TECHNICAL ATTACHMENTS

THE LADY BIRD PUD

WASHINGTON, DC

August 23, 2019

GOROVE / SLADE
Transportation Planners and Engineers

Contents

A: SCOPING INFORMATION

Daniel Solomon

From: Zimmerman, Aaron (DDOT) <aaron.zimmerman@dc.gov>
Sent: Tuesday, March 19, 2019 09:24
To: Daniel Solomon
Cc: Erwin N. Andres
Subject: RE: Lady Bird - New CTR

Follow Up Flag: Follow up
Flag Status: Completed

Daniel – I agree with the updated scope that you outline below, just a few comments:

- We also discussed TripsDC and determined that it was not warranted in this case because the project does not fit within the parking ratio parameters. I have also determined it does not fit within the ½ mile from Metro
- In the trip generation summary table, also include Saturday peak hour trip generation and weekday daily total volumes.
- When discussing the 90% modeshare trip generation used in the capacity analysis, be sure to note in the study why we have two sets of trip generation assumptions. The higher auto-mode share is to present a 'worst case' scenario of traffic traveling to the site that may be induced due to the higher than ideal parking ratio, whereas the 70% modeshare is the trip generation more likely to materialize.
- For the Saturday traffic counts at the two intersections, collect data between 11:00 AM and 2:00 PM.
- Include the latest truck turning diagrams in the body of the report rather than the appendix. We've noticed on a few projects, citizens looking through the study on IZIS cannot find them because often the appendix is not uploaded to the record.
- Include this email chain in the appendix along with the old scoping form.

Aaron Z

From: Daniel Solomon [mailto:ds@goroveslade.com]
Sent: Tuesday, March 19, 2019 8:16 AM
To: Zimmerman, Aaron (DDOT)
Cc: Erwin N. Andres
Subject: Lady Bird - New CTR

Aaron,

Thanks for meeting with us yesterday. Following up on our discussion, the new CTR for the Lady Bird will include all the same elements that the previous CTR included with the following additions:

1. Capacity Analysis
    a. We will re-do the capacity analysis to include updated counts. We will collect weekday counts from 6:30-9:30 AM and 4:00-7:00 PM for all previously established study area intersections.
    b. For Saturday, we will collect counts at the intersections of 48th Street and Massachusetts Avenue and 49th Street and Massachusetts Avenue.

i. We will compare the results of these counts to weekday counts. If the overall peak hour volumes going through these intersections is higher on Saturday than the overall peak hour volumes going through these intersections during either the AM or PM weekday peak hours then we will collect counts and do a capacity analysis for Saturday as well.

2. Trip Generation
    a. We will update the trip generation so that we are using ITE 10th Edition
        i. We will use LU Code 221 (Multifamily Mid Rise) for the 214 apartment units
        ii. We will use LU Code 220 (Multifamily Low Rise) for the 5 townhomes
        iii. We will use LU Code 850 (Supermarket) for the 17,992 square feet of retail/grocer.
    b. We will use the same conservative mode split assumptions for this capacity analysis as those used in the previous analysis
        i. 90% auto
        ii. 5% transit
        iii. 2% bicycle
        iv. 2% walk
    c. We will include a table comparing the trip generation of the proposed development and the trip generation of the existing uses on site if they were fully occupied
        i. This will be done using the same mode splits as shown in 2b
    d. We will include a trip generation table that is based on Census and TAZ data, showing what a less conservative but more realistic trip generation would look like using the following mode splits. However, we will only analyze the trip gen using 2b above.
        i. 70% auto
        ii. 15% transit
        iii. 2% bicycle
        iv. 13% walk
3. TDM
    a. We will include all the previously committed to TDM elements and update them to include the 3 additional TDM bullets you sent in your 3.18.2019 e-mail
4. Parking
    a. We will include the most up-to-date information regarding parking and the allocation of spaces amongst the uses of the proposed development
5. Pedestrian Improvements
    a. We will include the figure showing the pedestrian improvements agreed to by the Applicant in the body of the CTR and the conceptual improvements in the alley.

We will incorporate any and all agreed to transportation elements that were included in supplemental memorandums or correspondences in the new CTR.

Please let me know if you have any comments or questions

Thanks,
Daniel

Daniel Solomon, LEED AP ND
Transportation Planner

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Project Name & Applicant Team:
4330 48th Street NW

Applicant: Felipe Serpa, Valor Development LLC
Land Use Counsel: Holland & Knight LLP
Transportation Consultant:
Erwin Andres, Gorove/Slade (202-540-1925), ena@goroveslade.com

Case Type & No. (PUD, LTR, etc.): Design Review, Case No. 16-23

Street Address:
4330 48th Street NW

Current Zoning and/or Overlay District: MU-4

Date of Filing: Summer 2016

Estimated Date of Hearing: January 11, 2018

Description of Project:
The project site is located at 4330 48th Street NW, bounded by Yuma Street NW to the north, 48th Street NW to the east, the American University Administrative to the south, and a public alley to the west. The site for the proposed development is currently home to a surface parking lot and a commercial building with ground-floor retail.

The resulting development will be a mixed-use (residential, retail, and grocery) development with an approximate build-out date of 2021. The development program consists of the following land uses:

- Grocery/Retail –Approximately 16,000 sf of grocery and retail space. Assumed all grocery for more conservative analysis.
- Residential – Approximately 219 multi-family residential dwelling units

According to 2016 DC Zoning Regulations (ZR16) and the development program outlined above, the site is required to provide a minimum of 91 parking spaces. An existing agreement between American University and the site lot requires the proposed development to carry forth 236 parking spaces for the use of American University. The development will provide approximately 370 below-grade parking spaces in three levels of below-grade parking. The first level of parking will contain approximately 85 parking spaces that are intended to be devoted to residential use. The second level of parking will contain approximately 106 parking spaces, of which approximately 49 parking spaces will be devoted to the grocery/retail uses on site. Finally, as required by the agreement with American University, approximately 57 parking spaces on the second level will be shared by the grocery/retail uses on site and the American University Admin Building to the south of the site and approximately 179 parking spaces on the third level will be shared between the residential uses on site and the American University Admin Building. Parking is planned to be priced at the market-rate.

Loading facilities will be provided via one 30-foot berth, two 55-foot berths, and one 20-foot service and delivery space. The loading berths abut the public alley to the west of the site and will be accessible through back-in and front-out maneuvering to and from surrounding streets. The development will exceed

the number of loading facilities required under ZR16. The site plan incorporates improvements to pedestrian facilities adjacent to the site. These improvements are made possible through the widening of the sidewalk and buffer, and the removal of two curb cuts along the perimeter of the site.	
1. Strategic Planning Elements (Planning Documents)	**DDOT Comments/Action Items**
Planning Guidelines: The CTR will address how the proposed development considers the primary city-wide planning documents, as well as localized studies. See Section 3.1 of the CTR guidelines for more information. **Proposed Documents:** The study will address how the proposed development considers the primary planning documents of the District, as well as localized studies. The study will include a section addressing the following documents: o ZR16 (Subtitle C Chapters 7, 8 and 9) o DC Comprehensive Plan o DDOT Comprehensive Transportation Review Guidelines o DDOT Design & Engineering Manual o DC's Transit Future System Plan o Bicycle Master Plan o Pedestrian Master Plan o MoveDC plan o SustainableDC plan	DDOT concurs.
2. Roadway Network, Capacity & Operations	**DDOT Comments/Action Items**
Vehicle Trip Generation Assumptions **Guidelines:** Provide *preliminary* site-generated vehicle trips and mode split assumptions. In addition, provide the assumptions and supporting documentation behind the proposed mode split. See Section 3.2.1 of the CTR guidelines for further information. **Proposed preliminary mode split and supporting documentation:** The proposed multi-modal trip generation methodology uses ITE rates and mode-split assumptions. A detailed breakdown of these assumptions and trip generation calculations is attached to this form. While detailed mode split data from the *Census Transportation Planning Products (CTPP)* is mapped on a graphic and attached to this form, The modal splits are expected to be 90% auto/5% transit/2% bicycle/3% walk for residential uses and 90% auto/0% transit/2% bicycle/8% walk for grocery/retail uses. See discussion in parking section (Section 6) for more information.	DDOT Comment: Note in the scoping CTR that the auto mode share is higher than usual to account for the additional AU parking spaces that are available to residents and grocery customers. G/S: Noted DDOT concurs. DDOT Comment: Trip generation in the table to the left does not include existing AU trips to the garage like in previous versions of trip gen provided to DDOT. These should be included in the total. G/S: The previous versions of the trip generation table did

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	50 veh/hr	98 veh/hr	148 veh/hr	174 veh/hr	131 veh/hr	305 veh/hr
Transit	1 ppl/hr	5 ppl/hr	6 ppl/hr	5 ppl/hr	3 ppl/hr	8 ppl/hr
Bike	2 ppl/hr	3 ppl/hr	5 ppl/hr	6 ppl/hr	4 ppl/hr	10 ppl/hr
Walk	6 ppl/hr	6 ppl/hr	12 ppl/hr	18 ppl/hr	17 ppl/hr	35 ppl/hr

not include the existing/re-routed trips for the American University overflow parking that is currently on-site. Those trips are accounted for in the CTR as background trips.
DDOT concurs and notes that this assumption should be documented in the CTR with graphics showing the rerouted AU traffic also included.

DDOT Comment: why has vehicle trip generation decreased since the last version of the scoping form even though the auto mode share has increased significantly?
G/S: The previous trip generation included a 60ksf grocery and 230 du. The new development program is for 16ksf grocery and 219 du.
DDOT concurs.

Vehicle Site Access

Guidelines: If vehicle access is needed, at a minimum the CTR will provide locations of access point(s) and desired access controls (full, right-in/right-out, etc.). See Section 3.2.2 of the CTR guidelines for any further requirements.

Access Location(s): The site will be accessed through the public alleys that connect to Yuma Street NW and Massachusetts Avenue NW. Access along 48th Street NW will be provided by a section of existing private alley that then connects to the public alley network abutting the site along the west. The loading facilities and ramp leading to the below-grade parking garage abut the public alley.
Access Control: Unsignalized.
Existing Curb cuts utilized: The site will utilize curb cuts that connect the public alley to the north of the site from Yuma Street NW and the south of the site from Massachusetts Avenue NW. One existing curb cut accessing the private section of the alley network to the east of the site on 48th Street NW will also be utilized.
Existing curb cuts abandoned: A total of two curb cuts are being abandoned. One wide curb cut (that includes a pedestrian refuge) will be abandoned along Yuma Street NW. One curb cut will be abandoned along 48th Street NW.
Proposed curb cuts: None.
Curb cut width and radii: TBD

DDOT concurs.

CTR Triggers for further vehicle analysis (for sections below) **Guidelines:** See Section 3.2.3 of the CTR guidelines to determine if a more comprehensive vehicle analysis is required. If so, completion of the remainder of the *Roadway Network, Capacity & Operation* section of the scoping form is required.	
Development Scenarios **Guidelines:** See Section 3.2.4 of the CTR guidelines for discussion of the required development scenarios. **Proposed Development Scenario:** The proposed CTR will include the following scenarios: o Existing Conditions (2016) o 2021 Future Conditions without the development (2021 Background) o 2021 Future Conditions with the development (2021 Future)	DDOT concurs.
Vehicle Study Area **Guidelines:** See Section 3.2.5 of the CTR guidelines for discussion of the study area. **Proposed Study Area intersections, including access points (attach Figure at end of Scoping Form as needed):** The study area will include intersections where site impacts are most likely to occur. Additional intersections may be appropriate given the projected trip generation of the project. Traditionally, intersections where the site is projected to generate over 10% of future traffic are included. Gorove/Slade assembled the following list of study area intersections based on the preliminary trip generation, trip distribution, and assignment. Our proposed list of study area intersections ended up including 17 intersections: 1. Massachusetts Avenue/50th Street 2. Massachusetts Avenue/Yuma Street (western side of Massachusetts Avenue) 3. Massachusetts Avenue/Yuma Street (eastern side of Massachusetts Avenue) 4. Massachusetts Avenue/49th Street 5. Massachusetts Avenue/Alley 6. Massachusetts Avenue/48th Street/Fordham Road 7. Massachusetts Avenue/Van Ness Street 8. Yuma Street/49th Street 9. Yuma Street/Alley 10. Yuma Street/48th Street	DDOT concurs.

11. Windom Place/48th Street 12. Alley/48th Street 13. Warren Street/48th Street 14. Fordham Road/49th Street 15. Albemarle Street/49th Street 16. Albemarle Street/48th Street 17. Yuma Street/46th Street A figure attached to this scoping form shows the locations of these intersections. Driveway counts will be collected at all the ingress/egress points of the existing parking garage as to determine existing site related trips and the number of existing American University associated trips that will be carried over to the below grade garage. We are assuming that all existing site related trips are AU associated trips.	
Data Collection and Hours of Analysis **Guidelines:** See Section 3.2.6 of the CTR guidelines for discussion of the required data collection and hours of analysis. **Proposed turning movement count intersections:** Typically, the peak hour of commuter traffic is used for both weekday morning and afternoon rush hours. Other hours of analysis may be appropriate given the overall trip generation of the proposed development and the expected hours of vehicular demand to and from the site. Land use may also determine the appropriate hours of analysis as some uses experience their peak demand on weekends and off-peak from the typical uses. Weekday morning and afternoon commuter peak hours will be analyzed using the individual intersection peaks at all study area intersections. Pedestrian and bicycle Turning Movement Counts ("TMCs") were collected from 6:30-9:30 AM and 4:00-7:00 PM on Tuesday, October 18, 2016 and Thursday, October 20, 2016.TMCs were conducted on a "typical weekday" when DC public schools, Congress, and American University were in session.	DDOT concurs.
Roadway Improvements **Guidelines:** The study will account for approved and funded roadway improvement projects within the study area that are expected to begin before the proposal's horizon year. See Section 3.2.7 of the CTR guidelines. **Proposed roadway improvements:** There are no improvements in the study area that are known to be funded and proposed to be completed prior to the full build-out of the site; therefore, the CTR will not incorporate any background improvements into the vehicular capacity analysis.	DDOT concurs.

Background Developments **Guidelines:** The study will account for vehicle trips generated by developments in the study area that have an origin/destination within the study area. See Section 3.2.8 of the CTR guidelines. **Proposed background development:** Gorove/Slade has identified one nearby development: 1. The Spring Valley Shopping Center Expansion 2. American University Parking The expansion of the Spring Valley Shopping center will add approximately 14,000 sf of retail to the existing site. It is expected to open before the 4330 48th Street development and will be included as a background development. Additionally, the analysis will include the existing site related (American University) trips as background trips. This is due to the fact that the existing site trips are associated with the 236 American University parking spaces that will be carried into the future parking garage, regardless of the proposed development.	DDOT Comment: be sure to include background trip generation and site generated trip distributions in appendix. G/S: Noted DDOT concurs.
Background Growth **Guidelines:** The study will account for annual growth or decrease in through traffic on minor and principal arterials that pass through the proposed study area. See Section 3.2.9 of the CTR guidelines. **Proposed annual background growth:** Traffic volumes contained in the MWCOG regional model will be examined to develop an average annual growth rate for study area roadways. A summary of the MWCOG model and AADT volumes and trends for regional roadways in the study area is attached to this scoping form. This methodology is preferred for calculating growth rates since it takes into account all future projects and developments in the MWCOG model, and allows for district growth rates by direction and time of day. Growth rates for this study are based on the differences between the year 2015 and 2020 MWCOG model scenarios. In addition, where the MWCOG model showed negative or minimal growth, a conservative assumption of 0.1% per year minimum growth was used. Based on this methodology, the following is a summary of the growth rates proposed to be used in the study:	

For comparison purposes, the following table represents the historical AADT volumes for the study area.

Roadway	AADT Volumes					Average Annual Growth Rate
	2010	2011	2012	2013	2014	
Massachusetts Ave	16,900	17,000	18,600	18,700	19,000	3.04%
49th St	4,300	4,300	4,300	4,300	N/A	no change
Albemarle St	2,200	2,200	2,200	2,200	N/A	no change
46th St	1,600	1,400	1,400	1,400	1,800	4.02%

As such, we propose the following growth rates:

Road	**Intersections**	**Proposed Annual Growth Rate**		**Total Growth between 2016 and 2021**	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Massachusetts Ave NW – Northbound	1-7	2.00%	0.10%	10.41%	0.50%
Massachusetts Ave NW – Southbound	1-7	0.10%	2.00%	0.30%	10.41%
49th St NW – Northbound	4,8,14,15	0.10%	0.25%	0.50%	1.26%
49th St NW – Southbound	4,8,14,15	0.50%	0.10%	2.53%	0.30%
46th St NW – Northbound	17	1.00%	1.00%	5.10%	5.10%
46th St NW – Southbound	17	1.75%	1.00%	9.06%	5.10%
All Others		0.10%	0.10%	0.30%	0.30%

Please note that the above roads were selected while smaller local streets were omitted because regional growth will affect major corridors and will not impact smaller local streets adjacent to the site.

DDOT Comment: background growth rate should be maxed out at 2% per year. See Mass Ave northbound in AM.
G/S: Noted. See revised growth rates.
DDOT concurs.

Site Trip Distribution & Assignment

Guidelines: Trips generated by the site will be distributed throughout the study area network. See Section 3.2.10 of the CTR guidelines for information in trip distribution and assignment.

Proposed site distribution and assignment (attach Figures, as needed, at end of Scoping Form):
Trip distribution for the site was determined based on: (1) CTPP TAZ flow data, and (2) existing traffic volumes

DDOT concurs.

and travel patterns in the study area. Attached to this scoping form are figures depicting the CTPP TAZ flow data? Separate distributions were developed for the residential and retail/grocery components of the project. The residential trip distribution was influenced significantly by the CTPP TAZ flow data for drivers commuting from the site's TAZ, and adjusted based on traffic volumes and patterns. This flow information showed significant commuting patterns to downtown DC. The retail and grocery distributions were mostly based on locations of other retail centers, with some influence by the WMATA ridership survey for similar sites. Thus, the retail and grocery trip distribution is much more weighted to the east and west relative to the residential trip distribution. The proposed trip distributions are illustrated on an attached graphic. As discussed above, American University will retain access to 236 parking spaces that are present under existing conditions. Existing trips will be rerouted to the future site driveway.	
Analysis Methodology **Guidelines:** Capacity analyses are typically performed using Highway Capacity Manual (HCM) methodologies or a similar industry recognized software. See Section 3.2.11 of the CTR guidelines. **Proposed analysis methodology:** Capacity analyses are typically performed using Highway Capacity Manual (HCM) methodologies using an industry recognized software package. The proposed analysis will be conducted using Synchro 9, with the results in delay and LOS reported using HCM 2000 methodologies. Weekday morning and afternoon commuter peak hours will be analyzed using the individual intersection peaks at all study area intersections. Signal timings for the study area intersections will be obtained from DDOT and incorporated into the Synchro models. The capacity analysis results will show the average delay and the resulting LOS for each approach and for the overall intersection (where available), as well as the queuing results for the average and 95th percentile queue for each movement. We will highlight all LOS E or F conditions per intersection and approach in the existing, background, or future conditions. We will recommend mitigations if any intersection or approach experiences a degradation to LOS E or F in the future scenario where one does not exist in the background scenario, and if any intersection or approach operating under LOS E or F in the background scenario experience an increase in delay greater than 5 seconds.	DDOT concurs.

For each intersection or approach that meets this criteria, potential mitigation measures will be recommended and a discussion on the appropriateness and feasibility of potential improvements will provided. Furthermore, all locations where the 95th percentile queues exceed the length of storage lanes and result in spillback of the queue will be highlighted, and recommended mitigation measures when an increase in the 95th percentile queue length is greater than 150 feet due to the development will be provided, including a discussion on the appropriateness and feasibility of potential improvements. DDOT will be provided Synchro input files along with the study submittal. Field visits will be performed to update existing geometric information into the Synchro models, and update Synchro files with current traffic signal timing plans.	
Vehicle Trip Mitigation **Guidelines:** Proposed mitigation of vehicle impacts, if needed, must not add significant delay to other travel modes. Standard non-urban mitigation often includes geometric re-design which may not fit DDOT's practice of balancing safety and capacity across multiple transportation modes. See Section 3.2.12 of the CTR guidelines. **For Informational purposes only. Mitigation will be documented in the final CTR. No information is required in the scoping form.**	DDOT concurs.
3. Bicycle & Pedestrian Facilities	**DDOT Comments/Action Items**
CTR Triggers for bike and pedestrian mode share **Guidelines:** A CTR is required to include some level analysis of the bike and pedestrian network at a minimum, based on several potential factors. See Section 3.3.1 of the CTR guidelines to determine if a more comprehensive analysis is required. If so, complete the remainder of the *Bicycle & Pedestrian Facilities* section of this scoping form.	DDOT concurs.
CTR Bike and Pedestrian Study area **Guidelines:** See Section 3.3.2 of the CTR guidelines to determine bike and pedestrian study areas. **Proposed bike and pedestrian study areas:** A pedestrian study area that includes pedestrian facilities within a quarter-mile radius of the site is proposed, plus additional walking routes to major destinations, including the American University campus. Internal pedestrian circulation and facilities within the site and the desire lines between the site and adjacent bus stops, including crosswalk locations and building entrances, will also be shown. The bicycle study area focuses on the routes that cyclists will take major bicycle facilities. Internal bicycle	DDOT concurs.

circulation and facilities will also be highlighted.	
Data Collection and Analysis of Bike Network and Facilities **Guidelines:** See Section 3.3.3 of the CTR guidelines for data collection requirements and analysis for bike and pedestrian modes. **Proposed Bike network and facilities analysis:** Pedestrian (external to site): A qualitative analysis of all pedestrian facilities in the pedestrian study area will be provided. This will include maps outlining which routes meet DDOT standards (a green/yellow/red map), and proposing improvements to enhance the pedestrian experiences walking to/from the site. Pedestrian (internal to site): For the internal pedestrian facilities, a review of the internal pedestrian circulation and documentation of all sidewalk widths will be provided. Bicycle (external to site): A review of the quality of the bicycle facilities in the bicycle study area will be conducted, focused on the major cycling routes, and will include suggested improvements as needed to help cyclists to and from major bike facilities. Bicycle (internal to site): The proposed internal bicycle circulation and the general number and location of bicycle racks within the site will be provided. We will include a discussion of how non-auto users will approach and then access the building from each direction.	DDOT concurs.
Mitigation for Bike network **Guidelines:** If deficiencies have been documented in the study area's pedestrian or bike facilities that would preclude the proposed mode split, then mitigation of these deficiencies is required. See Section 3.3.4 of the CTR guidelines for mitigation requirements of the bike network. **For Informational purposes only. Mitigation will be documented in the final CTR. No information required in scoping form.**	DDOT concurs.
4. Transit Service	**DDOT Comments/Action Items**
CTR Triggers for transit mode share **Guidelines:** A CTR is typically required to include some level analysis of the transit network, based on several	DDOT concurs.

potential factors. See Section 3.4.1 of the CTR guidelines to determine the minimum analysis requirements and if a more comprehensive transit analysis is required. If so, completion of the remainder of the *Transit Service* section of this scoping form is required. See Section 3.4.1 of the CTR guidelines	
CTR Transit study area **Guidelines:** If further analysis of the transit network is triggered, see Section 3.4.2 of the CTR guidelines for determining the requisite study area. **Proposed transit study area:** Per CTR guidelines, the transit study area will include an overview of all transit schedules and stops for service provided within a half mile for heavy rail and a quarter mile for bus and streetcar.	DDOT concurs.
Analysis of Transit Network **Guidelines:** Analysis of the transit network will incorporate both a quantitative and qualitative review. See Section 3.4.3 of the CTR guidelines for further information. **Proposed transit analysis:** An outline of the existing and proposed transit facilities that serve the site will be provided, as well as identifying the bus stops that are expected to be used by transit riders. As stated in the "Bicycle & Pedestrian" section above, desire lines between the site and adjacent bus stops, including crosswalk locations and building entrances, will be identified. The site plan's accommodation of transit service, including any changes to bus stops necessary due to development will be discussed. Future transit routes and stops will be examined and recommendations for improvements and/or consolidation of stops will be provided, if necessary. A summary of existing bus service (average headways and spans of service) will be provided, as well as an assessment of the existing condition of all transit stops in the study area (ADA compliance, bus shelters, benches, etc.) using the standards found in WMATA's *Guidelines for the Design and Placement of Transit Stops* (2009).	DDOT concurs.
Transit Trip Mitigation **Guidelines:** Proposed mitigation of transit impacts may be needed, given certain impacts to the network. See Section 3.4.4 of the CTR guidelines for more information. **For Informational purposes only. Mitigation will be documented in the final CTR. No information is required in scoping form.**	
5. Site Access and Loading	**DDOT Comments/Action Items**

Guidelines: At a minimum, the Applicant is required to show site access for vehicles, pedestrians and bicyclists. In addition, DDOT has additional policies for site access and loading as they relate to public space. See Section 3.5 of the CTR guidelines for additional information regarding these policies. ***Freight\Delivery*** The study will identify existing and proposed commercial vehicle access to the site. See Section 3.5.1 of the CTR guidelines. ***Motorcoach*** For developments that will generate significant tourist activity (hotels, museums, etc.) the study will discuss the site plan's accommodation of motorcoach access. See Section 3.5.2 of the CTR guidelines. **Proposed Loading Analysis:** The study will contain access diagrams showing circulation for loading, parking access, and pick-up/drop-off activity for the site. The study will include a discussion of how the access plan was developed and if it meets DDOTs requirements and standards. For freight/delivery trucks, truck routing maps will be included to show how trucks will travel to and from the site. Truck maneuvering diagrams (using AutoTURN) for all site driveways provided loading access will be provided in the application. Detailed truck maneuvering diagrams showing trucks accessing each loading dock for each building will be included in the application, as necessary. In addition, a discussion of loading activity including frequencies and size trucks will be discussed. No motorcoach activity is anticipated **Site Access:** We will include sigh distance evaluation for all proposed driveways per DDOT Design and Engineering Manual requirements.	DDOT Comment: Also include strategies/proposals in CTR for how the alley clean-up/shift/widening will occur. G/S: Noted DDOT concurs.
6. Parking	**DDOT Comments/Action Items**
Guidelines: Minimum requirements exist for documenting parking needs and constraints, regardless of development size. Further requirements may be needed for larger developments. See Section 3.6 **Proposed Parking Analysis:** The study will discuss the amount of parking planned for the site and will review the site's compliance with ZR16 minimum parking requirements.	DDOT Comment: also make note in CTR that there will be nothing separating AU spillover parking from residents and grocery store customers. Or if there is, document how this will work. G/S: Noted

An existing agreement between American University and the site lot requires the proposed development to carry forth 236 parking spaces for the use of American University. The development will provide approximately 370 below-grade parking spaces in three levels of below-grade parking. The first level of parking will contain approximately 85 parking spaces that are intended to be devoted to residential use. The second level of parking will contain approximately 106 parking spaces, of which approximately 49 parking spaces will be devoted to the grocery/retail uses on site. Finally, as required by the agreement with American University, approximately 57 parking spaces on the second level will be shared by the grocery/retail uses on site and the American University Admin Building to the south of the site and approximately 179 parking spaces on the third level will be shared between the residential uses on site and the American University Admin Building. Parking is planned to be priced at the market-rate. The CTR will include a Parking Management Plan. Specifically, the purpose of this PMP is to provide greater detail regarding layout of the garage, parking access and controls, car-share parking, the American University Administrative Building overflow parking agreement considerations, parking rates, bicycle parking, and enforcement.	DDOT concurs.
7. Transportation Demand Management	**DDOT Comments/Action Items**
Triggers for a TDM Plan **Guidelines:** All developments are encouraged to produce TDM plans, regardless of size. See Section 3.7 **Proposed TDM Plan:** The study will include a description of the recommended TDM plan for the overall development, including general recommendations for each land use. The TDM plan components will be compared to those recommended for projects of its size within DDOT's TDM guidelines.	DDOT concurs.
8. Performance Monitoring & Measurement	**DDOT Comments/Action Items**
Guidelines: Developments of a certain size may need to incorporate a performance monitoring element as a condition of zoning approval. See Section 3.8 of the CTR guidelines for more information. **For informational purposes only. Requirements for performance monitoring will be coordinated with the DDOT case manager.**	
9. Safety	**DDOT Comments/Action Items**
Guidelines: The CTR will demonstrate that the site will not create or exacerbate existing safety issues for all modes of travel. See Section 3.9 of the CTR guidelines for further information. **Proposed Safety Analysis:**	DDOT concurs.

Three years of crash data for all intersections within the roadway operations study area will be provided. Crash rates will be calculated per million entering vehicles for all intersections within the study area, and a breakdown of the number of bicycle and pedestrian crashes at these intersections will be provided. Crash data based on the level of detail provided by DDOT will be explored. Any intersection that has a crash rate greater than 1.0/MEV will be further examined for patterns that could indicate reasons why a high crash rate occurs. In addition, a review of each intersection for potential impacts with the development in place, including discussion if/how the development would affect the crash rate will be conducted. There will also be a review of the site access points and discuss how they will impact safety on the surrounding roadways.	
10. Streetscape/Public Realm	**DDOT Comments/Action Items**
Guidelines: DDOT expects new developments to rehabilitate streetscape infrastructure between the curb and property lines. The applicant must work closely with DDOT and OP to ensure that design of the public realm meets current standards. See Section 3.10 of the CTR guidelines for direction on streetscape rehabilitation. **These guidelines are provided to inform that public realm design standards may alter an Applicant's intended use of public space.**	DDOT concurs.
11. Miscellaneous	**DDOT Comments/Action Items**
	DDOT Comment: Include all other graphics and scoping elements from the 12.6.16 version of this form not explicitly called out above. DDOT will review both forms when the CTR is submitted to ensure they are all provided. G/S: Noted DDOT concurs.

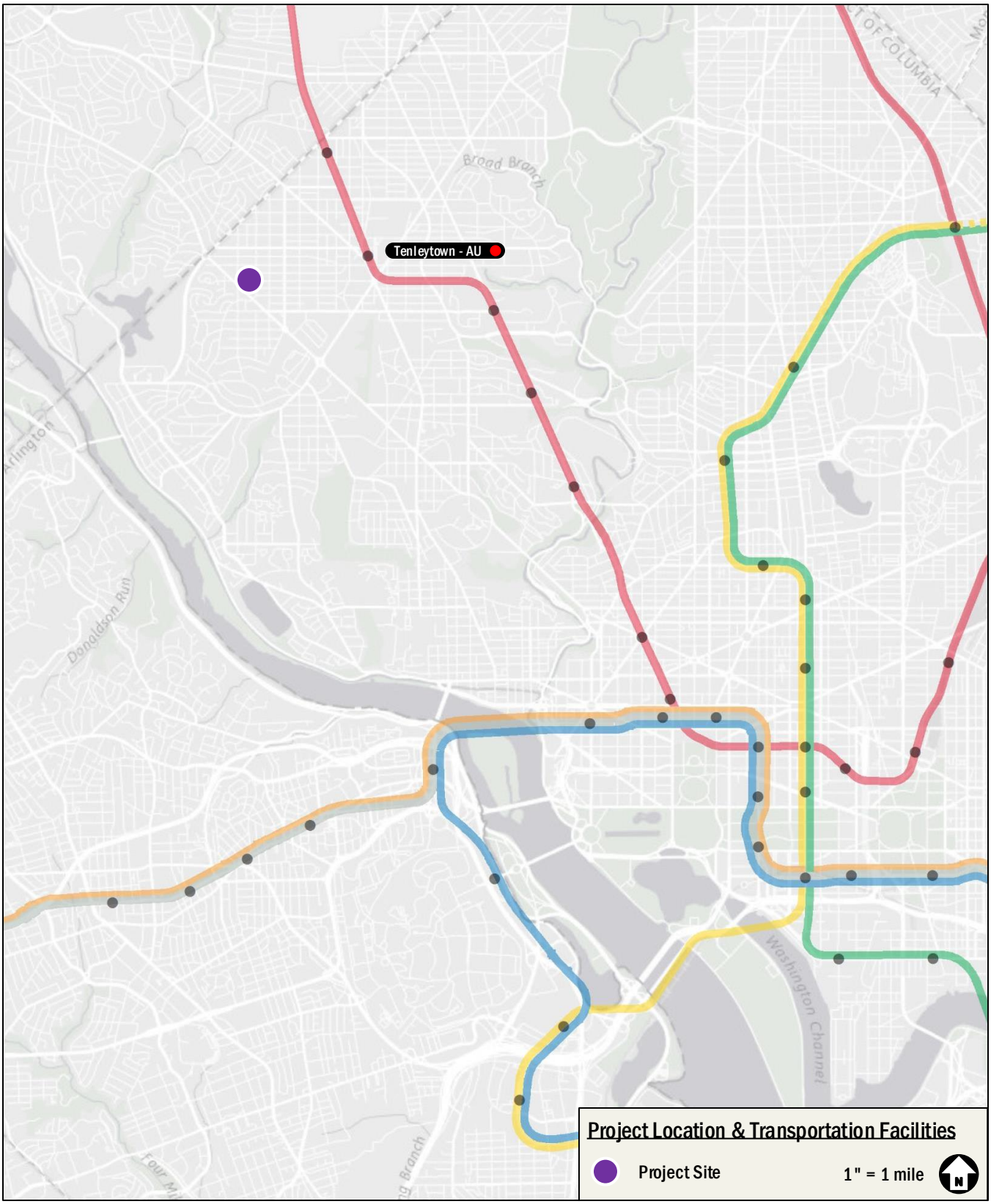
Information/Data Requests (List requested data from DDOT after each field below):

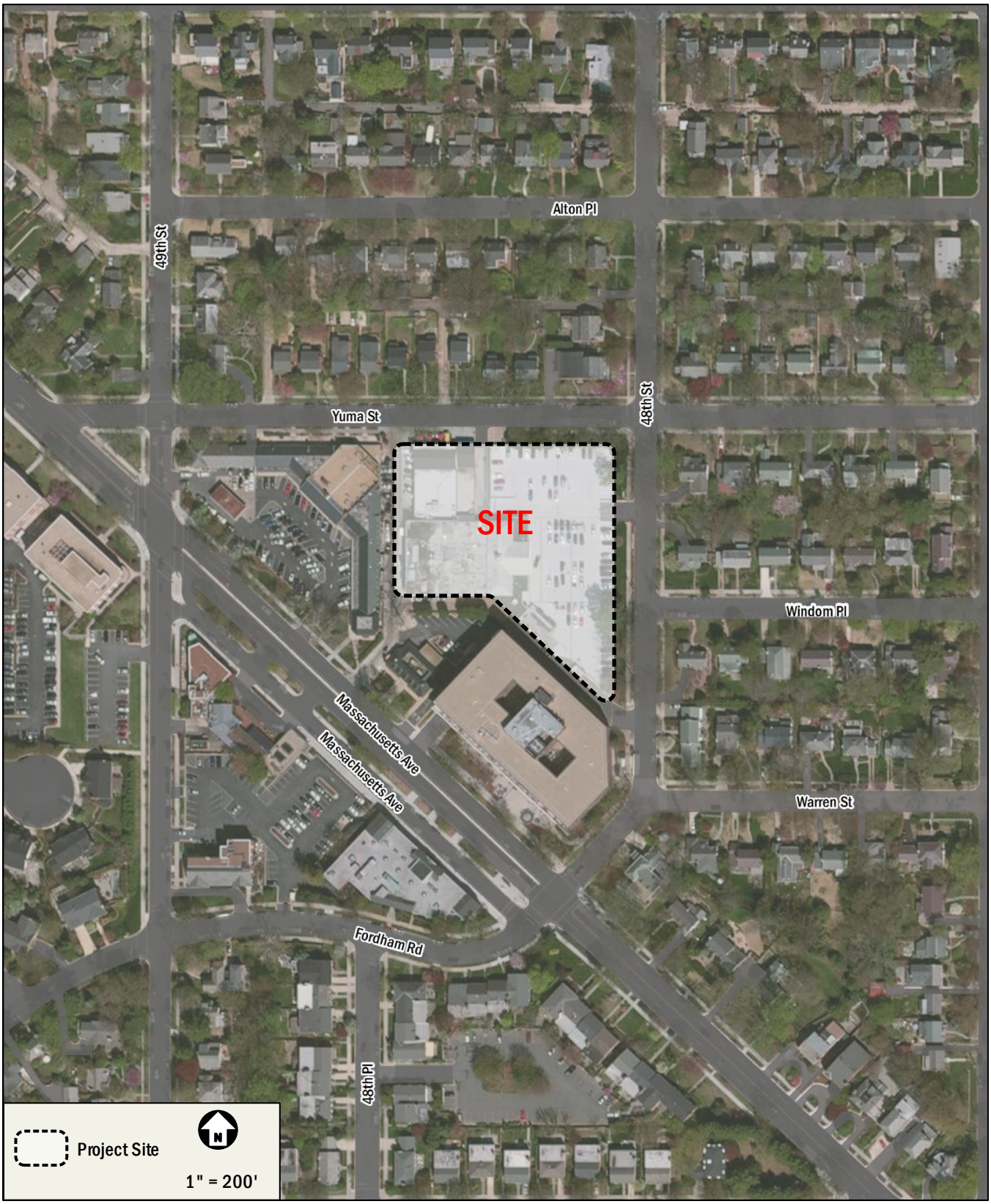
- District planning documents:
- Local planning documents, including small area plans:
- Information on programmed and/or funded roadway improvements in study area:
- Studies for background developments in study area:
- Signal Timings:
- Crash Data:

Proposed Schedule:

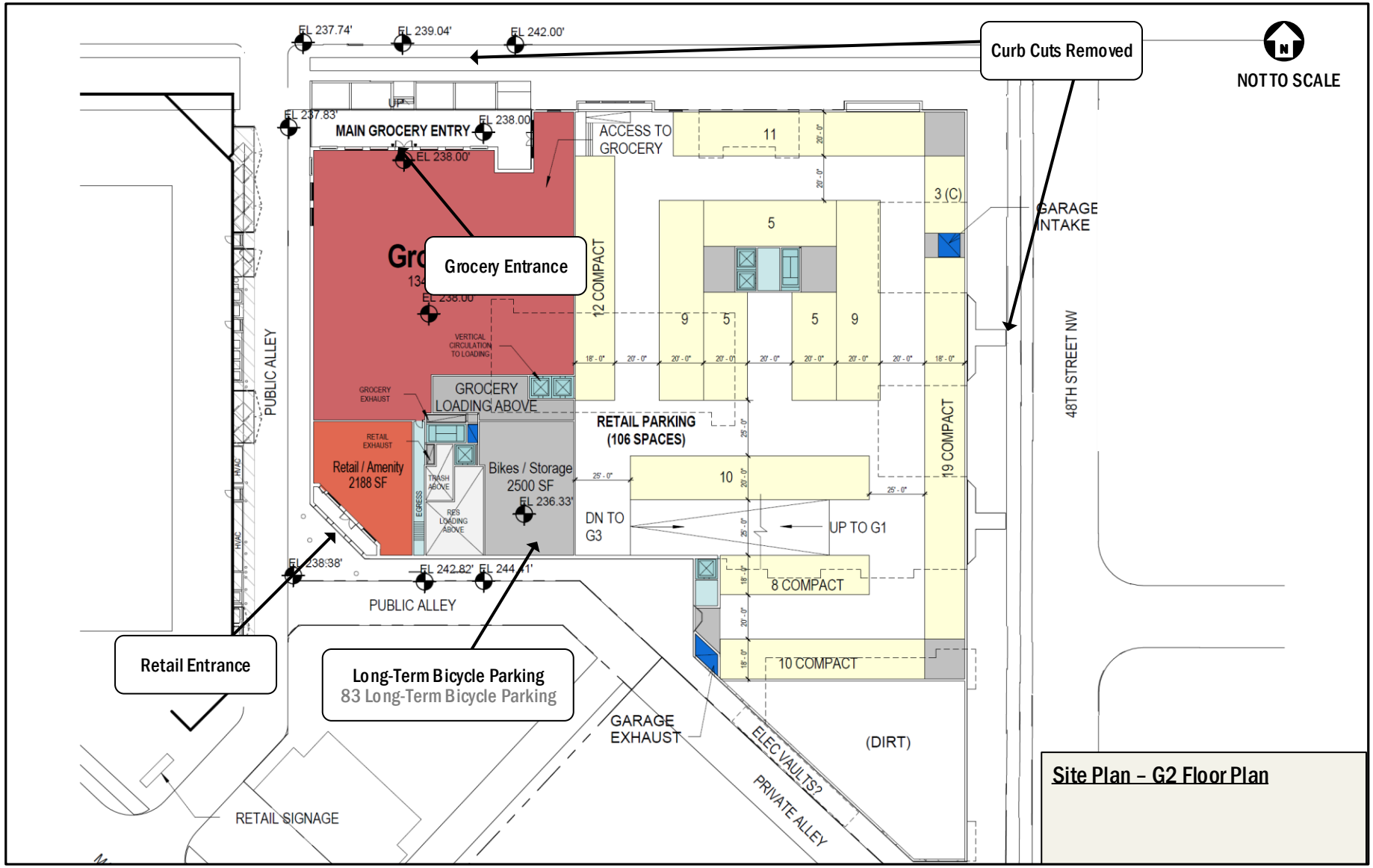
- DDOT comments on Scoping Document: November 13, 2017, November 14, 2017
- Transportation Consultant/Applicant responses to comments:
- Phase I Completion:
- Phase II Completion:
- Submission of Report to DDOT:
- Zoning Commission or BZA Hearing Date:

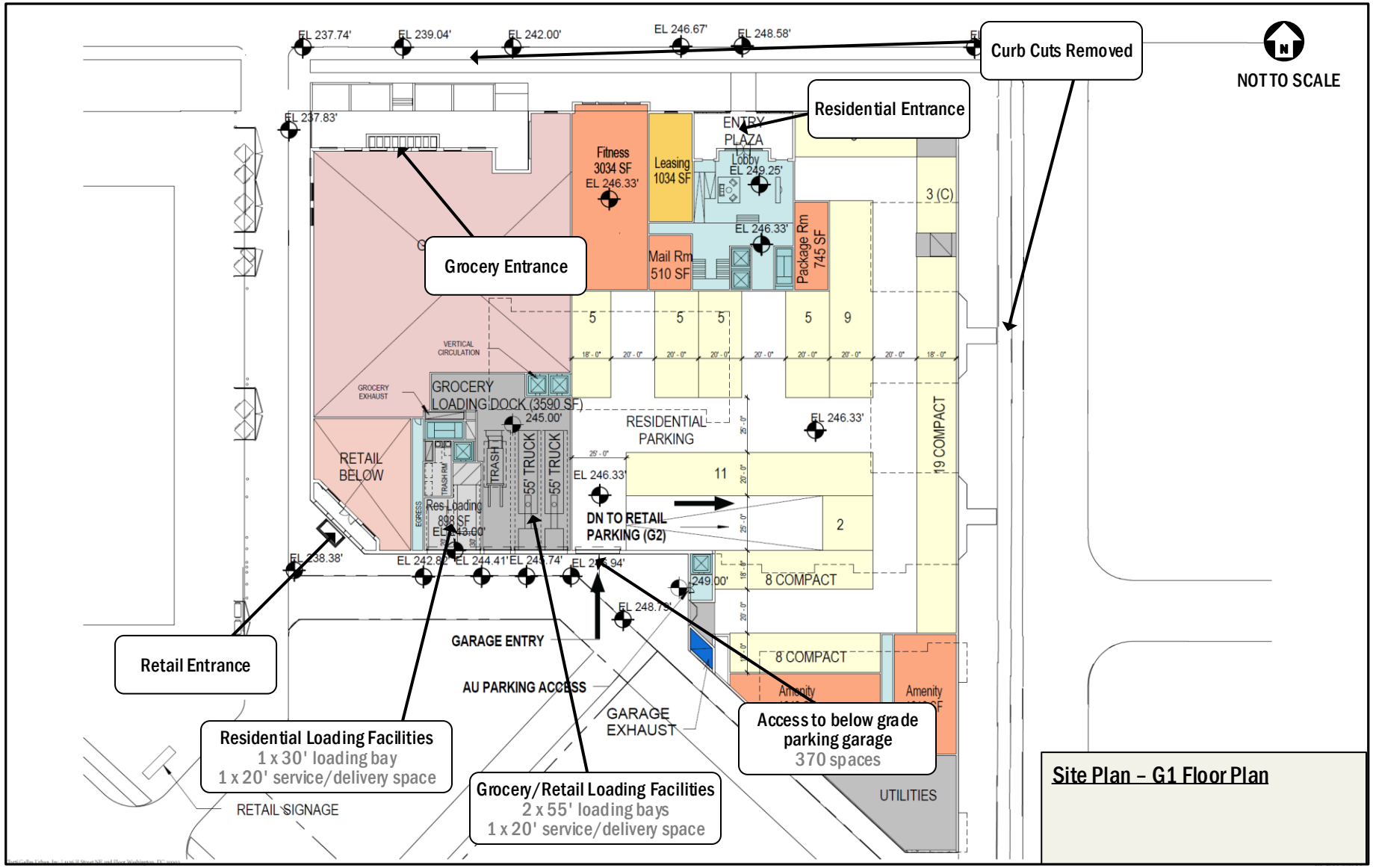
Attach any Figures, Tables, and Appendices here:


Tenleytown - AU
Broad Branch
Donaldson Run
Washington Channel
Project Location & Transportation Facilities
Project Site
1" = 1 mile
N

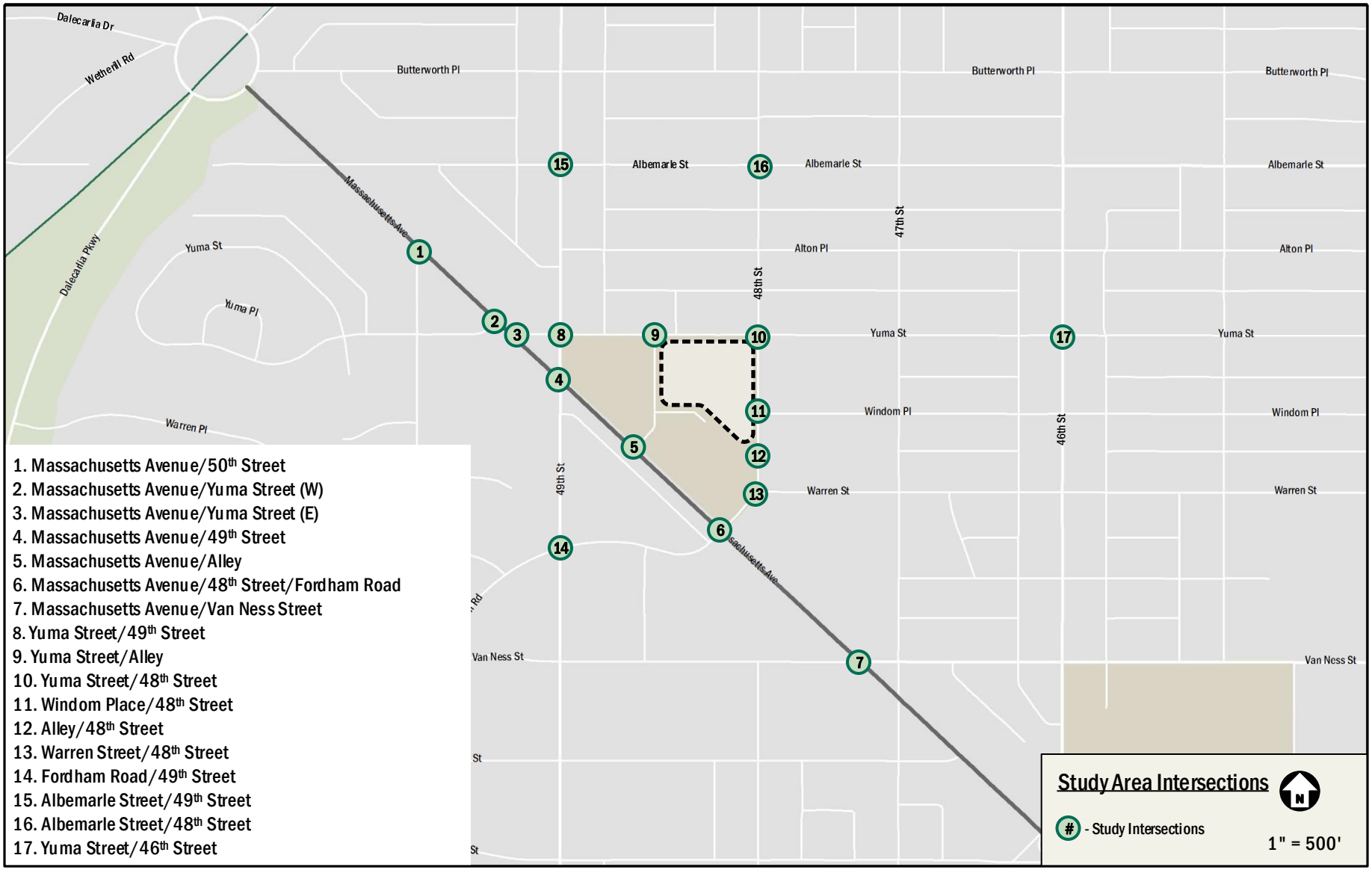

Alton Pl
49th St
48th St
Yuma St
SITE
Windom Pl
Massachusetts Ave
Massachusetts Ave
Warren St
Fordham Rd
48th Pl
Project Site
N
1" = 200'

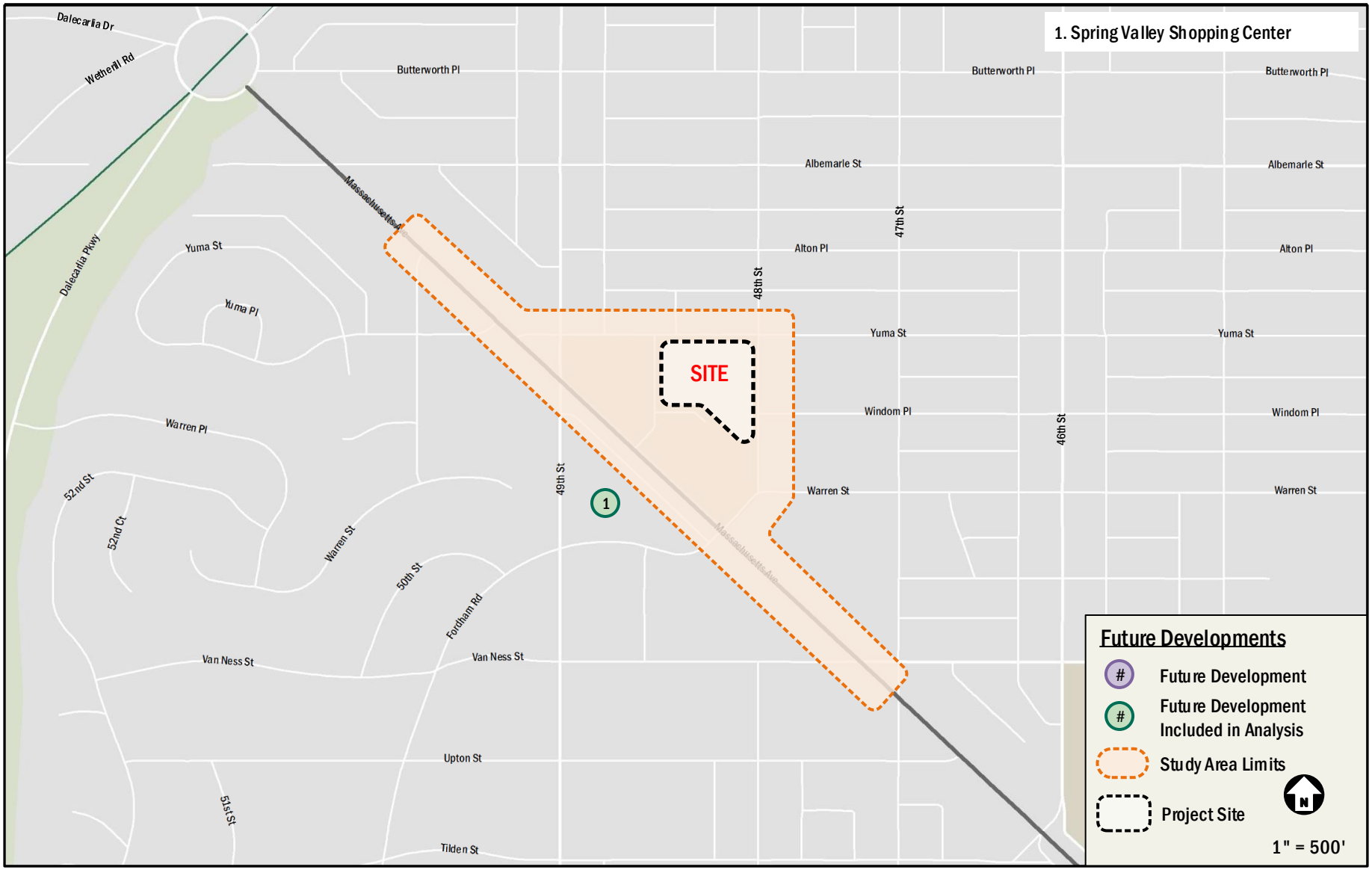

Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Massachusetts Ave
Albemarle St
Albemarle St
47th St
Dalecarlia Pkwy
Yuma St
Alton Pl
Alton Pl
48th St
Yuma Pl
Yuma St
Yuma St
SITE
Windom Pl
Windom Pl
Warren Pl
46th St
52nd St
49th St
Warren St
Warren St
52nd Ct
Warren St
Massachusetts Ave
50th St
Fordham Rd
Van Ness St
Van Ness St
Van Ness St
Upton St
Springdale St
45th St
Sedgwick St
Tilden St
Study Area
Project Site
N
1" = 500'

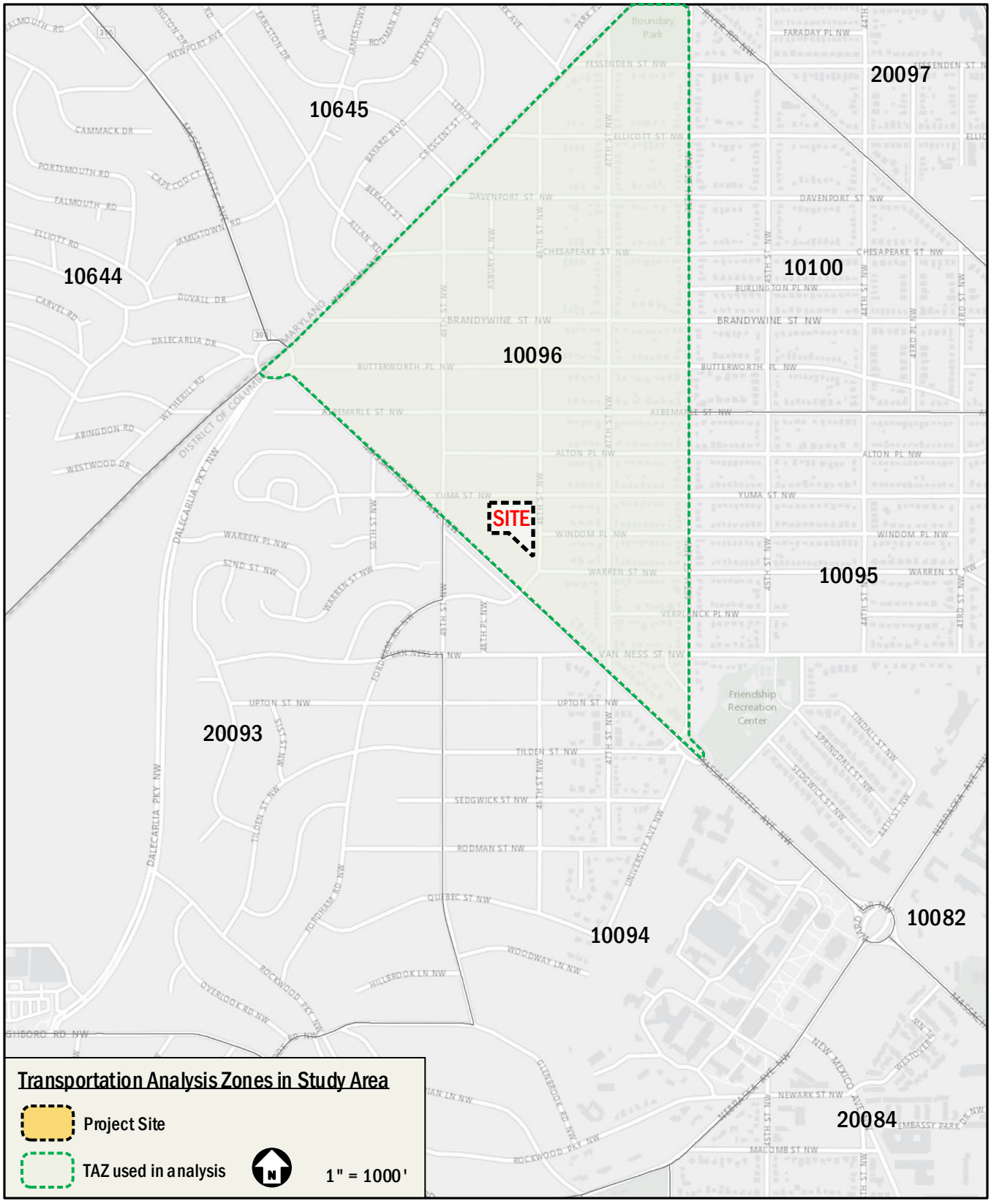

Curb Cuts Removed
NOT TO SCALE
Grocery Entrance
Retail Entrance
Long-Term Bicycle Parking
83 Long-Term Bicycle Parking
MAIN GROCERY ENTRY
ACCESS TO GROCERY
GROCERY LOADING ABOVE
RETAIL PARKING (106 SPACES)
Retail / Amenity 2188 SF
Bikes / Storage 2500 SF
12 COMPACT
19 COMPACT
8 COMPACT
10 COMPACT
DN TO G3
UP TO G1
PUBLIC ALLEY
48TH STREET NW
GARAGE INTAKE
GARAGE EXHAUST
ELEC VAULTS?
PRIVATE ALLEY
(DIRT)
RETAIL SIGNAGE
Site Plan – G2 Floor Plan


Curb Cuts Removed
NOT TO SCALE
Residential Entrance
Grocery Entrance
Retail Entrance
Residential Loading Facilities
1 x 30' loading bay
1 x 20' service/delivery space
RETAIL SIGNAGE
Grocery/Retail Loading Facilities
2 x 55' loading bays
1 x 20' service/delivery space
Access to below grade parking garage
370 spaces
Site Plan – G1 Floor Plan
EL 237.74'
EL 239.04'
EL 242.00'
EL 246.67'
EL 248.58'
EL 237.83'
ENTRY PLAZA
Fitness 3034 SF
EL 246.33'
Leasing 1034 SF
Lobby
EL 249.25'
Mail Rm 510 SF
Package Rm 745 SF
3 (C)
VERTICAL CIRCULATION
GROCERY EXHAUST
GROCERY LOADING DOCK (3590 SF)
245.00'
RETAIL BELOW
TRASH
55' TRUCK
55' TRUCK
RESIDENTIAL PARKING
19 COMPACT
11
2
DN TO RETAIL PARKING (G2)
Res Loading 898 SF
EL 243.00'
EL 238.38'
EL 242.82'
EL 244.41'
EL 245.74'
EL 248.94'
249.00'
8 COMPACT
EL 248.75'
GARAGE ENTRY
AU PARKING ACCESS
GARAGE EXHAUST
Amenity
UTILITIES


Curb Cuts Removed
NOT TO SCALE
Residential Entrance
Grocery Entrance
Residential Entrance
Windom Walk
Retail Entrance
Residential Entrance
Site Plan – First Floor Plan


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Albemarle St
Albemarle St
Albemarle St
Massachusetts Ave
Dalecarlia Pkwy
Yuma St
Yuma Pl
Alton Pl
Alton Pl
47th St
48th St
Yuma St
Yuma St
Warren Pl
Windom Pl
Windom Pl
46th St
49th St
Warren St
Warren St
Van Ness St
Van Ness St
1. Massachusetts Avenue/50th Street
2. Massachusetts Avenue/Yuma Street (W)
3. Massachusetts Avenue/Yuma Street (E)
4. Massachusetts Avenue/49th Street
5. Massachusetts Avenue/Alley
6. Massachusetts Avenue/48th Street/Fordham Road
7. Massachusetts Avenue/Van Ness Street
8. Yuma Street/49th Street
9. Yuma Street/Alley
10. Yuma Street/48th Street
11. Windom Place/48th Street
12. Alley/48th Street
13. Warren Street/48th Street
14. Fordham Road/49th Street
15. Albemarle Street/49th Street
16. Albemarle Street/48th Street
17. Yuma Street/46th Street
Study Area Intersections
N
- Study Intersections
1" = 500'


1. Spring Valley Shopping Center
Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Albemarle St
Albemarle St
Massachusetts Ave
47th St
Dalecarlia Pkwy
Yuma St
Alton Pl
Alton Pl
48th St
Yuma Pl
Yuma St
Yuma St
SITE
Windom Pl
Windom Pl
Warren Pl
46th St
52nd St
49th St
Warren St
Warren St
1
52nd Ct
Warren St
50th St
Fordham Rd
Van Ness St
Van Ness St
Upton St
51st St
Tilden St
Future Developments
Future Development
Future Development Included in Analysis
Study Area Limits
Project Site
N
1" = 500'


10645
20097
10644
10100
10096
SITE
10095
20093
10094
10082
20084
Transportation Analysis Zones in Study Area
Project Site
TAZ used in analysis
1" = 1000'

Mode Split Assumptions

Residential Component

Description of residential component of project:

Approximately 219 residential units

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
Census Data - Census Tract (10.01/9.01)	38%	8%	27%	5%	8%	12%	2%
CTPP - TAZ Residents (10096)	36%	8%	24%	13%	4%	11%	4%
State of the Commute (of District residents)	41%	7%	41%	11%		---	
WMATA Ridership Survey (residential sites Suburban-Inside the Beltway)	39%		49%	14%		---	

Mode Split assumed in TIS:

Land Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Residential Mode Split	90%	5%	2%	3%	---

Notes: Data from comparable sites was examined. It was determined that a conservative 90% auto mode split was appropriate based on the number of allocated parking spaces and location of site.

Grocery Component

Description of retail component of project:

Grocery/Retail (16,000 square feet) - All assumed grocery for conservative analysis

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
WMATA Ridership Survey (Ballston Common)	43%		30%	27%		---	
WMATA Ridership Survey (Crystal City - Crystal Plaza Shops)	24%		41%	35%		---	
WMATA Ridership Survey (Silver Spring N'hood Center)	67%		19%	14%		---	

Mode Split assumed in TIS:

Information Source	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Grocery Mode Split	90%	0%	2%	8%	---

Notes: Data from comparable sites was examined. It was determined that a conservative 90% auto mode split was appropriate based on the number of allocated parking spaces and location of site.

Table 1 - Residential Trip Generation

Note: Approximately 219 dwelling units

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	220	219 du	22 veh/hr	89 veh/hr	111 veh/hr	90 veh/hr	48 veh/hr	138 veh/hr
		Calculation Details:	*20%*	*80%*	*=0.49(x)+3.73*	*65%*	*35%*	*=0.55(x)+17.65*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	1.13 ppl/veh	25 ppl/hr	100 ppl/hr	125 ppl/hr	102 ppl/hr	54 ppl/hr	156 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	Auto	90%	23 ppl/hr	90 ppl/hr	113 ppl/hr	92 ppl/hr	48 ppl/hr	140 ppl/hr
Residential	Transit	5%	1 ppl/hr	5 ppl/hr	6 ppl/hr	5 ppl/hr	3 ppl/hr	8 ppl/hr
Residential	Bike	2%	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Residential	Walk	3%	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	1.13 ppl/veh	20 veh/hr	80 veh/hr	100 veh/hr	81 veh/hr	43 veh/hr	124 veh/hr

Trip Gen Summary for Residential (219 du)

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	20 veh/hr	80 veh/hr	100 veh/hr	81 veh/hr	43 veh/hr	124 veh/hr
Transit	1 ppl/hr	5 ppl/hr	6 ppl/hr	5 ppl/hr	3 ppl/hr	8 ppl/hr
Bike	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Walk	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr

Table 2 - Grocery and Retail Trip Generation

Note: Grocery/Retail (16,000 square feet) - All assumed grocery for conservative analysis

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Grocery	850	16,000 sf	33 veh/hr	21 veh/hr	54 veh/hr	103 veh/hr	98 veh/hr	201 veh/hr
		Calculation Details:	*62%*	*38%*	*=3.40(x/1000)*	*51%*	*49%*	*=0.74(x/1000)+3.25*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Grocery	1.84 ppl/veh	61 ppl/hr	38 ppl/hr	99 ppl/hr	190 ppl/hr	180 ppl/hr	370 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Grocery	Auto	90%	55 ppl/hr	34 ppl/hr	89 ppl/hr	171 ppl/hr	162 ppl/hr	333 ppl/hr
Grocery	Transit	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Grocery	Bike	2%	1 ppl/hr	1 ppl/hr	2 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr
Grocery	Walk	8%	5 ppl/hr	3 ppl/hr	8 ppl/hr	15 ppl/hr	15 ppl/hr	30 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

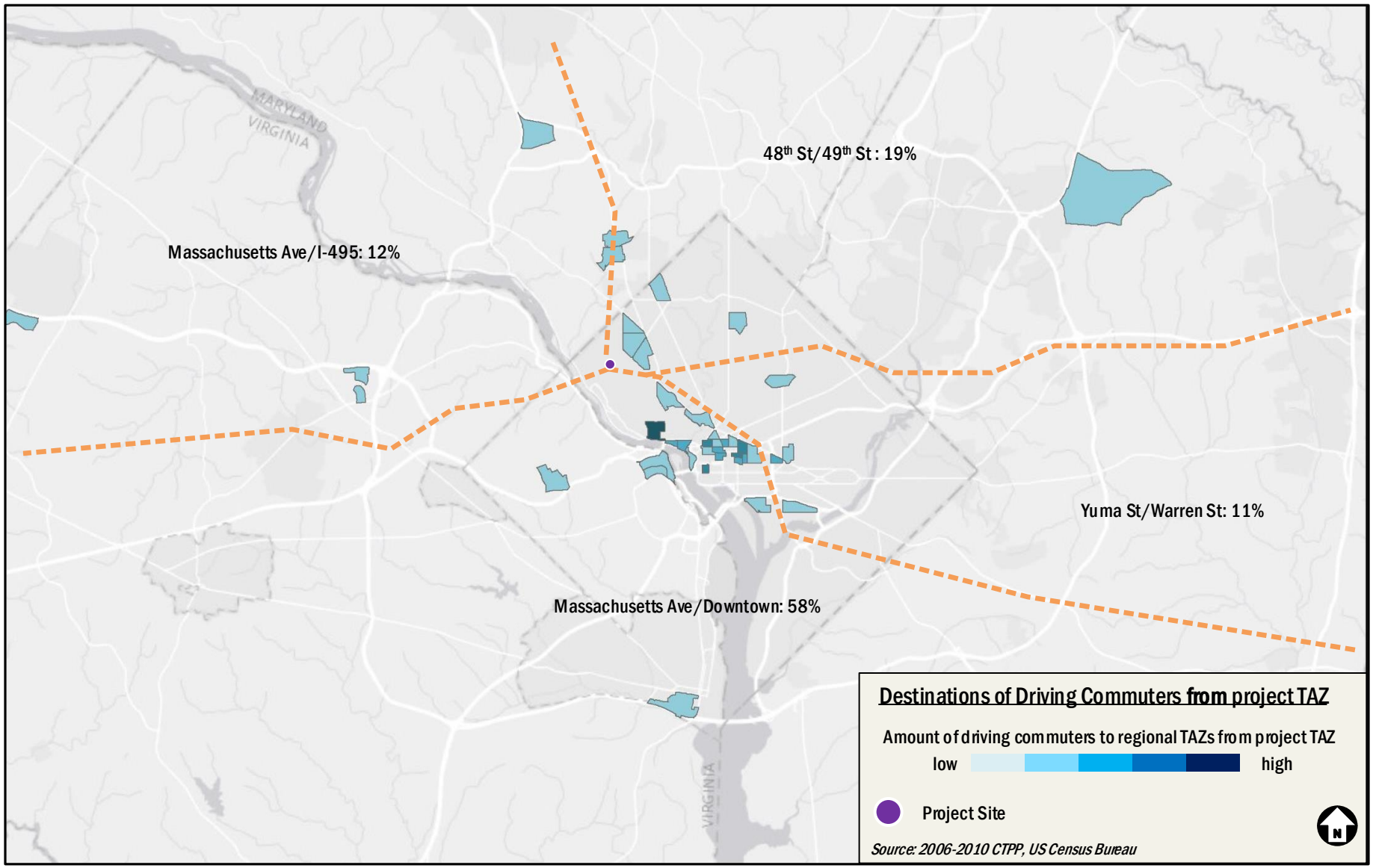
Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Grocery	1.84 ppl/veh	30 veh/hr	18 veh/hr	48 veh/hr	93 veh/hr	88 veh/hr	181 veh/hr

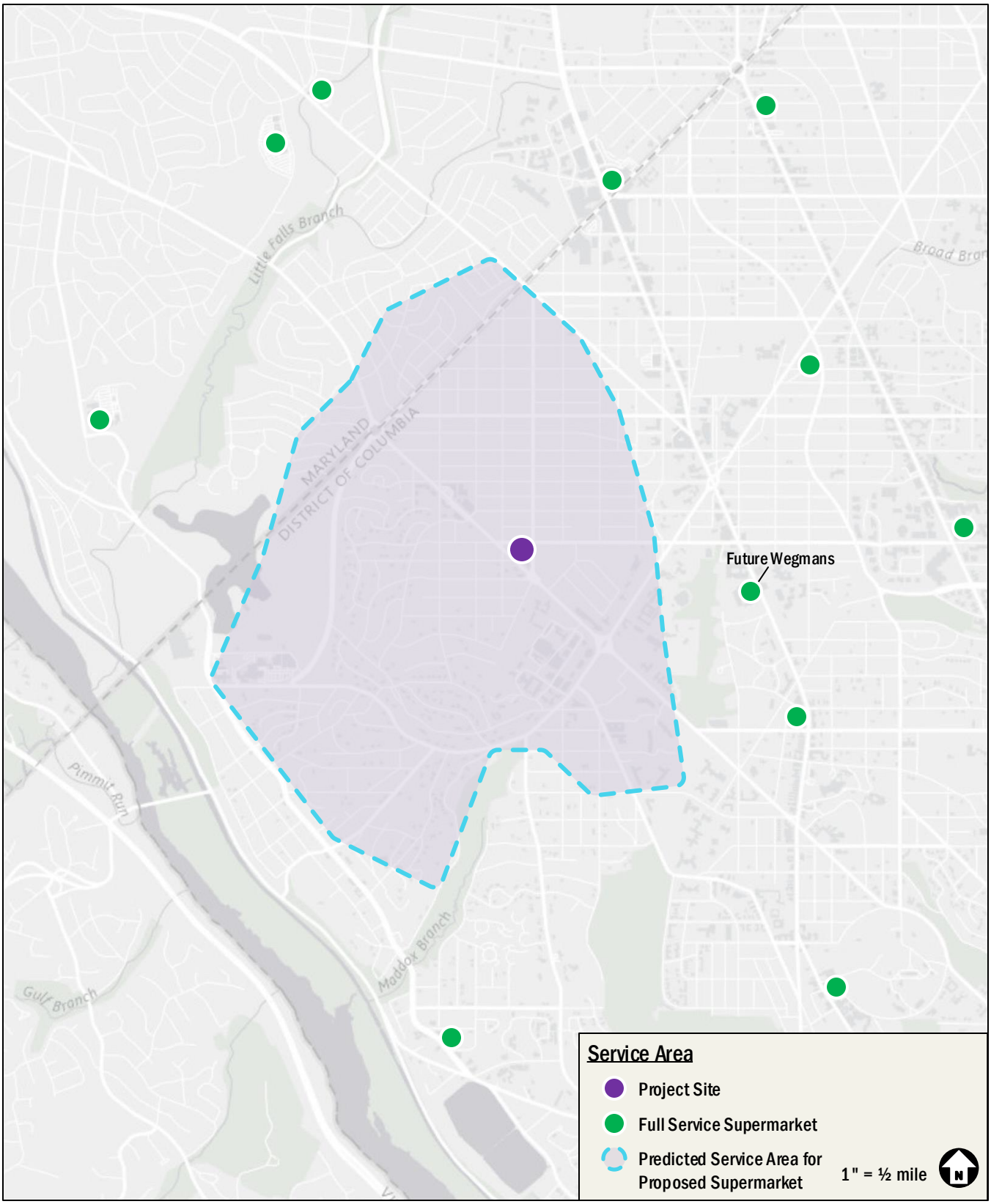
Trip Gen Summary for Grocer (16 ksf)

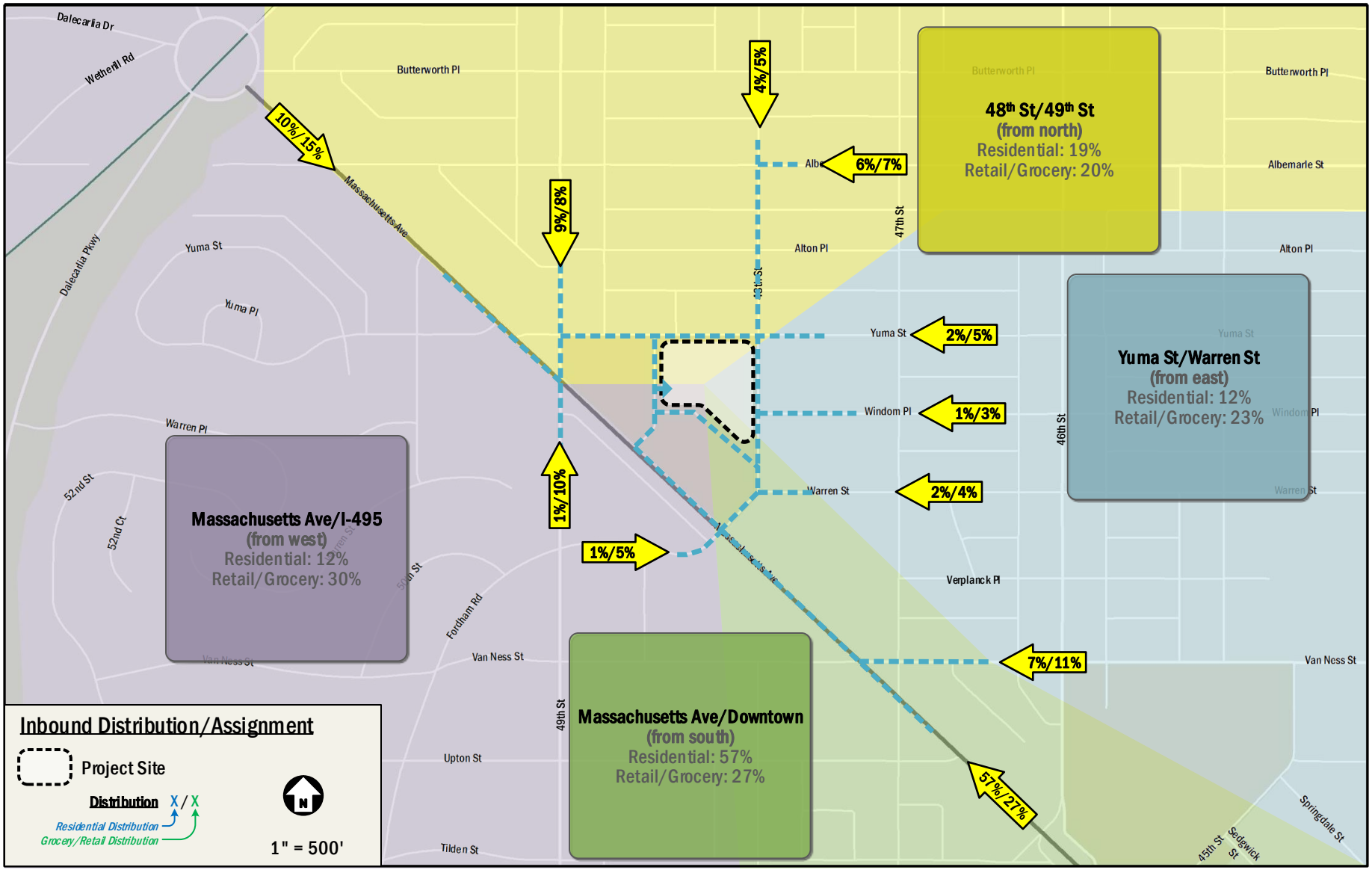
Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	30 veh/hr	18 veh/hr	48 veh/hr	93 veh/hr	88 veh/hr	181 veh/hr
Transit	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr
Walk	5 ppl/hr	3 ppl/hr	8 ppl/hr	15 ppl/hr	15 ppl/hr	30 ppl/hr

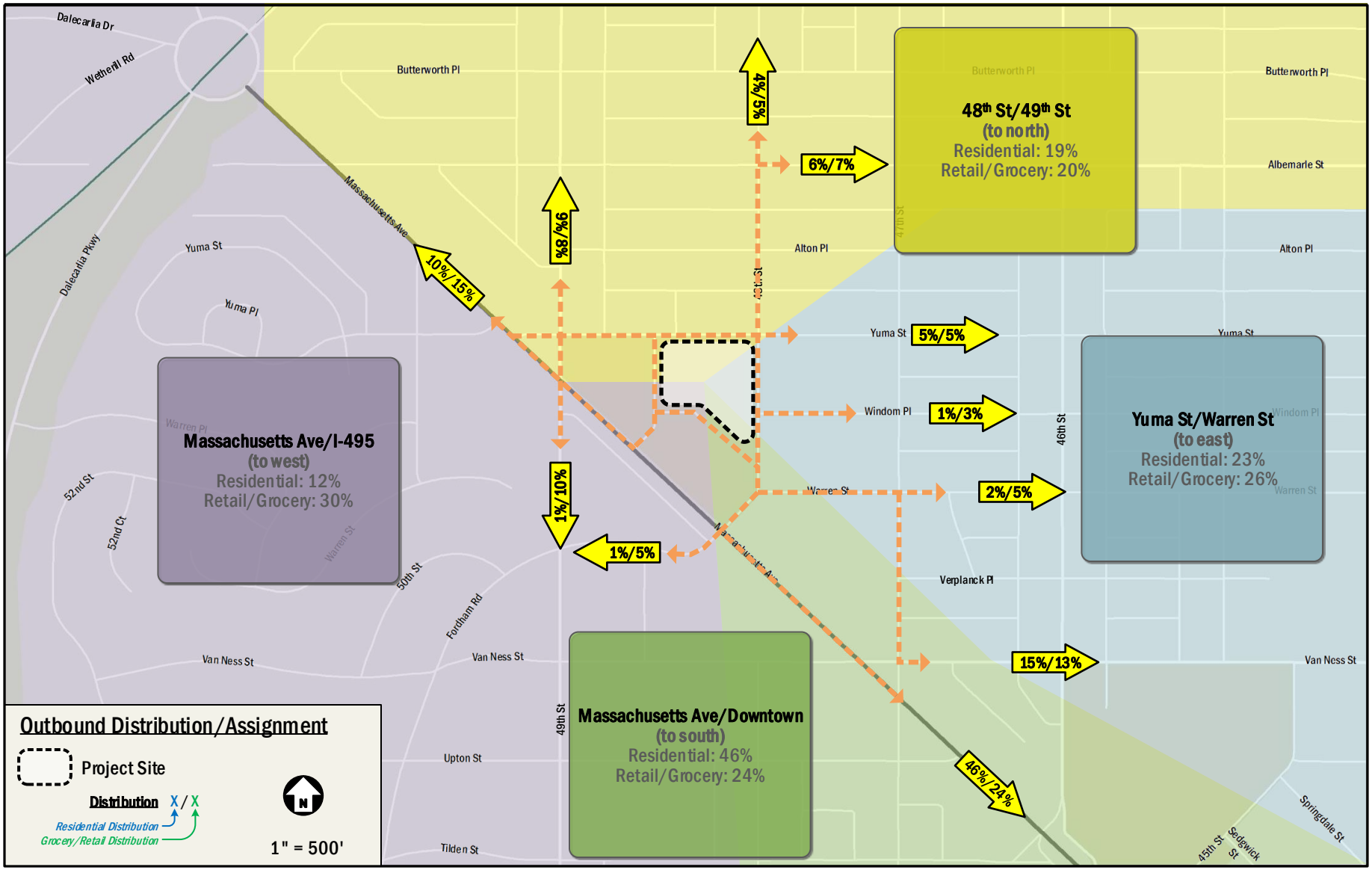
Trip Gen Summary by Land Use/Mode

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Residential	20 veh/hr	80 veh/hr	100 veh/hr	81 veh/hr	43 veh/hr	124 veh/hr
Auto	Grocery	30 veh/hr	18 veh/hr	48 veh/hr	93 veh/hr	88 veh/hr	181 veh/hr
Auto	**Total**	**50 veh/hr**	**98 veh/hr**	**148 veh/hr**	**174 veh/hr**	**131 veh/hr**	**305 veh/hr**
Transit	Residential	1 ppl/hr	5 ppl/hr	6 ppl/hr	5 ppl/hr	3 ppl/hr	8 ppl/hr
Transit	Grocery	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Transit	**Total**	**1 ppl/hr**	**5 ppl/hr**	**6 ppl/hr**	**5 ppl/hr**	**3 ppl/hr**	**8 ppl/hr**
Bike	Residential	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Bike	Grocery	1 ppl/hr	1 ppl/hr	2 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr
Bike	**Total**	**2 ppl/hr**	**3 ppl/hr**	**5 ppl/hr**	**6 ppl/hr**	**4 ppl/hr**	**10 ppl/hr**
Walk	Residential	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
Walk	Grocery	5 ppl/hr	3 ppl/hr	8 ppl/hr	15 ppl/hr	15 ppl/hr	30 ppl/hr
Walk	**Total**	**6 ppl/hr**	**6 ppl/hr**	**12 ppl/hr**	**18 ppl/hr**	**17 ppl/hr**	**35 ppl/hr**

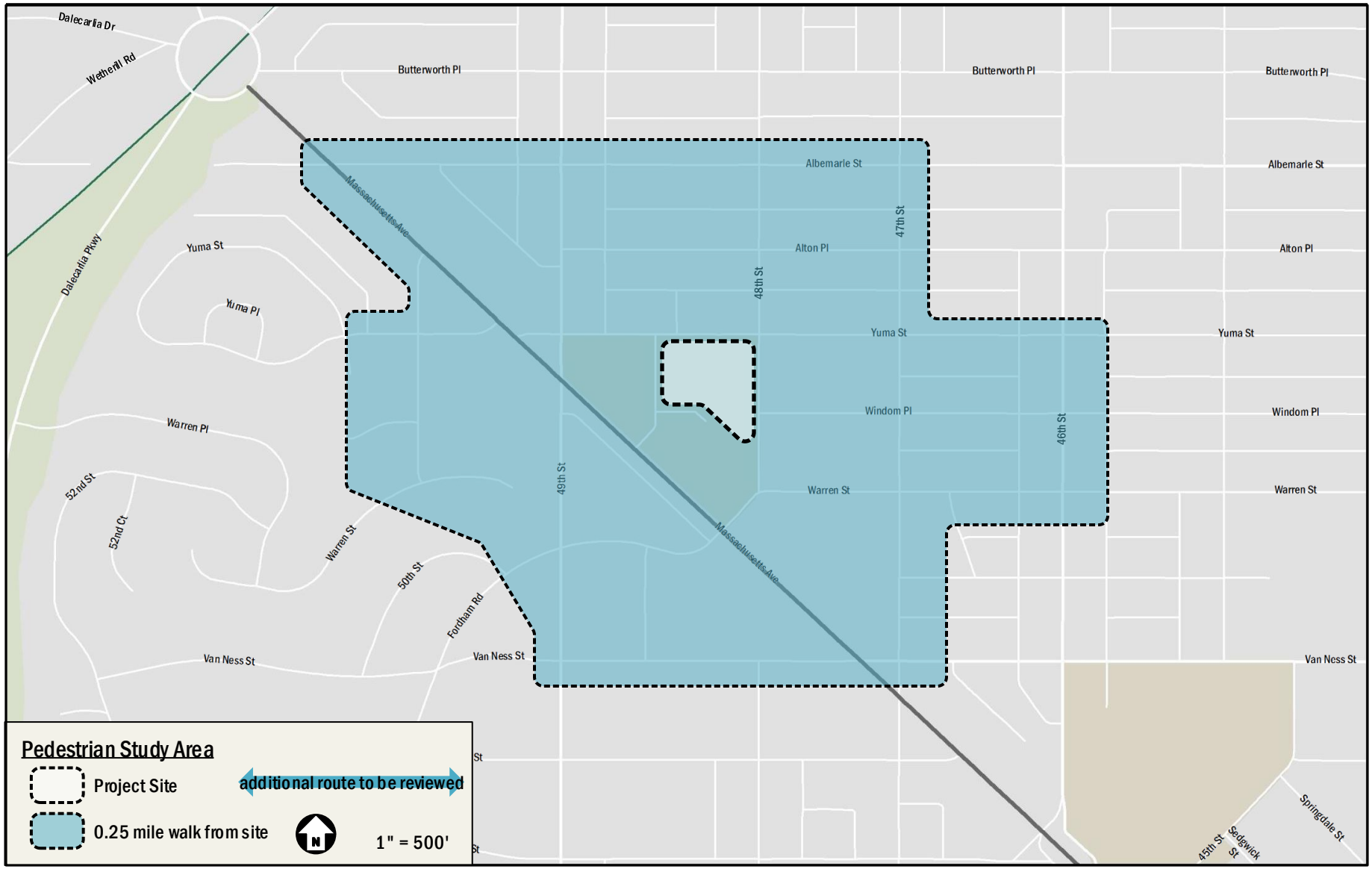

MARYLAND
VIRGINIA
48th St/49th St: 19%
Massachusetts Ave/I-495: 12%
Yuma St/Warren St: 11%
Massachusetts Ave/Downtown: 58%
VIRGINIA
Destinations of Driving Commuters from project TAZ
Amount of driving commuters to regional TAZs from project TAZ
low
high
Project Site
Source: 2006-2010 CTPP, US Census Bureau
N


Little Falls Branch
MARYLAND
DISTRICT OF COLUMBIA
Future Wegmans
Pimmit Run
Gulf Branch
Maddox Branch
Service Area
Project Site
Full Service Supermarket
Predicted Service Area for Proposed Supermarket
1" = ½ mile
N


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
4%/5%
48th St/49th St
(from north)
Residential: 19%
Retail/Grocery: 20%
Albemarle St
10%/15%
Massachusetts Ave
6%/7%
9%/8%
47th St
Alton Pl
Dalecarlia Pkwy
Yuma St
Yuma Pl
43rd St
2%/5%
Yuma St/Warren St
(from east)
Residential: 12%
Retail/Grocery: 23%
Windom Pl
1%/3%
46th St
Warren Pl
52nd St
52nd Ct
Massachusetts Ave/I-495
(from west)
Residential: 12%
Retail/Grocery: 30%
1%/10%
Warren St
2%/4%
1%/5%
51st St
Fordham Rd
Verplanck Pl
Van Ness St
7%/11%
49th St
Massachusetts Ave/Downtown
(from south)
Residential: 57%
Retail/Grocery: 27%
Upton St
57%/27%
Springdale St
45th St
Sedgwick St
Tilden St
Inbound Distribution/Assignment
Project Site
Distribution X / X
Residential Distribution
Grocery/Retail Distribution
N
1" = 500'


Dalecarlia Dr
Wethered Rd
Butterworth Pl
Massachusetts Ave
Dalecarlia Pkwy
Yuma St
Yuma Pl
Alton Pl
Albemarle St
47th St
48th St
Windom Pl
46th St
Warren St
52nd St
52nd Ct
50th St
Fordham Rd
Van Ness St
Verplanck Pl
49th St
Upton St
Tilden St
45th St
Sedgwick St
Springdale St
4%/5%
6%/7%
48th St/49th St
(to north)
Residential: 19%
Retail/Grocery: 20%
8%/6%
10%/15%
5%/5%
1%/3%
Yuma St/Warren St
(to east)
Residential: 23%
Retail/Grocery: 26%
2%/5%
1%/10%
1%/5%
15%/13%
46%/24%
Massachusetts Ave/I-495
(to west)
Residential: 12%
Retail/Grocery: 30%
Massachusetts Ave/Downtown
(to south)
Residential: 46%
Retail/Grocery: 24%
Outbound Distribution/Assignment
Project Site
Distribution X / X
Residential Distribution
Grocery/Retail Distribution
N
1" = 500'

CTR Thresholds	Threshold	Project	Met?
General CTR Requirements			
Forecasted person-trips during the peak hour	50	526	Yes
Forecasted parking demand (spaces)	20	370	Yes
Amount of commercial development	5,000 sf	16,000 sf	Yes
Amount of residential development	20 units	219 units	Yes
CTR Trigger for Further Analysis - Vehicular			
Vehicle trips in the peak direction at peak times	25	174	Yes
CTR Trigger for Further Analysis - Bike & Pedestrian			
Amount of residential development	200 units	219 units	Yes
Amount of commercial development	50,000 sf	16,000 sf	No
Site ecompasses more than a small block-grid	Yes	No	No
Combined peak hour ped/bike trip generation	100	45	No
CTR Trigger for Further Analysis - Transit			
Peak hour transit trip generation	50	14	No
Project Transit Mode Split	30%	Varies	No


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Albemarle St
Albemarle St
Massachusetts Ave
47th St
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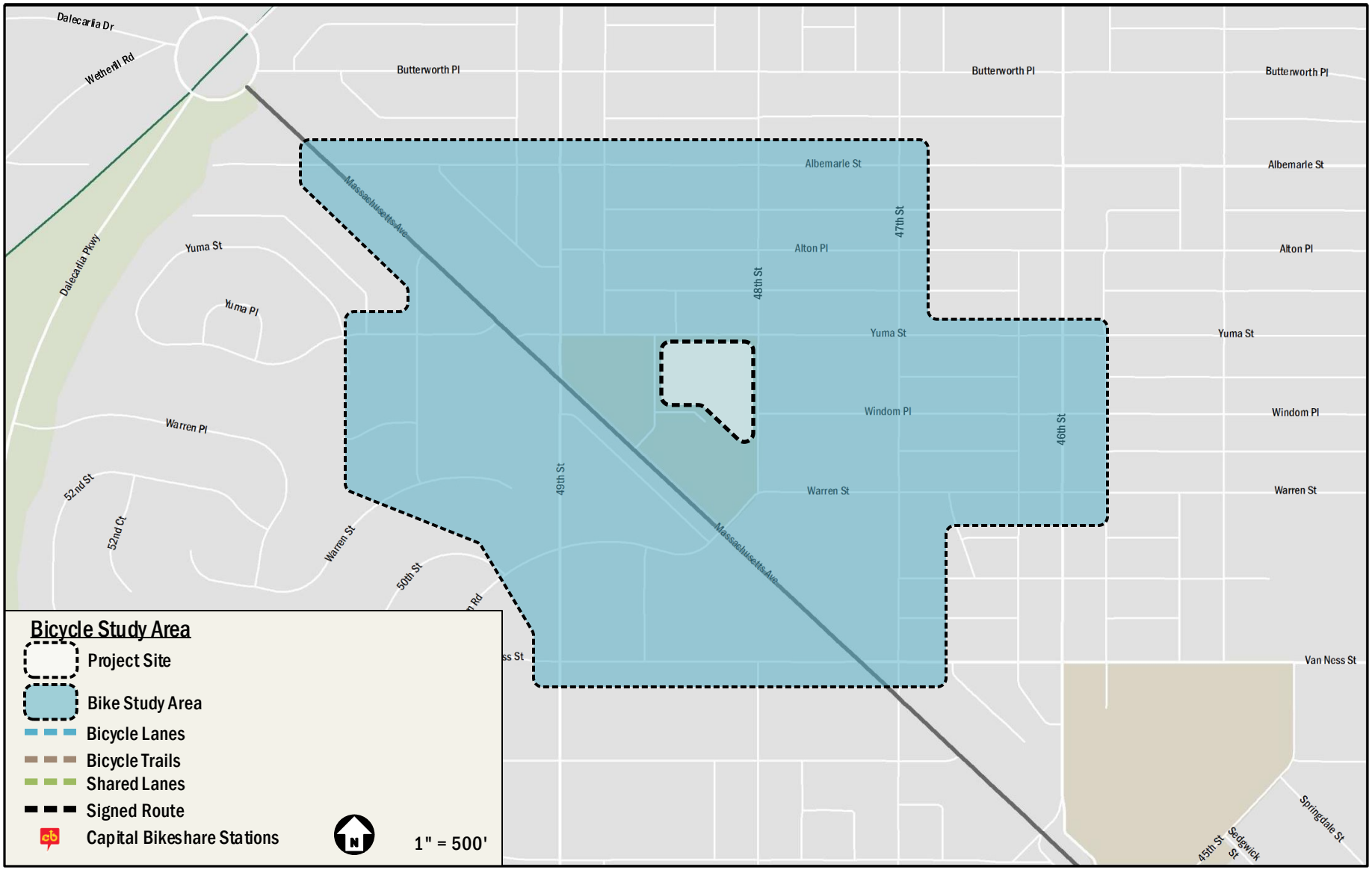
Yuma Pl
Yuma St
Yuma St
Windom Pl
Windom Pl
Warren Pl
46th St
52nd St
49th St
Warren St
Warren St
52nd Ct
Massachusetts Ave
Warren St
50th St
Fordham Rd
Van Ness St
Van Ness St
Van Ness St
Springdale St
45th St
Sedgwick St
Pedestrian Study Area
Project Site
additional route to be reviewed
0.25 mile walk from site
N
1" = 500'


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Albemarle St
Albemarle St
Massachusetts Ave
47th St
Dalecarlia Pkwy
Yuma St
Alton Pl
Alton Pl
Spring Valley Shopping Center 0.1 miles (2 min)
48th St
Yuma Pl
United Bank 0.1 miles (2 min)
SITE
Yuma St
Yuma St
Windom Pl
Windom Pl
Warren Pl
46th St
49th St
American University 0.1 miles (2 min)
Warren St
52nd St
52nd Ct
Spring Valley Shopping Center 0.1 miles (2 min)
Massachusetts Ave
Warren St
50th St
Fordham Rd
Van Ness St
Van Ness St
Van Ness St
Upton St
Friendship Park 0.6 miles (13 min)
Springdale St
45th St
Sedgwick St
Tilden St
Pedestrian Pathways
- Destination
- Development Site
- Pedestrian Route
- Pedestrian Barrier
N
1" = 1000'


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
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Albemarle St
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Massachusetts Ave
47th St
Alton Pl
Alton Pl
Dalecarlia Pkwy
Yuma St
48th St
Yuma Pl
Yuma St
Yuma St
Windom Pl
Windom Pl
Warren Pl
46th St
52nd St
49th St
Warren St
Warren St
52nd Ct
Warren St
Massachusetts Ave
50th St
Van Ness St
Springdale St
45th St
Sedgwick St
Bicycle Study Area
Project Site
Bike Study Area
Bicycle Lanes
Bicycle Trails
Shared Lanes
Signed Route
Capital Bikeshare Stations
N
1" = 500'

Background Growth Information & Assumptions **Massachusetts Avenue NW (1 of 3)**

4330 48th Street NW

Project Timeline

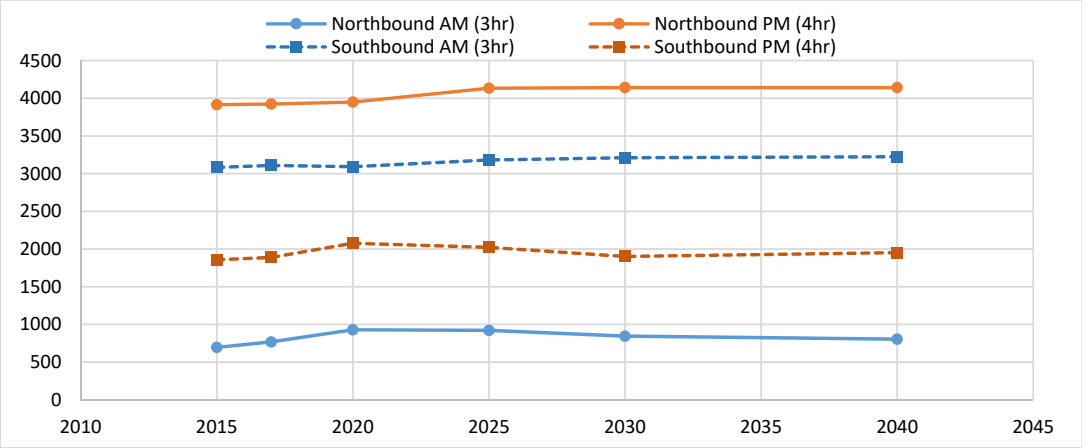
Data Collection: 2016 Project Completion 2021

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: Massachusetts Avenue NW between 50th Street NW and 49th Street NW

Direction/Period	Modeled Year 2015	2017	2020	2025	2030	2040	Annual Growth: 2015 to 2020
Northbound AM (3hr)	695	767	928	920	843	803	**+5.95%**
Northbound PM (4hr)	3915	3924	3948	4134	4141	4141	**+0.17%**
Southbound AM (3hr)	3082	3109	3092	3180	3210	3224	**+0.06%**
Southbound PM (4hr)	1857	1889	2076	2022	1900	1951	**+2.25%**



Source 2: Historical DDOT AADTs

Segment: Massachusetts Avenue NW between 46th Street and 49th Street

	2011	2012	2013	2014
AADT (in 1000s):	17.0	18.6	18.7	19.0

Annual growth since:	2011	2012	2013	2014
	+3.8%	+1.1%	+1.6%	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2021	Total Growth: 2016 to 2021
Northbound AM	+6.00%	+33.82%
Northbound PM	+0.25%	+1.26%
Southbound AM	+0.10%	+0.50%
Southbound PM	+2.25%	+11.77%

Background Growth Information & Assumptions **Massachusetts Avenue NW (2 of 3)**

4330 48th Street NW

Project Timeline

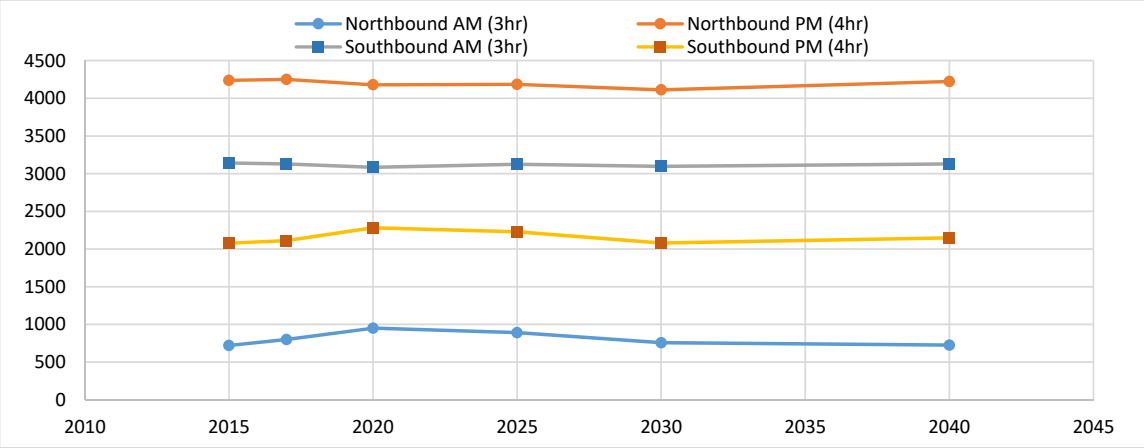
Data Collection: 2016 Project Completion 2021

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: Massachusetts Avenue NW between 49th Street NW and 48th Street NW

Direction/Period	Modeled Year 2015	2017	2020	2025	2030	2040	Annual Growth: 2015 to 2020
Northbound AM (3hr)	720	799	950	890	756	724	**+5.70%**
Northbound PM (4hr)	4238	4250	4179	4184	4111	4222	**-0.28%**
Southbound AM (3hr)	3141	3127	3084	3123	3095	3128	**-0.37%**
Southbound PM (4hr)	2076	2111	2281	2227	2080	2147	**+1.90%**



Source 2: Historical DDOT AADTs

Segment: Massachusetts Avenue NW between 46th Street and 49th Street

	2011	2012	2013	2014
AADT (in 1000s):	17.0	18.6	18.7	19.0

Annual growth since:	2011	2012	2013	2014
	+3.8%	+1.1%	+1.6%	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2021	Total Growth: 2016 to 2021
Northbound AM	+5.75%	+32.25%
Northbound PM	+0.10%	+0.50%
Southbound AM	+0.10%	+0.50%
Southbound PM	+2.00%	+10.41%

Background Growth Information & Assumptions **Massachusetts Avenue NW (3 of 3)**

4330 48th Street NW

Project Timeline

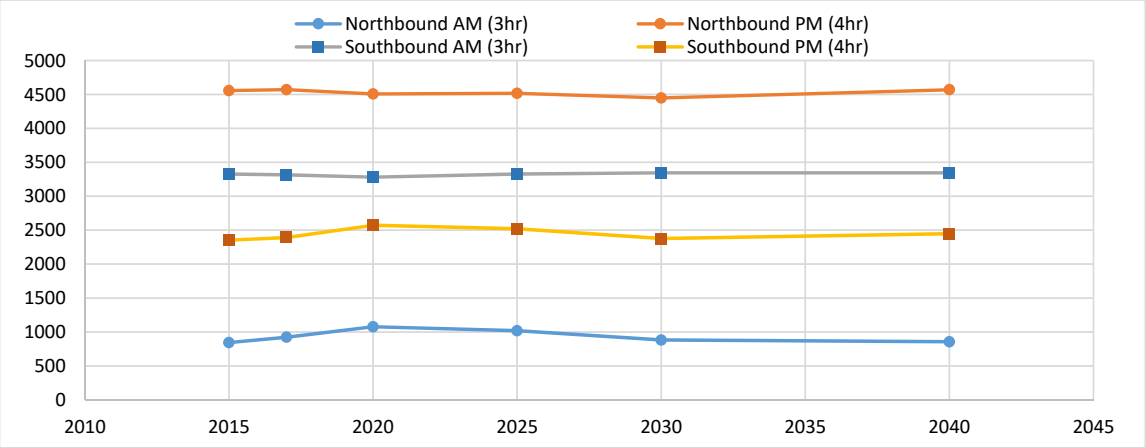
Data Collection: 2016 Project Completion 2021

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: Massachusetts Avenue NW between 48th Street NW and Nebraska Avenue NW

Direction/Period	Modeled Year 2015	2017	2020	2025	2030	2040	Annual Growth: 2015 to 2020
Northbound AM (3hr)	843	922	1076	1018	880	854	**+5.00%**
Northbound PM (4hr)	4558	4571	4508	4517	4449	4570	**-0.22%**
Southbound AM (3hr)	3327	3314	3281	3326	3345	3345	**-0.28%**
Southbound PM (4hr)	2352	2391	2572	2519	2375	2448	**+1.80%**



Source 2: Historical DDOT AADTs

Segment: Massachusetts Avenue NW between 46th Street and 49th Street

	2011	2012	2013	2014
AADT (in 1000s):	17.0	18.6	18.7	19.0

Annual growth since:	2011	2012	2013	2014
	+3.8%	+1.1%	+1.6%	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2021	Total Growth: 2016 to 2021
Northbound AM	+5.00%	+27.63%
Northbound PM	+0.10%	+0.50%
Southbound AM	+0.10%	+0.50%
Southbound PM	+1.75%	+9.06%

Background Growth Information & Assumptions **49th Street NW**

4330 48th Street NW

Project Timeline

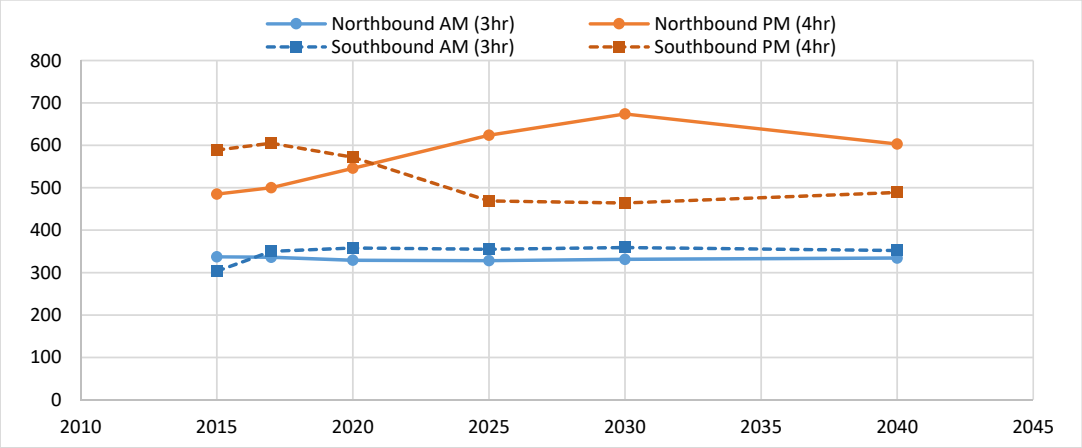
Data Collection: 2016 Project Completion 2021

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: 49th Street NW between Massachusetts Avenue NW and Tilden Street NW

Direction/Period	Modeled Year 2015	2017	2020	2025	2030	2040	Annual Growth: 2015 to 2020
Northbound AM (3hr)	337	336	329	328	331	334	**-0.48%**
Northbound PM (4hr)	485	500	546	624	674	603	**+2.40%**
Southbound AM (3hr)	303	350	358	355	359	352	**+3.39%**
Southbound PM (4hr)	589	605	572	469	464	489	**-0.58%**



Source 2: Historical DDOT AADTs

Segment: 49th Street between Yuma Street and Van Ness Street

	2011	2012	2013	2014
AADT (in 1000s):	4.3	4.3	4.3	n/a

Annual growth since:	2011	2012	2013	2014
	-even-	-even-	-even-	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2021	Total Growth: 2016 to 2021
Northbound AM	+0.10%	+0.50%
Northbound PM	+0.25%	+1.26%
Southbound AM	+0.50%	+2.53%
Southbound PM	+0.10%	+0.50%

Background Growth Information & Assumptions **46th Street NW**

4330 48th Street NW

Project Timeline

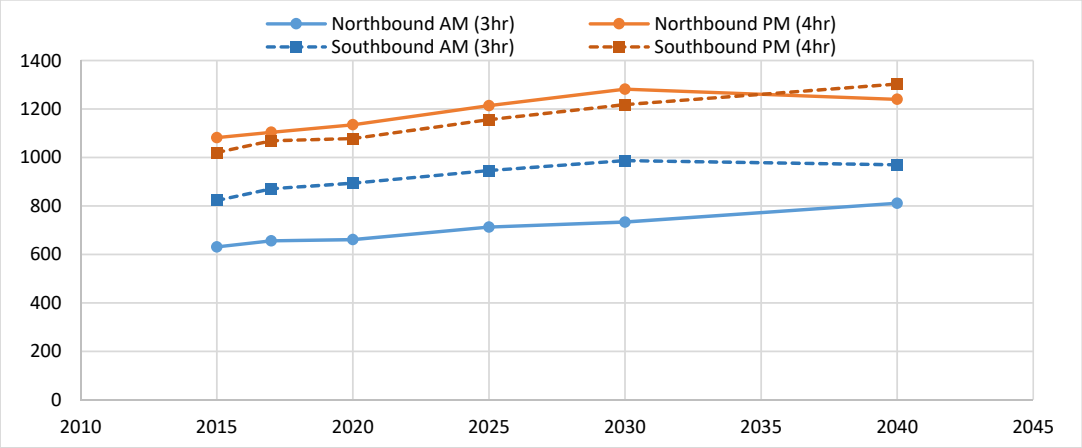
Data Collection: 2016 Project Completion 2021

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: 46th Street NW between Albemarle Avenue NW and Yuma Street NW

Direction/Period	Modeled Year						Annual Growth:
	2015	2017	2020	2025	2030	2040	2015 to 2020
Northbound AM (3hr)	631	656	661	713	733	811	**+0.93%**
Northbound PM (4hr)	1082	1104	1135	1214	1282	1240	**+0.96%**
Southbound AM (3hr)	822	871	894	946	987	970	**+1.69%**
Southbound PM (4hr)	1020	1069	1078	1156	1218	1303	**+1.11%**



Source 2: Historical DDOT AADTs

Segment: 46th Street NW between Massachussets Avenue and Van Ness Street

	2011	2012	2013	2014
AADT (in 1000s):	2.2	2.2	2.2	n/a

Annual growth since:	2011	2012	2013	2014
	-even-	-even-	-even-	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2021	Total Growth: 2016 to 2021
Northbound AM	+1.00%	+5.10%
Northbound PM	+1.00%	+5.10%
Southbound AM	+1.75%	+9.06%
Southbound PM	+1.00%	+5.10%

Project Name & Applicant Team:
4330 48th Street NW

Applicant: Felipe Serpa, Valor Development LLC
Land Use Counsel: Holland & Knight LLP
Transportation Consultant:
Erwin Andres, Gorove/Slade (202-540-1925), ena@goroveslade.com
Jim Watson, Gorove/Slade (202-296-8628), jww@goroveslade.com

Case Type & No. (PUD, LTR, etc.): Design Review

Street Address:
4330 48th Street NW

Current Zoning and/or Overlay District: MU-4

Date of Filing: Summer 2016

Estimated Date of Hearing: February 2, 2017

Description of Project:
The project site is located at 4330 48th Street NW, bounded by Yuma Street NW to the north, 48th Street NW to the east, the American University College of Law to the south, and a public alley to the west. The site for the proposed development is currently home to a surface parking lot and a commercial building with ground-floor retail.

The resulting development will be a mixed-use (residential, retail, and grocery) development with an approximate build-out date of 2019. The development program consists of the following land uses:

- Retail –Approximately 4,000 sf of ground-floor retail
- Grocery – Approximately 56,000 sf of grocery space
- Residential – Approximately 230 multi-family residential dwelling units

According to 2016 DC Zoning Regulations (ZR16) and the development program outlined above, the site is required to provide a minimum of 151 parking spaces. An existing agreement between American University and the site lot requires the proposed development to carry forth 236 parking spaces for the use of American University. As such, the retail/grocery component will have access to 147 parking spaces, and the residential component will have access to 77 dedicated parking spaces as well as access to the 236 American University parking spaces when they are not in use. A total of 460 parking spaces are proposed to be provided in the parking garage to serve the development and agreed upon American University uses.

Loading facilities will be provided via one 30-foot berth, two 55-foot berths, and one 20-foot service and delivery space. The loading berths abut the public alley to the west of the site and will be accessible through back-in and front-out maneuvering to and from surrounding streets. The development will exceed the number of loading facilities required under ZR16.
The site plan incorporates improvements to pedestrian facilities adjacent to the site. These improvements are made possible through the widening of the

sidewalk and buffer, and the removal of two curb cuts along the perimeter of the site.	
1. Strategic Planning Elements (Planning Documents)	**DDOT Comments/Action Items**
Planning Guidelines: The CTR will address how the proposed development considers the primary city-wide planning documents, as well as localized studies. See Section 3.1 of the CTR guidelines for more information. **Proposed Documents:** The study will address how the proposed development considers the primary planning documents of the District, as well as localized studies. The study will include a section addressing the following documents: o ZR16 (Subtitle C Chapters 7, 8 and 9) o DC Comprehensive Plan o DDOT Comprehensive Transportation Review Guidelines o DDOT Design & Engineering Manual o DC's Transit Future System Plan o Bicycle Master Plan o Pedestrian Master Plan o MoveDC plan o SustainableDC plan	DDOT concurs.
2. Roadway Network, Capacity & Operations	**DDOT Comments/Action Items**
Vehicle Trip Generation Assumptions **Guidelines:** Provide *preliminary* site-generated vehicle trips and mode split assumptions. In addition, provide the assumptions and supporting documentation behind the proposed mode split. See Section 3.2.1 of the CTR guidelines for further information. **Proposed preliminary mode split and supporting documentation:** The proposed multi-modal trip generation methodology uses ITE rates and mode-split assumptions. A detailed breakdown of these assumptions and trip generation calculations is attached to this form. While detailed mode split data from the *Census Transportation Planning Products (CTPP)* is mapped on a graphic and attached to this form, the ~~modal splits are expected to be 50% auto/25% transit/15% bicycle/10% walk for residential uses and 65% auto/10% transit/5% bicycle/20% walk for grocery/retail uses.~~ ~~(11.11.2016) the modal splits are expected to be 50% auto/30% transit/13% bicycle/12% walk for residential uses and 65% auto/10% transit/5% bicycle/20% walk for grocery/retail uses.~~	DDOT suggests the mode splits should be modified as follows: Residential: 50 auto, 30 transit, 12.5 bike, 7.5 walk Grocer: same as proposed. G/S: Noted. G/S (11/18/2016): Per further discussions with DDOT, mode splits and trip generation rates were reexamined based on data collection at comparable sites. See discussion in parking section (Section 6) for more information. This data generally supports the splits and generation proposed.

~~G/S (11/18/2016): the modal splits are expected to be 50% auto/30% transit/13% bicycle/12% walk for residential uses and 55% auto/15% transit/5% bicycle/25% walk for grocery/retail uses. See discussion in parking section (Section 6) for more information.~~

G/S (12/5/2016): The modal splits are expected to be 50% auto/30% transit/13% bicycle/12% walk for residential uses and 65% auto/10% transit/5% bicycle/20% walk for grocery/retail uses. See discussion in parking section (Section 6) for more information.

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	94 veh/hr	97 veh/hr	191 veh/hr	224 veh/hr	196 veh/hr	420 veh/hr
Transit	31 ppl/hr	46 ppl/hr	77 ppl/hr	82 ppl/hr	65 ppl/hr	147 ppl/hr
Bike	15 ppl/hr	20 ppl/hr	35 ppl/hr	38 ppl/hr	31 ppl/hr	69 ppl/hr
Walk	48 ppl/hr	37 ppl/hr	85 ppl/hr	108 ppl/hr	102 ppl/hr	210 ppl/hr

Vehicle Site Access

Guidelines: If vehicle access is needed, at a minimum the CTR will provide locations of access point(s) and desired access controls (full, right-in/right-out, etc.). See Section 3.2.2 of the CTR guidelines for any further requirements.

Access Location(s): The site will be accessed through the public alleys that connect to Yuma Street NW and Massachusetts Avenue NW. Access along 48th Street NW will be provided by a section of existing private alley that then connects to the public alley network abutting the site along the west. The loading facilities and ramp leading to the below-grade parking garage abut the public alley.
Access Control: Unsignalized.
Existing Curb cuts utilized: The site will utilize curb cuts that connect the public alley to the north of the site from Yuma Street NW and the south of the site from Massachusetts Avenue NW. One existing curb cut accessing the private section of the alley network to the east of the site on 48th Street NW will also be utilized.
Existing curb cuts abandoned: A total of two curb cuts are being abandoned. One wide curb cut (that includes a pedestrian refuge) will be abandoned along Yuma Street NW. One curb cut will be abandoned along 48th Street NW.
Proposed curb cuts: None.
Curb cut width and radii: TBD

DDOT concurs with this vehicular access approach utilizing the alleys. Note that the portion of the alley behind 4801 Mass Ave (AU Washington College of Law) is a private alley. Also note that queuing analysis should be conducted within the alleys. Additionally, any existing access points that will be modified should be highlighted.
G/S: Noted

CTR Triggers for further vehicle analysis (for sections below) **Guidelines:** See Section 3.2.3 of the CTR guidelines to determine if a more comprehensive vehicle analysis is required. If so, completion of the remainder of the *Roadway Network, Capacity & Operation* section of the scoping form is required.	
Development Scenarios **Guidelines:** See Section 3.2.4 of the CTR guidelines for discussion of the required development scenarios. **Proposed Development Scenario:** The proposed CTR will include the following scenarios: o Existing Conditions (2016) o 2019 Future Conditions without the development (2019 Background) o 2019 Future Conditions with the development (2019 Future)	DDOT concurs.
Vehicle Study Area **Guidelines:** See Section 3.2.5 of the CTR guidelines for discussion of the study area. **Proposed Study Area intersections, including access points (attach Figure at end of Scoping Form as needed):** The study area will include intersections where site impacts are most likely to occur. Additional intersections may be appropriate given the projected trip generation of the project. Traditionally, intersections where the site is projected to generate over 10% of future traffic are included. Gorove/Slade assembled the following list of study area intersections based on the preliminary trip generation, trip distribution, and assignment. Our proposed list of study area intersections ended up including 12 intersections: ~~1. Massachusetts Avenue/Albemarle Street~~ ~~2. Massachusetts Avenue/Yuma Street~~ ~~3. Massachusetts Avenue/49th Street (counts collected 4/21/2015)~~ ~~4. Massachusetts Avenue/Alley~~ ~~5. Massachusetts Avenue/48th Street/Fordam Road (counts collected 4/21/2015)~~ ~~6. Massachusetts Avenue/Van Ness Street~~ ~~7. Yuma Street/49th Street~~ ~~8. Yuma Street/Alley~~ ~~9. Yuma Street/48th Street~~ ~~10. Windom Place/48th Street~~ ~~11. Alley/48th Street~~	Additional study area intersections are appropriate to fully capture potential traffic impacts. DDOT would add the following: · 50th & Mass (it is signalized and in between Albermarle and Yuma, which will affect progression on Mass) · 48th & Albermarle (if you are including Mass & Albermarle because of outbound trips, they will likely go up 48th or 49th and turn onto Albermarle to get to Mass; additionally, inbound trips from the neighborhood will often be on Albemarle and turn onto 48th to reach the site; could include 49th/Albemarle also, but we're thinking more traffic will be at 48th; we also note that as we consider the fact Albemarle is one-way for the last block and that it's not signalized, perhaps Albemarle/Mass. may not need to be included. Let us know your thoughts.) · 46th & Yuma (trips from the north will use 46th to Yuma because it is a collector) · 49th & Fordham (trips from the south will converge in this location)

~~12. Warren Street/48th Street~~ (11.11.2016) 1. Massachusetts Avenue/50th Street 2. Massachusetts Avenue/Yuma Street (western side of Massachusetts Avenue) 3. Massachusetts Avenue/Yuma Street (eastern side of Massachusetts Avenue) 4. Massachusetts Avenue/49th Street 5. Massachusetts Avenue/Alley 6. Massachusetts Avenue/48th Street/Fordham Road 7. Massachusetts Avenue/Van Ness Street 8. Yuma Street/49th Street 9. Yuma Street/Alley 10. Yuma Street/48th Street 11. Windom Place/48th Street 12. Alley/48th Street 13. Warren Street/48th Street 14. Fordham Road/49th Street 15. Albemarle Street/49th Street 16. Albemarle Street/48th Street 17. Yuma Street/46th Street A figure attached to this scoping form shows the locations of these intersections. Driveway counts will be collected at all the ingress/egress points of the existing parking garage as to determine existing site related trips and the number of existing American University associated trips that will be carried over to the below grade garage.	G/S: Noted. Please see new list of study intersections. New counts will be conducted at all study intersections.
<u>Data Collection and Hours of Analysis</u> **Guidelines:** See Section 3.2.6 of the CTR guidelines for discussion of the required data collection and hours of analysis. **Proposed turning movement count intersections:** Typically, the peak hour of commuter traffic is used for both weekday morning and afternoon rush hours. Other hours of analysis may be appropriate given the overall trip generation of the proposed development and the expected hours of vehicular demand to and from the site. Land use may also determine the appropriate hours of analysis as some uses experience their peak demand on weekends and off-peak from the typical uses. Weekday morning and afternoon commuter peak hours will be analyzed using the individual intersection peaks at all study area intersections.	DDOT concurs.

Pedestrian and bicycle [define TMCs] ("TMCs") will be collected from 6:30-9:30 AM and 4:00-7:00 PM for 8 of the 10 the intersections noted above (data for 2 intersections was collected 4/21/2015).TMCs will be conducted on a "typical weekday" when DC public schools, Congress, and American University are in session.	
Roadway Improvements **Guidelines:** The study will account for approved and funded roadway improvement projects within the study area that are expected to begin before the proposal's horizon year. See Section 3.2.7 of the CTR guidelines. **Proposed roadway improvements:** There are no improvements in the study area that are known to be funded and proposed to be completed prior to the full build-out of the site; therefore, the CTR will not incorporate any background improvements into the vehicular capacity analysis.	DDOT concurs.
Background Developments **Guidelines:** The study will account for vehicle trips generated by developments in the study area that have an origin/destination within the study area. See Section 3.2.8 of the CTR guidelines. **Proposed background development:** Gorove/Slade has identified one nearby development: 1. The Spring Valley Shopping Center Expansion 2. American University Parking The expansion of the Spring Valley Shopping center will add approximately 14,000 sf of retail to the existing site. It is expected to open before the 4330 48th Street development and will be included as a background development. Additionally, the analysis will include the existing site related (American University) trips as background trips. This is due to the fact that the existing site trips are associated with the 236 American University parking spaces that will be carried into the future parking garage, regardless of the proposed development.	DDOT concurs.
Background Growth **Guidelines:** The study will account for annual growth or decrease in through traffic on minor and principal arterials that pass through the proposed study area. See Section 3.2.9 of the CTR guidelines. **Proposed annual background growth:**	The growth rates for several of these streets are quite high. Please look at recent ADTs to see if these trends are present. We wouldn't want to overstate background growth in comparison to the development traffic. With

Traffic volumes contained in the MWCOG regional model will be examined to develop an average annual growth rate for study area roadways. A summary of the MWCOG model and AADT volumes and trends for regional roadways in the study area is attached to this scoping form. This methodology is preferred for calculating growth rates since it takes into account all future projects and developments in the MWCOG model, and allows for district growth rates by direction and time of day.

Growth rates for this study are based on the differences between the year 2015 and 2020 MWCOG model scenarios. In addition, where the MWCOG model showed negative or minimal growth, a conservative assumption of 0.1% per year minimum growth was used. Based on this methodology, the following is a summary of the growth rates proposed to be used in the study:

~~Road~~	~~Intersections~~	~~Proposed Annual Growth Rate~~		~~Total Growth between 2016 and 2019~~	
		~~AM Peak Hour~~	~~PM Peak Hour~~	~~AM Peak Hour~~	~~PM Peak Hour~~
~~Massachusetts Ave NW – Northbound~~	~~2-5~~	~~3.00%~~	~~0.10%~~	~~15.76%~~	~~0.30%~~
~~Massachusetts Ave NW – Southbound~~	~~2-5~~	~~0.10%~~	~~1.75%~~	~~0.30%~~	~~5.34%~~
~~49th St NW – Northbound~~	~~2,6~~	~~0.10%~~	~~0.25%~~	~~0.30%~~	~~7.69%~~
~~49th St NW – Southbound~~	~~2,6~~	~~0.50%~~	~~0.10%~~	~~10.87%~~	~~0.30%~~
~~46th St NW – Northbound~~	~~2,6~~	~~0.10%~~	~~0.25%~~	~~0.30%~~	~~7.69%~~
~~46th St NW – Southbound~~	~~2,6~~	~~0.50%~~	~~0.10%~~	~~10.87%~~	~~0.30%~~
~~All Others~~	~~7-10~~	~~0.10%~~	~~0.10%~~	~~0.30%~~	~~0.30%~~

Please note that the above roads were selected while smaller local streets were omitted because regional growth will affect major corridors and will not impact smaller local streets adjacent to the site.

(11.11.2016)
For comparison purposes, the following table represents the historical AADT volumes for the study area.

Roadway	AADT Volumes					Average Annual Growth Rate
	2010	2011	2012	2013	2014	
Massachusetts Ave	16,900	17,000	18,600	18,700	19,000	3.04%
49th St	4,300	4,300	4,300	4,300	N/A	no change
Albemarle St	2,200	2,200	2,200	2,200	N/A	no change

that additional information, let's coordinate further on appropriate growth rates.
G/S: We included DDOT historical AADTs for comparison purposes on the left. Growth rates were revised downwards to account for the AADT data and are included on the left

DDOT concurs.

46th St	1,600	1,400	1,400	1,400	1,800	4.02%

As such, we propose the following growth rates:

Road	Intersections	Proposed Annual Growth Rate		Total Growth between 2016 and 2019	
		AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Massachusetts Ave NW – Northbound	1-7	3.00%	0.10%	9.27%	0.30%
Massachusetts Ave NW – Southbound	1-7	0.10%	1.75%	0.30%	5.34%
49th St NW – Northbound	4,8,14,15	0.10%	0.25%	0.30%	0.75%
49th St NW – Southbound	4,8,14,15	0.50%	0.10%	1.51%	0.30%
46th St NW – Northbound	17	1.00%	1.00%	3.03%	3.03%
46th St NW – Southbound	17	1.75%	1.00%	5.34%	3.03%
All Others		0.10%	0.10%	0.30%	0.30%

Site Trip Distribution & Assignment

Guidelines: Trips generated by the site will be distributed throughout the study area network. See Section 3.2.10 of the CTR guidelines for information in trip distribution and assignment.

Proposed site distribution and assignment (attach Figures, as needed, at end of Scoping Form):
Trip distribution for the site was determined based on: (1) CTPP TAZ flow data, and (2) existing traffic volumes and travel patterns in the study area. Attached to this scoping form are figures depicting the CTPP TAZ flow data?

Separate distributions were developed for the residential and retail/grocery components of the project. The residential trip distribution was influenced significantly by the CTPP TAZ flow data for drivers commuting from the site's TAZ, and adjusted based on traffic volumes and patterns. This flow information showed significant commuting patterns to downtown DC.

The retail and grocery distributions were mostly based on locations of other retail centers, with some influence by the WMATA ridership survey for similar sites. Thus, the retail and grocery trip distribution is much more weighted to the east and west relative to the residential trip distribution.

The proposed trip distributions are illustrated on an attached graphic.

Please provide clearer illustration on this graphic and in your description of the streets that are anticipated to carry the traffic from each direction. Based on this, please reexamine the percentages of traffic from each direction. Additionally, label the percent of traffic anticipated coming from Massachusetts both north and south and then any other streets.
G/S: Noted. See attached graphics.

G/S (11/18/2016): See attached graphics depicting new distributions based on conversation with DDOT. This is to account for changes to the assumed area of service for the grocer and increase in traffic distributed towards Bethesda along Massachusetts Avenue.

G/S (12/5/2016): See attached graphics depicting new distributions based on conversation with DDOT.

DDOT concurs with the updated figure.

As discussed above, American University will retain access to 236 parking spaces that are present under existing conditions. Existing trips will be rerouted to the future site driveway.	
Analysis Methodology **Guidelines:** Capacity analyses are typically performed using Highway Capacity Manual (HCM) methodologies or a similar industry recognized software. See Section 3.2.11 of the CTR guidelines. **Proposed analysis methodology:** Capacity analyses are typically performed using Highway Capacity Manual (HCM) methodologies using an industry recognized software package. The proposed analysis will be conducted using Synchro 9, with the results in delay and LOS reported using HCM 2000 methodologies. Weekday morning and afternoon commuter peak hours will be analyzed using the individual intersection peaks at all study area intersections. Signal timings for the study area intersections will be obtained from DDOT and incorporated into the Synchro models. The capacity analysis results will show the average delay and the resulting LOS for each approach and for the overall intersection (where available), as well as the queuing results for the average and 95th percentile queue for each movement. We will highlight all LOS E or F conditions per intersection and approach that exist for a future condition, but not the corresponding background condition. Additionally, all intersections or approaches in which the delay increases by 5 percent or more due to the development will be highlighted. For each intersection or approach that meets this criteria, potential mitigation measures will be recommended and a discussion on the appropriateness and feasibility of potential improvements will provided. Furthermore, all locations where the 95th percentile queues exceed the length of storage lanes and result in spillback of the queue will be highlighted, and recommended mitigation measures when an increase in the 95th percentile queue length is greater than 150 feet due to the development will be provided, including a discussion on the appropriateness and feasibility of potential improvements. DDOT will be provided Synchro input files along with the study submittal. Field visits will be performed to update existing geometric information into the Synchro models, and update Synchro files with current traffic signal timing plans.	DDOT concurs.
Vehicle Trip Mitigation **Guidelines:** Proposed mitigation of vehicle impacts, if needed, must not add significant delay to other travel modes. Standard non-urban mitigation often includes geometric re-design which may not fit DDOT's practice of balancing safety and capacity across multiple transportation modes. See Section 3.2.12 of the CTR guidelines.	

For Informational purposes only. Mitigation will be documented in the final CTR. No information is required in the scoping form.	
3. Bicycle & Pedestrian Facilities	**DDOT Comments/Action Items**
CTR Triggers for bike and pedestrian mode share **Guidelines:** A CTR is required to include some level analysis of the bike and pedestrian network at a minimum, based on several potential factors. See Section 3.3.1 of the CTR guidelines to determine if a more comprehensive analysis is required. If so, complete the remainder of the *Bicycle & Pedestrian Facilities* section of this scoping form.	
CTR Bike and Pedestrian Study area **Guidelines:** See Section 3.3.2 of the CTR guidelines to determine bike and pedestrian study areas. **Proposed bike and pedestrian study areas:** A pedestrian study area that includes pedestrian facilities within a quarter-mile radius of the site is proposed, plus additional walking routes to major destinations, including the American University campus. Internal pedestrian circulation and facilities within the site and the desire lines between the site and adjacent bus stops, including crosswalk locations and building entrances, will also be shown. The bicycle study area focuses on the routes that cyclists will take major bicycle facilities. Internal bicycle circulation and facilities will also be highlighted.	DDOT generally concurs. Please also include routes to major destinations nearby. Maps/figures showing these areas are expected, and so please resubmit before scoping is finalized. G/S: Noted. See attached graphics G/S (11/18/2016): See attached graphics based on conversation with DDOT DDOT generally concurs. Please also include the path to Friendship Park.
Data Collection and Analysis of Bike Network and Facilities **Guidelines:** See Section 3.3.3 of the CTR guidelines for data collection requirements and analysis for bike and pedestrian modes. **Proposed Bike network and facilities analysis:** Pedestrian (external to site): A qualitative analysis of all pedestrian facilities in the pedestrian study area will be provided. This will include maps outlining which routes meet DDOT standards (a green/yellow/red map), and proposing improvements to enhance the pedestrian experiences walking to/from the site. Pedestrian (internal to site): For the internal pedestrian facilities, a review of the internal pedestrian circulation and documentation of all sidewalk widths will be provided. Bicycle (external to site): A review of the quality of the bicycle facilities in the bicycle study area will be conducted, focused on the major cycling routes, and will include suggested improvements as needed to help cyclists to and from major bike facilities.	DDOT generally concurs with what is noted. Overall, please discuss in detail how non-auto users will approach and then access the building from each direction. G/S: Noted Please also note that the proposed development includes alley-facing retail frontage, and how this retail will be accessed by pedestrians should be shown/discussed. A full pedestrian circulation plan should be included. G/S: Noted Additionally, note that there is no current CaBi station in this area. G/S: Noted

Bicycle (internal to site): The proposed internal bicycle circulation and the general number and location of bicycle racks within the site will be provided.	Finally, also note the scoping discussions of a potential HAWK signal on Massachusetts. Please assess and describe this proposal. G/S: Noted
Mitigation for Bike network **Guidelines:** If deficiencies have been documented in the study area's pedestrian or bike facilities that would preclude the proposed mode split, then mitigation of these deficiencies is required. See Section 3.3.4 of the CTR guidelines for mitigation requirements of the bike network. **For Informational purposes only. Mitigation will be documented in the final CTR. No information required in scoping form.**	
4. Transit Service	**DDOT Comments/Action Items**
CTR Triggers for transit mode share **Guidelines:** A CTR is typically required to include some level analysis of the transit network, based on several potential factors. See Section 3.4.1 of the CTR guidelines to determine the minimum analysis requirements and if a more comprehensive transit analysis is required. If so, completion of the remainder of the *Transit Service* section of this scoping form is required. See Section 3.4.1 of the CTR guidelines	
CTR Transit study area **Guidelines:** If further analysis of the transit network is triggered, see Section 3.4.2 of the CTR guidelines for determining the requisite study area. **Proposed transit study area:** Per CTR guidelines, the transit study area will include an overview of all transit schedules and stops for service provided within a half mile for heavy rail and a quarter mile for bus and streetcar.	DDOT concurs.
Analysis of Transit Network **Guidelines:** Analysis of the transit network will incorporate both a quantitative and qualitative review. See Section 3.4.3 of the CTR guidelines for further information. **Proposed transit analysis:** An outline of the existing and proposed transit facilities that serve the site will be provided, as well as identifying the bus stops that are expected to be used by transit riders. As stated in the "Bicycle & Pedestrian" section above, desire lines between the site and adjacent bus stops, including crosswalk locations and building entrances, will be identified.	DDOT concurs.

The site plan's accommodation of transit service, including any changes to bus stops necessary due to development will be discussed. Future transit routes and stops will be examined and recommendations for improvements and/or consolidation of stops will be provided, if necessary. A summary of existing bus service (average headways and spans of service) will be provided, as well as an assessment of the existing condition of all transit stops in the study area (ADA compliance, bus shelters, benches, etc.) using the standards found in WMATA's *Guidelines for the Design and Placement of Transit Stops* (2009).	
Transit Trip Mitigation **Guidelines:** Proposed mitigation of transit impacts may be needed, given certain impacts to the network. See Section 3.4.4 of the CTR guidelines for more information. **For Informational purposes only. Mitigation will be documented in the final CTR. No information is required in scoping form.**	
5. Site Access and Loading	**DDOT Comments/Action Items**
Guidelines: At a minimum, the Applicant is required to show site access for vehicles, pedestrians and bicyclists. In addition, DDOT has additional policies for site access and loading as they relate to public space. See Section 3.5 of the CTR guidelines for additional information regarding these policies. ***Freight\Delivery*** The study will identify existing and proposed commercial vehicle access to the site. See Section 3.5.1 of the CTR guidelines. ***Motorcoach*** For developments that will generate significant tourist activity (hotels, museums, etc.) the study will discuss the site plan's accommodation of motorcoach access. See Section 3.5.2 of the CTR guidelines. **Proposed Loading Analysis:** The study will contain access diagrams showing circulation for loading, parking access, and pick-up/drop-off activity for the site. The study will include a discussion of how the access plan was developed and if it meets DDOTs requirements and standards. For freight/delivery trucks, truck routing maps will be included to show how trucks will travel to and from the site. Truck maneuvering diagrams (using AutoTURN) for all site driveways provided loading access will be provided in the application. Detailed truck maneuvering diagrams showing trucks accessing each loading dock	DDOT generally concurs, and anticipates reviewing the turning diagrams. DDOT notes that the north-south portion of the alley has a significant number of dumpsters and parking spaces for the businesses at 4841-4861 Mass Ave located within the 20' ROW. Vehicles are also parking within the 20' ROW on the public portion of the east-west alley. These obstructions may all need to be removed to ensure access to the proposed development, especially for truck turning movements. Please include discussion of this area. G/S: Noted Additionally, provide sight distance evaluation for all proposed alley/driveways per DDOT Design and Engineering Manual requirements. G/S: Noted Please also include analysis of any modified access points.

for each building will be included in the application, as necessary. In addition, a discussion of loading activity including frequencies and size trucks will be discussed.

No motorcoach activity is anticipated

6. Parking

DDOT Comments/Action Items

Guidelines: Minimum requirements exist for documenting parking needs and constraints, regardless of development size. Further requirements may be needed for larger developments. See Section 3.6

Proposed Parking Analysis:
The study will discuss the amount of parking planned for the site and will review the site's compliance with ZR16 minimum parking requirements.

The following table outlines parking for the proposed development:

Development Plan	Parking Provided	Ratio Provided
Residential – 230 du Retail/Grocery – 60,000 sf	Residential – 77 spaces Retail/Grocery – 147 spaces American University – 236 spaces*	Residential – 0.34 spaces/du Retail/Grocery – 2.45 spaces/ksf

* As discussed above

As a comparison, the Park Right DC Parking Tool recommends providing up to 145 parking spaces for the residential uses of the development (approximately 0.55 spaces/du).

~~G/S (11/18/2016):~~
~~Based on correspondence with DDOT, comparable sites were examined in order to determine whether the amount of parking provided for the retail/grocery would be enough to supply the expected demand of the peak hour trip generation. Using anonymized information provided by DDOT PPSA and by Arlington County DES, it was determined that a 55% auto mode split for the retail/grocery component would be more appropriate. See attached table and accompanying information.~~

G/S (12/5/2016):
Based on correspondence with DDOT, additional comparable sites were examined in order to determine whether the amount of parking provided for the retail/grocery would be enough to supply the expected demand of the peak hour trip generation. Using anonymized information provided by DDOT PPSA and by Arlington

DDOT generally concurs with the parking provision, presuming it is managed well.
G/S: Noted

Will the parking spaces provided for AU be available for use by retail/grocery patrons and/or residents? Or will these spaces be permit-parking only? If permit only, will it be 24/7 or what hours will be posted? How will this be enforced? (The trip generation shows a larger turn-over in parking during the afternoon peak hour than total spaces provided. This will likely lead to parking spillover in the neighborhood.)
G/S: The non-exclusive AU parking will also be available to residents, and not for retail/grocery users. For the retail/grocery uses, zoning would require 76 parking spaces, much less than that proposed. The amount of retail/grocery parking will adequately provide enough parking without spillover into the neighborhood particularly given that patrons are likely to spend less than an hour at the store, thereby allowing the parking spaced to turnover more than once per hour.
DDOT: Noted

Please also include discussion of unbundling the parking spaces, and pricing information for the spaces as applicable.
G/S: Noted

County DES, and additional data collected by G/S, it was determined that the original 65% auto mode split for the retail/grocery component would be more appropriate. See attached table and accompanying information	
7. Transportation Demand Management	**DDOT Comments/Action Items**
Triggers for a TDM Plan **Guidelines:** All developments are encouraged to produce TDM plans, regardless of size. See Section 3.7 **Proposed TDM Plan:** The study will include a description of the recommended TDM plan for the overall development, including general recommendations for each land use. The TDM plan components will be compared to those recommended for projects of its size within DDOT's TDM guidelines.	DDOT looks forward to reviewing the proposed TDM. G/S: Noted
8. Performance Monitoring & Measurement	**DDOT Comments/Action Items**
Guidelines: Developments of a certain size may need to incorporate a performance monitoring element as a condition of zoning approval. See Section 3.8 of the CTR guidelines for more information. **For informational purposes only. Requirements for performance monitoring will be coordinated with the DDOT case manager.**	
9. Safety	**DDOT Comments/Action Items**
Guidelines: The CTR will demonstrate that the site will not create or exacerbate existing safety issues for all modes of travel. See Section 3.9 of the CTR guidelines for further information. **Proposed Safety Analysis:** Three years of crash data for all intersections within the roadway operations study area will be provided. Crash rates will be calculated per million entering vehicles for all intersections within the study area, and a breakdown of the number of bicycle and pedestrian crashes at these intersections will be provided. Crash data based on the level of detail provided by DDOT will be explored. Any intersection that has a crash rate greater than 1.0/MEV will be further examined for patterns that could indicate reasons why a high crash rate occurs. In addition, a review of each intersection for potential impacts with the development in place, including discussion if/how the development would affect the crash rate will be conducted. There will also be a review of the site access points and discuss how they will impact safety on the surrounding roadways.	DDOT concurs.
10. Streetscape/Public Realm	**DDOT Comments/Action Items**

Guidelines: DDOT expects new developments to rehabilitate streetscape infrastructure between the curb and property lines. The applicant must work closely with DDOT and OP to ensure that design of the public realm meets current standards. See Section 3.10 of the CTR guidelines for direction on streetscape rehabilitation. **These guidelines are provided to inform that public realm design standards may alter an Applicant's intended use of public space.**	Please provide a summary overview of the site's treatment of the streetscape/public realm in proximity to this development. Ensure that the proposed site design complies with DDOT Design and Engineering Manual, Public Realm Design Manual, and Transportation Review Guidelines and Standards. G/S: Noted

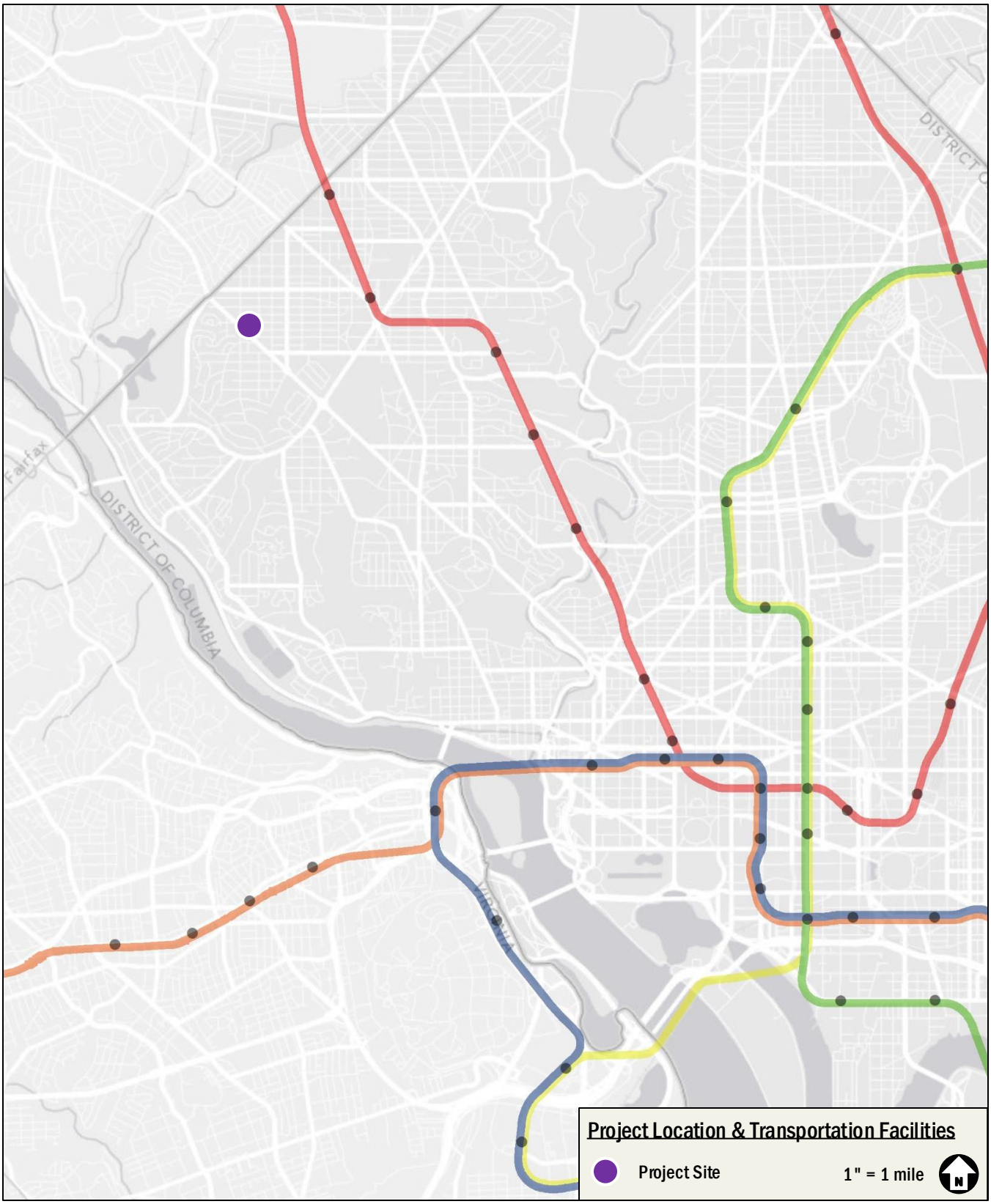
Information/Data Requests (List requested data from DDOT after each field below):

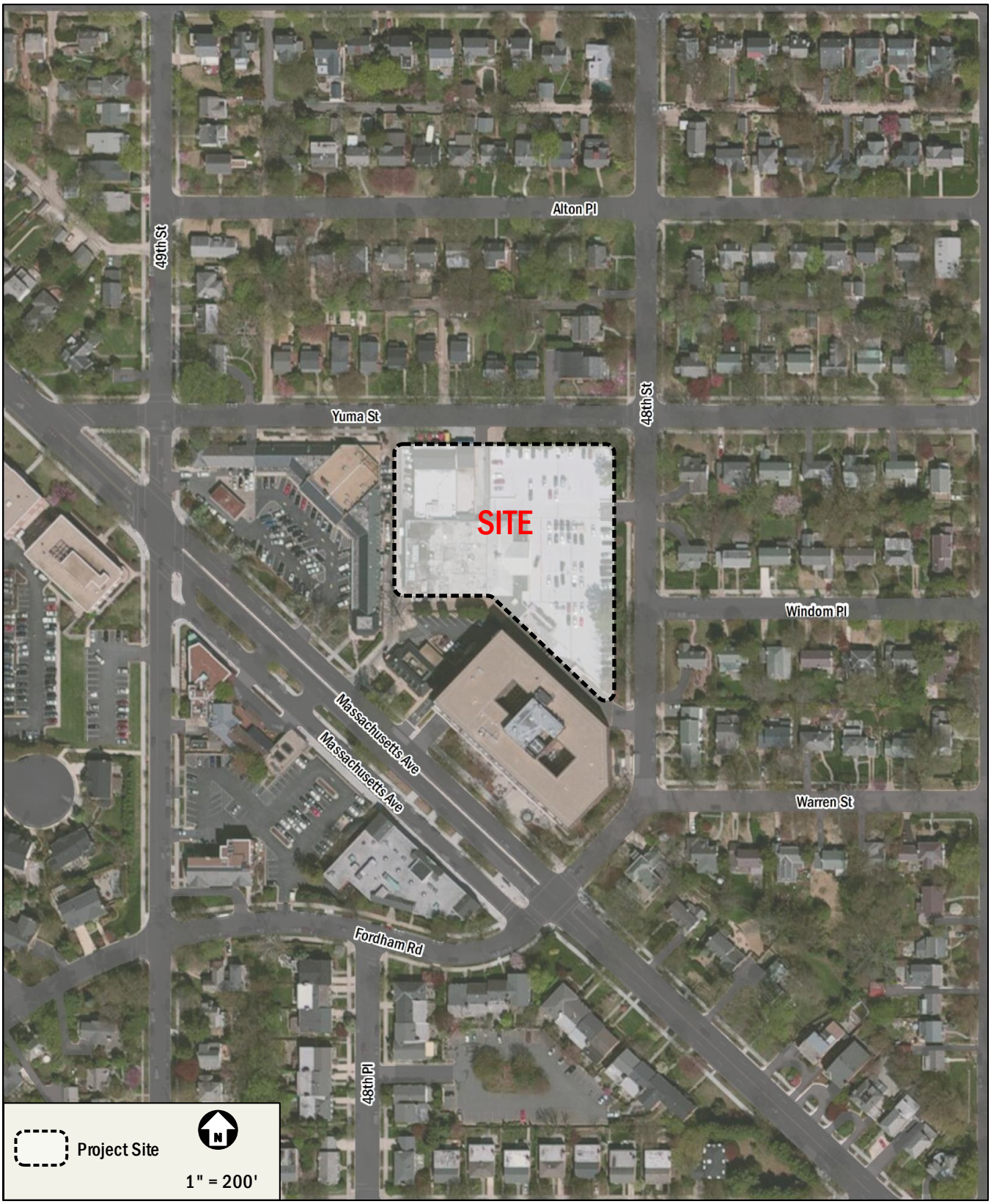
- District planning documents:
- Local planning documents, including small area plans:
- Information on programmed and/or funded roadway improvements in study area:
- Studies for background developments in study area:
- Signal Timings: provided
- Crash Data:

Proposed Schedule:

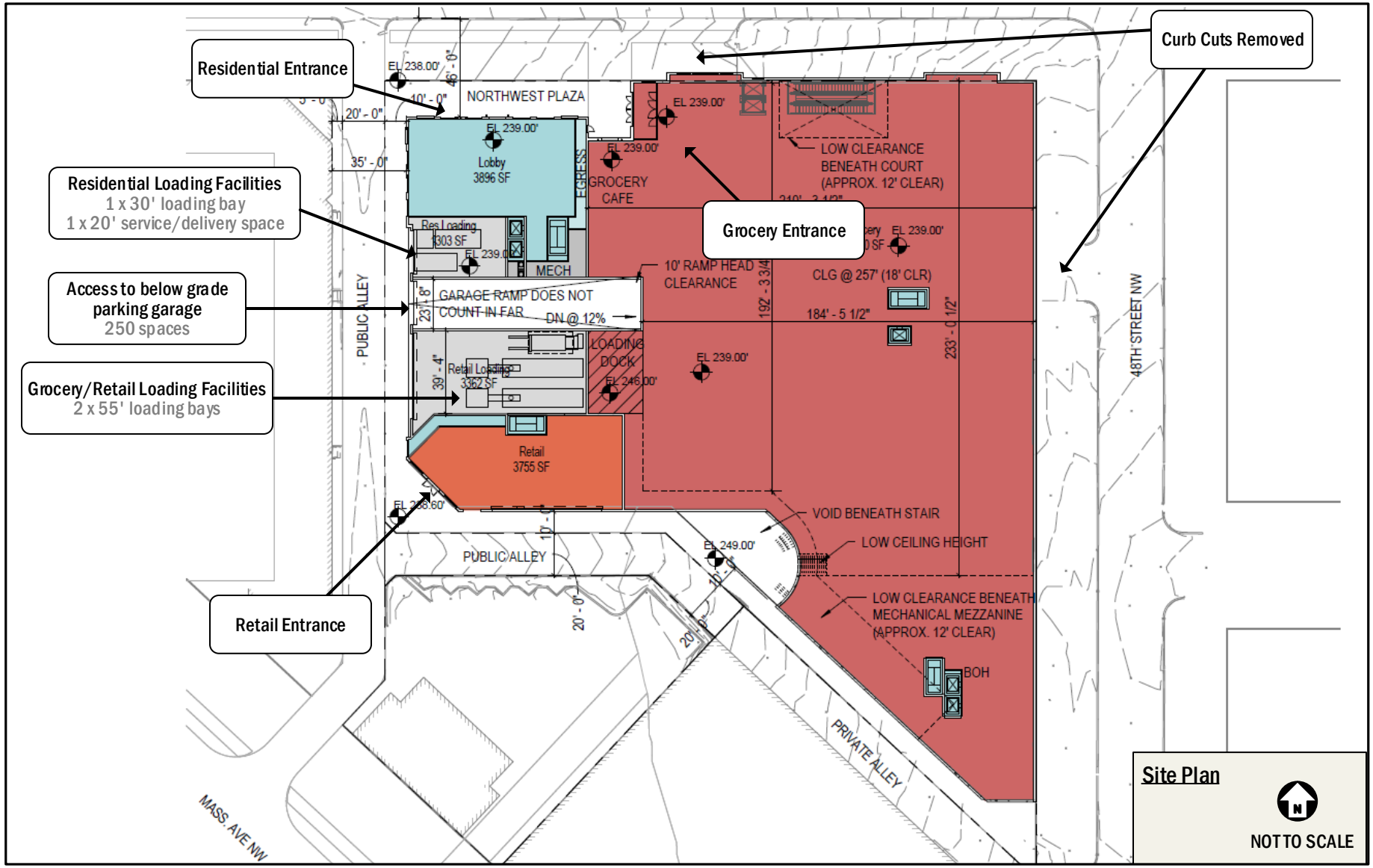
- DDOT comments on Scoping Document: 10/27/16
- Transportation Consultant/Applicant responses to comments: 11/18/16 and 12/5/16
- Phase I Completion:
- Phase II Completion: N/A
- Submission of Report to DDOT:
- Zoning Commission or BZA Hearing Date:

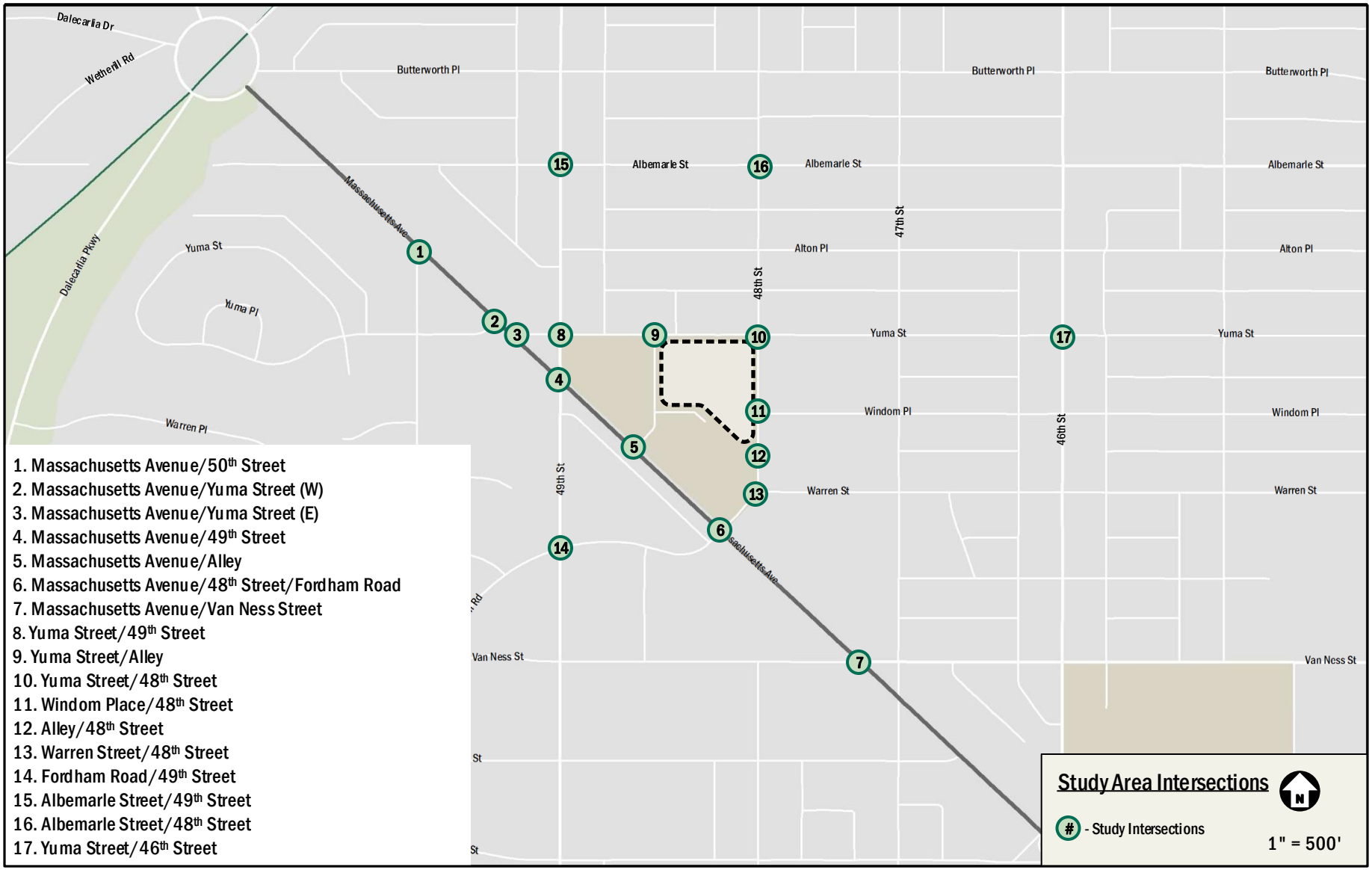
Attach any Figures, Tables, and Appendices here:

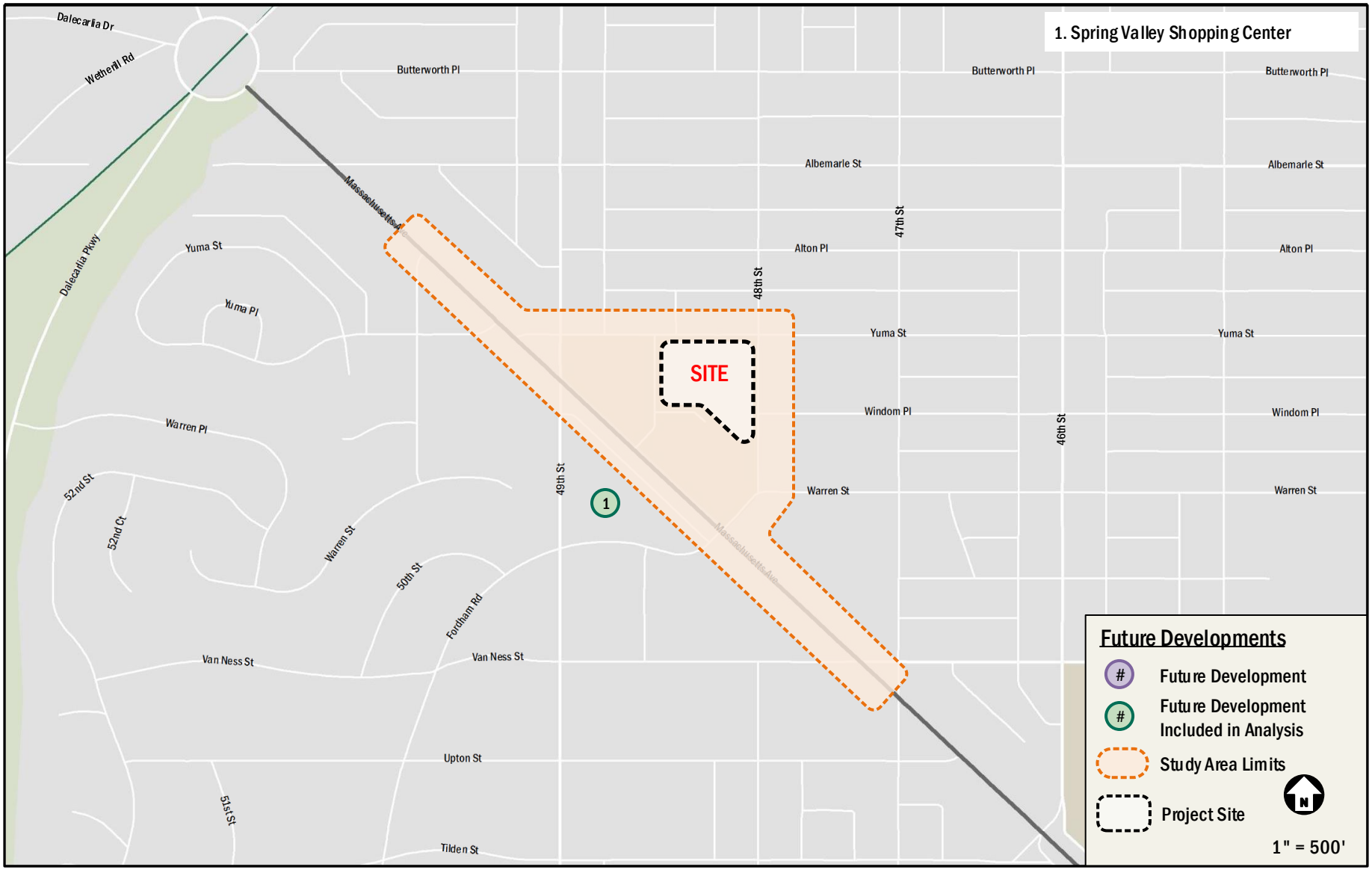

DISTRICT OF COLUMBIA
Project Location & Transportation Facilities
Project Site
1" = 1 mile
N

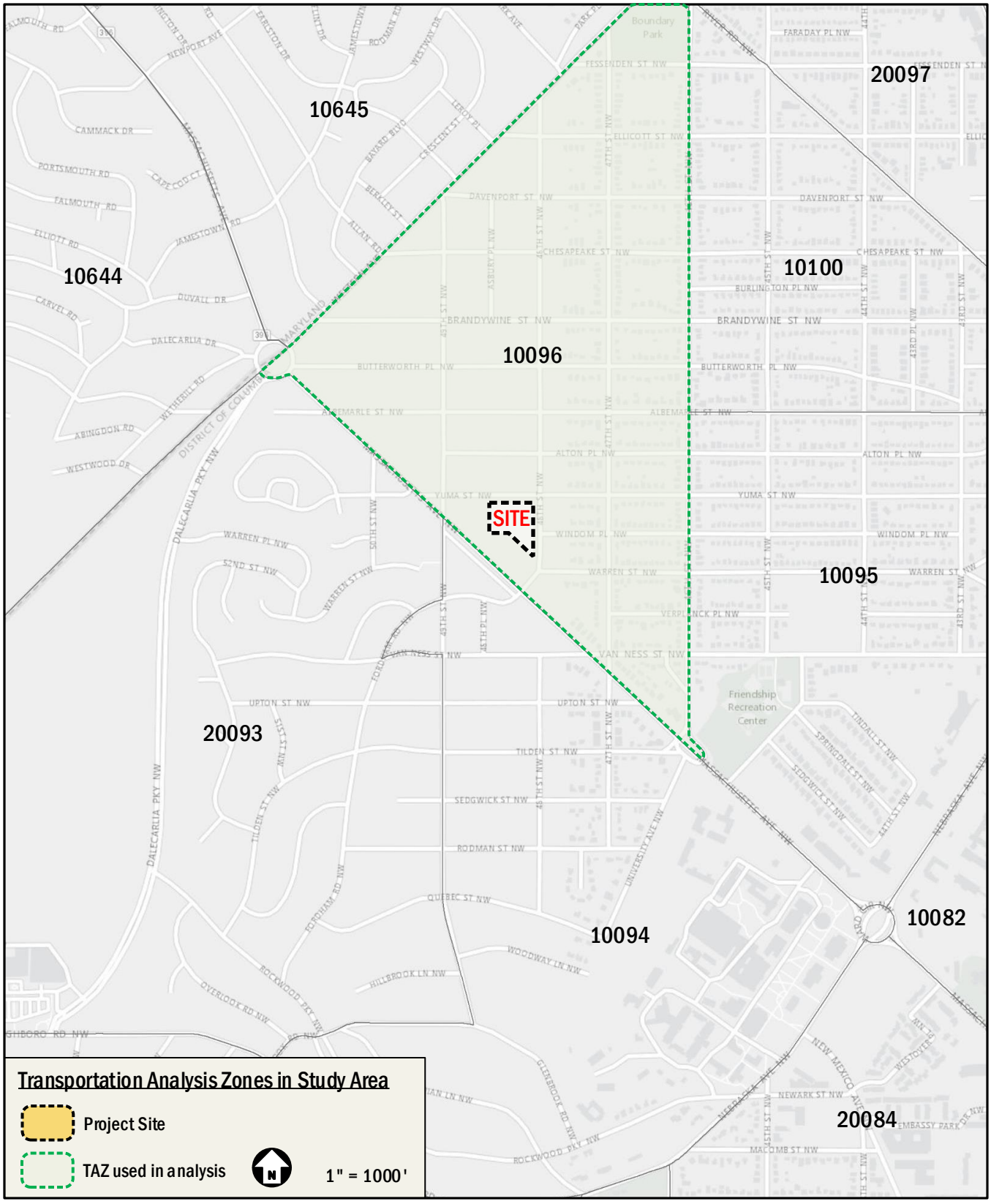

Alton Pl
49th St
48th St
Yuma St
SITE
Windom Pl
Massachusetts Ave
Massachusetts Ave
Warren St
Fordham Rd
48th Pl
Project Site
N
1" = 200'


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Massachusetts Ave
Albemarle St
Albemarle St
47th St
Dalecarlia Pkwy
Yuma St
Alton Pl
Alton Pl
48th St
Yuma Pl
Yuma St
Yuma St
SITE
Windom Pl
Windom Pl
Warren Pl
46th St
52nd St
49th St
Warren St
Warren St
52nd Ct
Warren St
Massachusetts Ave
50th St
Fordham Rd
Van Ness St
Van Ness St
Van Ness St
Upton St
Springdale St
45th St
Sedgwick St
Tilden St
Study Area
Project Site
N
1" = 500'


Residential Entrance
Residential Loading Facilities
1 x 30' loading bay
1 x 20' service/delivery space
Access to below grade parking garage
250 spaces
Grocery/Retail Loading Facilities
2 x 55' loading bays
Retail Entrance
Curb Cuts Removed
Grocery Entrance
NORTHWEST PLAZA
Lobby
3896 SF
Res Loading
303 SF
MECH
EGRESS
GROCERY
CAFE
LOW CLEARANCE
BENEATH COURT
(APPROX. 12' CLEAR)
10' RAMP HEAD
CLEARANCE
CLG @ 257' (18' CLR)
GARAGE RAMP DOES NOT
COUNT IN FAR
DN @ 12%
LOADING
DOCK
Retail Loading
3362 SF
Retail
3755 SF
PUBLIC ALLEY
VOID BENEATH STAIR
LOW CEILING HEIGHT
LOW CLEARANCE BENEATH
MECHANICAL MEZZANINE
(APPROX. 12' CLEAR)
BOH
48TH STREET NW
MASS. AVE NW
PRIVATE ALLEY
Site Plan
NOT TO SCALE


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Albemarle St
Albemarle St
Albemarle St
Massachusetts Ave
Dalecarlia Pkwy
Yuma St
Yuma Pl
Alton Pl
Alton Pl
47th St
48th St
Yuma St
Yuma St
Warren Pl
Windom Pl
Windom Pl
46th St
49th St
Warren St
Warren St
Van Ness St
Van Ness St
1. Massachusetts Avenue/50th Street
2. Massachusetts Avenue/Yuma Street (W)
3. Massachusetts Avenue/Yuma Street (E)
4. Massachusetts Avenue/49th Street
5. Massachusetts Avenue/Alley
6. Massachusetts Avenue/48th Street/Fordham Road
7. Massachusetts Avenue/Van Ness Street
8. Yuma Street/49th Street
9. Yuma Street/Alley
10. Yuma Street/48th Street
11. Windom Place/48th Street
12. Alley/48th Street
13. Warren Street/48th Street
14. Fordham Road/49th Street
15. Albemarle Street/49th Street
16. Albemarle Street/48th Street
17. Yuma Street/46th Street
Study Area Intersections
N
- Study Intersections
1" = 500'


1. Spring Valley Shopping Center
Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Albemarle St
Albemarle St
Massachusetts Ave
47th St
Dalecarlia Pkwy
Yuma St
Alton Pl
Alton Pl
48th St
Yuma Pl
Yuma St
Yuma St
SITE
Windom Pl
Windom Pl
Warren Pl
46th St
52nd St
49th St
Warren St
Warren St
1
52nd Ct
Warren St
50th St
Fordham Rd
Van Ness St
Van Ness St
Upton St
51st St
Tilden St
Future Developments
Future Development
Future Development Included in Analysis
Study Area Limits
Project Site
N
1" = 500'


10645
20097
10644
10100
10096
SITE
10095
20093
10094
10082
20084
Transportation Analysis Zones in Study Area
Project Site
TAZ used in analysis
1" = 1000'

Mode Split Assumptions

Residential Component

Description of residential component of project:

Approximately 230 residential units

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
Census Data - Census Tract (10.01/9.01)	38%	8%	27%	5%	8%	12%	2%
CTPP - TAZ Residents (10096)	36%	8%	24%	13%	4%	11%	4%
State of the Commute (of District residents)	41%	7%	41%	11%		---	
WMATA Ridership Survey (residential sites Suburban-Inside the Beltway)	39%		49%	14%		---	

Mode Split assumed in TIS:

Land Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Residential Mode Split	50%	30%	12%	8%	---

Grocery Component

Description of retail component of project:

Grocery (56,000 square feet)/Retail (4,000 square feet) - All assumed grocery for conservative analysis

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
WMATA Ridership Survey (Ballston Common)	43%		30%	27%		---	
WMATA Ridership Survey (Crystal City - Crystal Plaza Shops)	24%		41%	35%		---	
WMATA Ridership Survey (Silver Spring N'hood Center)	67%		19%	14%		---	

Mode Split assumed in TIS:

Information Source	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Grocery Mode Split	65%	10%	5%	20%	---

Notes Data from comparable sites was examined. It was determined that a conservative 65% auto mode split was appropriate based on the number of allocated parking spaces and location of site.

Table 1 - Residential Trip Generation

Note: Approximately 230 dwelling units

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	220	230 du	23 veh/hr	93 veh/hr	116 veh/hr	94 veh/hr	50 veh/hr	144 veh/hr
		Calculation Details:	*20%*	*80%*	*=0.49(x)+3.73*	*65%*	*35%*	*=0.55(x)+17.65*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	1.13 ppl/veh	26 ppl/hr	105 ppl/hr	131 ppl/hr	106 ppl/hr	57 ppl/hr	163 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential	Auto	50%	13 ppl/hr	53 ppl/hr	66 ppl/hr	53 ppl/hr	29 ppl/hr	82 ppl/hr
Residential	Transit	30%	8 ppl/hr	31 ppl/hr	39 ppl/hr	32 ppl/hr	17 ppl/hr	49 ppl/hr
Residential	Bike	12%	3 ppl/hr	13 ppl/hr	16 ppl/hr	13 ppl/hr	7 ppl/hr	20 ppl/hr
Residential	Walk	8%	2 ppl/hr	8 ppl/hr	10 ppl/hr	8 ppl/hr	5 ppl/hr	13 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Residential	1.13 ppl/veh	12 veh/hr	46 veh/hr	58 veh/hr	47 veh/hr	26 veh/hr	73 veh/hr

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	12 veh/hr	46 veh/hr	58 veh/hr	47 veh/hr	26 veh/hr	73 veh/hr
Transit	8 ppl/hr	31 ppl/hr	39 ppl/hr	32 ppl/hr	17 ppl/hr	49 ppl/hr
Bike	3 ppl/hr	13 ppl/hr	16 ppl/hr	13 ppl/hr	7 ppl/hr	20 ppl/hr
Walk	2 ppl/hr	8 ppl/hr	10 ppl/hr	8 ppl/hr	5 ppl/hr	13 ppl/hr

Table 2 - Grocery and Retail Trip Generation

Note: Grocery (56,000 square feet)/Retail (4,000 square feet) - All assumed grocery for conservative analysis

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Grocery	850	60,000 sf	126 veh/hr	78 veh/hr	204 veh/hr	272 veh/hr	262 veh/hr	534 veh/hr
		Calculation Details:	*62%*	*38%*	*=3.40(x/1000)*	*51%*	*49%*	*=0.74(x/1000)+3.25*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Grocery	1.84 ppl/veh	232 ppl/hr	143 ppl/hr	375 ppl/hr	500 ppl/hr	483 ppl/hr	983 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Grocery	Auto	65%	151 ppl/hr	93 ppl/hr	244 ppl/hr	325 ppl/hr	314 ppl/hr	639 ppl/hr
Grocery	Transit	10%	23 ppl/hr	15 ppl/hr	38 ppl/hr	50 ppl/hr	48 ppl/hr	98 ppl/hr
Grocery	Bike	5%	12 ppl/hr	7 ppl/hr	19 ppl/hr	25 ppl/hr	24 ppl/hr	49 ppl/hr
Grocery	Walk	20%	46 ppl/hr	29 ppl/hr	75 ppl/hr	100 ppl/hr	97 ppl/hr	197 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

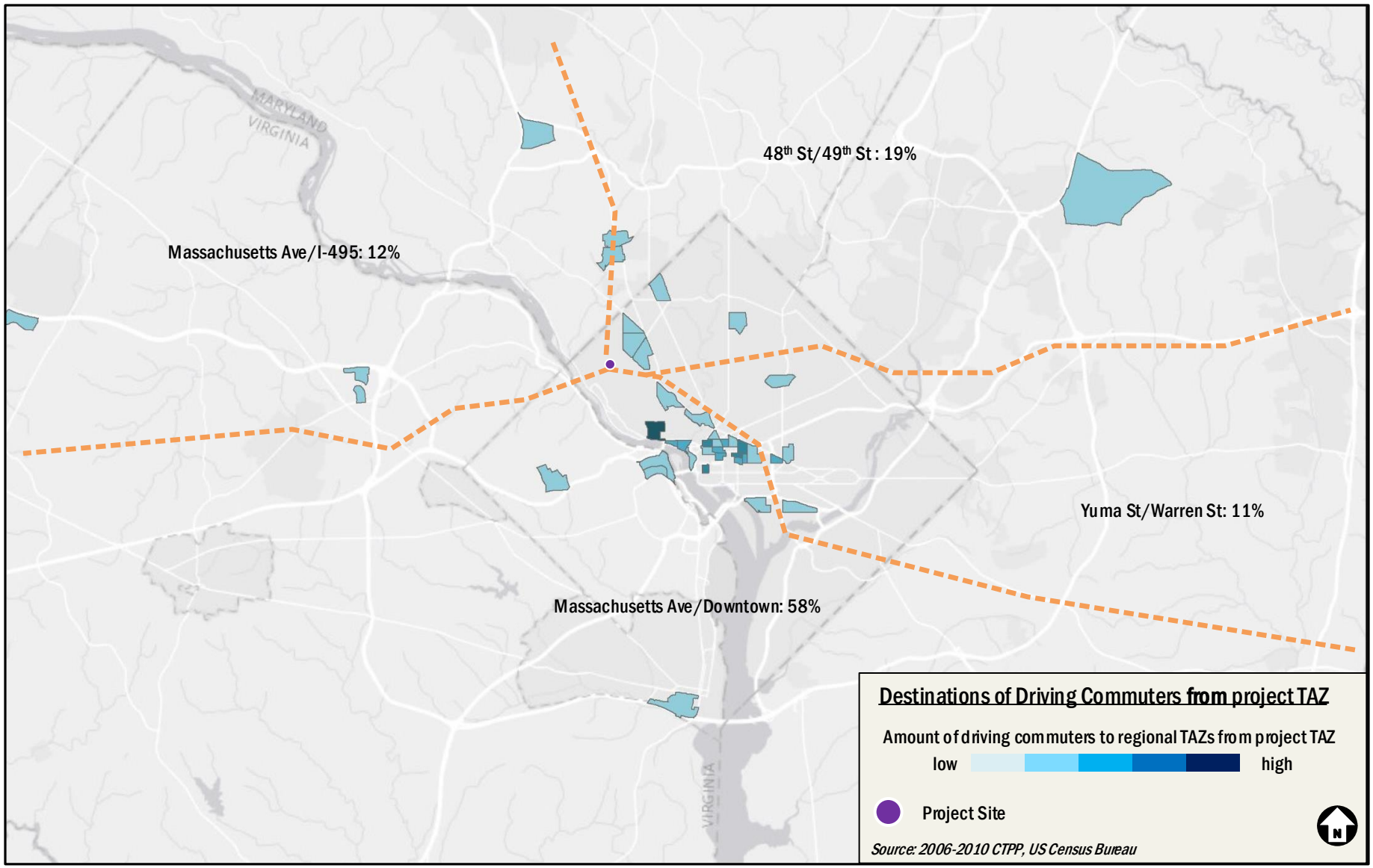
Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Grocery	1.84 ppl/veh	82 veh/hr	51 veh/hr	133 veh/hr	177 veh/hr	170 veh/hr	347 veh/hr

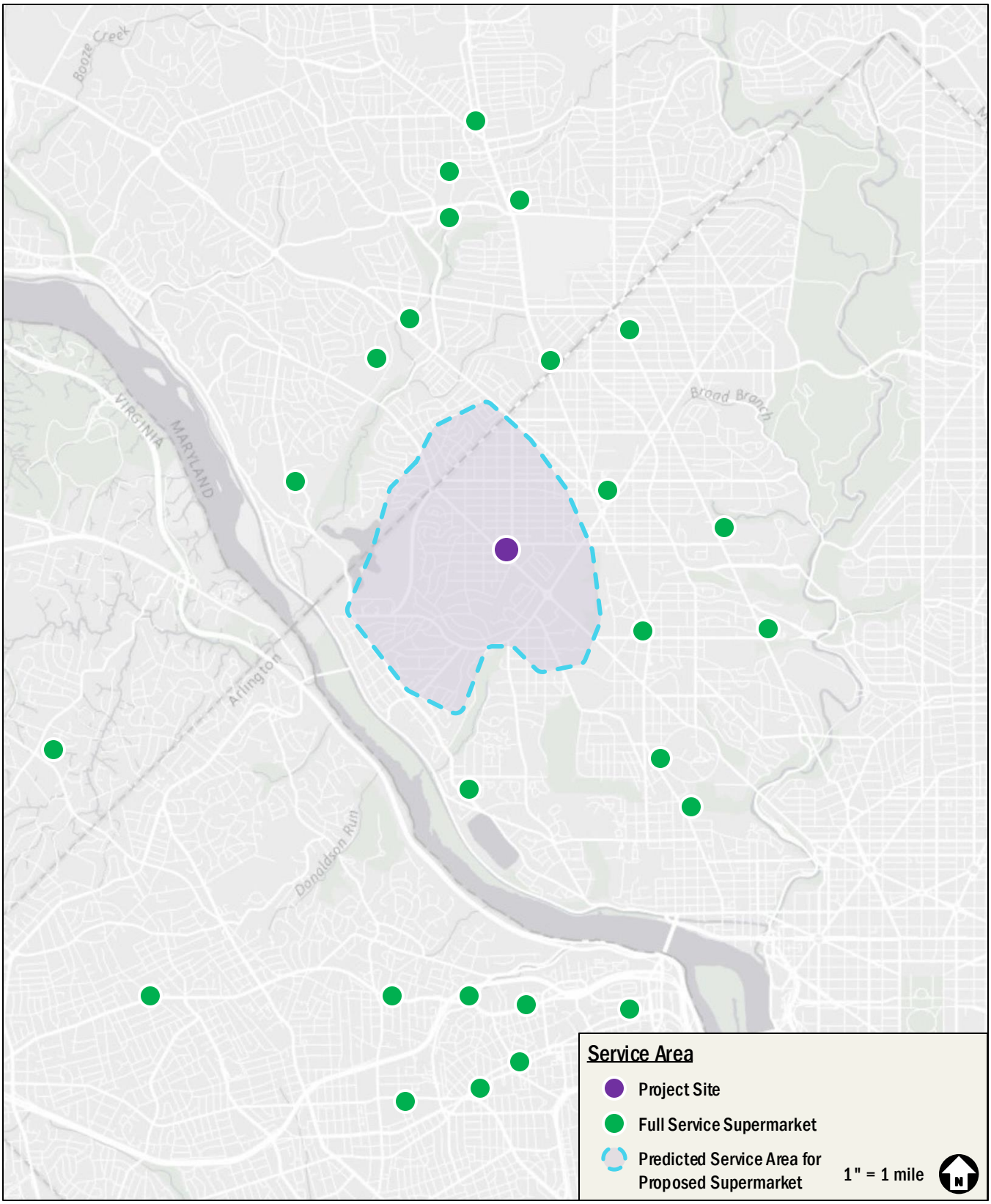
Trip Gen Summary for Grocer

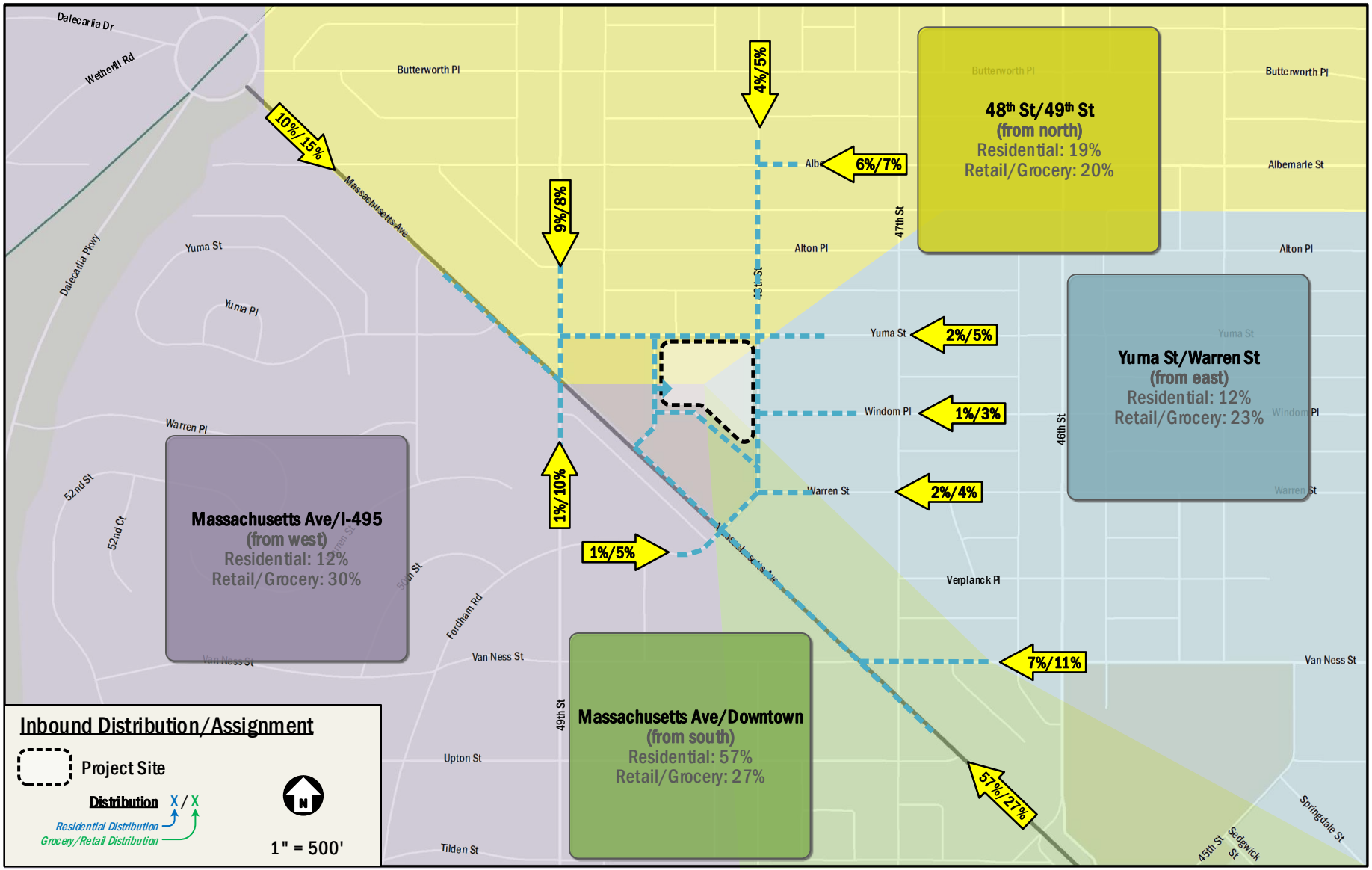
Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	82 veh/hr	51 veh/hr	133 veh/hr	177 veh/hr	170 veh/hr	347 veh/hr
Transit	23 ppl/hr	15 ppl/hr	38 ppl/hr	50 ppl/hr	48 ppl/hr	98 ppl/hr
Bike	12 ppl/hr	7 ppl/hr	19 ppl/hr	25 ppl/hr	24 ppl/hr	49 ppl/hr
Walk	46 ppl/hr	29 ppl/hr	75 ppl/hr	100 ppl/hr	97 ppl/hr	197 ppl/hr

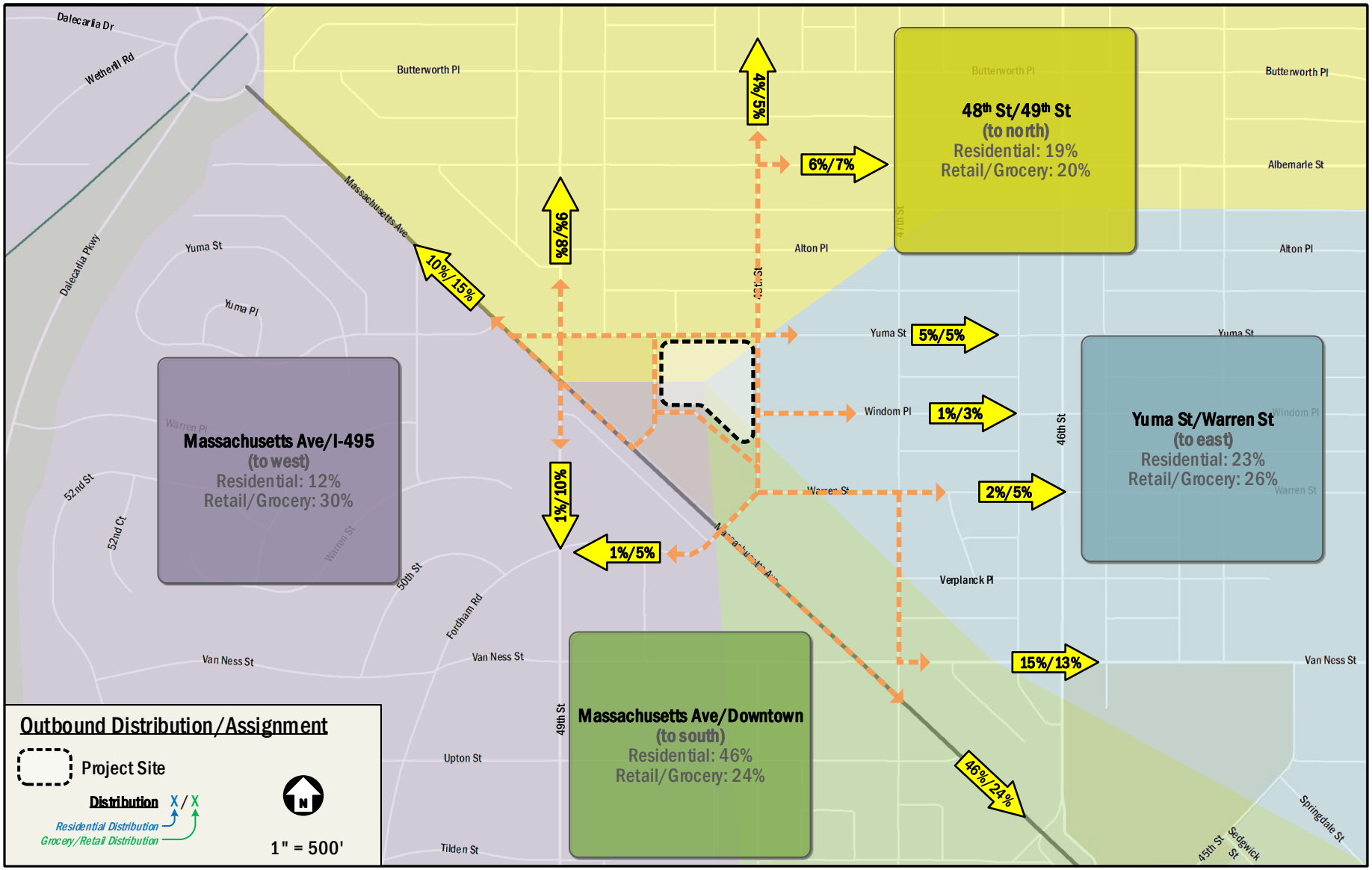
Trip Gen Summary by Land Use/Mode

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Residential	12 veh/hr	46 veh/hr	58 veh/hr	47 veh/hr	26 veh/hr	73 veh/hr
Auto	Grocery	82 veh/hr	51 veh/hr	133 veh/hr	177 veh/hr	170 veh/hr	347 veh/hr
Auto	**Total**	**94 veh/hr**	**97 veh/hr**	**191 veh/hr**	**224 veh/hr**	**196 veh/hr**	**420 veh/hr**
Transit	Residential	8 ppl/hr	31 ppl/hr	39 ppl/hr	32 ppl/hr	17 ppl/hr	49 ppl/hr
Transit	Grocery	23 ppl/hr	15 ppl/hr	38 ppl/hr	50 ppl/hr	48 ppl/hr	98 ppl/hr
Transit	**Total**	**31 ppl/hr**	**46 ppl/hr**	**77 ppl/hr**	**82 ppl/hr**	**65 ppl/hr**	**147 ppl/hr**
Bike	Residential	3 ppl/hr	13 ppl/hr	16 ppl/hr	13 ppl/hr	7 ppl/hr	20 ppl/hr
Bike	Grocery	12 ppl/hr	7 ppl/hr	19 ppl/hr	25 ppl/hr	24 ppl/hr	49 ppl/hr
Bike	**Total**	**15 ppl/hr**	**20 ppl/hr**	**35 ppl/hr**	**38 ppl/hr**	**31 ppl/hr**	**69 ppl/hr**
Walk	Residential	2 ppl/hr	8 ppl/hr	10 ppl/hr	8 ppl/hr	5 ppl/hr	13 ppl/hr
Walk	Grocery	46 ppl/hr	29 ppl/hr	75 ppl/hr	100 ppl/hr	97 ppl/hr	197 ppl/hr
Walk	**Total**	**48 ppl/hr**	**37 ppl/hr**	**85 ppl/hr**	**108 ppl/hr**	**102 ppl/hr**	**210 ppl/hr**


MARYLAND
VIRGINIA
48th St/49th St: 19%
Massachusetts Ave/I-495: 12%
Yuma St/Warren St: 11%
Massachusetts Ave/Downtown: 58%
VIRGINIA
Destinations of Driving Commuters from project TAZ
Amount of driving commuters to regional TAZs from project TAZ
low
high
Project Site
Source: 2006-2010 CTPP, US Census Bureau
N

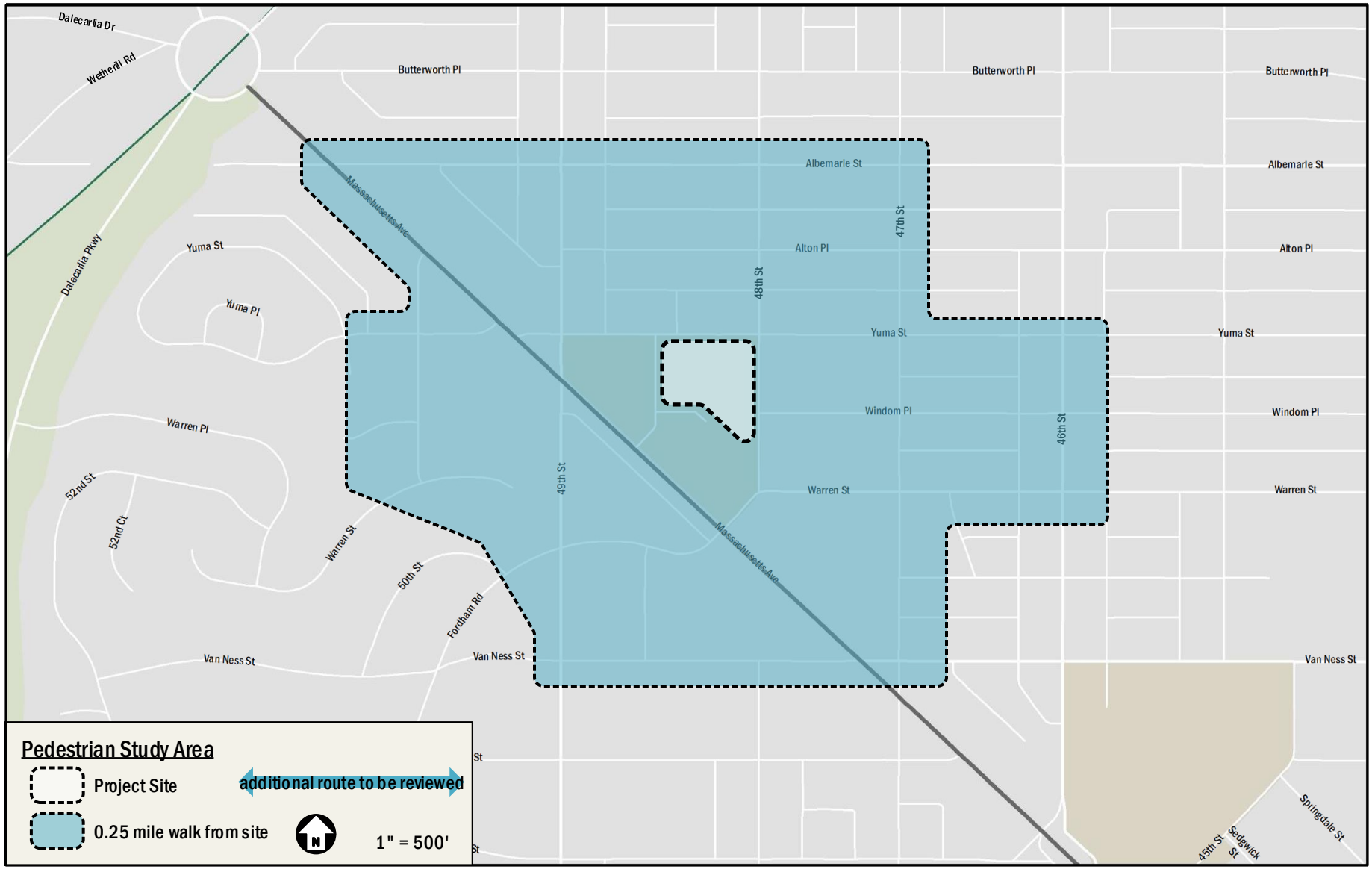

Booze Creek
VIRGINIA
MARYLAND
Broad Branch
Arlington
Donaldson Run
Service Area
Project Site
Full Service Supermarket
Predicted Service Area for Proposed Supermarket
1" = 1 mile
N


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
4%/5%
48th St/49th St
(from north)
Residential: 19%
Retail/Grocery: 20%
Albemarle St
10%/15%
Massachusetts Ave
6%/7%
9%/8%
47th St
Alton Pl
Dalecarlia Pkwy
Yuma St
Yuma Pl
43rd St
2%/5%
Yuma St/Warren St
(from east)
Residential: 12%
Retail/Grocery: 23%
Windom Pl
1%/3%
46th St
Warren Pl
52nd St
52nd Ct
Massachusetts Ave/I-495
(from west)
Residential: 12%
Retail/Grocery: 30%
1%/10%
Warren St
2%/4%
1%/5%
51st St
Fordham Rd
Verplanck Pl
Van Ness St
7%/11%
49th St
Massachusetts Ave/Downtown
(from south)
Residential: 57%
Retail/Grocery: 27%
Upton St
57%/27%
Springdale St
45th St
Sedgwick St
Tilden St
Inbound Distribution/Assignment
Project Site
Distribution X / X
Residential Distribution
Grocery/Retail Distribution
N
1" = 500'

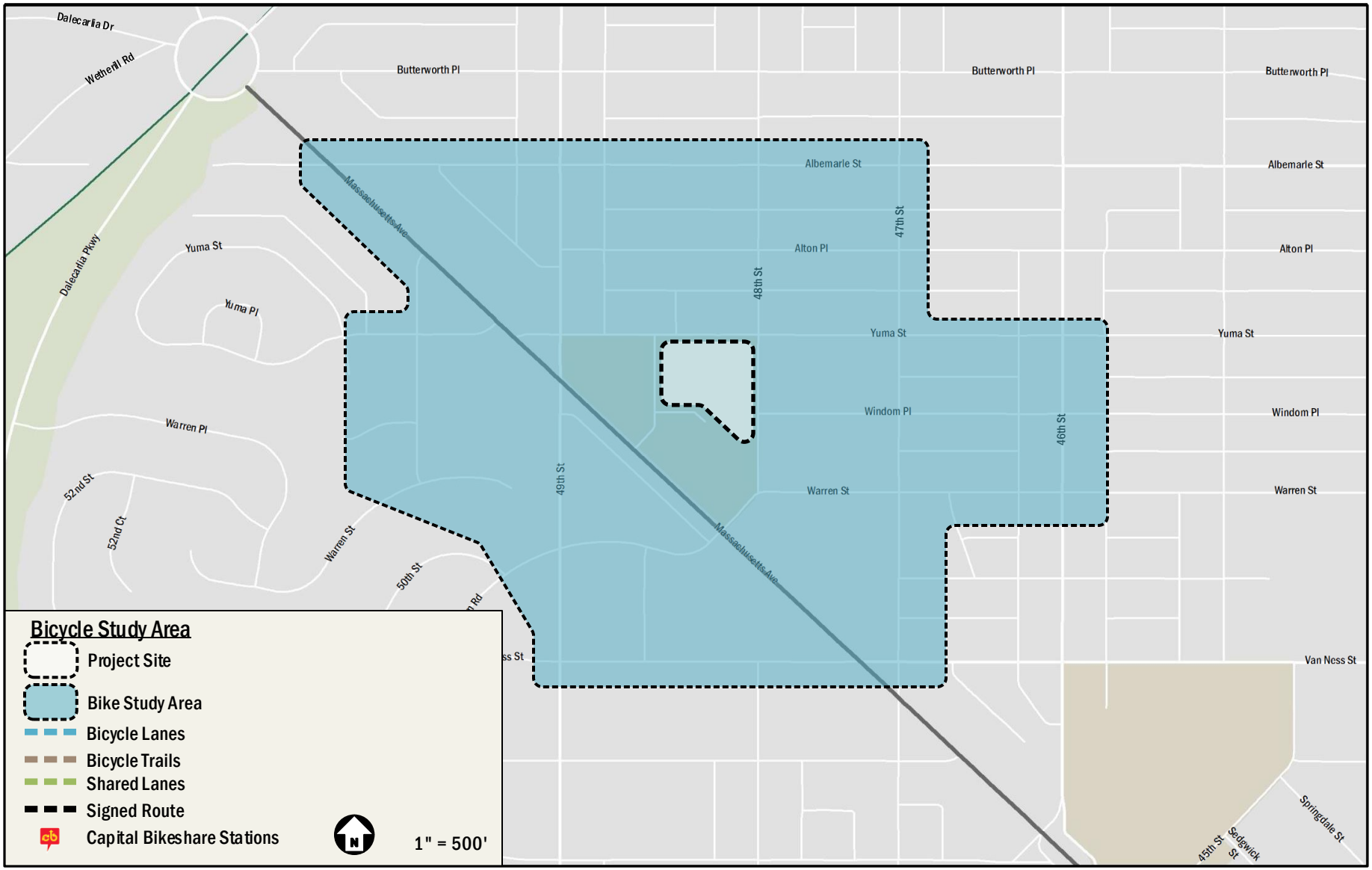

Dalecarlia Dr
Wethered Rd
Butterworth Pl
Massachusetts Ave
Dalecarlia Pkwy
Yuma St
Yuma Pl
Alton Pl
Albemarle St
47th St
48th St
Windom Pl
46th St
Warren St
52nd St
52nd Ct
50th St
Fordham Rd
Van Ness St
Verplanck Pl
49th St
Upton St
Tilden St
45th St
Sedgwick St
Springdale St
4%/5%
6%/7%
48th St/49th St
(to north)
Residential: 19%
Retail/Grocery: 20%
8%/6%
10%/15%
5%/5%
1%/3%
Yuma St/Warren St
(to east)
Residential: 23%
Retail/Grocery: 26%
2%/5%
1%/10%
1%/5%
15%/13%
46%/24%
Massachusetts Ave/I-495
(to west)
Residential: 12%
Retail/Grocery: 30%
Massachusetts Ave/Downtown
(to south)
Residential: 46%
Retail/Grocery: 24%
Outbound Distribution/Assignment
Project Site
Distribution X / X
Residential Distribution
Grocery/Retail Distribution
N
1" = 500'

Preliminary Trip Distribution								
AM Peak Hour								
Inbound	**48th St/49th St**		**Yuma St/Warren St**		**Mass Ave/Downtown**		**Mass Ave/I-495**	
	Percentage	Trips	Percentage	Trips	Percentage	Trips	Percentage	Trips
Residential	19%	2	12%	1	57%	7	12%	1
Grocery	20%	16	23%	19	27%	22	30%	25
Inbound Total	19.9%	19	21.6%	20	30.8%	29	27.7%	26
Outbound	**48th St/49th St**		**Yuma St/Warren St**		**Mass Ave/Downtown**		**Mass Ave/I-495**	
	Percentage	Trips	Percentage	Trips	Percentage	Trips	Percentage	Trips
Residential	19%	9	23%	11	46%	21	12%	6
Grocery	20%	10	26%	13	24%	12	30%	15
Outbound Total	19.5%	19	24.6%	24	34.4%	33	21.5%	21
PM Peak Hour								
Inbound	**48th St/49th St**		**Yuma St/Warren St**		**Mass Ave/Downtown**		**Mass Ave/I-495**	
	Percentage	Trips	Percentage	Trips	Percentage	Trips	Percentage	Trips
Residential	19%	9	12%	6	57%	27	12%	6
Grocery	20%	35	23%	41	27%	48	30%	53
Inbound Total	19.8%	44	20.7%	46	33.3%	75	26.2%	59
Outbound	**48th St/49th St**		**Yuma St/Warren St**		**Mass Ave/Downtown**		**Mass Ave/I-495**	
	Percentage	Trips	Percentage	Trips	Percentage	Trips	Percentage	Trips
Residential	19%	5	23%	6	46%	12	12%	3
Grocery	20%	34	26%	44	24%	41	30%	51
Outbound Total	19.9%	39	25.6%	50	26.9%	53	27.6%	54

CTR Thresholds	Threshold	Project	Met?
General CTR Requirements			
Forecasted person-trips during the peak hour	50	1146	Yes
Forecasted parking demand (spaces)	20	224	Yes
Amount of commercial development	5,000 sf	60,000 sf	Yes
Amount of residential development	20 units	230 units	Yes
CTR Trigger for Further Analysis - Vehicular			
Vehicle trips in the peak direction at peak times	25	224	Yes
CTR Trigger for Further Analysis - Bike & Pedestrian			
Amount of residential development	200 units	230 units	Yes
Amount of commercial development	50,000 sf	60,000 sf	Yes
Site ecompasses more than a small block-grid	Yes	No	No
Combined peak hour ped/bike trip generation	100	279	Yes
CTR Trigger for Further Analysis - Transit			
Peak hour transit trip generation	50	147	Yes
Project Transit Mode Split	30%	Varies	No


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Albemarle St
Albemarle St
Massachusetts Ave
47th St
Alton Pl
Alton Pl
Dalecarlia Pkwy
Yuma St
48th St
Yuma Pl
Yuma St
Yuma St
Windom Pl
Windom Pl
Warren Pl
46th St
52nd St
49th St
Warren St
Warren St
52nd Ct
Massachusetts Ave
Warren St
50th St
Fordham Rd
Van Ness St
Van Ness St
Van Ness St
Springdale St
45th St
Sedgwick St
Pedestrian Study Area
Project Site
additional route to be reviewed
0.25 mile walk from site
N
1" = 500'


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Albemarle St
Albemarle St
Massachusetts Ave
47th St
Dalecarlia Pkwy
Yuma St
Alton Pl
Alton Pl
Spring Valley Shopping Center 0.1 miles (2 min)
48th St
Yuma Pl
United Bank 0.1 miles (2 min)
SITE
Yuma St
Yuma St
Windom Pl
Windom Pl
Warren Pl
46th St
49th St
American University 0.1 miles (2 min)
Warren St
52nd St
52nd Ct
Spring Valley Shopping Center 0.1 miles (2 min)
Massachusetts Ave
Warren St
50th St
Fordham Rd
Van Ness St
Van Ness St
Van Ness St
Upton St
Friendship Park 0.6 miles (13 min)
Springdale St
45th St
Sedgwick St
Tilden St
Pedestrian Pathways
- Destination
- Development Site
- Pedestrian Route
- Pedestrian Barrier
N
1" = 1000'


Dalecarlia Dr
Wetherill Rd
Butterworth Pl
Butterworth Pl
Butterworth Pl
Albemarle St
Albemarle St
Massachusetts Ave
47th St
Alton Pl
Alton Pl
Dalecarlia Pkwy
Yuma St
48th St
Yuma Pl
Yuma St
Yuma St
Windom Pl
Windom Pl
Warren Pl
46th St
52nd St
49th St
Warren St
Warren St
52nd Ct
Warren St
Massachusetts Ave
50th St
Van Ness St
Springdale St
45th St
Sedgwick St
Bicycle Study Area
Project Site
Bike Study Area
Bicycle Lanes
Bicycle Trails
Shared Lanes
Signed Route
Capital Bikeshare Stations
N
1" = 500'

Background Growth Information & Assumptions **Massachusetts Avenue NW (1 of 3)**

4330 48th Street NW

Project Timeline

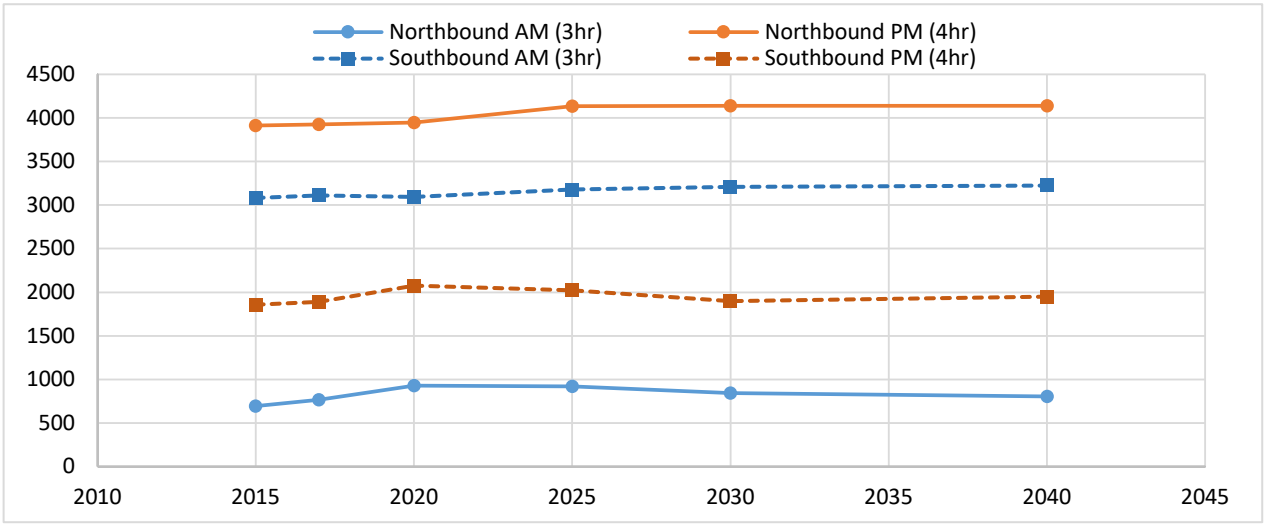
Data Collection: 2016 Project Completion 2019

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: Massachusetts Avenue NW between 50th Street NW and 49th Street NW

Direction/Period	Modeled Year 2015	2017	2020	2025	2030	2040	Annual Growth: 2015 to 2020
Northbound AM (3hr)	695	767	928	920	843	803	**+5.95%**
Northbound PM (4hr)	3915	3924	3948	4134	4141	4141	**+0.17%**
Southbound AM (3hr)	3082	3109	3092	3180	3210	3224	**+0.06%**
Southbound PM (4hr)	1857	1889	2076	2022	1900	1951	**+2.25%**



Source 2: Historical DDOT AADTs

Segment: Massachusetts Avenue NW between 46th Street and 49th Street

	2011	2012	2013	2014
AADT (in 1000s):	17.0	18.6	18.7	19.0

Annual growth since:	2011	2012	2013	2014
	+3.8%	+1.1%	+1.6%	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2019	Total Growth: 2016 to 2019
Northbound AM	+6.00%	+19.10%
Northbound PM	+0.25%	+0.75%
Southbound AM	+0.10%	+0.30%
Southbound PM	+2.25%	+6.90%

Background Growth Information & Assumptions **Massachusetts Avenue NW (2 of 3)**

4330 48th Street NW

Project Timeline

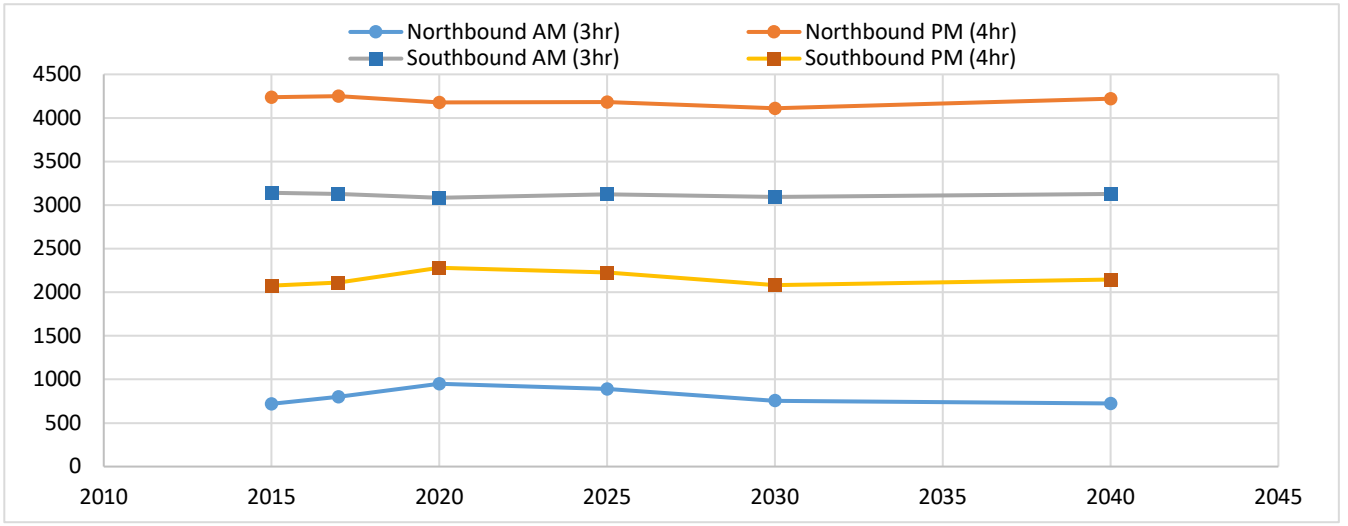
Data Collection: 2016 Project Completion 2019

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: Massachusetts Avenue NW between 49th Street NW and 48th Street NW

Direction/Period	Modeled Year 2015	2017	2020	2025	2030	2040	Annual Growth: 2015 to 2020
Northbound AM (3hr)	720	799	950	890	756	724	**+5.70%**
Northbound PM (4hr)	4238	4250	4179	4184	4111	4222	**-0.28%**
Southbound AM (3hr)	3141	3127	3084	3123	3095	3128	**-0.37%**
Southbound PM (4hr)	2076	2111	2281	2227	2080	2147	**+1.90%**



Source 2: Historical DDOT AADTs

Segment: Massachusetts Avenue NW between 46th Street and 49th Street

	2011	2012	2013	2014
AADT (in 1000s):	17.0	18.6	18.7	19.0

Annual growth since:	2011	2012	2013	2014
	+3.8%	+1.1%	+1.6%	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2019	Total Growth: 2016 to 2019
Northbound AM	+5.75%	+18.26%
Northbound PM	+0.10%	+0.30%
Southbound AM	+0.10%	+0.30%
Southbound PM	+2.00%	+6.12%

Background Growth Information & Assumptions **Massachusetts Avenue NW (3 of 3)**

4330 48th Street NW

Project Timeline

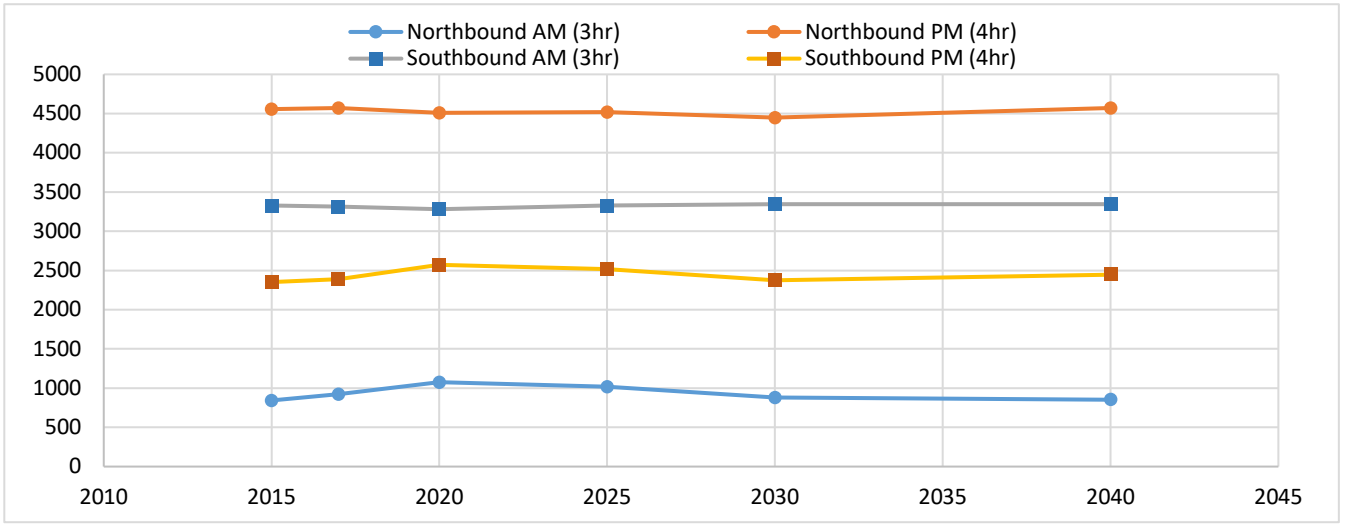
Data Collection: 2016 Project Completion 2019

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: Massachusetts Avenue NW between 48th Street NW and Nebraska Avenue NW

Direction/Period	Modeled Year 2015	2017	2020	2025	2030	2040	Annual Growth: 2015 to 2020
Northbound AM (3hr)	843	922	1076	1018	880	854	**+5.00%**
Northbound PM (4hr)	4558	4571	4508	4517	4449	4570	**-0.22%**
Southbound AM (3hr)	3327	3314	3281	3326	3345	3345	**-0.28%**
Southbound PM (4hr)	2352	2391	2572	2519	2375	2448	**+1.80%**



Source 2: Historical DDOT AADTs

Segment: Massachusetts Avenue NW between 46th Street and 49th Street

	2011	2012	2013	2014
AADT (in 1000s):	17.0	18.6	18.7	19.0

Annual growth since:	2011	2012	2013	2014
	+3.8%	+1.1%	+1.6%	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2019	Total Growth: 2016 to 2019
Northbound AM	+5.00%	+15.76%
Northbound PM	+0.10%	+0.30%
Southbound AM	+0.10%	+0.30%
Southbound PM	+1.75%	+5.34%

Background Growth Information & Assumptions **49th Street NW**

4330 48th Street NW

Project Timeline

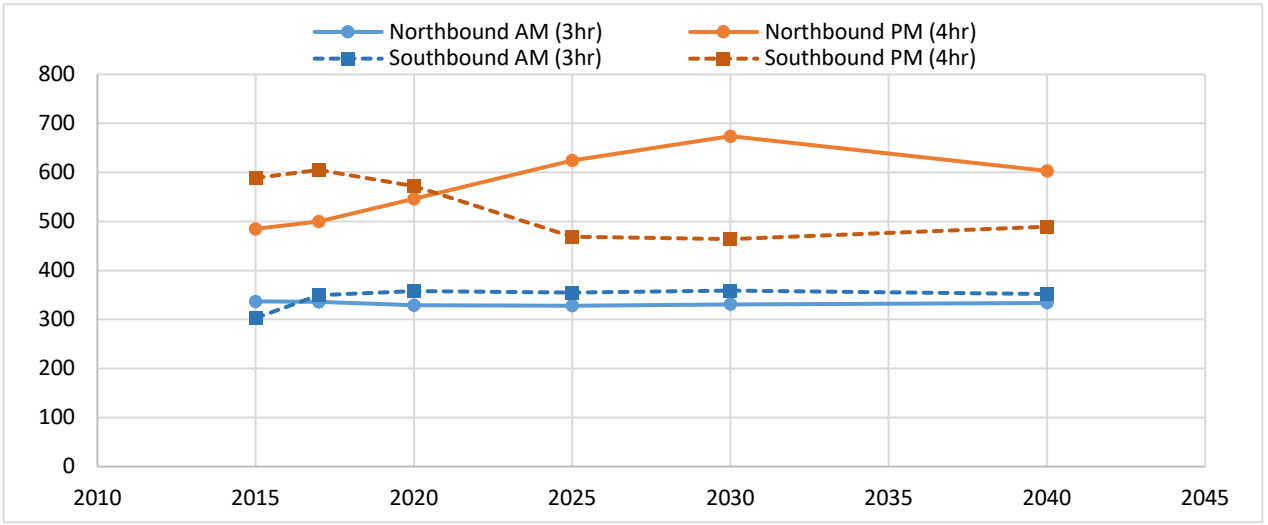
Data Collection: 2016 Project Completion 2019

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: 49th Street NW between Massachusetts Avenue NW and Tilden Street NW

Direction/Period	Modeled Year 2015	2017	2020	2025	2030	2040	Annual Growth: 2015 to 2020
Northbound AM (3hr)	337	336	329	328	331	334	**-0.48%**
Northbound PM (4hr)	485	500	546	624	674	603	**+2.40%**
Southbound AM (3hr)	303	350	358	355	359	352	**+3.39%**
Southbound PM (4hr)	589	605	572	469	464	489	**-0.58%**



Source 2: Historical DDOT AADTs

Segment: 49th Street between Yuma Street and Van Ness Street

	2011	2012	2013	2014
AADT (in 1000s):	4.3	4.3	4.3	n/a

Annual growth since:	2011	2012	2013	2014
	-even-	-even-	-even-	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2019	Total Growth: 2016 to 2019
Northbound AM	+0.10%	+0.30%
Northbound PM	+2.50%	+7.69%
Southbound AM	+3.50%	+10.87%
Southbound PM	+0.10%	+0.30%

Background Growth Information & Assumptions **46th Street NW**

4330 48th Street NW

Project Timeline

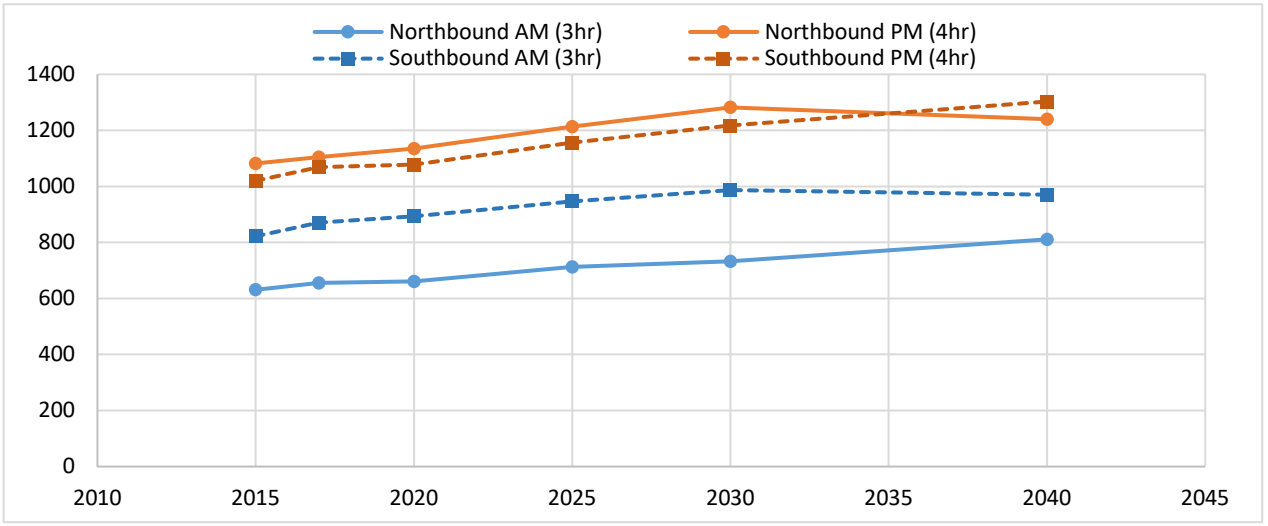
Data Collection: 2016 Project Completion 2019

Background Growth Data

Source 1: MWCOG Model Volumes (version 2.3.57a)

Segment: 46th Street NW between Albemarle Avenue NW and Yuma Street NW

Direction/Period	Modeled Year 2015	2017	2020	2025	2030	2040	Annual Growth: 2015 to 2020
Northbound AM (3hr)	631	656	661	713	733	811	**+0.93%**
Northbound PM (4hr)	1082	1104	1135	1214	1282	1240	**+0.96%**
Southbound AM (3hr)	822	871	894	946	987	970	**+1.69%**
Southbound PM (4hr)	1020	1069	1078	1156	1218	1303	**+1.11%**



Source 2: Historical DDOT AADTs

Segment: 46th Street NW between Massachussets Avenue and Van Ness Street

	2011	2012	2013	2014
AADT (in 1000s):	2.2	2.2	2.2	n/a

Annual growth since:	2011	2012	2013	2014
	-even-	-even-	-even-	n/a

Proposed Growth Rates for Use in Study

Direction/Period	Annual Growth: 2016 to 2019	Total Growth: 2016 to 2019
Northbound AM	+1.00%	+3.03%
Northbound PM	+1.00%	+3.03%
Southbound AM	+1.75%	+5.34%
Southbound PM	+1.00%	+3.03%

OBSERVED TRIP GENERATION IN MIXED-USE DEVELOPMENTS WITH GROCER

WASHINGTON, DC, ARLINGTON, VA, AND BETHESDA, MD

Site	Jurisdiction	Distance to Metro	Walk Score®	Transit Score®	Bike Score®	Land Use	ITE Code	Size/Units	Observed Vehicular Trips*		# of Parking Spaces	Peak Hour Trips per Space	
									AM	PM		AM	PM
1	DC	2.3 mile	70-89 (Very Walkable)	25-49 (Some Transit)	70-89 (Very Bikeable)	Grocery	850	20 kSF	166	275	92	1.80	2.99
2	DC	0.2 mile	90-100 (Walker's Paradise)	70-89 (Excellent Transit)	90-100 (Biker's Paradise)	Grocery Retail Residential	850 820 220	15 kSF 8 kSF 215 du	44 none 6	95 none 12	44 none 108	1.00 0.06	2.16 0.11
3	DC	0.5 mile	90-100 (Walker's Paradise)	70-89 (Excellent Transit)	90-100 (Biker's Paradise)	Grocery Retail Residential	850 820 220	43 kSF 2 kSF 215 du	63	143	124 none 146	0.23	0.53
4	DC	0.3 mile	90-100 (Walker's Paradise)	90-100 (Rider's Paradise)	70-89 (Very Bikeable)	Grocery Retail Residential	850 820 220	50 kSF 30 kSF 225 du	71 33	177 23	180 167	0.39 0.20	0.98 0.14
5	DC	<0.1 mile	90-100 (Walker's Paradise)	70-89 (Excellent Transit)	90-100 (Biker's Paradise)	Grocery Residential	850 220	63 kSF 218 du	62 14	98 6	84 134	0.74 0.10	1.17 0.04
6	VA	<0.1 mile	90-100 (Walker's Paradise)	50-69 (Good Transit)	70-89 (Very Bikeable)	Grocery Retail Office Residential	850 820 710 220	13 kSF 29 kSF 76 kSF 244 du	104	259	458	0.23	0.57
7	VA	1.7 miles	70-89 (Very Walkable)	50-69 (Good Transit)	70-89 (Very Bikeable)	Grocery Retail Residential	850 820 220	57 kSF 42 kSF 299 du	111	459	428 326	0.15	0.61
8	MD	0.6 mile	90-100 (Walker's Paradise)	50-69 (Good Transit)	N/A	Grocery	850	40 kSF	144	221	161	0.89	1.37

									Forecasted Vehicular Trips**		# of Parking Spaces	Peak Hour Trips per Space	
									AM	PM		AM	PM
The Lady Bird	DC	0.8 mile	78 (Very Walkable)	42 (Some Transit)	65 (Bikeable)	Grocery Retail Residential	850 820 220	56 kSF 4 kSF 230 du	133 58	347 73	147 77	0.90 0.75	2.36 0.95

* Vehicular trips include both inbound and outbound trips **Assumes 65% auto mode split for grocer and 50% auto mode split for residents

WASHINGTON, DC

Data provided by DDOT-PPSA
Contact – Jamie Henson (jamie.henson@dc.gov)

Site #1 (Data collected October 2013)
Grocery Store GSF 20,000

Location/Access: 2.3 miles to Metrorail station, Walk Score® = 70-89 (Very Walkable), Transit Score® = 25-49 (Some Transit), Bike Score® = 70-89 (Very Bikeable)
Parking: 92 parking spaces serve grocer.

- The volume during the **weekday morning peak hour** was 166 vehicles (7:45AM-8:45AM)
- The volume during the **weekday evening peak hour** was 275 vehicles (5:00PM-6:00PM)

Site #2 (Data collected April 2015)
Grocery Store GSF 15,000
Retail GSF 8,100
Residential Units 268

Location/Access: 0.2 mile to Metrorail station, Walk Score® = 90-100 (Walker's Paradise), Transit Score® = 70-89 (Excellent Transit), Bike Score® = 90-100 (Biker's Paradise)
Parking: 44 parking spaces in garage serve grocery and retail components and 108 spaces serve the residential component.

- The volume during the **weekday morning peak hour** was 50 vehicles (9:00AM-10:00AM)
- The volume during the **weekday evening peak hour** was 107 vehicles (4:00PM-5:00PM)

Site #3 (Data collected May 2015)
Grocery Store GSF 43,390
Retail GSF 2,065
Residential Units 215

Location/Access: 0.5 mile to Metrorail Station, Walk Score® = 90-100 (Walker's Paradise), Transit Score® = 70-89 (Excellent Transit), Bike Score® = 90-100 (Biker's Paradise)
Parking: 124 parking spaces in garage serve grocery and retail components and 146 spaces serve the residential component.

- The volume during the **weekday morning peak hour** was 63 vehicles (7:30AM-8:30AM)
- The volume during the **weekday evening peak hour** was 143 vehicles (6:00PM-7:00PM)

Site #4 (Data collected May 2015)

Grocery Store GSF	50,000
Retail GSF	30,000
Residential Units	225

Location/Access: 0.3 mile to Metrorail station, Walk Score® = 90-100 (Walker's Paradise), Transit Score® = 90-100 (Rider's Paradise), Bike Score® = 70-89 (Very Bikeable)
Parking: 180 parking spaces for retail (exact grocery number unknown) and 167 spaces serve the residential component.

- The volume during the **weekday morning peak hour** was 104 vehicles (8:00AM-9:00AM)
- The volume during the **weekday evening peak hour** was 200 vehicles (5:15PM-6:15PM)

Site #5 (Data collected April 2015)

Grocery Store GSF	63,125
Residential Units	218

Location/Access: <.1 mile to Metrorail station, Walk Score® = 90-100 (Walker's Paradise), Transit Score® = 70-89 (Excellent Transit), Bike Score® = 90-100 (Biker's Paradise)
Parking: 84 parking spaces in garage serve grocery component and 134 spaces serve the residential component.

- The volume during the **weekday morning peak hour** was 76 vehicles (8:15AM-9:15AM)
- The volume during the **weekday evening peak hour** was 104 vehicles (4:30PM-5:30PM)

ARLINGTON, VA

Data provided by Arlington County DES
Contact – Melissa McMahon (mmcmahon@arlingtonva.us)

Site #6 (Data collected December 2014)

Grocery Store GSF	13,000
Residential Units	244
Retail GSF	29,000
Office	76,000

Location/Access: <.1 mile to Metrorail station, Walk Score® = 90-100 (Walker's Paradise), Transit Score® = 50-69 (Good Transit), Bike Score® = 70-89 (Very Bikeable)
Parking: 458 spaces in garage serve all uses. Depending on time of day between 93 and 213 spaces are available for retail or grocery uses.

- The volume during the **weekday morning peak hour** was 104 vehicles (10:15AM-11:15AM)
- The volume during the **weekday evening peak hour** was 259 vehicles (5:30PM-6:30PM)

Site #7 (Data collected November 2014)

Grocery Store GSF	57,000
Retail GSF	42,000
Residential Units	299

Location/Access: 1.7 mile to Metrorail Station, Walk Score® = 70-89 (Very Walkable), Transit Score® = 50-69 (Good Transit), Bike Score® = 70-89 (Very Bikeable)
Parking: 428 parking spaces in garage serve grocery and retail components and 326 spaces serve the residential component.

- The volume during the **weekday morning peak hour** was 111 vehicles (11:45AM-12:45PM)
- The volume during the **weekday evening peak hour** was 459 vehicles (5:30PM-6:30PM)

BETHESDA, MD

Data collected by Gorove/Slade
Contact – Jim Watson (jim.watson@goroveslade.com)

Site #8 (Data collected December 2013)
Grocery Store GSF 40,000

Location/Access: 0.6 mile to Metrorail station, Walk Score® = 90-100 (Walker's Paradise), Transit Score® = 50-69 (Good Transit), Bike Score® = N/A
Parking: 161 spaces in garage serve grocer.

- The volume during the **weekday morning peak hour** was 144 vehicles (8:30AM-9:30AM)
- The volume during the **weekday evening peak hour** was 221 vehicles (5:00PM-6:00PM)

B: Detailed Trip Generation and Mode Split Information

Mode Split Assumptions

Residential Component

Description of residential component of project:

Approximately 219 residential units

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
Census Data - Census Tract (10.01/9.01)	38%	8%	27%	5%	8%	12%	2%
CTPP - TAZ Residents (10096)	44%	16%	25%	9%	2%	4%	0%
State of the Commute (of District residents)	41%	7%	41%	11%		---	
WMATA Ridership Survey (residential sites Suburban-Inside the Beltway)	39%		49%	14%		---	

Mode Split assumed in TIS:

Land Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Residential Mode Split	90%	5%	2%	3%	---

Notes: Data from comparable sites was examined. It was determined that a conservative 90% auto mode split was appropriate based on the number of allocated parking spaces and location of site.

Grocery Component

Description of retail component of project:

Grocery/Retail (16,000 square feet) - All assumed grocery for conservative analysis

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
WMATA Ridership Survey (Ballston Common)	43%		30%	27%		---	
WMATA Ridership Survey (Crystal City - Crystal Plaza Shops)	24%		41%	35%		---	
WMATA Ridership Survey (Silver Spring N'hood Center)	67%		19%	14%		---	

Mode Split assumed in TIS:

Information Source	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Grocery Mode Split	90%	0%	2%	8%	---

Notes: Data from comparable sites was examined. It was determined that a conservative 90% auto mode split was appropriate based on the number of allocated parking spaces and location of site.

The Lady Bird - Residential Trip Generation

Note: Approximately 214 residential dwelling units and 5 townhomes

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
			In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Apartment	221	214 du	19 veh/hr	53 veh/hr	72 veh/hr	56 veh/hr	36 veh/hr	92 veh/hr	48 veh/hr	49 veh/hr	97 veh/hr	583 veh	582 veh	1165 veh
		Calculation Details:	*26%*	*74%*	*=0.98Ln(x)-0.98*	*61%*	*39%*	*=0.96Ln(x)-0.63*	*49%*	*51%*	*=0.42(x)+6.73*	*50%*	*50%*	*=5.45(x)-1.75*
Townhomes	220	5 du	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	1 veh/hr	4 veh/hr	2 veh/hr	2 veh/hr	4 veh/hr	19 veh	18 veh	37 veh
		Calculation Details:	*23%*	*77%*	*=0.95Ln(x)-0.51*	*63%*	*37%*	*=0.86Ln(x)-0.02*	*50%*	*50%*	*=0.70(x)*	*50%*	*50%*	*=7.32(x)*

Note: Rates used for Saturday Peak Hour of Townhomes instead of equation, because quantity is much lower than average data point

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Apartment	1.18 ppl/veh	22 ppl/hr	63 ppl/hr	85 ppl/hr	66 ppl/hr	43 ppl/hr	109 ppl/hr	57 ppl/hr	57 ppl/hr	114 ppl/hr	688 ppl	687 ppl	1375 ppl
Townhome	1.18 ppl/veh	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	1 ppl/hr	5 ppl/hr	2 ppl	3 ppl	5 ppl	1 ppl	43 ppl	44 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
			In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Apartment	Auto	90%	20 ppl/hr	57 ppl/hr	77 ppl/hr	59 ppl/hr	39 ppl/hr	98 ppl/hr	51 ppl/hr	52 ppl/hr	103 ppl/hr	619 ppl	619 ppl	1238 ppl
Apartment	Transit	5%	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	34 ppl	35 ppl	69 ppl
Apartment	Bike	2%	0 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	14 ppl	14 ppl	28 ppl
Apartment	Walk	3%	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr	21 ppl	20 ppl	41 ppl
Townhome	Auto	90%	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	1 ppl/hr	5 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr	1 ppl	39 ppl	40 ppl
Townhome	Transit	5%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl	2 ppl	2 ppl
Townhome	Bike	2%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl	1 ppl	1 ppl
Townhome	Walk	3%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl	1 ppl	1 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Residential	1.18 ppl/veh	17 veh/hr	48 veh/hr	65 veh/hr	50 veh/hr	33 veh/hr	83 veh/hr	43 veh/hr	44 veh/hr	87 veh/hr	525 veh	524 veh	1049 veh
Townhome	1.18 ppl/veh	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	1 veh/hr	4 veh/hr	2 veh/hr	2 veh/hr	4 veh/hr	29 veh	29 veh	58 veh

Trip Gen Summary for Residential Component

Mode	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	18 veh/hr	50 veh/hr	68 veh/hr	53 veh/hr	34 veh/hr	87 veh/hr	45 veh/hr	46 veh/hr	91 veh/hr	525 veh	524 veh	1049 veh
Transit	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	34 ppl	35 ppl	69 ppl
Bike	0 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	14 ppl	14 ppl	28 ppl
Walk	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr	21 ppl	20 ppl	41 ppl

The Lady Bird - Residential Trip Generation

Note: Approximately 214 residential dwelling units and 5 townhomes

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
			In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Apartment	221	214 du	19 veh/hr	53 veh/hr	72 veh/hr	56 veh/hr	36 veh/hr	92 veh/hr	48 veh/hr	49 veh/hr	97 veh/hr	583 veh	582 veh	1165 veh
		Calculation Details:	*26%*	*74%*	*=0.98Ln(x)-0.98*	*61%*	*39%*	*=0.96Ln(x)-0.63*	*49%*	*51%*	*=0.42(x)+6.73*	*50%*	*50%*	*=5.45(x)-1.75*
Townhomes	220	5 du	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	1 veh/hr	4 veh/hr	2 veh/hr	2 veh/hr	4 veh/hr	19 veh	18 veh	37 veh
		Calculation Details:	*23%*	*77%*	*=0.95Ln(x)-0.51*	*63%*	*37%*	*=0.86Ln(x)-0.02*	*50%*	*50%*	*=0.70(x)*	*50%*	*50%*	*=7.32(x)*

Note: Rates used for Saturday Peak Hour of Townhomes instead of equation, because quantity is much lower than average data point

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Apartment	1.18 ppl/veh	22 ppl/hr	63 ppl/hr	85 ppl/hr	66 ppl/hr	43 ppl/hr	109 ppl/hr	57 ppl/hr	57 ppl/hr	114 ppl/hr	688 ppl	687 ppl	1375 ppl
Townhome	1.18 ppl/veh	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	1 ppl/hr	5 ppl/hr	2 ppl	3 ppl	5 ppl	1 ppl	43 ppl	44 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
			In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Apartment	Auto	70%	15 ppl/hr	45 ppl/hr	60 ppl/hr	46 ppl/hr	30 ppl/hr	76 ppl/hr	40 ppl/hr	40 ppl/hr	80 ppl/hr	482 ppl	481 ppl	963 ppl
Apartment	Transit	15%	3 ppl/hr	10 ppl/hr	13 ppl/hr	10 ppl/hr	6 ppl/hr	16 ppl/hr	9 ppl/hr	8 ppl/hr	17 ppl/hr	103 ppl	103 ppl	206 ppl
Apartment	Bike	2%	0 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	14 ppl	14 ppl	28 ppl
Apartment	Walk	13%	3 ppl/hr	8 ppl/hr	11 ppl/hr	9 ppl/hr	5 ppl/hr	14 ppl/hr	7 ppl/hr	8 ppl/hr	15 ppl/hr	89 ppl	90 ppl	179 ppl
Townhome	Auto	70%	1 ppl/hr	2 ppl/hr	3 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	1 ppl	30 ppl	31 ppl
Townhome	Transit	15%	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl	7 ppl	7 ppl
Townhome	Bike	2%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl	1 ppl	1 ppl
Townhome	Walk	13%	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl	6 ppl	6 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
		In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Residential	1.18 ppl/veh	13 veh/hr	38 veh/hr	51 veh/hr	39 veh/hr	25 veh/hr	64 veh/hr	34 veh/hr	34 veh/hr	68 veh/hr	408 veh	408 veh	816 veh
Townhome	1.18 ppl/veh	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	0 veh/hr	3 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	87 veh	88 veh	175 veh

Trip Gen Summary for Residential Component

Mode	AM Peak Hour			PM Peak Hour			Saturday Peak Hour			Daily		
	In	Out	Total	In	Out	Total	In	Out	Total	In	Out	Total
Auto	14 veh/hr	40 veh/hr	54 veh/hr	42 veh/hr	25 veh/hr	67 veh/hr	35 veh/hr	36 veh/hr	71 veh/hr	408 veh	408 veh	816 veh
Transit	3 ppl/hr	11 ppl/hr	14 ppl/hr	11 ppl/hr	6 ppl/hr	17 ppl/hr	9 ppl/hr	9 ppl/hr	18 ppl/hr	103 ppl	103 ppl	206 ppl
Bike	0 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	14 ppl	14 ppl	28 ppl
Walk	3 ppl/hr	9 ppl/hr	12 ppl/hr	10 ppl/hr	5 ppl/hr	15 ppl/hr	7 ppl/hr	9 ppl/hr	16 ppl/hr	89 ppl	90 ppl	179 ppl

The Ladybird - Grocery and Retail Trip Generation

Note: Grocery/Retail (18,198 square feet) - All assumed grocery for conservative analysis

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Grocery	850	18,198 sf	42 veh/hr	28 veh/hr	70 veh/hr	111 veh/hr	107 veh/hr	218 veh/hr	96 veh/hr	92 veh/hr	188 veh/hr
		Calculation Details:	*60%*	*40%*	*=3.82(x/1000)*	*51%*	*49%*	*=0.74(x/1000)+3.25*	*51%*	*49%*	*=10.34(x/1000)*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Grocery	1.82 ppl/veh	76 ppl/hr	51 ppl/hr	127 ppl/hr	202 ppl/hr	195 ppl/hr	397 ppl/hr	175 ppl/hr	167 ppl/hr	342 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Grocery	Auto	90%	68 ppl/hr	46 ppl/hr	114 ppl/hr	182 ppl/hr	175 ppl/hr	357 ppl/hr	158 ppl/hr	150 ppl/hr	308 ppl/hr
Grocery	Transit	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Grocery	Bike	2%	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr
Grocery	Walk	8%	6 ppl/hr	4 ppl/hr	10 ppl/hr	16 ppl/hr	16 ppl/hr	32 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Grocery	1.82 ppl/veh	37 veh/hr	26 veh/hr	63 veh/hr	100 veh/hr	96 veh/hr	196 veh/hr	87 veh/hr	82 veh/hr	169 veh/hr

Trip Gen Summary for Grocer/Retail Component

Mode	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Auto	37 veh/hr	26 veh/hr	63 veh/hr	100 veh/hr	96 veh/hr	196 veh/hr	87 veh/hr	82 veh/hr	169 veh/hr
Transit	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Bike	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr
Walk	6 ppl/hr	4 ppl/hr	10 ppl/hr	16 ppl/hr	16 ppl/hr	32 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr

The Ladybird - Grocery and Retail Trip Generation

Note: Grocery/Retail (18,198 square feet) - All assumed grocery for conservative analysis

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Grocery	850	18,198 sf	42 veh/hr	28 veh/hr	70 veh/hr	111 veh/hr	107 veh/hr	218 veh/hr	96 veh/hr	92 veh/hr	188 veh/hr
		Calculation Details:	*60%*	*40%*	*=3.82(x/1000)*	*51%*	*49%*	*=0.74(x/1000)+3.25*	*51%*	*49%*	*=10.34(x/1000)*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Grocery	1.82 ppl/veh	76 ppl/hr	51 ppl/hr	127 ppl/hr	202 ppl/hr	195 ppl/hr	397 ppl/hr	175 ppl/hr	167 ppl/hr	342 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Grocery	Auto	70%	53 ppl/hr	36 ppl/hr	89 ppl/hr	141 ppl/hr	137 ppl/hr	278 ppl/hr	123 ppl/hr	116 ppl/hr	239 ppl/hr
Grocery	Transit	15%	11 ppl/hr	8 ppl/hr	19 ppl/hr	30 ppl/hr	30 ppl/hr	60 ppl/hr	26 ppl/hr	25 ppl/hr	51 ppl/hr
Grocery	Bike	2%	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr
Grocery	Walk	13%	10 ppl/hr	7 ppl/hr	17 ppl/hr	26 ppl/hr	26 ppl/hr	52 ppl/hr	23 ppl/hr	21 ppl/hr	44 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Grocery	1.82 ppl/veh	29 veh/hr	20 veh/hr	49 veh/hr	77 veh/hr	76 veh/hr	153 veh/hr	68 veh/hr	63 veh/hr	131 veh/hr

Trip Gen Summary for Grocer/Retail Component

Mode	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Auto	29 veh/hr	20 veh/hr	49 veh/hr	77 veh/hr	76 veh/hr	153 veh/hr	68 veh/hr	63 veh/hr	131 veh/hr
Transit	11 ppl/hr	8 ppl/hr	19 ppl/hr	30 ppl/hr	30 ppl/hr	60 ppl/hr	26 ppl/hr	25 ppl/hr	51 ppl/hr
Bike	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr
Walk	10 ppl/hr	7 ppl/hr	17 ppl/hr	26 ppl/hr	26 ppl/hr	52 ppl/hr	23 ppl/hr	21 ppl/hr	44 ppl/hr

The Lady Bird - Existing Grocery Trip Generation

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Grocery	850	24,114 sf	55 veh/hr	37 veh/hr	92 veh/hr	138 veh/hr	132 veh/hr	270 veh/hr	127 veh/hr	122 veh/hr	249 veh/hr
		Calculation Details:	*60%*	*40%*	*=3.82(x/1000)*	*51%*	*49%*	*=0.74(x/1000)+3.25*	*51%*	*49%*	*=10.34(x/1000)*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Grocery	1.82 ppl/veh	100 ppl/hr	67 ppl/hr	167 ppl/hr	251 ppl/hr	240 ppl/hr	491 ppl/hr	231 ppl/hr	222 ppl/hr	453 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Grocery	Auto	90%	90 ppl/hr	60 ppl/hr	150 ppl/hr	226 ppl/hr	216 ppl/hr	442 ppl/hr	208 ppl/hr	200 ppl/hr	408 ppl/hr
Grocery	Transit	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Grocery	Bike	2%	2 ppl/hr	1 ppl/hr	3 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr	5 ppl/hr	4 ppl/hr	9 ppl/hr
Grocery	Walk	8%	8 ppl/hr	5 ppl/hr	13 ppl/hr	20 ppl/hr	19 ppl/hr	39 ppl/hr	18 ppl/hr	18 ppl/hr	36 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Grocery	1.82 ppl/veh	49 veh/hr	33 veh/hr	82 veh/hr	124 veh/hr	119 veh/hr	243 veh/hr	114 veh/hr	110 veh/hr	224 veh/hr

Trip Gen Summary for Existing Grocer

Mode	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Auto	49 veh/hr	33 veh/hr	82 veh/hr	124 veh/hr	119 veh/hr	243 veh/hr	114 veh/hr	110 veh/hr	224 veh/hr
Transit	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Bike	2 ppl/hr	1 ppl/hr	3 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr	5 ppl/hr	4 ppl/hr	9 ppl/hr
Walk	8 ppl/hr	5 ppl/hr	13 ppl/hr	20 ppl/hr	19 ppl/hr	39 ppl/hr	18 ppl/hr	18 ppl/hr	36 ppl/hr

The Lady Bird - Existing Retail Trip Generation

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Retail	850	19,990 sf	12 veh/hr	7 veh/hr	19 veh/hr	79 veh/hr	86 veh/hr	165 veh/hr	90 veh/hr	84 veh/hr	174 veh/hr
		Calculation Details:	*62%*	*38%*	*=3.82(x/1000)*	*48%*	*52%*	*=0.74(x/1000)+3.25*	*52%*	*48%*	*=10.34(x/1000)*

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Retail	1.82 ppl/veh	22 ppl/hr	13 ppl/hr	35 ppl/hr	144 ppl/hr	156 ppl/hr	300 ppl/hr	164 ppl/hr	153 ppl/hr	317 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Retail	Auto	90%	20 ppl/hr	12 ppl/hr	32 ppl/hr	130 ppl/hr	140 ppl/hr	270 ppl/hr	148 ppl/hr	137 ppl/hr	285 ppl/hr
Retail	Transit	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Retail	Bike	2%	0 ppl/hr	1 ppl/hr	1 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr
Retail	Walk	8%	2 ppl/hr	1 ppl/hr	3 ppl/hr	12 ppl/hr	12 ppl/hr	24 ppl/hr	13 ppl/hr	12 ppl/hr	25 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Retail	1.82 ppl/veh	11 veh/hr	7 veh/hr	18 veh/hr	71 veh/hr	77 veh/hr	148 veh/hr	81 veh/hr	76 veh/hr	157 veh/hr

Trip Gen Summary for Existing Grocer

Mode	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Auto	11 veh/hr	7 veh/hr	18 veh/hr	71 veh/hr	77 veh/hr	148 veh/hr	81 veh/hr	76 veh/hr	157 veh/hr
Transit	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Bike	0 ppl/hr	1 ppl/hr	1 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr
Walk	2 ppl/hr	1 ppl/hr	3 ppl/hr	12 ppl/hr	12 ppl/hr	24 ppl/hr	13 ppl/hr	12 ppl/hr	25 ppl/hr

Trip Gen Summary by Land Use/Mode (90% Auto)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Auto	Residential	18 veh/hr	50 veh/hr	68 veh/hr	53 veh/hr	34 veh/hr	87 veh/hr	45 veh/hr	46 veh/hr	91 veh/hr
Auto	Grocery	37 veh/hr	26 veh/hr	63 veh/hr	100 veh/hr	96 veh/hr	196 veh/hr	87 veh/hr	82 veh/hr	169 veh/hr
Auto	**Total**	**55 veh/hr**	**76 veh/hr**	**131 veh/hr**	**153 veh/hr**	**130 veh/hr**	**283 veh/hr**	**132 veh/hr**	**128 veh/hr**	**260 veh/hr**
Transit	Residential	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr
Transit	Grocery	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr
Transit	**Total**	**1 ppl/hr**	**3 ppl/hr**	**4 ppl/hr**	**3 ppl/hr**	**2 ppl/hr**	**5 ppl/hr**	**3 ppl/hr**	**3 ppl/hr**	**6 ppl/hr**
Bike	Residential	0 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Bike	Grocery	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	4 ppl/hr	8 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr
Bike	**Total**	**2 ppl/hr**	**3 ppl/hr**	**5 ppl/hr**	**5 ppl/hr**	**5 ppl/hr**	**10 ppl/hr**	**5 ppl/hr**	**4 ppl/hr**	**9 ppl/hr**
Walk	Residential	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Walk	Grocery	6 ppl/hr	4 ppl/hr	10 ppl/hr	16 ppl/hr	16 ppl/hr	32 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr
Walk	**Total**	**7 ppl/hr**	**6 ppl/hr**	**13 ppl/hr**	**18 ppl/hr**	**17 ppl/hr**	**35 ppl/hr**	**16 ppl/hr**	**14 ppl/hr**	**30 ppl/hr**

C: ALLEY OPERATION STUDY

GOROVE / SLADE

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TECHNICAL MEMORANDUM

To:	Aaron Zimmerman	DDOT – PSD
Cc:	Josh Posnick Will Lansing Shane Dettman	Mill Creek Residential Trust Valor Development Holland & Knight
From:	Vinay Varadarajan Daniel Solomon, AICP Erwin Andres	
Date:	February 5, 2019	
Subject:	Lady Bird - Alley Operation Study	

This memorandum contains a supplemental analysis of the Lady Bird project as it relates to the operations of the north-south alley that abuts the site which will serve the project and the Spring Valley Shopping Center. This memorandum is supplemental to the Comprehensive Transportation Review (CTR) that was submitted in November 2017.

The Site is the proposed Lady Bird development located at the corner of 48th Street and Yuma Street in American University Park in Northwest Washington, DC. The Site is generally bounded by Yuma Street to the north, 48th Street to the east, segments of a public and private alley to the south, and a public alley to the west. A study of the north-south alley ("the Alley") which connects Yuma Street and Massachusetts Avenue was prepared in order to better understand the existing operations and the potential impacts that the Lady Bird development might have on the Alley's future operations. The Spring Valley Shopping Center ("SVSC") abuts the Alley to the west. As part of the Lady Bird development, a number of improvements to the Alley have been proposed which will improve alley operations over existing conditions. The Applicant has committed to implement improvements by widening the area available for Alley uses to a total width of 35 feet, as shown in Figure 5. The 35 feet of alley will include a 12-foot trash enclosure, a 20-foot drive-aisle, and a three (3) foot delineated pedestrian path. The widening of the alley will be made possible by the Applicant providing 10 feet (3 feet for the sidewalk and 7 feet for the paved alley) within the site to public use.

The following conclusions have been made regarding operations in the Alley:

- No incidences of alley blockages were observed over the two-day 30-hour study period due to the presence and operations of deliveries in the Alley. The Alley was empty of delivery vehicles approximately 55% of the time.
- The prevailing operations of the Alley are aligned with commercial deliveries that primarily take place in the early hours of the morning. The redevelopment of the Lady Bird site will vacate the existing retail tenants on its site and replace them will a full-service grocer that would use loading facilities that are internal to the proposed development. Thus, as a result of the redevelopment of the Lady Bird site, there will be a reduction in deliveries that currently take place in the Alley or on Yuma Street of 52%.
- Proposed improvements to the Alley include consolidating recycling and trash receptacles belonging to the SVSC, reducing the number of trucks that can be expected to service the Alley and reducing the number of protruding objects in the Alley.
- The Applicant will implement a Loading Management Plan that will minimize impacts to existing Alley operations.

- The Applicant will continue working with the ANC and DDOT to coordinate solutions for operational issues that exist in the Alley.

ALLEY OPERATION STUDY

In addition to the typical traffic study elements outlined in DDOT's CTR standards, this memorandum includes a study of alley operations. The Applicant has chosen to undertake this effort in order to ensure that the development's garage and loading will function effectively given current traffic conditions in the public alley that the proposed development's loading facilities and garage abut, as well as to address concerns expressed by neighbors of the project who use the public alley, particularly regarding the existing loading activities that take place there.

Data Collection

Data was collected relating to alley activity from 6:00AM to 9:00PM on Tuesday, January 29th, 2019 and from 6:00AM to 9:00PM on Wednesday, January 30th, 2019. The study covered the section of public alley that lies to the west of the site, beginning at Yuma Street NW to the north and connecting to Massachusetts Avenue NW to the south. This section of alley is approximately 390 feet in length. The approximate extent of the alley study area is shown in yellow on Figure 4.

The data collection process involved collecting video spanning the two study periods, totaling 30 hours (15 hours per day over a two-day period). This video data was used to determine the level of truck activity within the alley study area. Each truck entering, maneuvering within, or departing the alley study area was recorded and categorized by truck type/size and direction of travel. Timestamps denoting the start and end times of each maneuver were also recorded, from which the dwell time could be determined, which is defined as the amount of time a vehicle took to traverse the alley study area including the time spent unloading or loading. Raw tabulated data is included as a technical attachment.

Deliveries in the Alley

In general, deliveries within the alley study area were relatively low. As shown in Table 1 over the 30 hours of data collection a total of 65 delivery vehicles made deliveries to either the SVSC or to an existing retail tenant on the Lady Bird site. Of those 65 deliveries, 17 deliveries were made curbside on Yuma Street and 48 deliveries were made in the Alley, and 31 deliveries were made to the SVSC as compared to 34 deliveries to existing retail tenants on the Lady Bird site. The busiest hour of delivery activity occurred from 8:30AM to 9:30AM on the first day of data collection and saw a total of 8 delivery vehicles arrive and depart over the course of that hour (or approximately one vehicle every 7 minutes and 35 seconds on average). Figure 1 shows the number of delivery vehicles servicing either the retail tenants of the Lady Bird site or the SVSC on the first day of data collection and Figure 2 shows the number of delivery vehicles servicing either the retail tenants of the Lady Bird site or the SVSC on the second day of data collection. Please note that this tabulation includes the 17 deliveries that took place on Yuma Street and not just those that took place in the Alley.

Table 1: Alley Traffic Summary Statistics

Statistic	Day 1 Tuesday Jan 29 2019 6:00 AM-9:00 PM	Day 2 Wednesday January 30 2019 6:00 AM-9:00 PM
Total Deliveries	**34**	**31**
To SVSC	*16*	*15*
To Existing Lady Bird Tenants	*18*	*16*
Peak Hour	**08:30 AM - 09:30 AM**	**06:30 AM - 07:30 AM**
Total Deliveries	*8*	*7*

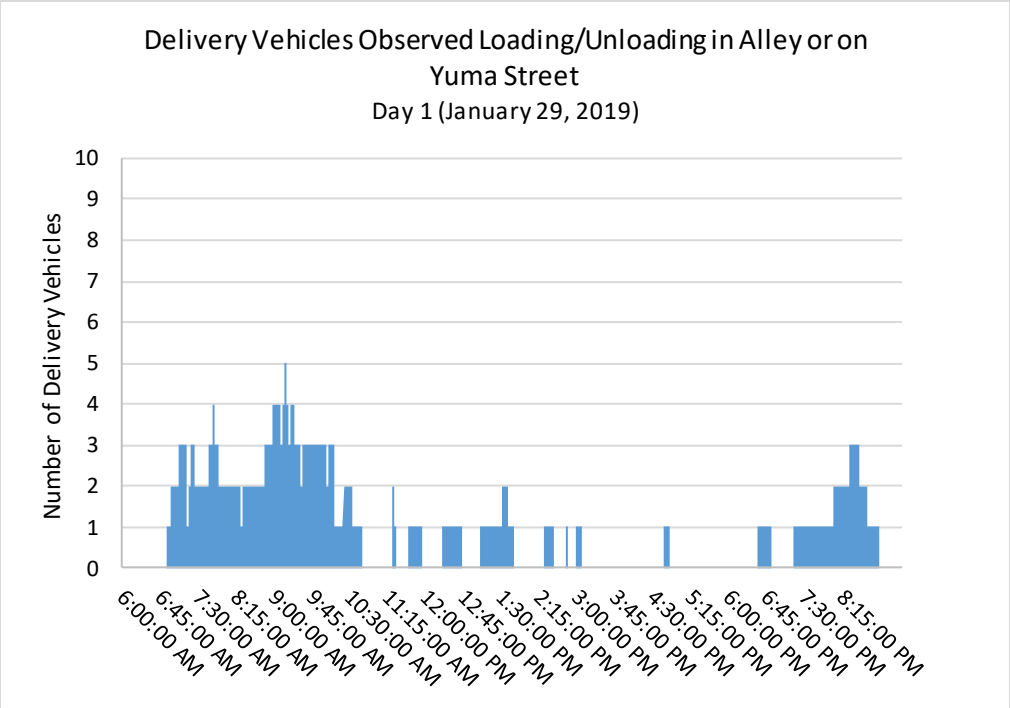

Figure 1: Delivery Vehicles Observed Servicing SVSC or Lady Bird Site from Alley and Yuma Street (Day 1)

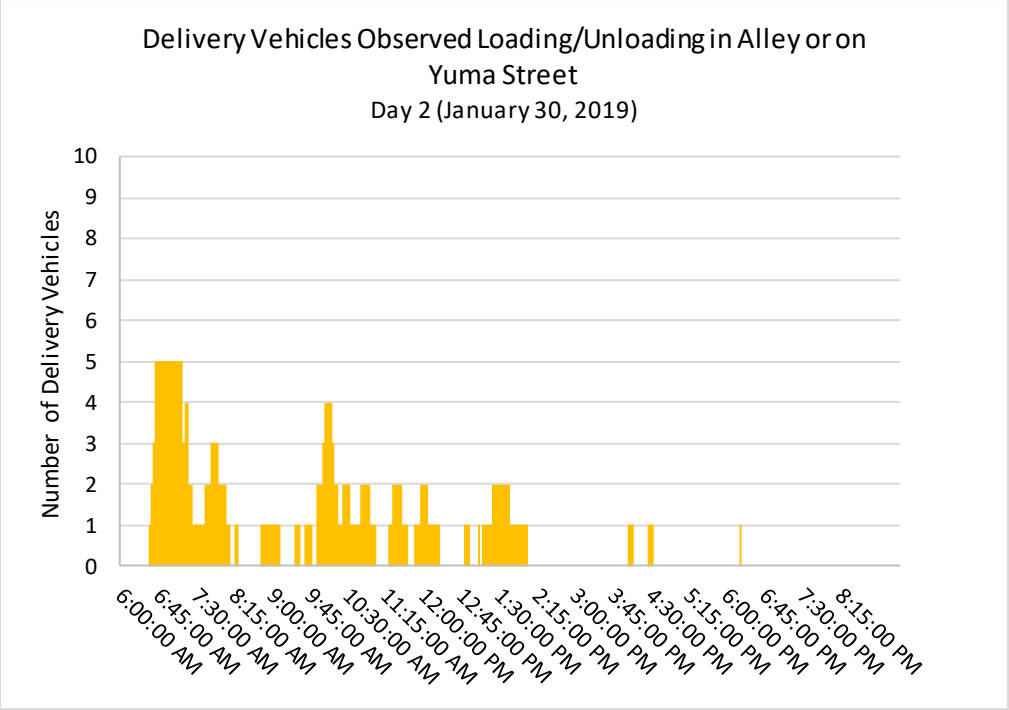

Figure 2: Delivery Vehicles Observed Servicing SVSC or Lady Bird Site from Alley and Yuma Street (Day 2)

The vehicle type and length of each delivery vehicle was recorded and is shown in Figure 3. As can be seen, the majority of delivery vehicles (97 percent) recorded over the 30 hours of data collection were 40-feet long or less and were able to

navigate the Alley in order to make a delivery. Two 50-foot tractor-trailers were observed making deliveries curbside on Yuma Street.

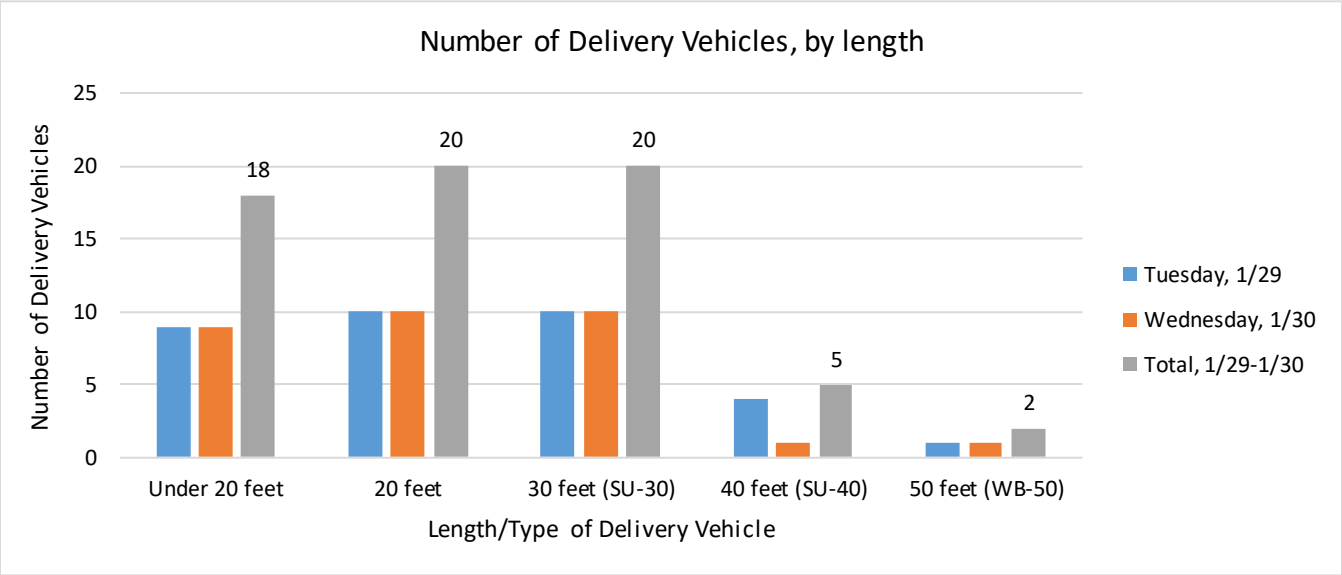

Figure 3: Number of Delivery Vehicles, by Length

An analysis of the tabulated delivery activity shows that most often one or fewer deliveries are being made in the Alley, and that on average the Alley is empty of delivery vehicles over 55 percent of the time, as shown in Table 2.

Table 2: Incidence of Multiple Deliveries in the Alley

Number of Delivery Vehicles	Day 1 Tuesday Jan 29 2019 6:00 AM-9:00 PM		Day 2 Wednesday January 30 2019 6:00 AM-9:00 PM	
0 vehicles	437 min 57 sec	*(48.7%)*	554 min 00 sec	*(61.6%)*
1 vehicles	210 min 53 sec	*(23.4%)*	182 min 31 sec	*(20.3%)*
2 vehicles	138 min 42 sec	*(15.4%)*	96 min 09 sec	*(10.7%)*
3 vehicles	90 min 19 sec	*(10.0%)*	23 min 02 sec	*(2.6%)*
4+ vehicles	20 min 24 sec	*(2.3%)*	12 min 07 sec	*(1.3%)*

The proposed Lady Bird development would vacate the existing retail tenants on its site and replace them will a full-service grocer that would use loading facilities that are internal to the proposed development. Thus, as a result of the redevelopment of the Lady Bird site, there will be a reduction in deliveries that currently take place in the Alley or on Yuma Street of 52%. In addition, data shows that the majority of deliveries that will continue to take place in the Alley will do so between the hours of 6:30AM and 9:30AM which are outside of the expected peak hours of a grocer.

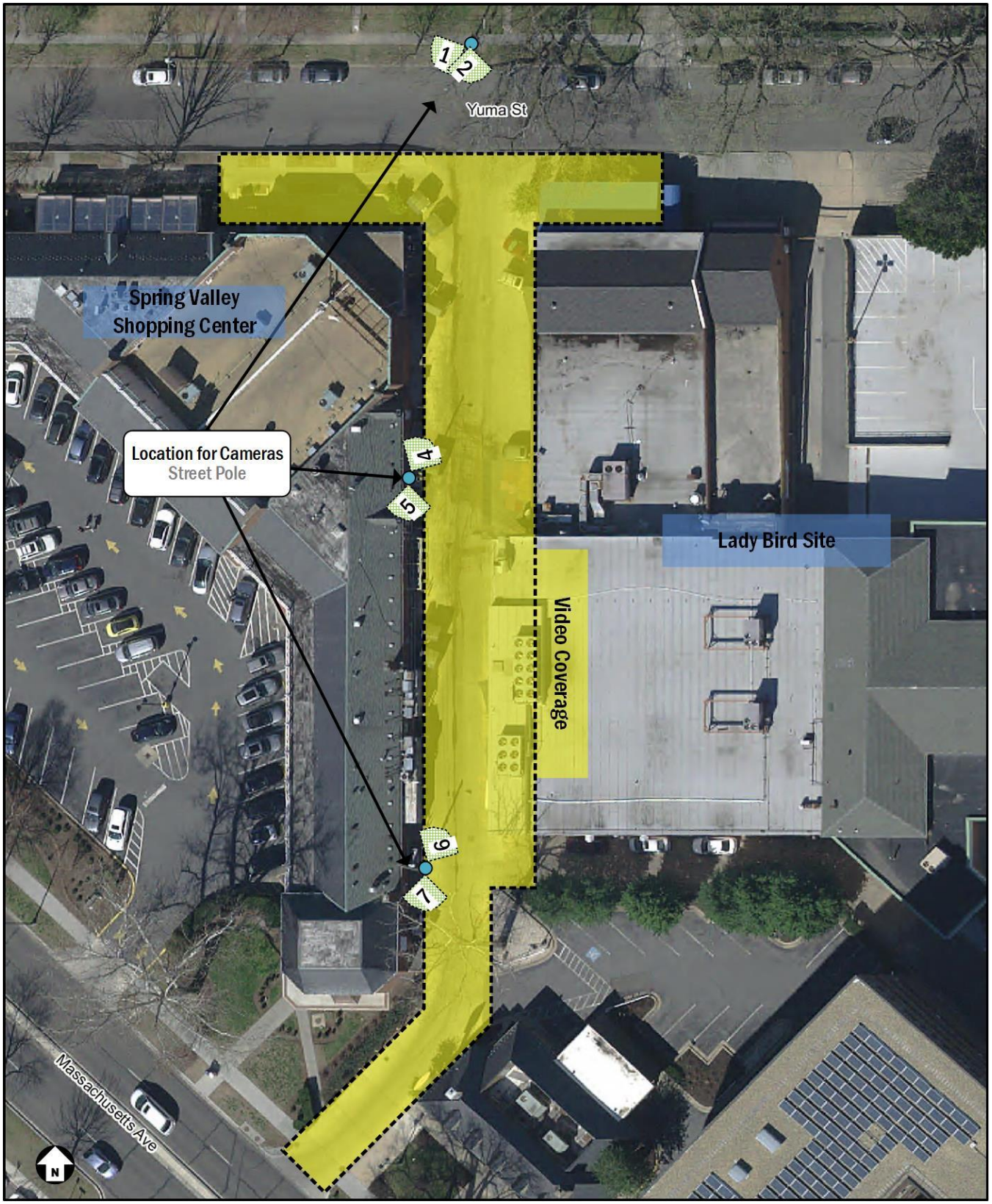

Figure 4: Alley Video Coverage

Improvements to the Alley

As part of the Lady Bird development, a number of improvements to the Alley have been proposed which will improve alley operations over existing conditions. The Applicant has committed to implement improvements by widening the Alley to a total width of 35 feet, as shown in Figure 5. The 35 feet of alley will include a 12-foot trash enclosure, a 20-foot drive-aisle, and a three (3) foot delineated pedestrian path. The widening of the alley will be made possible by the Applicant providing 10 feet (3 feet for the sidewalk and 7 feet for the paved alley) within the site to public use.

Waste/Trash Pickup

Under existing conditions two garbage trucks were observed servicing the Alley, both on the second day of data collection. One garbage truck serviced the SVSC and the second garbage truck serviced an existing retail tenant of the Lady Bird site. As part of the improvements proposed by the Applicant, the consolidation of the SVSC's recycling containers into a single enclosure will reduce the number of protruding objects that line the public alley. This will also have the effect of reducing the number of trucks entering and existing the alley by consolidating the hauling of recycling from the Alley to a single provider. In addition, the consolidation of the SVSC's waste receptacles into a single enclosed compactor will further reduce the number of truck trips needed to haul trash generated by the SVSC.

Loading Management Plan

To offset any potential impacts to the existing alley system the Applicant has agreed to implement a Loading Management Plan, the conditions of which are:

- A loading dock manager will be designated by the building management. The dock manager will coordinate with vendors and tenants to schedule deliveries and will be on duty during delivery hours.
- All tenants will be required to schedule deliveries that utilize the loading docks – defined here as any loading operation conducted using a truck 20' in length or larger.
- Commercial deliveries will be scheduled between 7 AM – 7 PM (7 days a week), and discouraged from making deliveries after 4PM on weekdays
- Waste collection (both commercial & residential) allowed 7 AM – 4 PM (7 days a week)
- Residential move-ins/outs allowed 9 AM – 4 PM (7 days a week)
- The dock manager(s) will schedule deliveries such that the dock's capacity is not exceeded. In the event that an unscheduled delivery vehicle arrives while the dock is full, that driver will be directed to return at a later time when a berth will be available so as to not impede the drive aisle that passes in front of the loading dock.
- The dock manager(s) will monitor inbound and outbound truck maneuvers and will ensure that trucks accessing the loading dock do not block vehicular traffic except during those times when a truck is actively entering or exiting the alley.
- The loading manager(s) will monitor the alley to keep the designated loading areas clear for deliveries, keep the alley from being blocked due to vehicle loading/unloading activity, and enforce the no parking restrictions.
- Trucks using the loading dock will not be allowed to idle and must follow all District guidelines for heavy vehicle operation including but not limited to DCMR 20 – Chapter 9, Section 900 (Engine Idling), the regulations set forth in

DDOT's Freight Management and Commercial Vehicle Operations document, and the primary access routes listed in the DDOT Truck and Bus Route System.

- The Applicant has agreed to continue coordination with DDOT and Spring Valley Shopping Center (Lot 802 and 803) regarding loading operations for the Spring Valley Shopping Center site.
- All trash bins and dumpsters belonging to Spring Valley Shopping Center (Lot 802 and 803) currently located along Yuma Street NW will be relocated to the alley and placed in the proposed enclosures.
- Trucks traveling to the Spring Valley Shopping Center will be directed not to pick-up or drop-off on Yuma Street NW and will be directed to use the rear alley network.

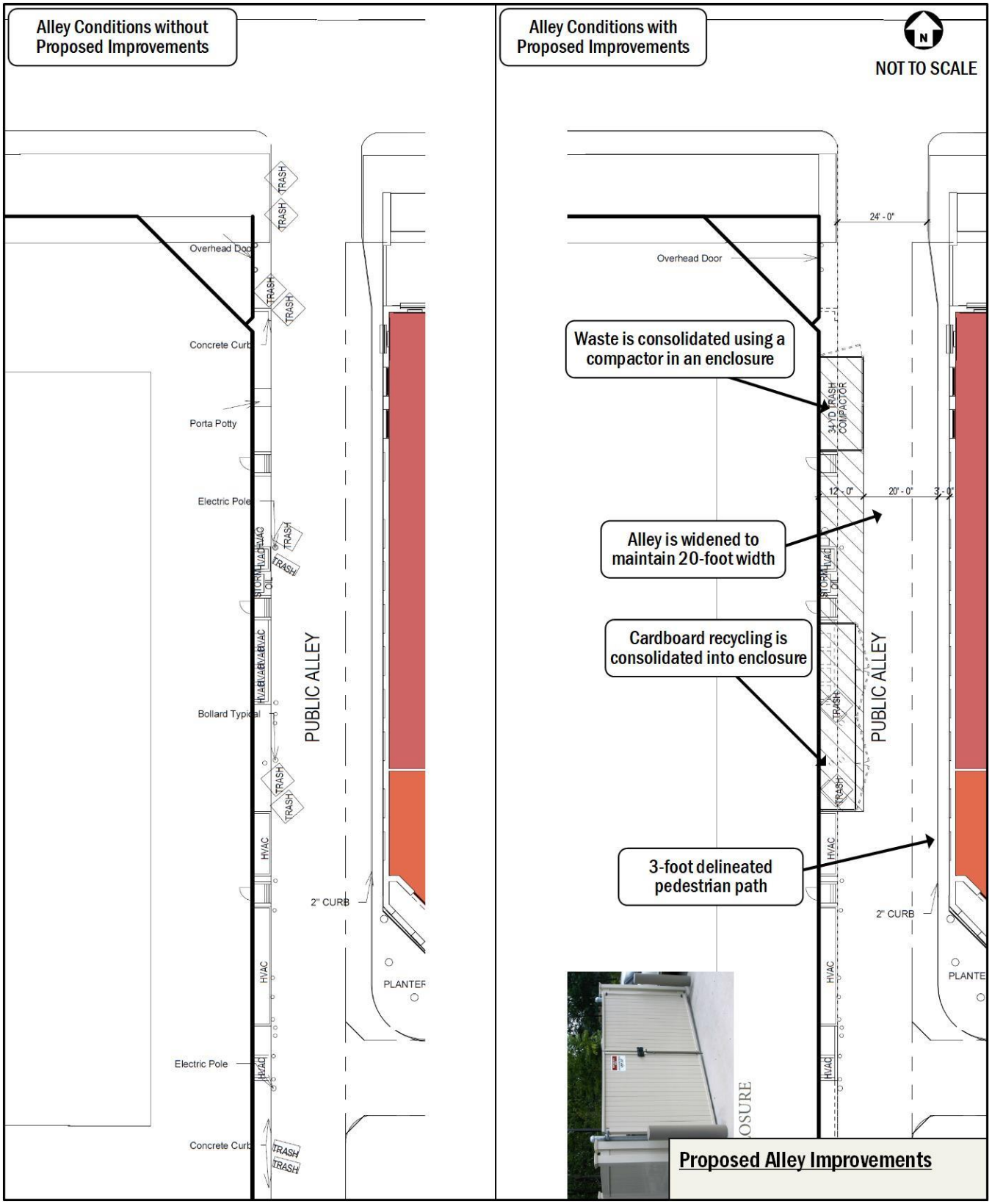

Figure 5: Proposed Alley Improvements

Conclusions

No incidences of alley blockages were observed over the two-day 30-hour study period due to the presence and operations of deliveries in the Alley. The Alley was empty of delivery vehicles approximately 55 percent of the time. The prevailing operations of the Alley are aligned with commercial deliveries that primarily take place in the early hours of the morning outside of the expected peak hour of the proposed grocer on the Lady Bird site. The proposed Lady Bird development would vacate the existing retail tenants on its site and replace them will a full-service grocer that would use loading facilities that are internal to the proposed development. Thus, as a result of the redevelopment of the Lady Bird site, there will be a reduction in deliveries that currently take place in the Alley or on Yuma Street of 52%.

The majority of delivery vehicles observed making deliveries (63 of 65 delivery vehicles) over the two-days of data collection were approximately 40-feet or less and were able to successfully navigate the Alley while making a delivery. Two 50-foot tractor-trailers were observed making deliveries curbside on Yuma Street to existing tenants of the SVSC. Given the geometric constraints of the Alley, the Applicant will continue coordinating with existing and future tenants of the SVSC to minimize the number of deliveries that are made curbside on Yuma Street.

Proposed improvements to the Alley as part of the Lady Bird development include consolidating recycling and trash receptacles belonging to the SVSC, reducing the number of trucks that can be expected to service the Alley and reducing the number of protruding objects in the Alley. The Applicant has committed to implement improvements by widening the Alley to a total width of 35 feet, to include a 12-foot trash enclosure, a 20-foot drive-aisle, and a three (3) foot delineated pedestrian path. The widening of the Alley will be made possible by the Applicant providing 10 feet (3 feet for the sidewalk and 7 feet for the paved alley) within the site to public use.

The Applicant is committed to working with the community, DDOT, and others nearby to ensure minimal impacts to existing Alley operations.

D: Draft Parking Management Plan

GOROVE / SLADE

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Washington, DC 20036
202.296.8625

TECHNICAL MEMORANDUM

To:	Aaron Zimmerman	DDOT-PSD
Cc:	Josh Posnick	Mill Creek Residential Trust
	Will Lansing	Valor Development
From:	Daniel Solomon, AICP	
	Erwin Andres	
Date:	July 3, 2019	
Subject:	The Lady Bird PUD	
	Parking Management Plan	

DRAFT

This Parking Management Plan (PMP) supplements the Comprehensive Transportation Report (CTR) for the Lady Bird Planned Unit Development (PUD), by providing specific details regarding layout of the garage, parking access and controls, car-share parking, the American University parking covenant, parking rates, bicycle parking, and enforcement.

Garage Layout

The proposed Lady Bird parking garage will be divided into three (3) levels as follows:

Level	Parking Spaces	User Group(s)
G1	86	Grocery/Retail
G2	121	Residential
	56	American University Parking*
G3	107	Residential
Total	**370**	

**parking for monthly pass holders from American University*

Access and Garage Controls

Vehicular access to the parking garage will be from the east-west alley along the southern side of the Lady Bird development. A rolling garage door will control access from the alley to the G1 Level of the below-grade parking garage. The door will be open during the grocer/retail hours of operation and closed outside of those hours, with access still possible to those in possession of a transponder.

G1 Level – Access to the grocer/retail parking, located on the G1 Level and containing 86 parking spaces, will be controlled via a fare gate with entry station/terminal (ticket dispenser) at the bottom of the ramp leading to the G1 Level. Up to four (4) of the parking spaces on the G1 Level will be dedicated for car-sharing services to use.

G2 Level – Access to the G2 Level will be controlled by a gate arm using a transponder which will be provided to each resident that chooses to lease a parking space or those that hold a monthly parking pass from American University. The G2 Level of parking will contain 177 parking spaces, 121 parking spaces of which will be for residential use and 56 parking spaces for

monthly parking pass holders from American University. The transponder used to access the G2 Level will allow vehicles to pass through the G1 Level fare gates without payment.

G3 Level – Access to the G3 Level will be controlled via a transponder and gate system similar to the one on the G2 Level. Only those that have leased a residential parking space will have access to the 107 parking spaces on the G3 Level. The transponder used to access the G3 Level will allow vehicles to pass through the G1 Level fare gates without payment.

American University Parking Covenant Considerations

An existing covenant between American University and the site lot requires the Lady Bird development to carry forth 236 non-exclusive parking spaces for the use of American University. American University has agreed to lease 180 parking spaces back to the Applicant, reducing the number of spaces available to American University pass holders to 56 parking spaces.

The 56 parking spaces will be available to parking pass holders of American University, in addition to the 269 parking spaces already available in the below-grade parking garage belonging to the AU Administrative Building. As of July 2019, a monthly parking pass at American University costs $126. Table 1 reflects this arrangement where American University has access to only 56 parking spaces.

Parking Rates

The parking rate structure for the parking garage will be determined and reviewed regularly by the developer. Parking is planned to be priced at the market-rate (within 0.25 miles of the development).

Reserved residential parking will be available to residents of the development wishing to lease a monthly parking space. The cost of a reserved residential parking space will be unbundled from the cost of lease or purchase of each unit.

Allocation of Parking Spaces

The allocation of parking spaces to the various user groups (retail/residential/AU pass holders) within the below-grade garage will be reviewed regularly by the building owner and/or property management company to ensure that the parking demand of each user group is met, and impact to on-street parking is minimized.

Enforcement

The building owner and/or property management company will have a contract with a towing company to remove improperly parked vehicles from the site, such as unauthorized vehicle parking in an ADA or improper parking space.

Bicycle Parking

A total of 83 long-term bicycle spaces will be located in the below-grade parking garage, with at least 50% of the long-term bicycle parking spaces being located in the G1 Level or ground floor of the development.

E: Detailed Bus Stop Inventory

Location	Stop ID	Buses Served	Type of Service	Site Condition
Massachusetts Ave NW & Albemarle St NW - NB	1002480	N4, N6	Basic	Sign, ADA clearance, acceptable sidewalk clearance, street lighting, information case, no seating, no shelter, trash receptacle
Massachusetts Ave NW & 50th St NW - SB	1002473	N4, N6	Basic	Sign, ADA clearance, acceptable sidewalk clearance, poor lighting, information case, no seating, no shelter, trash receptacle
Massachusetts Ave NW & Yuma St NW - NB	1002443	N4, N6	Basic	Sign, ADA clearance, acceptable sidewalk clearance, poor street lighting, no information case, seating, shelter, system map, trash receptacle
Massachusetts Ave NW & 49th St NW - SB	1002432	N4, N6	Basic	Sign, ADA clearance, acceptable sidewalk clearance, poor lighting, no information case, no seating, no shelter, trash receptacle
Massachusetts Ave NW & 48th St - NB	1002407	N4, N6	Basic	Sign, ADA clearance, acceptable sidewalk clearance, poor street lighting, no information case, no seating, no shelter, trash receptacle
Massachusetts Ave NW & Fordham - SB	1002411	N4, N6	Basic	Sign, ADA clearance, acceptable sidewalk clearance, street lighting, information case, seating, shelter, system map, trash receptacle
Massachusetts Ave NW & Van Ness St - NB	1002387	N4, N6	Basic	Sign, ADA clearance, acceptable sidewalk clearance, street lighting, information case, no seating, no shelter
Massachusetts Ave NW & Van Ness St - SB	1002388	N4, N6	Basic	Sign, ADA clearance, acceptable sidewalk clearance, street lighting, information case, no seating, no shelter, trash receptacle

F: VEHICULAR DATA COLLECTION

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. /50th Street & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Massachusetts Avenue					50th Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	36	0	0	0	0	0	0	0	1	0	95	3	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	47	0	0	0	2	0	0	3	0	0	144	4	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	47	0	0	0	2	0	1	0	0	0	180	11	1
07:15 AM to 07:30 AM	0	0	0	0	0	0	2	79	0	4	0	1	0	0	6	0	0	213	15	2
07:30 AM to 07:45 AM	0	0	0	0	0	0	1	77	0	1	0	4	0	0	1	0	0	278	11	1
07:45 AM to 08:00 AM	0	0	0	0	0	0	3	110	0	0	0	4	0	0	2	0	0	285	22	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	119	0	0	0	3	0	1	5	0	0	324	8	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	1	153	0	1	0	6	0	0	0	0	0	309	7	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	1	145	0	0	0	8	0	0	0	0	0	337	14	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	5	147	0	0	0	9	0	0	2	0	0	280	13	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	1	126	0	0	0	5	0	3	1	0	0	265	15	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	3	130	0	0	0	6	0	2	0	0	0	252	18	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	0				0	571				1	27				7	1292				0
08:00 AM to 09:00 AM	0	0	0	0		0	7	564	0		0	26	0	1		0	0	1250	42	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.94	n/a	n/a	n/a	n/a	**n/a**	n/a	0.35	0.92	n/a	**0.93**	n/a	0.72	n/a	0.25	**0.75**	n/a	n/a	0.93	0.75	**0.92**

HEAVY VEHICLES (FHWA 4+)

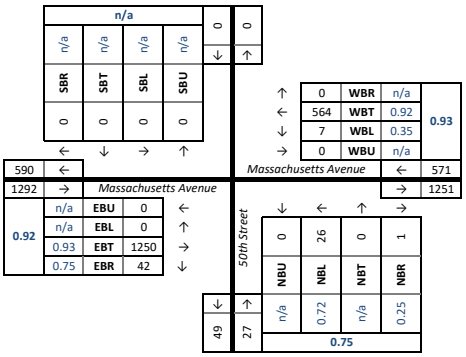
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Massachusetts Avenue					50th Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	3	0	
07:00 AM to 07:15 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	3	0	
07:30 AM to 07:45 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	12	0	
07:45 AM to 08:00 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	5	1	
08:00 AM to 08:15 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	11	0	
08:15 AM to 08:30 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	7	0	
08:30 AM to 08:45 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	6	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	4	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	3	1	
09:15 AM to 09:30 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	3	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	0					9					0					28				
08:00 AM to 09:00 AM	0	0	0	0		0	0	9	0		0	0	0	0		0	0	28	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.6%	0.0%	**1.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.2%	0.0%	**2.2%**
INT. PEAK HR (HV ONLY)	0					13					0					36				
07:30 AM to 08:30 AM	0	0	0	0		0	0	13	0		0	0	0	0		0	0	35	1	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.8%	0.0%	**2.8%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.9%	2.1%	**2.9%**

BICYCLES

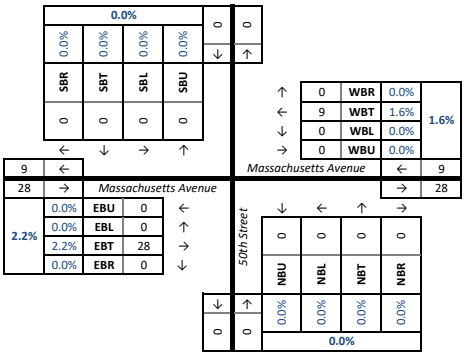
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:					Massachusetts Avenue				50th Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				1				0				3			
08:00 AM to 09:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0
INT. PEAK HR (BIKES)	0				1				0				3			
07:45 AM to 08:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	0

DATA COLLECTION NOTES :

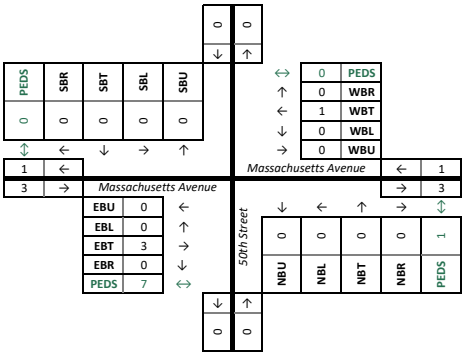
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. Yuma Street & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Yuma Street					Massachusetts Avenue					Yuma Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	1	1	4	0	0	0	29	0	0	0	1	0	0	0	0	0	95	0	0
06:45 AM to 07:00 AM	0	1	0	3	3	0	1	44	0	1	0	0	0	5	4	0	0	145	0	1
07:00 AM to 07:15 AM	0	0	3	2	1	0	5	46	0	0	0	0	0	9	0	0	0	181	1	0
07:15 AM to 07:30 AM	0	0	0	6	0	0	7	76	0	3	0	0	0	5	1	0	0	215	0	0
07:30 AM to 07:45 AM	0	0	3	4	1	0	2	75	0	2	0	0	0	6	1	0	0	266	0	0
07:45 AM to 08:00 AM	0	1	0	12	1	0	12	93	0	3	0	0	0	11	2	0	0	289	1	0
08:00 AM to 08:15 AM	0	1	3	9	0	0	3	106	0	1	0	2	0	6	7	0	0	319	0	0
08:15 AM to 08:30 AM	0	1	4	6	2	0	7	144	0	0	0	0	0	8	0	0	1	310	0	0
08:30 AM to 08:45 AM	0	0	4	8	0	0	4	118	0	0	0	0	0	9	1	0	0	327	1	3
08:45 AM to 09:00 AM	0	4	0	5	1	0	11	126	0	1	0	0	0	9	2	0	0	282	2	0
09:00 AM to 09:15 AM	0	0	6	14	0	0	10	95	0	0	0	2	0	9	1	0	1	249	2	4
09:15 AM to 09:30 AM	0	0	1	11	0	0	7	95	0	0	0	2	0	14	0	0	0	243	3	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	45				3	519				2	34				10	1242				3
08:00 AM to 09:00 AM	0	6	11	28		0	25	494	0		0	2	0	32		0	1	1238	3	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.96**	n/a	0.38	0.69	0.78	**0.87**	n/a	0.57	0.86	n/a	**0.86**	n/a	0.25	n/a	0.89	**0.94**	n/a	0.25	0.95	0.38	**0.95**

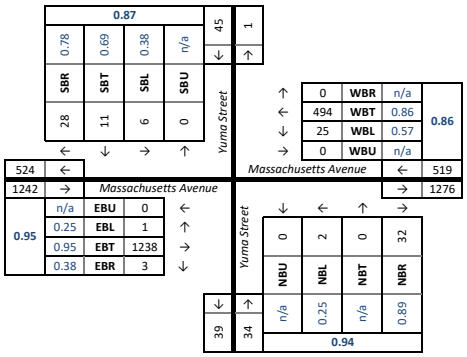
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Yuma Street					Massachusetts Avenue					Yuma Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	3	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
07:00 AM to 07:15 AM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	5	0	
07:15 AM to 07:30 AM	0	0	0	1		0	0	1	0		0	0	0	0		0	0	4	0	
07:30 AM to 07:45 AM	0	0	0	1		0	0	3	0		0	0	0	0		0	0	12	0	
07:45 AM to 08:00 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	5	0	
08:00 AM to 08:15 AM	0	1	0	0		0	0	1	0		0	0	0	0		0	0	7	0	
08:15 AM to 08:30 AM	0	0	1	0		0	0	4	0		0	0	0	0		0	0	6	0	
08:30 AM to 08:45 AM	0	0	0	1		0	0	2	0		0	0	0	1		0	0	6	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	5	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
09:15 AM to 09:30 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	2	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	3					9					1					24				
08:00 AM to 09:00 AM	0	1	1	1		0	0	9	0		0	0	0	1		0	0	24	0	
Heavy Vehicle % (PHV):	0.0%	16.7%	9.1%	3.6%	**6.7%**	0.0%	0.0%	1.8%	0.0%	**1.7%**	0.0%	0.0%	0.0%	3.1%	**2.9%**	0.0%	0.0%	1.9%	0.0%	**1.9%**
INT. PEAK HR (HV ONLY)	3					12					0					30				
07:30 AM to 08:30 AM	0	1	1	1		0	0	12	0		0	0	0	0		0	0	30	0	
Heavy Vehicle % (PHV):	0.0%	33.3%	10.0%	3.2%	**6.8%**	0.0%	0.0%	2.9%	0.0%	**2.7%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.5%	0.0%	**2.5%**

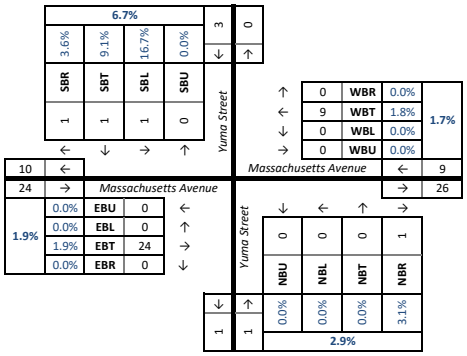
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Yuma Street				Massachusetts Avenue				Yuma Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:45 AM to 09:00 AM	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				4				0				2			
08:00 AM to 09:00 AM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	0
INT. PEAK HR (BIKES)	0				4				0				2			
08:00 AM to 09:00 AM	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2	0

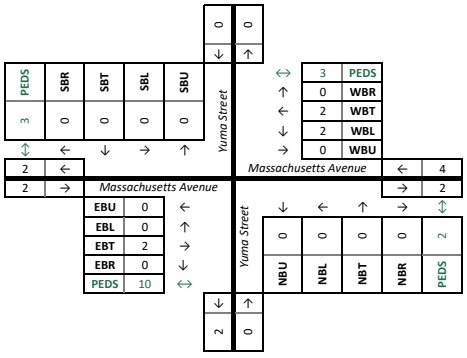
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 49th Street & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Massachusetts Avenue					49th Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	1	0	0	1	1	2	31	5	2	0	0	3	0	2	0	3	80	9	2
06:45 AM to 07:00 AM	0	3	2	0	2	0	3	44	4	0	0	2	2	1	2	0	6	130	14	0
07:00 AM to 07:15 AM	0	3	4	0	1	0	2	44	4	1	0	5	1	0	1	0	10	175	6	6
07:15 AM to 07:30 AM	0	5	2	1	0	0	3	82	7	0	0	4	4	1	2	0	14	200	10	3
07:30 AM to 07:45 AM	0	4	4	1	0	0	3	63	9	8	0	9	8	1	2	0	17	240	11	2
07:45 AM to 08:00 AM	0	8	3	0	0	0	4	101	7	0	0	5	10	0	2	0	27	266	16	2
08:00 AM to 08:15 AM	0	14	5	0	0	2	6	100	7	6	0	9	13	1	4	0	31	273	17	1
08:15 AM to 08:30 AM	0	9	5	1	0	2	5	143	4	7	0	7	5	0	3	0	24	291	11	7
08:30 AM to 08:45 AM	0	7	3	0	0	2	1	122	6	5	0	15	19	1	7	0	35	286	18	3
08:45 AM to 09:00 AM	0	12	6	2	3	0	6	135	14	5	0	21	10	0	4	0	34	243	20	12
09:00 AM to 09:15 AM	0	9	5	0	1	1	13	105	6	2	0	12	16	4	2	0	38	213	21	8
09:15 AM to 09:30 AM	0	9	3	2	2	1	7	111	10	4	0	16	8	1	0	0	41	217	16	3
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)		64			3		555			23		101			18		1283			23
08:00 AM to 09:00 AM	0	42	19	3		6	18	500	31		0	52	47	2		0	124	1093	66	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.97	n/a	0.75	0.79	0.38	**0.80**	0.75	0.75	0.87	0.55	**0.90**	n/a	0.62	0.62	0.50	**0.72**	n/a	0.89	0.94	0.83	**0.95**

HEAVY VEHICLES (FHWA 4+)

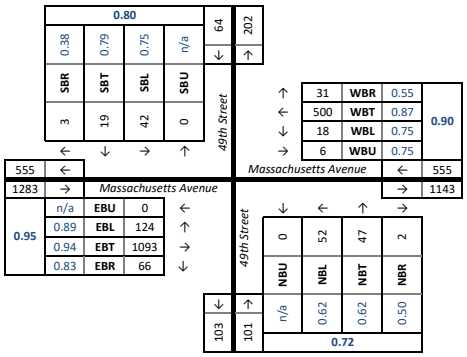
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Massachusetts Avenue				49th Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	3	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	2	2	0	0	0	0	0	1	6	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	3	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	3	2	0	0	0	0	0	1	10	0
07:45 AM to 08:00 AM	0	1	0	0	0	0	3	1	0	0	0	0	0	0	3	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	1	3	0	0	1	0	0	0	8	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	5	1	0	0	0	0	0	0	7	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5	2
08:45 AM to 09:00 AM	0	1	0	0	0	0	3	2	0	0	0	0	0	1	4	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	2	1	0	0	0	0	0	0	3	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	4	3	0	0	0	0	0	0	1	2
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)		1					17					1					27			
08:00 AM to 09:00 AM	0	1	0	0		0	0	11	6		0	0	1	0		0	1	24	2	
Heavy Vehicle % (PHV):	0.0%	2.4%	0.0%	0.0%	**1.6%**	0.0%	0.0%	2.2%	19.4%	**3.1%**	0.0%	0.0%	2.1%	0.0%	**1.0%**	0.0%	0.8%	2.2%	3.0%	**2.1%**
INT. PEAK HR (HV ONLY)		1					19					1					29			
07:30 AM to 08:30 AM	0	1	0	0		0	0	12	7		0	0	1	0		0	1	28	0	
Heavy Vehicle % (PHV):	0.0%	2.9%	0.0%	0.0%	**1.9%**	0.0%	0.0%	2.9%	25.9%	**4.2%**	0.0%	0.0%	2.8%	0.0%	**1.5%**	0.0%	1.0%	2.6%	0.0%	**2.4%**

BICYCLES

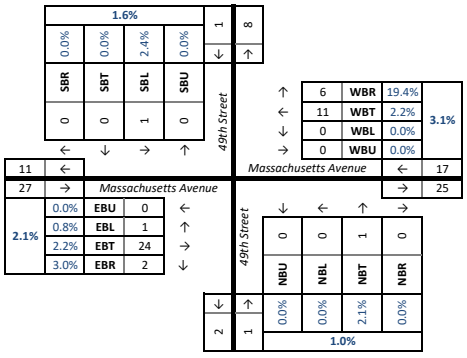
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Massachusetts Avenue				49th Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:45 AM to 08:00 AM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	1	1	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)		2					2					1					2			
08:00 AM to 09:00 AM	0	0	2	0		0	0	2	0		0	0	1	0		0	1	1	0	
INT. PEAK HR (BIKES)		1					2					1					4			
08:30 AM to 09:30 AM	0	0	1	0		0	0	2	0		0	0	1	0		0	1	2	1	

DATA COLLECTION NOTES :

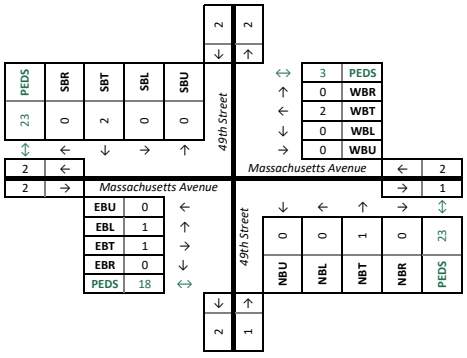
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. Alley/ & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Alley					Massachusetts Avenue										Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	1	5	0	0	51	0	0	0	0	0	0	0	0	0	83	0	0
06:45 AM to 07:00 AM	0	0	0	0	5	0	0	51	0	0	0	0	0	0	0	0	0	128	0	0
07:00 AM to 07:15 AM	0	0	0	0	2	0	0	65	0	0	0	0	0	0	0	0	0	176	0	0
07:15 AM to 07:30 AM	0	0	0	0	3	0	0	79	0	2	0	0	0	0	0	0	0	201	0	0
07:30 AM to 07:45 AM	0	0	0	0	7	0	0	90	0	0	0	0	0	0	0	0	0	238	0	0
07:45 AM to 08:00 AM	0	0	0	1	5	0	0	97	0	1	0	0	0	0	0	0	0	266	0	2
08:00 AM to 08:15 AM	0	0	0	2	3	0	0	119	0	0	0	0	0	0	0	0	0	301	0	0
08:15 AM to 08:30 AM	0	0	0	0	3	0	0	136	0	0	0	0	0	0	0	0	0	276	0	0
08:30 AM to 08:45 AM	0	0	0	2	1	0	0	115	0	0	0	0	0	0	0	0	0	288	0	0
08:45 AM to 09:00 AM	0	0	0	1	8	0	0	136	1	0	0	0	0	0	0	0	0	238	0	1
09:00 AM to 09:15 AM	0	0	0	4	8	0	0	136	0	0	0	0	0	0	0	0	0	224	0	1
09:15 AM to 09:30 AM	0	0	0	3	7	0	0	110	0	0	0	0	0	0	0	0	0	216	0	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	5				15	507				0	0				0	1103				1
08:00 AM to 09:00 AM	0	0	0	5		0	0	506	1		0	0	0	0		0	0	1103	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.96	n/a	n/a	n/a	0.63	**0.63**	n/a	n/a	0.93	0.25	**0.93**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	0.92	n/a	**0.92**

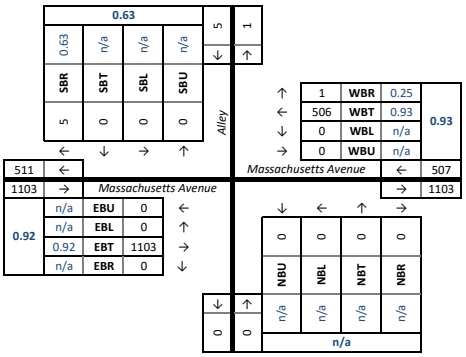
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Alley					Massachusetts Avenue										Massachusetts Avenue				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	4	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
07:00 AM to 07:15 AM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	6	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	3	0	
07:30 AM to 07:45 AM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	11	0	
07:45 AM to 08:00 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	4	0	
08:00 AM to 08:15 AM	0	0	0	1		0	0	3	0		0	0	0	0		0	0	8	0	
08:15 AM to 08:30 AM	0	0	0	0		0	0	5	0		0	0	0	0		0	0	6	0	
08:30 AM to 08:45 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	5	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	5	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	4	0	
09:15 AM to 09:30 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	2	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	1					13					0					24				
08:00 AM to 09:00 AM	0	0	0	1		0	0	13	0		0	0	0	0		0	0	24	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	20.0%	**20.0%**	0.0%	0.0%	2.6%	0.0%	**2.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.2%	0.0%	**2.2%**
INT. PEAK HR (HV ONLY)	1					17					0					29				
07:30 AM to 08:30 AM	0	0	0	1		0	0	17	0		0	0	0	0		0	0	29	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	33.3%	**33.3%**	0.0%	0.0%	3.8%	0.0%	**3.8%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.7%	0.0%	**2.7%**

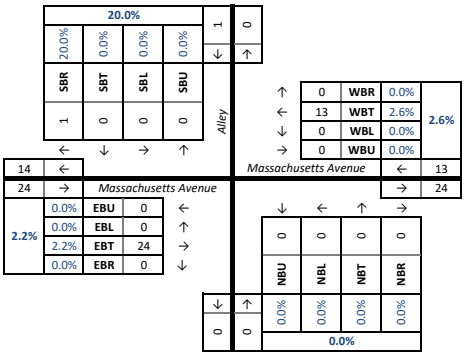
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Alley				Massachusetts Avenue								Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				2				0				3			
08:00 AM to 09:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0
INT. PEAK HR (BIKES)	0				2				0				5			
08:30 AM to 09:30 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0

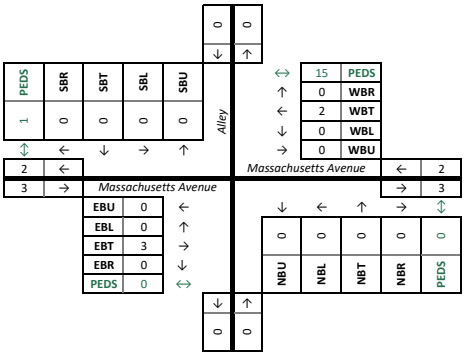
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 48th Street/Fordham Road & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Massachusetts Avenue					Fordham Road					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	5	0	1	5	0	0	39	3	0	0	2	3	6	0	0	3	80	0	2
06:45 AM to 07:00 AM	0	3	0	3	4	0	0	43	3	2	0	3	3	6	4	0	2	117	8	1
07:00 AM to 07:15 AM	0	2	0	1	5	0	1	66	1	2	0	1	2	5	2	0	11	167	1	2
07:15 AM to 07:30 AM	0	4	2	1	5	0	1	74	3	0	0	5	4	10	3	0	9	191	2	4
07:30 AM to 07:45 AM	0	7	4	7	1	0	0	76	9	1	0	7	3	12	2	0	5	220	3	7
07:45 AM to 08:00 AM	0	6	0	7	10	0	3	103	3	0	0	3	8	11	3	0	6	262	1	10
08:00 AM to 08:15 AM	0	8	3	11	3	0	3	121	3	0	0	4	3	14	1	0	12	268	2	12
08:15 AM to 08:30 AM	0	8	0	9	1	0	2	125	1	0	0	9	5	12	2	0	13	264	5	6
08:30 AM to 08:45 AM	0	5	3	16	1	0	1	134	6	0	0	10	11	19	0	0	8	264	0	13
08:45 AM to 09:00 AM	0	7	3	13	13	0	5	138	2	4	0	11	6	8	3	0	8	232	1	26
09:00 AM to 09:15 AM	0	4	1	5	2	0	0	128	3	3	0	13	3	14	3	0	8	201	2	9
09:15 AM to 09:30 AM	0	7	1	12	9	0	5	133	4	3	0	7	3	10	2	0	10	209	3	8
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	86				18	541				4	112				6	1077				57
08:00 AM to 09:00 AM	0	28	9	49		0	11	518	12		0	34	25	53		0	41	1028	8	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.95**	n/a	0.88	0.75	0.77	**0.90**	n/a	0.55	0.94	0.50	**0.93**	n/a	0.77	0.57	0.70	**0.70**	n/a	0.79	0.96	0.40	**0.95**

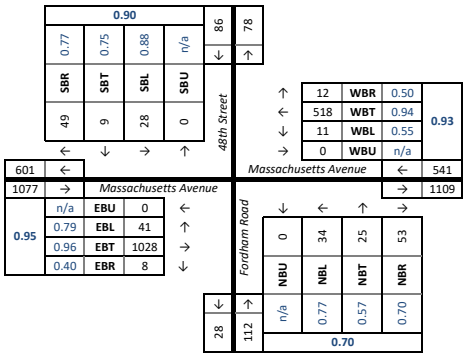
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Massachusetts Avenue					Fordham Road					Massachusetts Avenue				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	1	0	0		0	0	2	0		0	0	0	0		0	0	5	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
07:00 AM to 07:15 AM	0	0	0	0		0	0	6	0		0	0	0	0		0	0	6	0	
07:15 AM to 07:30 AM	0	1	1	0		0	0	1	0		0	0	0	0		0	0	3	0	
07:30 AM to 07:45 AM	0	0	0	1		0	0	4	1		0	0	0	0		0	0	10	0	
07:45 AM to 08:00 AM	0	2	0	0		0	1	3	1		0	0	0	0		0	0	5	0	
08:00 AM to 08:15 AM	0	4	0	0		0	0	3	1		0	0	0	0		0	0	7	0	
08:15 AM to 08:30 AM	0	1	0	0		0	0	5	0		0	0	0	0		0	0	9	0	
08:30 AM to 08:45 AM	0	1	0	0		0	0	2	0		0	0	0	0		0	0	5	0	
08:45 AM to 09:00 AM	0	1	0	0		0	0	5	0		0	0	0	0		0	0	3	1	
09:00 AM to 09:15 AM	0	1	0	0		0	0	3	0		0	0	0	0		0	0	3	0	
09:15 AM to 09:30 AM	0	1	0	0		0	0	5	0		0	0	0	0		0	0	4	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	7					16					0					25				
08:00 AM to 09:00 AM	0	7	0	0		0	0	15	1		0	0	0	0		0	0	24	1	
Heavy Vehicle % (PHV):	0.0%	25.0%	0.0%	0.0%	**8.1%**	0.0%	0.0%	2.9%	8.3%	**3.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.3%	12.5%	**2.3%**
INT. PEAK HR (HV ONLY)	8					19					0					31				
07:30 AM to 08:30 AM	0	7	0	1		0	1	15	3		0	0	0	0		0	0	31	0	
Heavy Vehicle % (PHV):	0.0%	24.1%	0.0%	2.9%	**11.4%**	0.0%	12.5%	3.5%	18.8%	**4.2%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.1%	0.0%	**2.9%**

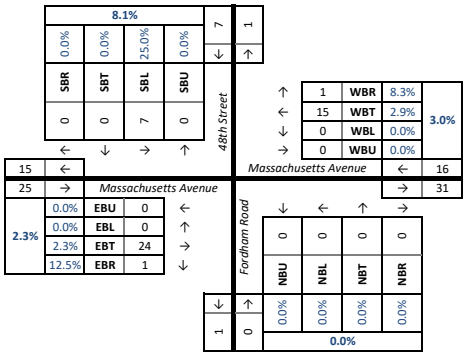
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Massachusetts Avenue				Fordham Road				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	1				2				0				0			
08:00 AM to 09:00 AM	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	2				3				0				1			
08:30 AM to 09:30 AM	0	0	0	2	0	0	3	0	0	0	0	0	0	0	1	0

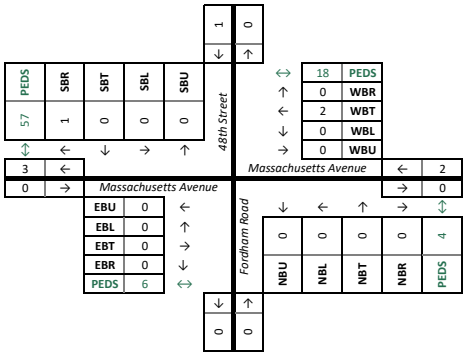
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. Van Ness Street & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Van Ness Street					Massachusetts Avenue					Van Ness Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	38	0	0	0	0	0	0	2	0	0	92	0	0
06:45 AM to 07:00 AM	0	0	1	3	4	0	1	46	0	0	0	0	0	0	5	0	0	128	0	0
07:00 AM to 07:15 AM	0	0	4	5	4	0	1	46	0	1	0	0	1	2	5	0	1	177	0	0
07:15 AM to 07:30 AM	0	0	6	10	4	0	0	65	0	0	0	1	0	1	2	0	0	205	1	0
07:30 AM to 07:45 AM	0	0	1	5	3	0	2	82	0	0	0	0	0	0	2	0	0	228	2	0
07:45 AM to 08:00 AM	0	0	3	15	2	0	2	97	0	1	0	0	1	2	6	0	1	280	0	0
08:00 AM to 08:15 AM	0	0	2	19	2	0	2	111	0	0	0	0	0	1	1	0	0	277	0	1
08:15 AM to 08:30 AM	0	0	2	15	0	0	2	122	0	0	0	0	0	0	2	0	0	278	1	1
08:30 AM to 08:45 AM	0	0	3	10	2	0	4	124	0	2	0	1	0	2	1	0	1	270	1	0
08:45 AM to 09:00 AM	0	1	2	20	2	0	4	139	0	0	0	0	0	2	6	0	1	268	1	0
09:00 AM to 09:15 AM	0	0	3	13	2	0	1	167	0	0	0	0	0	1	4	0	1	217	0	0
09:15 AM to 09:30 AM	0	0	1	16	1	2	0	119	0	0	0	2	0	2	3	0	1	225	0	1
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	74				6	508				2	6				10	1098				2
08:00 AM to 09:00 AM	0	1	9	64		0	12	496	0		0	1	0	5		0	2	1093	3	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.96	n/a	0.25	0.75	0.80	**0.80**	n/a	0.75	0.89	n/a	**0.89**	n/a	0.25	n/a	0.63	**0.50**	n/a	0.50	0.98	0.75	**0.98**

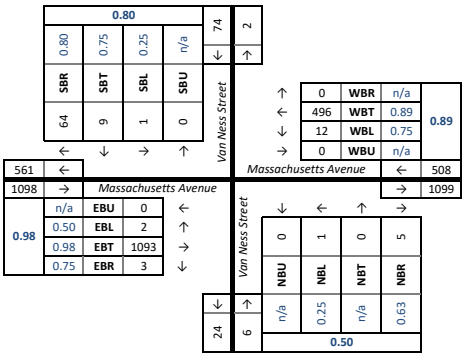
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Van Ness Street				Massachusetts Avenue				Van Ness Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	5	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
07:00 AM to 07:15 AM	0	0	1	0	0	0	5	0	0	0	0	0	0	0	6	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	10	0
07:45 AM to 08:00 AM	0	0	0	1	0	0	7	0	0	0	1	0	0	0	5	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	7	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	9	0
08:30 AM to 08:45 AM	0	0	0	0	0	1	3	0	0	0	0	0	0	0	3	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	4	0	0	0	0	1	0	0	3	0
09:00 AM to 09:15 AM	0	0	0	1	0	0	3	0	0	0	0	0	0	0	2	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				19				1				22			
08:00 AM to 09:00 AM	0	0	0	0	0	1	18	0	0	0	0	1	0	0	22	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	3.6%	0.0%	**3.7%**	0.0%	0.0%	0.0%	20.0%	**16.7%**	0.0%	0.0%	2.0%	0.0%	**2.0%**	
INT. PEAK HR (HV ONLY)	1				23				1				31			
07:30 AM to 08:30 AM	0	0	0	1	0	0	23	0	0	0	1	0	0	0	31	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	1.9%	0.0%	0.0%	5.6%	0.0%	**5.5%**	0.0%	0.0%	100.0%	0.0%	**25.0%**	0.0%	0.0%	2.9%	0.0%	**2.9%**	

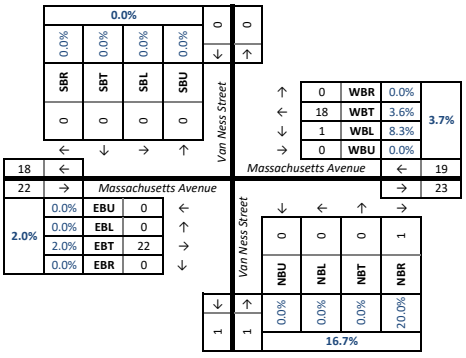
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Van Ness Street				Massachusetts Avenue				Van Ness Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	2				1				1				0			
08:00 AM to 09:00 AM	0	0	0	2	0	0	1	0	0	0	0	1	0	0	0	0
INT. PEAK HR (BIKES)	0				2				1				2			
06:30 AM to 07:30 AM	0	0	0	0	0	0	2	0	0	0	0	1	0	0	2	0

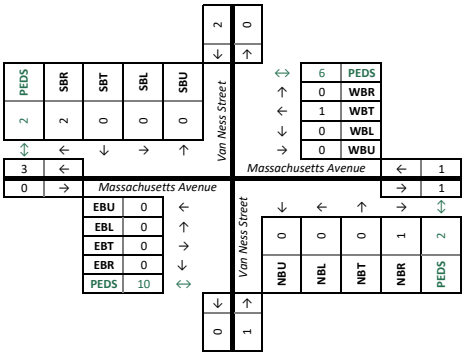
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:30 AM to 09:30 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 49th Street & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Yuma Street					49th Street					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	2	1	0	0	0	3	0	4	0	2	6	4	1	0	0	0	0	1
06:45 AM to 07:00 AM	0	0	2	0	0	0	2	3	0	0	0	1	5	7	1	0	0	0	0	1
07:00 AM to 07:15 AM	0	1	6	1	0	0	1	3	0	3	0	1	8	7	5	0	0	0	0	2
07:15 AM to 07:30 AM	0	0	3	1	1	0	4	4	0	1	0	1	7	11	4	0	0	0	0	4
07:30 AM to 07:45 AM	0	1	3	1	1	0	2	4	0	8	0	1	10	19	2	0	0	0	0	1
07:45 AM to 08:00 AM	0	2	8	1	0	0	4	11	2	2	0	3	17	22	7	0	0	0	0	2
08:00 AM to 08:15 AM	0	0	9	0	0	0	9	14	0	3	0	5	20	26	1	0	0	0	0	1
08:15 AM to 08:30 AM	0	7	9	0	0	0	4	10	1	1	0	3	13	20	0	0	0	1	0	5
08:30 AM to 08:45 AM	0	5	8	4	1	0	3	10	0	3	0	2	19	27	2	0	0	1	0	5
08:45 AM to 09:00 AM	0	0	13	2	1	0	5	7	2	0	1	6	23	31	5	0	0	0	0	4
09:00 AM to 09:15 AM	1	1	7	5	0	0	3	15	0	2	0	2	21	34	4	0	0	0	1	2
09:15 AM to 09:30 AM	0	0	7	1	0	0	7	10	0	2	1	4	26	31	2	0	0	0	0	4
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	54				2	62				7	228				13	2				15
08:30 AM to 09:30 AM	1	6	35	12		0	18	42	2		2	14	89	123		0	0	1	1	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.96	0.25	0.30	0.67	0.60	**0.79**	n/a	0.64	0.70	0.25	**0.86**	0.50	0.58	0.86	0.90	**0.92**	n/a	n/a	0.25	0.25	**0.50**

HEAVY VEHICLES (FHWA 4+)

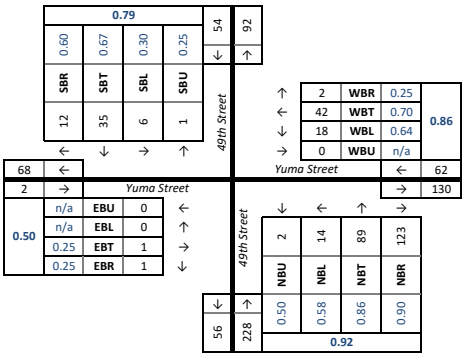
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Yuma Street					49th Street					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 AM to 07:15 AM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
07:15 AM to 07:30 AM	0	0	0	1		0	0	0	0		0	0	0	1		0	0	0	0	
07:30 AM to 07:45 AM	0	0	0	0		0	0	1	0		0	0	0	3		0	0	0	0	
07:45 AM to 08:00 AM	0	0	0	0		0	1	0	0		0	0	0	1		0	0	0	0	
08:00 AM to 08:15 AM	0	0	0	0		0	0	1	0		0	1	0	3		0	0	0	0	
08:15 AM to 08:30 AM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
08:30 AM to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	0	0		0	0	0	3		0	0	0	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
09:15 AM to 09:30 AM	0	0	0	0		0	0	0	0		0	0	0	3		0	0	0	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	0					0					8					0				
08:30 AM to 09:30 AM	0	0	0	0		0	0	0	0		0	0	0	8		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	6.5%	**3.5%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	1					3					9					0				
07:15 AM to 08:15 AM	0	0	0	1		0	1	2	0		0	1	0	8		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	33.3%	**3.4%**	0.0%	5.3%	6.1%	0.0%	**5.6%**	0.0%	10.0%	0.0%	10.3%	**6.3%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

BICYCLES

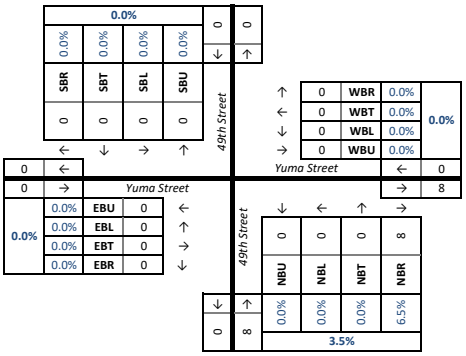
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Yuma Street				49th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	1				0				0				0			
08:30 AM to 09:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	2				1				2				0			
07:15 AM to 08:15 AM	0	0	2	0	0	0	1	0	0	0	2	0	0	0	0	0

DATA COLLECTION NOTES :

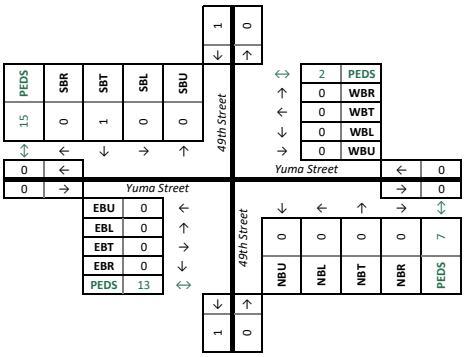
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:15 AM to 09:15 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. /Alley & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	5	0	0	6	2	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	7	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	1	0	0	7	1	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	9	0	0	0	0	0	0	2	0	0	9	1	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	5	0	0	0	0	0	0	1	0	0	20	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	16	0	0	0	1	0	0	4	0	0	24	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	20	0	0	0	0	0	0	3	1	0	27	2	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	16	0	0	0	0	0	0	3	0	0	30	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	16	0	0	0	0	0	0	4	0	0	34	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	1	18	0	0	0	0	0	0	5	0	0	33	1	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	32	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	1	12	0	0	0	0	0	0	2	0	0	30	0	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	0				0	71				0	0				12	130				0
08:15 AM to 09:15 AM	0	0	0	0		0	1	70	0		0	0	0	0		0	0	129	1	
Peak Hour Factor (PHF) Overall	0.95																			
	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
	n/a	n/a	n/a	n/a	**n/a**	n/a	0.25	0.88	n/a	**0.89**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	0.95	0.25	**0.96**

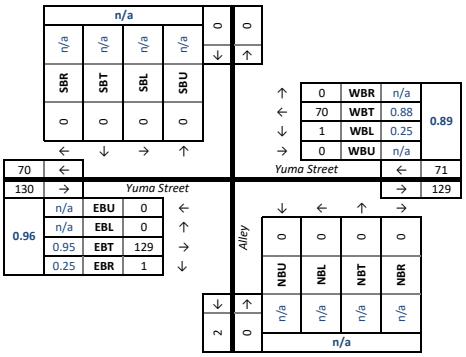
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 AM to 07:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	1	
07:15 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
07:30 AM to 07:45 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
07:45 AM to 08:00 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	3	0	
08:00 AM to 08:15 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	3	0	
08:15 AM to 08:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
08:30 AM to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
09:15 AM to 09:30 AM	0	0	0	0		0	1	0	0		0	0	0	0		0	0	2	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	0					1					0					5				
08:15 AM to 09:15 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	5	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.4%	0.0%	**1.4%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.9%	0.0%	**3.8%**
INT. PEAK HR (HV ONLY)	0					3					1					8				
07:15 AM to 08:15 AM	0	0	0	0		0	0	3	0		0	1	0	0		0	0	7	1	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	6.0%	0.0%	**6.0%**	0.0%	100.0%	0.0%	0.0%	**100.0%**	0.0%	0.0%	8.8%	33.3%	**9.5%**

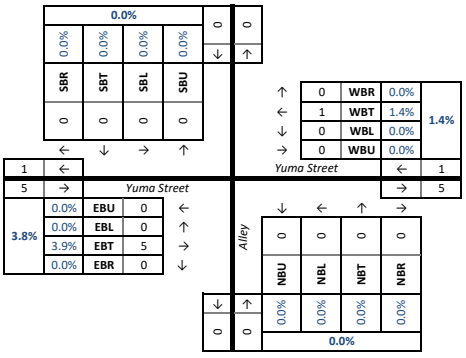
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:					Yuma Street				Alley				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				0				0				0			
08:15 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	0				1				0				0			
07:15 AM to 08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

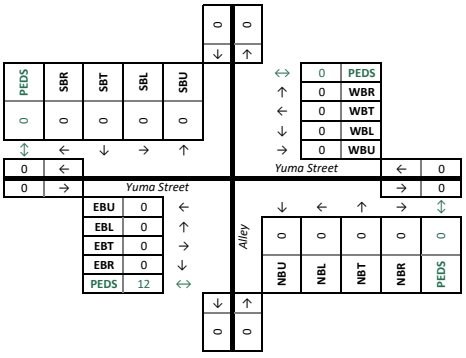
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 48th Street & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Yuma Street					48th Street					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	2	4	1	0	1	0	3	0	0	0	0	3	1	1	0	0	4	0	1
06:45 AM to 07:00 AM	0	0	5	0	0	0	1	2	1	2	0	0	3	1	0	0	0	1	0	0
07:00 AM to 07:15 AM	0	0	8	0	1	0	0	2	0	0	0	0	3	1	0	0	0	2	0	0
07:15 AM to 07:30 AM	0	1	9	0	2	0	4	2	0	0	0	0	6	0	0	0	1	2	1	2
07:30 AM to 07:45 AM	0	4	4	0	2	0	5	4	2	1	0	0	9	9	1	0	0	5	1	0
07:45 AM to 08:00 AM	0	3	17	0	1	0	2	6	0	2	0	0	12	7	1	0	1	5	0	0
08:00 AM to 08:15 AM	0	3	16	0	0	0	2	3	1	3	0	0	21	5	0	0	1	5	1	1
08:15 AM to 08:30 AM	0	3	13	1	1	0	1	2	1	4	0	0	16	12	0	0	1	6	2	0
08:30 AM to 08:45 AM	0	5	16	1	1	0	2	4	3	1	0	0	25	7	2	0	4	2	1	1
08:45 AM to 09:00 AM	0	4	12	2	1	0	4	4	0	2	0	1	20	5	2	0	0	5	0	1
09:00 AM to 09:15 AM	0	0	14	1	4	0	4	2	0	3	0	0	27	2	0	0	1	5	2	1
09:15 AM to 09:30 AM	0	0	12	0	0	0	2	2	0	1	1	1	17	10	4	0	0	5	1	2
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	76				3	27				10	112				4	28				3
08:00 AM to 09:00 AM	0	15	57	4		0	9	13	5		0	1	82	29		0	6	18	4	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.87	n/a	0.75	0.89	0.50	**0.86**	n/a	0.56	0.81	0.42	**0.75**	n/a	0.25	0.82	0.60	**0.88**	n/a	0.38	0.75	0.50	**0.78**

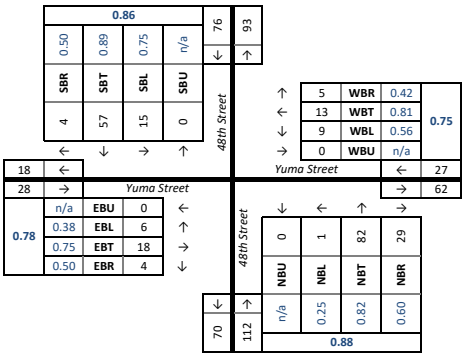
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Yuma Street				48th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
08:00 AM to 08:15 AM	0	0	1	0	0	0	0	0	0	0	1	2	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	1				1				6				0			
08:00 AM to 09:00 AM	0	0	1	0	0	0	1	0	0	0	1	5	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	1.8%	0.0%	**1.3%**	0.0%	0.0%	7.7%	0.0%	**3.7%**	0.0%	0.0%	1.2%	17.2%	**5.4%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	1				2				9				0			
07:30 AM to 08:30 AM	0	0	1	0	0	1	1	0	0	0	1	8	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	2.0%	0.0%	**1.6%**	0.0%	10.0%	6.7%	0.0%	**6.9%**	0.0%	0.0%	1.7%	24.2%	**9.9%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

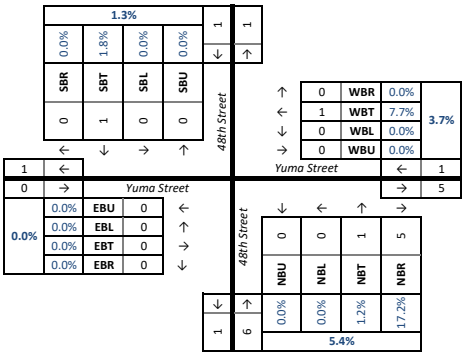
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Yuma Street				48th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				0				0				1			
08:00 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
INT. PEAK HR (BIKES)	0				0				0				2			
08:15 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0

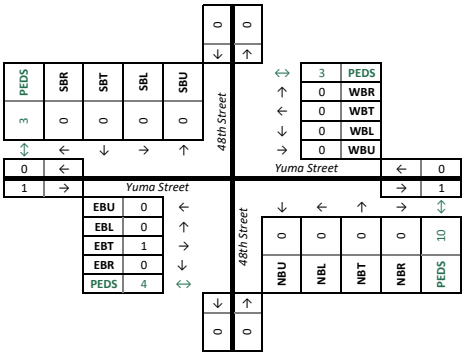
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:30 AM to 08:30 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 48th Street & Windom Place/

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Windom Place					48th Street									
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	5	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	2	0	1	0	0	0	1	1	0	0	3	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	3	0	0	0	0	0	0	3	0	0	2	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	4	0	0	0	0	0	0	1	0	0	6	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	18	0	0	0	1	0	0	0	0	0	12	0	2	0	0	0	0	0
07:45 AM to 08:00 AM	0	1	15	0	0	0	1	0	0	2	0	0	8	0	2	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	14	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	2	15	0	0	0	1	0	1	1	0	0	3	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	15	0	0	0	2	0	2	1	0	0	8	1	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	14	0	0	0	1	0	0	0	0	0	7	1	1	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	7	0	0	0	0	0	1	2	0	0	6	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	1	12	0	0	0	0	0	0	1	0	0	4	0	2	0	0	0	0	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	65				0	4				3	28				4	0				0
07:30 AM to 08:30 AM	0	3	62	0		0	3	0	1		0	0	28	0		0	0	0	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.78	n/a	0.38	0.86	n/a	**0.90**	n/a	0.75	n/a	0.25	**0.50**	n/a	n/a	0.58	n/a	**0.58**	n/a	n/a	n/a	n/a	**n/a**

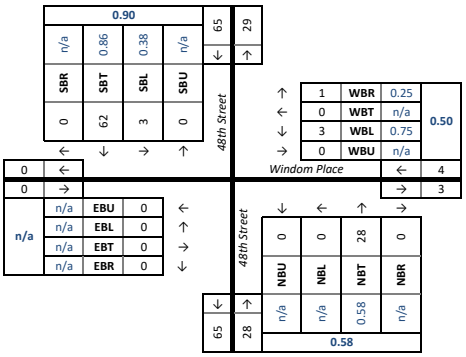
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Windom Place				48th Street							
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	8				0				2				0			
07:30 AM to 08:30 AM	0	0	8	0	0	0	0	0	0	0	2	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	12.9%	0.0%	**12.3%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	7.1%	0.0%	**7.1%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	8				0				2				0			
07:30 AM to 08:30 AM	0	0	8	0	0	0	0	0	0	0	2	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	12.9%	0.0%	**12.3%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	7.1%	0.0%	**7.1%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

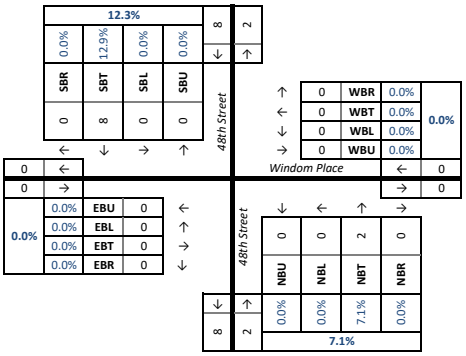
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Windom Place				48th Street							
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	1				0				0				0			
07:30 AM to 08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	2				1				0				0			
08:15 AM to 09:15 AM	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0

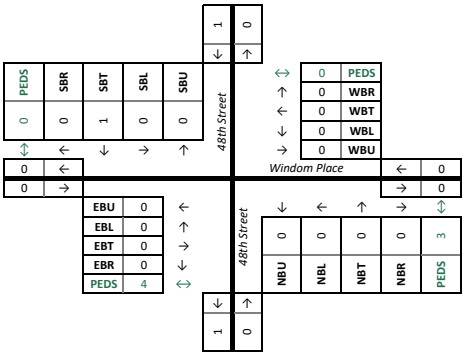
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:30 AM to 08:30 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 48th Street & /Alley

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street										48th Street					Alley				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	5	0	0	0	0	0	0	0	0	1	7	0	1	0	0	0	0	10
06:45 AM to 07:00 AM	0	0	2	0	0	0	0	0	0	0	0	2	3	0	0	0	0	0	2	4
07:00 AM to 07:15 AM	0	0	3	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	2	2	0	0	0	0	0	0	0	1	6	0	0	0	0	0	2	1
07:30 AM to 07:45 AM	0	0	16	3	0	0	0	0	0	0	0	0	12	0	0	0	0	0	0	5
07:45 AM to 08:00 AM	0	0	16	0	0	0	0	0	0	0	0	2	8	0	0	0	0	0	0	4
08:00 AM to 08:15 AM	0	0	13	0	0	0	0	0	0	0	0	2	5	0	0	0	0	0	2	2
08:15 AM to 08:30 AM	0	0	18	0	0	0	0	0	0	0	0	2	2	0	0	0	2	0	0	3
08:30 AM to 08:45 AM	0	0	16	1	0	0	0	0	0	0	0	1	10	0	0	0	0	0	1	3
08:45 AM to 09:00 AM	0	0	15	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	1	7
09:00 AM to 09:15 AM	0	0	5	1	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	8
09:15 AM to 09:30 AM	0	0	14	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	10
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	66				0	0				0	33				0	4				14
07:30 AM to 08:30 AM	0	0	63	3		0	0	0	0		0	6	27	0		0	2	0	2	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.83	n/a	n/a	0.88	0.25	**0.87**	n/a	n/a	n/a	n/a	**n/a**	n/a	0.75	0.56	n/a	**0.69**	n/a	0.25	n/a	0.25	**0.50**

HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street										48th Street					Alley				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 AM to 07:15 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:30 AM to 07:45 AM	0	0	2	0		0	0	0	0		0	0	1	0		0	0	0	0	
07:45 AM to 08:00 AM	0	0	3	0		0	0	0	0		0	2	0	0		0	0	0	0	
08:00 AM to 08:15 AM	0	0	2	0		0	0	0	0		0	1	0	0		0	0	0	1	
08:15 AM to 08:30 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	1	0	0	
08:30 AM to 08:45 AM	0	0	2	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:00 AM to 09:15 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:15 AM to 09:30 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
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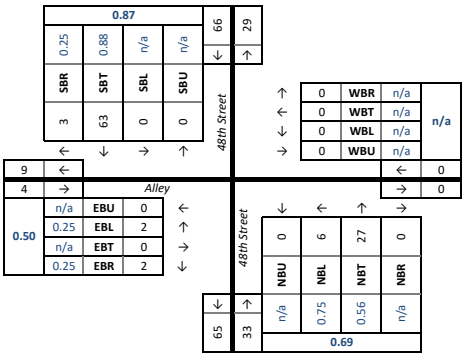
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	8					0					4					2				
07:30 AM to 08:30 AM	0	0	8	0		0	0	0	0		0	3	1	0		0	1	0	1	
Heavy Vehicle % (PHV):	0.0%	0.0%	12.7%	0.0%	**12.1%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	50.0%	3.7%	0.0%	**12.1%**	0.0%	50.0%	0.0%	50.0%	**50.0%**
INT. PEAK HR (HV ONLY)	8					0					4					2				
07:30 AM to 08:30 AM	0	0	8	0		0	0	0	0		0	3	1	0		0	1	0	1	
Heavy Vehicle % (PHV):	0.0%	0.0%	12.7%	0.0%	**12.1%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	50.0%	3.7%	0.0%	**12.1%**	0.0%	50.0%	0.0%	50.0%	**50.0%**

BICYCLES

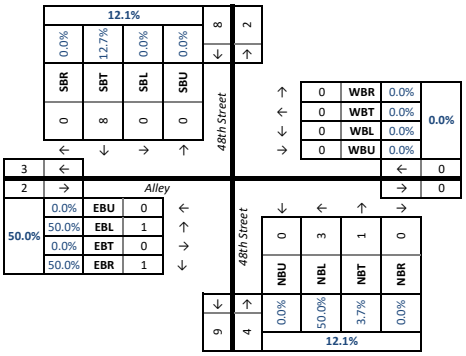
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street										48th Street					Alley				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	1	
07:00 AM to 07:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:30 AM to 07:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:45 AM to 08:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:00 AM to 08:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:15 AM to 08:30 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:30 AM to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:00 AM to 09:15 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:15 AM to 09:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	1					0					0					0				
07:30 AM to 08:30 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
INT. PEAK HR (BIKES)	1					0					0					1				
06:30 AM to 07:30 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	1	

DATA COLLECTION NOTES :

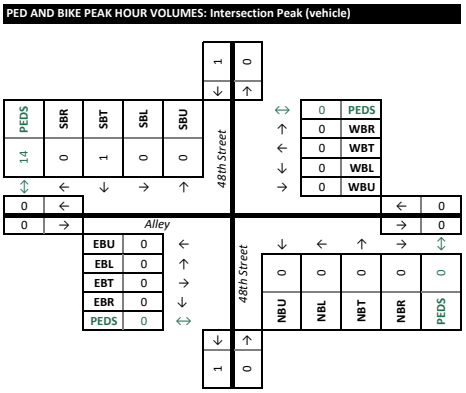
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:00 AM to 09:00 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 48th Street & Warren Street/

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Warren Street					48th Street									
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	6	0	0	0	0	0	0	1	0	0	8	1	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	4	0	3	0	3	0	0	0	0	0	6	3	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	3	0	0	0	0	0	0	3	0	0	3	1	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	1	3	0	0	0	3	0	1	0	0	0	6	3	1	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	14	0	3	0	2	0	1	0	0	0	11	6	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	4	12	0	1	0	1	0	2	0	1	0	9	6	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	17	0	1	0	4	0	0	0	0	0	8	13	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	3	14	0	2	0	3	0	0	0	1	0	5	15	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	3	15	0	5	1	6	0	2	0	0	0	9	14	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	17	0	4	0	5	0	4	0	0	0	5	13	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	1	3	0	7	1	6	0	2	3	0	0	5	7	1	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	15	0	3	0	2	0	0	1	2	0	7	6	2	0	0	0	0	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	69				12	25				0	83				0	0				0
08:00 AM to 09:00 AM	0	6	63	0		1	18	0	6		1	0	27	55		0	0	0	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.89	n/a	0.50	0.93	n/a	**0.96**	0.25	0.75	n/a	0.38	**0.69**	0.25	n/a	0.75	0.92	**0.90**	n/a	n/a	n/a	n/a	**n/a**

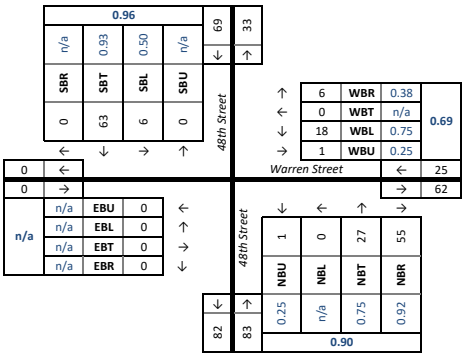
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Warren Street				48th Street							
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	3	0	0	0	0	0	0	0	1	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	6				0				0				0			
08:00 AM to 09:00 AM	0	0	6	0	0	0	0	0	0	0	0	0	0	0		
Heavy Vehicle % (PHV):	0.0%	0.0%	9.5%	0.0%	**8.7%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	7				1				2				0			
07:15 AM to 08:15 AM	0	0	7	0	0	1	0	0	0	0	2	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	15.2%	0.0%	**13.7%**	0.0%	10.0%	0.0%	0.0%	**7.1%**	0.0%	0.0%	5.9%	0.0%	**3.2%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

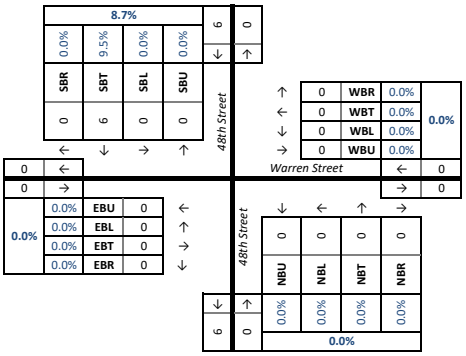
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Warren Street				48th Street							
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	1				1				0				0			
08:00 AM to 09:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	2				1				0				0			
08:15 AM to 09:15 AM	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0

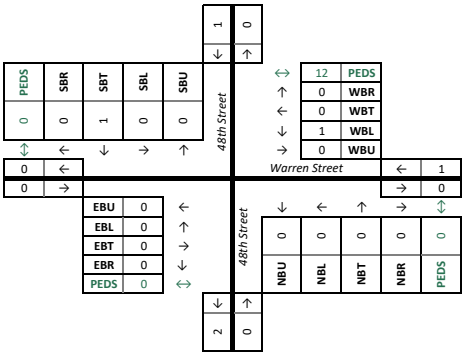
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:30 AM to 09:30 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 49th Street & Fordham Road

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	49th Street					Fordham Road					49th Street					Fordham Road				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM	to 06:45 AM	0	2	2	3	2	0	1	1	1	1	0	0	2	1	0	0	1	0	0	0
06:45 AM	to 07:00 AM	0	0	2	5	0	0	2	1	0	2	0	0	5	0	1	0	2	0	0	0
07:00 AM	to 07:15 AM	0	3	1	2	2	0	0	0	2	5	0	0	5	1	0	0	1	2	0	3
07:15 AM	to 07:30 AM	0	6	2	5	0	0	1	0	4	1	0	0	6	2	0	0	1	1	0	1
07:30 AM	to 07:45 AM	0	2	2	6	1	0	1	0	5	8	0	0	15	2	0	0	0	1	1	5
07:45 AM	to 08:00 AM	0	6	2	5	0	0	0	2	2	2	0	1	14	3	0	0	3	3	0	0
08:00 AM	to 08:15 AM	0	10	4	4	3	0	0	2	4	2	0	1	10	2	1	0	7	0	0	1
08:15 AM	to 08:30 AM	0	4	2	5	0	0	1	1	1	3	0	0	15	4	0	0	8	1	1	1
08:30 AM	to 08:45 AM	2	7	3	5	0	0	1	2	6	2	0	1	22	3	2	0	10	4	0	5
08:45 AM	to 09:00 AM	0	7	2	6	4	0	1	0	8	4	0	1	28	3	5	0	6	4	0	1
09:00 AM	to 09:15 AM	2	5	8	8	2	0	0	1	2	2	0	0	16	4	1	0	5	0	0	3
09:15 AM	to 09:30 AM	1	6	10	2	0	0	0	1	10	3	0	0	14	2	1	0	9	2	0	1
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
INT. PEAK HR (ALL VEH)		74				6	32				11	94				9	40				10
08:30 AM	to 09:30 AM	5	25	23	21		0	2	4	26		0	2	80	12		0	30	10	0	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.91**	0.63	0.89	0.58	0.66	**0.80**	n/a	0.50	0.50	0.65	**0.73**	n/a	0.50	0.71	0.75	**0.73**	n/a	0.75	0.63	n/a	**0.71**

HEAVY VEHICLES (FHWA 4+)

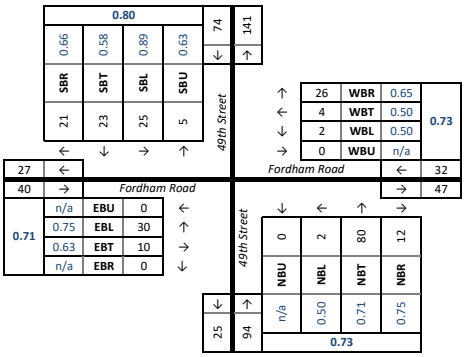
	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	49th Street					Fordham Road					49th Street					Fordham Road				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM	to 06:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 AM	to 07:00 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 AM	to 07:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:15 AM	to 07:30 AM	0	0	0	0		0	1	0	0		0	0	0	0		0	0	0	0	
07:30 AM	to 07:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:45 AM	to 08:00 AM	0	0	0	0		0	0	0	0		0	0	1	0		0	0	0	0	
08:00 AM	to 08:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:15 AM	to 08:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:30 AM	to 08:45 AM	0	1	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
08:45 AM	to 09:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:00 AM	to 09:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:15 AM	to 09:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:30 AM	to 09:45 AM																				
09:45 AM	to 10:00 AM																				
10:00 AM	to 10:15 AM																				
10:15 AM	to 10:30 AM																				
10:30 AM	to 10:45 AM																				
10:45 AM	to 11:00 AM																				
11:00 AM	to 11:15 AM																				
11:15 AM	to 11:30 AM																				
INT. PEAK HR (ALL VEH)		2					0					0					0				
08:30 AM	to 09:30 AM	0	1	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	4.0%	0.0%	4.8%	**2.7%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)		2					0					1					0				
07:45 AM	to 08:45 AM	0	1	0	1		0	0	0	0		0	0	1	0		0	0	0	0	
Heavy Vehicle % (PHV):		0.0%	3.7%	0.0%	5.3%	**3.4%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.6%	0.0%	**1.3%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

BICYCLES

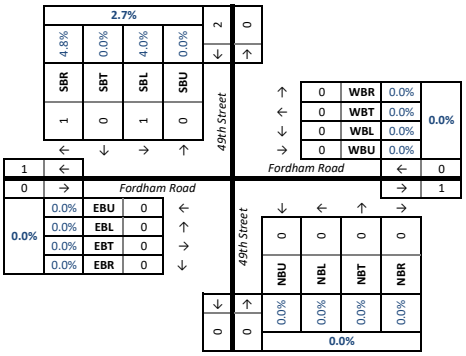
	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	49th Street				Fordham Road				49th Street				Fordham Road			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM	to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM	to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM	to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM	to 07:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM	to 07:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:45 AM	to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM	to 08:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM	to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM	to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM	to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM	to 09:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	to 09:45 AM																
09:45 AM	to 10:00 AM																
10:00 AM	to 10:15 AM																
10:15 AM	to 10:30 AM																
10:30 AM	to 10:45 AM																
10:45 AM	to 11:00 AM																
11:00 AM	to 11:15 AM																
11:15 AM	to 11:30 AM																
INT. PEAK HR (ALL VEH)		1				0				0				0			
08:30 AM	to 09:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)		2				0				1				0			
07:15 AM	to 08:15 AM	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0

DATA COLLECTION NOTES :

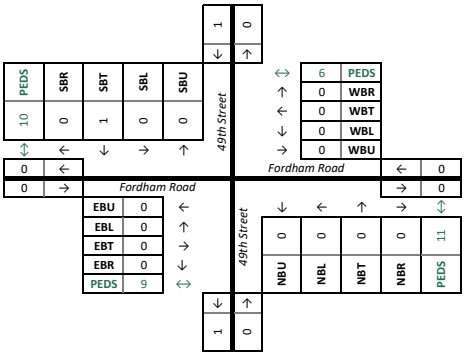
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:30 AM to 09:30 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 49th Street & Albemarle Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Albemarle Street					49th Street					Albemarle Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	2	0	0	0	1	3	0	5	0	0	5	1	0
06:45 AM to 07:00 AM	0	0	0	0	1	0	2	2	0	1	0	0	2	0	1	0	0	4	0	0
07:00 AM to 07:15 AM	0	0	0	0	2	0	1	4	0	0	0	4	1	0	0	0	2	4	1	1
07:15 AM to 07:30 AM	0	0	1	0	2	0	1	4	0	0	0	0	6	0	1	0	0	5	3	0
07:30 AM to 07:45 AM	0	0	2	0	2	0	2	3	1	0	0	2	5	0	7	0	0	5	6	0
07:45 AM to 08:00 AM	0	0	1	0	3	0	5	8	1	0	0	3	10	0	2	0	0	10	6	0
08:00 AM to 08:15 AM	0	0	1	0	1	0	3	6	0	1	0	0	16	0	2	0	0	14	10	1
08:15 AM to 08:30 AM	0	0	2	0	2	0	3	10	0	0	0	4	7	2	2	0	1	7	2	0
08:30 AM to 08:45 AM	0	0	1	0	1	0	2	10	3	1	0	4	12	1	2	0	0	12	8	1
08:45 AM to 09:00 AM	0	0	1	0	1	0	1	8	1	1	0	4	12	0	1	0	1	16	7	2
09:00 AM to 09:15 AM	0	0	1	0	2	0	0	6	1	0	0	7	13	1	0	0	2	13	4	0
09:15 AM to 09:30 AM	0	0	0	0	1	0	1	8	0	0	0	3	13	0	2	0	0	14	11	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	3				5	41				2	70				5	88				3
08:30 AM to 09:30 AM	0	0	3	0		0	4	32	5		0	18	50	2		0	3	55	30	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.95	n/a	n/a	0.75	n/a	**0.75**	n/a	0.50	0.80	0.42	**0.68**	n/a	0.64	0.96	0.50	**0.83**	n/a	0.38	0.86	0.68	**0.88**

HEAVY VEHICLES (FHWA 4+)

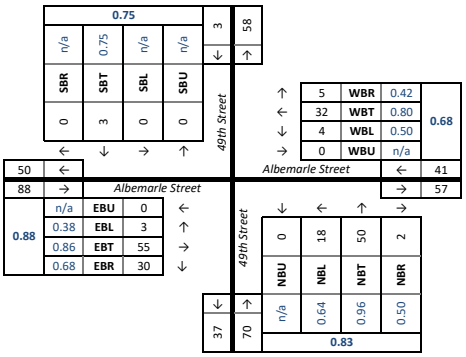
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Albemarle Street				49th Street				Albemarle Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				0				0				0			
08:30 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
INT. PEAK HR (HV ONLY)	0				1				1				0			
07:00 AM to 08:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.3%	0.0%	3.3%	0.0%	11.1%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

BICYCLES

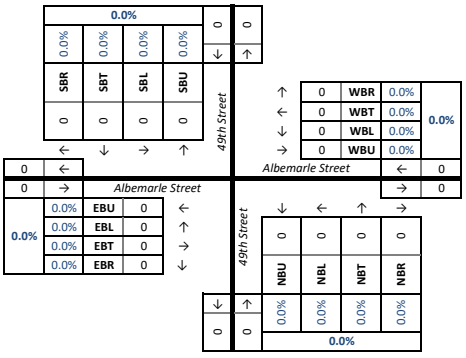
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Albemarle Street				49th Street				Albemarle Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				1				1				0			
08:30 AM to 09:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
INT. PEAK HR (BIKES)	0				1				1				0			
08:15 AM to 09:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0

DATA COLLECTION NOTES :

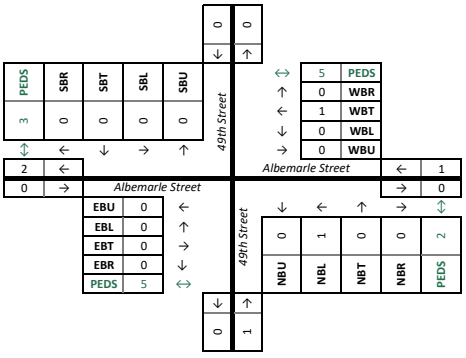
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 48th Street & Albemarle Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Albemarle Street					48th Street					Albemarle Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	2	0	0	0	2	4	1	3	0	0	1	1	0	0	0	2	0	0
06:45 AM to 07:00 AM	0	1	1	0	0	0	0	2	0	1	0	0	2	0	1	0	0	1	0	0
07:00 AM to 07:15 AM	0	0	3	0	0	0	0	5	0	2	0	1	2	0	2	0	0	2	0	0
07:15 AM to 07:30 AM	0	3	1	0	0	0	1	4	0	3	0	0	2	0	1	0	0	4	0	0
07:30 AM to 07:45 AM	0	3	5	1	0	1	0	6	0	1	0	0	2	2	1	0	1	9	0	0
07:45 AM to 08:00 AM	0	1	2	0	0	0	1	9	2	0	0	0	4	3	1	0	0	11	1	0
08:00 AM to 08:15 AM	0	2	4	2	1	0	1	14	0	2	0	1	3	1	1	0	0	13	0	0
08:15 AM to 08:30 AM	0	5	4	2	0	0	1	11	1	2	0	0	3	1	0	0	1	7	0	0
08:30 AM to 08:45 AM	0	4	5	1	1	0	2	21	2	0	0	0	2	2	2	0	1	10	0	0
08:45 AM to 09:00 AM	0	0	3	1	0	0	1	14	0	3	0	0	6	0	3	0	1	7	1	1
09:00 AM to 09:15 AM	0	1	7	1	0	0	1	19	0	1	0	0	2	1	1	0	0	6	0	2
09:15 AM to 09:30 AM	0	1	7	0	0	0	0	15	0	2	0	0	1	2	0	0	0	11	1	1
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	32				2	65				4	20				4	44				0
07:45 AM to 08:45 AM	0	12	15	5		0	5	55	5		0	1	12	7		0	2	41	1	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.81**	n/a	0.60	0.75	0.63	**0.73**	n/a	0.63	0.65	0.63	**0.65**	n/a	0.25	0.75	0.58	**0.71**	n/a	0.50	0.79	0.25	**0.85**

HEAVY VEHICLES (FHWA 4+)

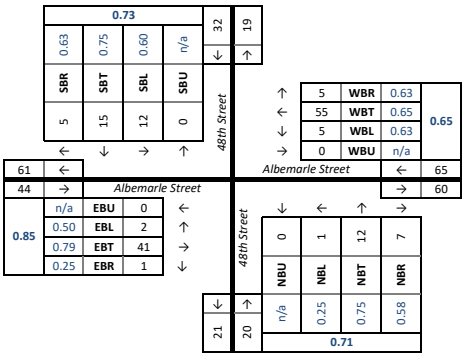
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Albemarle Street				48th Street				Albemarle Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				0				1				0			
07:45 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
INT. PEAK HR (HV ONLY)	0				0				1				0			
07:30 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.3%	0.0%	5.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

BICYCLES

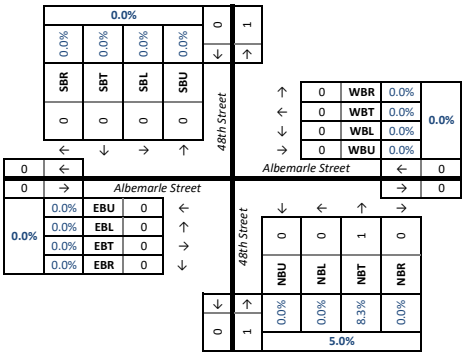
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Albemarle Street				48th Street				Albemarle Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	1				0				0				0			
07:45 AM to 08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	1				1				0				0			
08:15 AM to 09:15 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0

DATA COLLECTION NOTES :

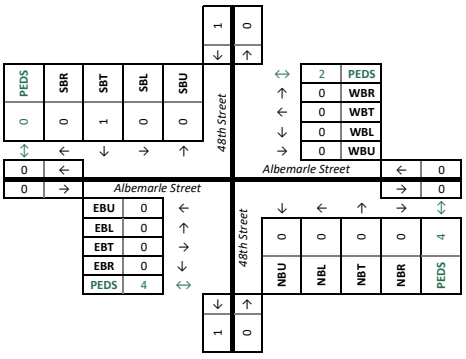
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 46th Street & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	46th Street					Yuma Street					46th Street					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	9	0	0	0	0	8	1	0	0	1	3	0	0	0	0	2	0	1
06:45 AM to 07:00 AM	0	1	16	2	1	0	1	3	0	0	0	1	2	0	0	1	0	3	0	2
07:00 AM to 07:15 AM	0	4	9	6	1	0	1	6	1	1	0	0	7	0	1	0	0	2	1	3
07:15 AM to 07:30 AM	0	1	22	2	0	0	3	9	3	0	0	1	8	2	1	0	1	7	1	0
07:30 AM to 07:45 AM	0	4	25	1	0	0	0	5	0	0	0	0	4	2	1	0	1	9	1	2
07:45 AM to 08:00 AM	0	3	22	3	2	0	2	18	3	0	0	1	15	3	3	0	0	14	0	4
08:00 AM to 08:15 AM	0	1	33	2	2	0	0	15	2	4	0	2	9	2	2	0	2	24	3	0
08:15 AM to 08:30 AM	0	4	29	3	1	0	3	13	1	3	0	0	16	3	3	0	0	27	0	1
08:30 AM to 08:45 AM	0	5	29	4	2	0	4	24	6	1	0	0	12	2	2	0	0	33	2	0
08:45 AM to 09:00 AM	0	3	22	2	2	0	1	18	1	1	0	1	6	0	0	0	0	17	1	1
09:00 AM to 09:15 AM	0	1	30	3	1	0	2	11	2	0	0	1	9	1	0	0	2	26	2	2
09:15 AM to 09:30 AM	0	1	24	2	1	0	1	10	2	0	0	0	11	1	2	0	1	17	1	2
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	138				7	91				8	65				10	105				5
07:45 AM to 08:45 AM	0	13	113	12		0	9	70	12		0	3	52	10		0	2	98	5	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.82	n/a	0.65	0.86	0.75	**0.91**	n/a	0.56	0.73	0.50	**0.67**	n/a	0.38	0.81	0.83	**0.86**	n/a	0.25	0.74	0.42	**0.75**

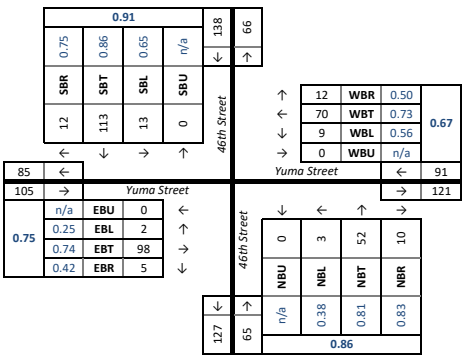
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	46th Street				Yuma Street				46th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	
08:15 AM to 08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
08:30 AM to 08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	2				1				1				1			
07:45 AM to 08:45 AM	0	0	2	0	0	0	1	0	0	0	1	0	0	0	1	0
Heavy Vehicle % (PHV):	0.0%	0.0%	1.8%	0.0%	**1.4%**	0.0%	0.0%	1.4%	0.0%	**1.1%**	0.0%	0.0%	1.9%	0.0%	**1.5%**	0.0%	0.0%	1.0%	0.0%	**1.0%**
INT. PEAK HR (HV ONLY)	4				1				2				1			
07:30 AM to 08:30 AM	0	0	4	0	0	0	1	0	0	0	1	1	0	0	1	0
Heavy Vehicle % (PHV):	0.0%	0.0%	3.7%	0.0%	**3.1%**	0.0%	0.0%	2.0%	0.0%	**1.6%**	0.0%	0.0%	2.3%	10.0%	**3.5%**	0.0%	0.0%	1.4%	0.0%	**1.2%**

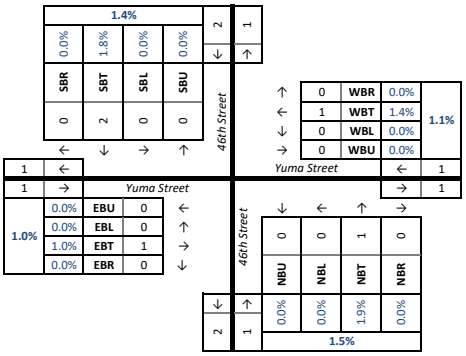
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	46th Street				Yuma Street				46th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	1				0				0				0			
07:45 AM to 08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	3				0				0				0			
08:30 AM to 09:30 AM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0

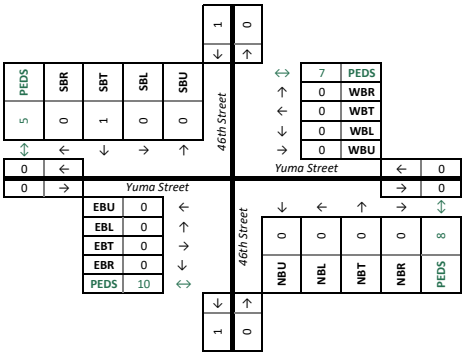
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:45 AM to 08:45 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. 48th Street & /Parking Entrance

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street										48th Street					Parking Entrance				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	5	3	0	0	0	0	0	0	0	3	4	0	0	0	0	0	0	2
06:45 AM to 07:00 AM	0	0	2	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1
07:00 AM to 07:15 AM	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	2
07:30 AM to 07:45 AM	0	0	15	1	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0	1
07:45 AM to 08:00 AM	0	0	15	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	1	3
08:00 AM to 08:15 AM	0	0	12	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	1	3
08:15 AM to 08:30 AM	0	0	20	1	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	2
08:30 AM to 08:45 AM	0	0	14	2	0	0	0	0	0	0	0	1	9	0	0	0	0	0	1	3
08:45 AM to 09:00 AM	0	0	13	0	0	0	0	0	0	0	0	0	7	0	0	0	1	0	1	2
09:00 AM to 09:15 AM	0	0	7	0	0	0	0	0	0	0	0	1	6	0	0	0	0	0	0	4
09:15 AM to 09:30 AM	0	0	13	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	5
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	64				0	0				0	28				0	3				11
07:45 AM to 08:45 AM	0	0	61	3		0	0	0	0		0	1	27	0		0	0	0	3	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.88	n/a	n/a	0.76	0.38	**0.76**	n/a	n/a	n/a	n/a	**n/a**	n/a	0.25	0.75	n/a	**0.70**	n/a	n/a	n/a	0.75	**0.75**

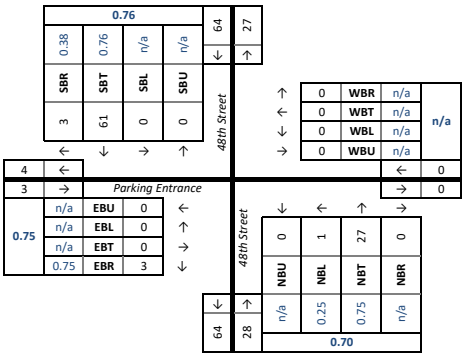
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street										48th Street					Parking Entrance				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 AM to 07:15 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:30 AM to 07:45 AM	0	0	1	0		0	0	0	0		0	0	1	0		0	0	0	0	
07:45 AM to 08:00 AM	0	0	3	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:00 AM to 08:15 AM	0	0	2	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:15 AM to 08:30 AM	0	0	1	0		0	0	0	0		0	0	1	0		0	0	0	0	
08:30 AM to 08:45 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
08:45 AM to 09:00 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:00 AM to 09:15 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:15 AM to 09:30 AM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	7					0					1					0				
07:45 AM to 08:45 AM	0	0	7	0		0	0	0	0		0	0	1	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	11.5%	0.0%	**10.9%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.7%	0.0%	**3.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	7					0					2					0				
07:30 AM to 08:30 AM	0	0	7	0		0	0	0	0		0	0	2	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	11.3%	0.0%	**10.9%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	7.1%	0.0%	**7.1%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

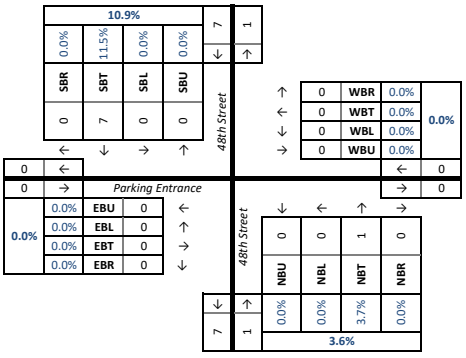
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street								48th Street				Parking Entrance			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	1				0				0				0			
07:45 AM to 08:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	2				0				0				0			
08:15 AM to 09:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0

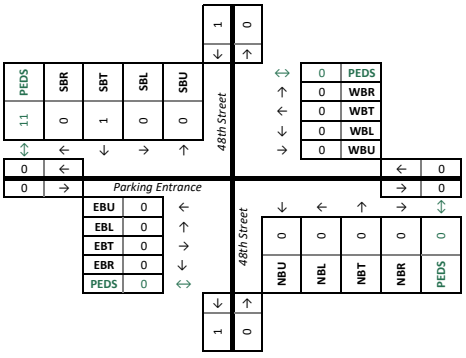
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 08:30 AM to 09:30 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. /Garage Entrance & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Garage Entrance					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	2	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	1	4	0	0	0	0	0	0	1	0	0	4	2	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	4	4	0	0	0	0	0	0	6	0	0	4	3	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	5	9	0	0	0	0	0	1	2	0	0	7	2	1
07:30 AM to 07:45 AM	0	0	0	0	0	0	3	6	0	0	0	0	0	0	3	0	0	19	1	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	3	15	0	0	0	0	0	0	4	0	0	18	7	1
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	20	0	1	0	0	0	0	2	0	0	26	2	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	1	13	0	0	0	0	0	0	2	0	0	27	1	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	4	14	0	0	0	0	0	0	3	0	0	32	1	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	3	14	0	0	0	1	0	0	2	0	0	26	3	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	4	18	0	0	0	0	0	0	0	1	0	30	3	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	14	0	0	0	1	0	0	2	0	0	27	3	1
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	0				0	71				0	2				7	126				1
08:30 AM to 09:30 AM	0	0	0	0		0	11	60	0		0	2	0	0		1	0	115	10	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.89	n/a	n/a	n/a	n/a	**n/a**	n/a	0.69	0.83	n/a	**0.81**	n/a	0.50	n/a	n/a	**0.50**	0.25	n/a	0.90	0.83	**0.93**

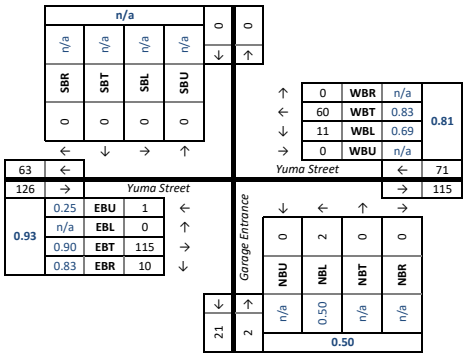
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Garage Entrance					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 AM to 07:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 AM to 07:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
07:15 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:30 AM to 07:45 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	2	0	
07:45 AM to 08:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	3	0	
08:00 AM to 08:15 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	3	0	
08:15 AM to 08:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
08:30 AM to 08:45 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
08:45 AM to 09:00 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
09:00 AM to 09:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
09:15 AM to 09:30 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	2	0	
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)	0					1					0					5				
08:30 AM to 09:30 AM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	5	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.7%	0.0%	**1.4%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	4.3%	0.0%	**4.0%**
INT. PEAK HR (HV ONLY)	0					2					0					9				
07:30 AM to 08:30 AM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	9	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.7%	0.0%	**3.3%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	10.0%	0.0%	**8.9%**

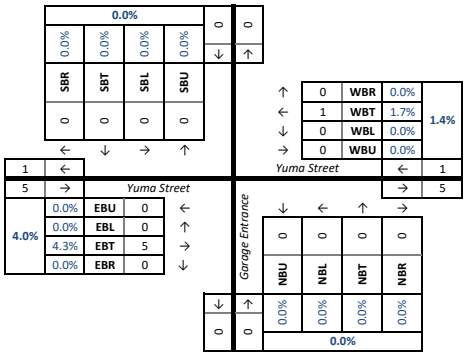
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:					Yuma Street				Garage Entrance				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																
09:45 AM to 10:00 AM																
10:00 AM to 10:15 AM																
10:15 AM to 10:30 AM																
10:30 AM to 10:45 AM																
10:45 AM to 11:00 AM																
11:00 AM to 11:15 AM																
11:15 AM to 11:30 AM																
INT. PEAK HR (ALL VEH)	0				0				0				0			
08:30 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	0				1				0				0			
07:15 AM to 08:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0

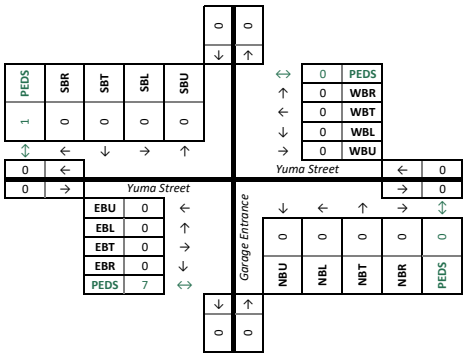
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 06:30 AM to 09:30 AM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 07:30 AM to 08:30 AM
System Peak Hour (all vehicles): 08:00 AM to 09:00 AM
User-Defined Peak Hour: 07:30 AM to 08:30 AM

Intersection: 1. /Alley & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)		0			0		0			0		1			0		0			0
07:30 AM to 08:30 AM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0	
Peak Hour Factor (PHF) Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
0.25	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	n/a	0.25	n/a	n/a	**0.25**	n/a	n/a	n/a	n/a	**n/a**

HEAVY VEHICLES (FHWA 4+)

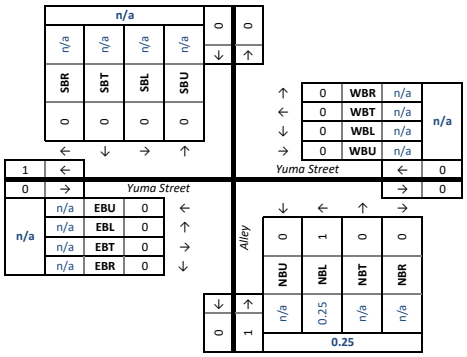
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)		0					0					0					0			
07:30 AM to 08:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)		0					0					0					0			
06:30 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

BICYCLES

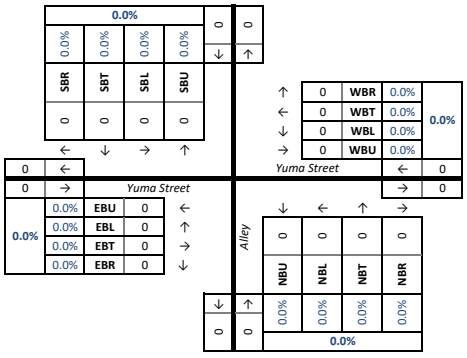
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
06:30 AM to 06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 AM to 07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 AM to 07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15 AM to 07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30 AM to 07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45 AM to 08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00 AM to 08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15 AM to 08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30 AM to 08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:45 AM to 09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:00 AM to 09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM to 09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM to 09:45 AM																				
09:45 AM to 10:00 AM																				
10:00 AM to 10:15 AM																				
10:15 AM to 10:30 AM																				
10:30 AM to 10:45 AM																				
10:45 AM to 11:00 AM																				
11:00 AM to 11:15 AM																				
11:15 AM to 11:30 AM																				
INT. PEAK HR (ALL VEH)		0					0					0					0			
07:30 AM to 08:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
INT. PEAK HR (BIKES)		0					0					0					0			
06:30 AM to 07:30 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

DATA COLLECTION NOTES :

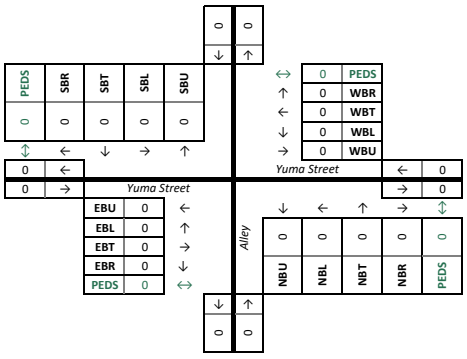
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. /50th Street & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Massachusetts Avenue					50th Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	0	0	0	0	1	273	0	0	0	11	0	1	0	0	0	119	5	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	236	0	0	0	17	0	1	2	0	0	151	5	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	263	0	1	0	18	0	0	1	0	0	151	5	1
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	219	0	0	0	14	0	1	0	0	0	180	9	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	1	274	0	0	0	10	0	0	2	0	0	184	5	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	1	234	0	0	0	6	0	1	0	0	0	205	4	1
05:30 PM to 05:45 PM	0	0	0	0	0	0	1	293	0	1	0	9	0	0	3	0	0	219	5	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	1	246	0	0	0	6	0	0	2	0	0	233	6	2
06:00 PM to 06:15 PM	0	0	0	0	0	0	1	255	0	0	0	9	0	0	1	0	0	215	8	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	2	262	0	0	0	5	0	0	3	0	0	245	11	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	4	240	0	0	0	8	0	0	2	0	0	222	6	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	2	181	0	0	0	1	0	0	2	0	0	198	8	2
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)		0			0		1061			1		29			9		942			2
05:30 PM to 06:30 PM	0	0	0	0		0	5	1056	0		0	29	0	0		0	0	912	30	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.96	n/a	n/a	n/a	n/a	**n/a**	n/a	0.63	0.90	n/a	**0.90**	n/a	0.81	n/a	n/a	**0.81**	n/a	n/a	0.93	0.68	**0.92**

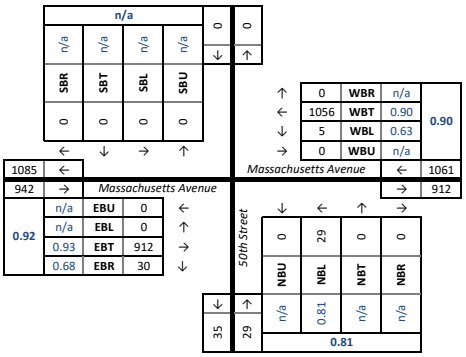
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Massachusetts Avenue					50th Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	0	0		0	0	2	0		0	1	0	0		0	0	3	0	
04:15 PM to 04:30 PM	0	0	0	0		0	0	4	0		0	1	0	0		0	0	1	0	
04:30 PM to 04:45 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	1	0	
04:45 PM to 05:00 PM	0	0	0	0		0	0	6	0		0	0	0	0		0	0	1	0	
05:00 PM to 05:15 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	6	0	
05:15 PM to 05:30 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
05:30 PM to 05:45 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	1	
05:45 PM to 06:00 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	3	0	
06:00 PM to 06:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	2	0	
06:30 PM to 06:45 PM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	0	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	0	1	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)		0					6					0					6			
05:30 PM to 06:30 PM	0	0	0	0		0	0	6	0		0	0	0	0		0	0	5	1	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.6%	0.0%	**0.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.5%	3.3%	**0.6%**
INT. PEAK HR (HV ONLY)		0					16					1					9			
04:15 PM to 05:15 PM	0	0	0	0		0	0	16	0		0	1	0	0		0	0	9	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.6%	0.0%	**1.6%**	0.0%	1.7%	0.0%	0.0%	**1.6%**	0.0%	0.0%	1.4%	0.0%	**1.3%**

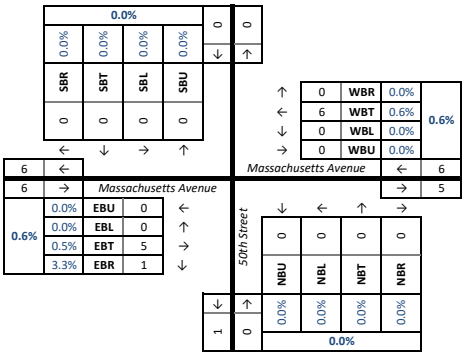
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:					Massachusetts Avenue				50th Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)		0				2				0				0		
05:30 PM to 06:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)		0				4				0				0		
04:30 PM to 05:30 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0

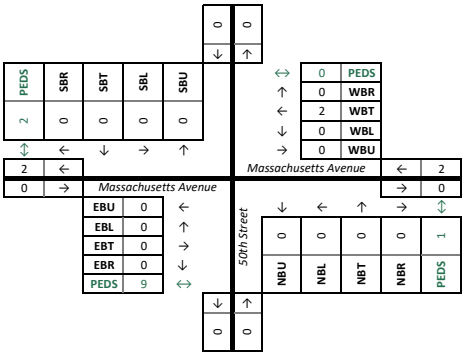
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. Yuma Street & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Yuma Street					Massachusetts Avenue					Yuma Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	4	14	0	0	13	219	0	0	0	1	0	18	0	0	0	124	0	1
04:15 PM to 04:30 PM	0	0	3	10	1	0	10	209	0	0	0	3	0	17	1	0	0	146	2	1
04:30 PM to 04:45 PM	0	0	2	11	1	0	5	235	0	3	0	1	0	9	2	0	0	146	0	2
04:45 PM to 05:00 PM	0	0	0	14	3	0	4	184	0	0	0	0	0	5	0	0	0	179	1	0
05:00 PM to 05:15 PM	0	0	0	18	1	0	5	230	0	1	0	2	0	11	4	0	0	182	0	1
05:15 PM to 05:30 PM	0	2	1	17	1	0	3	207	0	0	0	1	0	11	0	0	0	208	0	0
05:30 PM to 05:45 PM	0	0	4	14	4	0	6	294	0	2	0	1	0	6	1	0	0	218	1	0
05:45 PM to 06:00 PM	0	0	1	11	6	0	6	248	0	0	0	0	0	10	0	0	0	233	0	1
06:00 PM to 06:15 PM	0	1	1	18	4	0	4	295	0	0	0	1	0	8	4	0	0	215	0	0
06:15 PM to 06:30 PM	0	0	1	8	1	0	9	303	0	1	0	3	0	10	3	0	0	240	2	0
06:30 PM to 06:45 PM	0	0	0	8	0	0	6	288	0	0	0	0	0	9	2	0	0	221	0	0
06:45 PM to 07:00 PM	0	0	1	10	4	0	6	192	0	0	0	0	0	4	3	0	0	199	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	59				15	1165				3	39				8	909				1
05:30 PM to 06:30 PM	0	1	7	51		0	25	1140	0		0	5	0	34		0	0	906	3	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.94**	n/a	0.25	0.44	0.71	**0.74**	n/a	0.69	0.94	n/a	**0.93**	n/a	0.42	n/a	0.85	**0.75**	n/a	n/a	0.94	0.38	**0.94**

HEAVY VEHICLES (FHWA 4+)

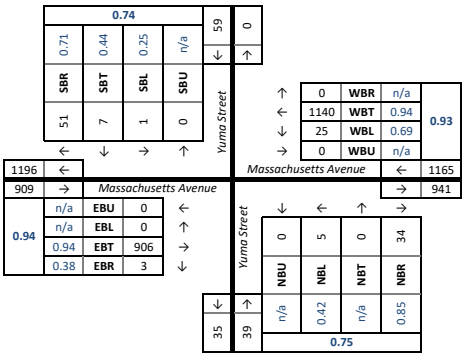
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Yuma Street				Massachusetts Avenue				Yuma Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	3	0
04:15 PM to 04:30 PM	0	0	0	1	0	0	3	0	0	0	0	0	0	0	1	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	6	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				5				1				6			
05:30 PM to 06:30 PM	0	0	0	0	0	0	5	0	0	1	0	0	0	0	6	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.4%	0.0% **0.4%**	0.0%	20.0%	0.0%	0.0% **2.6%**	0.0%	0.0%	0.7%	0.0% **0.7%**
INT. PEAK HR (HV ONLY)	1				14				0				9			
04:15 PM to 05:15 PM	0	0	0	1	0	0	14	0	0	0	0	0	0	0	9	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	1.9% **1.7%**	0.0%	0.0%	1.6%	0.0% **1.6%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	1.4%	0.0% **1.4%**

BICYCLES

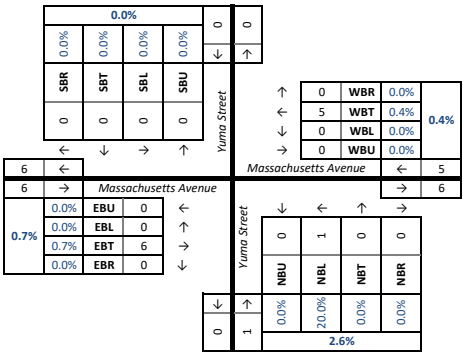
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Yuma Street				Massachusetts Avenue				Yuma Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				1				0				0			
05:30 PM to 06:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	1				3				3				0			
04:30 PM to 05:30 PM	0	0	0	1	0	0	3	0	0	0	1	2	0	0	0	0

DATA COLLECTION NOTES :

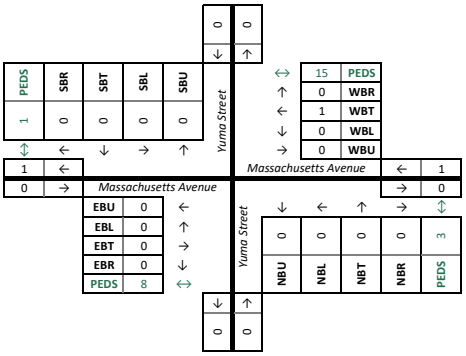
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 49th Street & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Massachusetts Avenue					49th Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	4	5	1	1	6	8	251	19	4	0	18	15	2	3	0	21	128	12	3
04:15 PM to 04:30 PM	0	8	13	1	0	1	4	187	41	8	0	12	10	1	2	0	19	124	9	6
04:30 PM to 04:45 PM	0	7	8	0	2	3	10	251	10	4	0	6	12	6	6	0	17	138	11	0
04:45 PM to 05:00 PM	0	10	16	1	1	4	5	187	7	17	0	16	20	1	6	0	10	146	15	4
05:00 PM to 05:15 PM	0	9	9	0	5	2	9	249	21	7	0	13	16	0	4	0	18	182	10	12
05:15 PM to 05:30 PM	0	6	9	0	1	4	7	198	17	6	0	13	16	4	4	0	19	176	17	6
05:30 PM to 05:45 PM	0	4	6	2	4	3	5	259	22	8	0	13	15	3	3	0	16	198	8	3
05:45 PM to 06:00 PM	0	7	12	1	4	1	10	215	9	10	0	13	16	1	3	0	19	214	14	1
06:00 PM to 06:15 PM	0	7	10	0	1	2	7	232	9	6	0	4	22	1	0	0	14	206	14	5
06:15 PM to 06:30 PM	0	7	7	0	0	1	7	237	11	3	0	15	20	0	4	0	19	207	14	1
06:30 PM to 06:45 PM	0	3	5	1	3	1	8	219	24	8	0	6	12	1	0	0	22	201	18	0
06:45 PM to 07:00 PM	0	5	14	2	2	3	4	169	4	8	0	8	18	3	2	0	20	160	9	4
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)		63			9		1030			27		123			10		943			10
05:30 PM to 06:30 PM	0	25	35	3		7	29	943	51		0	45	73	5		0	68	825	50	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.97	n/a	0.89	0.73	0.38	**0.79**	0.58	0.73	0.91	0.58	**0.89**	n/a	0.75	0.83	0.42	**0.88**	n/a	0.89	0.96	0.89	**0.95**

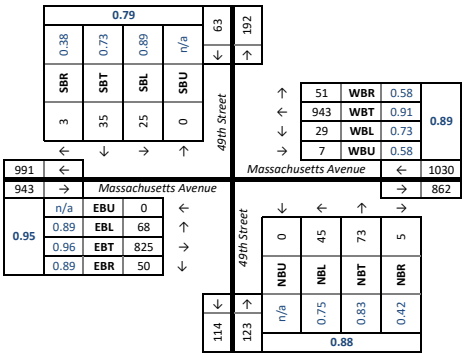
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Massachusetts Avenue				49th Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	3	2	0	0	0	0	0	0	3	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	1
04:30 PM to 04:45 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	6	2	0	1	2	0	0	0	1	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	3	0	0	0	1	0	0	1	6	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	2	3	0	0	2	0	0	0	2	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	2	1	0	0	0	0	0	0	2	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	2	1	0	0	0	0	0	0	2	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)		0				9				0				4		
05:30 PM to 06:30 PM	0	0	0	0	0	0	6	3	0	0	0	0	0	0	4	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.6%	5.9%	**0.9%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.5%	0.0%	**0.4%**
INT. PEAK HR (HV ONLY)		0				19				6				11		
04:30 PM to 05:30 PM	0	0	0	0	0	0	14	5	0	1	5	0	0	1	10	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	1.6%	9.1%	**1.9%**	0.0%	2.1%	7.8%	0.0%	**4.9%**	0.0%	1.6%	1.6%	0.0%	**1.4%**

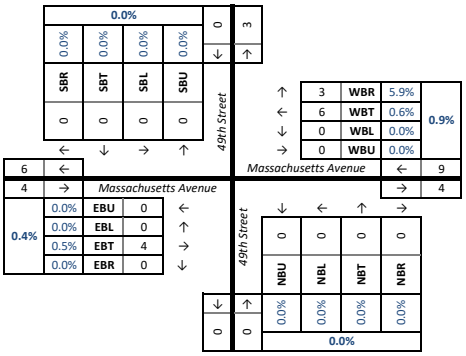
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Massachusetts Avenue				49th Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)		0				1				1				0		
05:30 PM to 06:30 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
INT. PEAK HR (BIKES)		1				3				2				0		
06:00 PM to 07:00 PM	0	0	1	0	0	0	3	0	0	0	2	0	0	0	0	0

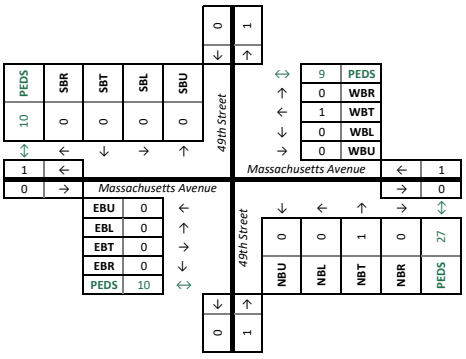
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
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Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. Alley/ & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Alley					Massachusetts Avenue										Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	0	1	10	0	0	296	0	4	0	0	0	0	0	0	0	136	0	4
04:15 PM to 04:30 PM	0	0	0	1	4	0	0	248	1	1	0	0	0	0	0	0	0	129	0	1
04:30 PM to 04:45 PM	0	0	0	1	7	0	0	322	0	0	0	0	0	0	0	0	0	157	0	1
04:45 PM to 05:00 PM	0	0	0	1	5	0	0	215	0	5	0	0	0	0	0	0	0	156	0	1
05:00 PM to 05:15 PM	0	0	0	5	12	0	0	334	0	1	0	0	0	0	0	0	0	179	0	1
05:15 PM to 05:30 PM	0	0	0	2	21	0	0	285	0	0	0	0	0	0	0	0	0	184	0	0
05:30 PM to 05:45 PM	0	0	0	2	9	0	0	352	0	0	0	0	0	0	0	0	0	225	0	0
05:45 PM to 06:00 PM	0	0	0	2	13	0	0	344	0	0	0	0	0	0	0	0	0	213	0	2
06:00 PM to 06:15 PM	0	0	0	1	12	0	0	306	0	0	0	0	0	0	0	0	0	211	0	0
06:15 PM to 06:30 PM	0	0	0	2	5	0	0	294	0	0	0	0	0	0	0	0	0	215	0	0
06:30 PM to 06:45 PM	0	0	0	0	7	0	0	307	0	1	0	0	0	0	0	0	0	209	0	0
06:45 PM to 07:00 PM	0	0	0	1	12	0	0	234	1	4	0	0	0	0	0	0	0	161	0	3
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	7				39	1296				0	0				0	864				2
05:30 PM to 06:30 PM	0	0	0	7		0	0	1296	0		0	0	0	0		0	0	864	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.94	n/a	n/a	n/a	0.88	**0.88**	n/a	n/a	0.92	n/a	**0.92**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	0.96	n/a	**0.96**

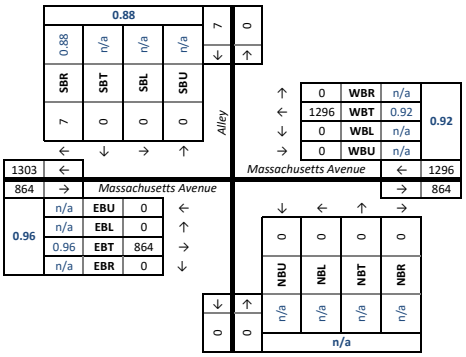
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Alley				Massachusetts Avenue								Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	1	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	5	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				9				0				4			
05:30 PM to 06:30 PM	0	0	0	0	0	0	9	0	0	0	0	0	0	0	4	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.7%	0.0% **0.7%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	0.5%	0.0% **0.5%**
INT. PEAK HR (HV ONLY)	0				14				0				9			
04:30 PM to 05:30 PM	0	0	0	0	0	0	14	0	0	0	0	0	0	0	9	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	1.2%	0.0% **1.2%**	0.0%	0.0%	0.0%	0.0% **0.0%**	0.0%	0.0%	1.3%	0.0% **1.3%**

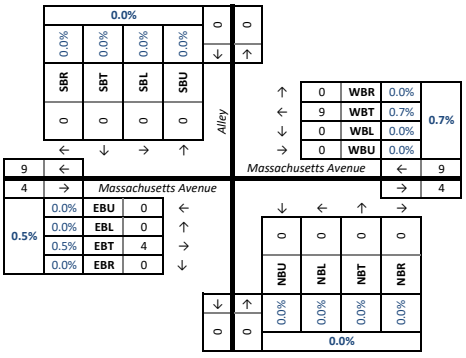
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Alley				Massachusetts Avenue								Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				2				0				0			
05:30 PM to 06:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	0				1				0				2			
04:15 PM to 05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0

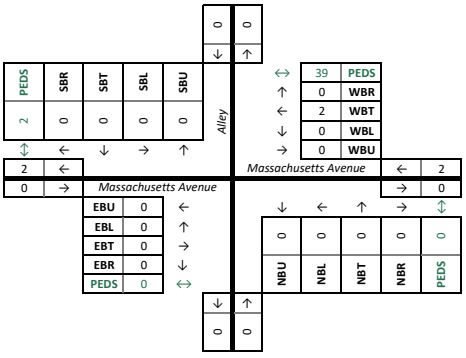
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 48th Street/Fordham Road & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Massachusetts Avenue					Fordham Road					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	21	1	9	6	0	5	259	3	1	0	6	4	4	1	0	0	138	0	10
04:15 PM to 04:30 PM	0	5	3	5	7	0	2	218	1	1	0	8	7	7	3	0	1	129	1	13
04:30 PM to 04:45 PM	0	6	0	1	4	0	1	230	2	3	0	3	2	7	0	0	2	147	1	7
04:45 PM to 05:00 PM	0	13	1	2	6	0	2	228	1	0	0	4	7	3	2	0	1	142	1	5
05:00 PM to 05:15 PM	0	10	3	7	15	0	1	244	6	2	0	5	6	8	2	0	2	187	0	12
05:15 PM to 05:30 PM	0	16	5	4	25	0	3	210	1	2	0	5	4	7	3	1	2	194	0	11
05:30 PM to 05:45 PM	0	7	3	3	7	0	8	271	1	1	0	3	4	4	2	0	1	205	1	4
05:45 PM to 06:00 PM	0	10	3	9	10	0	1	236	1	1	0	2	4	7	2	0	1	228	0	3
06:00 PM to 06:15 PM	0	7	1	3	5	0	4	256	4	1	0	8	2	4	0	0	3	211	0	2
06:15 PM to 06:30 PM	0	11	3	3	3	0	4	245	2	0	0	2	6	8	2	0	2	205	0	7
06:30 PM to 06:45 PM	0	4	1	1	2	0	2	241	5	2	0	6	3	7	1	0	2	215	0	1
06:45 PM to 07:00 PM	0	6	2	4	24	0	1	177	2	0	0	5	2	3	0	1	4	196	0	33
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	63				25	1033				3	54				6	857				16
05:30 PM to 06:30 PM	0	35	10	18		0	17	1008	8		0	15	16	23		0	7	849	1	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.98	n/a	0.80	0.83	0.50	**0.72**	n/a	0.53	0.93	0.50	**0.92**	n/a	0.47	0.67	0.72	**0.84**	n/a	0.58	0.93	0.25	**0.94**

HEAVY VEHICLES (FHWA 4+)

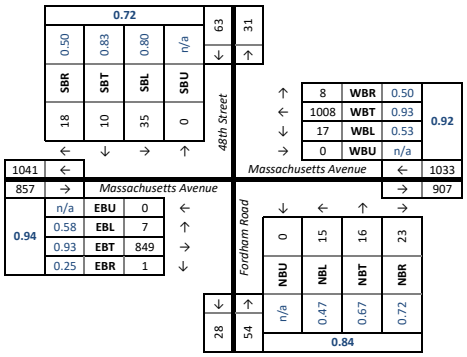
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Massachusetts Avenue					Fordham Road					Massachusetts Avenue				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	2	0	0		0	0	2	0		0	0	0	0		0	0	3	0	
04:15 PM to 04:30 PM	0	1	0	0		0	0	4	0		0	0	0	0		0	0	0	0	
04:30 PM to 04:45 PM	0	1	0	0		0	0	3	0		0	0	0	0		0	0	1	0	
04:45 PM to 05:00 PM	0	1	0	0		0	0	7	0		0	0	0	0		0	0	1	0	
05:00 PM to 05:15 PM	0	1	0	0		0	0	3	0		0	0	0	0		0	0	5	0	
05:15 PM to 05:30 PM	0	2	0	0		0	0	4	0		0	0	0	0		0	0	2	0	
05:30 PM to 05:45 PM	0	1	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
05:45 PM to 06:00 PM	0	1	0	0		0	0	3	0		0	0	0	0		0	0	2	0	
06:00 PM to 06:15 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	1	1	0		0	0	4	0		0	0	0	0		0	0	2	0	
06:30 PM to 06:45 PM	0	1	0	0		0	0	2	0		0	0	0	0		0	0	3	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	3	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	4					9					0					5				
05:30 PM to 06:30 PM	0	3	1	0		0	0	9	0		0	0	0	0		0	0	5	0	
Heavy Vehicle % (PHV):	0.0%	8.6%	10.0%	0.0%	**6.3%**	0.0%	0.0%	0.9%	0.0%	**0.9%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.6%	0.0%	**0.6%**
INT. PEAK HR (HV ONLY)	5					17					0					9				
04:30 PM to 05:30 PM	0	5	0	0		0	0	17	0		0	0	0	0		0	0	9	0	
Heavy Vehicle % (PHV):	0.0%	11.1%	0.0%	0.0%	**7.4%**	0.0%	0.0%	1.9%	0.0%	**1.8%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.3%	0.0%	**1.3%**

BICYCLES

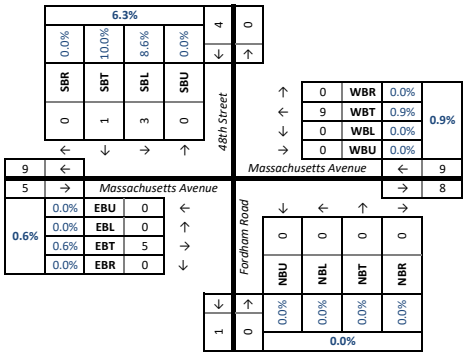
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Massachusetts Avenue				Fordham Road				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
05:00 PM to 05:15 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	1				1				0				0			
05:30 PM to 06:30 PM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	1				3				2				2			
04:30 PM to 05:30 PM	0	1	0	0	0	0	3	0	0	0	2	0	0	1	1	0

DATA COLLECTION NOTES :

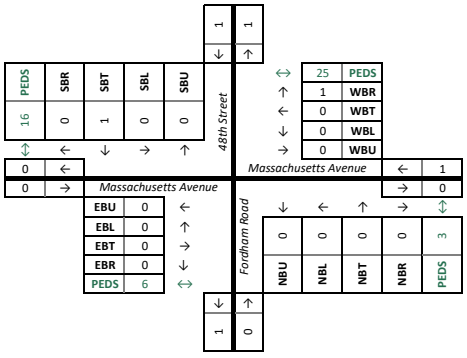
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:30 PM to 06:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. Van Ness Street & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	Van Ness Street					Massachusetts Avenue					Van Ness Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	1	33	7	0	4	213	0	1	0	1	0	5	3	0	2	153	0	0
04:15 PM to 04:30 PM	0	0	1	20	2	0	2	202	0	1	0	0	0	6	3	0	0	137	1	0
04:30 PM to 04:45 PM	0	0	2	25	4	0	1	218	0	1	0	0	0	1	2	0	0	169	0	0
04:45 PM to 05:00 PM	0	1	1	21	5	0	3	174	0	0	0	1	1	7	2	0	0	166	2	0
05:00 PM to 05:15 PM	0	0	0	22	11	0	1	217	0	1	0	0	0	7	5	0	0	199	0	1
05:15 PM to 05:30 PM	0	0	2	20	23	1	1	205	0	0	0	2	1	5	9	0	0	199	0	1
05:30 PM to 05:45 PM	0	1	1	22	4	0	3	248	0	0	0	0	0	4	4	0	0	208	0	0
05:45 PM to 06:00 PM	0	0	2	20	3	0	3	230	0	0	0	0	0	4	4	0	0	234	2	0
06:00 PM to 06:15 PM	0	0	3	14	2	0	3	226	0	0	0	1	1	5	1	0	2	218	0	0
06:15 PM to 06:30 PM	0	0	1	21	0	0	4	242	0	0	0	0	0	5	2	0	0	224	1	0
06:30 PM to 06:45 PM	0	0	2	12	4	0	1	239	0	0	0	0	1	5	5	0	2	219	1	0
06:45 PM to 07:00 PM	0	0	2	17	12	0	0	189	0	0	0	0	0	2	8	0	1	166	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	85				9	959				0	20				11	889				0
05:30 PM to 06:30 PM	0	1	7	77		0	13	946	0		0	1	1	18		0	2	884	3	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.98	n/a	0.25	0.58	0.88	**0.89**	n/a	0.81	0.95	n/a	**0.96**	n/a	0.25	0.25	0.90	**0.71**	n/a	0.25	0.94	0.38	**0.94**

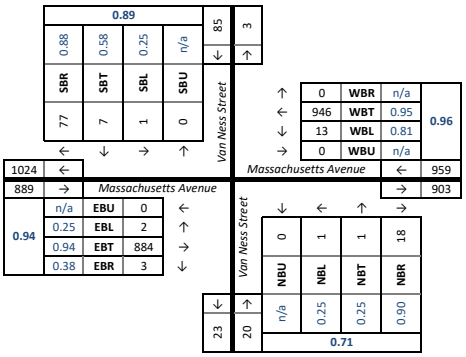
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Van Ness Street				Massachusetts Avenue				Van Ness Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	4	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	1	0
04:30 PM to 04:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	7	0	0	0	0	1	0	0	2	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	6	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	4	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	2	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	4	0	0	0	0	1	0	0	3	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	2	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				9				1				7			
05:30 PM to 06:30 PM	0	0	0	0	0	0	9	0	0	0	0	1	0	0	7	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	1.0%	0.0%	**0.9%**	0.0%	0.0%	0.0%	5.6%	**5.0%**	0.0%	0.0%	0.8%	0.0%	**0.8%**
INT. PEAK HR (HV ONLY)	1				13				1				14			
04:30 PM to 05:30 PM	0	0	1	0	0	0	13	0	0	0	0	1	0	0	14	0
Heavy Vehicle % (PHV):	0.0%	0.0%	20.0%	0.0%	**1.1%**	0.0%	0.0%	1.6%	0.0%	**1.6%**	0.0%	0.0%	0.0%	5.0%	**4.0%**	0.0%	0.0%	1.9%	0.0%	**1.9%**

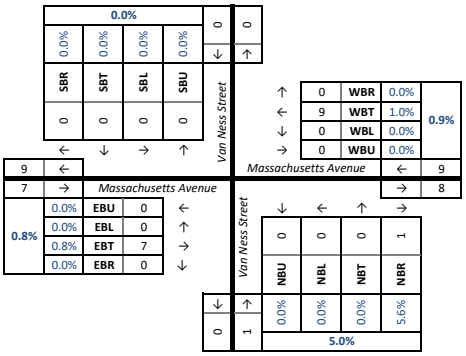
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	Van Ness Street				Massachusetts Avenue				Van Ness Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	1				3				0				0			
05:30 PM to 06:30 PM	0	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	0				5				0				3			
04:30 PM to 05:30 PM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	3	0

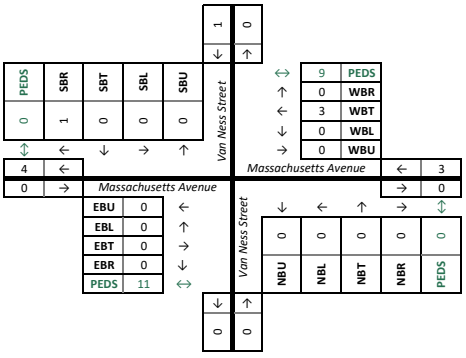
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 49th Street & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Yuma Street					49th Street					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	2	4	0	1	0	5	15	1	3	0	3	30	17	1	0	0	0	0	2
04:15 PM to 04:30 PM	0	1	9	0	0	0	6	10	0	3	0	4	26	19	2	0	0	0	0	3
04:30 PM to 04:45 PM	0	2	10	1	0	0	8	8	2	3	0	7	22	15	5	0	0	0	0	0
04:45 PM to 05:00 PM	0	2	17	1	2	0	6	9	0	10	0	3	25	18	3	0	0	0	0	1
05:00 PM to 05:15 PM	0	1	9	3	0	0	3	14	1	4	1	3	33	23	4	0	0	0	0	2
05:15 PM to 05:30 PM	0	0	10	1	0	0	3	14	1	2	0	7	25	26	4	0	0	0	0	2
05:30 PM to 05:45 PM	0	1	7	1	2	0	2	16	0	6	0	5	31	21	2	0	0	0	0	2
05:45 PM to 06:00 PM	0	0	15	0	1	0	2	10	1	3	0	7	31	17	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	2	6	1	1	0	2	16	0	4	0	7	24	17	1	0	0	1	0	0
06:15 PM to 06:30 PM	0	1	4	0	2	0	2	9	1	2	0	4	32	18	1	0	0	0	0	2
06:30 PM to 06:45 PM	0	0	5	0	0	0	4	4	1	6	0	7	21	16	0	0	0	0	0	1
06:45 PM to 07:00 PM	0	0	7	1	0	0	5	6	0	1	0	3	20	14	0	0	0	0	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	48				3	67				15	230				10	0				6
05:00 PM to 06:00 PM	0	2	41	5		0	10	54	3		1	22	120	87		0	0	0	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.95	n/a	0.50	0.68	0.42	**0.80**	n/a	0.83	0.84	0.75	**0.93**	0.25	0.79	0.91	0.84	**0.96**	n/a	n/a	n/a	n/a	**n/a**

HEAVY VEHICLES (FHWA 4+)

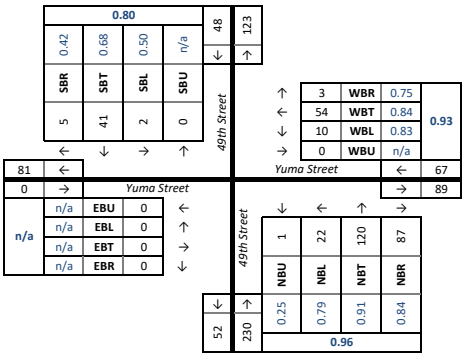
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Yuma Street					49th Street					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	0	0		0	0	0	0		0	1	0	0		0	0	0	0	
04:15 PM to 04:30 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
04:30 PM to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
04:45 PM to 05:00 PM	0	0	0	0		0	0	0	0		0	0	2	1		0	0	0	0	
05:00 PM to 05:15 PM	0	0	0	0		0	0	0	0		0	0	2	0		0	0	0	0	
05:15 PM to 05:30 PM	0	0	0	0		0	0	0	0		0	0	1	3		0	0	0	0	
05:30 PM to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
05:45 PM to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	1		0	0	0	0	
06:00 PM to 06:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	2		0	0	0	0	
06:30 PM to 06:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	0					0					8					0				
05:00 PM to 06:00 PM	0	0	0	0		0	0	0	0		0	0	3	5		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.5%	5.7%	**3.5%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	0					0					10					0				
04:30 PM to 05:30 PM	0	0	0	0		0	0	0	0		0	0	5	5		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	4.8%	6.1%	**4.8%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

BICYCLES

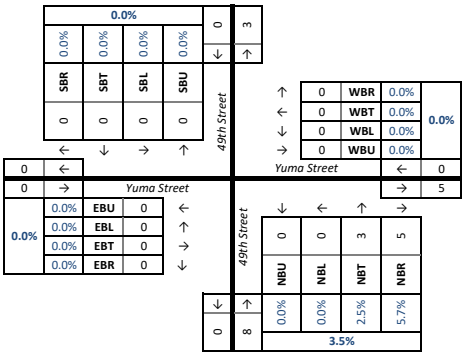
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Yuma Street				49th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	2	0	0	0	0	0	0	0	0	1	0	1	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	2				0				2				1			
05:00 PM to 06:00 PM	0	0	2	0	0	0	0	0	0	0	1	1	0	1	0	0
INT. PEAK HR (BIKES)	2				0				2				1			
05:00 PM to 06:00 PM	0	0	2	0	0	0	0	0	0	0	1	1	0	1	0	0

DATA COLLECTION NOTES :

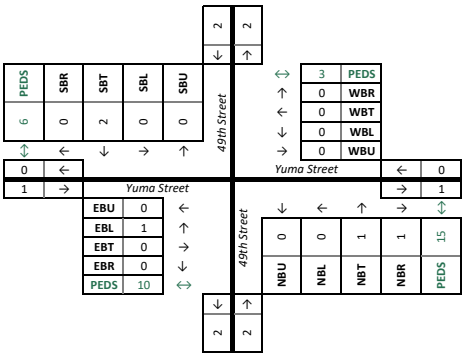
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. /Alley & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	0	0	0	0	1	20	0	0	0	0	0	1	3	0	0	21	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	1	17	0	0	0	0	0	1	5	0	0	22	1	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	15	0	0	0	0	0	0	6	0	0	14	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	13	0	0	0	0	0	1	9	0	0	20	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	1	19	0	0	0	0	0	0	4	0	0	23	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	17	0	0	0	0	0	1	11	0	0	23	1	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	16	0	0	0	0	0	1	4	0	0	19	1	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	14	0	0	0	0	0	1	4	0	0	17	2	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	1	20	0	1	0	0	0	2	4	0	0	18	1	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	10	0	0	0	1	0	0	4	0	0	17	1	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	2	11	0	1	0	0	0	1	1	0	0	16	1	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	1	14	0	0	0	0	0	1	6	0	0	14	2	1
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	0				0	66				0	3				28	87				0
04:45 PM to 05:45 PM	0	0	0	0		0	1	65	0		0	0	0	3		0	0	85	2	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.91	n/a	n/a	n/a	n/a	**n/a**	n/a	0.25	0.86	n/a	**0.83**	n/a	n/a	n/a	0.75	**0.75**	n/a	n/a	0.92	0.50	**0.91**

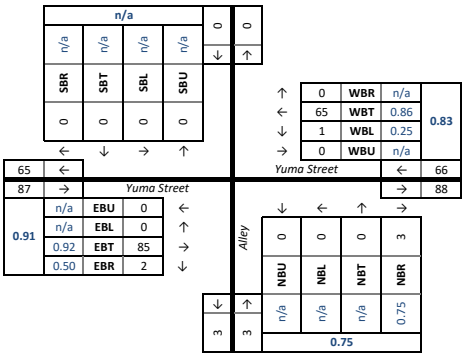
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
04:15 PM to 04:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
04:30 PM to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
05:00 PM to 05:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:15 PM to 05:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	3	0	
05:30 PM to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
05:45 PM to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:00 PM to 06:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:30 PM to 06:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	0					0					0					5				
04:45 PM to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	5	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	5.9%	0.0%	**5.7%**
INT. PEAK HR (HV ONLY)	0					0					0					5				
04:00 PM to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	5	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	6.5%	0.0%	**6.4%**

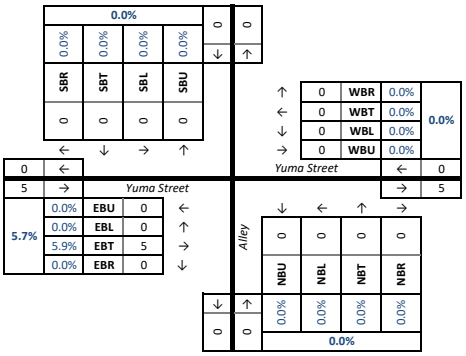
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:					Yuma Street				Alley				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				1				0				0			
04:45 PM to 05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
INT. PEAK HR (BIKES)	0				2				0				0			
04:00 PM to 05:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0

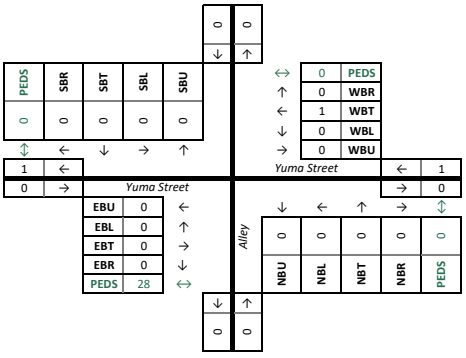
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 48th Street & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Yuma Street					48th Street					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	1	8	1	2	1	7	4	3	0	0	2	16	6	1	0	0	7	2	0
04:15 PM to 04:30 PM	0	2	11	1	2	0	1	3	2	1	0	1	11	7	4	0	0	3	3	0
04:30 PM to 04:45 PM	0	0	10	1	5	0	4	1	1	2	0	0	13	3	2	0	0	4	1	1
04:45 PM to 05:00 PM	0	0	12	1	1	0	0	6	0	4	0	1	16	8	3	0	1	2	3	2
05:00 PM to 05:15 PM	0	0	17	1	1	0	1	7	1	1	0	1	12	10	2	0	0	7	1	1
05:15 PM to 05:30 PM	0	1	12	0	0	0	0	2	1	3	0	1	14	16	1	0	1	5	0	2
05:30 PM to 05:45 PM	0	2	15	0	1	0	1	3	1	0	0	1	13	7	2	0	0	2	0	5
05:45 PM to 06:00 PM	0	1	10	3	2	0	1	0	1	0	1	1	10	8	1	0	0	10	0	1
06:00 PM to 06:15 PM	0	0	16	1	1	0	2	4	1	0	0	2	15	2	0	0	0	7	1	1
06:15 PM to 06:30 PM	0	2	6	2	2	0	2	3	0	4	0	1	10	8	2	0	0	5	2	0
06:30 PM to 06:45 PM	0	0	10	1	1	0	1	2	3	0	0	2	11	2	0	0	0	3	4	2
06:45 PM to 07:00 PM	0	2	9	1	1	0	2	1	0	3	0	0	10	4	1	0	0	4	1	2
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	61				3	23				8	100				8	22				10
04:45 PM to 05:45 PM	0	3	56	2		0	2	18	3		0	4	55	41		0	2	16	4	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.89	n/a	0.38	0.82	0.50	**0.85**	n/a	0.50	0.64	0.75	**0.64**	n/a	1.00	0.86	0.64	**0.81**	n/a	0.50	0.57	0.33	**0.69**

HEAVY VEHICLES (FHWA 4+)

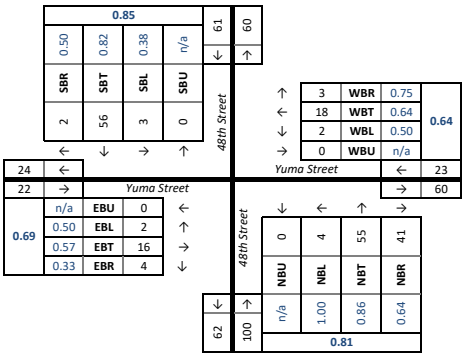
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Yuma Street				48th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				0				6				0			
04:45 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.6%	**6.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	0				0				6				0			
04:45 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	14.6%	**6.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

BICYCLES

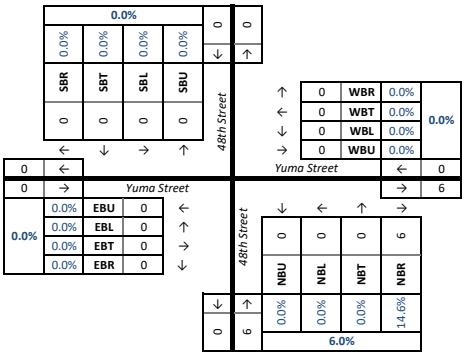
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Yuma Street				48th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				1				1				0			
04:45 PM to 05:45 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
INT. PEAK HR (BIKES)	4				0				1				0			
04:30 PM to 05:30 PM	0	4	0	0	0	0	0	0	0	0	1	0	0	0	0	0

DATA COLLECTION NOTES :

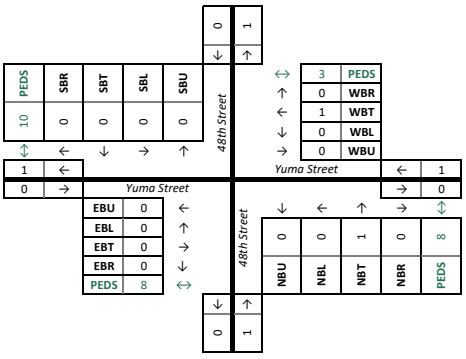
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 48th Street & Windom Place/

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Windom Place					48th Street									
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	18	0	0	0	1	0	0	2	0	0	8	0	1	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	13	0	2	0	2	0	1	2	0	0	6	0	1	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	6	0	0	0	0	0	1	3	0	0	2	1	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	11	0	0	0	0	0	1	0	0	0	5	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	20	0	0	0	3	0	0	1	0	0	8	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	2	20	0	1	0	0	0	1	0	0	0	2	1	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	1	11	0	1	0	0	0	0	1	0	0	4	1	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	17	0	0	0	2	0	0	2	0	0	3	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	1	8	0	1	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	16	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	4	0	0	0	0	0	0	2	0	0	6	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	3	8	0	1	0	1	0	1	1	0	0	2	1	0	0	0	0	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	71				2	6				4	19				0	0				0
05:00 PM to 06:00 PM	0	3	68	0		0	5	0	1		0	0	17	2		0	0	0	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.77**	n/a	0.38	0.85	n/a	**0.81**	n/a	0.42	n/a	0.25	**0.50**	n/a	n/a	0.53	0.50	**0.59**	n/a	n/a	n/a	n/a	**n/a**

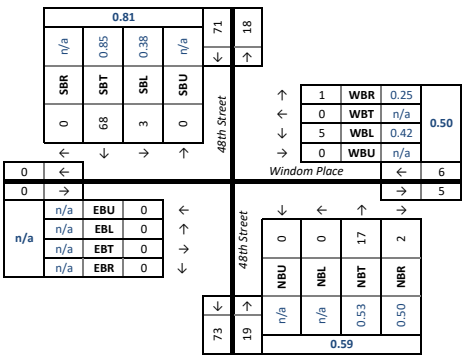
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Windom Place					48th Street									
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:15 PM to 04:30 PM	0	0	2	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM to 05:00 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:00 PM to 05:15 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:15 PM to 05:30 PM	0	0	3	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:30 PM to 05:45 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:45 PM to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:00 PM to 06:15 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	0	2	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:30 PM to 06:45 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	5					0					0					0				
05:00 PM to 06:00 PM	0	0	5	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	7.4%	0.0%	**7.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	6					0					0					0				
04:45 PM to 05:45 PM	0	0	6	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	9.7%	0.0%	**9.2%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

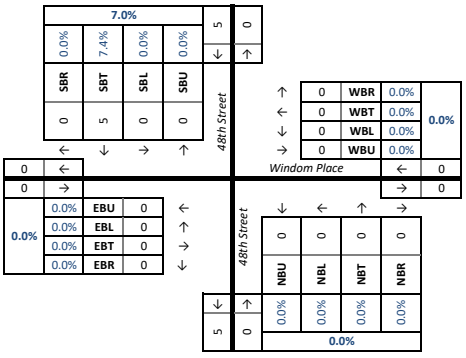
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Windom Place				48th Street							
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	3	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				1				3				0			
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	0
INT. PEAK HR (BIKES)	3				3				0				3			
06:00 PM to 07:00 PM	0	3	0	0	0	0	0	3	0	0	0	0	0	3	0	0

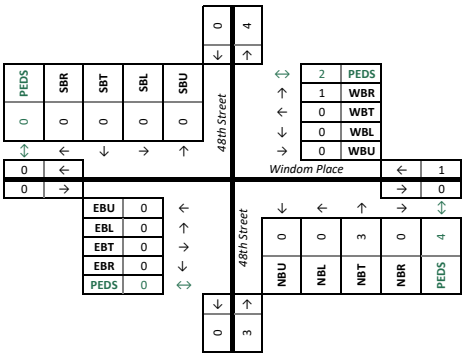
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 48th Street & /Alley

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street										48th Street					Alley				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	19	1	0	0	0	0	0	0	0	1	8	0	3	0	0	0	11	2
04:15 PM to 04:30 PM	0	0	14	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0	8
04:30 PM to 04:45 PM	0	0	6	0	0	0	0	0	0	0	0	1	3	0	1	0	0	0	0	4
04:45 PM to 05:00 PM	0	0	11	0	0	0	0	0	0	0	0	2	5	0	1	0	0	0	6	6
05:00 PM to 05:15 PM	0	0	23	0	1	0	0	0	0	0	0	1	9	0	1	0	0	0	0	6
05:15 PM to 05:30 PM	0	0	20	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	11
05:30 PM to 05:45 PM	0	0	10	0	0	0	0	0	0	0	0	2	5	0	0	0	0	0	1	2
05:45 PM to 06:00 PM	0	0	20	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	6
06:00 PM to 06:15 PM	0	0	9	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	2	2
06:15 PM to 06:30 PM	0	0	16	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	5
06:30 PM to 06:45 PM	0	0	4	0	0	0	0	0	0	0	0	0	6	0	1	0	0	0	0	1
06:45 PM to 07:00 PM	0	0	9	0	2	0	0	0	0	0	0	0	3	0	1	0	0	0	1	2
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	64				1	0				0	26				2	9				25
04:45 PM to 05:45 PM	0	0	64	0		0	0	0	0		0	5	21	0		0	0	0	9	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.75	n/a	n/a	0.70	n/a	**0.70**	n/a	n/a	n/a	n/a	**n/a**	n/a	0.63	0.58	n/a	**0.65**	n/a	n/a	n/a	0.38	**0.38**

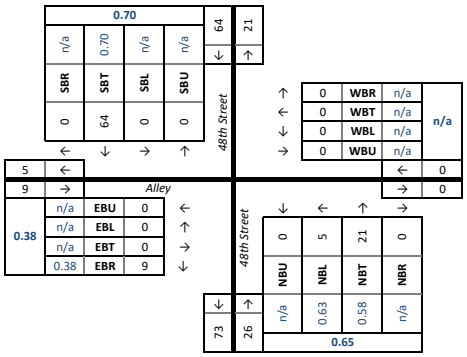
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street								48th Street				Alley			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	6				0				0				0			
04:45 PM to 05:45 PM	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	9.4%	0.0%	**9.4%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	6				0				0				0			
04:45 PM to 05:45 PM	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	9.4%	0.0%	**9.4%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

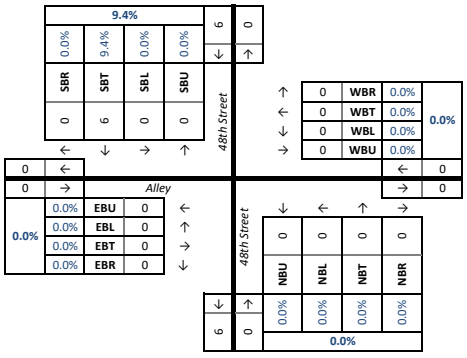
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street								48th Street				Alley			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	2	2	0	0	0	0	0	0	0	0	0	2	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	4				0				2				2			
04:45 PM to 05:45 PM	0	0	2	2	0	0	0	0	0	0	2	0	0	2	0	0
INT. PEAK HR (BIKES)	4				0				3				4			
05:00 PM to 06:00 PM	0	0	2	2	0	0	0	0	0	0	3	0	0	2	0	2

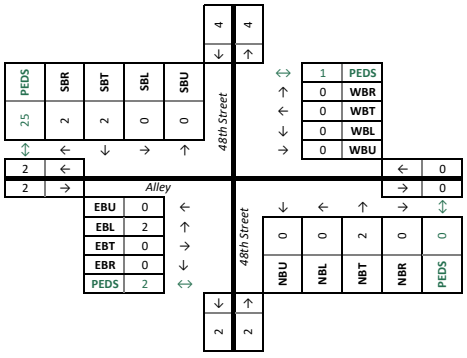
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 48th Street & Warren Street/

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Warren Street					48th Street									
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	3	26	0	6	0	7	0	2	0	0	0	7	2	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	13	0	2	0	0	0	0	0	0	0	5	4	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	8	0	0	0	1	0	0	1	0	0	4	3	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	16	0	3	0	0	0	1	0	0	0	7	3	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	23	0	2	0	2	0	1	0	1	0	8	4	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	20	0	3	0	4	0	0	0	1	0	2	2	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	12	0	3	0	1	0	1	0	0	0	6	2	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	21	0	1	0	1	0	1	0	1	0	2	3	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	1	10	0	2	0	2	0	1	0	0	0	5	3	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	15	0	0	0	1	0	2	2	0	0	4	4	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	4	0	4	0	3	0	0	0	0	0	7	5	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	1	10	0	4	0	3	0	1	1	0	0	2	7	0	0	0	0	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	76				9	11				0	32				0	0				0
05:00 PM to 06:00 PM	0	0	76	0		0	8	0	3		3	0	18	11		0	0	0	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.76	n/a	n/a	0.83	n/a	**0.83**	n/a	0.50	n/a	0.75	**0.69**	0.75	n/a	0.56	0.69	**0.62**	n/a	n/a	n/a	n/a	**n/a**

HEAVY VEHICLES (FHWA 4+)

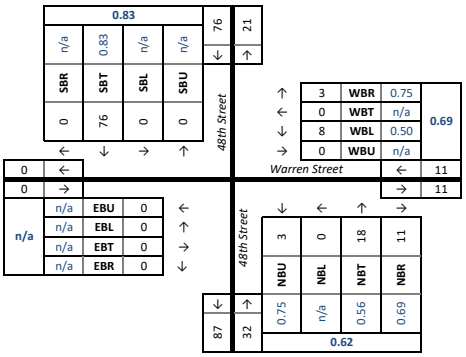
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Warren Street					48th Street									
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	2	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:15 PM to 04:30 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM to 04:45 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM to 05:00 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:00 PM to 05:15 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:15 PM to 05:30 PM	0	0	2	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:30 PM to 05:45 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:45 PM to 06:00 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:00 PM to 06:15 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	0	2	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:30 PM to 06:45 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	5					0					0					0				
05:00 PM to 06:00 PM	0	0	5	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	6.6%	0.0%	**6.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	5					0					0					0				
04:00 PM to 05:00 PM	0	0	5	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	7.9%	0.0%	**7.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

BICYCLES

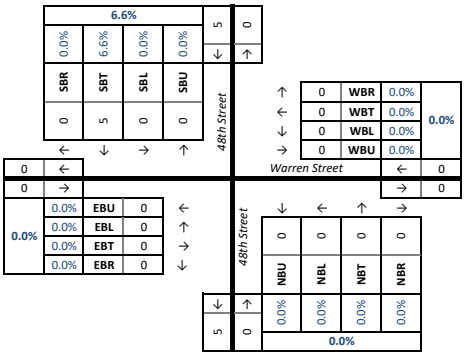
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Warren Street				48th Street							
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				1				4				0			
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	1	0	0	2	2	0	0	0	0
INT. PEAK HR (BIKES)	0				1				4				0			
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	1	0	0	2	2	0	0	0	0

DATA COLLECTION NOTES :

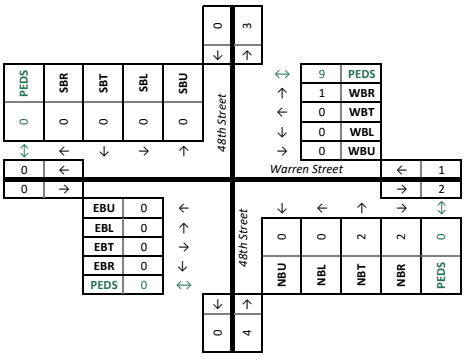
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:45 PM to 05:45 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 49th Street & Fordham Road

ALL VEHICLES

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	49th Street					Fordham Road					49th Street					Fordham Road				
	Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM	to 04:15 PM	0	4	8	7	2	0	1	2	6	6	0	0	18	3	1	0	15	0	2	3
04:15 PM	to 04:30 PM	0	3	8	10	2	0	2	2	4	6	0	4	13	1	0	0	6	0	0	1
04:30 PM	to 04:45 PM	0	1	11	5	6	0	0	0	3	0	0	0	17	2	0	0	7	1	0	3
04:45 PM	to 05:00 PM	0	1	20	9	3	0	0	0	8	7	0	0	26	4	2	0	7	3	0	1
05:00 PM	to 05:15 PM	0	5	17	6	3	0	1	2	6	4	0	0	21	2	1	0	11	2	0	5
05:15 PM	to 05:30 PM	0	9	11	5	3	0	1	4	4	2	0	0	15	1	0	0	8	1	0	6
05:30 PM	to 05:45 PM	0	2	5	4	0	0	2	3	9	2	0	1	21	2	1	0	9	2	0	2
05:45 PM	to 06:00 PM	1	4	7	4	1	0	0	3	4	4	0	0	19	0	1	0	6	2	0	1
06:00 PM	to 06:15 PM	0	4	10	7	0	0	2	2	3	1	0	2	20	3	0	0	11	1	0	6
06:15 PM	to 06:30 PM	1	4	6	6	3	0	1	2	10	8	0	1	20	2	0	0	6	6	1	4
06:30 PM	to 06:45 PM	0	2	14	4	1	0	0	0	5	2	0	0	15	1	3	0	8	1	0	4
06:45 PM	to 07:00 PM	0	3	8	9	0	0	1	1	7	2	0	0	15	0	0	0	4	0	0	0
07:00 PM	to 07:15 PM																				
07:15 PM	to 07:30 PM																				
07:30 PM	to 07:45 PM																				
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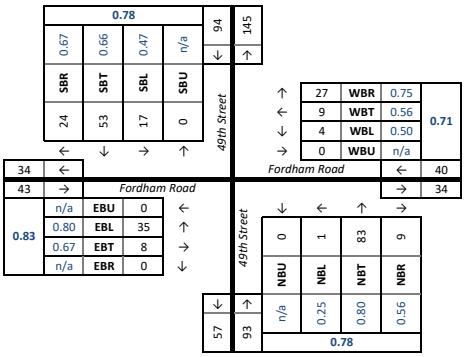
08:00 PM	to 08:15 PM																				
08:15 PM	to 08:30 PM																				
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
INT. PEAK HR (ALL VEH)		94				9	40				15	93				4	43				14
04:45 PM	to 05:45 PM	0	17	53	24		0	4	9	27		0	1	83	9		0	35	8	0	
Peak Hour	Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF)	**0.87**	n/a	0.47	0.66	0.67	**0.78**	n/a	0.50	0.56	0.75	**0.71**	n/a	0.25	0.80	0.56	**0.78**	n/a	0.80	0.67	n/a	**0.83**

VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEHICLES (FHWA 4+)

	Direction:	Southbound					Westbound					Northbound					Eastbound				
	Roadway:	49th Street					Fordham Road					49th Street					Fordham Road				
	Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM	to 04:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:15 PM	to 04:30 PM	0	0	0	1		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM	to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM	to 05:00 PM	0	0	0	0		0	0	0	0		0	0	1	0		0	1	0	0	
05:00 PM	to 05:15 PM	0	0	0	0		0	0	0	0		0	0	1	0		0	0	0	0	
05:15 PM	to 05:30 PM	0	0	0	0		0	0	0	0		0	0	1	0		0	0	0	0	
05:30 PM	to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:45 PM	to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:00 PM	to 06:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM	to 06:30 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	0	0	
06:30 PM	to 06:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	1	0	0	
06:45 PM	to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM	to 07:15 PM																				
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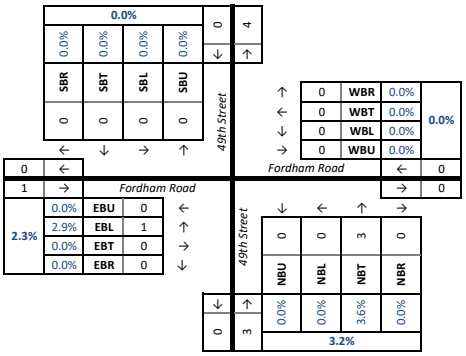
08:30 PM	to 08:45 PM																				
08:45 PM	to 09:00 PM																				
INT. PEAK HR (ALL VEH)		0					0					3					1				
04:45 PM	to 05:45 PM	0	0	0	0		0	0	0	0		0	0	3	0		0	1	0	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.6%	0.0%	**3.2%**	0.0%	2.9%	0.0%	0.0%	**2.3%**
INT. PEAK HR (HV ONLY)		1					0					2					1				
04:15 PM	to 05:15 PM	0	0	0	1		0	0	0	0		0	0	2	0		0	1	0	0	
Heavy Vehicle % (PHV):		0.0%	0.0%	0.0%	3.3%	**1.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	2.6%	0.0%	**2.2%**	0.0%	3.2%	0.0%	0.0%	**2.7%**

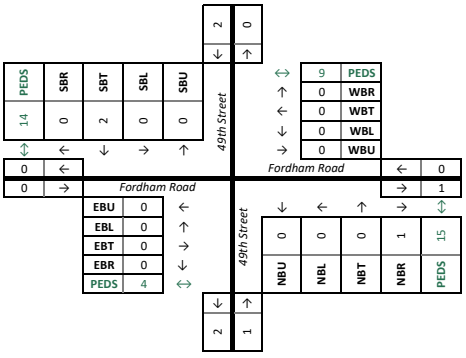
HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



BICYCLES

	Direction:	Southbound				Westbound				Northbound				Eastbound			
	Roadway:	49th Street				Fordham Road				49th Street				Fordham Road			
	Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM	to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM	to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM	to 04:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM	to 05:00 PM	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0
05:00 PM	to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM	to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM	to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM	to 06:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
06:00 PM	to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM	to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM	to 06:45 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM	to 07:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
07:00 PM	to 07:15 PM																
07:15 PM	to 07:30 PM																
07:30 PM	to 07:45 PM																
07:45 PM	to 08:00 PM																
08:00 PM	to 08:15 PM																
08:15 PM	to 08:30 PM																
08:30 PM	to 08:45 PM																
08:45 PM	to 09:00 PM																
INT. PEAK HR (ALL VEH)		2				0				1				0			
04:45 PM	to 05:45 PM	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0
INT. PEAK HR (BIKES)		3				0				1				0			
04:00 PM	to 05:00 PM	0	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0

PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
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System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 49th Street & Albemarle Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Albemarle Street					49th Street					Albemarle Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	0	0	2	0	0	3	0	2	0	2	7	1	4	0	2	25	2	2
04:15 PM to 04:30 PM	0	0	0	0	1	0	3	9	0	1	0	0	7	0	2	0	0	19	6	1
04:30 PM to 04:45 PM	0	0	0	0	4	0	2	9	0	2	1	2	4	0	1	0	1	14	5	3
04:45 PM to 05:00 PM	0	0	0	0	1	0	0	18	0	0	0	3	6	0	5	0	0	22	5	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	3	11	1	1	0	2	11	0	4	0	1	31	4	2
05:15 PM to 05:30 PM	0	0	0	0	1	0	2	9	0	0	0	2	9	1	1	0	0	16	8	2
05:30 PM to 05:45 PM	0	1	1	0	1	0	2	7	0	0	0	3	7	4	4	0	0	24	8	6
05:45 PM to 06:00 PM	0	0	1	0	2	0	5	7	1	1	0	4	5	1	0	0	4	16	8	1
06:00 PM to 06:15 PM	0	0	0	1	1	0	0	5	0	0	0	4	7	1	4	0	1	15	7	1
06:15 PM to 06:30 PM	0	0	0	0	2	0	0	5	0	0	0	1	6	1	2	0	2	23	6	0
06:30 PM to 06:45 PM	0	0	0	0	3	0	0	5	0	2	0	0	5	2	1	0	1	17	4	1
06:45 PM to 07:00 PM	0	0	1	0	2	0	2	4	0	1	0	2	2	0	1	0	0	14	3	0
07:00 PM to 07:15 PM																				
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08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	2				3	53				1	48				14	119				10
04:45 PM to 05:45 PM	0	1	1	0		0	7	45	1		0	10	33	5		0	1	93	25	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.87	n/a	0.25	0.25	n/a	**0.25**	n/a	0.58	0.63	0.25	**0.74**	n/a	0.83	0.75	0.31	**0.86**	n/a	0.25	0.75	0.78	**0.83**

HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Albemarle Street					49th Street					Albemarle Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:15 PM to 04:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
04:30 PM to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
05:00 PM to 05:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
05:15 PM to 05:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:30 PM to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:45 PM to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:00 PM to 06:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:30 PM to 06:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
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08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	0					0					0					3				
04:45 PM to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	3	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	3.2%	0.0%	**2.5%**
INT. PEAK HR (HV ONLY)	0					0					0					4				
04:15 PM to 05:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	4	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	4.7%	0.0%	**3.7%**

BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Albemarle Street				49th Street				Albemarle Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
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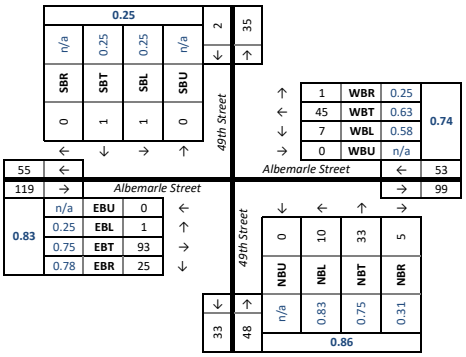
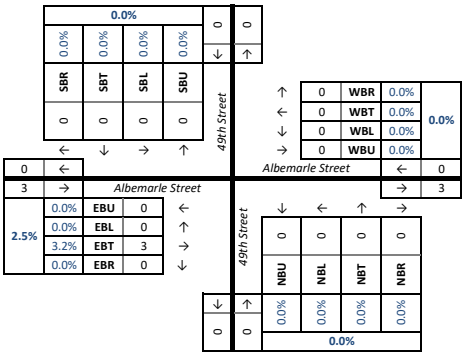
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				2				1				2			
04:45 PM to 05:45 PM	0	0	0	0	0	0	2	0	0	0	0	1	0	0	2	0
INT. PEAK HR (BIKES)	0				2				1				3			
05:00 PM to 06:00 PM	0	0	0	0	0	0	2	0	0	0	0	1	0	0	2	1

DATA COLLECTION NOTES :

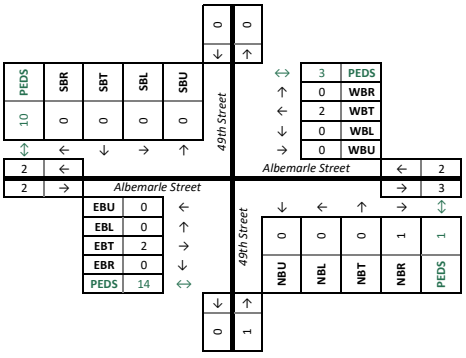
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



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Intersection: 1. 48th Street & Albemarle Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Albemarle Street					48th Street					Albemarle Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	1	5	0	0	0	5	9	2	2	0	0	5	2	3	0	0	2	0	0
04:15 PM to 04:30 PM	1	2	3	0	0	1	3	7	0	4	0	0	5	1	0	0	0	8	2	0
04:30 PM to 04:45 PM	0	1	3	2	0	0	4	5	0	0	0	0	2	0	5	0	0	7	0	0
04:45 PM to 05:00 PM	0	1	3	1	0	0	2	9	0	2	0	1	2	3	2	0	0	6	0	0
05:00 PM to 05:15 PM	0	0	7	0	0	0	5	14	0	1	0	0	5	7	2	0	0	6	0	0
05:15 PM to 05:30 PM	0	0	4	0	0	0	1	14	4	3	0	0	1	1	3	0	0	8	0	0
05:30 PM to 05:45 PM	0	0	3	0	0	0	1	12	1	1	0	0	2	2	6	0	0	11	0	0
05:45 PM to 06:00 PM	0	2	5	1	1	0	3	10	0	1	0	0	4	0	3	0	1	12	0	0
06:00 PM to 06:15 PM	0	2	5	0	0	0	1	11	0	1	0	0	5	1	2	0	0	7	0	0
06:15 PM to 06:30 PM	0	0	6	0	0	0	0	9	1	2	0	0	4	3	2	0	0	9	0	1
06:30 PM to 06:45 PM	0	2	4	0	0	0	1	6	1	0	0	0	1	2	3	0	0	4	0	0
06:45 PM to 07:00 PM	0	2	3	1	0	0	2	7	2	3	0	1	2	0	2	0	0	6	0	1
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	22				1	65				6	22				14	38				0
05:00 PM to 06:00 PM	0	2	19	1		0	10	50	5		0	0	12	10		0	1	37	0	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.84	n/a	0.25	0.68	0.25	**0.69**	n/a	0.50	0.89	0.31	**0.86**	n/a	n/a	0.60	0.36	**0.46**	n/a	0.25	0.77	n/a	**0.73**

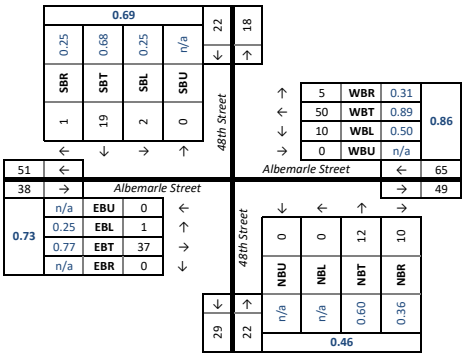
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Albemarle Street				48th Street				Albemarle Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				0				0				1			
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.7%	0.0%
INT. PEAK HR (HV ONLY)	1				0				0				1			
05:15 PM to 06:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0
Heavy Vehicle % (PHV):	0.0%	0.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.6%	0.0%

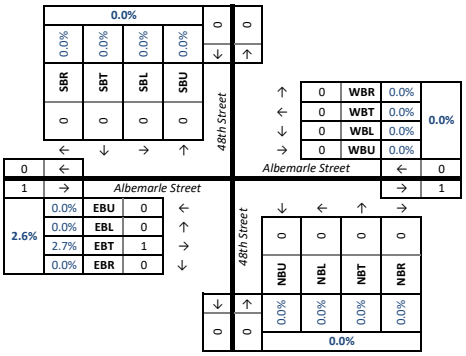
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Albemarle Street				48th Street				Albemarle Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				0				2				0			
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
INT. PEAK HR (BIKES)	0				0				2				0			
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0

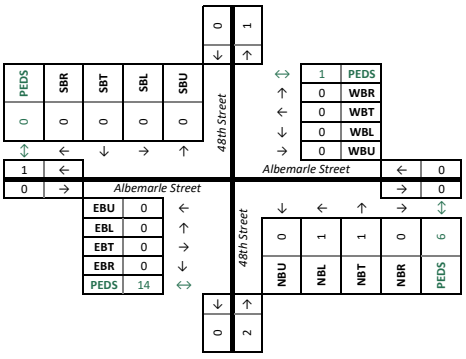
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:15 PM to 06:15 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 46th Street & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	46th Street					Yuma Street					46th Street					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	2	18	0	1	0	1	13	3	0	0	0	15	1	0	0	1	16	1	0
04:15 PM to 04:30 PM	0	0	19	1	1	0	1	13	2	0	0	0	19	2	4	0	1	7	0	1
04:30 PM to 04:45 PM	0	1	24	1	1	0	2	9	3	6	0	2	20	1	5	0	3	6	5	1
04:45 PM to 05:00 PM	0	2	22	1	1	0	1	7	3	0	0	0	18	0	2	0	2	14	1	2
05:00 PM to 05:15 PM	0	3	16	1	0	0	1	13	3	0	0	3	15	2	1	0	3	13	0	0
05:15 PM to 05:30 PM	0	3	33	1	3	0	0	17	1	1	0	0	25	0	4	0	2	14	1	3
05:30 PM to 05:45 PM	0	0	23	0	3	0	3	16	1	1	0	0	15	0	1	0	0	10	2	2
05:45 PM to 06:00 PM	0	2	24	1	0	1	0	13	4	0	0	0	30	1	1	0	3	10	1	4
06:00 PM to 06:15 PM	0	0	21	2	0	0	0	17	9	2	0	2	20	0	0	0	3	12	3	3
06:15 PM to 06:30 PM	0	3	21	2	1	0	1	4	6	2	0	0	25	0	1	0	2	4	1	2
06:30 PM to 06:45 PM	0	0	20	4	4	0	2	8	5	0	0	2	16	1	1	0	0	13	1	1
06:45 PM to 07:00 PM	0	3	16	1	2	0	1	15	2	0	0	1	9	1	4	0	1	7	0	3
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	110				6	82				4	93				6	61				12
05:15 PM to 06:15 PM	0	5	101	4		1	3	63	15		0	2	90	1		0	8	46	7	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.89	n/a	0.42	0.77	0.50	**0.74**	0.25	0.25	0.93	0.42	**0.79**	n/a	0.25	0.75	0.25	**0.75**	n/a	0.67	0.82	0.58	**0.85**

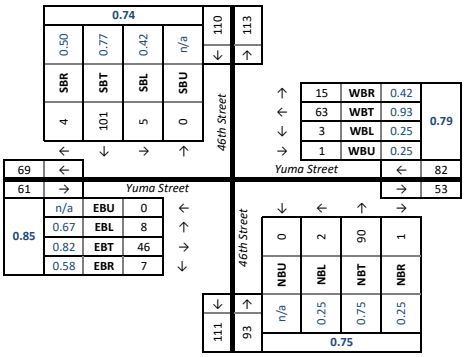
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	46th Street				Yuma Street				46th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				0				0				0			
05:15 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)	0				0				3				1			
04:00 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	2	1	0	0	1	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	2.8%	25.0%	**3.8%**	0.0%	0.0%	2.3%	0.0%	**1.8%**

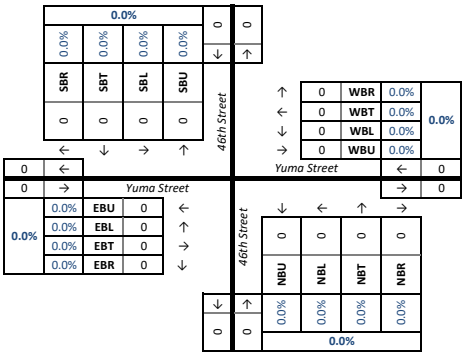
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	46th Street				Yuma Street				46th Street				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	1				1				0				1			
05:15 PM to 06:15 PM	0	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0
INT. PEAK HR (BIKES)	1				4				0				1			
04:30 PM to 05:30 PM	0	0	1	0	0	0	4	0	0	0	0	0	0	0	1	0

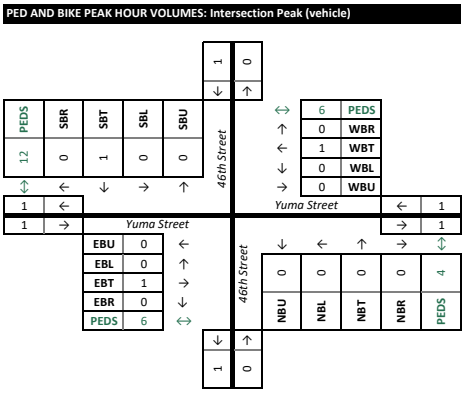
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. 48th Street & /Parking Entrance

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street										48th Street					Parking Entrance				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	16	0	0	0	0	0	0	0	0	0	8	0	0	0	6	0	3	1
04:15 PM to 04:30 PM	0	0	12	0	1	0	0	0	0	0	0	0	6	0	4	0	1	0	0	5
04:30 PM to 04:45 PM	0	0	7	0	0	0	0	0	0	0	0	0	4	0	0	0	2	0	0	4
04:45 PM to 05:00 PM	0	0	10	0	0	0	0	0	0	0	0	0	5	0	1	0	2	0	1	3
05:00 PM to 05:15 PM	0	0	18	0	0	0	0	0	0	0	0	0	8	0	0	0	1	0	1	4
05:15 PM to 05:30 PM	0	0	23	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	2
05:30 PM to 05:45 PM	0	0	14	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	1
05:45 PM to 06:00 PM	0	0	17	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	1
06:00 PM to 06:15 PM	0	0	9	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	15	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	4
06:30 PM to 06:45 PM	0	0	5	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	10	1	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	2
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)			72		0			0		0			18		0			3		8
05:00 PM to 06:00 PM	0	0	72	0		0	0	0	0		0	1	17	0		0	2	0	1	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.83	n/a	n/a	0.78	n/a	**0.78**	n/a	n/a	n/a	n/a	**n/a**	n/a	0.25	0.53	n/a	**0.56**	n/a	0.50	n/a	0.25	**0.38**

HEAVY VEHICLES (FHWA 4+)

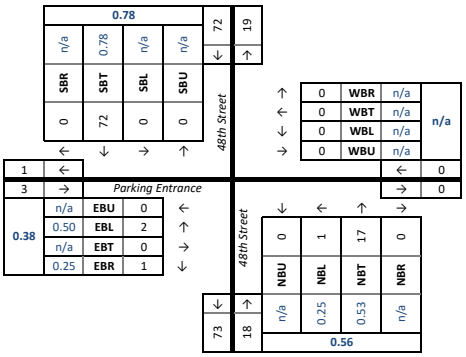
Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street										48th Street					Parking Entrance				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:15 PM to 04:30 PM	0	0	2	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:30 PM to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM to 05:00 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:00 PM to 05:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:15 PM to 05:30 PM	0	0	3	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:30 PM to 05:45 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:45 PM to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:00 PM to 06:15 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:30 PM to 06:45 PM	0	0	1	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)			4					0					0					0		
05:00 PM to 06:00 PM	0	0	4	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	5.6%	0.0%	**5.6%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)			5					0					0					0		
04:45 PM to 05:45 PM	0	0	5	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	7.7%	0.0%	**7.7%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

BICYCLES

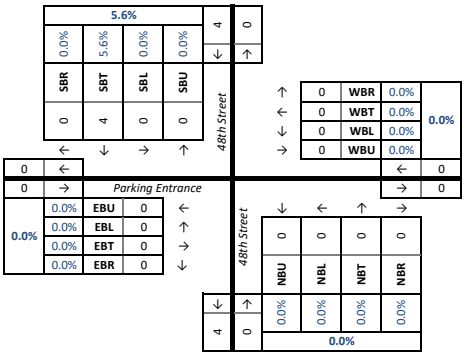
Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street								48th Street				Parking Entrance			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)			0				0				2				0	
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
INT. PEAK HR (BIKES)			3				0				3				3	
06:00 PM to 07:00 PM	0	0	0	3	0	0	0	0	0	3	0	0	0	0	0	3

DATA COLLECTION NOTES :

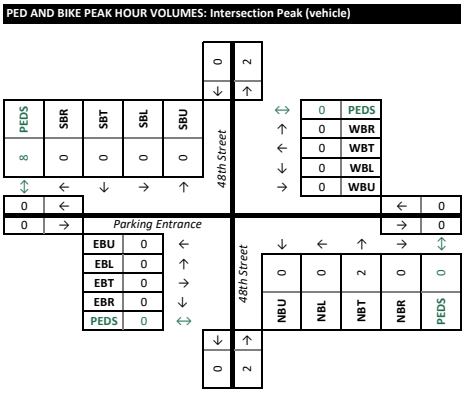
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 05:00 PM to 06:00 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. /Garage Entrance & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Garage Entrance					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	0	0	0	0	1	15	0	0	0	4	0	6	2	0	0	18	3	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	1	14	0	0	0	4	0	2	2	0	0	18	3	0
04:30 PM to 04:45 PM	0	0	0	0	0	1	0	15	0	0	0	3	0	2	1	0	0	13	1	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	14	0	0	0	2	0	3	4	0	0	21	0	1
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	14	0	0	0	2	0	2	0	0	0	20	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	11	0	0	0	5	0	5	2	0	0	22	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	17	0	0	0	1	0	3	2	0	0	20	1	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	1	15	0	0	0	4	0	3	0	0	0	24	0	1
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	13	0	0	0	3	0	0	0	0	0	13	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	1	8	0	0	0	1	0	2	7	0	0	16	2	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	1	11	0	0	0	1	0	0	2	0	0	14	0	1
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	12	0	0	0	1	0	0	6	0	0	15	0	5
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	0				0	58				0	25				4	87				1
05:00 PM to 06:00 PM	0	0	0	0		0	1	57	0		0	12	0	13		0	0	86	1	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.90**	n/a	n/a	n/a	n/a	**n/a**	n/a	0.25	0.84	n/a	**0.85**	n/a	0.60	n/a	0.65	**0.63**	n/a	n/a	0.90	0.25	**0.91**

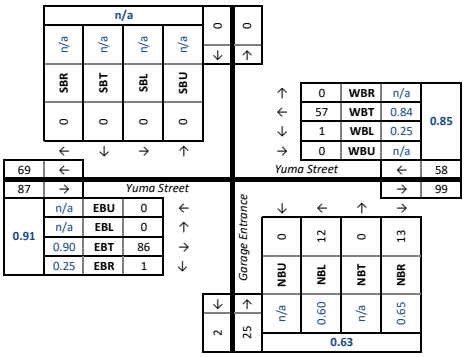
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Garage Entrance					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
04:15 PM to 04:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
04:30 PM to 04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
04:45 PM to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
05:00 PM to 05:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
05:15 PM to 05:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	3	0	
05:30 PM to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
05:45 PM to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:00 PM to 06:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
06:15 PM to 06:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:30 PM to 06:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
06:45 PM to 07:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)	0					0					0					5				
05:00 PM to 06:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	5	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	5.8%	0.0%	**5.7%**
INT. PEAK HR (HV ONLY)	0					0					0					6				
04:45 PM to 05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	6	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	7.2%	0.0%	**7.1%**

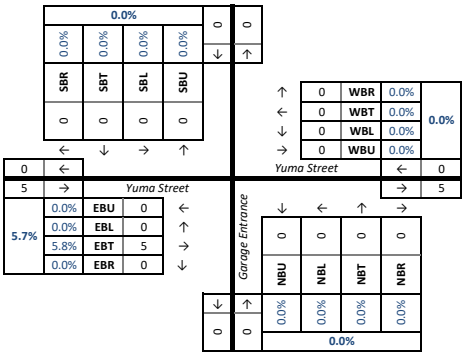
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:					Yuma Street				Garage Entrance				Yuma Street			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																
07:15 PM to 07:30 PM																
07:30 PM to 07:45 PM																
07:45 PM to 08:00 PM																
08:00 PM to 08:15 PM																
08:15 PM to 08:30 PM																
08:30 PM to 08:45 PM																
08:45 PM to 09:00 PM																
INT. PEAK HR (ALL VEH)	0				0				0				1			
05:00 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
INT. PEAK HR (BIKES)	0				0				0				3			
05:45 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0

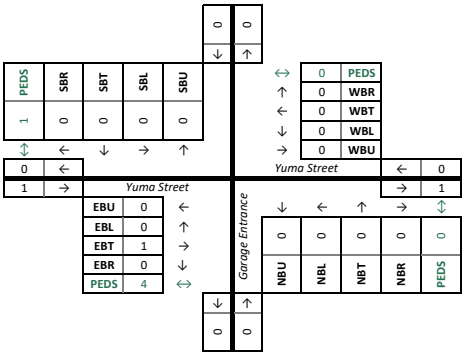
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 04:00 PM to 07:00 PM
Date of Counts: Tuesday, March 26, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 04:30 PM to 05:30 PM
System Peak Hour (all vehicles): 05:30 PM to 06:30 PM
User-Defined Peak Hour: 05:00 PM to 06:00 PM

Intersection: 1. /Alley & Yuma Street

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)		0			0		0			0		0			0		1			0
04:30 PM to 05:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0	
Peak Hour Factor (PHF) Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
0.25	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	n/a	n/a	**n/a**	n/a	n/a	0.25	n/a	**0.25**

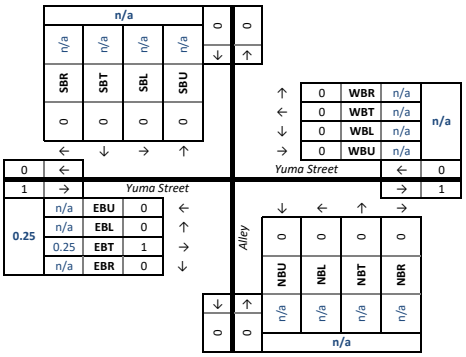
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)		0					0					0					0			
04:30 PM to 05:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**
INT. PEAK HR (HV ONLY)		0					0					0					0			
04:00 PM to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**	0.0%	0.0%	0.0%	0.0%	**0.0%**

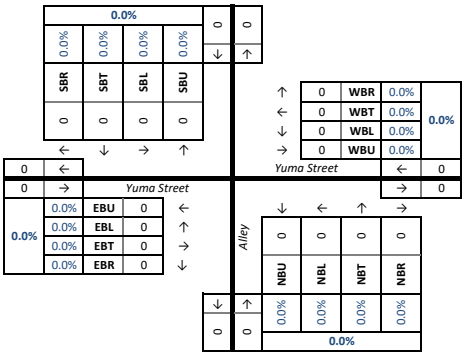
BICYCLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:						Yuma Street					Alley					Yuma Street				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
04:00 PM to 04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 PM to 04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 PM to 04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 PM to 05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00 PM to 05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 PM to 05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 PM to 05:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:45 PM to 06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00 PM to 06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:15 PM to 06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:30 PM to 06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:45 PM to 07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:00 PM to 07:15 PM																				
07:15 PM to 07:30 PM																				
07:30 PM to 07:45 PM																				
07:45 PM to 08:00 PM																				
08:00 PM to 08:15 PM																				
08:15 PM to 08:30 PM																				
08:30 PM to 08:45 PM																				
08:45 PM to 09:00 PM																				
INT. PEAK HR (ALL VEH)		0					0					0					0			
04:30 PM to 05:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	
INT. PEAK HR (BIKES)		0					0					0					0			
04:00 PM to 05:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0	

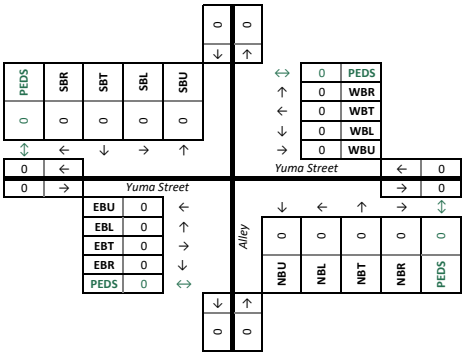
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 10:00 AM to 02:00 PM
Date of Counts: Saturday, March 30, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 12:45 PM to 01:45 PM
System Peak Hour (all vehicles): 12:45 PM to 01:45 PM
User-Defined Peak Hour: 11:00 AM to 12:00 PM

Intersection: 1. 49th Street & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	49th Street					Massachusetts Avenue					49th Street					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
10:00 AM to 10:15 AM	0	7	4	0	4	0	11	91	18	9	0	13	13	2	0	0	12	97	16	2
10:15 AM to 10:30 AM	0	12	8	1	1	1	10	102	6	9	0	13	10	2	2	0	14	140	18	6
10:30 AM to 10:45 AM	0	7	3	1	1	0	7	116	7	3	0	14	11	2	8	0	10	119	11	4
10:45 AM to 11:00 AM	0	8	6	1	2	0	11	97	13	12	0	10	11	2	6	0	12	157	16	3
11:00 AM to 11:15 AM	0	10	11	2	1	3	15	110	4	4	0	12	19	1	2	0	15	112	14	3
11:15 AM to 11:30 AM	0	7	8	1	4	1	9	98	11	5	0	13	9	3	1	0	15	127	15	0
11:30 AM to 11:45 AM	0	6	16	1	1	2	8	90	6	5	0	9	17	2	3	0	27	174	14	2
11:45 AM to 12:00 PM	0	14	10	1	0	1	6	88	4	13	0	11	11	3	3	0	23	217	27	2
12:00 PM to 12:15 PM	0	6	8	0	1	3	4	98	5	10	0	11	27	2	8	0	17	196	15	5
12:15 PM to 12:30 PM	0	10	4	2	2	4	13	113	7	12	0	13	15	3	1	0	23	216	13	1
12:30 PM to 12:45 PM	0	9	9	3	6	2	7	104	8	8	0	10	18	2	5	0	29	182	21	9
12:45 PM to 01:00 PM	0	9	10	0	1	1	8	132	12	9	0	21	20	3	9	0	25	186	12	6
01:00 PM to 01:15 PM	0	12	11	0	0	1	9	132	9	15	0	7	13	3	6	0	14	173	16	5
01:15 PM to 01:30 PM	0	5	8	2	2	1	8	126	7	19	0	16	11	3	4	0	18	203	14	2
01:30 PM to 01:45 PM	0	8	9	2	3	2	10	139	8	21	0	17	10	1	2	0	24	202	15	3
01:45 PM to 02:00 PM	0	12	12	2	1	3	12	136	6	10	0	14	15	4	5	0	30	155	13	2
02:00 PM to 02:15 PM																				
02:15 PM to 02:30 PM																				
02:30 PM to 02:45 PM																				
02:45 PM to 03:00 PM																				
INT. PEAK HR (ALL VEH)	76				6	605				64	125				21	902				16
12:45 PM to 01:45 PM	0	34	38	4		5	35	529	36		0	61	54	10		0	81	764	57	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) **0.96**	n/a	0.71	0.86	0.50	**0.83**	0.63	0.88	0.95	0.75	**0.95**	n/a	0.73	0.68	0.83	**0.71**	n/a	0.81	0.94	0.89	**0.94**

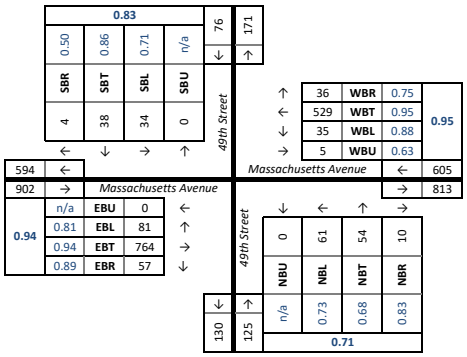
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Massachusetts Avenue				49th Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
10:00 AM to 10:15 AM	0	0	0	0	0	0	0	2	0	0	0	0	0	0	3	0
10:15 AM to 10:30 AM	0	0	1	0	0	1	3	1	0	1	1	0	0	0	0	0
10:30 AM to 10:45 AM	0	1	0	0	0	0	1	1	0	1	1	0	0	0	1	0
10:45 AM to 11:00 AM	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	4
11:00 AM to 11:15 AM	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	1
11:15 AM to 11:30 AM	0	0	0	0	0	0	3	3	0	0	0	0	0	0	1	0
11:30 AM to 11:45 AM	0	0	0	0	0	0	2	1	0	0	1	0	0	0	2	0
11:45 AM to 12:00 PM	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	1
12:00 PM to 12:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	1
12:15 PM to 12:30 PM	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1	0
12:30 PM to 12:45 PM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	2	0
12:45 PM to 01:00 PM	0	0	0	0	0	0	1	1	0	0	1	0	0	0	1	0
01:00 PM to 01:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0
01:15 PM to 01:30 PM	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4	0
01:30 PM to 01:45 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0
01:45 PM to 02:00 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	0
02:00 PM to 02:15 PM																
02:15 PM to 02:30 PM																
02:30 PM to 02:45 PM																
02:45 PM to 03:00 PM																
INT. PEAK HR (ALL VEH)	0				6				2				7			
12:45 PM to 01:45 PM	0	0	0	0	0	1	4	1	0	1	1	0	0	1	6	0
Heavy Vehicle % (PHV):	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	0.8%	2.8%	1.0%	1.6%	1.9%	0.0%	1.6%	0.0%	1.2%	0.8%	0.0%	0.8%
INT. PEAK HR (HV ONLY)	2				11				4				10			
10:00 AM to 11:00 AM	0	1	1	0	0	1	5	5	0	2	2	0	0	0	6	4
Heavy Vehicle % (PHV):	0.0%	2.9%	4.8%	0.0%	3.4%	0.0%	2.6%	1.2%	11.4%	2.2%	0.0%	4.0%	4.4%	0.0%	3.9%	0.0%	0.0%	1.2%	6.6%	1.6%

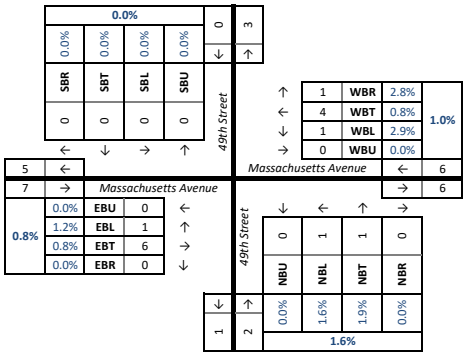
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	49th Street				Massachusetts Avenue				49th Street				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
10:00 AM to 10:15 AM	0	0	0	2	0	0	0	0	0	0	2	0	0	0	0	0
10:15 AM to 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM to 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM to 11:00 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM to 11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM to 11:30 AM	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	0
11:30 AM to 11:45 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
11:45 AM to 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM to 12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM to 12:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	2	0
12:30 PM to 12:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
12:45 PM to 01:00 PM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0
01:00 PM to 01:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
01:15 PM to 01:30 PM	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
01:30 PM to 01:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1
01:45 PM to 02:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
02:00 PM to 02:15 PM																
02:15 PM to 02:30 PM																
02:30 PM to 02:45 PM																
02:45 PM to 03:00 PM																
INT. PEAK HR (ALL VEH)	2				1				4				4			
12:45 PM to 01:45 PM	0	1	1	0	0	0	1	0	0	0	4	0	0	0	3	1
INT. PEAK HR (BIKES)	2				1				4				4			
12:45 PM to 01:45 PM	0	1	1	0	0	0	1	0	0	0	4	0	0	0	3	1

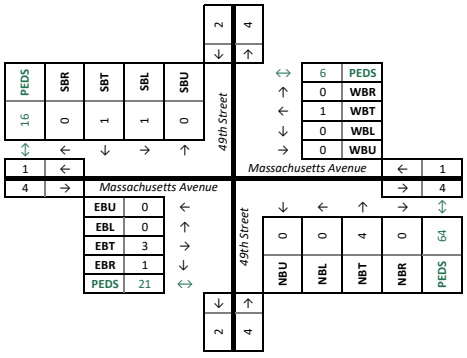
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

Gorove/Slade Associates - Multimodal Turning Movement Count Report

Project Name : Lady Bird
Project # : 2557-003
Location Washington, DC
Data Source: Gorove/Slade Associates, Inc.

Analysis Period: STUDY_PERIOD 10:00 AM to 02:00 PM
Date of Counts: Saturday, March 30, 2019
Weather: Partly Cloudy

Volumes Displayed as: 1. Intersection Peak (vehicle)
Intersection Peak Hour (all vehicles): 12:45 PM to 01:45 PM
System Peak Hour (all vehicles): 12:45 PM to 01:45 PM
User-Defined Peak Hour: 11:00 AM to 12:00 PM

Intersection: 1. 48th Street/Fordham Road & Massachusetts Avenue

ALL VEHICLES

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Massachusetts Avenue					Fordham Road					Massachusetts Avenue				
Movement:	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds	U	Left	Thru	Right	Peds
10:00 AM to 10:15 AM	0	2	0	6	10	0	0	107	3	4	0	11	2	6	2	0	5	102	1	4
10:15 AM to 10:30 AM	0	4	0	3	7	0	4	103	3	0	0	6	3	14	4	0	1	147	2	9
10:30 AM to 10:45 AM	0	11	3	4	7	0	6	120	3	1	0	8	2	5	11	2	5	119	3	7
10:45 AM to 11:00 AM	0	4	4	4	6	0	2	103	3	0	0	9	4	13	5	0	5	156	0	1
11:00 AM to 11:15 AM	0	5	3	3	6	0	5	127	2	2	0	5	7	11	0	1	1	113	4	9
11:15 AM to 11:30 AM	0	3	3	3	7	0	5	111	0	1	0	9	5	5	0	0	3	130	2	1
11:30 AM to 11:45 AM	0	6	1	2	3	0	3	101	2	3	0	6	6	11	0	0	3	176	3	7
11:45 AM to 12:00 PM	0	8	1	7	5	0	4	100	2	13	0	7	7	7	5	0	4	219	2	13
12:00 PM to 12:15 PM	0	4	4	8	5	0	7	102	2	3	0	6	1	7	7	0	6	195	1	7
12:15 PM to 12:30 PM	0	5	2	5	3	0	8	130	1	0	0	5	3	11	0	1	4	223	4	11
12:30 PM to 12:45 PM	0	6	2	10	3	0	6	110	2	0	0	4	3	15	2	0	3	182	1	11
12:45 PM to 01:00 PM	0	4	3	5	13	0	4	138	0	3	0	8	5	5	4	0	7	182	3	7
01:00 PM to 01:15 PM	0	5	4	3	8	0	1	151	3	0	0	4	5	12	3	0	2	175	6	8
01:15 PM to 01:30 PM	0	7	3	3	11	0	5	161	3	0	0	8	5	8	2	1	4	219	5	13
01:30 PM to 01:45 PM	0	3	2	6	7	0	6	129	1	1	0	12	6	8	1	0	1	189	2	13
01:45 PM to 02:00 PM	0	2	2	4	11	0	4	137	2	0	0	9	7	8	10	2	3	153	3	16
02:00 PM to 02:15 PM																				
02:15 PM to 02:30 PM																				
02:30 PM to 02:45 PM																				
02:45 PM to 03:00 PM																				
INT. PEAK HR (ALL VEH)	48				39	602				4	86				10	796				41
12:45 PM to 01:45 PM	0	19	12	17		0	16	579	7		0	32	21	33		1	14	765	16	
Peak Hour Overall	U	Left	Thru	Right	**SB**	U	Left	Thru	Right	**WB**	U	Left	Thru	Right	**NB**	U	Left	Thru	Right	**EB**
Factor (PHF) 0.89	n/a	0.68	0.75	0.71	**0.92**	n/a	0.67	0.90	0.58	**0.89**	n/a	0.67	0.88	0.69	**0.83**	0.25	0.50	0.87	0.67	**0.87**

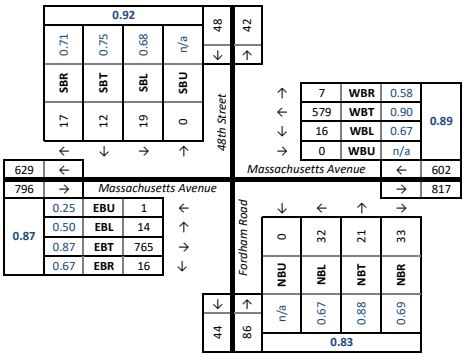
HEAVY VEHICLES (FHWA 4+)

Direction:	Southbound					Westbound					Northbound					Eastbound				
Roadway:	48th Street					Massachusetts Avenue					Fordham Road					Massachusetts Avenue				
Movement:	U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right		U	Left	Thru	Right	
10:00 AM to 10:15 AM	0	1	0	0		0	0	2	0		0	0	0	1		0	1	2	0	
10:15 AM to 10:30 AM	0	1	0	0		0	0	5	0		0	0	0	0		0	0	2	0	
10:30 AM to 10:45 AM	0	1	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
10:45 AM to 11:00 AM	0	0	0	0		0	0	2	0		0	1	0	1		0	0	2	0	
11:00 AM to 11:15 AM	0	1	0	0		0	0	3	0		0	0	1	0		0	0	1	0	
11:15 AM to 11:30 AM	0	0	0	0		0	0	4	0		0	0	0	0		0	0	1	0	
11:30 AM to 11:45 AM	0	2	0	0		0	0	3	0		0	0	0	0		0	0	2	0	
11:45 AM to 12:00 PM	0	1	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
12:00 PM to 12:15 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	1	0	
12:15 PM to 12:30 PM	0	0	0	0		0	0	2	0		0	0	0	0		0	0	1	0	
12:30 PM to 12:45 PM	0	1	0	0		0	0	4	0		0	0	0	0		0	0	1	0	
12:45 PM to 01:00 PM	0	1	0	0		0	0	1	0		0	0	0	0		0	0	1	0	
01:00 PM to 01:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	2	0	
01:15 PM to 01:30 PM	0	0	0	0		0	0	2	0		0	0	0	1		0	0	2	0	
01:30 PM to 01:45 PM	0	0	0	0		0	0	1	0		0	1	0	0		0	0	1	1	
01:45 PM to 02:00 PM	0	0	0	0		0	0	1	0		0	0	0	0		0	0	2	0	
02:00 PM to 02:15 PM																				
02:15 PM to 02:30 PM																				
02:30 PM to 02:45 PM																				
02:45 PM to 03:00 PM																				
INT. PEAK HR (ALL VEH)	1					4					2					7				
12:45 PM to 01:45 PM	0	1	0	0		0	0	4	0		0	1	0	1		0	0	6	1	
Heavy Vehicle % (PHV):	0.0%	5.3%	0.0%	0.0%	**2.1%**	0.0%	0.0%	0.7%	0.0%	**0.7%**	0.0%	3.1%	0.0%	3.0%	**2.3%**	0.0%	0.0%	0.8%	6.3%	**0.9%**
INT. PEAK HR (HV ONLY)	3					10					3					8				
10:00 AM to 11:00 AM	0	3	0	0		0	0	10	0		0	1	0	2		0	1	7	0	
Heavy Vehicle % (PHV):	0.0%	14.3%	0.0%	0.0%	**6.7%**	0.0%	0.0%	2.3%	0.0%	**2.2%**	0.0%	2.9%	0.0%	5.3%	**3.6%**	0.0%	6.3%	1.3%	0.0%	**1.5%**

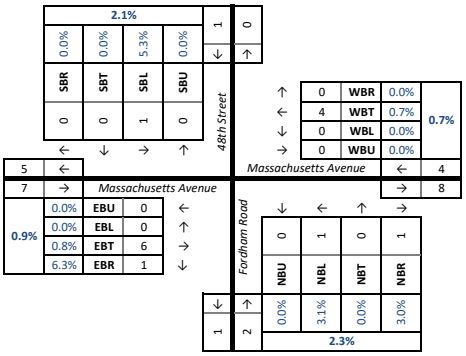
BICYCLES

Direction:	Southbound				Westbound				Northbound				Eastbound			
Roadway:	48th Street				Massachusetts Avenue				Fordham Road				Massachusetts Avenue			
Movement:	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right
10:00 AM to 10:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM to 10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM to 10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM to 11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM to 11:15 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM to 11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
11:30 AM to 11:45 AM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
11:45 AM to 12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
12:00 PM to 12:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM to 12:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
12:30 PM to 12:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
12:45 PM to 01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
01:00 PM to 01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
01:15 PM to 01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
01:30 PM to 01:45 PM	0	0	0	0	0	1	4	0	0	0	0	0	0	0	1	0
01:45 PM to 02:00 PM	0	0	0	0	0	0	2	0	0	0	0	1	0	0	0	0
02:00 PM to 02:15 PM																
02:15 PM to 02:30 PM																
02:30 PM to 02:45 PM																
02:45 PM to 03:00 PM																
INT. PEAK HR (ALL VEH)	0				5				0				5			
12:45 PM to 01:45 PM	0	0	0	0	0	1	4	0	0	0	0	0	0	0	5	0
INT. PEAK HR (BIKES)	0				7				1				4			
01:00 PM to 02:00 PM	0	0	0	0	0	1	6	0	0	0	0	1	0	0	4	0

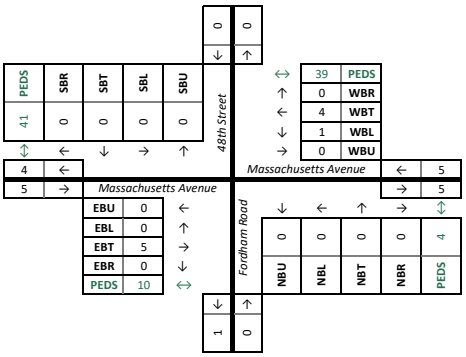
VEHICLE PEAK HOUR VOLS AND PHF: Intersection Peak (vehicle)



HEAVY VEH PEAK HOUR VOLS AND PHV: Intersection Peak (vehicle)



PED AND BIKE PEAK HOUR VOLUMES: Intersection Peak (vehicle)



DATA COLLECTION NOTES :

G: Background Growth Volume Graphics

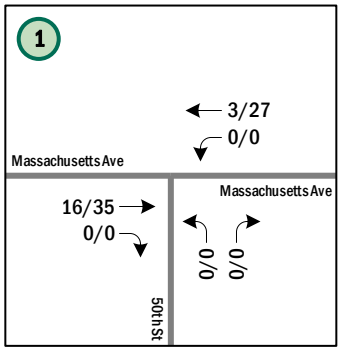
Inherent Background Growth Volumes (2024)

(#) Study Intersection

→ Turning Movement

1234/5678 AM / PM Peak Hour Volume

1



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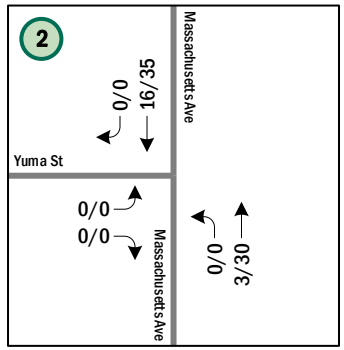

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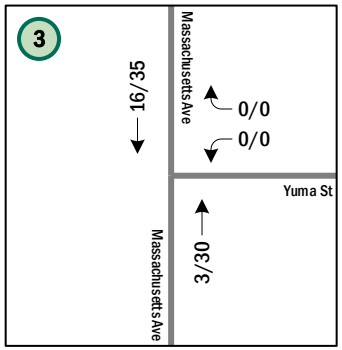

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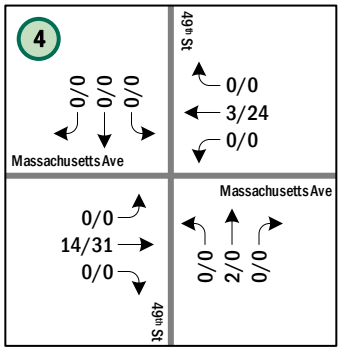

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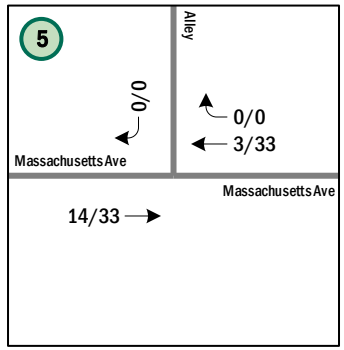

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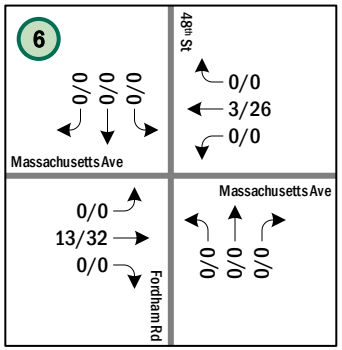

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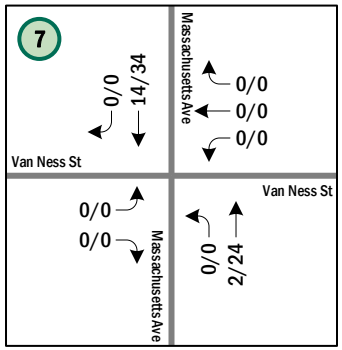

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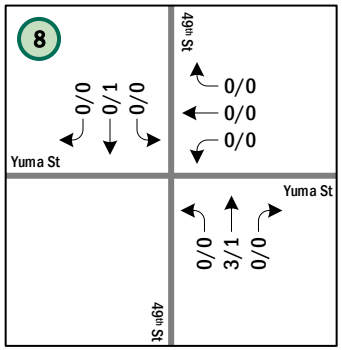

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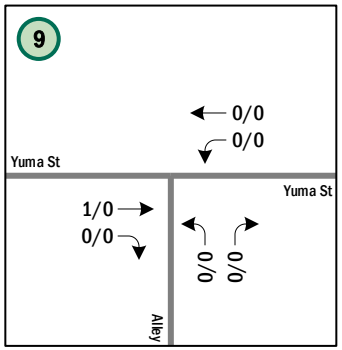

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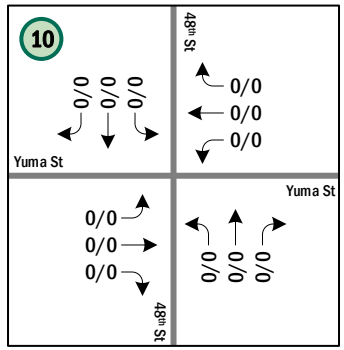
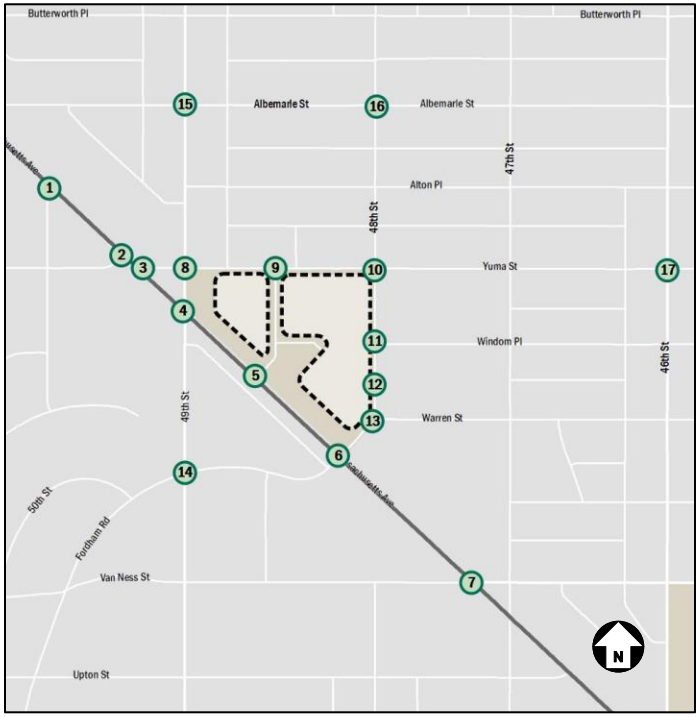




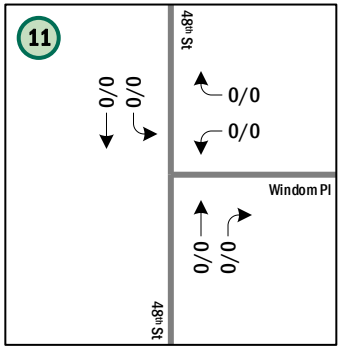
Inherent Background Growth Volumes (2024)

Study Intersection

Turning Movement

1234/5678 AM / PM Peak Hour Volume

11



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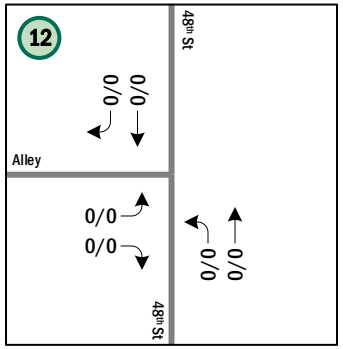
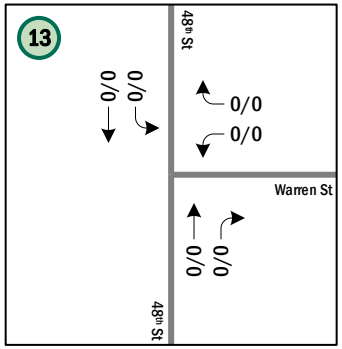


13



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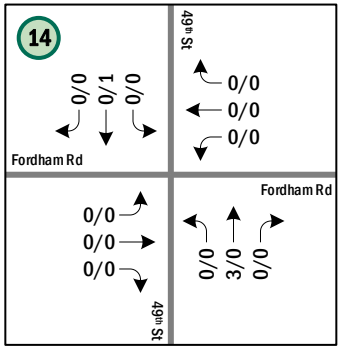

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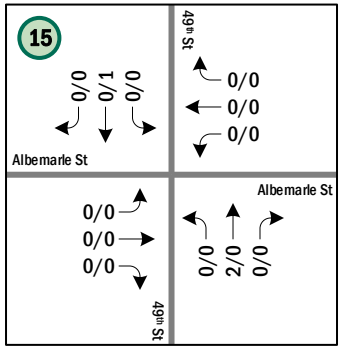

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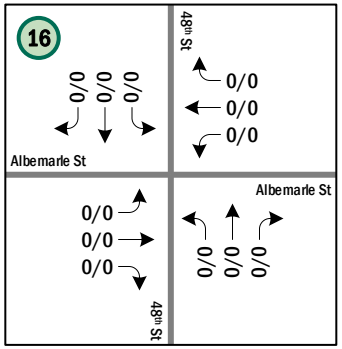

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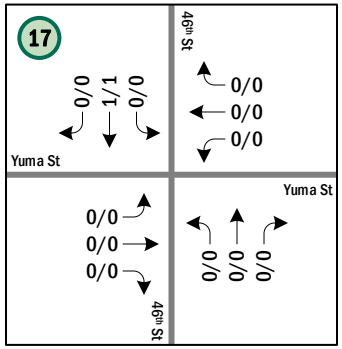

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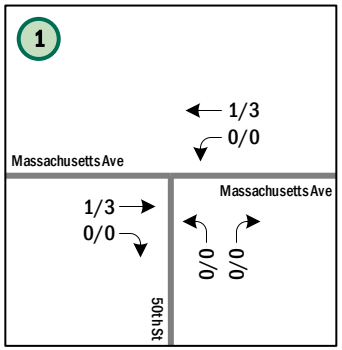
H: BACKGROUND DEVELOPMENT VOLUME GRAPHICS

Spring Valley Expansion Volumes (2024)

- (#) Study Intersection
- → Turning Movement
- 1234/5678 AM / PM Peak Hour Volume

1



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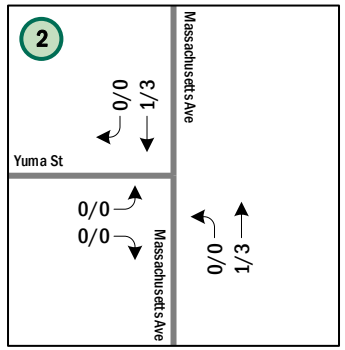

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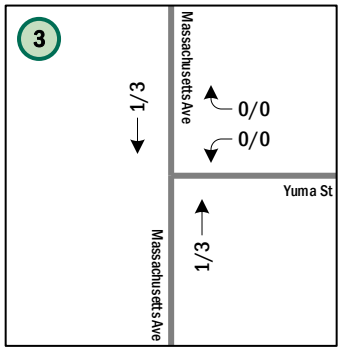

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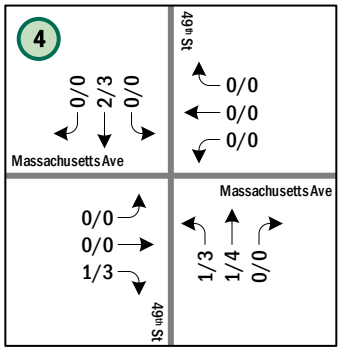

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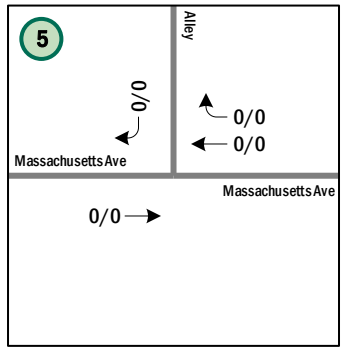

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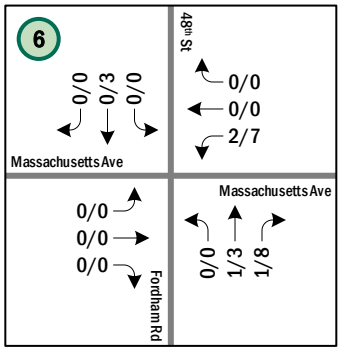

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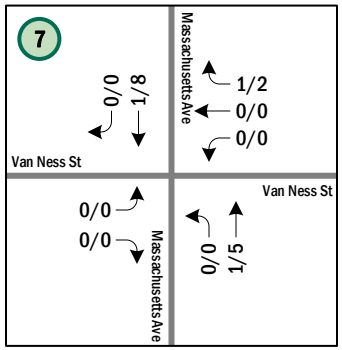

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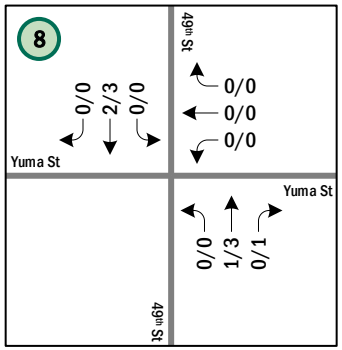

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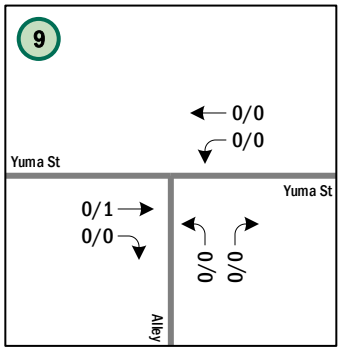

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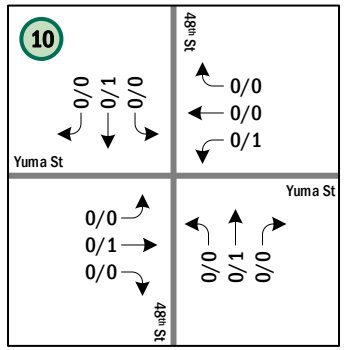
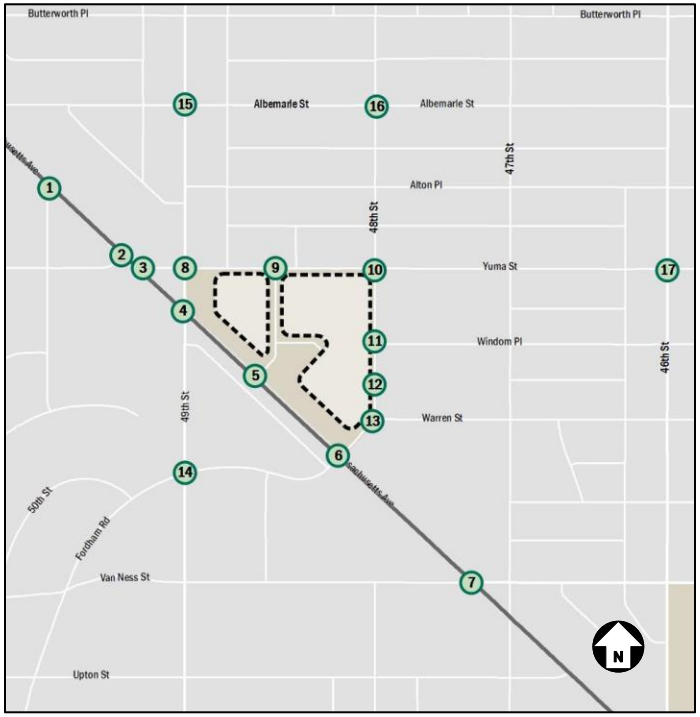
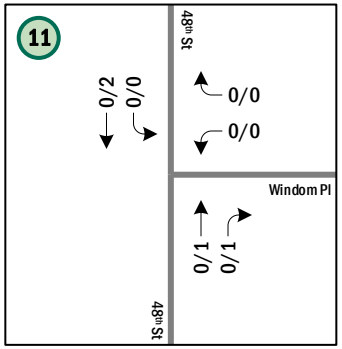
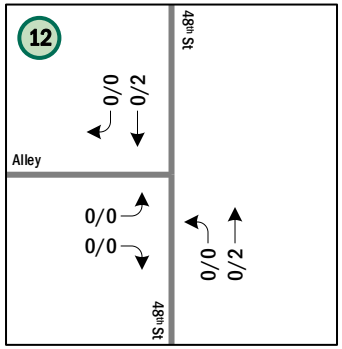


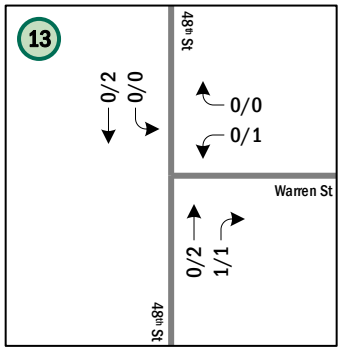


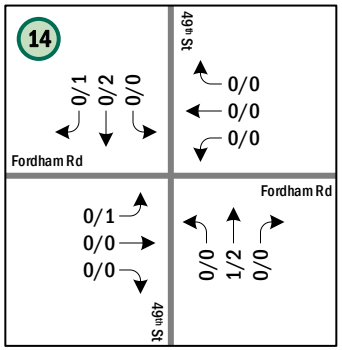
Spring Valley Expansion Volumes (2024)

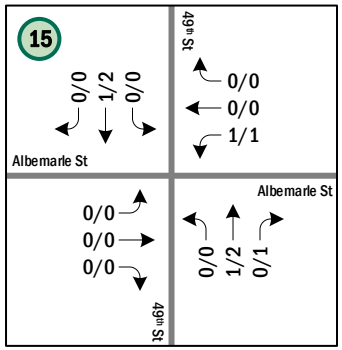
- (#) Study Intersection
- → Turning Movement
- 1234/5678 AM / PM Peak Hour Volume

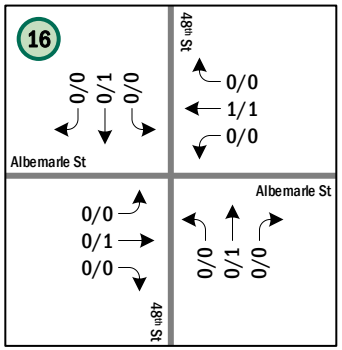


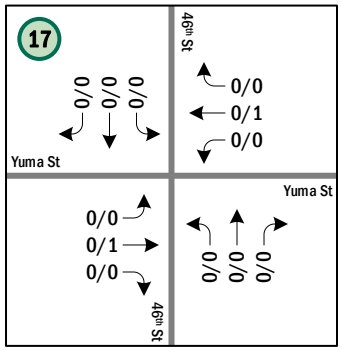












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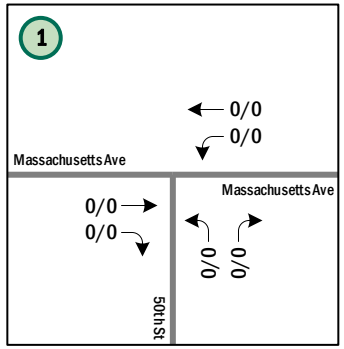
I: Rerouted Existing American University Trips Volume Graphics

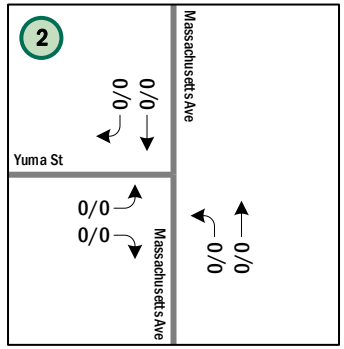
AU Reroute Volumes (2024)

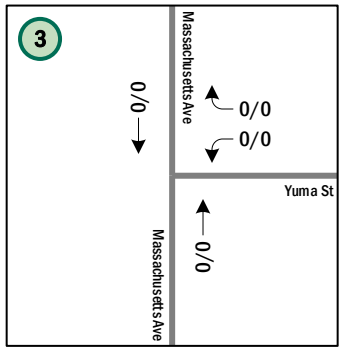
(#) Study Intersection

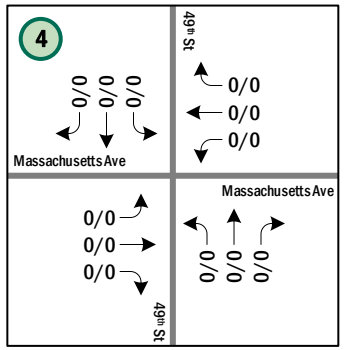
→ Turning Movement

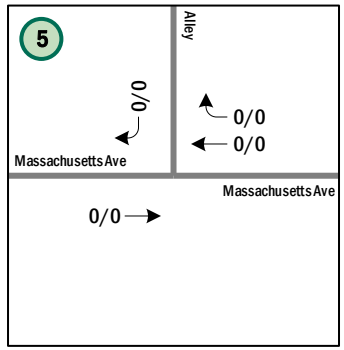
1234/5678 AM / PM Peak Hour Volume

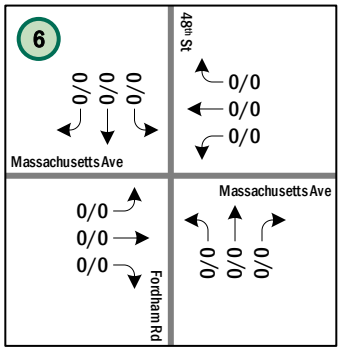


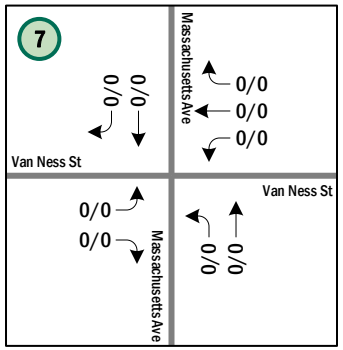


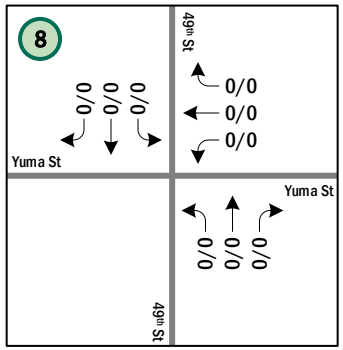


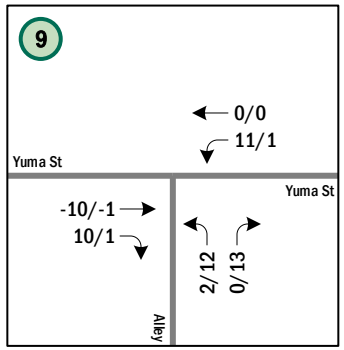


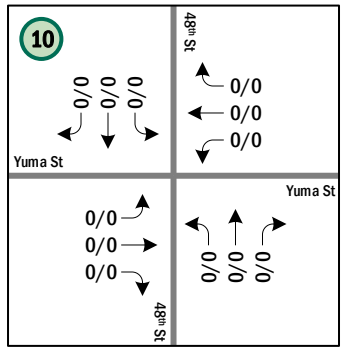


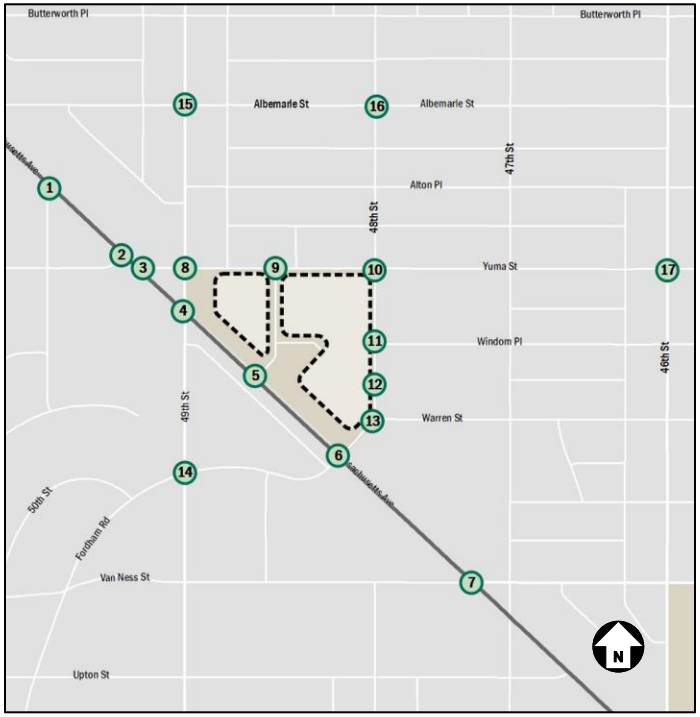










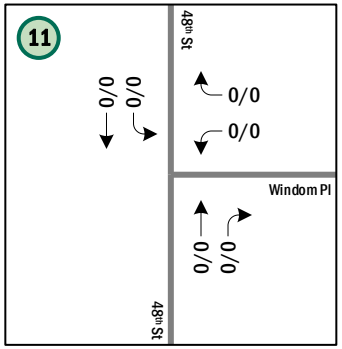


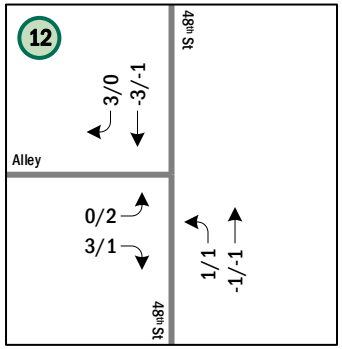
AU Reroute Volumes (2024)

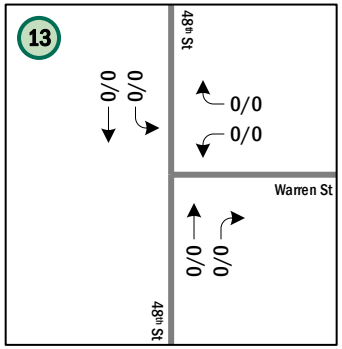
(#) Study Intersection

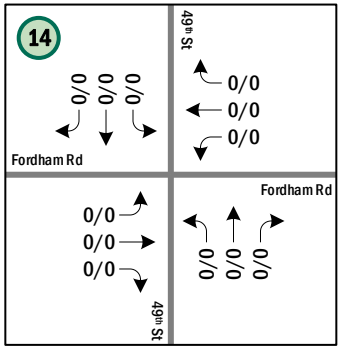
→ Turning Movement

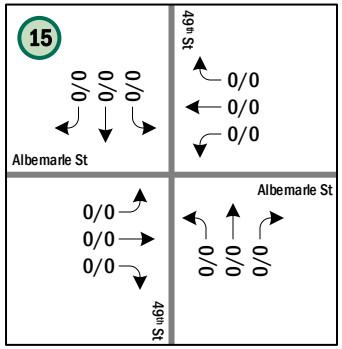
1234/5678 AM / PM Peak Hour Volume

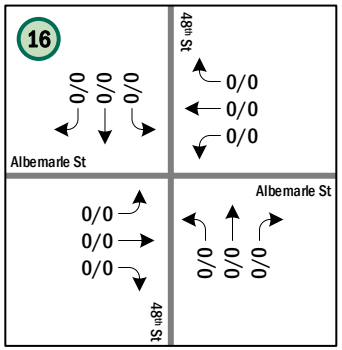


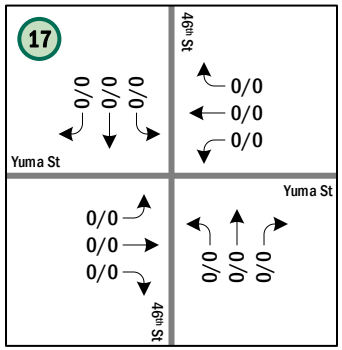












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J: Vehicular Level of Service Definitions

All capacity analyses are based on the procedures specified by the Transportation Research Board, Special Report 209: Highway Capacity Manual (HCM), 2000. Levels of service (LOS) range from A to F. A brief description of each level of service for signalized and unsignalized intersections is provided below.

SIGNALIZED INTERSECTIONS

Level of service is based upon the traffic volume present in each lane on the roadway, the capacity of each lane at the intersection and the delay associated with each directional movement. The levels of service for signalized intersections are defined below:

- **LOS A** describes operations with very low average delay per vehicle, i.e., less than 10.0 seconds. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop. Short signal cycle lengths may also contribute to low delay.

- **LOS B** describes operations with average delay in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.

- **LOS C** describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level although many still pass through the intersection without stopping. This is generally considered the lower end of the range of the acceptable level of service in rural areas.

- **LOS D** describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, and/or high traffic volumes as compared to the roadway capacity. Many vehicles are required to stop and the number of vehicles that do not have to stop declines. Individual signal cycle failures, where all waiting vehicles do not clear the intersection during a single green time, are noticeable. This is generally considered the lower end of the range of the acceptable level of service in urban areas.

- **LOS E** describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. These higher delay values generally indicate poor progression, long cycle lengths, and high traffic volumes. Individual cycle failures are frequent occurrences. LOS E has been set as the limit of acceptable conditions.

- **LOS F** describes operations with average delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with over-saturation, i.e., when traffic arrives at a flow rate that exceeds the capacity of the intersection. It may also occur at high volumes with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such delays.

UNSIGNALIZED INTERSECTIONS

At an unsignalized intersection, the major street through traffic and right turns are assumed to operate unimpeded and therefore receive no level of service rating. The level of service for the minor street and the major street left turn traffic is dependent on the volume and capacity of the available lanes, and, the number and frequency of acceptable gaps in the major street traffic to make a conflicting turn.

The level of service grade is provided for each conflicting movement at an unsignalized intersection and is based on the total average delay experienced by each vehicle. The delay includes the time it takes a vehicle to move from the back of a queue through the intersection.

The unsignalized intersection level of service analysis does not account for variations in driver behavior or the effects of nearby traffic signals. Therefore, the results from this analysis usually indicate worse levels of service than may be experienced in the field. The unsignalized intersection level of service descriptions are provided below:

- **LOS A** describes operations where there is very little to no conflicting traffic for a minor side street movement, i.e., an average total delay of less than 10.0 seconds per vehicle.
- **LOS B** describes operations with average total delay in the range of 10.1 to 15.0 seconds per vehicle.
- **LOS C** describes operations with average total delay in the range of 15.1 to 25.0 second per vehicle.
- **LOS D** describes operations with average total delay in the range of 25.1 to 35.0 seconds per vehicle.
- **LOS E** describes operations with average total delay in the range of 35.1 to 50.0 seconds per vehicle.
- **LOS F** describes operations with average total delay of 50 seconds per vehicle. LOS F exists when there are insufficient gaps of suitable size to allow a side street demand to cross safely through or enter a major street traffic stream. This level of service is generally evident from extremely long total delays experienced by side street traffic and by queuing on the minor approaches. It is important to note that LOS F may not always result in long queues but may result in adjustments to normal driver behavior.

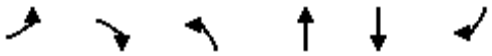
K: Existing Vehicular Capacity and Queuing Analysis Worksheets

Lane Group	NBL	SET	NWT
Lane Group Flow (vph)	29	1375	607
v/c Ratio	0.08	0.65	0.45
Control Delay	32.5	14.9	6.7
Queue Delay	0.0	0.0	0.5
Total Delay	32.5	14.9	7.2
Queue Length 50th (ft)	15	279	132
Queue Length 95th (ft)	39	350	190
Internal Link Dist (ft)	174	579	255
Turn Bay Length (ft)			
Base Capacity (vph)	354	2112	1344
Starvation Cap Reductn	0	0	333
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.08	0.65	0.60

Intersection Summary

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	26	1	1250	42	7	564
Future Volume (vph)	26	1	1250	42	7	564
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.0			4.0
Lane Util. Factor	1.00		0.95			1.00
Frpb, ped/bikes	1.00		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	1.00		1.00			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1768		3517			1862
Flt Permitted	0.95		1.00			0.99
Satd. Flow (perm)	1768		3517			1839
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	28	1	1330	45	7	600
RTOR Reduction (vph)	1	0	2	0	0	0
Lane Group Flow (vph)	28	0	1373	0	0	607
Confl. Peds. (#/hr)		1		7	7	
Confl. Bikes (#/hr)				3		
Turn Type	Perm		NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	4				2	
Actuated Green, G (s)	18.0		58.0			71.0
Effective Green, g (s)	20.0		60.0			73.0
Actuated g/C Ratio	0.20		0.60			0.73
Clearance Time (s)	5.0		6.0			6.0
Lane Grp Cap (vph)	353		2110			1344
v/s Ratio Prot			c0.39			c0.04
v/s Ratio Perm	c0.02					0.29
v/c Ratio	0.08		0.65			0.45
Uniform Delay, d1	32.5		13.1			5.4
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	0.4		1.6			1.1
Delay (s)	33.0		14.7			6.5
Level of Service	C		B			A
Approach Delay (s)	33.0		14.7			6.5
Approach LOS	C		B			A

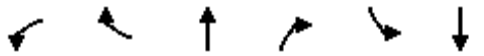
Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	56.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	32	36	522	1239	3
Future Volume (Veh/h)	2	32	36	522	1239	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	2	33	38	544	1291	3
Pedestrians	10				3	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				343	335	
pX, platoon unblocked	0.81	0.74	0.74			
vC, conflicting volume	1926	657	1304			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1160	0	709			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	96	94			
cM capacity (veh/h)	142	795	649			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	35	582	861	433
Volume Left	2	38	0	0
Volume Right	33	0	0	3
cSH	630	649	1700	1700
Volume to Capacity	0.06	0.06	0.51	0.25
Queue Length 95th (ft)	4	5	0	0
Control Delay (s)	11.1	1.6	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	11.1	1.6	0.0	
Approach LOS	B			

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	67.0%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	39	558	0	0	1271
Future Volume (Veh/h)	6	39	558	0	0	1271
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	6	41	581	0	0	1324
Pedestrians	3		2			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	3.5		3.5			
Percent Blockage	0		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			248			430
pX, platoon unblocked	0.79	0.90			0.90	
vC, conflicting volume	1248	294			584	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	220	0			321	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	96			100	
cM capacity (veh/h)	588	975			1111	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	6	41	290	290	662	662
Volume Left	6	0	0	0	0	0
Volume Right	0	41	0	0	0	0
cSH	588	975	1700	1700	1700	1700
Volume to Capacity	0.01	0.04	0.17	0.17	0.39	0.39
Queue Length 95th (ft)	1	3	0	0	0	0
Control Delay (s)	11.2	8.9	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s)	9.2		0.0		0.0	
Approach LOS	A					

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	SBL	SBT	SET	NWT
Lane Group Flow (vph)	54	50	43	23	1323	572
v/c Ratio	0.21	0.14	0.17	0.06	0.61	0.42
Control Delay	43.0	39.9	42.3	36.2	7.8	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.6	0.0
Total Delay	43.0	39.9	42.3	36.2	8.4	17.3
Queue Length 50th (ft)	35	31	28	13	193	83
Queue Length 95th (ft)	74	67	62	36	235	126
Internal Link Dist (ft)		489		90	168	265
Turn Bay Length (ft)						
Base Capacity (vph)	260	363	254	357	2158	1376
Starvation Cap Reductn	0	0	0	0	418	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.14	0.17	0.06	0.76	0.42

Intersection Summary

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	52	47	2	42	19	3	124	1093	66	24	500	31
Future Volume (vph)	52	47	2	42	19	3	124	1093	66	24	500	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.96	1.00		0.96	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.98			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1702	1848		1705	1814			3475			3459	
Flt Permitted	0.74	1.00		0.72	1.00			0.75			0.85	
Satd. Flow (perm)	1330	1848		1300	1814			2627			2940	
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)	54	48	2	43	20	3	128	1127	68	25	515	32
RTOR Reduction (vph)	0	2	0	0	2	0	0	3	0	0	4	0
Lane Group Flow (vph)	54	48	0	43	21	0	0	1320	0	0	568	0
Confl. Peds. (#/hr)	23		23	23		23	3		18	18		3
Confl. Bikes (#/hr)			1			2			1			2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	20%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	21.5	21.5		21.5	21.5			87.0			54.0	
Effective Green, g (s)	23.5	23.5		23.5	23.5			89.0			56.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20			0.74			0.47	
Clearance Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lane Grp Cap (vph)	260	361		254	355			2160			1372	
v/s Ratio Prot		0.03			0.01			c0.15				
v/s Ratio Perm	c0.04			0.03				c0.30			0.19	
v/c Ratio	0.21	0.13		0.17	0.06			0.61			0.41	
Uniform Delay, d1	40.4	39.8		40.1	39.2			7.3			21.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			0.77	
Incremental Delay, d2	1.8	0.8		1.4	0.3			1.3			0.9	
Delay (s)	42.3	40.6		41.6	39.6			8.6			17.3	
Level of Service	D	D		D	D			A			B	
Approach Delay (s)		41.5			40.9			8.6			17.3	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	0	1103	506	1	0	5
Future Volume (Veh/h)	0	1103	506	1	0	5
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)	0	1149	527	1	0	5
Pedestrians					15	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		345	417			
pX, platoon unblocked	0.96				0.87	0.96
vC, conflicting volume	543				1117	279
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	452				647	178
tC, single (s)	4.1				6.8	7.3
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.5
p0 queue free %	100				100	99
cM capacity (veh/h)	1050				346	742

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	574	574	351	177	5
Volume Left	0	0	0	0	0
Volume Right	0	0	0	1	5
cSH	1700	1700	1700	1700	742
Volume to Capacity	0.34	0.34	0.21	0.10	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	9.9
Lane LOS					A
Approach Delay (s)	0.0		0.0		9.9
Approach LOS					A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

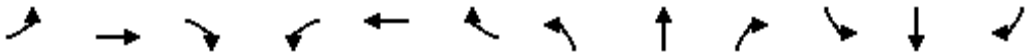
Lane Group	SET	NWT	NEL	NET	SWL	SWT
Lane Group Flow (vph)	1136	673	28	80	29	45
v/c Ratio	0.52	0.30	0.10	0.19	0.12	0.12
Control Delay	3.8	6.8	37.3	18.6	37.9	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	6.8	37.3	18.6	37.9	17.9
Queue Length 50th (ft)	29	89	17	20	18	8
Queue Length 95th (ft)	32	115	43	62	45	40
Internal Link Dist (ft)	337	584		513		115
Turn Bay Length (ft)						
Base Capacity (vph)	2189	2260	285	427	246	385
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.30	0.10	0.19	0.12	0.12

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	53	1020	6	15	610	14	27	30	46	28	13	29
Future Volume (vph)	53	1020	6	15	610	14	27	30	46	28	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	0.99		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.91	1.00		0.99	1.00	
Frt		1.00			1.00		1.00	0.91		1.00	0.90	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3525			3483		1599	1676		1436	1550	
Flt Permitted		0.87			0.91		0.73	1.00		0.70	1.00	
Satd. Flow (perm)		3090			3188		1225	1676		1055	1550	
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)	56	1074	6	16	642	15	28	32	48	29	14	31
RTOR Reduction (vph)	0	0	0	0	1	0	0	37	0	0	24	0
Lane Group Flow (vph)	0	1136	0	0	672	0	28	43	0	29	21	0
Confl. Peds. (#/hr)	18		6	6		18	57		4	4		57
Confl. Bikes (#/hr)						2						1
Heavy Vehicles (%)	2%	2%	12%	2%	3%	8%	3%	2%	2%	25%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		83.0			83.0		26.0	26.0		26.0	26.0	
Effective Green, g (s)		85.0			85.0		28.0	28.0		28.0	28.0	
Actuated g/C Ratio		0.71			0.71		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)		2188			2258		285	391		246	361	
v/s Ratio Prot								0.03			0.01	
v/s Ratio Perm		c0.37			0.21		0.02			c0.03		
v/c Ratio		0.52			0.30		0.10	0.11		0.12	0.06	
Uniform Delay, d1		8.1			6.5		36.1	36.2		36.3	35.8	
Progression Factor		0.37			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7			0.3		0.7	0.6		1.0	0.3	
Delay (s)		3.7			6.8		36.8	36.8		37.2	36.1	
Level of Service		A			A		D	D		D	D	
Approach Delay (s)		3.7			6.8			36.8			36.5	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

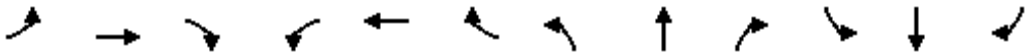
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	5	1	9	64	12	496	0	0	1095	3
Future Volume (Veh/h)	1	0	5	1	9	64	12	496	0	0	1095	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1	0	5	1	9	67	13	517	0	0	1141	3
Pedestrians		10			6			2			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		1			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											664	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1510	1702	584	1126	1703	266	1154			523		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1277	1498	205	832	1499	266	864			523		
tC, single (s)	7.5	6.5	7.2	7.5	6.7	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.1	3.3	2.2			2.2		
p0 queue free %	99	100	99	100	90	91	98			100		
cM capacity (veh/h)	86	101	654	217	93	726	663			1034		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	6	10	67	185	345	761	383
Volume Left	1	1	0	13	0	0	0
Volume Right	5	0	67	0	0	0	3
cSH	312	99	726	663	1700	1700	1700
Volume to Capacity	0.02	0.10	0.09	0.02	0.20	0.45	0.23
Queue Length 95th (ft)	1	8	8	1	0	0	0
Control Delay (s)	16.8	45.6	10.5	1.0	0.0	0.0	0.0
Lane LOS	C	E	B	A			
Approach Delay (s)	16.8	15.0		0.3		0.0	
Approach LOS	C	C					

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	41.0%	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	0	0	18	42	2	16	89	123	7	35	12
Future Volume (Veh/h)	0	0	0	18	42	2	16	89	123	7	35	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	19	44	2	17	93	128	7	36	13
Pedestrians		15			7			13			2	
Lane Width (ft)		0.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								170				
pX, platoon unblocked	0.98	0.98		0.98	0.98	0.98				0.98		
vC, conflicting volume	288	334	70	268	276	166	64			228		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	270	316	70	249	257	145	64			208		
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	97	93	100	99			99		
cM capacity (veh/h)	622	578	980	669	623	880	1538			1333		

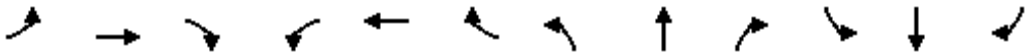
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	65	238	56
Volume Left	19	17	7
Volume Right	2	128	13
cSH	641	1538	1333
Volume to Capacity	0.10	0.01	0.01
Queue Length 95th (ft)	8	1	0
Control Delay (s)	11.2	0.6	1.0
Lane LOS	B	A	A
Approach Delay (s)	11.2	0.6	1.0
Approach LOS	B		

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	32.5%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	129	1	1	70	1	0
Future Volume (Veh/h)	129	1	1	70	1	0
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)	136	1	1	74	1	0
Pedestrians					12	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			149		224	148
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			149		224	148
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1416		754	888

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	137	75	1
Volume Left	0	1	1
Volume Right	1	0	0
cSH	1700	1416	754
Volume to Capacity	0.08	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.1	9.8
Lane LOS		A	A
Approach Delay (s)	0.0	0.1	9.8
Approach LOS			A

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		19.0%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	1	82	29	15	57	4	9	13	5	6	18	4
Future Volume (vph)	1	82	29	15	57	4	9	13	5	6	18	4
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)	1	94	33	17	66	5	10	15	6	7	21	5

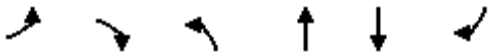
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	128	88	31	33
Volume Left (vph)	1	17	10	7
Volume Right (vph)	33	5	6	5
Hadj (s)	-0.05	0.04	0.03	-0.01
Departure Headway (s)	4.1	4.2	4.4	4.4
Degree Utilization, x	0.15	0.10	0.04	0.04
Capacity (veh/h)	861	834	764	767
Control Delay (s)	7.8	7.7	7.6	7.6
Approach Delay (s)	7.8	7.7	7.6	7.6
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.7			
Level of Service	A			
Intersection Capacity Utilization	22.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	1	28	0	3	62
Future Volume (Veh/h)	3	1	28	0	3	62
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	1	33	0	4	73
Pedestrians	3		4			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	3.5		3.5			
Percent Blockage	0		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	121	36			36	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	121	36			36	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	100			100	
cM capacity (veh/h)	866	1034			1502	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	5	33	77
Volume Left	4	0	4
Volume Right	1	0	0
cSH	895	1700	1502
Volume to Capacity	0.01	0.02	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	9.0	0.0	0.4
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	0.4
Approach LOS	A		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	2	6	27	63	3
Future Volume (Veh/h)	2	2	6	27	63	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	2	7	32	74	4
Pedestrians	14					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	136	90	92			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	136	90	92			
tC, single (s)	6.9	6.7	4.6			
tC, 2 stage (s)						
tF (s)	4.0	3.8	2.7			
p0 queue free %	100	100	99			
cM capacity (veh/h)	742	839	1233			

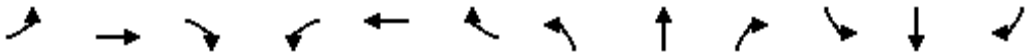
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	4	39	78
Volume Left	2	7	0
Volume Right	2	0	4
cSH	787	1233	1700
Volume to Capacity	0.01	0.01	0.05
Queue Length 95th (ft)	0	0	0
Control Delay (s)	9.6	1.5	0.0
Lane LOS	A	A	
Approach Delay (s)	9.6	1.5	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	17.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	19	6	6	63	28	55
Future Volume (Veh/h)	19	6	6	63	28	55
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	21	7	7	71	31	62
Pedestrians			12			
Lane Width (ft)			12.0			
Walking Speed (ft/s)			3.5			
Percent Blockage			1			
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)					195	
pX, platoon unblocked						
vC, conflicting volume	147	74	93			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	147	74	93			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	100			
cM capacity (veh/h)	841	976	1501			

Direction, Lane #	WB 1	SB 1	NE 1
Volume Total	28	78	93
Volume Left	21	7	0
Volume Right	7	0	62
cSH	871	1501	1700
Volume to Capacity	0.03	0.00	0.05
Queue Length 95th (ft)	2	0	0
Control Delay (s)	9.3	0.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	0.7	0.0
Approach LOS	A		

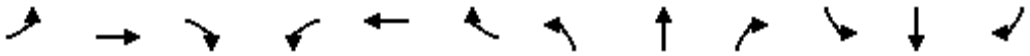
Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	25.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	30	10	0	2	4	26	2	80	12	27	23	21
Future Volume (vph)	30	10	0	2	4	26	2	80	12	27	23	21
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)	33	11	0	2	4	29	2	88	13	30	25	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	44	35	103	78
Volume Left (vph)	33	2	2	30
Volume Right (vph)	0	29	13	23
Hadj (s)	0.18	-0.45	-0.04	-0.04
Departure Headway (s)	4.5	3.9	4.1	4.1
Degree Utilization, x	0.06	0.04	0.12	0.09
Capacity (veh/h)	762	877	847	846
Control Delay (s)	7.8	7.0	7.7	7.5
Approach Delay (s)	7.8	7.0	7.7	7.5
Approach LOS	A	A	A	A

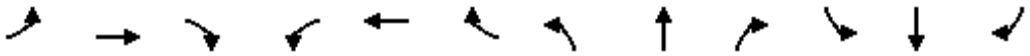
Intersection Summary				
Delay	7.6			
Level of Service	A			
Intersection Capacity Utilization	28.3%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	2	0	18	50	2	3	55	30	4	32	5
Future Volume (vph)	0	2	0	18	50	2	3	55	30	4	32	5
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	2	0	19	53	2	3	58	32	4	34	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	2	74	93	43
Volume Left (vph)	0	19	3	4
Volume Right (vph)	0	2	32	5
Hadj (s)	0.03	0.07	-0.17	-0.02
Departure Headway (s)	4.3	4.3	3.9	4.1
Degree Utilization, x	0.00	0.09	0.10	0.05
Capacity (veh/h)	802	817	884	846
Control Delay (s)	7.3	7.7	7.4	7.4
Approach Delay (s)	7.3	7.7	7.4	7.4
Approach LOS	A	A	A	A

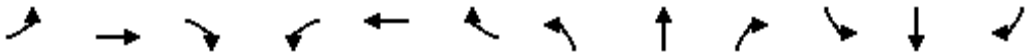
Intersection Summary			
Delay	7.5		
Level of Service	A		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	41	1	5	55	5	1	12	7	12	15	5
Future Volume (vph)	2	41	1	5	55	5	1	12	7	12	15	5
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)	2	48	1	6	65	6	1	14	8	14	18	6

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	51	77	23	38
Volume Left (vph)	2	6	1	14
Volume Right (vph)	1	6	8	6
Hadj (s)	0.03	0.00	-0.10	0.01
Departure Headway (s)	4.1	4.1	4.1	4.2
Degree Utilization, x	0.06	0.09	0.03	0.04
Capacity (veh/h)	849	862	838	825
Control Delay (s)	7.4	7.5	7.2	7.4
Approach Delay (s)	7.4	7.5	7.2	7.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.4			
Level of Service	A			
Intersection Capacity Utilization	18.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	98	5	9	70	12	3	52	10	13	113	12
Future Volume (vph)	2	98	5	9	70	12	3	52	10	13	113	12
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)	2	115	6	11	82	14	4	61	12	15	133	14

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	123	107	77	162
Volume Left (vph)	2	11	4	15
Volume Right (vph)	6	14	12	14
Hadj (s)	0.01	-0.02	-0.05	0.00
Departure Headway (s)	4.6	4.6	4.6	4.5
Degree Utilization, x	0.16	0.14	0.10	0.20
Capacity (veh/h)	729	731	732	745
Control Delay (s)	8.5	8.3	8.1	8.7
Approach Delay (s)	8.5	8.3	8.1	8.7
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.5			
Level of Service	A			
Intersection Capacity Utilization	28.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Sign Control	Stop		Stop		Stop	
Traffic Volume (vph)	0	0	0	0	0	0
Future Volume (vph)	0	0	0	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	0	0	0	0

Direction, Lane #	WB 1	SB 1	NE 1
Volume Total (vph)	0	0	0
Volume Left (vph)	0	0	0
Volume Right (vph)	0	0	0
Hadj (s)	0.00	0.00	0.00
Departure Headway (s)	3.9	3.9	3.9
Degree Utilization, x	0.00	0.00	0.00
Capacity (veh/h)	917	917	917
Control Delay (s)	6.9	6.9	6.9
Approach Delay (s)	0.0	0.0	0.0
Approach LOS	A	A	A

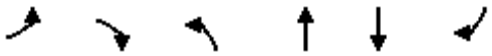
Intersection Summary			
Delay	0.0		
Level of Service	A		
Intersection Capacity Utilization	0.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	SET	NWT
Lane Group Flow (vph)	30	981	1105
v/c Ratio	0.09	0.44	0.44
Control Delay	34.3	10.2	5.6
Queue Delay	0.0	0.0	0.0
Total Delay	34.3	10.2	5.6
Queue Length 50th (ft)	16	153	117
Queue Length 95th (ft)	41	195	148
Internal Link Dist (ft)	174	579	255
Turn Bay Length (ft)			
Base Capacity (vph)	334	2217	2504
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.09	0.44	0.44

Intersection Summary

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	29	0	912	30	5	1056
Future Volume (vph)	29	0	912	30	5	1056
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frpb, ped/bikes	1.00		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	1.00		1.00			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1763		3517			3538
Flt Permitted	0.95		1.00			0.95
Satd. Flow (perm)	1763		3517			3371
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	30	0	950	31	5	1100
RTOR Reduction (vph)	0	0	2	0	0	0
Lane Group Flow (vph)	30	0	979	0	0	1105
Confl. Peds. (#/hr)	2	1		9	9	
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Turn Type	Perm		NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	4				2	
Actuated Green, G (s)	17.0		61.0			72.0
Effective Green, g (s)	19.0		63.0			74.0
Actuated g/C Ratio	0.19		0.63			0.74
Clearance Time (s)	5.0		6.0			6.0
Lane Grp Cap (vph)	334		2215			2506
v/s Ratio Prot			0.28			c0.03
v/s Ratio Perm	c0.02					c0.30
v/c Ratio	0.09		0.44			0.44
Uniform Delay, d1	33.4		9.5			5.0
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	0.5		0.6			0.6
Delay (s)	33.9		10.1			5.6
Level of Service	C		B			A
Approach Delay (s)	33.9		10.1			5.6
Approach LOS	C		B			A

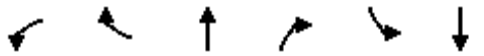
Intersection Summary			
HCM 2000 Control Delay	8.1	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	53.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	34	32	1191	906	3
Future Volume (Veh/h)	5	34	32	1191	906	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	36	34	1267	964	3
Pedestrians	8				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				343	335	
pX, platoon unblocked	0.90	0.86	0.86			
vC, conflicting volume	1676	492	975			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	819	76	639			
tC, single (s)	7.2	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.7	3.3	2.2			
p0 queue free %	98	96	96			
cM capacity (veh/h)	239	826	801			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	41	456	845	643	324
Volume Left	5	34	0	0	0
Volume Right	36	0	0	0	3
cSH	636	801	1700	1700	1700
Volume to Capacity	0.06	0.04	0.50	0.38	0.19
Queue Length 95th (ft)	5	3	0	0	0
Control Delay (s)	11.1	1.2	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.1	0.4		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	65.9%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	7	58	1165	0	0	940
Future Volume (Veh/h)	7	58	1165	0	0	940
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	7	62	1239	0	0	1000
Pedestrians	15		3			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	3.5		3.5			
Percent Blockage	1		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			248			430
pX, platoon unblocked	0.90	0.83			0.83	
vC, conflicting volume	1757	634			1254	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	910	145			892	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	91			100	
cM capacity (veh/h)	242	716			617	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	7	62	620	620	500	500
Volume Left	7	0	0	0	0	0
Volume Right	0	62	0	0	0	0
cSH	242	716	1700	1700	1700	1700
Volume to Capacity	0.03	0.09	0.36	0.36	0.29	0.29
Queue Length 95th (ft)	2	7	0	0	0	0
Control Delay (s)	20.3	10.5	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	11.5		0.0		0.0	
Approach LOS	B					

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	42.5%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	SBL	SBT	SET	NWT
Lane Group Flow (vph)	46	80	26	39	973	1062
v/c Ratio	0.18	0.22	0.11	0.11	0.48	0.57
Control Delay	42.4	41.5	41.2	38.3	6.3	12.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.4	41.5	41.2	38.3	6.3	12.0
Queue Length 50th (ft)	30	51	17	23	121	236
Queue Length 95th (ft)	65	98	43	55	150	315
Internal Link Dist (ft)		489		90	168	265
Turn Bay Length (ft)						
Base Capacity (vph)	262	358	241	361	2041	1847
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.22	0.11	0.11	0.48	0.57

Intersection Summary

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	45	73	5	25	35	3	68	825	50	36	943	51
Future Volume (vph)	45	73	5	25	35	3	68	825	50	36	943	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Flpb, ped/bikes	0.98	1.00		0.96	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1741	1822		1697	1837			3487			3488	
Flt Permitted	0.73	1.00		0.69	1.00			0.75			0.88	
Satd. Flow (perm)	1341	1822		1233	1837			2617			3070	
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)	46	75	5	26	36	3	70	851	52	37	972	53
RTOR Reduction (vph)	0	2	0	0	2	0	0	3	0	0	3	0
Lane Group Flow (vph)	46	78	0	26	37	0	0	970	0	0	1059	0
Confl. Peds. (#/hr)	10		27	27		10	9		10	10		9
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	21.5	21.5		21.5	21.5			87.0			70.0	
Effective Green, g (s)	23.5	23.5		23.5	23.5			89.0			72.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20			0.74			0.60	
Clearance Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lane Grp Cap (vph)	262	356		241	359			2042			1842	
v/s Ratio Prot		c0.04			0.02			c0.06				
v/s Ratio Perm	0.03			0.02				0.30			c0.34	
v/c Ratio	0.18	0.22		0.11	0.10			0.47			0.57	
Uniform Delay, d1	40.2	40.5		39.6	39.6			6.2			14.7	
Progression Factor	1.00	1.00		1.00	1.00			1.00			0.73	
Incremental Delay, d2	1.5	1.4		0.9	0.6			0.8			1.3	
Delay (s)	41.6	42.0		40.5	40.2			7.0			11.9	
Level of Service	D	D		D	D			A			B	
Approach Delay (s)		41.9			40.3			7.0			11.9	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	82.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	0	864	1296	0	0	7
Future Volume (Veh/h)	0	864	1296	0	0	7
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	919	1379	0	0	7
Pedestrians		2			39	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		3.5			3.5	
Percent Blockage		0			4	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		345	417			
pX, platoon unblocked	0.89				0.93	0.89
vC, conflicting volume	1418				1878	730
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1221				1361	448
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	485				125	477

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	460	460	919	460	7
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	7
cSH	1700	1700	1700	1700	477
Volume to Capacity	0.27	0.27	0.54	0.27	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	12.7
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.7
Approach LOS					B

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

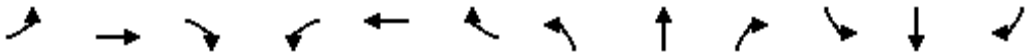
Lane Group	SET	NWT	NEL	NET	SWL	SWT
Lane Group Flow (vph)	874	1054	15	39	36	28
v/c Ratio	0.35	0.43	0.06	0.11	0.14	0.08
Control Delay	3.9	6.5	39.7	22.3	41.4	22.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.9	6.5	39.7	22.3	41.4	22.1
Queue Length 50th (ft)	60	141	9	10	23	6
Queue Length 95th (ft)	70	174	29	41	54	32
Internal Link Dist (ft)	337	584		513		115
Turn Bay Length (ft)						
Base Capacity (vph)	2485	2446	268	352	253	333
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.35	0.43	0.06	0.11	0.14	0.08

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	7	849	1	17	1008	8	15	16	23	35	10	18
Future Volume (vph)	7	849	1	17	1008	8	15	16	23	35	10	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.98	
Flpb, ped/bikes		1.00			1.00		0.97	1.00		0.99	1.00	
Frt		1.00			1.00		1.00	0.91		1.00	0.90	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3537			3531		1725	1670		1643	1597	
Flt Permitted		0.95			0.93		0.74	1.00		0.73	1.00	
Satd. Flow (perm)		3349			3299		1342	1670		1265	1597	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	7	866	1	17	1029	8	15	16	23	36	10	18
RTOR Reduction (vph)	0	0	0	0	1	0	0	18	0	0	14	0
Lane Group Flow (vph)	0	874	0	0	1053	0	15	21	0	36	14	0
Confl. Peds. (#/hr)	25		6	6		25	16		3	3		16
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	9%	10%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		87.0			87.0		22.0	22.0		22.0	22.0	
Effective Green, g (s)		89.0			89.0		24.0	24.0		24.0	24.0	
Actuated g/C Ratio		0.74			0.74		0.20	0.20		0.20	0.20	
Clearance Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)		2483			2446		268	334		253	319	
v/s Ratio Prot								0.01			0.01	
v/s Ratio Perm		0.26			c0.32		0.01			c0.03		
v/c Ratio		0.35			0.43		0.06	0.06		0.14	0.04	
Uniform Delay, d1		5.4			5.9		38.8	38.9		39.5	38.7	
Progression Factor		0.66			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.4			0.6		0.4	0.4		1.2	0.3	
Delay (s)		3.9			6.4		39.2	39.2		40.7	39.0	
Level of Service		A			A		D	D		D	D	
Approach Delay (s)		3.9			6.4			39.2			39.9	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	7.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		

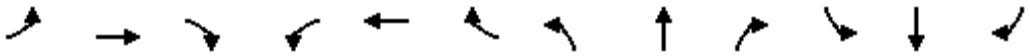
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	19	1	7	77	13	946	0	0	884	2
Future Volume (Veh/h)	1	0	19	1	7	77	13	946	0	0	884	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	1	0	19	1	7	79	13	965	0	0	902	2
Pedestrians		11			9							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											664	
pX, platoon unblocked	0.92	0.92	0.92	0.92	0.92		0.92					
vC, conflicting volume	1505	1914	463	1470	1915	492	915			974		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1380	1823	251	1342	1825	492	741			974		
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 %	99	100	97	99	90	85	98			100		
cM capacity (veh/h)	72	68	683	96	68	518	787			698		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	20	8	79	335	643	601	303
Volume Left	1	1	0	13	0	0	0
Volume Right	19	0	79	0	0	0	2
cSH	479	70	518	787	1700	1700	1700
Volume to Capacity	0.04	0.11	0.15	0.02	0.38	0.35	0.18
Queue Length 95th (ft)	3	9	13	1	0	0	0
Control Delay (s)	12.8	62.5	13.2	0.6	0.0	0.0	0.0
Lane LOS	B	F	B	A			
Approach Delay (s)	12.8	17.7		0.2		0.0	
Approach LOS	B	C					

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	45.3%	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	10	54	3	23	120	87	2	41	5
Future Volume (Veh/h)	0	0	0	10	54	3	23	120	87	2	41	5
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)	0	0	0	11	57	3	24	126	92	2	43	5
Pedestrians		6			15			10			3	
Lane Width (ft)		0.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								170				
pX, platoon unblocked	0.97	0.97		0.97	0.97	0.97				0.97		
vC, conflicting volume	310	336	62	294	293	190	54			233		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	272	299	62	256	254	148	54			192		
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	98	91	100	98			100		
cM capacity (veh/h)	594	576	994	644	610	856	1551			1319		

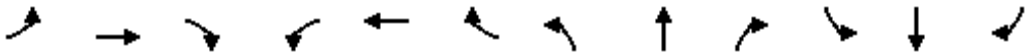
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	71	242	50
Volume Left	11	24	2
Volume Right	3	92	5
cSH	622	1551	1319
Volume to Capacity	0.11	0.02	0.00
Queue Length 95th (ft)	10	1	0
Control Delay (s)	11.5	0.8	0.3
Lane LOS	B	A	A
Approach Delay (s)	11.5	0.8	0.3
Approach LOS	B		

Intersection Summary				
Average Delay	2.9			
Intersection Capacity Utilization	37.3%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	85	2	1	65	0	3
Future Volume (Veh/h)	85	2	1	65	0	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	93	2	1	71	0	3
Pedestrians					28	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					3	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			123		195	122
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			123		195	122
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1425		772	904

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	95	72	3
Volume Left	0	1	0
Volume Right	2	0	3
cSH	1700	1425	904
Volume to Capacity	0.06	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.1	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.1	9.0
Approach LOS			A

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		19.9%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	4	55	41	3	56	2	2	18	3	2	16	4
Future Volume (vph)	4	55	41	3	56	2	2	18	3	2	16	4
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)	4	62	46	3	63	2	2	20	3	2	18	4

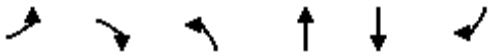
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	112	68	25	24
Volume Left (vph)	4	3	2	2
Volume Right (vph)	46	2	3	4
Hadj (s)	-0.11	0.03	-0.02	-0.05
Departure Headway (s)	4.0	4.1	4.3	4.3
Degree Utilization, x	0.12	0.08	0.03	0.03
Capacity (veh/h)	890	851	796	806
Control Delay (s)	7.5	7.5	7.4	7.4
Approach Delay (s)	7.5	7.5	7.4	7.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.5			
Level of Service	A			
Intersection Capacity Utilization	20.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	5	1	17	2	3	68
Future Volume (Veh/h)	5	1	17	2	3	68
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1	20	2	4	80
Pedestrians	4					2
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	3.5					3.5
Percent Blockage	0					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	113	27			26	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	113	27			26	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	878	1042			1582	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	7	22	84
Volume Left	6	0	4
Volume Right	1	2	0
cSH	898	1700	1582
Volume to Capacity	0.01	0.01	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.0	0.0	0.4
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	0.4
Approach LOS	A		

Intersection Summary			
Average Delay		0.8	
Intersection Capacity Utilization		16.7%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	9	5	21	64	0
Future Volume (Veh/h)	0	9	5	21	64	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	11	6	25	75	0
Pedestrians	25			2	1	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	138	102	100			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	138	102	100			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	831	929	1457			

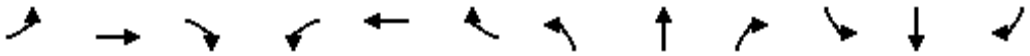
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	11	31	75
Volume Left	0	6	0
Volume Right	11	0	0
cSH	929	1457	1700
Volume to Capacity	0.01	0.00	0.04
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.9	1.5	0.0
Lane LOS	A	A	
Approach Delay (s)	8.9	1.5	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	19.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	8	3	0	76	21	11
Future Volume (Veh/h)	8	3	0	76	21	11
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	9	4	0	89	25	13
Pedestrians			9			
Lane Width (ft)			12.0			
Walking Speed (ft/s)			3.5			
Percent Blockage			1			
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)					195	
pX, platoon unblocked						
vC, conflicting volume	120	40	38			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	120	40	38			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	100	100			
cM capacity (veh/h)	875	1022	1572			

Direction, Lane #	WB 1	SB 1	NE 1
Volume Total	13	89	38
Volume Left	9	0	0
Volume Right	4	0	13
cSH	915	1572	1700
Volume to Capacity	0.01	0.00	0.02
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.0	0.0	0.0
Approach LOS	A		

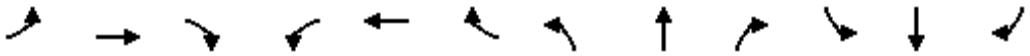
Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	35	8	0	4	9	27	1	83	9	17	53	24
Future Volume (vph)	35	8	0	4	9	27	1	83	9	17	53	24
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)	40	9	0	5	10	31	1	95	10	20	61	28

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	49	46	106	109
Volume Left (vph)	40	5	1	20
Volume Right (vph)	0	31	10	28
Hadj (s)	0.20	-0.35	0.01	-0.08
Departure Headway (s)	4.6	4.1	4.2	4.1
Degree Utilization, x	0.06	0.05	0.12	0.13
Capacity (veh/h)	739	832	820	844
Control Delay (s)	7.9	7.3	7.8	7.7
Approach Delay (s)	7.9	7.3	7.8	7.7
Approach LOS	A	A	A	A

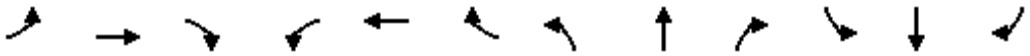
Intersection Summary				
Delay	7.7			
Level of Service	A			
Intersection Capacity Utilization	28.9%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	1	1	0	10	33	5	1	93	25	7	45	1
Future Volume (vph)	1	1	0	10	33	5	1	93	25	7	45	1
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)	1	1	0	11	38	6	1	107	29	8	52	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	2	55	137	61
Volume Left (vph)	1	11	1	8
Volume Right (vph)	0	6	29	1
Hadj (s)	0.13	0.01	-0.08	0.05
Departure Headway (s)	4.5	4.3	4.0	4.2
Degree Utilization, x	0.00	0.07	0.15	0.07
Capacity (veh/h)	755	792	873	835
Control Delay (s)	7.5	7.6	7.7	7.5
Approach Delay (s)	7.5	7.6	7.7	7.5
Approach LOS	A	A	A	A

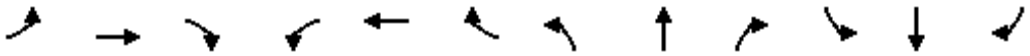
Intersection Summary				
Delay	7.7			
Level of Service	A			
Intersection Capacity Utilization	22.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	1	37	0	10	50	5	0	12	10	2	19	1
Future Volume (vph)	1	37	0	10	50	5	0	12	10	2	19	1
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)	1	44	0	12	59	6	0	14	12	2	22	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	45	77	26	25
Volume Left (vph)	1	12	0	2
Volume Right (vph)	0	6	12	1
Hadj (s)	0.06	0.02	-0.24	0.03
Departure Headway (s)	4.1	4.1	3.9	4.2
Degree Utilization, x	0.05	0.09	0.03	0.03
Capacity (veh/h)	851	868	874	825
Control Delay (s)	7.4	7.5	7.1	7.3
Approach Delay (s)	7.4	7.5	7.1	7.3
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.4			
Level of Service	A			
Intersection Capacity Utilization	20.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	46	7	4	63	15	2	90	1	5	101	4
Future Volume (vph)	8	46	7	4	63	15	2	90	1	5	101	4
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)	9	52	8	4	71	17	2	101	1	6	113	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	69	92	104	123
Volume Left (vph)	9	4	2	6
Volume Right (vph)	8	17	1	4
Hadj (s)	-0.01	-0.07	0.03	0.02
Departure Headway (s)	4.5	4.4	4.5	4.4
Degree Utilization, x	0.09	0.11	0.13	0.15
Capacity (veh/h)	741	759	770	772
Control Delay (s)	8.0	8.0	8.1	8.2
Approach Delay (s)	8.0	8.0	8.1	8.2
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.1			
Level of Service	A			
Intersection Capacity Utilization	23.8%	ICU Level of Service	A	
Analysis Period (min)	15			

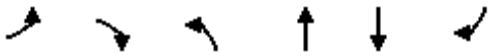
L: 2024 Background Vehicular Capacity and Queuing Analysis Worksheets

Lane Group	NBL	SET	NWT
Lane Group Flow (vph)	29	1393	611
v/c Ratio	0.08	0.66	0.45
Control Delay	32.5	15.1	6.7
Queue Delay	0.0	0.0	0.5
Total Delay	32.5	15.1	7.2
Queue Length 50th (ft)	15	285	133
Queue Length 95th (ft)	39	357	192
Internal Link Dist (ft)	174	579	255
Turn Bay Length (ft)			
Base Capacity (vph)	354	2112	1344
Starvation Cap Reductn	0	0	332
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.08	0.66	0.60

Intersection Summary

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	26	1	1267	42	7	568
Future Volume (vph)	26	1	1267	42	7	568
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.0			4.0
Lane Util. Factor	1.00		0.95			1.00
Frpb, ped/bikes	1.00		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	1.00		1.00			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1768		3518			1862
Flt Permitted	0.95		1.00			0.99
Satd. Flow (perm)	1768		3518			1839
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	28	1	1348	45	7	604
RTOR Reduction (vph)	1	0	2	0	0	0
Lane Group Flow (vph)	28	0	1391	0	0	611
Confl. Peds. (#/hr)		1		7	7	
Confl. Bikes (#/hr)				3		
Turn Type	Perm		NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	4				2	
Actuated Green, G (s)	18.0		58.0			71.0
Effective Green, g (s)	20.0		60.0			73.0
Actuated g/C Ratio	0.20		0.60			0.73
Clearance Time (s)	5.0		6.0			6.0
Lane Grp Cap (vph)	353		2110			1344
v/s Ratio Prot			c0.40			c0.04
v/s Ratio Perm	c0.02					0.29
v/c Ratio	0.08		0.66			0.45
Uniform Delay, d1	32.5		13.2			5.5
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	0.4		1.6			1.1
Delay (s)	33.0		14.9			6.6
Level of Service	C		B			A
Approach Delay (s)	33.0		14.9			6.6
Approach LOS	C		B			A

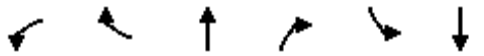
Intersection Summary			
HCM 2000 Control Delay	12.6	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	32	36	526	1256	3
Future Volume (Veh/h)	2	32	36	526	1256	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	2	33	38	548	1308	3
Pedestrians	10				3	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				343	335	
pX, platoon unblocked	0.80	0.73	0.73			
vC, conflicting volume	1946	666	1321			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1168	0	714			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	96	94			
cM capacity (veh/h)	139	789	642			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	35	586	872	439
Volume Left	2	38	0	0
Volume Right	33	0	0	3
cSH	623	642	1700	1700
Volume to Capacity	0.06	0.06	0.51	0.26
Queue Length 95th (ft)	4	5	0	0
Control Delay (s)	11.1	1.6	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	11.1	1.6	0.0	
Approach LOS	B			

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	39	562	0	0	1288
Future Volume (Veh/h)	6	39	562	0	0	1288
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	6	41	585	0	0	1342
Pedestrians	3		2			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	3.5		3.5			
Percent Blockage	0		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			248			430
pX, platoon unblocked	0.78	0.90			0.90	
vC, conflicting volume	1261	296			588	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	211	0			323	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	96			100	
cM capacity (veh/h)	591	974			1108	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	6	41	292	292	671	671
Volume Left	6	0	0	0	0	0
Volume Right	0	41	0	0	0	0
cSH	591	974	1700	1700	1700	1700
Volume to Capacity	0.01	0.04	0.17	0.17	0.39	0.39
Queue Length 95th (ft)	1	3	0	0	0	0
Control Delay (s)	11.2	8.9	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s)	9.2		0.0		0.0	
Approach LOS	A					

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	45.6%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	SBL	SBT	SET	NWT
Lane Group Flow (vph)	55	54	43	25	1338	576
v/c Ratio	0.21	0.15	0.17	0.07	0.62	0.42
Control Delay	43.1	40.6	42.3	36.5	7.9	17.3
Queue Delay	0.0	0.0	0.0	0.0	0.6	0.0
Total Delay	43.1	40.6	42.3	36.5	8.5	17.3
Queue Length 50th (ft)	36	34	28	14	196	83
Queue Length 95th (ft)	76	71	62	39	238	128
Internal Link Dist (ft)		489		90	168	265
Turn Bay Length (ft)						
Base Capacity (vph)	260	362	253	358	2158	1374
Starvation Cap Reductn	0	0	0	0	413	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.15	0.17	0.07	0.77	0.42

Intersection Summary

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	53	50	2	42	21	3	124	1107	67	24	503	31
Future Volume (vph)	53	50	2	42	21	3	124	1107	67	24	503	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.96	1.00		0.96	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.98			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1702	1849		1705	1818			3475			3460	
Flt Permitted	0.74	1.00		0.72	1.00			0.75			0.85	
Satd. Flow (perm)	1328	1849		1295	1818			2626			2937	
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)	55	52	2	43	22	3	128	1141	69	25	519	32
RTOR Reduction (vph)	0	1	0	0	2	0	0	3	0	0	4	0
Lane Group Flow (vph)	55	53	0	43	23	0	0	1335	0	0	572	0
Confl. Peds. (#/hr)	23		23	23		23	3		18	18		3
Confl. Bikes (#/hr)			1			2			1			2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	20%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	21.5	21.5		21.5	21.5			87.0			54.0	
Effective Green, g (s)	23.5	23.5		23.5	23.5			89.0			56.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20			0.74			0.47	
Clearance Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lane Grp Cap (vph)	260	362		253	356			2159			1370	
v/s Ratio Prot		0.03			0.01			c0.15				
v/s Ratio Perm	c0.04			0.03				c0.30			0.19	
v/c Ratio	0.21	0.15		0.17	0.06			0.62			0.42	
Uniform Delay, d1	40.5	40.0		40.1	39.3			7.4			21.2	
Progression Factor	1.00	1.00		1.00	1.00			1.00			0.77	
Incremental Delay, d2	1.8	0.9		1.5	0.3			1.3			0.9	
Delay (s)	42.3	40.8		41.6	39.6			8.7			17.3	
Level of Service	D	D		D	D			A			B	
Approach Delay (s)		41.6			40.9			8.7			17.3	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.9	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	0	1117	509	1	0	5
Future Volume (Veh/h)	0	1117	509	1	0	5
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)	0	1164	530	1	0	5
Pedestrians					15	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		345	417			
pX, platoon unblocked	0.96				0.87	0.96
vC, conflicting volume	546				1128	280
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	453				648	178
tC, single (s)	4.1				6.8	7.3
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.5
p0 queue free %	100				100	99
cM capacity (veh/h)	1048				344	742

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	582	582	353	178	5
Volume Left	0	0	0	0	0
Volume Right	0	0	0	1	5
cSH	1700	1700	1700	1700	742
Volume to Capacity	0.34	0.34	0.21	0.10	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	9.9
Lane LOS					A
Approach Delay (s)	0.0		0.0		9.9
Approach LOS					A

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

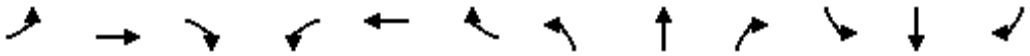
Lane Group	SET	NWT	NEL	NET	SWL	SWT
Lane Group Flow (vph)	1149	678	28	82	29	45
v/c Ratio	0.52	0.30	0.10	0.19	0.12	0.12
Control Delay	3.8	6.9	37.3	18.6	38.0	17.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	6.9	37.3	18.6	38.0	17.9
Queue Length 50th (ft)	29	90	17	20	18	8
Queue Length 95th (ft)	32	116	43	63	45	40
Internal Link Dist (ft)	337	584		513		115
Turn Bay Length (ft)						
Base Capacity (vph)	2189	2240	285	428	244	385
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.30	0.10	0.19	0.12	0.12

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	53	1033	6	17	613	14	27	31	47	28	13	29
Future Volume (vph)	53	1033	6	17	613	14	27	31	47	28	13	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	0.99		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.91	1.00		0.99	1.00	
Frt		1.00			1.00		1.00	0.91		1.00	0.90	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3525			3483		1599	1677		1436	1550	
Flt Permitted		0.87			0.91		0.73	1.00		0.69	1.00	
Satd. Flow (perm)		3091			3161		1225	1677		1049	1550	
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)	56	1087	6	18	645	15	28	33	49	29	14	31
RTOR Reduction (vph)	0	0	0	0	1	0	0	38	0	0	24	0
Lane Group Flow (vph)	0	1149	0	0	677	0	28	44	0	29	21	0
Confl. Peds. (#/hr)	18		6	6		18	57		4	4		57
Confl. Bikes (#/hr)						2						1
Heavy Vehicles (%)	2%	2%	12%	2%	3%	8%	3%	2%	2%	25%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		83.0			83.0		26.0	26.0		26.0	26.0	
Effective Green, g (s)		85.0			85.0		28.0	28.0		28.0	28.0	
Actuated g/C Ratio		0.71			0.71		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)		2189			2239		285	391		244	361	
v/s Ratio Prot								0.03			0.01	
v/s Ratio Perm		c0.37			0.21		0.02			c0.03		
v/c Ratio		0.52			0.30		0.10	0.11		0.12	0.06	
Uniform Delay, d1		8.1			6.5		36.1	36.2		36.3	35.8	
Progression Factor		0.37			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7			0.3		0.7	0.6		1.0	0.3	
Delay (s)		3.7			6.8		36.8	36.8		37.3	36.1	
Level of Service		A			A		D	D		D	D	
Approach Delay (s)		3.7			6.8			36.8			36.5	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	7.8	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

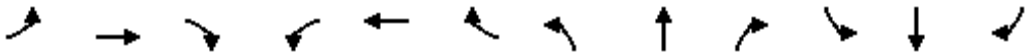
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	5	1	9	65	12	499	0	0	1110	3
Future Volume (Veh/h)	1	0	5	1	9	65	12	499	0	0	1110	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1	0	5	1	9	68	13	520	0	0	1156	3
Pedestrians		10			6			2			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		1			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											664	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1528	1720	592	1137	1721	268	1169			526		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1291	1513	204	837	1515	268	874			526		
tC, single (s)	7.5	6.5	7.2	7.5	6.7	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.1	3.3	2.2			2.2		
p0 queue free %	99	100	99	100	90	91	98			100		
cM capacity (veh/h)	84	99	653	214	91	724	655			1031		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	6	10	68	186	347	771	388
Volume Left	1	1	0	13	0	0	0
Volume Right	5	0	68	0	0	0	3
cSH	306	96	724	655	1700	1700	1700
Volume to Capacity	0.02	0.10	0.09	0.02	0.20	0.45	0.23
Queue Length 95th (ft)	1	8	8	2	0	0	0
Control Delay (s)	17.0	46.8	10.5	1.0	0.0	0.0	0.0
Lane LOS	C	E	B	A			
Approach Delay (s)	17.0	15.1		0.3		0.0	
Approach LOS	C	C					

Intersection Summary				
Average Delay	0.8			
Intersection Capacity Utilization	41.4%	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)	0	0	0	18	42	2	16	93	123	7	37	12
Future Volume (Veh/h)	0	0	0	18	42	2	16	93	123	7	37	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	19	44	2	17	97	128	7	39	13
Pedestrians		15			7			13			2	
Lane Width (ft)		0.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								170				
pX, platoon unblocked	0.98	0.98		0.98	0.98	0.98				0.98		
vC, conflicting volume	296	340	74	274	283	170	67			232		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	274	320	74	253	261	146	67			209		
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	97	93	100	99			99		
cM capacity (veh/h)	617	573	976	664	618	877	1535			1329		

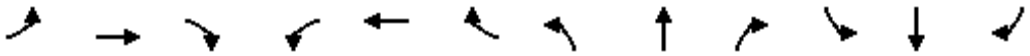
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	65	242	59
Volume Left	19	17	7
Volume Right	2	128	13
cSH	636	1535	1329
Volume to Capacity	0.10	0.01	0.01
Queue Length 95th (ft)	8	1	0
Control Delay (s)	11.3	0.6	1.0
Lane LOS	B	A	A
Approach Delay (s)	11.3	0.6	1.0
Approach LOS	B		

Intersection Summary				
Average Delay	2.6			
Intersection Capacity Utilization	32.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	130	1	1	70	1	0
Future Volume (Veh/h)	130	1	1	70	1	0
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)	137	1	1	74	1	0
Pedestrians					12	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			150		226	150
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			150		226	150
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1415		753	887

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	138	75	1
Volume Left	0	1	1
Volume Right	1	0	0
cSH	1700	1415	753
Volume to Capacity	0.08	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.1	9.8
Lane LOS		A	A
Approach Delay (s)	0.0	0.1	9.8
Approach LOS			A

Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		19.0%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	1	82	29	15	57	4	9	13	5	6	18	4
Future Volume (vph)	1	82	29	15	57	4	9	13	5	6	18	4
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)	1	94	33	17	66	5	10	15	6	7	21	5

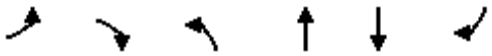
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	128	88	31	33
Volume Left (vph)	1	17	10	7
Volume Right (vph)	33	5	6	5
Hadj (s)	-0.05	0.04	0.03	-0.01
Departure Headway (s)	4.1	4.2	4.4	4.4
Degree Utilization, x	0.15	0.10	0.04	0.04
Capacity (veh/h)	861	834	764	767
Control Delay (s)	7.8	7.7	7.6	7.6
Approach Delay (s)	7.8	7.7	7.6	7.6
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.7			
Level of Service	A			
Intersection Capacity Utilization	22.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	1	28	0	3	62
Future Volume (Veh/h)	3	1	28	0	3	62
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	4	1	33	0	4	73
Pedestrians	3		4			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	3.5		3.5			
Percent Blockage	0		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	121	36			36	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	121	36			36	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	100	100			100	
cM capacity (veh/h)	866	1034			1502	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	5	33	77
Volume Left	4	0	4
Volume Right	1	0	0
cSH	895	1700	1502
Volume to Capacity	0.01	0.02	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	9.0	0.0	0.4
Lane LOS	A		A
Approach Delay (s)	9.0	0.0	0.4
Approach LOS	A		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	2	6	27	63	3
Future Volume (Veh/h)	2	2	6	27	63	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	2	2	7	32	74	4
Pedestrians	14					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	136	90	92			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	136	90	92			
tC, single (s)	6.9	6.7	4.6			
tC, 2 stage (s)						
tF (s)	4.0	3.8	2.7			
p0 queue free %	100	100	99			
cM capacity (veh/h)	742	839	1233			

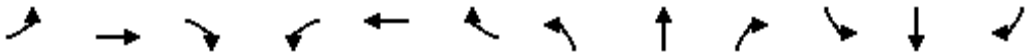
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	4	39	78
Volume Left	2	7	0
Volume Right	2	0	4
cSH	787	1233	1700
Volume to Capacity	0.01	0.01	0.05
Queue Length 95th (ft)	0	0	0
Control Delay (s)	9.6	1.5	0.0
Lane LOS	A	A	
Approach Delay (s)	9.6	1.5	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	17.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	19	6	6	63	28	56
Future Volume (Veh/h)	19	6	6	63	28	56
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	21	7	7	71	31	63
Pedestrians			12			
Lane Width (ft)			12.0			
Walking Speed (ft/s)			3.5			
Percent Blockage			1			
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)					195	
pX, platoon unblocked						
vC, conflicting volume	148	74	94			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	148	74	94			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	100			
cM capacity (veh/h)	841	976	1500			

Direction, Lane #	WB 1	SB 1	NE 1
Volume Total	28	78	94
Volume Left	21	7	0
Volume Right	7	0	63
cSH	871	1500	1700
Volume to Capacity	0.03	0.00	0.06
Queue Length 95th (ft)	2	0	0
Control Delay (s)	9.3	0.7	0.0
Lane LOS	A	A	
Approach Delay (s)	9.3	0.7	0.0
Approach LOS	A		

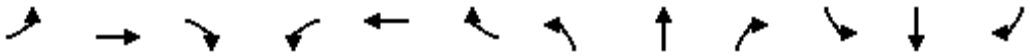
Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	25.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	30	10	0	2	4	26	2	84	12	27	23	21
Future Volume (vph)	30	10	0	2	4	26	2	84	12	27	23	21
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)	33	11	0	2	4	29	2	92	13	30	25	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	44	35	107	78
Volume Left (vph)	33	2	2	30
Volume Right (vph)	0	29	13	23
Hadj (s)	0.18	-0.45	-0.04	-0.04
Departure Headway (s)	4.5	3.9	4.1	4.1
Degree Utilization, x	0.06	0.04	0.12	0.09
Capacity (veh/h)	760	875	846	845
Control Delay (s)	7.8	7.0	7.7	7.5
Approach Delay (s)	7.8	7.0	7.7	7.5
Approach LOS	A	A	A	A

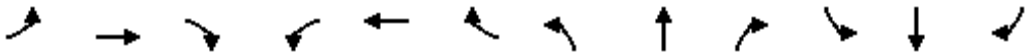
Intersection Summary			
Delay	7.6		
Level of Service	A		
Intersection Capacity Utilization	28.3%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	2	0	19	50	2	3	58	30	4	33	5
Future Volume (vph)	0	2	0	19	50	2	3	58	30	4	33	5
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	2	0	20	53	2	3	61	32	4	35	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	2	75	96	44
Volume Left (vph)	0	20	3	4
Volume Right (vph)	0	2	32	5
Hadj (s)	0.03	0.07	-0.16	-0.02
Departure Headway (s)	4.3	4.3	4.0	4.1
Degree Utilization, x	0.00	0.09	0.11	0.05
Capacity (veh/h)	800	815	881	844
Control Delay (s)	7.3	7.7	7.4	7.4
Approach Delay (s)	7.3	7.7	7.4	7.4
Approach LOS	A	A	A	A

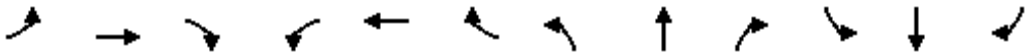
Intersection Summary				
Delay	7.5			
Level of Service	A			
Intersection Capacity Utilization	24.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	41	1	5	56	5	1	12	7	12	15	5
Future Volume (vph)	2	41	1	5	56	5	1	12	7	12	15	5
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)	2	48	1	6	66	6	1	14	8	14	18	6

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	51	78	23	38
Volume Left (vph)	2	6	1	14
Volume Right (vph)	1	6	8	6
Hadj (s)	0.03	0.00	-0.10	0.01
Departure Headway (s)	4.1	4.1	4.1	4.2
Degree Utilization, x	0.06	0.09	0.03	0.04
Capacity (veh/h)	849	862	837	825
Control Delay (s)	7.4	7.5	7.2	7.4
Approach Delay (s)	7.4	7.5	7.2	7.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.4			
Level of Service	A			
Intersection Capacity Utilization	18.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	98	5	9	70	12	3	52	10	13	114	12
Future Volume (vph)	2	98	5	9	70	12	3	52	10	13	114	12
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)	2	115	6	11	82	14	4	61	12	15	134	14

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	123	107	77	163
Volume Left (vph)	2	11	4	15
Volume Right (vph)	6	14	12	14
Hadj (s)	0.01	-0.02	-0.05	0.00
Departure Headway (s)	4.6	4.6	4.6	4.5
Degree Utilization, x	0.16	0.14	0.10	0.21
Capacity (veh/h)	729	730	732	745
Control Delay (s)	8.5	8.3	8.1	8.7
Approach Delay (s)	8.5	8.3	8.1	8.7
Approach LOS	A	A	A	A

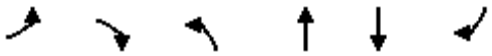
Intersection Summary				
Delay	8.5			
Level of Service	A			
Intersection Capacity Utilization	28.9%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	NBL	SET	NWT
Lane Group Flow (vph)	30	1021	1136
v/c Ratio	0.09	0.46	0.45
Control Delay	34.3	10.4	5.7
Queue Delay	0.0	0.0	0.0
Total Delay	34.3	10.4	5.7
Queue Length 50th (ft)	16	162	122
Queue Length 95th (ft)	41	205	154
Internal Link Dist (ft)	174	579	255
Turn Bay Length (ft)			
Base Capacity (vph)	334	2217	2504
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.09	0.46	0.45

Intersection Summary

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	29	0	950	30	5	1086
Future Volume (vph)	29	0	950	30	5	1086
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frpb, ped/bikes	1.00		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	1.00		1.00			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1763		3518			3538
Flt Permitted	0.95		1.00			0.95
Satd. Flow (perm)	1763		3518			3371
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	30	0	990	31	5	1131
RTOR Reduction (vph)	0	0	2	0	0	0
Lane Group Flow (vph)	30	0	1019	0	0	1136
Confl. Peds. (#/hr)	2	1		9	9	
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Turn Type	Perm		NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	4				2	
Actuated Green, G (s)	17.0		61.0			72.0
Effective Green, g (s)	19.0		63.0			74.0
Actuated g/C Ratio	0.19		0.63			0.74
Clearance Time (s)	5.0		6.0			6.0
Lane Grp Cap (vph)	334		2216			2506
v/s Ratio Prot			0.29			c0.03
v/s Ratio Perm	c0.02					c0.30
v/c Ratio	0.09		0.46			0.45
Uniform Delay, d1	33.4		9.6			5.1
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	0.5		0.7			0.6
Delay (s)	33.9		10.3			5.7
Level of Service	C		B			A
Approach Delay (s)	33.9		10.3			5.7
Approach LOS	C		B			A

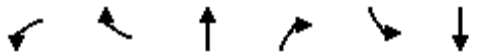
Intersection Summary			
HCM 2000 Control Delay	8.2	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	34	32	1224	944	3
Future Volume (Veh/h)	5	34	32	1224	944	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	36	34	1302	1004	3
Pedestrians	8				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				343	335	
pX, platoon unblocked	0.90	0.85	0.85			
vC, conflicting volume	1734	512	1015			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	834	69	662			
tC, single (s)	7.2	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.7	3.3	2.2			
p0 queue free %	98	96	96			
cM capacity (veh/h)	233	826	777			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	41	468	868	669	338
Volume Left	5	34	0	0	0
Volume Right	36	0	0	0	3
cSH	630	777	1700	1700	1700
Volume to Capacity	0.07	0.04	0.51	0.39	0.20
Queue Length 95th (ft)	5	3	0	0	0
Control Delay (s)	11.1	1.3	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.1	0.4		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	66.8%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	7	58	1197	0	0	979
Future Volume (Veh/h)	7	58	1197	0	0	979
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	7	62	1273	0	0	1041
Pedestrians	15		3			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	3.5		3.5			
Percent Blockage	1		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			248			430
pX, platoon unblocked	0.90	0.82			0.82	
vC, conflicting volume	1812	652			1288	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	921	144			918	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	91			100	
cM capacity (veh/h)	238	711			599	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	7	62	636	636	520	520
Volume Left	7	0	0	0	0	0
Volume Right	0	62	0	0	0	0
cSH	238	711	1700	1700	1700	1700
Volume to Capacity	0.03	0.09	0.37	0.37	0.31	0.31
Queue Length 95th (ft)	2	7	0	0	0	0
Control Delay (s)	20.6	10.5	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	11.6		0.0		0.0	
Approach LOS	B					

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	43.3%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	SBL	SBT	SET	NWT
Lane Group Flow (vph)	49	84	26	42	1007	1087
v/c Ratio	0.19	0.23	0.11	0.12	0.50	0.59
Control Delay	42.6	41.7	41.2	38.5	6.5	12.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	41.7	41.2	38.5	6.5	12.2
Queue Length 50th (ft)	32	54	17	25	127	242
Queue Length 95th (ft)	69	101	43	57	157	326
Internal Link Dist (ft)		489		90	168	265
Turn Bay Length (ft)						
Base Capacity (vph)	262	358	238	362	2033	1842
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.23	0.11	0.12	0.50	0.59

Intersection Summary

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	48	77	5	25	38	3	68	856	53	36	967	51
Future Volume (vph)	48	77	5	25	38	3	68	856	53	36	967	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Flpb, ped/bikes	0.98	1.00		0.96	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1741	1823		1698	1839			3486			3489	
Flt Permitted	0.73	1.00		0.68	1.00			0.74			0.88	
Satd. Flow (perm)	1337	1823		1217	1839			2604			3065	
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)	49	79	5	26	39	3	70	882	55	37	997	53
RTOR Reduction (vph)	0	2	0	0	2	0	0	3	0	0	3	0
Lane Group Flow (vph)	49	82	0	26	40	0	0	1004	0	0	1084	0
Confl. Peds. (#/hr)	10		27	27		10	9		10	10		9
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	21.5	21.5		21.5	21.5			87.0			70.0	
Effective Green, g (s)	23.5	23.5		23.5	23.5			89.0			72.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20			0.74			0.60	
Clearance Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lane Grp Cap (vph)	261	357		238	360			2034			1839	
v/s Ratio Prot		c0.05			0.02			c0.06				
v/s Ratio Perm	0.04			0.02				0.31			c0.35	
v/c Ratio	0.19	0.23		0.11	0.11			0.49			0.59	
Uniform Delay, d1	40.3	40.6		39.6	39.7			6.3			14.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			0.72	
Incremental Delay, d2	1.6	1.5		0.9	0.6			0.9			1.3	
Delay (s)	41.9	42.1		40.6	40.3			7.2			12.1	
Level of Service	D	D		D	D			A			B	
Approach Delay (s)		42.0			40.4			7.2			12.1	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	12.5	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	0	897	1329	0	0	7
Future Volume (Veh/h)	0	897	1329	0	0	7
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	954	1414	0	0	7
Pedestrians		2			39	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		3.5			3.5	
Percent Blockage		0			4	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		345	417			
pX, platoon unblocked	0.88				0.93	0.88
vC, conflicting volume	1453				1930	748
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1251				1388	453
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	99
cM capacity (veh/h)	470				120	470

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	477	477	943	471	7
Volume Left	0	0	0	0	0
Volume Right	0	0	0	0	7
cSH	1700	1700	1700	1700	470
Volume to Capacity	0.28	0.28	0.55	0.28	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	12.8
Lane LOS					B
Approach Delay (s)	0.0		0.0		12.8
Approach LOS					B

Intersection Summary			
Average Delay	0.0		
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

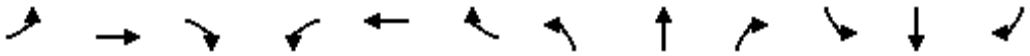
Lane Group	SET	NWT	NEL	NET	SWL	SWT
Lane Group Flow (vph)	907	1087	15	51	36	31
v/c Ratio	0.37	0.45	0.06	0.14	0.14	0.09
Control Delay	4.0	6.7	39.7	20.8	41.4	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	6.7	39.7	20.8	41.4	23.2
Queue Length 50th (ft)	62	148	9	12	23	8
Queue Length 95th (ft)	72	184	29	47	54	36
Internal Link Dist (ft)	337	584		513		115
Turn Bay Length (ft)						
Base Capacity (vph)	2483	2407	267	357	250	336
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.45	0.06	0.14	0.14	0.09

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	7	881	1	24	1034	8	15	19	31	35	13	18
Future Volume (vph)	7	881	1	24	1034	8	15	19	31	35	13	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.98	
Flpb, ped/bikes		1.00			1.00		0.97	1.00		0.99	1.00	
Frt		1.00			1.00		1.00	0.91		1.00	0.91	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3537			3530		1725	1658		1643	1609	
Flt Permitted		0.95			0.92		0.74	1.00		0.72	1.00	
Satd. Flow (perm)		3349			3246		1338	1658		1252	1609	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	7	899	1	24	1055	8	15	19	32	36	13	18
RTOR Reduction (vph)	0	0	0	0	1	0	0	26	0	0	14	0
Lane Group Flow (vph)	0	907	0	0	1086	0	15	25	0	36	17	0
Confl. Peds. (#/hr)	25		6	6		25	16		3	3		16
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	9%	10%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		87.0			87.0		22.0	22.0		22.0	22.0	
Effective Green, g (s)		89.0			89.0		24.0	24.0		24.0	24.0	
Actuated g/C Ratio		0.74			0.74		0.20	0.20		0.20	0.20	
Clearance Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)		2483			2407		267	331		250	321	
v/s Ratio Prot								0.02			0.01	
v/s Ratio Perm		0.27			c0.33		0.01			c0.03		
v/c Ratio		0.37			0.45		0.06	0.08		0.14	0.05	
Uniform Delay, d1		5.5			6.0		38.8	39.0		39.5	38.8	
Progression Factor		0.65			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.4			0.6		0.4	0.5		1.2	0.3	
Delay (s)		3.9			6.6		39.2	39.5		40.7	39.1	
Level of Service		A			A		D	D		D	D	
Approach Delay (s)		3.9			6.6			39.4			40.0	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	7.5	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	71.0%	ICU Level of Service	C
Analysis Period (min)	15		

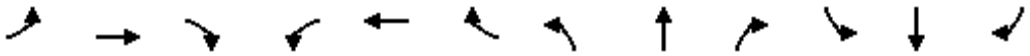
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	19	1	7	79	13	975	0	0	926	2
Future Volume (Veh/h)	1	0	19	1	7	79	13	975	0	0	926	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	1	0	19	1	7	81	13	995	0	0	945	2
Pedestrians		11			9							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											664	
pX, platoon unblocked	0.92	0.92	0.92	0.92	0.92		0.92					
vC, conflicting volume	1565	1987	484	1522	1988	506	958			1004		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1436	1896	258	1388	1897	506	774			1004		
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 %	98	100	97	99	88	84	98			100		
cM capacity (veh/h)	64	61	673	88	61	507	760			680		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	20	8	81	345	663	630	317
Volume Left	1	1	0	13	0	0	0
Volume Right	19	0	81	0	0	0	2
cSH	455	63	507	760	1700	1700	1700
Volume to Capacity	0.04	0.13	0.16	0.02	0.39	0.37	0.19
Queue Length 95th (ft)	3	10	14	1	0	0	0
Control Delay (s)	13.3	70.0	13.4	0.6	0.0	0.0	0.0
Lane LOS	B	F	B	A			
Approach Delay (s)	13.3	18.5		0.2		0.0	
Approach LOS	B	C					

Intersection Summary				
Average Delay	1.0			
Intersection Capacity Utilization	46.1%	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)	0	0	0	10	54	3	23	124	88	2	45	5
Future Volume (Veh/h)	0	0	0	10	54	3	23	124	88	2	45	5
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)	0	0	0	11	57	3	24	131	93	2	47	5
Pedestrians		6			15			10			3	
Lane Width (ft)		0.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								170				
pX, platoon unblocked	0.97	0.97		0.97	0.97	0.97				0.97		
vC, conflicting volume	320	346	66	304	302	196	58			239		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	279	307	66	263	261	151	58			196		
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	98	91	100	98			100		
cM capacity (veh/h)	586	569	989	636	603	851	1546			1312		

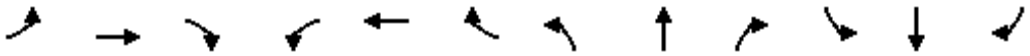
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	71	248	54
Volume Left	11	24	2
Volume Right	3	93	5
cSH	615	1546	1312
Volume to Capacity	0.12	0.02	0.00
Queue Length 95th (ft)	10	1	0
Control Delay (s)	11.6	0.8	0.3
Lane LOS	B	A	A
Approach Delay (s)	11.6	0.8	0.3
Approach LOS	B		

Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	37.6%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	86	2	1	65	0	3
Future Volume (Veh/h)	86	2	1	65	0	3
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	95	2	1	71	0	3
Pedestrians					28	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					3	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			125		197	124
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			125		197	124
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1423		770	902

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	97	72	3
Volume Left	0	1	0
Volume Right	2	0	3
cSH	1700	1423	902
Volume to Capacity	0.06	0.00	0.00
Queue Length 95th (ft)	0	0	0
Control Delay (s)	0.0	0.1	9.0
Lane LOS		A	A
Approach Delay (s)	0.0	0.1	9.0
Approach LOS			A

Intersection Summary			
Average Delay		0.2	
Intersection Capacity Utilization		19.9%	ICU Level of Service A
Analysis Period (min)		15	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	4	56	41	4	56	2	2	19	3	2	17	4
Future Volume (vph)	4	56	41	4	56	2	2	19	3	2	17	4
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)	4	63	46	4	63	2	2	21	3	2	19	4

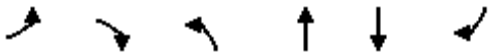
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	113	69	26	25
Volume Left (vph)	4	4	2	2
Volume Right (vph)	46	2	3	4
Hadj (s)	-0.11	0.03	-0.02	-0.05
Departure Headway (s)	4.0	4.1	4.3	4.3
Degree Utilization, x	0.12	0.08	0.03	0.03
Capacity (veh/h)	888	849	795	804
Control Delay (s)	7.5	7.5	7.4	7.4
Approach Delay (s)	7.5	7.5	7.4	7.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.5			
Level of Service	A			
Intersection Capacity Utilization	20.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	5	1	18	3	3	70
Future Volume (Veh/h)	5	1	18	3	3	70
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	6	1	21	4	4	82
Pedestrians	4					2
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	3.5					3.5
Percent Blockage	0					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	117	29			29	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	117	29			29	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	873	1040			1578	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	7	25	86
Volume Left	6	0	4
Volume Right	1	4	0
cSH	894	1700	1578
Volume to Capacity	0.01	0.01	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.1	0.0	0.4
Lane LOS	A		A
Approach Delay (s)	9.1	0.0	0.4
Approach LOS	A		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	16.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	9	5	23	66	0
Future Volume (Veh/h)	0	9	5	23	66	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	0	11	6	27	78	0
Pedestrians	25			2	1	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	143	105	103			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	143	105	103			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	100			
cM capacity (veh/h)	825	925	1453			

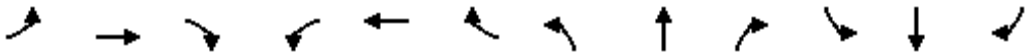
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	11	33	78
Volume Left	0	6	0
Volume Right	11	0	0
cSH	925	1453	1700
Volume to Capacity	0.01	0.00	0.05
Queue Length 95th (ft)	1	0	0
Control Delay (s)	8.9	1.4	0.0
Lane LOS	A	A	
Approach Delay (s)	8.9	1.4	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	19.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	9	3	0	78	23	12
Future Volume (Veh/h)	9	3	0	78	23	12
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	11	4	0	92	27	14
Pedestrians			9			
Lane Width (ft)			12.0			
Walking Speed (ft/s)			3.5			
Percent Blockage			1			
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)					195	
pX, platoon unblocked						
vC, conflicting volume	126	43	41			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	126	43	41			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	100	100			
cM capacity (veh/h)	869	1019	1568			

Direction, Lane #	WB 1	SB 1	NE 1
Volume Total	15	92	41
Volume Left	11	0	0
Volume Right	4	0	14
cSH	904	1568	1700
Volume to Capacity	0.02	0.00	0.02
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.0	0.0	0.0
Lane LOS	A		
Approach Delay (s)	9.0	0.0	0.0
Approach LOS	A		

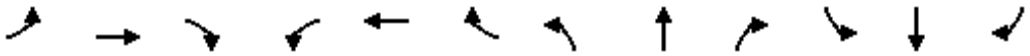
Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	24.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	36	8	0	4	9	27	1	85	9	17	56	25
Future Volume (vph)	36	8	0	4	9	27	1	85	9	17	56	25
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)	41	9	0	5	10	31	1	98	10	20	64	29

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	50	46	109	113
Volume Left (vph)	41	5	1	20
Volume Right (vph)	0	31	10	29
Hadj (s)	0.20	-0.35	0.01	-0.08
Departure Headway (s)	4.6	4.1	4.2	4.2
Degree Utilization, x	0.06	0.05	0.13	0.13
Capacity (veh/h)	736	817	818	842
Control Delay (s)	8.0	7.3	7.9	7.8
Approach Delay (s)	8.0	7.3	7.9	7.8
Approach LOS	A	A	A	A

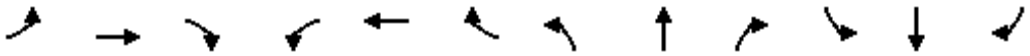
Intersection Summary				
Delay	7.8			
Level of Service	A			
Intersection Capacity Utilization	29.0%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	1	1	0	11	33	5	1	95	26	7	48	1
Future Volume (vph)	1	1	0	11	33	5	1	95	26	7	48	1
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)	1	1	0	13	38	6	1	109	30	8	55	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	2	57	140	64
Volume Left (vph)	1	13	1	8
Volume Right (vph)	0	6	30	1
Hadj (s)	0.13	0.02	-0.08	0.05
Departure Headway (s)	4.5	4.4	4.0	4.2
Degree Utilization, x	0.00	0.07	0.16	0.08
Capacity (veh/h)	751	787	872	833
Control Delay (s)	7.6	7.7	7.8	7.6
Approach Delay (s)	7.6	7.7	7.8	7.6
Approach LOS	A	A	A	A

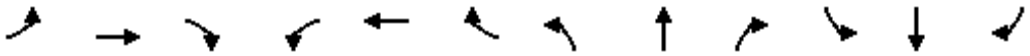
Intersection Summary				
Delay	7.7			
Level of Service	A			
Intersection Capacity Utilization	22.2%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	1	38	0	10	51	5	0	13	10	2	20	1
Future Volume (vph)	1	38	0	10	51	5	0	13	10	2	20	1
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)	1	45	0	12	60	6	0	15	12	2	24	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	78	27	27
Volume Left (vph)	1	12	0	2
Volume Right (vph)	0	6	12	1
Hadj (s)	0.05	0.02	-0.23	0.03
Departure Headway (s)	4.1	4.1	4.0	4.2
Degree Utilization, x	0.05	0.09	0.03	0.03
Capacity (veh/h)	848	865	870	824
Control Delay (s)	7.4	7.5	7.1	7.4
Approach Delay (s)	7.4	7.5	7.1	7.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.4			
Level of Service	A			
Intersection Capacity Utilization	20.1%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	47	7	4	64	15	2	90	1	5	102	4
Future Volume (vph)	8	47	7	4	64	15	2	90	1	5	102	4
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)	9	53	8	4	72	17	2	101	1	6	115	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	70	93	104	125
Volume Left (vph)	9	4	2	6
Volume Right (vph)	8	17	1	4
Hadj (s)	-0.01	-0.07	0.03	0.02
Departure Headway (s)	4.5	4.4	4.5	4.4
Degree Utilization, x	0.09	0.11	0.13	0.15
Capacity (veh/h)	740	757	768	771
Control Delay (s)	8.0	8.0	8.1	8.2
Approach Delay (s)	8.0	8.0	8.1	8.2
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.1			
Level of Service	A			
Intersection Capacity Utilization	23.9%	ICU Level of Service	A	
Analysis Period (min)	15			

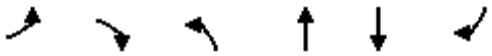
M: 2024 Future Vehicular Capacity and Queuing Analysis Worksheets

Lane Group	NBL	SET	NWT
Lane Group Flow (vph)	29	1401	621
v/c Ratio	0.08	0.66	0.46
Control Delay	32.5	15.2	6.8
Queue Delay	0.0	0.0	0.5
Total Delay	32.5	15.2	7.3
Queue Length 50th (ft)	15	288	137
Queue Length 95th (ft)	39	360	196
Internal Link Dist (ft)	174	579	255
Turn Bay Length (ft)			
Base Capacity (vph)	354	2112	1344
Starvation Cap Reductn	0	0	329
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.08	0.66	0.61

Intersection Summary

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	26	1	1275	42	7	577
Future Volume (vph)	26	1	1275	42	7	577
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.0			4.0
Lane Util. Factor	1.00		0.95			1.00
Frpb, ped/bikes	1.00		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	1.00		1.00			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1768		3518			1862
Flt Permitted	0.95		1.00			0.99
Satd. Flow (perm)	1768		3518			1839
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	28	1	1356	45	7	614
RTOR Reduction (vph)	1	0	2	0	0	0
Lane Group Flow (vph)	28	0	1399	0	0	621
Confl. Peds. (#/hr)		1		7	7	
Confl. Bikes (#/hr)				3		
Turn Type	Perm		NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	4				2	
Actuated Green, G (s)	18.0		58.0			71.0
Effective Green, g (s)	20.0		60.0			73.0
Actuated g/C Ratio	0.20		0.60			0.73
Clearance Time (s)	5.0		6.0			6.0
Lane Grp Cap (vph)	353		2110			1344
v/s Ratio Prot			c0.40			c0.04
v/s Ratio Perm	c0.02					0.30
v/c Ratio	0.08		0.66			0.46
Uniform Delay, d1	32.5		13.3			5.5
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	0.4		1.7			1.1
Delay (s)	33.0		14.9			6.6
Level of Service	C		B			A
Approach Delay (s)	33.0		14.9			6.6
Approach LOS	C		B			A

Intersection Summary			
HCM 2000 Control Delay	12.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	57.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	32	36	535	1264	3
Future Volume (Veh/h)	2	32	36	535	1264	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	2	33	38	557	1317	3
Pedestrians	10				3	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				343	335	
pX, platoon unblocked	0.80	0.73	0.73			
vC, conflicting volume	1964	670	1330			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1180	0	717			
tC, single (s)	6.8	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	99	96	94			
cM capacity (veh/h)	136	786	637			

Direction, Lane #	EB 1	NB 1	SB 1	SB 2
Volume Total	35	595	878	442
Volume Left	2	38	0	0
Volume Right	33	0	0	3
cSH	618	637	1700	1700
Volume to Capacity	0.06	0.06	0.52	0.26
Queue Length 95th (ft)	4	5	0	0
Control Delay (s)	11.2	1.6	0.0	0.0
Lane LOS	B	A		
Approach Delay (s)	11.2	1.6	0.0	
Approach LOS	B			

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	67.7%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	6	42	568	0	0	1296
Future Volume (Veh/h)	6	42	568	0	0	1296
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	6	44	592	0	0	1350
Pedestrians	3		2			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	3.5		3.5			
Percent Blockage	0		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			248			430
pX, platoon unblocked	0.78	0.90			0.90	
vC, conflicting volume	1272	299			595	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	210	0			326	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	95			100	
cM capacity (veh/h)	591	973			1103	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	6	44	296	296	675	675
Volume Left	6	0	0	0	0	0
Volume Right	0	44	0	0	0	0
cSH	591	973	1700	1700	1700	1700
Volume to Capacity	0.01	0.05	0.17	0.17	0.40	0.40
Queue Length 95th (ft)	1	4	0	0	0	0
Control Delay (s)	11.2	8.9	0.0	0.0	0.0	0.0
Lane LOS	B	A				
Approach Delay (s)	9.2		0.0		0.0	
Approach LOS	A					

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	SBL	SBT	SET	NWT
Lane Group Flow (vph)	55	60	43	25	1346	582
v/c Ratio	0.21	0.17	0.17	0.07	0.63	0.42
Control Delay	43.1	40.9	42.3	36.5	8.0	17.4
Queue Delay	0.0	0.0	0.0	0.0	0.6	0.0
Total Delay	43.1	40.9	42.3	36.5	8.6	17.4
Queue Length 50th (ft)	36	38	28	14	198	85
Queue Length 95th (ft)	76	78	62	39	242	130
Internal Link Dist (ft)		489		90	168	265
Turn Bay Length (ft)						
Base Capacity (vph)	260	363	252	358	2133	1374
Starvation Cap Reductn	0	0	0	0	392	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.21	0.17	0.17	0.07	0.77	0.42

Intersection Summary

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	53	56	2	42	21	3	132	1107	67	24	509	31
Future Volume (vph)	53	56	2	42	21	3	132	1107	67	24	509	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	0.99			1.00			1.00	
Flpb, ped/bikes	0.96	1.00		0.96	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.98			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			0.99			1.00	
Satd. Flow (prot)	1702	1850		1705	1818			3475			3461	
Flt Permitted	0.74	1.00		0.72	1.00			0.74			0.85	
Satd. Flow (perm)	1328	1850		1289	1818			2573			2937	
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)	55	58	2	43	22	3	136	1141	69	25	525	32
RTOR Reduction (vph)	0	1	0	0	2	0	0	3	0	0	4	0
Lane Group Flow (vph)	55	59	0	43	23	0	0	1343	0	0	578	0
Confl. Peds. (#/hr)	23		23	23		23	3		18	18		3
Confl. Bikes (#/hr)			1			2			1			2
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	3%	2%	2%	20%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	21.5	21.5		21.5	21.5			87.0			54.0	
Effective Green, g (s)	23.5	23.5		23.5	23.5			89.0			56.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20			0.74			0.47	
Clearance Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lane Grp Cap (vph)	260	362		252	356			2133			1370	
v/s Ratio Prot		0.03			0.01			c0.16				
v/s Ratio Perm	c0.04			0.03				c0.31			0.20	
v/c Ratio	0.21	0.16		0.17	0.06			0.63			0.42	
Uniform Delay, d1	40.5	40.1		40.1	39.3			7.5			21.3	
Progression Factor	1.00	1.00		1.00	1.00			1.00			0.77	
Incremental Delay, d2	1.8	1.0		1.5	0.3			1.4			0.9	
Delay (s)	42.3	41.1		41.6	39.6			8.9			17.4	
Level of Service	D	D		D	D			A			B	
Approach Delay (s)		41.7			40.9			8.9			17.4	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	79.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	0	1117	509	19	0	11
Future Volume (Veh/h)	0	1117	509	19	0	11
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)	0	1164	530	20	0	11
Pedestrians					15	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		345	417			
pX, platoon unblocked	0.96				0.87	0.96
vC, conflicting volume	565				1137	290
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	464				643	177
tC, single (s)	4.1				6.8	7.3
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.5
p0 queue free %	100				100	99
cM capacity (veh/h)	1035				347	740

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	582	582	353	197	11
Volume Left	0	0	0	0	0
Volume Right	0	0	0	20	11
cSH	1700	1700	1700	1700	740
Volume to Capacity	0.34	0.34	0.21	0.12	0.01
Queue Length 95th (ft)	0	0	0	0	1
Control Delay (s)	0.0	0.0	0.0	0.0	9.9
Lane LOS					A
Approach Delay (s)	0.0		0.0		9.9
Approach LOS					A

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

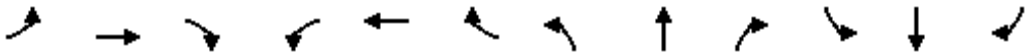
Lane Group	SET	NWT	NEL	NET	SWL	SWT
Lane Group Flow (vph)	1149	705	28	82	61	49
v/c Ratio	0.53	0.31	0.10	0.19	0.25	0.13
Control Delay	3.8	6.9	37.4	18.6	40.8	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	3.8	6.9	37.4	18.6	40.8	19.0
Queue Length 50th (ft)	29	95	17	20	39	11
Queue Length 95th (ft)	32	122	43	63	79	44
Internal Link Dist (ft)	337	584		513		115
Turn Bay Length (ft)						
Base Capacity (vph)	2179	2239	284	428	244	391
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.53	0.31	0.10	0.19	0.25	0.13

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	53	1033	6	17	631	22	27	31	47	58	17	29
Future Volume (vph)	53	1033	6	17	631	22	27	31	47	58	17	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	0.99		1.00	0.93	
Flpb, ped/bikes		1.00			1.00		0.91	1.00		0.99	1.00	
Frt		1.00			1.00		1.00	0.91		1.00	0.91	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3525			3475		1600	1677		1436	1575	
Flt Permitted		0.87			0.91		0.73	1.00		0.69	1.00	
Satd. Flow (perm)		3079			3159		1221	1677		1049	1575	
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)	56	1087	6	18	664	23	28	33	49	61	18	31
RTOR Reduction (vph)	0	0	0	0	2	0	0	38	0	0	24	0
Lane Group Flow (vph)	0	1149	0	0	703	0	28	44	0	61	25	0
Confl. Peds. (#/hr)	18		6	6		18	57		4	4		57
Confl. Bikes (#/hr)						2						1
Heavy Vehicles (%)	2%	2%	12%	2%	3%	8%	3%	2%	2%	25%	2%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		83.0			83.0		26.0	26.0		26.0	26.0	
Effective Green, g (s)		85.0			85.0		28.0	28.0		28.0	28.0	
Actuated g/C Ratio		0.71			0.71		0.23	0.23		0.23	0.23	
Clearance Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)		2180			2237		284	391		244	367	
v/s Ratio Prot								0.03			0.02	
v/s Ratio Perm		c0.37			0.22		0.02			c0.06		
v/c Ratio		0.53			0.31		0.10	0.11		0.25	0.07	
Uniform Delay, d1		8.1			6.6		36.1	36.2		37.5	35.8	
Progression Factor		0.37			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.7			0.4		0.7	0.6		2.4	0.4	
Delay (s)		3.7			6.9		36.8	36.8		39.9	36.2	
Level of Service		A			A		D	D		D	D	
Approach Delay (s)		3.7			6.9			36.8			38.2	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	77.3%	ICU Level of Service	D
Analysis Period (min)	15		

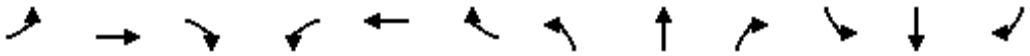
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	5	1	9	71	12	519	0	0	1140	3
Future Volume (Veh/h)	1	0	5	1	9	71	12	519	0	0	1140	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	1	0	5	1	9	74	13	541	0	0	1188	3
Pedestrians		10			6			2			2	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		1			1			0			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											664	
pX, platoon unblocked	0.86	0.86	0.86	0.86	0.86		0.86					
vC, conflicting volume	1576	1772	608	1174	1774	278	1201			547		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1347	1575	222	880	1577	278	911			547		
tC, single (s)	7.5	6.5	7.2	7.5	6.7	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.4	3.5	4.1	3.3	2.2			2.2		
p0 queue free %	99	100	99	99	89	90	98			100		
cM capacity (veh/h)	75	90	635	199	83	713	634			1013		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	6	10	74	193	361	792	399
Volume Left	1	1	0	13	0	0	0
Volume Right	5	0	74	0	0	0	3
cSH	282	88	713	634	1700	1700	1700
Volume to Capacity	0.02	0.11	0.10	0.02	0.21	0.47	0.23
Queue Length 95th (ft)	2	9	9	2	0	0	0
Control Delay (s)	18.1	51.2	10.6	1.0	0.0	0.0	0.0
Lane LOS	C	F	B	A			
Approach Delay (s)	18.1	15.5		0.3		0.0	
Approach LOS	C	C					

Intersection Summary				
Average Delay	0.9			
Intersection Capacity Utilization	42.3%	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	18	45	8	16	93	137	12	37	12
Future Volume (Veh/h)	0	0	0	18	45	8	16	93	137	12	37	12
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	0	0	0	19	47	8	17	97	143	13	39	13
Pedestrians		15			7			13			2	
Lane Width (ft)		0.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								170				
pX, platoon unblocked	0.98	0.98		0.98	0.98	0.98				0.98		
vC, conflicting volume	322	368	74	294	302	178	67			247		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	297	343	74	268	277	149	67			220		
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	97	92	99	99			99		
cM capacity (veh/h)	584	552	976	644	601	871	1535			1312		

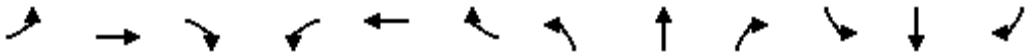
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	74	257	65
Volume Left	19	17	13
Volume Right	8	143	13
cSH	633	1535	1312
Volume to Capacity	0.12	0.01	0.01
Queue Length 95th (ft)	10	1	1
Control Delay (s)	11.4	0.6	1.6
Lane LOS	B	A	A
Approach Delay (s)	11.4	0.6	1.6
Approach LOS	B		

Intersection Summary				
Average Delay	2.8			
Intersection Capacity Utilization	33.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	120	30	20	70	12	7
Future Volume (Veh/h)	120	30	20	70	12	7
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)	126	32	21	74	13	7
Pedestrians					12	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			170		270	154
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			170		270	154
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	99
cM capacity (veh/h)			1391		700	882

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	158	95	20
Volume Left	0	21	13
Volume Right	32	0	7
cSH	1700	1391	755
Volume to Capacity	0.09	0.02	0.03
Queue Length 95th (ft)	0	1	2
Control Delay (s)	0.0	1.8	9.9
Lane LOS		A	A
Approach Delay (s)	0.0	1.8	9.9
Approach LOS			A

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	6	84	29	15	59	4	9	16	7	6	18	10
Future Volume (vph)	6	84	29	15	59	4	9	16	7	6	18	10
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)	7	97	33	17	68	5	10	18	8	7	21	11

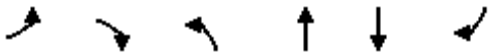
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	137	90	36	39
Volume Left (vph)	7	17	10	7
Volume Right (vph)	33	5	8	11
Hadj (s)	-0.04	0.04	0.01	-0.10
Departure Headway (s)	4.1	4.3	4.5	4.3
Degree Utilization, x	0.16	0.11	0.04	0.05
Capacity (veh/h)	851	825	761	774
Control Delay (s)	7.9	7.8	7.7	7.6
Approach Delay (s)	7.9	7.8	7.7	7.6
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.8			
Level of Service	A			
Intersection Capacity Utilization	20.8%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	1	33	2	3	62
Future Volume (Veh/h)	4	1	33	2	3	62
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	5	1	39	2	4	73
Pedestrians	3		4			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	3.5		3.5			
Percent Blockage	0		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	128	43			44	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	128	43			44	
tC, single (s)	6.4	6.2			4.2	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.3	
p0 queue free %	99	100			100	
cM capacity (veh/h)	858	1024			1492	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	6	41	77
Volume Left	5	0	4
Volume Right	1	2	0
cSH	882	1700	1492
Volume to Capacity	0.01	0.02	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.1	0.0	0.4
Lane LOS	A		A
Approach Delay (s)	9.1	0.0	0.4
Approach LOS	A		

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	15.7%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	9	52	16	26	60	7
Future Volume (Veh/h)	9	52	16	26	60	7
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	11	61	19	31	71	8
Pedestrians	14					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	3.5					
Percent Blockage	1					
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	158	89	93			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	158	89	93			
tC, single (s)	6.9	6.7	4.6			
tC, 2 stage (s)						
tF (s)	4.0	3.8	2.7			
p0 queue free %	98	93	98			
cM capacity (veh/h)	712	840	1231			

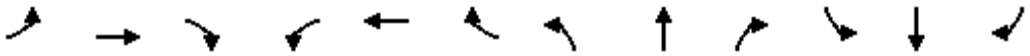
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	72	50	79
Volume Left	11	19	0
Volume Right	61	0	8
cSH	818	1231	1700
Volume to Capacity	0.09	0.02	0.05
Queue Length 95th (ft)	7	1	0
Control Delay (s)	9.8	3.1	0.0
Lane LOS	A	A	
Approach Delay (s)	9.8	3.1	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	4.3		
Intersection Capacity Utilization	19.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	19	7	19	97	36	56
Future Volume (Veh/h)	19	7	19	97	36	56
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	21	8	21	109	40	63
Pedestrians			12			
Lane Width (ft)			12.0			
Walking Speed (ft/s)			3.5			
Percent Blockage			1			
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)					195	
pX, platoon unblocked						
vC, conflicting volume	222	84	103			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	222	84	103			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	97	99	99			
cM capacity (veh/h)	755	965	1489			

Direction, Lane #	WB 1	SB 1	NE 1
Volume Total	29	130	103
Volume Left	21	21	0
Volume Right	8	0	63
cSH	803	1489	1700
Volume to Capacity	0.04	0.01	0.06
Queue Length 95th (ft)	3	1	0
Control Delay (s)	9.7	1.3	0.0
Lane LOS	A	A	
Approach Delay (s)	9.7	1.3	0.0
Approach LOS	A		

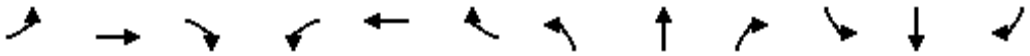
Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	29.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	32	10	0	2	4	26	2	88	12	27	23	21
Future Volume (vph)	32	10	0	2	4	26	2	88	12	27	23	21
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)	35	11	0	2	4	29	2	97	13	30	25	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	35	112	78
Volume Left (vph)	35	2	2	30
Volume Right (vph)	0	29	13	23
Hadj (s)	0.19	-0.45	-0.03	-0.04
Departure Headway (s)	4.5	3.9	4.1	4.2
Degree Utilization, x	0.06	0.04	0.13	0.09
Capacity (veh/h)	757	870	844	843
Control Delay (s)	7.8	7.1	7.7	7.6
Approach Delay (s)	7.8	7.1	7.7	7.6
Approach LOS	A	A	A	A

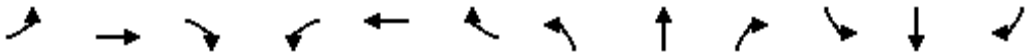
Intersection Summary				
Delay	7.6			
Level of Service	A			
Intersection Capacity Utilization	28.4%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	0	2	0	19	50	2	3	64	30	4	38	5
Future Volume (vph)	0	2	0	19	50	2	3	64	30	4	38	5
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	2	0	20	53	2	3	67	32	4	40	5

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	2	75	102	49
Volume Left (vph)	0	20	3	4
Volume Right (vph)	0	2	32	5
Hadj (s)	0.03	0.07	-0.15	-0.01
Departure Headway (s)	4.3	4.3	4.0	4.2
Degree Utilization, x	0.00	0.09	0.11	0.06
Capacity (veh/h)	793	809	878	842
Control Delay (s)	7.3	7.7	7.5	7.4
Approach Delay (s)	7.3	7.7	7.5	7.4
Approach LOS	A	A	A	A

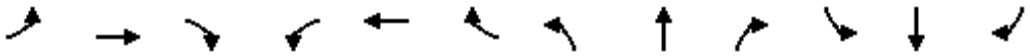
Intersection Summary				
Delay	7.5			
Level of Service	A			
Intersection Capacity Utilization	24.5%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	41	1	8	56	5	1	15	12	12	18	5
Future Volume (vph)	2	41	1	8	56	5	1	15	12	12	18	5
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)	2	48	1	9	66	6	1	18	14	14	21	6

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	51	81	33	41
Volume Left (vph)	2	9	1	14
Volume Right (vph)	1	6	14	6
Hadj (s)	0.03	0.01	-0.16	0.01
Departure Headway (s)	4.2	4.1	4.1	4.2
Degree Utilization, x	0.06	0.09	0.04	0.05
Capacity (veh/h)	840	852	846	820
Control Delay (s)	7.4	7.5	7.2	7.4
Approach Delay (s)	7.4	7.5	7.2	7.4
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.4			
Level of Service	A			
Intersection Capacity Utilization	20.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	2	102	5	9	72	12	3	52	10	13	114	12
Future Volume (vph)	2	102	5	9	72	12	3	52	10	13	114	12
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)	2	120	6	11	85	14	4	61	12	15	134	14

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	128	110	77	163
Volume Left (vph)	2	11	4	15
Volume Right (vph)	6	14	12	14
Hadj (s)	0.01	-0.02	-0.05	0.00
Departure Headway (s)	4.6	4.6	4.6	4.6
Degree Utilization, x	0.16	0.14	0.10	0.21
Capacity (veh/h)	728	729	727	741
Control Delay (s)	8.5	8.4	8.1	8.8
Approach Delay (s)	8.5	8.4	8.1	8.8
Approach LOS	A	A	A	A

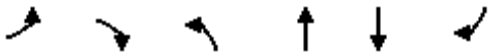
Intersection Summary				
Delay	8.5			
Level of Service	A			
Intersection Capacity Utilization	29.0%	ICU Level of Service	A	
Analysis Period (min)	15			

Lane Group	NBL	SET	NWT
Lane Group Flow (vph)	30	1041	1154
v/c Ratio	0.09	0.47	0.46
Control Delay	34.3	10.5	5.7
Queue Delay	0.0	0.0	0.0
Total Delay	34.3	10.5	5.7
Queue Length 50th (ft)	16	166	125
Queue Length 95th (ft)	41	211	157
Internal Link Dist (ft)	174	579	255
Turn Bay Length (ft)			
Base Capacity (vph)	334	2219	2504
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.09	0.47	0.46

Intersection Summary

Movement	NBL	NBR	SET	SER	NWL	NWT
Lane Configurations						
Traffic Volume (vph)	29	0	970	30	5	1103
Future Volume (vph)	29	0	970	30	5	1103
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.0			4.0
Lane Util. Factor	1.00		0.95			0.95
Frpb, ped/bikes	1.00		1.00			1.00
Flpb, ped/bikes	1.00		1.00			1.00
Frt	1.00		1.00			1.00
Flt Protected	0.95		1.00			1.00
Satd. Flow (prot)	1763		3518			3538
Flt Permitted	0.95		1.00			0.95
Satd. Flow (perm)	1763		3518			3371
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	30	0	1010	31	5	1149
RTOR Reduction (vph)	0	0	2	0	0	0
Lane Group Flow (vph)	30	0	1039	0	0	1154
Confl. Peds. (#/hr)	2	1		9	9	
Heavy Vehicles (%)	2%	2%	2%	3%	2%	2%
Turn Type	Perm		NA		pm+pt	NA
Protected Phases			6		5	2
Permitted Phases	4				2	
Actuated Green, G (s)	17.0		61.0			72.0
Effective Green, g (s)	19.0		63.0			74.0
Actuated g/C Ratio	0.19		0.63			0.74
Clearance Time (s)	5.0		6.0			6.0
Lane Grp Cap (vph)	334		2216			2506
v/s Ratio Prot			0.30			c0.03
v/s Ratio Perm	c0.02					c0.31
v/c Ratio	0.09		0.47			0.46
Uniform Delay, d1	33.4		9.7			5.1
Progression Factor	1.00		1.00			1.00
Incremental Delay, d2	0.5		0.7			0.6
Delay (s)	33.9		10.4			5.7
Level of Service	C		B			A
Approach Delay (s)	33.9		10.4			5.7
Approach LOS	C		B			A

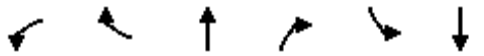
Intersection Summary			
HCM 2000 Control Delay	8.3	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	15.0
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	5	34	32	1241	964	3
Future Volume (Veh/h)	5	34	32	1241	964	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	5	36	34	1320	1026	3
Pedestrians	8				1	
Lane Width (ft)	12.0				12.0	
Walking Speed (ft/s)	3.5				3.5	
Percent Blockage	1				0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)				343	335	
pX, platoon unblocked	0.90	0.84	0.84			
vC, conflicting volume	1764	522	1037			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	845	66	676			
tC, single (s)	7.2	6.9	4.1			
tC, 2 stage (s)						
tF (s)	3.7	3.3	2.2			
p0 queue free %	98	96	96			
cM capacity (veh/h)	229	824	764			

Direction, Lane #	EB 1	NB 1	NB 2	SB 1	SB 2
Volume Total	41	474	880	684	345
Volume Left	5	34	0	0	0
Volume Right	36	0	0	0	3
cSH	625	764	1700	1700	1700
Volume to Capacity	0.07	0.04	0.52	0.40	0.20
Queue Length 95th (ft)	5	3	0	0	0
Control Delay (s)	11.2	1.3	0.0	0.0	0.0
Lane LOS	B	A			
Approach Delay (s)	11.2	0.4		0.0	
Approach LOS	B				

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	7	64	1208	0	0	999
Future Volume (Veh/h)	7	64	1208	0	0	999
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	7	68	1285	0	0	1063
Pedestrians	15		3			
Lane Width (ft)	12.0		12.0			
Walking Speed (ft/s)	3.5		3.5			
Percent Blockage	1		0			
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)			248			430
pX, platoon unblocked	0.90	0.82			0.82	
vC, conflicting volume	1834	658			1300	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	923	141			925	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	90			100	
cM capacity (veh/h)	237	712			593	

Direction, Lane #	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	7	68	642	642	532	532
Volume Left	7	0	0	0	0	0
Volume Right	0	68	0	0	0	0
cSH	237	712	1700	1700	1700	1700
Volume to Capacity	0.03	0.10	0.38	0.38	0.31	0.31
Queue Length 95th (ft)	2	8	0	0	0	0
Control Delay (s)	20.6	10.6	0.0	0.0	0.0	0.0
Lane LOS	C	B				
Approach Delay (s)	11.5		0.0		0.0	
Approach LOS	B					

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	44.0%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	NBL	NBT	SBL	SBT	SET	NWT
Lane Group Flow (vph)	49	101	26	52	1028	1098
v/c Ratio	0.19	0.28	0.12	0.14	0.55	0.60
Control Delay	42.6	42.7	41.4	39.8	6.8	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.6	42.7	41.4	39.8	6.8	11.9
Queue Length 50th (ft)	32	66	17	32	131	202
Queue Length 95th (ft)	69	119	43	69	162	274
Internal Link Dist (ft)		489		90	168	265
Turn Bay Length (ft)						
Base Capacity (vph)	259	359	224	362	1883	1839
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.28	0.12	0.14	0.55	0.60

Intersection Summary

Movement	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Traffic Volume (vph)	48	93	5	25	48	3	88	856	53	36	978	51
Future Volume (vph)	48	93	5	25	48	3	88	856	53	36	978	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			3.5			3.5	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frpb, ped/bikes	1.00	1.00		1.00	1.00			1.00			1.00	
Flpb, ped/bikes	0.98	1.00		0.96	1.00			1.00			1.00	
Frt	1.00	0.99		1.00	0.99			0.99			0.99	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1741	1827		1701	1844			3484			3490	
Flt Permitted	0.72	1.00		0.64	1.00			0.68			0.88	
Satd. Flow (perm)	1325	1827		1147	1844			2366			3060	
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)	49	96	5	26	49	3	91	882	55	37	1008	53
RTOR Reduction (vph)	0	2	0	0	2	0	0	3	0	0	3	0
Lane Group Flow (vph)	49	99	0	26	50	0	0	1025	0	0	1095	0
Confl. Peds. (#/hr)	10		27	27		10	9		10	10		9
Confl. Bikes (#/hr)			1									1
Heavy Vehicles (%)	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	6%
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		Perm	NA	
Protected Phases		4			4		5	2			6	
Permitted Phases	4			4			2			6		
Actuated Green, G (s)	21.5	21.5		21.5	21.5			87.0			70.0	
Effective Green, g (s)	23.5	23.5		23.5	23.5			89.0			72.0	
Actuated g/C Ratio	0.20	0.20		0.20	0.20			0.74			0.60	
Clearance Time (s)	6.0	6.0		6.0	6.0			5.5			5.5	
Lane Grp Cap (vph)	259	357		224	361			1885			1836	
v/s Ratio Prot		c0.05			0.03			c0.06				
v/s Ratio Perm	0.04			0.02				0.34			c0.36	
v/c Ratio	0.19	0.28		0.12	0.14			0.54			0.60	
Uniform Delay, d1	40.3	41.0		39.7	39.9			6.7			14.9	
Progression Factor	1.00	1.00		1.00	1.00			1.00			0.70	
Incremental Delay, d2	1.6	1.9		1.1	0.8			1.1			1.4	
Delay (s)	41.9	43.0		40.8	40.7			7.8			11.8	
Level of Service	D	D		D	D			A			B	
Approach Delay (s)		42.6			40.7			7.8			11.8	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM 2000 Control Delay	13.0	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	85.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations						
Traffic Volume (veh/h)	0	897	1329	56	0	18
Future Volume (Veh/h)	0	897	1329	56	0	18
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	0	954	1414	60	0	19
Pedestrians		2			39	
Lane Width (ft)		12.0			12.0	
Walking Speed (ft/s)		3.5			3.5	
Percent Blockage		0			4	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (ft)		345	417			
pX, platoon unblocked	0.87				0.92	0.87
vC, conflicting volume	1513				1960	778
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1295				1392	452
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	96
cM capacity (veh/h)	446				118	465

Direction, Lane #	SE 1	SE 2	NW 1	NW 2	SW 1
Volume Total	477	477	943	531	19
Volume Left	0	0	0	0	0
Volume Right	0	0	0	60	19
cSH	1700	1700	1700	1700	465
Volume to Capacity	0.28	0.28	0.55	0.31	0.04
Queue Length 95th (ft)	0	0	0	0	3
Control Delay (s)	0.0	0.0	0.0	0.0	13.1
Lane LOS					B
Approach Delay (s)	0.0		0.0		13.1
Approach LOS					B

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	49.3%	ICU Level of Service	A
Analysis Period (min)	15		

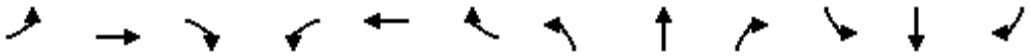
Lane Group	SET	NWT	NEL	NET	SWL	SWT
Lane Group Flow (vph)	907	1162	15	51	76	36
v/c Ratio	0.37	0.48	0.06	0.14	0.30	0.11
Control Delay	4.0	7.0	39.7	20.8	44.8	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	4.0	7.0	39.7	20.8	44.8	24.8
Queue Length 50th (ft)	62	164	9	12	51	11
Queue Length 95th (ft)	72	203	29	47	99	41
Internal Link Dist (ft)	337	584		513		115
Turn Bay Length (ft)						
Base Capacity (vph)	2483	2409	266	357	250	339
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.48	0.06	0.14	0.30	0.11

Intersection Summary

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Traffic Volume (vph)	7	881	1	24	1090	25	15	19	31	74	18	18
Future Volume (vph)	7	881	1	24	1090	25	15	19	31	74	18	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.0			3.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		0.95			0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes		1.00			1.00		1.00	0.98		1.00	0.98	
Flpb, ped/bikes		1.00			1.00		0.98	1.00		0.99	1.00	
Frt		1.00			1.00		1.00	0.91		1.00	0.93	
Flt Protected		1.00			1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		3537			3521		1726	1658		1643	1626	
Flt Permitted		0.95			0.92		0.73	1.00		0.72	1.00	
Satd. Flow (perm)		3346			3244		1333	1658		1252	1626	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	7	899	1	24	1112	26	15	19	32	76	18	18
RTOR Reduction (vph)	0	0	0	0	1	0	0	26	0	0	14	0
Lane Group Flow (vph)	0	907	0	0	1161	0	15	25	0	76	22	0
Confl. Peds. (#/hr)	25		6	6		25	16		3	3		16
Confl. Bikes (#/hr)						1						1
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	9%	10%	2%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		87.0			87.0		22.0	22.0		22.0	22.0	
Effective Green, g (s)		89.0			89.0		24.0	24.0		24.0	24.0	
Actuated g/C Ratio		0.74			0.74		0.20	0.20		0.20	0.20	
Clearance Time (s)		5.0			5.0		6.0	6.0		6.0	6.0	
Lane Grp Cap (vph)		2481			2405		266	331		250	325	
v/s Ratio Prot								0.02			0.01	
v/s Ratio Perm		0.27			c0.36		0.01			c0.06		
v/c Ratio		0.37			0.48		0.06	0.08		0.30	0.07	
Uniform Delay, d1		5.5			6.2		38.8	39.0		40.9	38.9	
Progression Factor		0.65			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.4			0.7		0.4	0.5		3.1	0.4	
Delay (s)		3.9			6.9		39.2	39.5		44.0	39.3	
Level of Service		A			A		D	D		D	D	
Approach Delay (s)		3.9			6.9			39.4			42.5	
Approach LOS		A			A			D			D	

Intersection Summary			
HCM 2000 Control Delay	8.4	HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	7.0
Intersection Capacity Utilization	73.2%	ICU Level of Service	D
Analysis Period (min)	15		

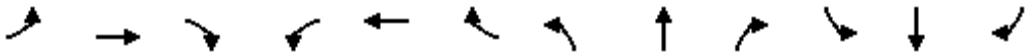
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	0	19	1	7	94	13	1033	0	0	965	2
Future Volume (Veh/h)	1	0	19	1	7	94	13	1033	0	0	965	2
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Hourly flow rate (vph)	1	0	19	1	7	96	13	1054	0	0	985	2
Pedestrians		11			9							
Lane Width (ft)		12.0			12.0							
Walking Speed (ft/s)		3.5			3.5							
Percent Blockage		1			1							
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)											664	
pX, platoon unblocked	0.92	0.92	0.92	0.92	0.92		0.92					
vC, conflicting volume	1650	2086	504	1600	2087	536	998			1063		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1528	2004	279	1474	2005	536	817			1063		
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 %	98	100	97	99	87	80	98			100		
cM capacity (veh/h)	51	52	652	76	52	485	732			646		

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1	SB 2
Volume Total	20	8	96	364	703	657	330
Volume Left	1	1	0	13	0	0	0
Volume Right	19	0	96	0	0	0	2
cSH	410	54	485	732	1700	1700	1700
Volume to Capacity	0.05	0.15	0.20	0.02	0.41	0.39	0.19
Queue Length 95th (ft)	4	12	18	1	0	0	0
Control Delay (s)	14.2	82.8	14.2	0.6	0.0	0.0	0.0
Lane LOS	B	F	B	A			
Approach Delay (s)	14.2	19.5		0.2		0.0	
Approach LOS	B	C					

Intersection Summary				
Average Delay	1.2			
Intersection Capacity Utilization	48.1%	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)	0	0	0	20	60	14	23	124	124	15	45	5
Future Volume (Veh/h)	0	0	0	20	60	14	23	124	124	15	45	5
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)	0	0	0	21	63	15	24	131	131	16	47	5
Pedestrians		6			15			10			3	
Lane Width (ft)		0.0			12.0			12.0			12.0	
Walking Speed (ft/s)		3.5			3.5			3.5			3.5	
Percent Blockage		0			1			1			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)								170				
pX, platoon unblocked	0.96	0.96		0.96	0.96	0.96				0.96		
vC, conflicting volume	382	412	66	351	350	214	58			277		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	332	364	66	300	298	157	58			223		
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	96	89	98	98			99		
cM capacity (veh/h)	516	517	989	590	563	836	1546			1271		

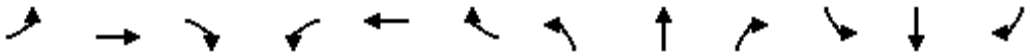
Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	99	286	68
Volume Left	21	24	16
Volume Right	15	131	5
cSH	598	1546	1271
Volume to Capacity	0.17	0.02	0.01
Queue Length 95th (ft)	15	1	1
Control Delay (s)	12.2	0.7	1.9
Lane LOS	B	A	A
Approach Delay (s)	12.2	0.7	1.9
Approach LOS	B		

Intersection Summary				
Average Delay	3.4			
Intersection Capacity Utilization	36.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	85	52	22	65	39	28
Future Volume (Veh/h)	85	52	22	65	39	28
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Hourly flow rate (vph)	93	57	24	71	43	31
Pedestrians					28	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					3.5	
Percent Blockage					3	
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			178		268	150
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			178		268	150
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		94	96
cM capacity (veh/h)			1361		689	873

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	150	95	74
Volume Left	0	24	43
Volume Right	57	0	31
cSH	1700	1361	756
Volume to Capacity	0.09	0.02	0.10
Queue Length 95th (ft)	0	1	8
Control Delay (s)	0.0	2.0	10.3
Lane LOS		A	B
Approach Delay (s)	0.0	2.0	10.3
Approach LOS			B

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	30.0%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	12	60	41	7	59	2	2	26	6	2	17	21
Future Volume (vph)	12	60	41	7	59	2	2	26	6	2	17	21
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)	13	67	46	8	66	2	2	29	7	2	19	24

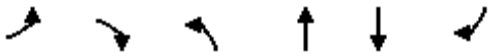
Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	126	76	38	45
Volume Left (vph)	13	8	2	2
Volume Right (vph)	46	2	7	24
Hadj (s)	-0.08	0.04	-0.07	-0.28
Departure Headway (s)	4.1	4.2	4.3	4.1
Degree Utilization, x	0.14	0.09	0.05	0.05
Capacity (veh/h)	859	824	786	831
Control Delay (s)	7.8	7.7	7.5	7.3
Approach Delay (s)	7.8	7.7	7.5	7.3
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.6			
Level of Service	A			
Intersection Capacity Utilization	22.2%	ICU Level of Service	A	
Analysis Period (min)	15			

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	1	28	6	3	73
Future Volume (Veh/h)	8	1	28	6	3	73
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	9	1	33	7	4	86
Pedestrians	4					2
Lane Width (ft)	12.0					12.0
Walking Speed (ft/s)	3.5					3.5
Percent Blockage	0					0
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	134	42			44	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	134	42			44	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			100	
cM capacity (veh/h)	854	1022			1558	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	10	40	90
Volume Left	9	0	4
Volume Right	1	7	0
cSH	868	1700	1558
Volume to Capacity	0.01	0.02	0.00
Queue Length 95th (ft)	1	0	0
Control Delay (s)	9.2	0.0	0.3
Lane LOS	A		A
Approach Delay (s)	9.2	0.0	0.3
Approach LOS	A		

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	16.9%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	15	77	28	22	65	6
Future Volume (Veh/h)	15	77	28	22	65	6
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	18	91	33	26	76	7
Pedestrians	25			2	1	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	3.5			3.5	3.5	
Percent Blockage	2			0	0	
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	198	106	108			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	198	106	108			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	90	98			
cM capacity (veh/h)	754	923	1447			

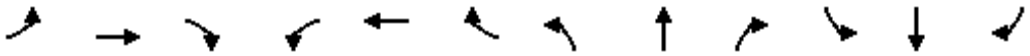
Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	109	59	83
Volume Left	18	33	0
Volume Right	91	0	7
cSH	890	1447	1700
Volume to Capacity	0.12	0.02	0.05
Queue Length 95th (ft)	10	2	0
Control Delay (s)	9.6	4.3	0.0
Lane LOS	A	A	
Approach Delay (s)	9.6	4.3	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	22.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Traffic Volume (veh/h)	9	8	23	122	40	12
Future Volume (Veh/h)	9	8	23	122	40	12
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	11	9	27	144	47	14
Pedestrians			9			
Lane Width (ft)			12.0			
Walking Speed (ft/s)			3.5			
Percent Blockage			1			
Right turn flare (veh)						
Median type			None		None	
Median storage veh)						
Upstream signal (ft)					195	
pX, platoon unblocked						
vC, conflicting volume	252	63	61			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	252	63	61			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	98	99	98			
cM capacity (veh/h)	724	993	1542			

Direction, Lane #	WB 1	SB 1	NE 1
Volume Total	20	171	61
Volume Left	11	27	0
Volume Right	9	0	14
cSH	824	1542	1700
Volume to Capacity	0.02	0.02	0.04
Queue Length 95th (ft)	2	1	0
Control Delay (s)	9.5	1.3	0.0
Lane LOS	A	A	
Approach Delay (s)	9.5	1.3	0.0
Approach LOS	A		

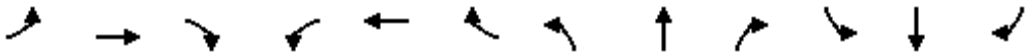
Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	28.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	41	8	0	7	11	27	1	96	9	17	63	28
Future Volume (vph)	41	8	0	7	11	27	1	96	9	17	63	28
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)	47	9	0	8	13	31	1	110	10	20	72	32

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	56	52	121	124
Volume Left (vph)	47	8	1	20
Volume Right (vph)	0	31	10	32
Hadj (s)	0.20	-0.29	0.02	-0.09
Departure Headway (s)	4.7	4.2	4.3	4.2
Degree Utilization, x	0.07	0.06	0.14	0.14
Capacity (veh/h)	713	791	807	821
Control Delay (s)	8.1	7.5	8.0	7.9
Approach Delay (s)	8.1	7.5	8.0	7.9
Approach LOS	A	A	A	A

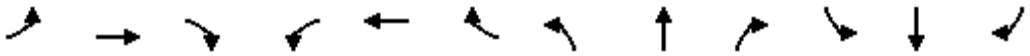
Intersection Summary				
Delay	7.9			
Level of Service	A			
Intersection Capacity Utilization	29.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	1	1	0	11	33	5	1	106	26	7	61	1
Future Volume (vph)	1	1	0	11	33	5	1	106	26	7	61	1
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)	1	1	0	13	38	6	1	122	30	8	70	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	2	57	153	79
Volume Left (vph)	1	13	1	8
Volume Right (vph)	0	6	30	1
Hadj (s)	0.13	0.02	-0.07	0.05
Departure Headway (s)	4.6	4.4	4.1	4.2
Degree Utilization, x	0.00	0.07	0.17	0.09
Capacity (veh/h)	737	763	866	830
Control Delay (s)	7.6	7.8	7.9	7.7
Approach Delay (s)	7.6	7.8	7.9	7.7
Approach LOS	A	A	A	A

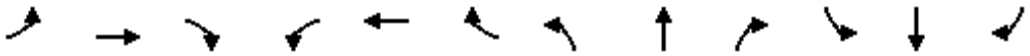
Intersection Summary				
Delay	7.8			
Level of Service	A			
Intersection Capacity Utilization	22.6%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	1	38	0	20	51	5	0	19	19	2	27	1
Future Volume (vph)	1	38	0	20	51	5	0	19	19	2	27	1
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)	1	45	0	24	60	6	0	22	22	2	32	1

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	46	90	44	35
Volume Left (vph)	1	24	0	2
Volume Right (vph)	0	6	22	1
Hadj (s)	0.05	0.05	-0.27	0.03
Departure Headway (s)	4.2	4.2	4.0	4.3
Degree Utilization, x	0.05	0.10	0.05	0.04
Capacity (veh/h)	830	844	867	811
Control Delay (s)	7.5	7.6	7.2	7.5
Approach Delay (s)	7.5	7.6	7.2	7.5
Approach LOS	A	A	A	A

Intersection Summary				
Delay	7.5			
Level of Service	A			
Intersection Capacity Utilization	22.7%	ICU Level of Service	A	
Analysis Period (min)	15			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	54	7	4	70	15	2	90	1	5	102	4
Future Volume (vph)	8	54	7	4	70	15	2	90	1	5	102	4
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)	9	61	8	4	79	17	2	101	1	6	115	4

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	78	100	104	125
Volume Left (vph)	9	4	2	6
Volume Right (vph)	8	17	1	4
Hadj (s)	0.00	-0.06	0.03	0.02
Departure Headway (s)	4.6	4.5	4.5	4.5
Degree Utilization, x	0.10	0.12	0.13	0.16
Capacity (veh/h)	737	753	760	762
Control Delay (s)	8.0	8.1	8.2	8.3
Approach Delay (s)	8.0	8.1	8.2	8.3
Approach LOS	A	A	A	A

Intersection Summary				
Delay	8.2			
Level of Service	A			
Intersection Capacity Utilization	24.2%	ICU Level of Service	A	
Analysis Period (min)	15			