total	***$577,830***

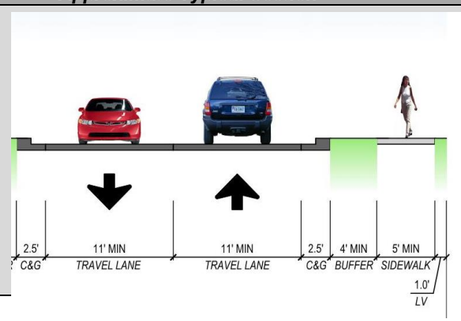
Cost Inputs

Project Length (Miles)	**0.08**
Shoulder Length (Miles)	**0.00**

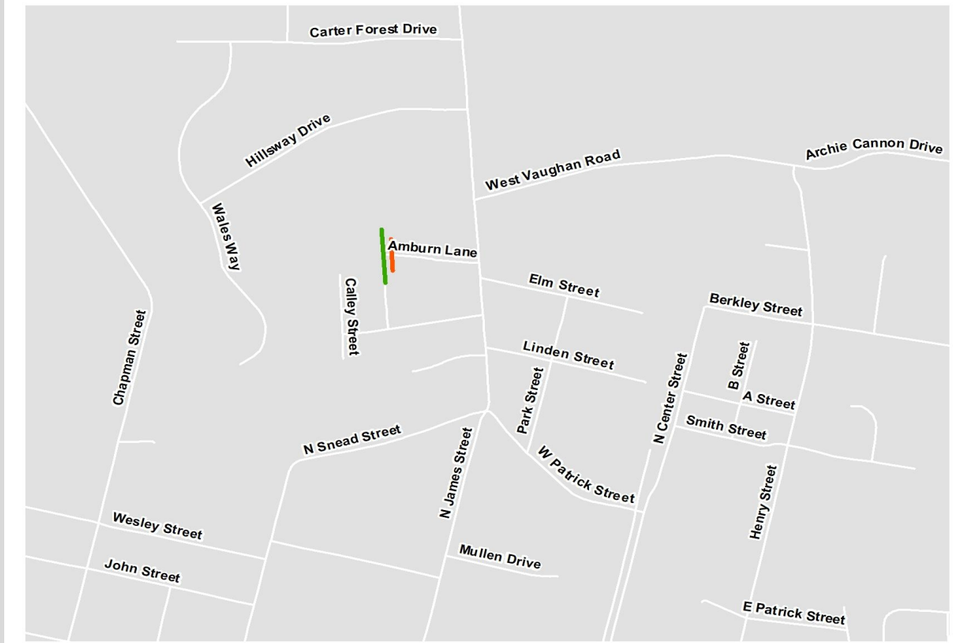
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-22A: Project Description

Project Name:	Calley St Extension 1	**Date:**	July 2019
Project Limits From:	Calley St	**To:**	Vaughan Road Extension
TPU Functional Classification:	Local	**Length (mi.):**	0.06
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$64,009**
Construction Costs	**$196,950**
Additional Contingency (20%)	**$59,085**
Construction Contract Total	**$256,035**
CEI (20%)	**$39,390**
Total Construction	**$295,425**
Miscellaneous Costs	
Utilities (25%)	**$49,238**
Right-of-Way (25%)	**$49,238**
Total Construction	**$98,475**
Grand Total	***$457,909***

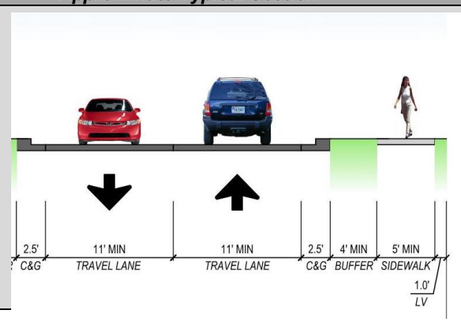
Cost Inputs

Project Length (Miles)	**0.06**
Shoulder Length (Miles)	**0.00**

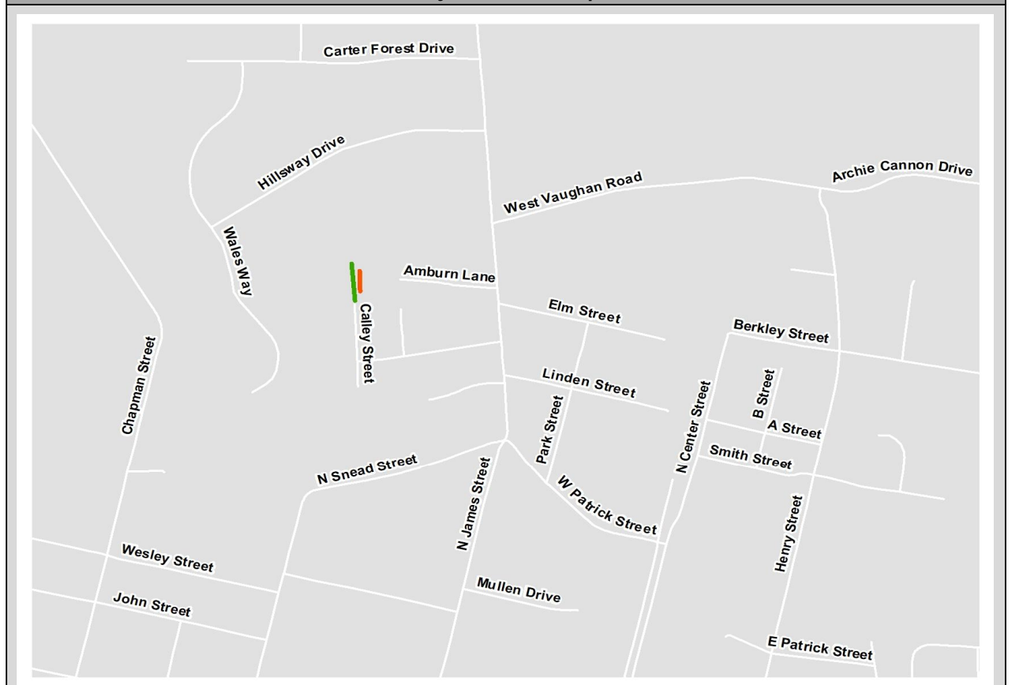
General Assumptions

- **Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards**
- **Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates**
- **Cost in 2020 dollars**
- **Annual inflation rate is 3.0% annually**
- ***No lighting, streetscape, signalization, storm water management or utility betterments are included***
- **Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used**
- **The HIGH per lane mile cost was used due to planning level of estimate**

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-22B: Project Description

Project Name:	Calley St Extension 2	**Date:**	July 2019
Project Limits From:	Wesley St	**To:**	Calley St
TPU Functional Classification:	Local	**Length (mi.):**	0.30
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$438,750**
Construction Costs	**$1,350,000**
Additional Contingency (20%)	**$405,000**
Construction Contract Total	**$1,755,000**
CEI (20%)	**$270,000**
Total Construction	**$2,025,000**
Miscellaneous Costs	
Utilities (25%)	**$337,500**
Right-of-Way (25%)	**$337,500**
Total Construction	**$675,000**
Grand Total	***$3,138,750***

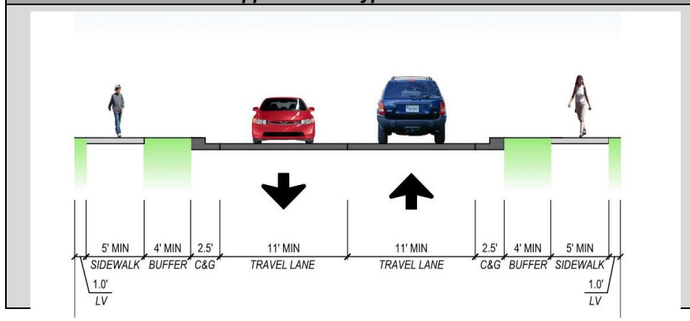
Cost Inputs

Project Length (Miles)	**0.30**
Shoulder Length (Miles)	**0.00**

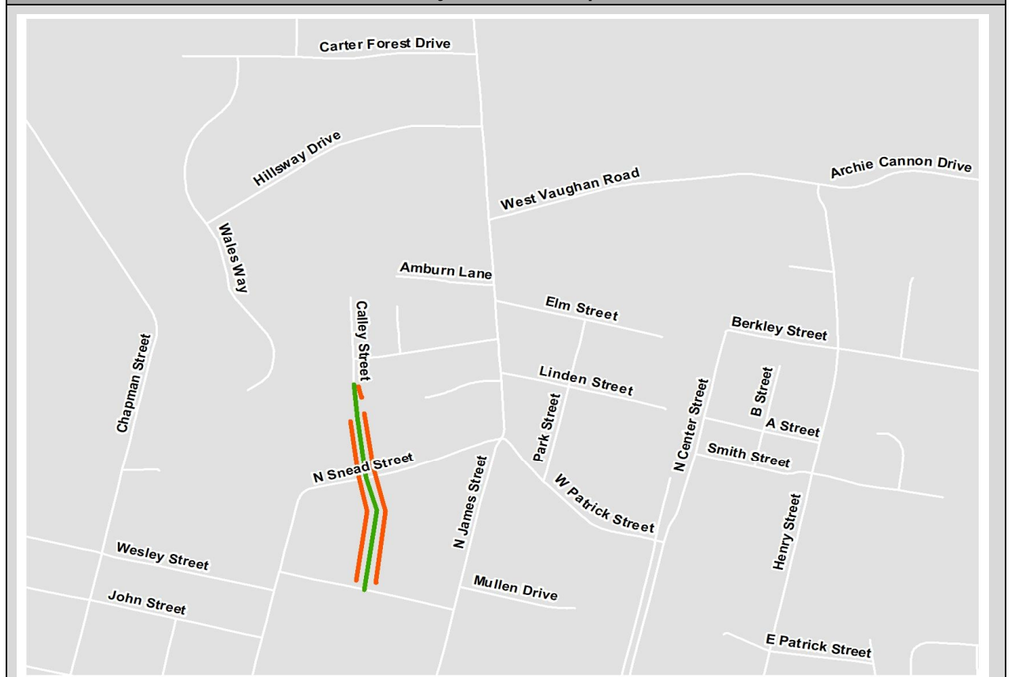
General Assumptions

- **Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards**
- **Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates**
- **Cost in 2020 dollars**
- **Annual inflation rate is 3.0% annually**
- ***No lighting, streetscape, signalization, storm water management or utility betterments are included***
- **Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used**
- **The HIGH per lane mile cost was used due to planning level of estimate**

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-23: Project Description

Project Name:	Wales Way Extension	**Date:**	July 2019
Project Limits From:	N Snead St	**To:**	Wales Way
TPU Functional Classification:	Local	**Length (mi.):**	0.15
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$120,330**
Construction Costs	**$401,100**
Additional Contingency (20%)	**$80,220**
Construction Contract Total	**$481,320**
CEI (20%)	**$80,220**
Total Construction	**$561,540**
Miscellaneous Costs	
Utilities (25%)	**$100,275**
Right-of-Way (25%)	**$100,275**
Total Construction	**$200,550**
Grand Total	***$882,420***

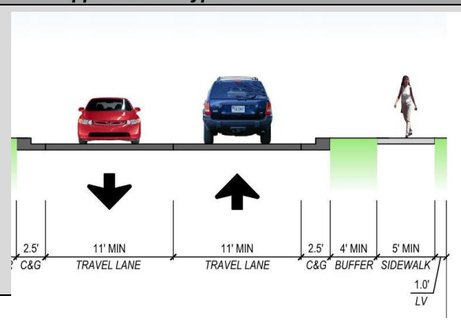
Cost Inputs

Project Length (Miles)	**0.15**
Shoulder Length (Miles)	**0.00**

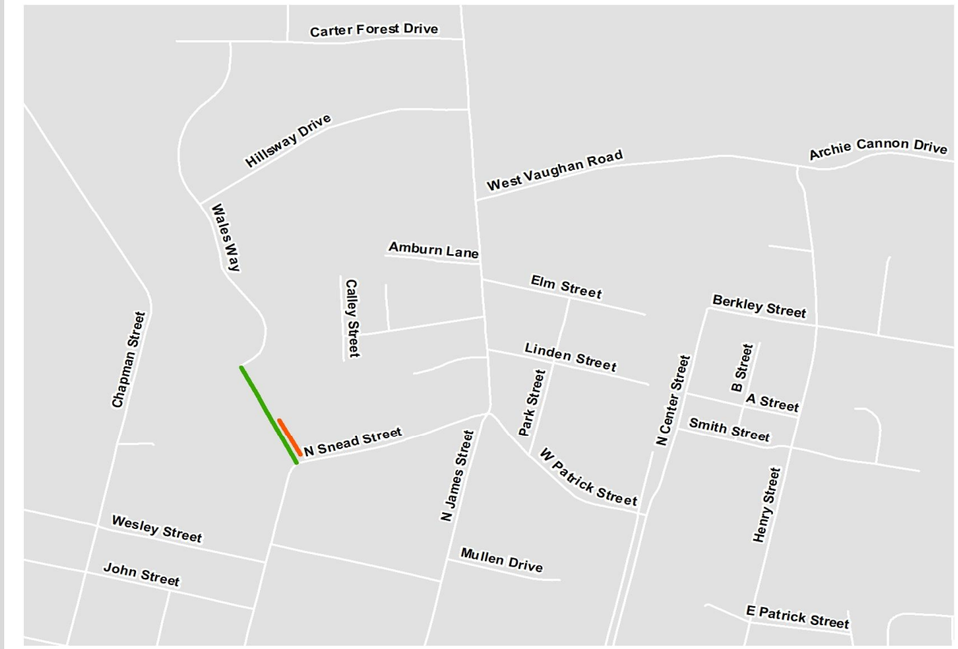
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-24: Project Description

Project Name:	Haley Ct Extension	**Date:**	July 2019
Project Limits From:	Wesley St	**To:**	Haley Ct
TPU Functional Classification:	Local	**Length (mi.):**	0.55
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$742,500**
Construction Costs	**$2,475,000**
Additional Contingency (20%)	**$495,000**
Construction Contract Total	**$2,970,000**
CEI (20%)	**$495,000**
Total Construction	**$3,465,000**
Miscellaneous Costs	
Utilities (25%)	**$618,750**
Right-of-Way (25%)	**$618,750**
Total Construction	**$1,237,500**
Grand Total	***$5,445,000***

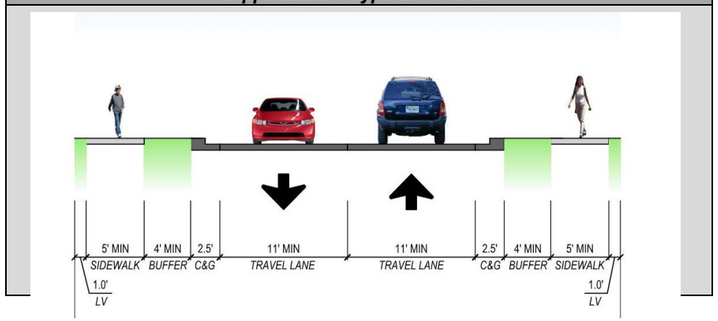
Cost Inputs

Project Length (Miles)	**0.55**
Shoulder Length (Miles)	**0.00**

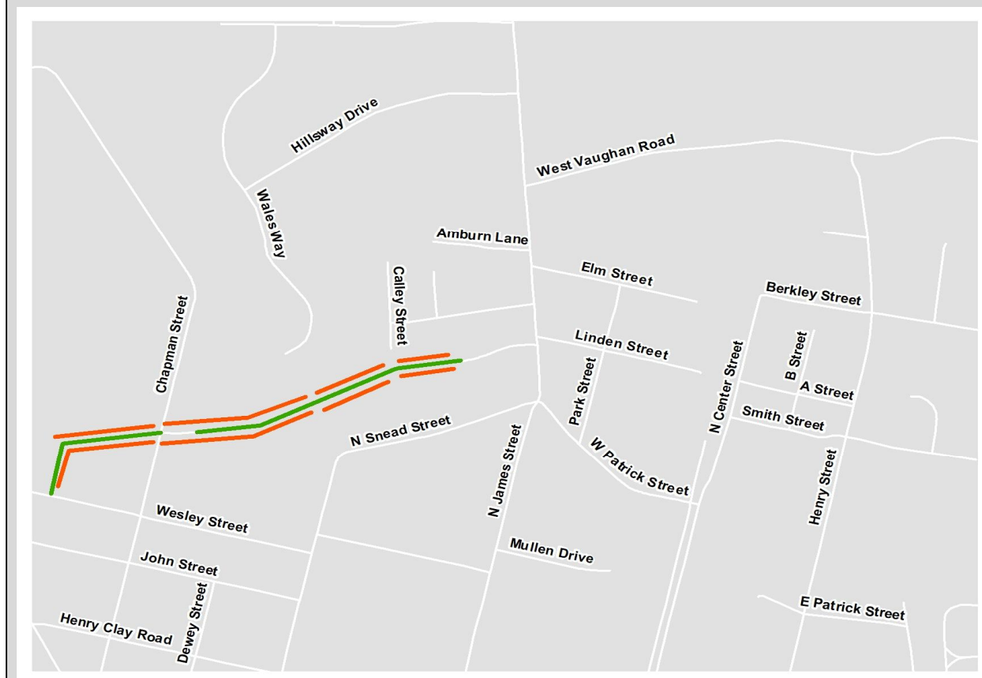
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-25: Project Description

Project Name:	New Road 4	**Date:**	July 2019
Project Limits From:	Henry Clay Rd	**To:**	Mullen Dr
TPU Functional Classification:	Local	**Length (mi.):**	0.22
Existing Lanes / Proposed Lanes:	New Roadway Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$179,595**
Construction Costs	**$598,650**
Additional Contingency (20%)	**$119,730**
Construction Contract Total	**$718,380**
CEI (20%)	**$119,730**
Total Construction	**$838,110**
Miscellaneous Costs	
Utilities (25%)	**$149,663**
Right-of-Way (25%)	**$149,663**
Total Construction	**$299,325**
Grand Total	***$1,317,030***

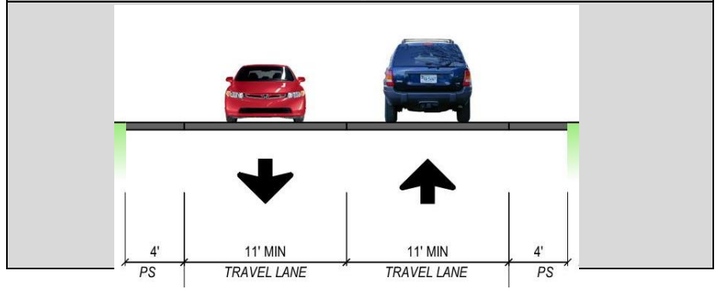
Cost Inputs

Project Length (Miles)	**0.22**
Shoulder Length (Miles)	**0.22**

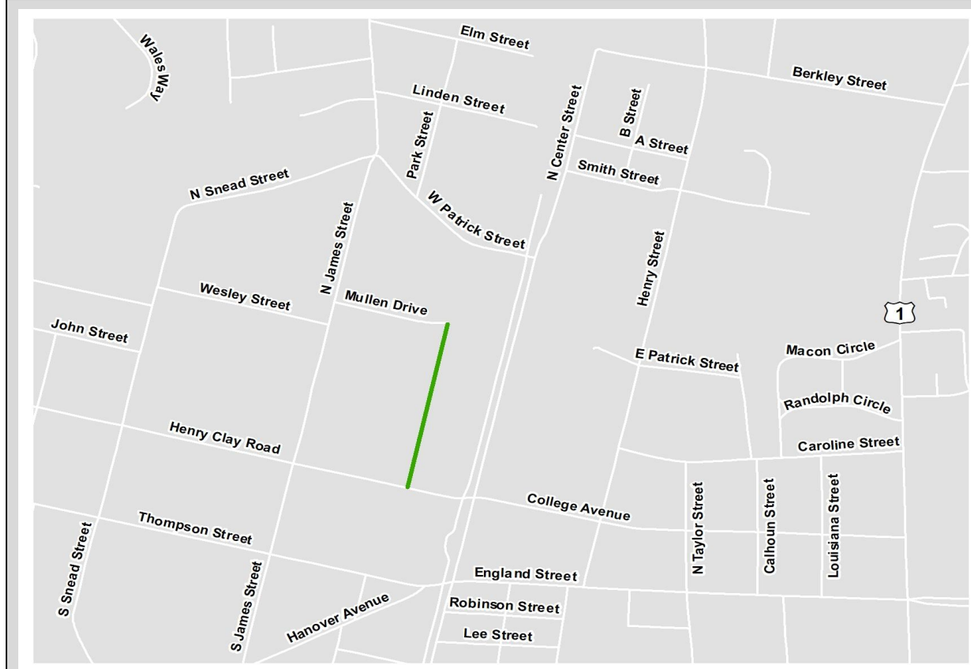
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has shoulder, HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-26: Project Description

Project Name:	S Snead St Extension	**Date:**	July 2019
Project Limits From:	Dale Ave	**To:**	Hanover Avenue
TPU Functional Classification:	Local	**Length (mi.):**	0.22
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$200,588**
Construction Costs	**$668,625**
Additional Contingency (20%)	**$133,725**
Construction Contract Total	**$802,350**
CEI (20%)	**$133,725**
Total Construction	**$936,075**
Miscellaneous Costs	
Utilities (25%)	**$167,156**
Right-of-Way (25%)	**$167,156**
Total Construction	**$334,313**
Grand Total	***$1,470,975***

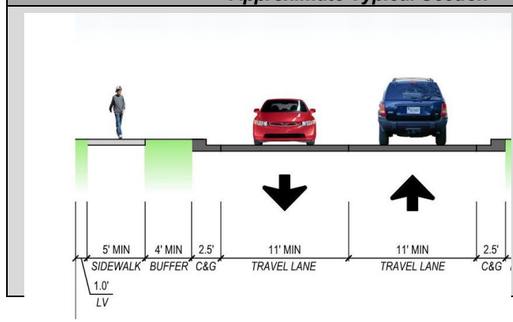
Cost Inputs

Project Length (Miles)	**0.22**
Shoulder Length (Miles)	**0.00**

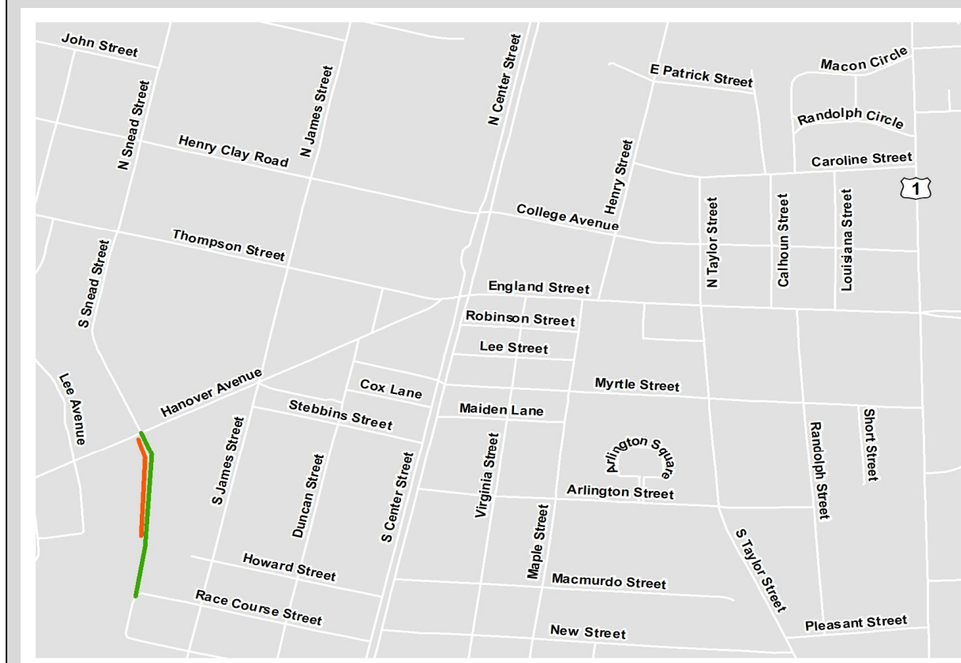
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-27: Project Description

Project Name:	Howard St Extension	**Date:**	July 2019
Project Limits From:	Lee Ave	**To:**	Howard St
TPU Functional Classification:	Local	**Length (mi.):**	0.16
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$157,568**
Construction Costs	**$525,225**
Additional Contingency (20%)	**$105,045**
Construction Contract Total	**$630,270**
CEI (20%)	**$105,045**
Total Construction	**$735,315**
Miscellaneous Costs	
Utilities (25%)	**$131,306**
Right-of-Way (25%)	**$131,306**
Total Construction	**$262,613**
Grand Total	***$1,155,495***

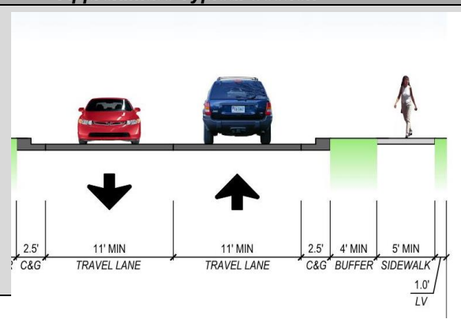
Cost Inputs

Project Length (Miles)	**0.16**
Shoulder Length (Miles)	**0.00**

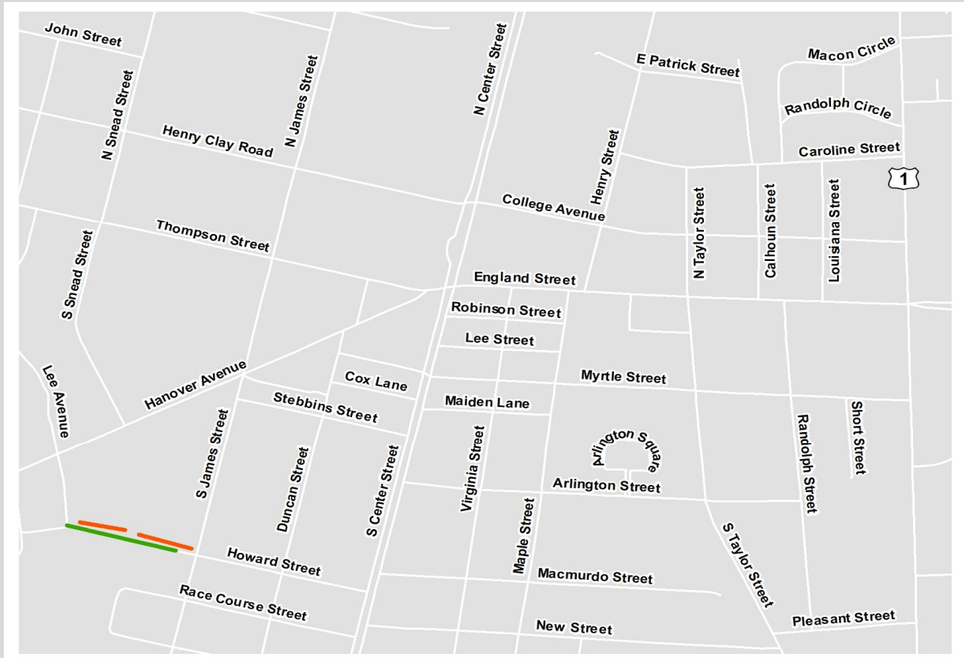
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-28: Project Description

Project Name:	Maple St Extension 1	**Date:**	July 2019
Project Limits From:	New St	**To:**	Mac Murdo St
TPU Functional Classification:	Local	**Length (mi.):**	0.08
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$108,000**
Construction Costs	**$360,000**
Additional Contingency (20%)	**$72,000**
Construction Contract Total	**$432,000**
CEI (20%)	**$72,000**
Total Construction	**$504,000**
Miscellaneous Costs	
Utilities (25%)	**$90,000**
Right-of-Way (25%)	**$90,000**
Total Construction	**$180,000**
Grand Total	***$792,000***

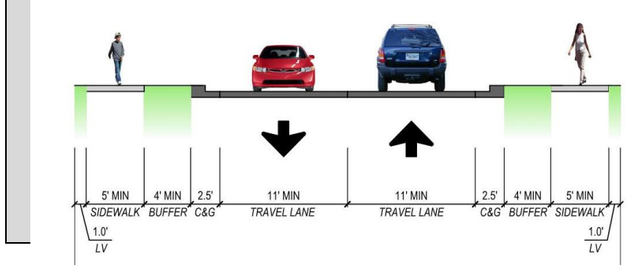
Cost Inputs

Project Length (Miles)	**0.08**
Shoulder Length (Miles)	**0.00**

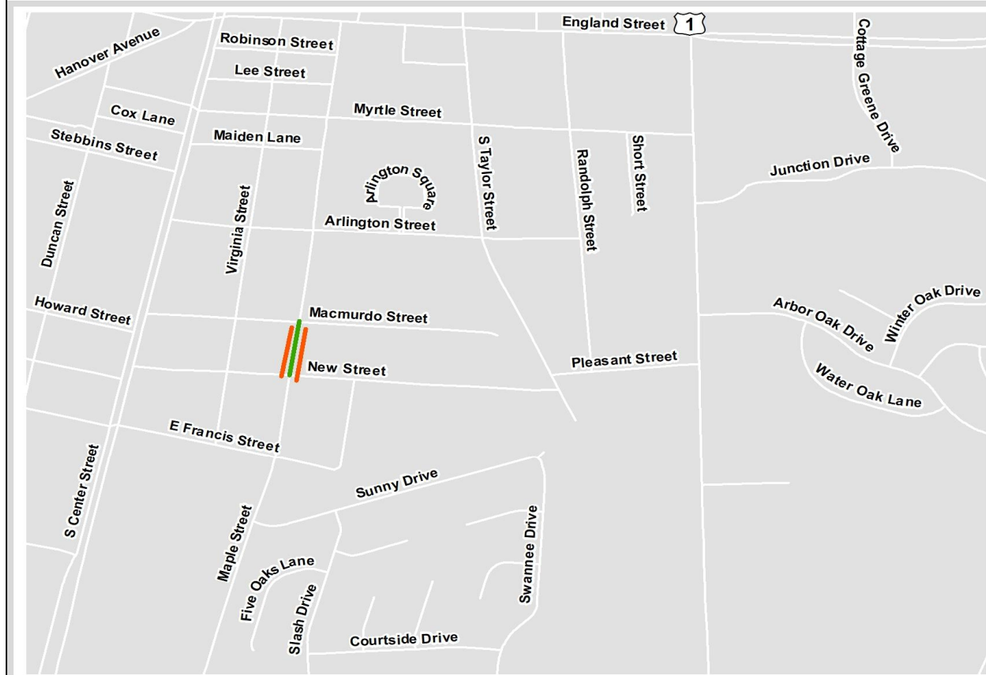
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-29: Project Description

Project Name:	Mac Murdo St Extension	**Date:**	July 2019
Project Limits From:	Mac Murdo St	**To:**	S Taylor St
TPU Functional Classification:	Local	**Length (mi.):**	0.05
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$67,500**
Construction Costs	**$225,000**
Additional Contingency (20%)	**$45,000**
Construction Contract Total	**$270,000**
CEI (20%)	**$45,000**
Total Construction	**$315,000**
Miscellaneous Costs	
Utilities (25%)	**$56,250**
Right-of-Way (25%)	**$56,250**
Total Construction	**$112,500**
Grand Total	***$495,000***

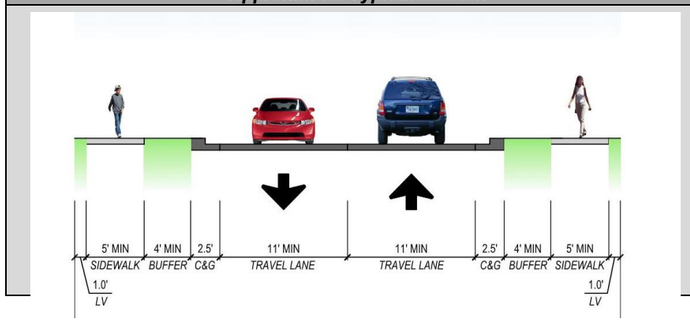
Cost Inputs

Project Length (Miles)	**0.05**
Shoulder Length (Miles)	**0.00**

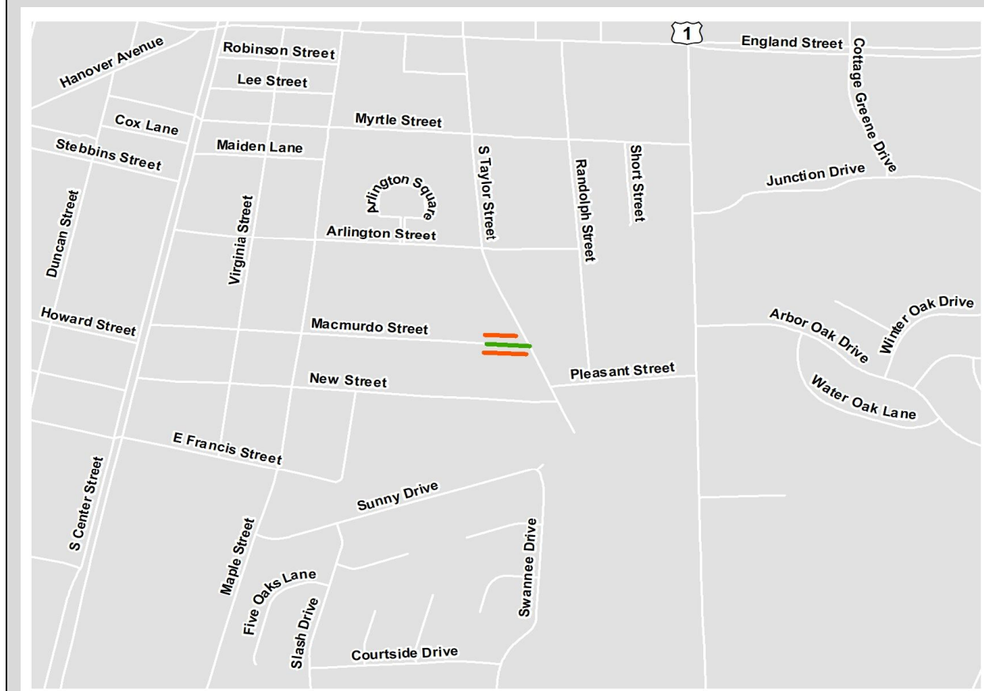
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Sidewalk costs included in roadway pay item; existing roadway has shoulder, HIGH Urban cost used to accommodate proposed*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-30: Project Description

Project Name:	S Taylor St Extension	**Date:**	July 2019
Project Limits From:	S Taylor St	**To:**	Maple St Realignment
TPU Functional Classification:	Local	**Length (mi.):**	1.10
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$681,615**
Construction Costs	**$2,272,050**
Additional Contingency (20%)	**$454,410**
Construction Contract Total	**$2,726,460**
CEI (20%)	**$454,410**
Total Construction	**$3,180,870**
Miscellaneous Costs	
Utilities (25%)	**$568,013**
Right-of-Way (25%)	**$568,013**
Total Construction	**$1,136,025**
Grand Total	***$4,998,510***

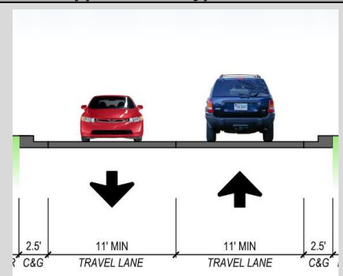
Cost Inputs

Project Length (Miles)	**1.10**
Shoulder Length (Miles)	**0.00**

General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map

Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-31: Project Description

Project Name:	Swannee Ln Extension	**Date:**	July 2019
Project Limits From:	Swannee Dr	**To:**	S Taylor St Extension
TPU Functional Classification:	Local	**Length (mi.):**	0.10
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$61,965**
Construction Costs	**$206,550**
Additional Contingency (20%)	**$41,310**
Construction Contract Total	**$247,860**
CEI (20%)	**$41,310**
Total Construction	**$289,170**
Miscellaneous Costs	
Utilities (25%)	**$51,638**
Right-of-Way (25%)	**$51,638**
Total Construction	**$103,275**
Grand Total	***$454,410***

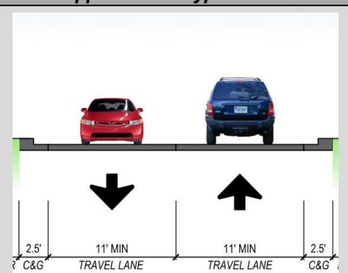
Cost Inputs

Project Length (Miles)	**0.10**
Shoulder Length (Miles)	**0.00**

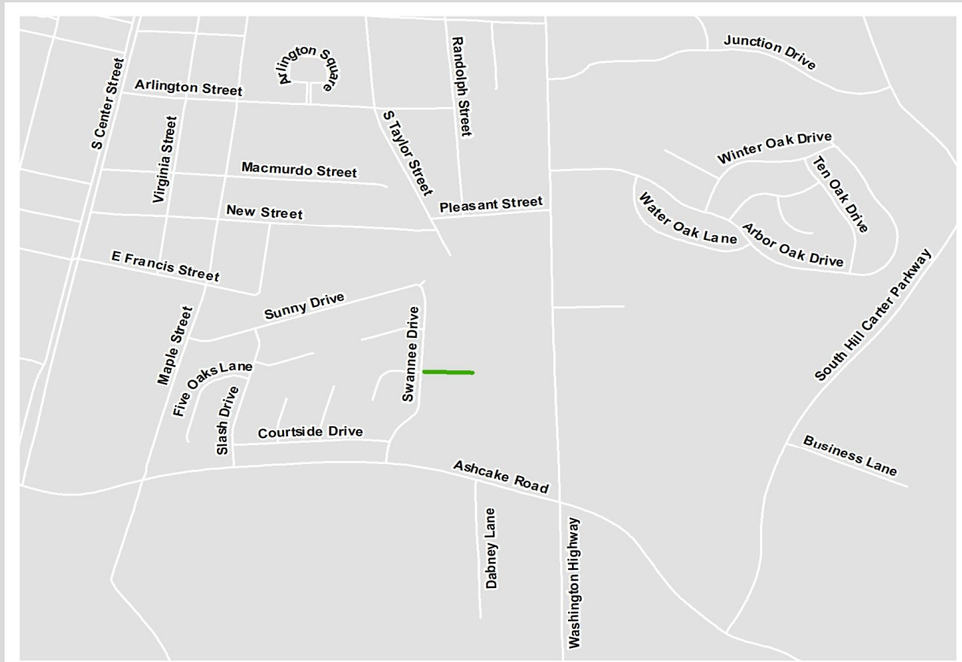
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has C&G, HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-32: Project Description

Project Name:	Maple St Extension 2	**Date:**	July 2019
Project Limits From:	Johnson Rd	**To:**	Maple St
TPU Functional Classification:	Local	**Length (mi.):**	0.60
Existing Lanes / Proposed Lanes:	New Roadway Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$489,780**
Construction Costs	**$1,632,600**
Additional Contingency (20%)	**$326,520**
Construction Contract Total	**$1,959,120**
CEI (20%)	**$326,520**
Total Construction	**$2,285,640**
Miscellaneous Costs	
Utilities (25%)	**$408,150**
Right-of-Way (25%)	**$408,150**
Total Construction	**$816,300**
Grand Total	***$3,591,720***

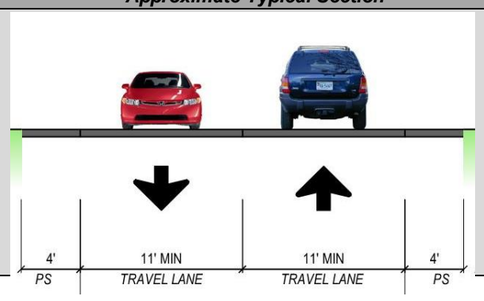
Cost Inputs

Project Length (Miles)	**0.60**
Shoulder Length (Miles)	**0.60**

General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has shoulder, HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map

Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-33: Project Description

Project Name:	Success St Extension	**Date:**	July 2019
Project Limits From:	Maple St Extension 2	**To:**	U.S. Route 1 (Washington Highway)
TPU Functional Classification:	Local	**Length (mi.):**	0.40
Existing Lanes / Proposed Lanes:	New Roadway Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$326,520**
Construction Costs	**$1,088,400**
Additional Contingency (20%)	**$217,680**
Construction Contract Total	**$1,306,080**
CEI (20%)	**$217,680**
Total Construction	**$1,523,760**
Miscellaneous Costs	
Utilities (25%)	**$272,100**
Right-of-Way (25%)	**$272,100**
Total Construction	**$544,200**
Grand Total	***$2,394,480***

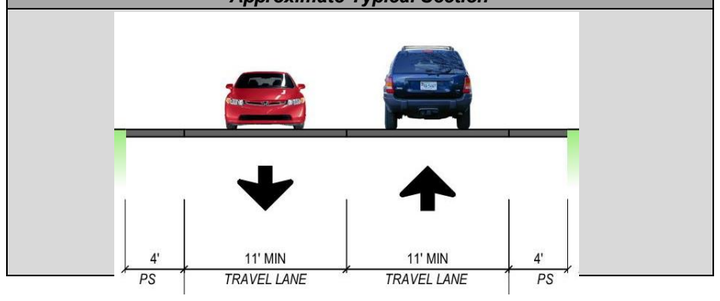
Cost Inputs

Project Length (Miles)	**0.40**
Shoulder Length (Miles)	**0.40**

General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has shoulder, HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map

Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-34: Project Description

Project Name:	Laura Lane Extension	**Date:**	July 2019
Project Limits From:	Laura Lane	**To:**	Boxwood Farm Lane Realignment
TPU Functional Classification:	Local	**Length (mi.):**	0.10
Existing Lanes / Proposed Lanes:	New Roadway Rural 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$81,630**
Construction Costs	**$272,100**
Additional Contingency (20%)	**$54,420**
Construction Contract Total	**$326,520**
CEI (20%)	**$54,420**
Total Construction	**$380,940**
Miscellaneous Costs	
Utilities (25%)	**$68,025**
Right-of-Way (25%)	**$68,025**
Total Construction	**$136,050**
Grand Total	***$598,620***

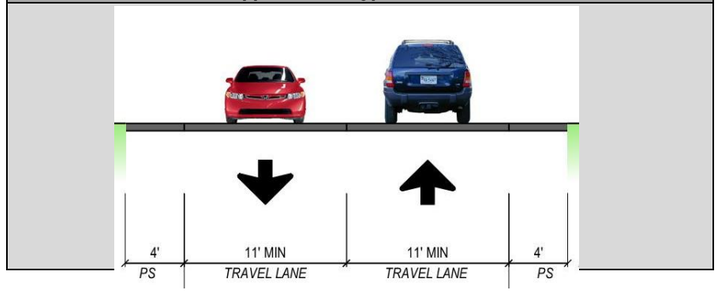
Cost Inputs

Project Length (Miles)	**0.10**
Shoulder Length (Miles)	**0.10**

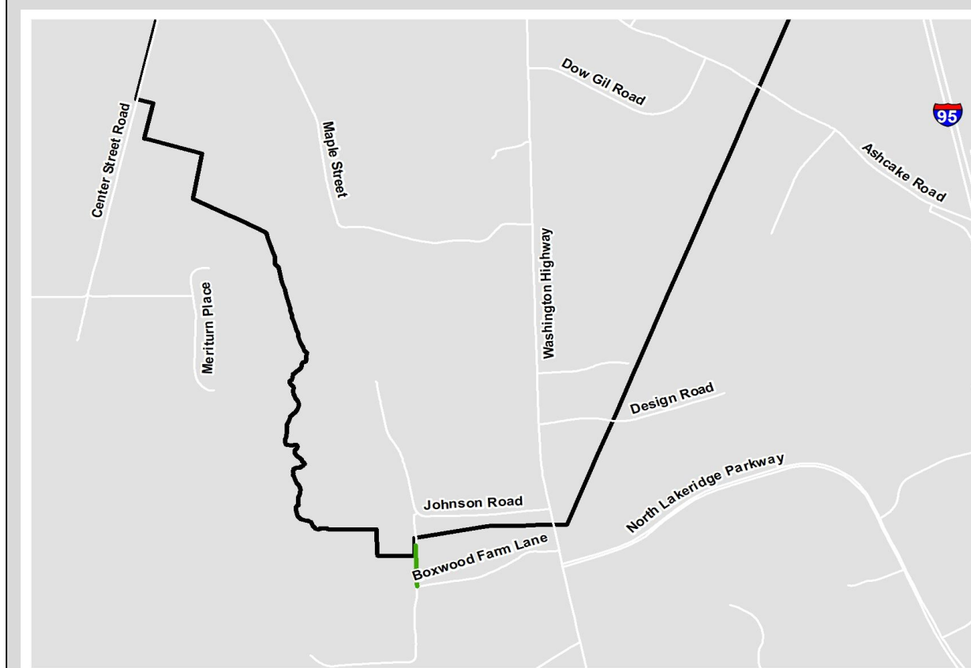
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *Existing roadway has shoulder, HIGH Rural cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary

RR-35: Project Description

Project Name:	Jamestown Road Extension	**Date:**	July 2019
Project Limits From:	Jamestown Road	**To:**	New Road 1
TPU Functional Classification:	Local	**Length (mi.):**	0.20
Existing Lanes / Proposed Lanes:	New Roadway Urban 2 Lanes	**Divided:**	No

Planning Level Costs

Total Preliminary Engineering (25%)	**$123,930**
Construction Costs	**$413,100**
Additional Contingency (20%)	**$82,620**
Construction Contract Total	**$495,720**
CEI (20%)	**$82,620**
Total Construction	**$578,340**
Miscellaneous Costs	
Utilities (25%)	**$103,275**
Right-of-Way (25%)	**$103,275**
Total Construction	**$206,550**
Grand Total	***$908,820***

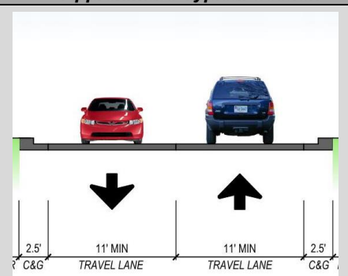
Cost Inputs

Project Length (Miles)	**0.20**
Shoulder Length (Miles)	**0.00**

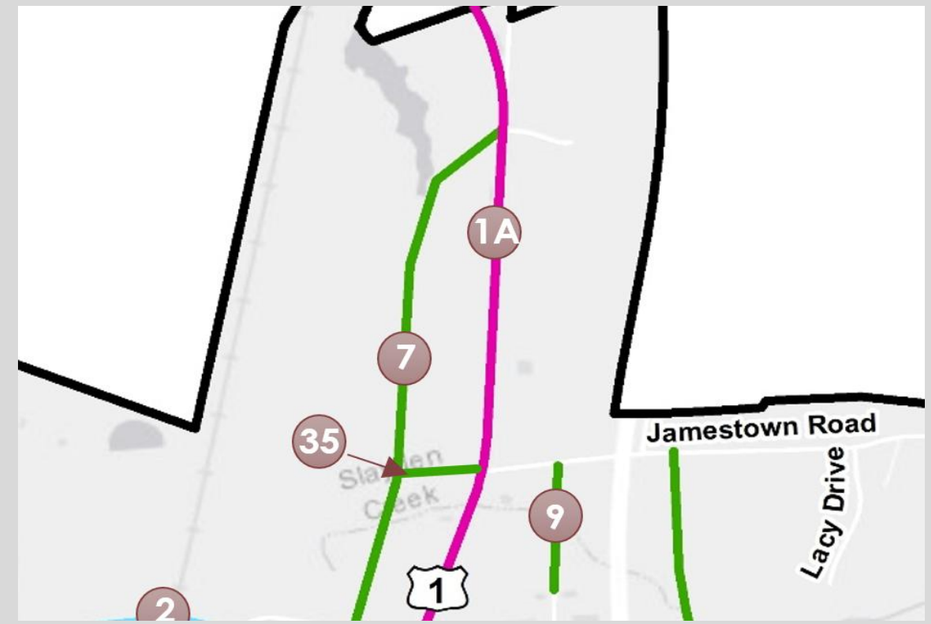
General Assumptions

- *Minimum roadway standards shall be in accordance with the most recent version VDOT Road Design Manual standards*
- *Costs are based on VDOT's TMPD Statewide Planning Level Cost Estimates*
- *Cost in 2020 dollars*
- *Annual inflation rate is 3.0% annually*
- *No lighting, streetscape, signalization, storm water management or utility betterments are included*
- *HIGH Urban cost used*
- *The HIGH per lane mile cost was used due to planning level of estimate*

Approximate Typical Section



Project Location Map



Legend

- Proposed Sidewalk
- Grade Separate Road
- Proposed Local Road
- Proposed Median
- Private Development Road
- Proposed Interchange Ramps
- Proposed Road Realignment
- Ashland Town Boundary