H. Lee & Associates, PLLC
Civil Engineering, Traffic Engineering, and Planning

MEMORANDUM

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To: City of Camas Staff

From: H. Lee & Associates, PLLC

Date: July 1, 2022

Subject: Hood Street Subdivision Traffic Memorandum

Since the original submittal of the Hood Street Subdivision traffic study (dated January 26, 2022), the City of Camas (COC) received comments from Mark Swensen about the existing traffic safety along NW 16th Avenue, NW Hood Street, and NW 18th Avenue and the additional traffic impacts associated with the proposed Hood Street Subdivision.

Comments 1 & 2 Response:

There is an existing sharp curve where eastbound traffic on NW 16th Avenue turn left to go northbound on NW Hood Street and Mr. Swensen claims that that vehicles making that turn tend to cross over into the southbound lane where southbound traffic on NW Hood Street is turning right to head westbound on NW 16th Avenue. Additionally, Mr. Swensen adds that there is no room on the dirt shoulder for cars and heavy vehicles turning right from southbound on NW Hood Street to westbound on NW 16th Avenue to avoid any eastbound vehicles crossing over the lane when turning left from eastbound on NW 16th Avenue to northbound on NW Hood Street. HLA conducted a traffic study for the proposed 18th Avenue Subdivision (dated April 19, 2022) located across NW Hood Street from the proposed Hood Street Subdivision. As a part of the 18th Avenue Subdivision, HLA conducted accident analyses at the existing NW 16th Avenue/NW Hood Street intersection. As shown on page 10 of the 18th Avenue Subdivision traffic study, in the five-year, five-month, and twenty-two day period studied, there were no accidents reported at the existing NW 16th Avenue/NW Hood Street intersection. The accident analysis did not reveal any safety issues at the NW 16th Avenue/NW Hood Street intersection. Attachment A contains the traffic study conducted for the 18th Avenue Subdivision.

Comment 3 Response:

Mr. Swensen commented that the NW 18th Avenue/NW Hood Street intersection is a "high-risk" intersection due to free-flowing northbound traffic along NW Hood Street not always using their directional turn indicator when making the northbound right turn maneuver to head eastbound along NW 18th Avenue and therefore causing the westbound stop-controlled traffic wait until the northbound traffic has either turned right or traveled north through the intersection. The westbound traffic yielding to the northbound movement is the correct driver behavior regardless of whether the non-yielding northbound motorists use a direction turn indicator or not. In addition, the Hood Street Subdivision traffic study (see page 17) shows that the westbound approach of the NW 18th Avenue/NW Hood Street intersection is projected to operate well within the City's

standard with a LOS B in the 2027 "With Project" condition. Additionally, in the *Accident History* (pages 9 and 10) section of the Hood Street Subdivision traffic study, there were no accidents reported at the NW 18th Avenue/NW Hood Street intersection for the five-year, five-month, and twenty-two day period studied.

Comment 4 Response:

The Hood Street Subdivision is only proposing one access onto NW Hood Street. The access location proposed is the most ideal location at the mid-block of NW Hood Street between NW 18th Avenue and NW 16th Avenue. The Hood Street Subdivision traffic study has shown that this proposed development meets all of the City's transportation concurrency and safety standards at the study area intersections including at the proposed project access.

Comment 5 Response:

The condition of City streets is solely the responsibility of the City of Camas.

Comment 6 Response:

The Hood Street Subdivision included studying all approved developments in the area that are yet to be built. The accumulative analysis has shown that the Hood Street Subdivision meets all of the City's traffic concurrency standards.

ATTACHMENT A

REPORT

18th Avenue Subdivision
Traffic Impact Study

April 19, 2022

H. Lee & Associates, PLLC

18TH AVENUE SUBDIVISION
TRAFFIC IMPACT STUDY

Prepared for:

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Prepared by:

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April 19, 2022

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

SECTION I
STUDY SUMMARY

INTRODUCTION

This traffic impact analysis has been prepared to assess transportation impacts related to the proposed 18th Avenue Subdivision. The project site is located at 3010 NW 18th Avenue in Camas, Washington and is comprised of tax lots 127439000, 127359000, and 127356000. Figure 1 shows the project vicinity.

Project Description

The proposed project will subdivide approximately 9.28 acres into 34 new single-family detached lots. One single-family detached home exists on-site and will be retained as part of the subdivision totaling the overall lot count to 35. Access to the proposed project will be from connections to NW Hancock Drive and NW 16th Avenue. Figure 2 shows the project site plan.

Scope of Traffic Impact Study

The scope of the traffic impact study was developed from known City of Camas traffic study requirements. From these requirements, the following intersections were analyzed:

- NW 16th Avenue/NW Brady Road
- NW 18th Avenue/NW Hancock Drive
- NW 16th Avenue/NW Hood Street
- NW Brady Road/NW McIntosh Road

The remainder of this report presents the following analysis:

- Existing traffic conditions in the project study area.
- 2027 "Without Project" condition to establish the baseline condition by which the project impacts are determined.
- Trip generation estimates for the proposed development.
- 2027 "With Project" condition to determine project traffic impacts.

SUMMARY OF FINDINGS

Findings

The following are the findings from the traffic analysis:

- The proposed development is expected to generate 321 daily, 24 A.M. peak hour (6 in, 18 out), and 32 P.M. peak hour (20 in, 12 out) net new trips.

- All of the study area intersections are projected to meet the City of Camas' level of service standards in the 2027 "Without Project" and 2027 "With Project" condition.

- Based on field measurements conducted by H. Lee & Associates, PLLC, the existing NW 18th Avenue/NW Hancock Drive and NW 16th Avenue/NW Hood Street intersections should be able to meet the sight distance requirements as long as any vegetation within the sight distance triangles are properly maintained after construction and no obstructions are placed within the sight distance triangles that could impede a driver's vision. The corner sight distances should be re-verified in the final engineering/construction stages of development.

- Turn lane warrants at existing NW 18th Avenue/NW Hancock Drive and NW 16th Avenue/NW Hood Street intersections were not conducted due to low traffic volumes, acceptable levels of service, and acceptable accident rates in the 2027 "With Project" conditions along NW Hood Street.

Recommendations

- Based on the traffic impact analysis documented in this report, no physical, off-site mitigation would be needed.

18th Avenue Subdivision TIA
Camas, WA

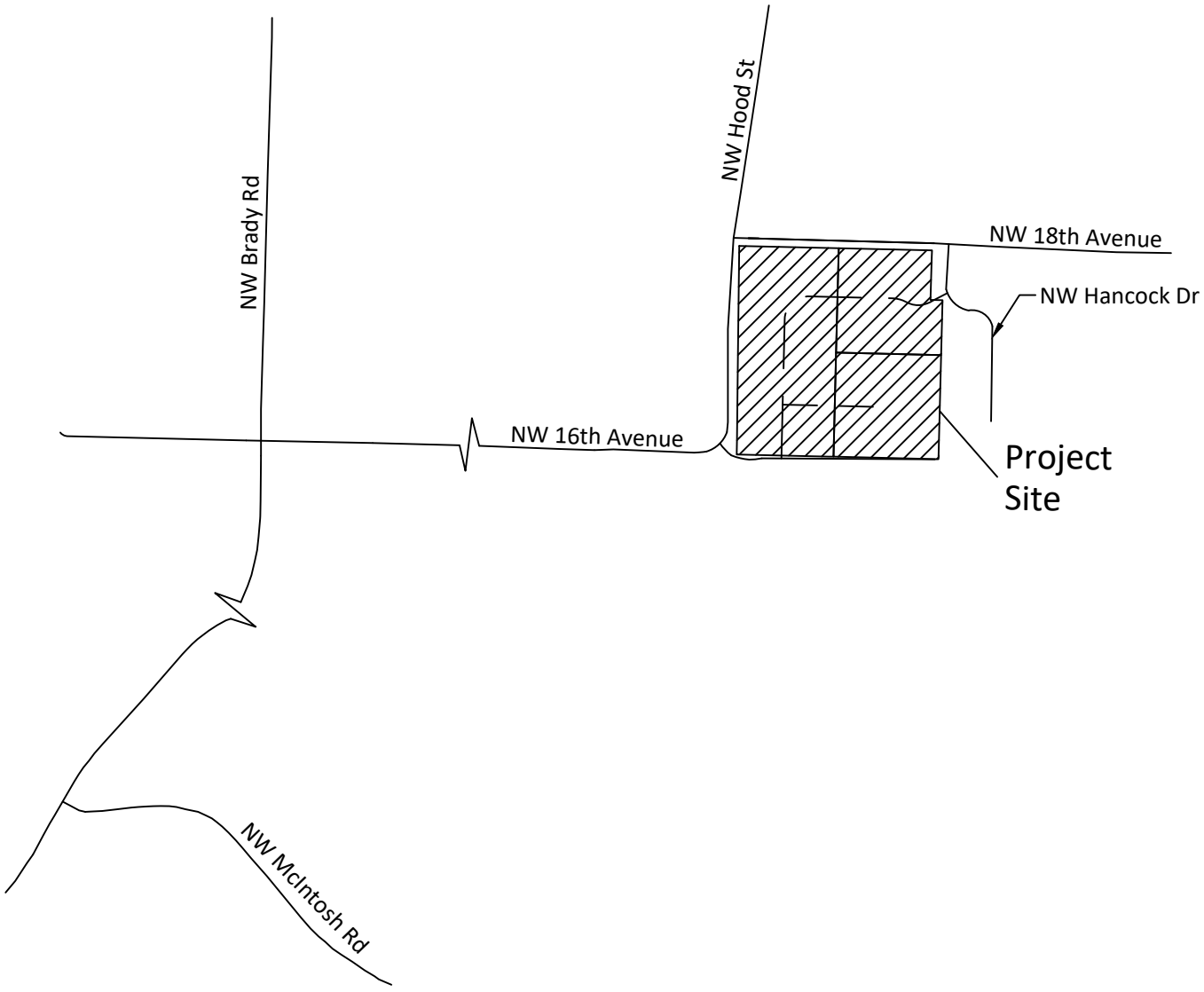

FIGURE 1
Site Vicinity Map

NOT TO SCALE

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18th Avenue Subdivision TIA
Camas, WA

FIGURE 2
Site Plan

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SECTION II
EXISTING CONDITIONS

SITE CONDITION AND ADJACENT LAND USE

One existing single-family detached home exists on-site and will be retained as part of the subdivision. The proposed Hood Street Subdivision exists to the west. The Church of Jesus Christ of Latter-day Saints exists to the north. Residential uses surround the project site.

TRANSPORTATION FACILITIES

The following provides a description of the existing street system in the study area.

NW Astor Street: NW Astor Street is a two-to-three lane collector roadway. Intermittent sidewalks and bike lanes exist along both sides of the roadway. The posted speed limit is 35 mph.

NW Brady Road: NW Brady Road is a two-lane minor arterial roadway north of NW 16th Avenue with a posted speed limit of 35 mph. Between NW 16th Avenue and NW McIntosh Road, NW Brady road is a two-lane collector roadway with intermittent sidewalks along both sides of the roadway and a posted speed limit of 35 mph. South of NW McIntosh Road, NW Brady Road is a two-lane minor arterial roadway and has a posted speed limit of 40 mph.

NW Forest Home Road: NW Forest Home Road is a two-lane collector roadway. The posted speed limit is 30 mph.

NW Hancock Drive: NW Hancock Drive is a two-lane local roadway. Sidewalks exist along both sides of the roadway. There is no posted speed limit but is assumed to be 25 mph.

NW Hood Street: NW Hood Street is two-lane minor arterial roadway between NW 18th Avenue and NW 16th Avenue. This section of roadway has a posted speed limit of 35 mph. North of NW 18th Avenue, NW Hood Street is two-lane local roadway with sidewalks along the east side of the roadway and intermittent sidewalks along the west side of the roadway. This section of roadway has a posted speed limit of 25 mph.

NW McIntosh Road: NW McIntosh Road is a two-lane minor arterial roadway. Sidewalks exist along the north side of the roadway and bike lanes exist along the south side of the roadway west of NW Dawson Ridge Drive. The posted speed limit is 35 mph.

NW 16th Avenue: NW 16th Avenue is a two-to-three lane minor arterial roadway. Intermittent sidewalks and bike lanes exist along both sides of the roadway. The posted speed limit is 35 mph.

NW 18th Avenue: NW 18th Avenue is a two-lane minor arterial roadway. Intermittent sidewalks exist along both sides of the roadway. The posted speed limit is 35 mph.

As part of this study, levels of service analyses were performed for the following intersections:

- NW 16th Avenue/NW Brady Road
- NW 18th Avenue/NW Hancock Drive
- NW 16th Avenue/NW Hood Street
- NW Brady Road/NW McIntosh Road

The NW 16th Avenue/NW Brady Road intersection is signalized. The remaining study area intersections are unsignalized and stop sign controlled. Figure 3 shows the existing lane configurations and traffic control at these intersections.

EXISTING TRAFFIC VOLUMES

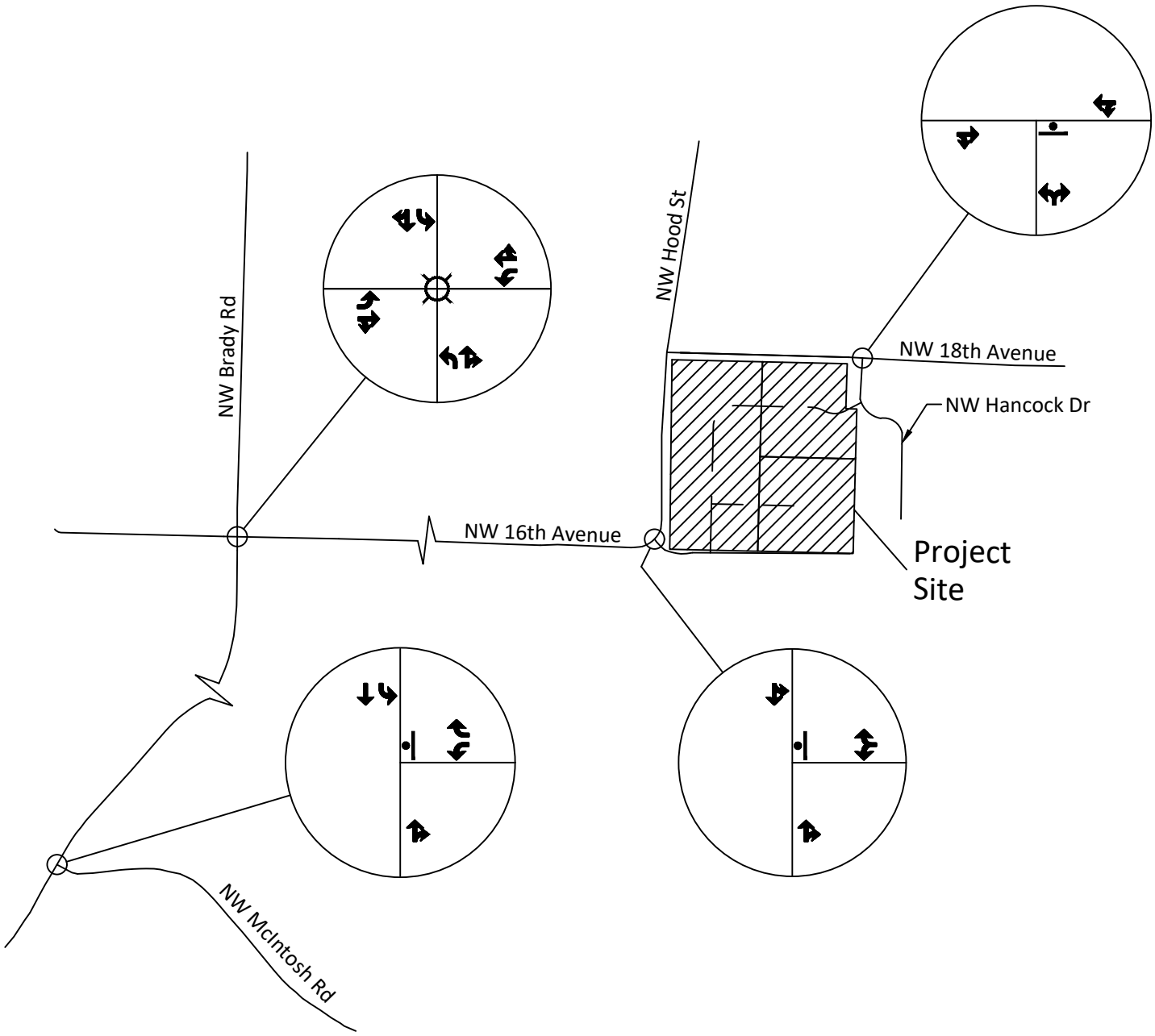
A.M. and P.M. peak hour traffic counts were obtained at the study area intersections by HLA in March 2022. Per conversations with City of Camas staff, existing traffic counts collected in 2022 can be utilized without making pandemic adjustments as long as HLA can show that they are back to pre-pandemic levels. HLA compared the existing 2022 pandemic traffic counts to 2018 historical pre-pandemic traffic counts at the NW Brady Road/NW 16th Avenue intersection. To update this 2018 pre-pandemic count to the current year (2022), HLA applied a one percent historical annual compounded growth factor that was established in the previous Hood Street Subdivision traffic study to the A.M and P.M. peak hour counts. The 2022 projected pre-pandemic A.M. peak hour volume is 850. The 2022 projected pre-pandemic P.M. peak hour volume is 991. The existing 2022 pandemic A.M. peak hour count volume is 1,019. The existing 2022 pandemic P.M. peak hour count volume is 960. The existing 2022 traffic volumes are within 97% of the 2022 projected pre-pandemic traffic volumes and therefore no adjustments were made since a three percent discrepancy in traffic volumes is within the range of normal traffic fluctuation.

Per the HCM, peak 15-minute traffic volumes were multiplied by four (4) to arrive at the peak hour traffic volumes. With this methodology of developing peak hour traffic volumes, the peak hour factor (PHF) is set to 1.00 because the peaking has already occurred by multiplying the peak 15-minute traffic volume by four (4). The existing condition traffic volumes are presented in Figure 4. The existing traffic counts can be referenced in Appendix A.

A speed study along NW Hood Street was conducted between 3:00 P.M. on July 26, 2021 and 9:00 A.M. on July 29, 2021. The 85th percentile speed southbound was 33 mph. The 85th percentile northbound was 31 mph.

A speed study along NW 18th Avenue was conducted between 12:00 A.M. on March 14, 2022 and 8:00 P.M. on March 16, 2021. The 85th percentile speed southbound was 37 mph. The 85th percentile northbound was 37 mph. The speed study data can be referenced in Appendix A.

18th Avenue Subdivision TIA
Camas, WA



LEGEND

- Lane Usage
- Traffic Signal
- Stop Sign

NOT TO SCALE

FIGURE 3
Existing Lane Configuration and Traffic Control

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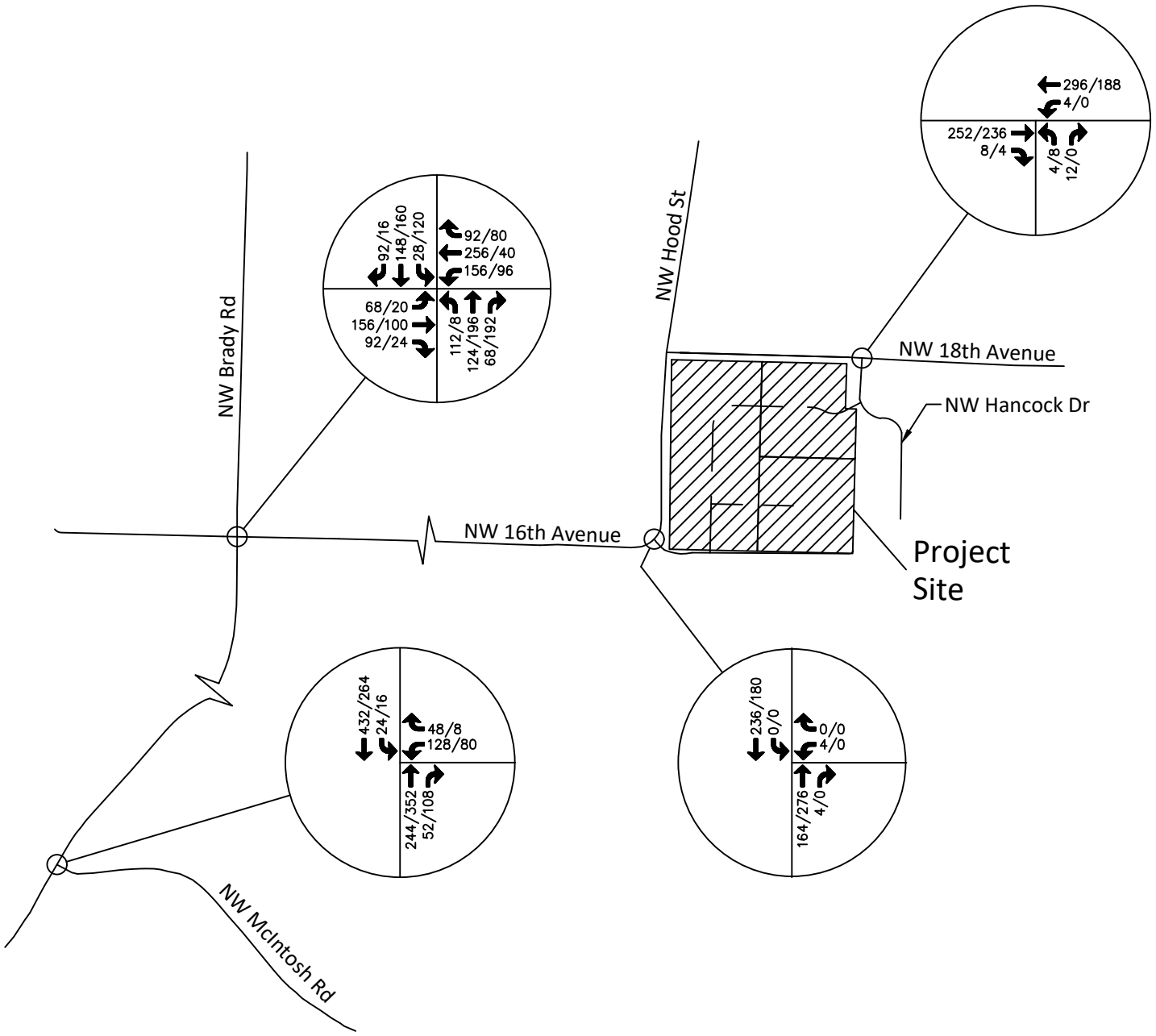
18th Avenue Subdivision TIA
Camas, WA



LEGEND

128/200 A.M./P.M. Peak Hour Traffic Volume

NOT TO SCALE

FIGURE 4
Existing A.M. and P.M.
Peak Hour Traffic Volumes

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EXISTING LEVEL OF SERVICE

Based on the traffic volumes in Figure 4 and the existing lane configurations presented in Figure 3, peak hour traffic operations were analyzed at the study area intersections using the methodologies outlined in the Highway Capacity Manual (HCM) 6th Edition. According to the HCM, there are six levels of service (LOS) by which the operational performance of an intersection may be described. These levels of service range between LOS "A" which indicates a relatively free-flowing condition and LOS "F" which indicates operational breakdown.

LOS D is the City of Camas' adopted level of service standard for arterial/collector intersections. For non-arterial/collector intersections, LOS C is the adopted level of service standard.

Existing A.M. and P.M. peak hour levels of service at the study area intersections are summarized in Table 1. As shown in Table 1, all of the study area intersections are operating within the acceptable levels of service standards or better in the existing condition. Appendix B contains the levels of service worksheets for the existing condition.

Table 1. Existing Levels of Service

	A.M. Peak Hour		P.M. Peak Hour	
Signalized Intersection	LOS	Average Delay (sec)	LOS	Average Delay (sec)
NW 16th Avenue/NW Brady Road	B	16.4	B	14.7
Unsignalized Intersection				
NW 18th Avenue/NW Hancock Drive				
Westbound Left	A	7.8	A	0.0
Northbound Approach	B	10.4	B	11.2
NW 16th Avenue/NW Hood Street				
Westbound Approach	B	11.0	A	0.0
Southbound Left	A	0.0	A	0.0
NW Brady Road/NW McIntosh Road				
Westbound Left	C	19.9	C	16.2
Westbound Right	B	10.0	B	10.6
Southbound Left	A	7.9	A	8.3

ACCIDENT HISTORY

Accident data was obtained from the Washington State Department of Transportation (WSDOT) for the five-year, five-month, and twenty-two day period between January 1, 2015 and June 22, 2021. The data includes total accidents and accidents by severity (i.e. fatal, injury or property damage only). This accident data is summarized in Table 2. Appendix C contains the accident data.

As shown in Table 2, none of the study area intersections have accident rates above 1.00 accidents per million entering vehicles. Accident rates above 1.00 accident per million entering vehicles do

not necessarily indicate there is a safety problem, but it is an indicator that further analysis should be conducted. Intersections with accident rates of less than 1.00 accidents per million entering vehicles are considered acceptable and therefore no further analysis is required.

It should be noted that there was a fatality at the NW Brady Road/NW 16th Avenue intersection on July 30, 2017. The crash involved a passenger car and motorcycle. The cause of accident was due to the passenger car running the stop sign and the motorcycle exceeding reasonable safe speed.

Table 2. Summary of Traffic Accident History in Study Area

Intersection	Average Annual Accidents				acc/mev[2]
	PDO[1]	Injury	Fatal	Total	
NW 16th Avenue/NW Brady Road	0.8	0.5	0.2	1.6	0.33
NW 18th Avenue/NW Hancock Drive	0.0	0.0	0.0	0.0	0.00
NW 16th Avenue/NW Hood Street	0.0	0.0	0.0	0.0	0.00
NW Brady Road/NW McIntosh Road	0.4	0.4	0.0	0.8	0.21

[1] PDO = property damage only
[2] acc/mev = accidents per million entering vehicles

EXISTING PUBLIC TRANSIT SERVICE

C-Tran provides public transit service in the City of Camas. Currently there are no routes that provide service adjacent to the project site. The closest route to the project site is Route #37 (Mill Plain/Fisher's), which is approximately 1.76 miles northeast of the project site at the SE 192nd Avenue/SE 34th Street intersection.

NON-MOTORIZED TRANSPORTATION

Sidewalks exist along NW Hanckock Drive adjacent to the project site.

PLANNED TRANSPORTATION IMPROVEMENTS

There are four known transportation improvement projects planned by the City of Camas in the project vicinity based on the City of Camas' 2022-2027 Six Year Transportation Program. These projects are listed below:

NW 18th Avenue – NW Astor Street to NW 16th Avenue
This project includes constructing a pedestrian path along NW 18th Avenue and NW Hood Street from NW Astor Street to NW 16th Avenue. All project phases are anticipated to begin in 2024. The estimated total project cost is $260,000. This project has a priority number of 9.

NW Astor Street/NW 11th Avenue – NW 16th Avenue to NW McIntosh Road
This project includes widening the existing roadway and constructing bike lanes and sidewalks. Construction is anticipated to begin in 2027. The estimated total project cost is $2,390,000. This project has a priority number of 24.

NW 18th Avenue – NW Astor Street to NW 16th Avenue
This project includes widening the existing roadway and constructing sidewalks along NW 18th Avenue and NW Hood Street from NW Astor Street to NW 16th Avenue. Preliminary engineering is anticipated to begin in 2025. This project has a priority number of 25.

NW 18th Avenue – NW Whitman Street to NW Brady Road
This project includes reconstructing the existing roadway and constructing bike lanes along NW 18th Avenue. Preliminary engineering is anticipated to begin in 2025. This project has a priority number of 26.

SECTION III
TRAFFIC IMPACT ANALYSIS

ANALYSIS METHODOLOGY

The A.M. and P.M. peak hour traffic impacts generated by the proposed 18th Avenue Subdivision were analyzed as follows:

- The 2027 "Without Project" traffic volumes were established as the future baseline condition for the traffic analysis and to define a baseline by which project impacts are determined. The 2027 "Without Project" condition traffic volumes were derived by using a 2.0 percent annual, compounded growth factor and adding traffic generated by "in process" developments. The "in-process" traffic volumes were obtained from the City of Camas staff.

- A.M., P.M., and daily trip generation were estimated for the proposed development using the rates in "Trip Generation, 11th Edition," (Institute of Transportation Engineers, 2021).

- Trip distribution of site-generated traffic was developed from existing count information, previous traffic studies, locations of major employment centers, and logical travel paths to and from major travel corridors.

- Predicted A.M. and P.M. peak hour site-generated traffic from the proposed development was assigned to the roadway network and added to the 2027 "Without Project" traffic volumes to develop the 2027 "With Project" traffic volumes.

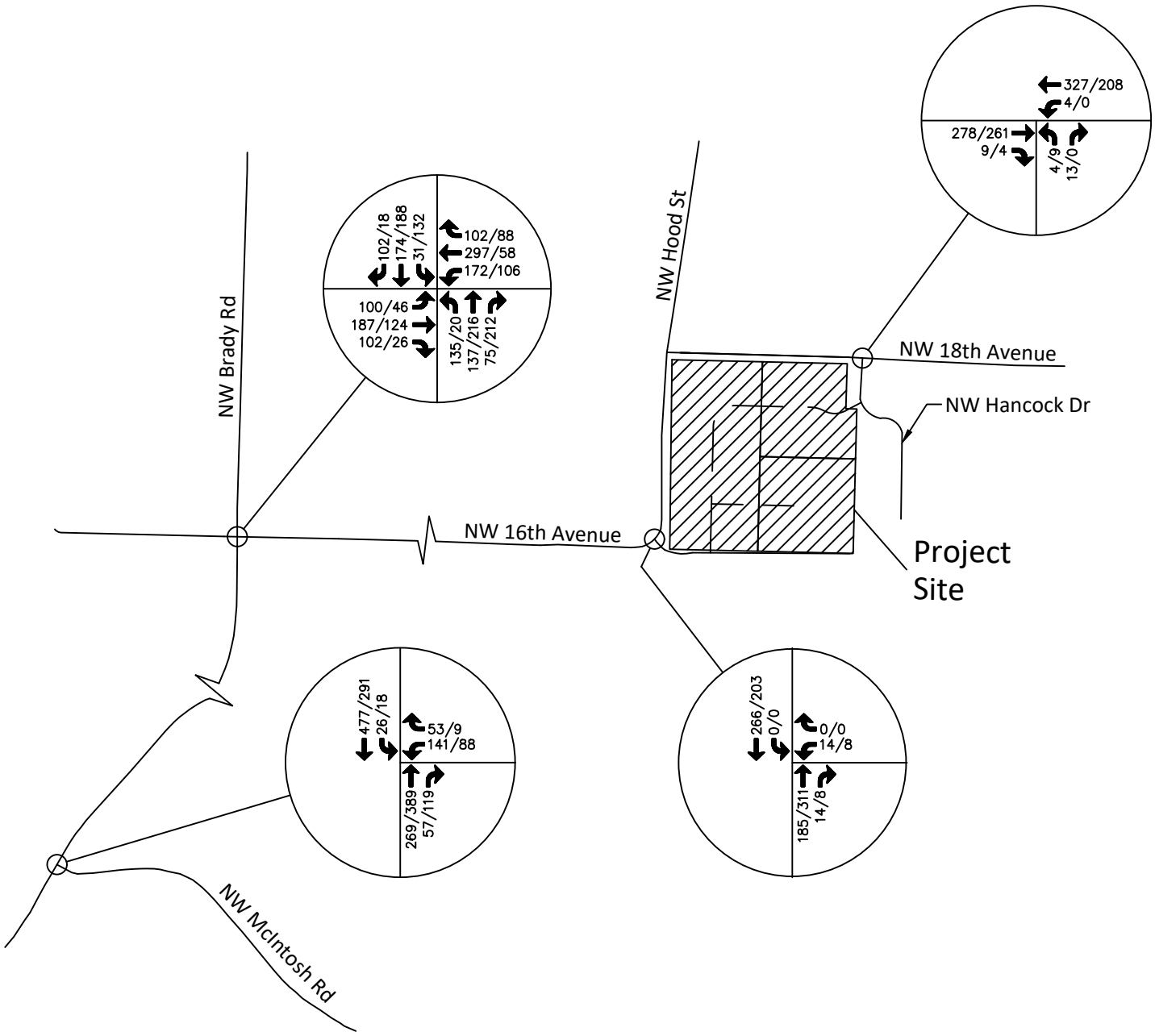
A detailed discussion of the methodology summarized above and the analysis results are contained in the remainder of this section.

2027 "WITHOUT PROJECT" TRAFFIC VOLUMES AND LEVELS OF SERVICE

The 2027 "Without Project" condition was analyzed as the future baseline condition for the traffic analysis and to define a baseline by which project impacts are determined. The 2027 "Without Project" condition traffic volumes were derived by using a 2.0 percent annual, compounded growth factor and adding traffic generated by "in process" developments. The "in-process" traffic volumes were obtained from the City of Camas staff and can be referenced in Appendix D. Figure 5 shows the 2027 "Without Project" traffic volumes.

Levels of service were calculated at the study area intersections with the 2027 "Without Project" traffic volumes shown in Figure 5 and the lane configurations shown earlier in Figure 3. Appendix E contains the level of service worksheets for the 2027 "Without Project" condition.

18th Avenue Subdivision TIA
Camas, WA



LEGEND

128/200 A.M./P.M. Peak Hour Traffic Volume

NOT TO SCALE

FIGURE 5
2027 "Without Project"
A.M. and P.M. Peak Hour Traffic Volumes

The 2027 "Without Project" A.M. and P.M. peak hour levels of service at the study area intersections are summarized in Table 3. As shown in Table 3, all of the study area intersections are projected to operate within the acceptable levels of service standards or better in the 2027 "Without Project" condition.

Table 3. 2027 "Without Project" Levels of Service

	A.M. Peak Hour		P.M. Peak Hour	
Signalized Intersection	LOS	Average Delay (sec)	LOS	Average Delay (sec)
NW 16th Avenue/NW Brady Road	B	18.1	B	15.8
Unsignalized Intersection				
NW 18th Avenue/NW Hancock Drive				
Westbound Left	A	7.9	A	0.0
Northbound Approach	B	10.6	B	11.6
NW 16th Avenue/NW Hood Street				
Westbound Approach	B	11.5	B	12.0
Southbound Left	A	0.0	A	0.0
NW Brady Road/NW McIntosh Road				
Westbound Left	C	23.8	C	18.1
Westbound Right	B	10.3	B	11.0
Southbound Left	A	8.0	A	8.5

DEVELOPMENT PLANS

As previously stated, the proposed project will subdivide approximately 9.28 acres into 34 new single-family detached lots. One single-family detached home exists on-site and will be retained as part of the subdivision totaling the overall lot count to 35. Access to the proposed project will be from connections to NW Hancock Drive and NW 16th Avenue. As previously shown, Figure 2 shows the project site plan.

TRIP GENERATION

Estimates of daily, A.M. peak hour, and P.M. peak hour trips generated by the proposed project were developed from rates published in "Trip Generation, 11th Edition" (Institute of Transportation Engineers, 2021). The proposed development is expected to generate 321 daily, 24 A.M. peak hour (6 in, 18 out), and 32 P.M. peak hour (20 in, 12 out) net new trips. Table 4 summarizes the project's trip generation.

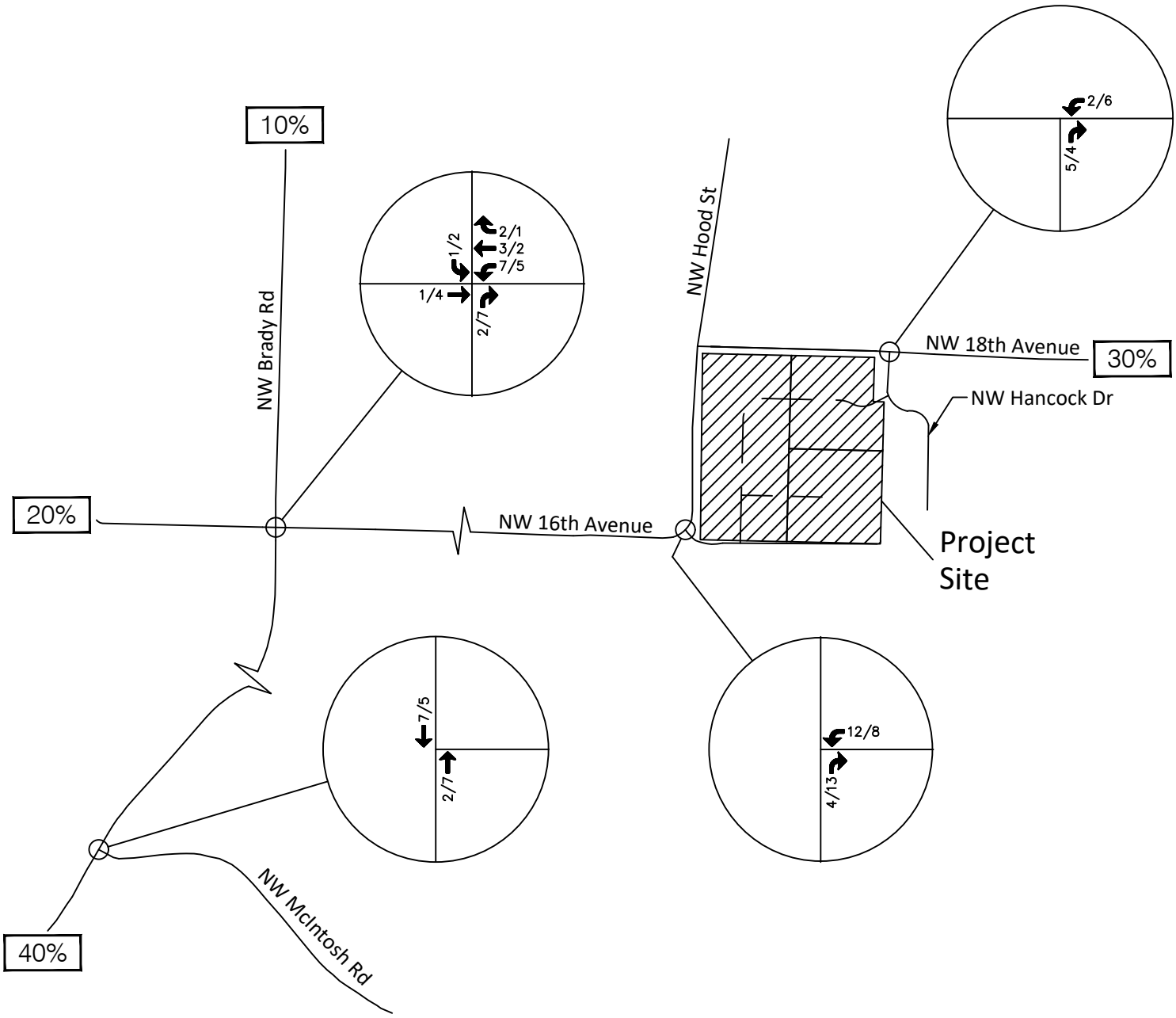
Table 4. Trip Generation Summary for 18th Avenue Subdivision

	Amount	Average Daily	A.M. Peak			P.M. Peak		
			In	Out	Total	In	Out	Total
Single-Family Detached Homes (ITE Code 210)								
Rate per dwelling Unit		9.43	0.18	0.52	0.70	0.59	0.35	0.94
Trips	34 new units	321	6	18	24	20	12	32

TRIP DISTRIBUTION AND ASSIGNMENT

A generalized trip distribution for the A.M. and P.M. peak hour was developed from the existing traffic counts, previous traffic studies, locations of major employment centers, and logical travel paths to and from major travel corridors. Figure 6 shows the resulting trip distribution pattern and assignment of project-generated trips.

18th Avenue Subdivision TIA
Camas, WA



LEGEND

128/200 A.M./P.M. Peak Hour Traffic Volume

10% Peak Hour Trip Distribution

NOT TO SCALE

FIGURE 6
Trip Distribution and Assignment
Traffic Volumes

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2027 "WITH PROJECT" TRAFFIC VOLUMES AND LEVELS OF SERVICE

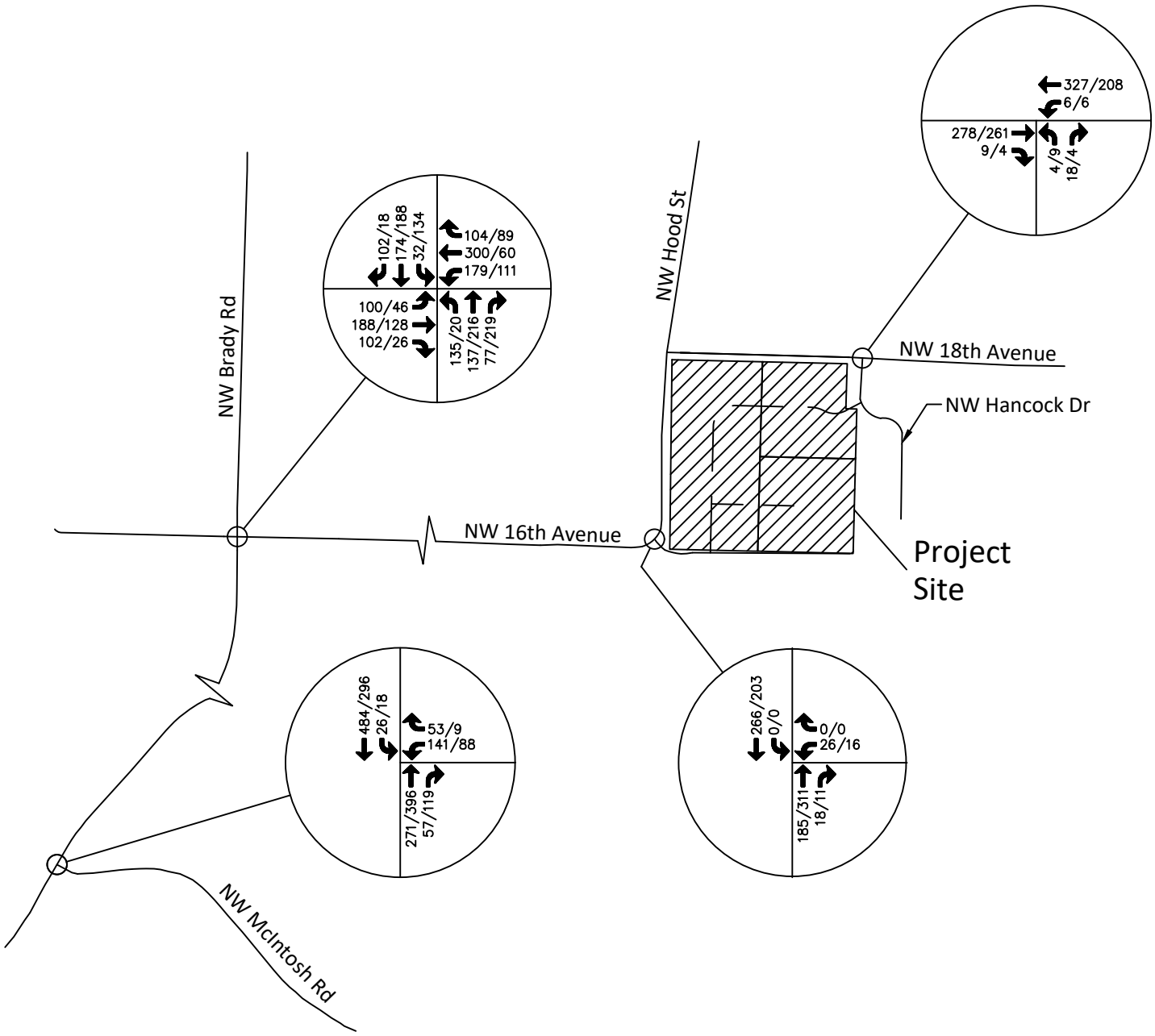
The traffic volumes shown in Figures 5 and 6 were combined to arrive at the 2027 "With Project" A.M. and P.M. peak hour traffic volumes. Figure 7 shows these traffic volumes. Levels of service were calculated for the 2027 "With Project" condition based on the traffic volumes shown in Figure 7 and the lane configurations previously shown in Figure 3. Appendix F contains the level of service worksheets for the 2027 "With Project" condition.

The 2027 "With Project" A.M. and P.M. peak hour levels of service at the study area intersections are summarized in Table 5. As shown in Table 5, all of the study area intersections are projected to operate within the acceptable levels of service standards in the 2027 "With Project" condition.

Table 5. 2027 "With Project" Levels of Service

	A.M. Peak Hour		P.M. Peak Hour	
Signalized Intersection	LOS	Average Delay (sec)	LOS	Average Delay (sec)
NW 16th Avenue/NW Brady Road	B	18.2	B	16.0
Unsignalized Intersection				
NW 18th Avenue/NW Hancock Drive				
Westbound Left	A	7.9	A	7.8
Northbound Approach	B	10.5	B	11.1
NW 16th Avenue/NW Hood Street				
Westbound Approach	B	11.7	B	12.2
Southbound Left	A	0.0	A	0.0
NW Brady Road/NW McIntosh Road				
Westbound Left	C	24.2	C	18.4
Westbound Right	B	10.3	B	11.0
Southbound Left	A	8.0	A	8.5

18th Avenue Subdivision TIA
Camas, WA



LEGEND

128/200 A.M./P.M. Peak Hour Traffic Volume

NOT TO SCALE

FIGURE 7
2027 "With Project"
A.M. and P.M. Peak Hour Traffic Volumes

CORNER SIGHT DISTANCE

The minimum corner sight distance was analyzed for the proposed 18th Avenue Subdivision. The minimum corner sight distance required for the existing NW 18th Avenue/NW Hancock Drive and NW 16th Avenue/NW Hood Street intersections is based on the City of Camas' Design Standard Manual. Per the City of Camas' Design Standard Manual, public and private streets must comply with the sight distance requirements contained in the current "A Policy on Geometric Design on Highways and Streets," published by AASHTO (American Association of State Highway and Transportation Officials." The most recent edition of this reference is the 2018 – 7th Edition.

From AASHTO, the following intersection sight distances are relevant to the project's site access intersections:

- Case B1 – left turn from minor road
- Case B2 – right turn from minor road
- Case F – left from major road

The required sight distance for Case B1 based on a posted speed limit of 35 mph along NW Hood Street/NW 16th Avenue and NW 18th Avenue is 390 feet. This requirement can be found in Table 9-7 of the "A Policy on Geometric Design on Highways and Streets," page 9-46.

The required sight distance for Case B2 based on a posted speed limit of 35 mph along NW Hood Street/NW 16th Avenue and NW 18th Avenue is 335 feet. This requirement can be found in Table 9-9 of the "A Policy on Geometric Design on Highways and Streets," page 9-48.

The required sight distance for Case F based on a posted speed limit of 35 mph along NW Hood Street/NW 16th Avenue and NW 18th Avenue is 285 feet. This requirement can be found in Table 9-17 of the "A Policy on Geometric Design on Highways and Streets," page 9-57.

The corner sight distances at the existing NW 18th Avenue/NW Hancock Drive and NW 16th Avenue/NW Hood Street intersections were field measured and compared to the minimum acceptable AASHTO standards described above. Based on field measurements conducted by H. Lee & Associates, PLLC, all of the AASHTO sight distance requirements can be met at the existing NW 18th Avenue/NW Hancock Drive and NW 16th Avenue/NW Hood Street intersections as long as any vegetation within the sight distance triangles is properly maintained and no obstructions that obscure the driver's sight distance are located within the sight distance triangles. The corner sight distances should be re-verified in the final engineering/construction stages of development.

LANE WARRANT ANALYSIS

Turn lane warrants at the existing NW 18th Avenue/NW Hancock Drive and NW 16th Avenue/NW Hood Street intersections were not conducted due to low traffic volumes, acceptable levels of service, and acceptable accident rates in the 2027 "With Project" conditions along NW 18th Avenue and NW Hood Street.

CONCLUSIONS

Findings

The following are the findings from the traffic analysis:

- The proposed development is expected to generate 321 daily, 24 A.M. peak hour (6 in, 18 out), and 32 P.M. peak hour (20 in, 12 out) net new trips.

- All of the study area intersections are projected to meet the City of Camas' level of service standards in the 2027 "Without Project" and 2027 "With Project" condition.

- Based on field measurements conducted by H. Lee & Associates, PLLC, the existing NW 18th Avenue/NW Hancock Drive and NW 16th Avenue/NW Hood Street intersections should be able to meet the sight distance requirements as long as any vegetation within the sight distance triangles are properly maintained after construction and no obstructions are placed within the sight distance triangles that could impede a driver's vision. The corner sight distances should be re-verified in the final engineering/construction stages of development.

- Turn lane warrants at existing NW 18th Avenue/NW Hancock Drive and NW 16th Avenue/NW Hood Street intersections were not conducted due to low traffic volumes, acceptable levels of service, and acceptable accident rates in the 2027 "With Project" conditions along NW Hood Street.

Recommendations

- Based on the traffic impact analysis documented in this report, no physical, off-site mitigation would be needed.

APPENDIX A

TRAFFIC COUNTS & SPEED STUDY

Intersection: NW Brady Road/NW 16th Avenue Date: 06/11/15

AM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
7:00 - 7:15 AM	2	43	2	3	12	14	51	1	6	27	1	5	0	6	4	2	168
7:15 - 7:30 AM	3	27	3	2	21	10	31	1	6	43	1	4	1	0	3	1	149
7:30 - 7:45 AM	4	37	10	2	62	19	39	6	12	51	4	4	1	9	11	2	259
7:45 - 8:00 AM	4	34	24	3	35	13	34	1	18	46	4	6	0	10	6	0	228
8:00 - 8:15 AM	11	49	16	2	21	19	37	1	14	29	3	2	0	4	6	0	209
8:15 - 8:30 AM	1	27	5	10	16	17	37	3	9	18	5	3	2	7	1	0	145
8:30 - 8:45 AM	5	29	7	8	20	24	37	3	13	28	13	7	7	13	2	1	198
8:45 - 9:00 AM	22	27	7	5	15	46	24	3	12	32	32	5	23	29	12	8	281
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	13	141	39	10	130	56	155	9	42	167	10	19	2	25	24	5	804
7:15 - 8:15 AM	22	147	53	9	139	61	141	9	50	169	12	16	2	23	26	3	845
7:30 - 8:30 AM	20	147	55	17	134	68	147	11	53	144	16	15	3	30	24	2	841
7:45 - 8:45 AM	21	139	52	23	92	73	145	8	54	121	25	18	9	34	15	1	780
8:00 - 9:00 AM	39	132	35	25	72	106	135	10	48	107	53	17	32	53	21	9	833
Peak Hour 7:15 - 8:15 AM	22	147	53	9	139	61	141	9	50	169	12	16	2	23	26	3	845
Peak Hour Factor		0.73				0.71				0.85				0.61			0.82
Percent Trucks		4%				3%				7%				6%			

Intersection: NW Brady Road/NW 16th Avenue Date: 06/11/15
PM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
4:00 - 4:15 PM	3	21	13	1	12	17	19	1	32	24	2	2	5	29	4	0	181
4:15 - 4:30 PM	2	28	14	0	13	13	12	1	18	37	6	0	6	27	5	0	181
4:30 - 4:45 PM	6	38	20	0	13	18	24	1	33	29	3	1	6	20	2	0	212
4:45 - 5:00 PM	1	32	12	0	23	15	17	0	36	43	2	0	4	25	4	0	214
5:00 - 5:15 PM	4	48	29	1	14	11	23	0	38	38	1	0	3	38	0	0	247
5:15 - 5:30 PM	1	32	29	0	20	12	22	0	36	36	2	2	4	25	1	0	220
5:30 - 5:45 PM	3	36	23	2	21	7	15	1	41	49	4	4	4	28	4	0	235
5:45 - 6:00 PM	3	35	27	1	13	9	18	2	36	52	4	1	5	17	4	0	223
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	12	119	59	1	61	63	72	3	119	133	13	3	21	101	15	0	788
4:15 - 5:15 PM	13	146	75	1	63	57	76	2	125	147	12	1	19	110	11	0	854
4:30 - 5:30 PM	12	150	90	1	70	56	86	1	143	146	8	3	17	108	7	0	893
4:45 - 5:45 PM	9	148	93	3	78	45	77	1	151	166	9	6	15	116	9	0	916
5:00 - 6:00 PM	11	151	108	4	68	39	78	3	151	175	11	7	16	108	9	0	925
Peak Hour 5:00 - 6:00 PM	11	151	108	4	68	39	78	3	151	175	11	7	16	108	9	0	925
Peak Hour Factor		0.83				0.86				0.90				0.81			0.94
Percent Trucks		1%				2%				2%				0%			

Intersection: NW Brady Road/NW 16th Avenue Date: 02/13/18

AM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
7:00 - 7:15 AM	1	30	7	0	16	13	40	1	9	22	2	3	4	10	4	3	158
7:15 - 7:30 AM	2	39	8	1	25	8	53	2	13	24	0	4	0	7	4	0	183
7:30 - 7:45 AM	4	38	6	2	42	14	33	5	10	31	3	3	1	5	5	2	192
7:45 - 8:00 AM	8	31	18	0	25	17	36	1	12	35	5	1	7	9	9	1	212
8:00 - 8:15 AM	8	29	14	1	30	20	48	0	13	25	5	3	5	13	3	0	213
8:15 - 8:30 AM	7	27	6	2	27	15	41	4	16	23	7	5	1	5	1	0	176
8:30 - 8:45 AM	8	30	12	4	16	23	22	0	14	22	11	5	1	6	2	0	167
8:45 - 9:00 AM	17	22	11	1	18	43	21	2	6	15	32	2	21	35	20	7	261
															Peak 15 Total		261
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	15	138	39	3	108	52	162	9	44	112	10	11	12	31	22	6	745
7:15 - 8:15 AM	22	137	46	4	122	59	170	8	48	115	13	11	13	34	21	3	800
7:30 - 8:30 AM	27	125	44	5	124	66	158	10	51	114	20	12	14	32	18	3	793
7:45 - 8:45 AM	31	117	50	7	98	75	147	5	55	105	28	14	14	33	15	1	768
8:00 - 9:00 AM	40	108	43	8	91	101	132	6	49	85	55	15	28	59	26	7	817
Peak Hour 8:00 - 9:00 AM	40	108	43	8	91	101	132	6	49	85	55	15	28	59	26	7	817
Peak Hour Factor		0.94				0.83				0.89				0.37			0.78
Peak Hour % Trucks		4%				2%				8%				6%			
Peak 15 Min % Trucks		2%				2%				4%				9%			

Intersection: NW Brady Road/NW 16th Avenue Date: 02/13/18

PM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
4:00 - 4:15 PM	6	23	25	3	25	21	26	0	26	28	1	0	7	33	7	0	228
4:15 - 4:30 PM	7	36	27	0	20	19	9	0	23	41	4	0	7	28	7	0	228
4:30 - 4:45 PM	8	25	23	1	24	13	23	1	26	27	2	0	25	20	4	0	220
4:45 - 5:00 PM	2	29	22	0	22	13	15	0	34	24	3	0	7	24	4	0	199
5:00 - 5:15 PM	1	59	25	2	24	6	26	0	34	47	1	0	2	25	1	0	251
5:15 - 5:30 PM	4	42	23	0	17	8	15	0	36	43	0	1	3	28	1	0	220
5:30 - 5:45 PM	4	31	32	0	20	12	30	0	34	42	1	1	5	27	0	0	238
5:45 - 6:00 PM	6	25	21	1	30	20	22	1	43	44	2	0	1	24	5	0	243
															Peak 15 Total		251
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	23	113	97	4	91	66	73	1	109	120	10	0	46	105	22	0	875
4:15 - 5:15 PM	18	149	97	3	90	51	73	1	117	139	10	0	41	97	16	0	898
4:30 - 5:30 PM	15	155	93	3	87	40	79	1	130	141	6	1	37	97	10	0	890
4:45 - 5:45 PM	11	161	102	2	83	39	86	0	138	156	5	2	17	104	6	0	908
5:00 - 6:00 PM	15	157	101	3	91	46	93	1	147	176	4	2	11	104	7	0	952
Peak Hour 5:00 - 6:00 PM	15	157	101	3	91	46	93	1	147	176	4	2	11	104	7	0	952
Peak Hour Factor		0.80				0.80				0.92				0.95			0.95
Peak Hour % Trucks		1%				0%				1%				0%			
Peak 15 Min % Trucks		2%				0%				0%				0%			

Intersection: NW 16th Avenue/NW Brady Road Date: 03/10/22

AM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
7:00 - 7:15 AM	2	15	3	1	6	5	31	1	5	4	1	0	0	2	1	1	75
7:15 - 7:30 AM	2	23	10	0	15	10	30	0	3	18	4	2	0	4	3	1	122
7:30 - 7:45 AM	4	20	8	1	12	5	37	0	12	14	7	1	1	7	0	1	127
7:45 - 8:00 AM	4	25	4	1	18	16	42	2	10	12	7	3	2	3	3	1	146
8:00 - 8:15 AM	5	33	3	3	19	21	45	0	11	18	10	2	3	8	3	0	179
8:15 - 8:30 AM	23	37	7	1	23	64	39	1	17	31	28	3	23	39	17	5	348
8:30 - 8:45 AM	14	27	19	4	36	29	40	3	16	17	18	4	23	42	31	1	312
8:45 - 9:00 AM	20	13	29	4	16	33	13	4	4	11	8	1	2	25	6	0	180
															Peak 15 Total		348
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	12	83	25	3	51	36	140	3	30	48	19	6	3	16	7	4	470
7:15 - 8:15 AM	15	101	25	5	64	52	154	2	36	62	28	8	6	22	9	3	574
7:30 - 8:30 AM	36	115	22	6	72	106	163	3	50	75	52	9	29	57	23	7	800
7:45 - 8:45 AM	46	122	33	9	96	130	166	6	54	78	63	12	51	92	54	7	985
8:00 - 9:00 AM	62	110	58	12	94	147	137	8	48	77	64	10	51	114	57	6	1,019
Peak Hour 8:00 - 9:00 AM	62	110	58	12	94	147	137	8	48	77	64	10	51	114	57	6	1,019
Peak Hour Factor		0.86				0.75				0.62				0.58			0.73
Peak Hour % Trucks		5%				2%				5%				3%			
Peak 15 Min % Trucks		1%				1%				4%				6%			

Intersection: NW 16th Avenue/NW Brady Road Date: 03/09/22

PM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
4:00 - 4:15 PM	3	30	32	3	25	20	16	3	24	33	2	2	7	29	1	1	222
4:15 - 4:30 PM	4	32	22	0	17	20	21	0	39	25	2	1	3	37	5	0	227
4:30 - 4:45 PM	3	30	25	0	24	16	21	1	40	28	6	1	6	24	8	0	231
4:45 - 5:00 PM	7	21	29	0	16	20	13	1	43	29	4	0	12	28	4	0	226
5:00 - 5:15 PM	6	41	29	2	19	18	23	0	31	30	3	0	8	25	7	0	240
5:15 - 5:30 PM	4	40	30	2	20	10	24	1	48	49	2	0	6	25	5	0	263
5:30 - 5:45 PM	4	38	22	0	19	8	27	0	36	40	1	0	10	20	1	0	226
5:45 - 6:00 PM	19	15	19	1	39	31	5	0	10	25	6	0	3	35	20	0	227
															Peak 15 Total		263
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	17	113	108	3	82	76	71	5	146	115	14	4	28	118	18	1	906
4:15 - 5:15 PM	20	124	105	2	76	74	78	2	153	112	15	2	29	114	24	0	924
4:30 - 5:30 PM	20	132	113	4	79	64	81	3	162	136	15	1	32	102	24	0	960
4:45 - 5:45 PM	21	140	110	4	74	56	87	2	158	148	10	0	36	98	17	0	955
5:00 - 6:00 PM	33	134	100	5	97	67	79	1	125	144	12	0	27	105	33	0	956
Peak Hour 4:30 - 5:30 PM	20	132	113	4	79	64	81	3	162	136	15	1	32	102	24	0	960
Peak Hour Factor		0.87				0.92				0.79				0.90			0.91
Peak Hour % Trucks		2%				1%				0%				0%			
Peak 15 Min % Trucks		3%				2%				0%				0%			

Intersection: NW 18th Avenue/NW Hancock Drive Date: 03/10/22

AM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
7:00 - 7:15 AM	0	0	0	0	0	49	0	0	0	0	2	0	3	17	0	2	71
7:15 - 7:30 AM	0	0	0	0	0	40	0	1	0	0	0	0	1	16	0	2	57
7:30 - 7:45 AM	0	0	0	0	0	53	0	0	0	0	0	0	0	25	0	2	78
7:45 - 8:00 AM	0	0	0	0	0	74	1	4	3	0	1	0	2	63	0	2	144
8:00 - 8:15 AM	0	0	0	0	0	43	2	1	1	0	1	0	1	39	0	1	87
8:15 - 8:30 AM	0	0	0	0	0	52	0	6	1	0	1	0	0	25	0	4	79
8:30 - 8:45 AM	0	0	0	0	0	66	1	2	0	0	2	0	0	28	0	2	97
8:45 - 9:00 AM	0	0	0	0	0	40	1	1	0	0	1	0	0	54	0	3	96
															Peak 15 Total		144
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	0	0	0	0	0	216	1	5	3	0	3	0	6	121	0	8	350
7:15 - 8:15 AM	0	0	0	0	0	210	3	6	4	0	2	0	4	143	0	7	366
7:30 - 8:30 AM	0	0	0	0	0	222	3	11	5	0	3	0	3	152	0	9	388
7:45 - 8:45 AM	0	0	0	0	0	235	4	13	5	0	5	0	3	155	0	9	407
8:00 - 9:00 AM	0	0	0	0	0	201	4	10	2	0	5	0	1	146	0	10	359
Peak Hour 7:45 - 8:45 AM	0	0	0	0	0	235	4	13	5	0	5	0	3	155	0	9	407
Peak Hour Factor		0.00				0.80				0.63				0.61			0.71
Peak Hour % Trucks		0%				5%				0%				6%			
Peak 15 Min % Trucks		0%				5%				0%				3%			

Intersection: NW 18th Avenue/NW Hancock Drive Date: 03/09/22

PM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
4:00 - 4:15 PM	0	0	0	0	0	46	0	3	0	0	1	0	2	51	0	2	100
4:15 - 4:30 PM	0	0	0	0	0	41	0	0	0	0	2	0	1	60	0	0	104
4:30 - 4:45 PM	0	0	0	0	0	28	1	0	0	0	4	0	0	55	0	0	88
4:45 - 5:00 PM	0	0	0	0	0	33	0	1	0	0	2	0	0	61	0	0	96
5:00 - 5:15 PM	0	0	0	0	0	36	0	0	0	0	1	0	0	48	0	0	85
5:15 - 5:30 PM	0	0	0	0	0	35	0	1	0	0	1	0	0	56	0	0	92
5:30 - 5:45 PM	0	0	0	0	0	36	0	0	0	0	1	0	2	46	0	0	85
5:45 - 6:00 PM	0	0	0	0	0	47	0	0	0	0	2	0	1	59	0	0	109
															Peak 15 Total		109
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	0	0	0	0	0	148	1	4	0	0	9	0	3	227	0	2	388
4:15 - 5:15 PM	0	0	0	0	0	138	1	1	0	0	9	0	1	224	0	0	373
4:30 - 5:30 PM	0	0	0	0	0	132	1	2	0	0	8	0	0	220	0	0	361
4:45 - 5:45 PM	0	0	0	0	0	140	0	2	0	0	5	0	2	211	0	0	358
5:00 - 6:00 PM	0	0	0	0	0	154	0	1	0	0	5	0	3	209	0	0	371
Peak Hour 4:00 - 5:00 PM	0	0	0	0	0	148	1	4	0	0	9	0	3	227	0	2	388
Peak Hour Factor		0.00				0.81				0.56				0.94			0.93
Peak Hour % Trucks		0%				3%				0%				1%			
Peak 15 Min % Trucks		0%				0%				0%				0%			

Intersection: NW 16th Avenue/NW Hood Street Date: 03/10/22
AM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
7:00 - 7:15 AM	0	33	0	1	0	0	0	0	0	21	0	0	0	0	0	0	54
7:15 - 7:30 AM	0	44	0	0	0	0	0	0	1	19	0	1	0	0	0	0	64
7:30 - 7:45 AM	0	50	0	0	0	0	0	0	0	19	0	2	0	0	0	0	69
7:45 - 8:00 AM	0	59	0	1	0	0	1	0	1	41	0	3	0	0	0	0	102
8:00 - 8:15 AM	0	60	0	2	0	0	0	0	0	38	0	3	0	0	0	0	98
8:15 - 8:30 AM	0	43	0	3	0	0	0	0	0	44	0	2	0	0	0	0	87
8:30 - 8:45 AM	0	64	0	5	0	0	0	0	0	36	0	4	0	0	0	0	100
8:45 - 9:00 AM	0	44	0	1	0	0	0	0	0	39	0	2	0	0	0	0	83
															Peak 15 Total		102
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	0	186	0	2	0	0	1	0	2	100	0	6	0	0	0	0	289
7:15 - 8:15 AM	0	213	0	3	0	0	1	0	2	117	0	9	0	0	0	0	333
7:30 - 8:30 AM	0	212	0	6	0	0	1	0	1	142	0	10	0	0	0	0	356
7:45 - 8:45 AM	0	226	0	11	0	0	1	0	1	159	0	12	0	0	0	0	387
8:00 - 9:00 AM	0	211	0	11	0	0	0	0	0	157	0	11	0	0	0	0	368
Peak Hour 7:45 - 8:45 AM	0	226	0	11	0	0	1	0	1	159	0	12	0	0	0	0	387
Peak Hour Factor		0.88				0.25				0.91				0.00			0.95
Peak Hour % Trucks		5%				0%				8%				0%			
Peak 15 Min % Trucks		2%				0%				7%				0%			

Intersection: NW 16th Avenue/NW Hood Street Date: 03/09/22
PM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
4:00 - 4:15 PM	0	44	0	1	0	0	0	0	0	56	0	5	0	0	0	0	100
4:15 - 4:30 PM	0	46	0	2	0	0	0	0	0	61	0	0	0	0	0	0	107
4:30 - 4:45 PM	0	42	0	1	0	0	0	0	0	65	0	0	0	0	0	0	107
4:45 - 5:00 PM	0	45	0	1	0	0	0	0	0	69	0	0	0	0	0	0	114
5:00 - 5:15 PM	0	42	0	0	0	0	1	0	0	48	0	0	0	0	0	0	91
5:15 - 5:30 PM	0	38	0	0	0	0	0	0	1	57	0	1	0	0	0	0	96
5:30 - 5:45 PM	0	44	0	1	0	0	0	0	0	59	0	1	0	0	0	0	103
5:45 - 6:00 PM	0	51	0	0	1	0	0	0	0	61	0	0	0	0	0	0	113
															Peak 15 Total		114
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	0	177	0	5	0	0	0	0	0	251	0	5	0	0	0	0	428
4:15 - 5:15 PM	0	175	0	4	0	0	1	0	0	243	0	0	0	0	0	0	419
4:30 - 5:30 PM	0	167	0	2	0	0	1	0	1	239	0	1	0	0	0	0	408
4:45 - 5:45 PM	0	169	0	2	0	0	1	0	1	233	0	2	0	0	0	0	404
5:00 - 6:00 PM	0	175	0	1	1	0	1	0	1	225	0	2	0	0	0	0	403
Peak Hour 4:00 - 5:00 PM	0	177	0	5	0	0	0	0	0	251	0	5	0	0	0	0	428
Peak Hour Factor		0.96				0.00				0.91				0.00			0.94
Peak Hour % Trucks		3%				0%				2%				0%			
Peak 15 Min % Trucks		2%				0%				0%				0%			

Intersection: NW Brady Road/NW McIntosh Road Date: 03/10/22

AM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
7:00 - 7:15 AM	0	66	2	0	1	0	21	0	13	28	0	0	0	0	0	0	131
7:15 - 7:30 AM	0	69	1	1	1	0	16	0	9	37	0	5	0	0	0	0	133
7:30 - 7:45 AM	0	99	2	1	0	0	36	1	4	43	0	4	0	0	0	0	184
7:45 - 8:00 AM	0	108	6	3	12	0	32	2	13	61	0	3	0	0	0	0	232
8:00 - 8:15 AM	0	64	6	2	3	0	25	0	5	29	0	1	0	0	0	0	132
8:15 - 8:30 AM	0	62	1	3	7	0	26	1	15	43	0	2	0	0	0	0	154
8:30 - 8:45 AM	0	65	3	1	5	0	19	0	12	43	0	1	0	0	0	0	147
8:45 - 9:00 AM	0	58	2	2	2	0	16	0	11	53	0	4	0	0	0	0	142
															Peak 15 Total		232
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	0	342	11	5	14	0	105	3	39	169	0	12	0	0	0	0	680
7:15 - 8:15 AM	0	340	15	7	16	0	109	3	31	170	0	13	0	0	0	0	681
7:30 - 8:30 AM	0	333	15	9	22	0	119	4	37	176	0	10	0	0	0	0	702
7:45 - 8:45 AM	0	299	16	9	27	0	102	3	45	176	0	7	0	0	0	0	665
8:00 - 9:00 AM	0	249	12	8	17	0	86	1	43	168	0	8	0	0	0	0	575
Peak Hour 7:30 - 8:30 AM	0	333	15	9	22	0	119	4	37	176	0	10	0	0	0	0	702
Peak Hour Factor		0.76				0.80				0.72				0.00			0.76
Peak Hour % Trucks		3%				3%				5%				0%			
Peak 15 Min % Trucks		3%				5%				4%				0%			

Intersection: NW Brady Road/NW McIntosh Road Date: 03/09/22

PM Peak Hour Turning Movement Volumes

	SB				WB				NB				EB				
Time	SBR	SBT	SBL	Trucks	WBR	WBT	WBL	Trucks	NBR	NBT	NBL	Trucks	EBR	EBT	EBL	Trucks	Total
15 Minute Totals																	
4:00 - 4:15 PM	0	47	4	1	7	0	22	2	26	50	0	0	0	0	0	0	156
4:15 - 4:30 PM	0	56	1	0	1	0	23	3	31	68	0	0	0	0	0	0	180
4:30 - 4:45 PM	0	53	2	0	4	0	14	1	25	77	0	1	0	0	0	0	175
4:45 - 5:00 PM	0	43	1	0	2	0	16	0	25	68	0	0	0	0	0	0	155
5:00 - 5:15 PM	0	76	3	3	1	0	21	0	16	78	0	0	0	0	0	0	195
5:15 - 5:30 PM	0	66	4	2	2	0	20	0	27	88	0	0	0	0	0	0	207
5:30 - 5:45 PM	0	62	6	0	3	0	13	0	19	72	0	0	0	0	0	0	175
5:45 - 6:00 PM	0	60	1	0	3	0	19	1	23	69	0	0	0	0	0	0	175
															Peak 15 Total		207
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	0	199	8	1	14	0	75	6	107	263	0	1	0	0	0	0	666
4:15 - 5:15 PM	0	228	7	3	8	0	74	4	97	291	0	1	0	0	0	0	705
4:30 - 5:30 PM	0	238	10	5	9	0	71	1	93	311	0	1	0	0	0	0	732
4:45 - 5:45 PM	0	247	14	5	8	0	70	0	87	306	0	0	0	0	0	0	732
5:00 - 6:00 PM	0	264	14	5	9	0	73	1	85	307	0	0	0	0	0	0	752
Peak Hour 5:00 - 6:00 PM	0	264	14	5	9	0	73	1	85	307	0	0	0	0	0	0	752
Peak Hour Factor		0.88				0.93				0.85				0.00			0.91
Peak Hour % Trucks		2%				1%				0%				0%			
Peak 15 Min % Trucks		3%				0%				0%				0%			

H. Lee & Associates, PLLC
P.O. Box 1849
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(360) 727-3119

18th Avenue Subdivision

Site Code:
Station ID:
NW 18th Avenue between
NW Hood Street and NW Hancock Drive
Latitude: 0' 0.0000 Undefined

Westbound

Start Time	0 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 9999	Total	85th Percent	95th Percent
03/14/22	0	0	0	1	5	2	0	**1**	0	0	0	0	0	0	9	39	47
01:00	0	0	0	1	3	1	1	0	0	0	0	0	0	0	6	40	43
02:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	29	29
03:00	0	0	0	1	3	1	0	0	**1**	0	0	0	0	0	6	50	53
04:00	0	0	0	5	10	5	0	0	0	0	0	0	0	0	20	37	39
05:00	0	0	0	7	29	20	1	0	0	0	0	0	0	0	57	38	39
06:00	1	0	4	25	49	23	**7**	0	0	0	0	0	0	0	109	37	41
07:00	4	**3**	**10**	34	**102**	28	1	1	0	0	0	0	0	**2**	185	35	38
08:00	1	1	8	**42**	96	**37**	0	1	0	0	**1**	0	0	0	**187**	36	39
09:00	1	0	4	31	58	21	4	0	0	**1**	0	0	0	1	121	36	39
10:00	**7**	0	2	31	35	18	5	0	0	0	0	0	0	1	99	37	40
11:00	0	1	3	28	54	32	4	1	0	0	0	0	0	0	123	37	39
12 PM	1	**2**	**8**	33	45	25	4	1	0	0	0	0	0	2	121	37	39
13:00	2	0	4	20	29	24	1	1	0	0	0	0	0	1	82	37	39
14:00	0	0	6	36	61	29	4	1	0	0	0	0	**1**	0	138	37	39
15:00	3	0	3	**38**	**78**	32	4	**3**	0	0	0	0	0	1	**162**	37	39
16:00	**5**	0	3	26	69	26	1	1	0	0	0	**1**	0	**4**	136	36	39
17:00	2	1	2	15	58	**36**	**10**	0	0	0	0	0	0	1	125	38	41
18:00	0	0	0	15	42	32	5	0	0	0	0	0	0	0	94	38	40
19:00	0	0	3	13	33	10	2	0	0	0	0	0	0	0	61	36	39
20:00	0	0	1	7	22	8	0	0	0	0	0	0	0	0	38	36	38
21:00	0	0	1	2	8	7	0	0	0	0	0	0	0	0	18	38	39
22:00	0	0	0	0	8	3	2	0	0	0	0	0	0	0	13	40	43
23:00	0	0	0	2	7	2	0	0	0	0	0	0	0	0	11	35	38
Total	27	8	62	414	904	422	56	11	1	1	1	1	1	13	1922		
Percent	1.4%	0.4%	3.2%	21.5%	47.0%	22.0%	2.9%	0.6%	0.1%	0.1%	0.1%	0.1%	0.1%	0.7%			
AM Peak	10:00	07:00	07:00	08:00	07:00	08:00	06:00	00:00	03:00	09:00	08:00			07:00	08:00		
Vol.	7	3	10	42	102	37	7	1	1	1	1			2	187		
PM Peak	16:00	12:00	12:00	15:00	15:00	17:00	17:00	15:00				16:00	14:00	16:00	15:00		
Vol.	5	2	8	38	78	36	10	3				1	1	4	162		

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Latitude: 0' 0.0000 Undefined

Westbound

Start Time	0 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 9999	Total	85th Percent	95th Percent
03/15/22	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	49	49
01:00	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2	38	39
02:00	0	0	0	1	1	1	0	0	0	0	0	0	0	0	3	37	39
03:00	0	0	0	4	7	1	0	0	0	0	0	0	0	0	12	34	36
04:00	0	0	0	6	10	3	1	1	0	0	0	0	0	0	21	38	44
05:00	0	0	1	6	28	14	**7**	0	0	0	0	0	0	0	56	39	43
06:00	0	2	5	30	71	16	2	0	**1**	0	0	0	0	0	127	34	38
07:00	2	**6**	4	39	**97**	**39**	2	0	0	0	0	0	0	0	**189**	36	39
08:00	**4**	4	7	**45**	82	34	5	**2**	1	0	0	0	0	**3**	187	37	39
09:00	4	1	**8**	24	52	32	4	0	0	0	0	0	0	1	126	37	39
10:00	4	0	2	29	41	29	2	0	0	0	0	0	0	1	108	37	39
11:00	2	0	4	19	53	27	3	1	0	0	0	0	**1**	0	110	37	39
12 PM	2	0	5	27	60	27	**9**	**1**	0	0	0	0	0	1	132	38	41
13:00	1	1	**7**	**35**	71	20	2	0	**1**	0	0	0	0	1	139	35	39
14:00	2	0	4	26	64	22	3	0	0	0	0	0	0	1	122	36	39
15:00	2	1	7	30	**86**	**35**	3	0	0	0	0	**1**	0	**2**	**167**	37	39
16:00	**4**	0	7	25	75	28	4	0	0	0	0	0	0	1	144	36	39
17:00	1	1	0	20	54	30	2	0	0	0	0	0	0	2	110	37	39
18:00	2	0	0	35	63	28	0	0	0	0	0	0	0	1	129	36	38
19:00	2	**3**	3	11	35	11	1	0	0	0	0	0	0	1	67	35	38
20:00	0	2	2	7	18	10	3	0	0	0	0	0	0	0	42	38	41
21:00	0	0	0	1	11	7	0	1	0	0	0	0	0	0	20	38	45
22:00	0	0	1	0	5	2	1	0	0	0	0	0	0	0	9	39	42
23:00	0	0	0	5	4	2	1	0	0	0	0	0	0	0	12	37	41
Total	32	21	67	426	988	419	55	7	3	0	0	1	1	15	2035		
Percent	1.6%	1.0%	3.3%	20.9%	48.6%	20.6%	2.7%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.7%			
AM Peak	08:00	07:00	09:00	08:00	07:00	07:00	05:00	08:00	06:00				11:00	08:00	07:00		
Vol.	4	6	8	45	97	39	7	2	1				1	3	189		
PM Peak	16:00	19:00	13:00	13:00	15:00	15:00	12:00	12:00	13:00			15:00		15:00	15:00		
Vol.	4	3	7	35	86	35	9	1	1			1		2	167		

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Westbound

Start Time	0 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 9999	Total	85th Percent	95th Percent
03/16/22	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	29	29
01:00	0	0	0	0	2	1	0	0	0	0	0	0	0	0	3	37	39
02:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	38	39
03:00	0	0	0	4	3	3	0	0	0	0	0	0	0	0	10	37	39
04:00	0	0	0	1	6	6	0	1	0	0	0	0	0	0	14	39	46
05:00	0	0	0	8	25	12	3	0	0	0	0	0	0	0	48	38	40
06:00	0	1	3	22	48	40	4	0	0	0	0	0	0	0	118	38	39
07:00	2	**4**	4	35	**90**	43	**7**	0	0	0	0	0	0	0	185	37	39
08:00	**4**	1	**9**	**37**	89	**48**	4	0	0	0	0	0	0	0	**192**	37	39
09:00	1	0	1	15	45	39	5	0	0	0	0	0	0	**2**	108	38	39
10:00	0	0	4	21	42	22	3	0	0	0	0	0	0	0	92	37	39
11:00	0	0	0	28	52	26	4	**2**	0	0	0	0	0	0	112	37	40
12 PM	2	5	**30**	**57**	37	23	1	0	0	0	0	0	0	0	**155**	35	38
13:00	**26**	**22**	27	27	28	9	4	1	0	**1**	0	0	0	3	148	33	39
14:00	3	4	5	40	64	29	1	0	0	0	0	0	0	2	148	36	38
15:00	0	0	2	17	64	28	**8**	0	0	0	0	0	**1**	0	120	38	41
16:00	6	2	6	27	61	**42**	5	1	0	0	0	**2**	0	3	155	38	40
17:00	3	0	5	21	**70**	40	6	0	0	0	0	0	0	**4**	149	38	39
18:00	1	0	6	29	65	29	3	**2**	0	1	0	0	0	2	138	37	39
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	48	39	102	390	792	441	58	7	0	2	0	2	1	16	1898		
Percent	2.5%	2.1%	5.4%	20.5%	41.7%	23.2%	3.1%	0.4%	0.0%	0.1%	0.0%	0.1%	0.1%	0.8%			
AM Peak	08:00	07:00	08:00	08:00	07:00	08:00	07:00	11:00						09:00	08:00		
Vol.	4	4	9	37	90	48	7	2						2	192		
PM Peak	13:00	13:00	12:00	12:00	17:00	16:00	15:00	18:00		13:00		16:00	15:00	17:00	12:00		
Vol.	26	22	30	57	70	42	8	2		1		2	1	4	155		
Grand Total	107	68	231	1230	2684	1282	169	25	4	3	1	4	3	44	5855		
Percent	1.8%	1.2%	3.9%	21.0%	45.8%	21.9%	2.9%	0.4%	0.1%	0.1%	0.0%	0.1%	0.1%	0.8%			

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Statistics

10 MPH Pace Speed :	31-40 MPH
Number in Pace :	3971
Percent in Pace :	67.8%
Number of Vehicles > 55 MPH :	55
Percent of Vehicles > 55 MPH :	0.9%
Mean Speed(Average) :	32 MPH

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Eastbound

Start Time	0 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 9999	Total	85th Percent	95th Percent
03/14/22	0	0	0	4	2	2	0	0	0	0	0	0	0	0	8	37	38
01:00	0	0	0	2	2	1	0	0	0	0	0	0	0	0	5	36	38
02:00	0	0	1	2	2	0	0	0	0	0	0	0	0	0	5	33	34
03:00	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	34	34
04:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	34	34
05:00	1	0	1	0	3	4	0	0	0	0	0	0	0	0	9	38	39
06:00	1	1	**8**	11	9	5	0	0	0	0	0	0	0	0	35	34	38
07:00	0	**4**	8	17	51	19	2	0	0	0	0	0	0	**2**	103	36	39
08:00	**3**	2	5	**31**	**67**	**26**	**5**	0	0	0	**1**	0	0	2	**142**	37	39
09:00	0	2	7	22	38	17	3	0	0	0	0	0	0	1	90	36	39
10:00	1	3	8	24	39	12	2	**1**	0	0	0	0	0	0	90	35	39
11:00	2	0	5	18	46	17	4	0	0	0	1	0	0	0	93	37	40
12 PM	0	0	6	31	55	19	3	**2**	**1**	0	0	0	0	1	118	36	40
13:00	1	**1**	6	21	46	23	3	0	0	0	0	0	0	1	102	37	39
14:00	0	0	3	33	89	30	0	0	0	**1**	0	0	0	0	156	36	38
15:00	**6**	1	**10**	**57**	102	31	3	1	0	0	0	0	**1**	**4**	**216**	35	39
16:00	2	0	2	38	100	35	4	0	0	0	0	0	0	3	184	36	39
17:00	2	1	5	40	**106**	**46**	**6**	1	0	1	0	0	0	3	211	37	39
18:00	1	1	5	26	70	31	5	0	0	0	0	0	0	0	139	37	39
19:00	1	1	2	21	52	21	2	0	0	0	0	0	0	1	101	36	39
20:00	0	0	4	16	36	16	2	2	0	0	0	0	0	0	76	37	40
21:00	0	0	3	7	30	5	2	0	0	0	0	0	0	0	47	34	39
22:00	1	1	2	5	14	7	0	0	0	0	0	0	0	0	30	36	38
23:00	0	0	0	6	12	4	1	0	0	0	0	0	0	0	23	36	39
Total	22	18	91	432	975	371	47	7	1	2	2	0	1	18	1987		
Percent	1.1%	0.9%	4.6%	21.7%	49.1%	18.7%	2.4%	0.4%	0.1%	0.1%	0.1%	0.0%	0.1%	0.9%			
AM Peak	08:00	07:00	06:00	08:00	08:00	08:00	08:00	10:00			08:00			07:00	08:00		
Vol.	3	4	8	31	67	26	5	1			1			2	142		
PM Peak	15:00	13:00	15:00	15:00	17:00	17:00	17:00	12:00	12:00	14:00			15:00	15:00	15:00		
Vol.	6	1	10	57	106	46	6	2	1	1			1	4	216		

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Eastbound

Start Time	0 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 9999	Total	85th Percent	95th Percent
03/15/22	0	0	0	1	5	2	0	0	**1**	0	0	0	0	0	9	39	52
01:00	0	0	0	1	3	0	1	0	0	0	0	0	0	0	5	41	43
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	1	0	1	0	0	0	0	0	0	0	2	43	44
04:00	0	0	0	1	1	1	0	0	0	0	0	0	0	0	3	37	39
05:00	0	0	1	0	3	1	0	0	0	0	0	0	0	0	5	36	38
06:00	1	**4**	7	8	11	6	0	0	0	0	0	0	0	0	37	35	38
07:00	4	0	3	25	41	10	3	**1**	0	**1**	0	0	0	0	88	35	41
08:00	**6**	1	**9**	**37**	**63**	29	3	0	0	0	0	0	0	1	**149**	36	39
09:00	0	0	1	15	46	14	3	1	0	0	0	0	0	0	80	37	39
10:00	0	1	4	31	33	21	2	0	0	0	0	0	0	0	92	37	39
11:00	4	0	3	17	54	**32**	**4**	0	0	1	0	0	0	**2**	117	38	39
12 PM	1	3	3	17	47	38	6	0	0	0	0	0	0	0	115	38	40
13:00	3	0	**11**	15	36	26	3	0	0	0	0	0	0	1	95	37	39
14:00	4	1	6	24	85	27	6	0	**1**	0	0	0	0	2	156	37	39
15:00	1	0	8	28	**130**	40	5	0	0	**1**	0	0	0	**3**	216	36	39
16:00	2	0	3	32	119	**56**	**7**	0	0	0	0	0	**1**	1	**221**	37	39
17:00	**6**	**4**	3	**37**	95	50	2	0	1	0	0	0	0	3	201	37	39
18:00	1	1	2	34	69	55	7	0	1	0	0	0	0	2	172	38	39
19:00	0	0	3	15	51	34	3	0	0	0	0	0	0	0	106	38	39
20:00	1	1	2	17	47	16	0	0	0	0	0	0	0	0	84	36	38
21:00	0	0	0	9	33	20	3	0	0	0	**1**	0	0	2	68	38	41
22:00	0	0	0	4	17	5	2	0	0	0	0	0	0	0	28	37	41
23:00	0	0	0	4	8	7	1	0	0	0	0	0	0	0	20	38	40
Total	34	16	69	372	998	490	62	2	4	3	1	0	1	17	2069		
Percent	1.6%	0.8%	3.3%	18.0%	48.2%	23.7%	3.0%	0.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.8%			
AM Peak	08:00	06:00	08:00	08:00	08:00	11:00	11:00	07:00	00:00	07:00				11:00	08:00		
Vol.	6	4	9	37	63	32	4	1	1	1				2	149		
PM Peak	17:00	17:00	13:00	17:00	15:00	16:00	16:00		14:00	15:00	21:00		16:00	15:00	16:00		
Vol.	6	4	11	37	130	56	7		1	1	1		1	3	221		

H. Lee & Associates, PLLC
P.O. Box 1849
Vancouver, WA 98668
(360) 727-3119

18th Avenue Subdivision

Site Code:
Station ID:
NW 18th Avenue between
NW Hood Street and NW Hancock Drive
Latitude: 0' 0.0000 Undefined

Eastbound

Start Time	0 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 9999	Total	85th Percent	95th Percent
03/16/22	0	0	0	2	6	5	3	0	0	0	0	0	0	0	16	41	43
01:00	0	0	0	1	3	0	0	0	0	0	0	0	0	0	4	34	34
02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	12	14
03:00	0	0	0	0	2	0	1	0	0	0	0	0	0	0	3	42	44
04:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	39	39
05:00	0	1	1	0	4	1	1	0	0	0	0	0	0	0	8	38	42
06:00	0	**4**	**9**	6	16	5	0	0	0	0	0	0	0	0	40	34	38
07:00	**2**	1	5	23	59	20	1	0	0	0	0	0	0	0	111	36	38
08:00	2	1	5	**32**	67	**24**	**6**	0	0	0	**1**	0	**1**	**1**	**140**	37	40
09:00	1	1	1	30	34	13	1	**1**	0	0	0	0	0	0	82	36	39
10:00	0	0	1	14	41	18	3	0	0	0	0	0	0	0	77	37	39
11:00	1	1	0	22	**68**	24	2	0	0	0	0	0	0	0	118	36	39
12 PM	2	1	5	48	65	22	1	0	0	0	0	0	0	2	146	35	38
13:00	**6**	**17**	**49**	47	31	20	1	0	**1**	0	0	0	0	1	173	34	38
14:00	4	3	22	35	65	23	2	0	0	**1**	0	0	0	1	156	35	38
15:00	3	3	14	38	83	42	0	**1**	0	0	0	0	0	0	184	36	39
16:00	1	3	1	23	**146**	**46**	3	1	0	0	0	0	0	1	**225**	36	39
17:00	3	2	2	31	108	46	3	0	0	0	0	0	**1**	**8**	204	37	39
18:00	1	3	8	**49**	88	30	**4**	0	0	0	0	0	0	2	185	36	39
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	27	41	123	401	886	340	32	3	1	1	1	0	2	16	1874		
Percent	1.4%	2.2%	6.6%	21.4%	47.3%	18.1%	1.7%	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%	0.9%			
AM Peak	07:00	06:00	06:00	08:00	11:00	08:00	08:00	09:00			08:00		08:00	08:00	08:00		
Vol.	2	4	9	32	68	24	6	1			1		1	1	140		
PM Peak	13:00	13:00	13:00	18:00	16:00	16:00	18:00	15:00	13:00	14:00			17:00	17:00	16:00		
Vol.	6	17	49	49	146	46	4	1	1	1			1	8	225		
Grand Total	83	75	283	1205	2859	1201	141	12	6	6	4	0	4	51	5930		
Percent	1.4%	1.3%	4.8%	20.3%	48.2%	20.3%	2.4%	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%	0.9%			

15th Percentile :	26 MPH
50th Percentile :	32 MPH
85th Percentile :	37 MPH
95th Percentile :	39 MPH

Statistics

10 MPH Pace Speed :	26-35 MPH
Number in Pace :	4068
Percent in Pace :	68.6%
Number of Vehicles > 55 MPH :	65
Percent of Vehicles > 55 MPH :	1.1%
Mean Speed(Average) :	32 MPH

H. Lee & Associates, PLLC
P.O. Box 1849
Vancouver, WA 98668
(360) 727-3119

Hood Street Subdivision

Site Code:
Station ID:
NW Hood Street between
NW 18th Avenue and NW 16th Avenue
Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
07/26/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	69	8	1	0	0	0	0	0	0	0	0	0	0	0	78	1-10	20
16:00	**135**	**20**	0	0	0	0	0	0	0	0	0	0	0	0	**155**	31-40	39
17:00	109	17	0	0	0	0	0	0	0	0	0	0	0	0	126	31-40	33
18:00	60	8	1	1	0	0	0	0	0	0	0	0	0	0	70	27-36	17
19:00	73	8	0	**4**	0	0	0	0	0	0	0	0	0	0	85	1-10	21
20:00	58	4	**2**	0	0	0	0	0	0	0	0	0	0	0	64	1-10	17
21:00	37	6	0	0	0	0	0	0	0	0	0	0	0	0	43	31-40	11
22:00	7	4	2	0	0	0	0	0	0	0	0	0	0	0	13	36-45	6
23:00	13	3	1	0	0	0	0	0	0	0	0	0	0	0	17	30-39	5
Total	561	78	7	5	0	0	0	0	0	0	0	0	0	0	651		
Percent	86.2%	12.0%	1.1%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	16:00 135	16:00 20	20:00 2	19:00 4											16:00 155		

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Hood Street Subdivision

Site Code:
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NW Hood Street between
NW 18th Avenue and NW 16th Avenue
Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
07/27/21	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	*	2
01:00	3	1	0	**1**	0	0	0	0	0	0	0	0	0	0	5	35-44	1
02:00	6	2	0	0	0	0	0	0	0	0	0	0	0	0	8	30-39	3
03:00	20	2	0	1	0	0	0	0	0	0	0	0	0	0	23	1-10	6
04:00	34	7	0	0	0	0	0	0	0	0	0	0	0	0	41	31-40	12
05:00	79	9	0	0	0	0	0	0	0	0	0	0	0	0	88	1-10	23
06:00	147	7	0	0	0	0	0	0	0	0	0	0	0	0	154	26-35	42
07:00	146	**16**	**2**	1	0	0	0	0	0	0	0	0	0	0	165	1-10	42
08:00	159	12	0	0	0	**1**	0	0	0	0	0	0	0	0	172	26-35	45
09:00	134	14	0	0	0	0	0	0	0	0	0	0	0	0	148	26-35	38
10:00	**161**	9	2	1	0	0	0	0	0	0	0	0	0	0	**173**	1-10	46
11:00	143	11	0	0	0	0	0	0	0	0	0	0	0	0	154	1-10	41
12 PM	132	10	0	0	0	0	0	0	0	0	0	0	0	0	142	1-10	38
13:00	115	14	2	1	0	0	0	0	0	0	0	0	0	0	132	1-10	33
14:00	122	9	1	0	0	0	0	0	0	0	0	0	0	0	132	1-10	35
15:00	**136**	**21**	**3**	0	0	0	0	0	0	0	0	0	0	0	**160**	31-40	40
16:00	124	21	0	1	0	0	0	0	0	0	0	0	0	0	146	31-40	39
17:00	108	18	3	0	0	0	0	0	0	0	0	0	0	0	129	31-40	33
18:00	66	11	0	0	0	0	0	0	0	0	0	0	0	0	77	31-40	20
19:00	71	9	0	0	0	0	0	0	0	0	0	0	0	0	80	27-36	20
20:00	45	7	0	**2**	0	0	0	0	0	0	0	0	0	0	54	31-40	13
21:00	36	1	2	0	0	**1**	0	0	0	0	0	0	0	0	40	26-35	10
22:00	9	2	1	0	0	0	0	0	0	0	0	0	0	0	12	36-45	3
23:00	17	1	2	1	0	0	0	0	0	0	0	0	0	0	21	1-10	5
Total	2019	214	18	9	0	2	0	0	0	0	0	0	0	0	2262		
Percent	89.3%	9.5%	0.8%	0.4%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	07:00	07:00	01:00		08:00									10:00		
Vol.	161	16	2	1		1									173		
PM Peak	15:00	15:00	15:00	20:00		21:00									15:00		
Vol.	136	21	3	2		1									160		

H. Lee & Associates, PLLC
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(360) 727-3119

Hood Street Subdivision

Site Code:
Station ID:
NW Hood Street between
NW 18th Avenue and NW 16th Avenue
Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
07/28/21	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	27-36	1
01:00	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8	31-40	2
02:00	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8	31-40	2
03:00	12	6	2	0	0	0	0	0	0	0	0	0	0	0	20	31-40	8
04:00	38	7	0	0	0	0	0	0	0	0	0	0	0	0	45	31-40	12
05:00	76	11	0	0	0	0	0	0	0	0	0	0	0	0	87	1-10	22
06:00	132	**24**	1	1	0	0	0	0	0	0	0	0	0	0	158	31-40	43
07:00	**158**	16	1	**2**	0	0	0	0	0	0	0	0	0	0	177	26-35	45
08:00	158	20	1	0	0	0	0	0	0	0	0	0	0	0	**179**	26-35	45
09:00	137	13	4	0	0	0	0	0	0	0	0	0	0	0	154	26-35	39
10:00	130	18	**7**	0	0	0	0	0	0	0	0	0	0	0	155	27-36	37
11:00	147	10	2	0	0	0	0	0	0	0	0	0	0	0	159	26-35	42
12 PM	**144**	13	0	0	0	0	0	0	0	0	0	0	0	0	**157**	26-35	41
13:00	130	13	0	0	0	0	0	0	0	0	0	0	0	0	143	26-35	37
14:00	123	10	0	0	0	0	0	0	0	0	0	0	0	0	133	26-35	35
15:00	130	16	1	0	0	0	0	0	0	0	0	0	0	0	147	26-35	37
16:00	134	20	2	**1**	0	0	0	0	0	0	0	0	0	0	157	31-40	39
17:00	96	**23**	**7**	0	0	0	0	0	0	0	0	0	0	0	126	31-40	37
18:00	73	8	0	0	0	0	0	0	0	0	0	0	0	0	81	1-10	21
19:00	66	7	1	0	0	0	0	0	0	0	0	0	0	0	74	1-10	19
20:00	66	6	0	0	0	0	0	0	0	0	0	0	0	0	72	1-10	19
21:00	31	5	3	0	0	0	0	0	0	0	0	0	0	0	39	32-41	9
22:00	19	2	0	0	0	0	0	0	0	0	0	0	0	0	21	28-37	5
23:00	8	2	1	0	0	0	0	0	0	0	0	0	0	0	11	36-45	3
Total	2026	252	33	4	0	0	0	0	0	0	0	0	0	0	2315		
Percent	87.5%	10.9%	1.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	06:00	10:00	07:00											08:00		
Vol.	158	24	7	2											179		
PM Peak	12:00	17:00	17:00	16:00											12:00		
Vol.	144	23	7	1											157		

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Hood Street Subdivision

Site Code:
Station ID:
NW Hood Street between
NW 18th Avenue and NW 16th Avenue
Latitude: 0' 0.0000 Undefined

Southbound

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
07/29/21	7	1	0	0	0	0	0	0	0	0	0	0	0	0	8	31-40	2
01:00	3	1	0	0	0	0	0	0	0	0	0	0	0	0	4	35-44	1
02:00	7	5	0	0	0	0	0	0	0	0	0	0	0	0	12	31-40	6
03:00	14	5	**2**	0	0	0	0	0	0	0	0	0	0	0	21	36-45	7
04:00	35	3	0	0	0	0	0	0	0	0	0	0	0	0	38	26-35	10
05:00	73	16	1	0	0	0	0	0	0	0	0	0	0	0	90	31-40	26
06:00	117	17	0	0	**1**	0	0	0	0	0	0	0	0	0	135	28-37	34
07:00	144	**22**	1	0	0	0	0	0	0	0	0	0	0	0	**167**	31-40	43
08:00	**153**	11	1	0	0	0	0	0	0	0	0	0	0	0	165	1-10	44
09:00	11	0	0	0	0	0	0	0	0	0	0	0	0	**1**	12	26-35	3
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	564	81	5	0	1	0	0	0	0	0	0	0	0	1	652		
Percent	86.5%	12.4%	0.8%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%			
AM Peak	08:00	07:00	03:00		06:00									09:00	07:00		
Vol.	153	22	2		1									1	167		
PM Peak																	
Vol.																	
Total	5170	625	63	18	1	2	0	0	0	0	0	0	0	1	5880		
Percent	87.9%	10.6%	1.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile :	5 MPH
50th Percentile :	19 MPH
85th Percentile :	33 MPH
95th Percentile :	38 MPH

Stats

10 MPH Pace Speed :	26-35 MPH
Number in Pace :	1477
Percent in Pace :	25.1%
Number of Vehicles > 55 MPH :	3
Percent of Vehicles > 55 MPH :	0.1%
Mean Speed(Average) :	21 MPH

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Hood Street Subdivision

Site Code:
Station ID:
NW Hood Street between
NW 18th Avenue and NW 16th Avenue
Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
07/26/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	91	3	1	0	0	0	0	0	0	0	0	0	0	0	95	26-35	26
16:00	**206**	**17**	1	0	0	0	0	0	0	0	0	0	0	**1**	**225**	1-10	59
17:00	191	12	**2**	0	0	0	0	0	0	0	0	0	0	0	205	1-10	55
18:00	139	8	0	0	0	0	0	0	0	0	0	0	0	0	147	1-10	40
19:00	114	8	0	0	0	0	0	0	0	0	0	0	0	0	122	1-10	33
20:00	105	1	1	0	0	**1**	0	0	0	0	0	0	0	0	108	26-35	30
21:00	63	2	0	0	0	0	0	0	0	0	0	0	0	0	65	26-35	18
22:00	33	2	0	0	0	0	0	0	0	0	0	0	0	0	35	26-35	9
23:00	18	3	1	**1**	0	0	0	0	0	0	0	0	0	0	23	31-40	6
Total	960	56	6	1	0	1	0	0	0	0	0	0	0	1	1025		
Percent	93.7%	5.5%	0.6%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%			
AM Peak Vol.																	
PM Peak Vol.	16:00 206	16:00 17	17:00 2	23:00 1		20:00 1								16:00 1	16:00 225		

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Hood Street Subdivision

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Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
07/27/21	5	1	0	0	0	0	0	0	0	0	0	0	0	0	6	28-37	2
01:00	6	1	**1**	0	0	0	0	0	0	0	0	0	0	0	8	*	2
02:00	2	1	0	0	0	0	0	0	0	0	0	0	0	0	3	35-44	1
03:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	*	1
04:00	5	0	1	0	0	0	0	0	0	0	0	0	0	0	6	41-50	1
05:00	24	0	0	0	0	0	0	0	0	0	0	0	0	0	24	1-10	7
06:00	52	1	0	0	0	0	0	0	0	0	0	0	0	0	53	1-10	15
07:00	101	2	0	0	0	0	0	0	0	0	0	0	0	0	103	1-10	29
08:00	82	4	0	**1**	0	0	0	0	0	0	0	0	0	0	87	26-35	23
09:00	129	5	0	0	0	0	0	0	0	0	0	0	0	0	134	1-10	37
10:00	**151**	3	0	0	0	0	0	0	0	0	0	0	0	0	**154**	26-35	43
11:00	138	**8**	0	0	0	0	0	0	0	0	0	0	0	0	146	26-35	39
12 PM	143	7	0	0	0	0	0	0	0	0	0	0	0	0	150	1-10	41
13:00	140	7	0	0	0	0	0	0	0	0	0	0	0	0	147	26-35	40
14:00	142	3	**1**	0	0	0	0	0	0	0	0	0	0	0	146	1-10	41
15:00	203	13	0	0	0	0	0	0	0	0	0	0	0	0	216	1-10	58
16:00	**211**	**15**	0	0	0	0	0	0	0	0	0	0	0	0	**226**	26-35	60
17:00	175	13	1	**1**	0	0	0	0	0	0	0	0	0	0	190	1-10	50
18:00	118	10	1	0	0	0	0	0	0	0	0	0	0	0	129	1-10	34
19:00	130	7	0	0	0	0	0	0	0	0	0	0	0	0	137	26-35	37
20:00	89	5	0	0	0	0	0	0	0	0	0	0	0	0	94	26-35	25
21:00	63	5	0	1	0	0	0	0	0	0	0	0	0	0	69	26-35	18
22:00	22	4	0	0	0	0	0	0	0	0	0	0	0	0	26	31-40	7
23:00	25	1	0	0	0	0	0	0	0	0	0	0	0	0	26	26-35	7
Total	2158	116	5	3	0	0	0	0	0	0	0	0	0	0	2282		
Percent	94.6%	5.1%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	10:00	11:00	01:00	08:00											10:00		
Vol.	151	8	1	1											154		
PM Peak	16:00	16:00	14:00	17:00											16:00		
Vol.	211	15	1	1											226		

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Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
07/28/21	6	3	**2**	0	0	0	0	0	0	0	0	0	0	0	11	34-43	5
01:00	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5	31-40	2
02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	35-44	*
03:00	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	*	2
04:00	6	3	0	0	0	0	0	0	0	0	0	0	0	0	9	31-40	4
05:00	17	2	0	0	0	0	0	0	0	0	0	0	0	0	19	1-10	5
06:00	65	5	0	0	0	0	0	0	0	0	0	0	0	0	70	1-10	19
07:00	99	5	0	0	0	0	0	0	0	0	0	0	0	0	104	26-35	28
08:00	112	6	0	0	0	0	0	0	0	0	0	0	0	0	118	26-35	32
09:00	112	4	0	0	0	0	0	0	0	0	0	0	0	0	116	26-35	32
10:00	107	9	1	0	0	0	0	0	0	0	0	0	0	0	117	1-10	31
11:00	**131**	**13**	0	0	0	0	0	0	0	0	0	0	0	0	**144**	26-35	37
12 PM	124	8	**3**	0	0	0	0	0	0	0	0	0	0	0	135	26-35	35
13:00	169	7	0	0	0	0	0	0	0	0	0	0	0	0	176	26-35	48
14:00	157	12	1	0	0	0	0	0	0	0	0	0	0	0	170	1-10	45
15:00	173	16	2	0	0	0	0	0	0	0	0	0	0	0	191	26-35	49
16:00	**206**	**20**	0	0	0	0	0	0	0	0	0	0	0	0	**226**	1-10	59
17:00	186	13	1	1	0	0	0	0	0	0	0	0	0	0	201	26-35	53
18:00	150	11	0	**2**	0	0	0	0	0	0	0	0	0	0	163	1-10	43
19:00	115	8	1	1	0	0	0	0	0	0	0	0	0	0	125	1-10	33
20:00	81	4	1	0	0	0	0	0	0	0	0	0	0	0	86	26-35	23
21:00	65	2	0	0	0	0	0	0	0	0	0	0	0	0	67	1-10	19
22:00	45	1	0	0	0	0	0	0	0	0	0	0	0	0	46	1-10	13
23:00	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19	26-35	5
Total	2156	153	12	4	0	0	0	0	0	0	0	0	0	0	2325		
Percent	92.7%	6.6%	0.5%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	00:00												11:00		
Vol.	131	13	2												144		
PM Peak	16:00	16:00	12:00	18:00											16:00		
Vol.	206	20	3	2											226		

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Latitude: 0' 0.0000 Undefined

Northbound

Start Time	1 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 80	81 85	86 90	91 95	96 999	Total	Pace Speed	Number in Pace
07/29/21	11	1	0	0	0	0	0	0	0	0	0	0	0	0	12	27-36	3
01:00	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	*	2
02:00	4	1	0	0	0	0	0	0	0	0	0	0	0	0	5	31-40	2
03:00	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	*	2
04:00	9	1	0	0	0	0	0	0	0	0	0	0	0	0	10	1-10	3
05:00	31	1	0	0	0	0	0	0	0	0	0	0	0	0	32	1-10	9
06:00	49	**4**	0	0	0	0	0	0	0	0	0	0	0	0	53	1-10	14
07:00	93	4	0	0	0	0	0	0	0	0	0	0	0	0	97	1-10	27
08:00	**132**	2	**1**	0	0	0	0	0	0	0	0	0	0	0	**135**	1-10	38
09:00	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	29-38	1
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	346	14	1	0	0	0	0	0	0	0	0	0	0	0	361		
Percent	95.8%	3.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	06:00	08:00												08:00		
Vol.	132	4	1												135		
PM Peak Vol.																	
Total	5620	339	24	8	0	1	0	0	0	0	0	0	0	1	5993		
Percent	93.8%	5.7%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

	15th Percentile :	5 MPH
	50th Percentile :	18 MPH
	85th Percentile :	31 MPH
	95th Percentile :	36 MPH
Stats	10 MPH Pace Speed :	1-10 MPH
	Number in Pace :	1606
	Percent in Pace :	26.8%
	Number of Vehicles > 55 MPH :	2
	Percent of Vehicles > 55 MPH :	0.0%
	Mean Speed(Average) :	19 MPH

APPENDIX B

EXISTING LEVEL OF SERVICE

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

04/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	68	156	92	156	256	92	112	124	68	28	148	92
Future Volume (vph)	68	156	92	156	256	92	112	124	68	28	148	92
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	280		0	270		0	210		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.944			0.960			0.947			0.942	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	1692	0	1787	1806	0	1736	1730	0	1787	1772	0
Flt Permitted	0.451			0.431			0.412			0.637		
Satd. Flow (perm)	808	1692	0	811	1806	0	753	1730	0	1198	1772	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		34			22			32			35	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2512			1232			660	
Travel Time (s)		17.5			48.9			24.0			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	6%	6%	1%	1%	1%	4%	4%	4%	1%	1%	1%
Adj. Flow (vph)	68	156	92	156	256	92	112	124	68	28	148	92
Shared Lane Traffic (%)												
Lane Group Flow (vph)	68	248	0	156	348	0	112	192	0	28	240	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

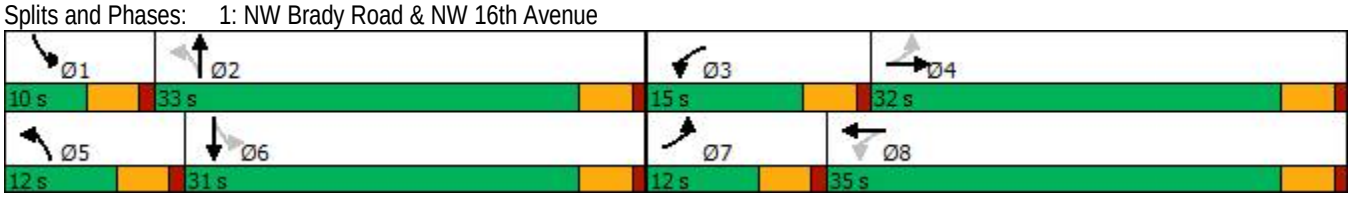
04/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	12.0	32.0		15.0	35.0		12.0	33.0		10.0	31.0	
Total Split (%)	13.3%	35.6%		16.7%	38.9%		13.3%	36.7%		11.1%	34.4%	
Maximum Green (s)	7.5	27.5		10.5	30.5		7.5	28.5		5.5	26.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	20.1	15.0		23.6	18.7		21.3	18.9		17.4	13.5	
Actuated g/C Ratio	0.35	0.26		0.41	0.33		0.37	0.33		0.30	0.23	
v/c Ratio	0.17	0.53		0.32	0.58		0.27	0.33		0.07	0.54	
Control Delay	11.9	23.3		12.9	22.3		15.1	17.4		13.8	24.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.9	23.3		12.9	22.3		15.1	17.4		13.8	24.8	
LOS	B	C		B	C		B	B		B	C	
Approach Delay		20.9			19.4			16.6			23.7	
Approach LOS		C			B			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 57.5
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.58
Intersection Signal Delay: 19.9 Intersection LOS: B
Intersection Capacity Utilization 57.8% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: NW Brady Road & NW 16th Avenue



Queues

1: NW Brady Road & NW 16th Avenue

04/12/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	68	248	156	348	112	192	28	240
v/c Ratio	0.17	0.53	0.32	0.58	0.27	0.33	0.07	0.54
Control Delay	11.9	23.3	12.9	22.3	15.1	17.4	13.8	24.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.9	23.3	12.9	22.3	15.1	17.4	13.8	24.8
Queue Length 50th (ft)	14	70	33	109	26	38	6	69
Queue Length 95th (ft)	38	154	77	216	67	119	23	154
Internal Link Dist (ft)		561		2432		1152		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	426	929	572	1051	436	970	430	951
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.16	0.27	0.27	0.33	0.26	0.20	0.07	0.25

Intersection Summary

HCM 6th Signalized Intersection Summary
1: NW Brady Road & NW 16th Avenue

04/12/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	68	156	92	156	256	92	112	124	68	28	148	92
Future Volume (veh/h)	68	156	92	156	256	92	112	124	68	28	148	92
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1885	1885	1885	1841	1841	1841	1885	1885	1885
Adj Flow Rate, veh/h	68	156	92	156	256	92	112	124	68	28	148	92
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	1	1	1	4	4	4	1	1	1
Cap, veh/h	353	246	145	443	349	125	382	277	152	400	215	133
Arrive On Green	0.06	0.23	0.23	0.10	0.26	0.26	0.08	0.25	0.25	0.03	0.20	0.20
Sat Flow, veh/h	1725	1068	630	1795	1324	476	1753	1118	613	1795	1087	676
Grp Volume(v), veh/h	68	0	248	156	0	348	112	0	192	28	0	240
Grp Sat Flow(s),veh/h/ln	1725	0	1698	1795	0	1800	1753	0	1730	1795	0	1763
Q Serve(g_s), s	1.3	0.0	6.0	2.9	0.0	8.1	2.3	0.0	4.3	0.6	0.0	5.8
Cycle Q Clear(g_c), s	1.3	0.0	6.0	2.9	0.0	8.1	2.3	0.0	4.3	0.6	0.0	5.8
Prop In Lane	1.00		0.37	1.00		0.26	1.00		0.35	1.00		0.38
Lane Grp Cap(c), veh/h	353	0	392	443	0	475	382	0	428	400	0	348
V/C Ratio(X)	0.19	0.00	0.63	0.35	0.00	0.73	0.29	0.00	0.45	0.07	0.00	0.69
Avail Cap(c_a), veh/h	527	0	1019	682	0	1198	524	0	1076	557	0	1020
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.4	0.0	15.9	11.8	0.0	15.4	13.1	0.0	14.6	13.8	0.0	17.1
Incr Delay (d2), s/veh	0.3	0.0	1.7	0.5	0.0	2.2	0.4	0.0	0.7	0.1	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	0.0	2.3	1.0	0.0	3.0	0.8	0.0	1.5	0.2	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.7	0.0	17.6	12.3	0.0	17.6	13.5	0.0	15.3	13.9	0.0	19.5
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		316			504			304			268	
Approach Delay, s/veh		16.5			16.0			14.7			18.9	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.0	15.8	8.9	15.1	8.3	13.5	7.4	16.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.5	28.5	10.5	27.5	7.5	26.5	7.5	30.5
Max Q Clear Time (g_c+I1), s	2.6	6.3	4.9	8.0	4.3	7.8	3.3	10.1
Green Ext Time (p_c), s	0.0	1.0	0.2	1.5	0.1	1.2	0.0	2.0

Intersection Summary	
HCM 6th Ctrl Delay	16.4
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hancock Drive & NW 18th Avenue

04/12/2022

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	252	8	4	296	4	12
Future Volume (vph)	252	8	4	296	4	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.899	
Flt Protected				0.999	0.988	
Satd. Flow (prot)	1837	0	0	1808	1688	0
Flt Permitted				0.999	0.988	
Satd. Flow (perm)	1837	0	0	1808	1688	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	672			668	634	
Travel Time (s)	13.1			13.0	17.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	5%	5%	0%	0%
Adj. Flow (vph)	252	8	4	296	4	12
Shared Lane Traffic (%)						
Lane Group Flow (vph)	260	0	0	300	16	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	252	8	4	296	4	12
Future Vol, veh/h	252	8	4	296	4	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	5	5	0	0
Mvmt Flow	252	8	4	296	4	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	260	0	560	256
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	304	-
Critical Hdwy	-	-	4.15	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.245	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1287	-	493	788
Stage 1	-	-	-	-	791	-
Stage 2	-	-	-	-	753	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1287	-	491	788
Mov Cap-2 Maneuver	-	-	-	-	491	-
Stage 1	-	-	-	-	791	-
Stage 2	-	-	-	-	750	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	684	-	-	1287	-
HCM Lane V/C Ratio	0.023	-	-	0.003	-
HCM Control Delay (s)	10.4	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings
3: NW 16th Avenue & NW Hood Street

04/12/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	0	164	4	0	236
Future Volume (vph)	4	0	164	4	0	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.997			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1770	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1770	0	0	1863
Link Speed (mph)	25		35			35
Link Distance (ft)	566		102			615
Travel Time (s)	15.4		2.0			12.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	7%	7%	2%	2%
Adj. Flow (vph)	4	0	164	4	0	236
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	168	0	0	236
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.4%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
3: NW 16th Avenue & NW Hood Street 04/12/2022

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	0	164	4	0	236
Future Vol, veh/h	4	0	164	4	0	236
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	7	7	2	2
Mvmt Flow	4	0	164	4	0	236

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	402	166	0	0	168	0
Stage 1	166	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	608	884	-	-	1410	-
Stage 1	868	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	608	884	-	-	1410	-
Mov Cap-2 Maneuver	608	-	-	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	808	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	608	1410	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s)	-	-	11	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lanes, Volumes, Timings
4: NW Brady Road & NW McIntosh Road 04/12/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	128	48	244	52	24	432
Future Volume (vph)	128	48	244	52	24	432
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140	0		0	100	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.976			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1719	1538	1783	0	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1719	1538	1783	0	1752	1845
Link Speed (mph)	35		40			35
Link Distance (ft)	919		673			1232
Travel Time (s)	17.9		11.5			24.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	5%	5%	4%	4%	3%	3%
Adj. Flow (vph)	128	48	244	52	24	432
Shared Lane Traffic (%)						
Lane Group Flow (vph)	128	48	296	0	24	432
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.5%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
4: NW Brady Road & NW McIntosh Road 04/12/2022

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	128	48	244	52	24	432
Future Vol, veh/h	128	48	244	52	24	432
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	140	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	5	5	4	4	3	3
Mvmt Flow	128	48	244	52	24	432

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	750	270	0	0	296	0
Stage 1	270	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.13	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.227	-
Pot Cap-1 Maneuver	375	761	-	-	1260	-
Stage 1	768	-	-	-	-	-
Stage 2	616	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	368	761	-	-	1260	-
Mov Cap-2 Maneuver	368	-	-	-	-	-
Stage 1	768	-	-	-	-	-
Stage 2	604	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.2	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	368	761	1260	-
HCM Lane V/C Ratio	-	-	0.348	0.063	0.019	-
HCM Control Delay (s)	-	-	19.9	10	7.9	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.5	0.2	0.1	-

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

04/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	100	24	96	40	80	8	196	192	120	160	16
Future Volume (vph)	20	100	24	96	40	80	8	196	192	120	160	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	280		0	270		0	210		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.900			0.926			0.986	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1845	0	1770	1676	0	1805	1759	0	1752	1819	0
Flt Permitted	0.680			0.463			0.646			0.366		
Satd. Flow (perm)	1292	1845	0	862	1676	0	1227	1759	0	675	1819	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			80			58			6	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2512			1232			660	
Travel Time (s)		17.5			48.9			24.0			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Adj. Flow (vph)	20	100	24	96	40	80	8	196	192	120	160	16
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	124	0	96	120	0	8	388	0	120	176	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

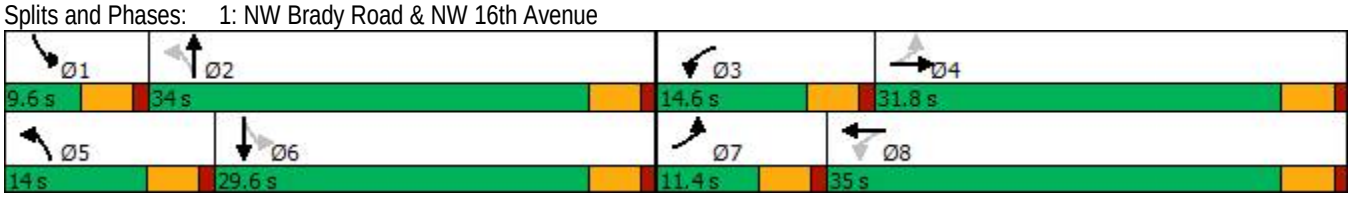
04/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	11.4	31.8		14.6	35.0		14.0	34.0		9.6	29.6	
Total Split (%)	12.7%	35.3%		16.2%	38.9%		15.6%	37.8%		10.7%	32.9%	
Maximum Green (s)	6.9	27.3		10.1	30.5		9.5	29.5		5.1	25.1	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	13.7	9.4		18.2	16.7		26.0	23.6		28.0	29.0	
Actuated g/C Ratio	0.26	0.18		0.34	0.31		0.49	0.44		0.53	0.54	
v/c Ratio	0.05	0.37		0.22	0.21		0.01	0.48		0.26	0.18	
Control Delay	13.6	24.5		14.4	9.1		9.2	17.1		11.1	12.4	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.6	24.5		14.4	9.1		9.2	17.1		11.1	12.4	
LOS	B	C		B	A		A	B		B	B	
Approach Delay		23.0			11.5			16.9			11.8	
Approach LOS		C			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 53.3
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.48
Intersection Signal Delay: 15.2 Intersection LOS: B
Intersection Capacity Utilization 55.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: NW Brady Road & NW 16th Avenue



Queues

1: NW Brady Road & NW 16th Avenue

04/12/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	20	124	96	120	8	388	120	176
v/c Ratio	0.05	0.37	0.22	0.21	0.01	0.48	0.26	0.18
Control Delay	13.6	24.5	14.4	9.1	9.2	17.1	11.1	12.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.6	24.5	14.4	9.1	9.2	17.1	11.1	12.4
Queue Length 50th (ft)	4	33	20	8	1	95	21	31
Queue Length 95th (ft)	18	90	57	54	8	201	55	100
Internal Link Dist (ft)		561		2432		1152		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	435	1061	516	1062	777	1081	470	989
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.05	0.12	0.19	0.11	0.01	0.36	0.26	0.18

Intersection Summary

HCM 6th Signalized Intersection Summary
1: NW Brady Road & NW 16th Avenue

04/12/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	100	24	96	40	80	8	196	192	120	160	16
Future Volume (veh/h)	20	100	24	96	40	80	8	196	192	120	160	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	20	100	24	96	40	80	8	196	192	120	160	16
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	3	3	3
Cap, veh/h	352	177	42	377	97	193	552	264	258	419	625	62
Arrive On Green	0.02	0.12	0.12	0.08	0.17	0.17	0.01	0.30	0.30	0.09	0.38	0.38
Sat Flow, veh/h	1810	1481	355	1781	557	1113	1810	881	863	1767	1660	166
Grp Volume(v), veh/h	20	0	124	96	0	120	8	0	388	120	0	176
Grp Sat Flow(s),veh/h/ln	1810	0	1836	1781	0	1670	1810	0	1745	1767	0	1826
Q Serve(g_s), s	0.4	0.0	2.8	2.0	0.0	2.8	0.1	0.0	8.7	1.9	0.0	2.9
Cycle Q Clear(g_c), s	0.4	0.0	2.8	2.0	0.0	2.8	0.1	0.0	8.7	1.9	0.0	2.9
Prop In Lane	1.00		0.19	1.00		0.67	1.00		0.49	1.00		0.09
Lane Grp Cap(c), veh/h	352	0	219	377	0	290	552	0	522	419	0	687
V/C Ratio(X)	0.06	0.00	0.57	0.25	0.00	0.41	0.01	0.00	0.74	0.29	0.00	0.26
Avail Cap(c_a), veh/h	595	0	1154	651	0	1173	929	0	1185	471	0	1055
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.1	0.0	18.1	14.8	0.0	16.0	10.4	0.0	13.7	9.4	0.0	9.3
Incr Delay (d2), s/veh	0.1	0.0	2.3	0.4	0.0	0.9	0.0	0.0	2.1	0.4	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	1.2	0.7	0.0	1.0	0.0	0.0	3.0	0.6	0.0	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.2	0.0	20.3	15.2	0.0	16.9	10.4	0.0	15.8	9.8	0.0	9.5
LnGrp LOS	B	A	C	B	A	B	B	A	B	A	A	A
Approach Vol, veh/h		144			216			396			296	
Approach Delay, s/veh		19.8			16.2			15.7			9.6	
Approach LOS		B			B			B			A	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.3	17.5	7.9	9.7	5.0	20.9	5.6	12.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	29.5	10.1	27.3	9.5	25.1	6.9	30.5
Max Q Clear Time (g_c+I1), s	3.9	10.7	4.0	4.8	2.1	4.9	2.4	4.8
Green Ext Time (p_c), s	0.0	2.3	0.1	0.6	0.0	0.8	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	14.7
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hancock Drive & NW 18th Avenue

04/12/2022

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	236	4	0	188	8	0
Future Volume (vph)	236	4	0	188	8	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998					
Flt Protected					0.950	
Satd. Flow (prot)	1896	0	0	1900	1805	0
Flt Permitted					0.950	
Satd. Flow (perm)	1896	0	0	1900	1805	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	672			668	634	
Travel Time (s)	13.1			13.0	17.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	236	4	0	188	8	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	240	0	0	188	8	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	236	4	0	188	8	0
Future Vol, veh/h	236	4	0	188	8	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	236	4	0	188	8	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	240	0	426	238
Stage 1	-	-	-	-	238	-
Stage 2	-	-	-	-	188	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1339	-	589	806
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	849	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1339	-	589	806
Mov Cap-2 Maneuver	-	-	-	-	589	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	849	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	589	-	-	1339	-
HCM Lane V/C Ratio	0.014	-	-	-	-
HCM Control Delay (s)	11.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Lanes, Volumes, Timings
3: NW 16th Avenue & NW Hood Street

04/12/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	0	276	0	0	180
Future Volume (vph)	0	0	276	0	0	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	1900	0	1900	0	0	1863
Flt Permitted						
Satd. Flow (perm)	1900	0	1900	0	0	1863
Link Speed (mph)	25		35			35
Link Distance (ft)	566		102			615
Travel Time (s)	15.4		2.0			12.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	2%	2%
Adj. Flow (vph)	0	0	276	0	0	180
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	276	0	0	180
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	0	276	0	0	180
Future Vol, veh/h	0	0	276	0	0	180
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	2	2
Mvmt Flow	0	0	276	0	0	180

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	456	276	0	0	276	0
Stage 1	276	-	-	-	-	-
Stage 2	180	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	566	768	-	-	1287	-
Stage 1	775	-	-	-	-	-
Stage 2	856	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	566	768	-	-	1287	-
Mov Cap-2 Maneuver	566	-	-	-	-	-
Stage 1	775	-	-	-	-	-
Stage 2	856	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	-	1287	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	-	-	0	0	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

Lanes, Volumes, Timings
4: NW Brady Road & NW McIntosh Road 04/12/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	80	8	352	108	16	264
Future Volume (vph)	80	8	352	108	16	264
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140	0		0	100	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.968			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1805	1615	1839	0	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1805	1615	1839	0	1752	1845
Link Speed (mph)	35		40			35
Link Distance (ft)	919		673			1232
Travel Time (s)	17.9		11.5			24.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	3%	3%
Adj. Flow (vph)	80	8	352	108	16	264
Shared Lane Traffic (%)						
Lane Group Flow (vph)	80	8	460	0	16	264
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 36.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	80	8	352	108	16	264
Future Vol, veh/h	80	8	352	108	16	264
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	140	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	3	3
Mvmt Flow	80	8	352	108	16	264

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	702	406	0	0	460	0
Stage 1	406	-	-	-	-	-
Stage 2	296	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	407	649	-	-	1096	-
Stage 1	677	-	-	-	-	-
Stage 2	759	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	401	649	-	-	1096	-
Mov Cap-2 Maneuver	401	-	-	-	-	-
Stage 1	677	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.7	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	401	649	1096	-
HCM Lane V/C Ratio	-	-	0.2	0.012	0.015	-
HCM Control Delay (s)	-	-	16.2	10.6	8.3	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0	0	-

APPENDIX C

ACCIDENT DATA

INTERSECTIONS

16th AVE @ BRADY RD
16th AVE @ HOOD ST - *No Reported Crashes*
18th AVE @ ASTOR ST - *No Reported Crashes*
18th AVE @ HANCOCK DR - *No Reported Crashes*
18th AVE @ HOOD ST - *No Reported Crashes*
ASTOR ST @ FOREST HOME RD - *No Reported Crashes*
BRADY RD @ MCINTOSH RD

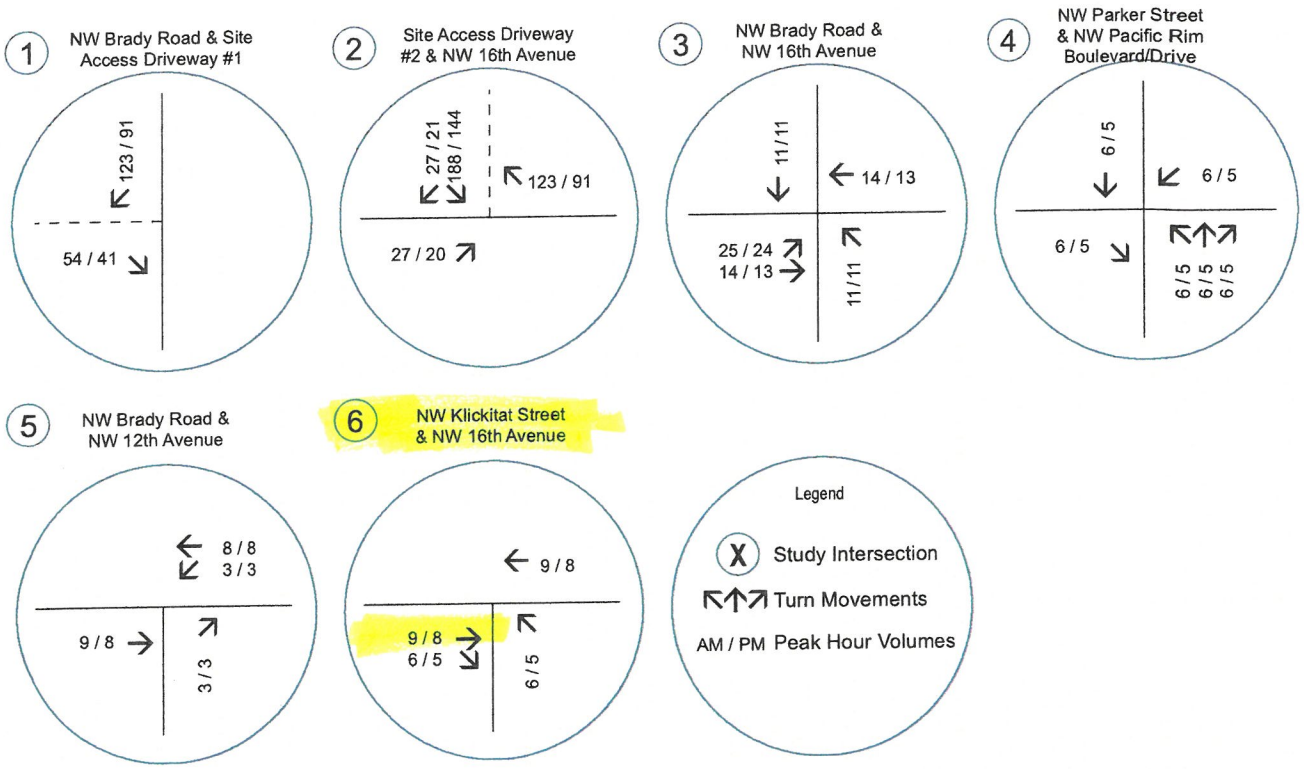
OFFICER REPORTED CRASHES THAT OCCURRED *at* or *in the vicnity of* MULTIPLE INTERSECTIONS IN THE CITY OF CAMAS
01/01/2017 - *available 2021* *See 2nd tab below for road information*

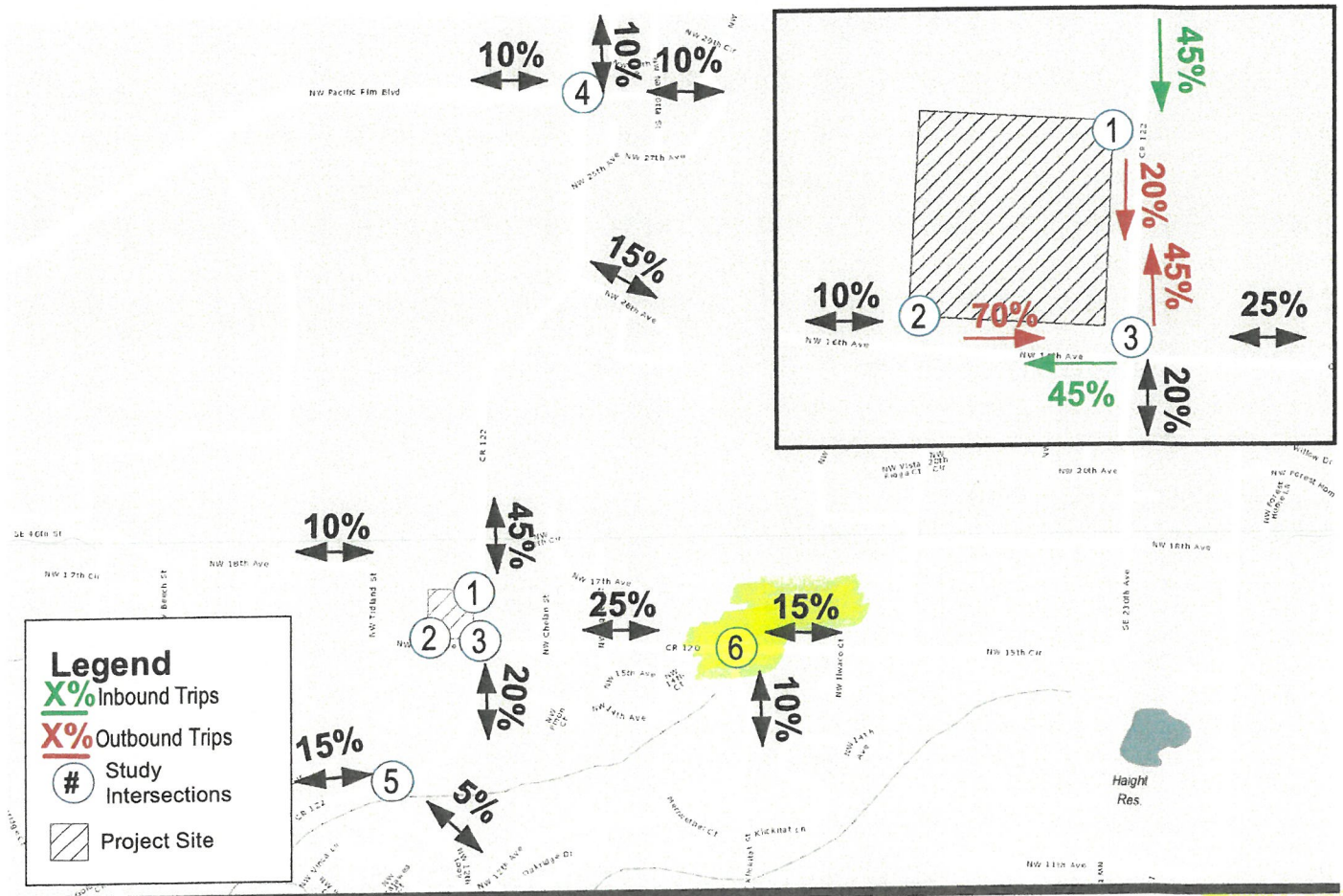
Under 23 U.S. Code § 148 and 23 U.S. Code § 407, safety data, reports, surveys, schedules, lists compiled or collected for the purpose of identifying, evaluating, or planning the safety enhancement of potential crash sites, hazardous roadway conditions, or railway-highway crossings are not subject to discovery or admitted into evidence in a Federal or State court proceeding or considered for other purposes in any action for damages arising from any occurrence at a location mentioned or addressed in such reports, surveys, schedules, lists, or data.

JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/ SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PEDS	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 TYPE	JUNCTION RELATIONSHIP	WEATHER	ROADWAY SURFACE CONDITION	LIGHTING CONDITION	FIRST COLLISION TYPE / OBJECT STRUCK	VEHICLE 1 ACTION	VEHICLE 2 ACTION	VEHICLE 1 COMPASS DIRECTION FROM	VEHICLE 1 COMPASS DIRECTION TO	VEHICLE 2 COMPASS DIRECTION FROM	VEHICLE 2 COMPASS DIRECTION TO	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 1)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 1 (UNIT 2)	MV DRIVER CONTRIBUTING CIRCUMSTANCE 2 (UNIT 2)	FIRST IMPACT LOCATION (City, County & Misc Trafficways - 2010 forward)	WA STATE PLANE SOUTH - X 2010 - FORWARD	WA STATE PLANE SOUTH - Y 2010 - FORWARD
City Street	Clark	Camas	NW 16TH AVE	0	NW BRADY RD							No	E927909	06/06/2019	17:27	Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Overcast	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Slowing	Stopped for Traffic	East	West	Vehicle Stopped	Vehicle Stopped	Unknown Distraction		None		Lane of Primary Trafficway	1140524.42	100033.23
City Street	Clark	Camas	NW 16TH AVE	0	NW BRADY RD							No	EA22449	03/10/2020	17:55	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Overcast	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	West	North	East	West	Did Not Grant RW to Vehicle		None		Lane of Primary Trafficway	1140524.42	100033.22
City Street	Clark	Camas	NW 16TH AVE	0	NW BRADY RD							No	EA13244	12/24/2019	21:00	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Raining	Wet	Dark-Street Lights On	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North	Did Not Grant RW to Vehicle		None		Lane of Primary Trafficway	1140524.42	100033.22
City Street	Clark	Camas	NW BRADY RD	0	NW 16TH AVE							No	E838168	09/05/2018	07:01	Suspected Minor Injury	1	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North	Did Not Grant RW to Vehicle		None		Lane of Primary Trafficway	1140524.42	100033.23
City Street	Clark	Camas	NW BRADY RD	0	NW 16TH AVE							No	EA17171	02/21/2020	14:20	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Making Right Turn	Going Straight Ahead	South	East	West	East	Other Contributing Circ Not Listed		None		Lane of Primary Trafficway	1140524.42	100033.22
City Street	Clark	Camas	NW BRADY RD	0	NW 16TH AVE							No	E697830	07/30/2017	19:59	Died in Hospital	1	1	2	0	0	Motorcycle	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Going Straight Ahead	North	South	West	East	Disregard Stop Sign - Flashing Red	Exceeding Reas. Safe Speed	None		Lane of Primary Trafficway	1140524.42	100033.23
City Street	Clark	Camas	NW BRADY RD	0	NW 16TH AVE							No	E984562	11/11/2019	08:52	No Apparent Injury	0	0	3	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - one left turn - one straight	Making Left Turn	Going Straight Ahead	North	East	South	North	Did Not Grant RW to Vehicle		None		Lane of Primary Trafficway	1140524.42	100033.22
City Street	Clark	Camas	NW BRADY RD	0	NW 16TH AVE							No	E708673	08/29/2017	22:21	Possible Injury	1	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Dark-Street Lights On	Entering at angle	Going Straight Ahead	Going Straight Ahead	West	East	North	South	None		Disregard Stop Sign - Flashing Red	Did Not Grant RW to Vehicle	Lane of Primary Trafficway	1140524.42	100033.23
City Street	Clark	Camas	NW BRADY RD	0	NW MCINTOSH RD							No	E829210	08/17/2017	12:09	Suspected Minor Injury	2	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Going Straight Ahead	Making Left Turn	South	North	East	South	None		Did Not Grant RW to Vehicle		Lane of Primary Trafficway	1139002.96	98479.44
City Street	Clark	Camas	NW BRADY RD	4600	NW MCINTOSH RD							No	E966063	09/08/2019	11:36	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Related	Overcast	Wet	Daylight	Linear Curb	Making Right Turn		Southeast	East			Under Influence of Alcohol				Intersecting Trafficway	1139024.47	98463.24
City Street	Clark	Camas	NW BRADY RD	0	NW MCINTOSH RD							No	E673603	05/21/2017	16:55	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Pickup,Panel Truck or Vanette under 10,000 lb	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	East	South	North	South	None		None		Lane of Primary Trafficway	1139002.96	98479.44
City Street	Clark	Camas	NW BRADY RD	0	NW MCINTOSH RD							No	E900545	03/06/2019	07:39	Possible Injury	1	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Sleet or Hail or Freezing Rain	Wet	Daylight	Entering at angle	Making Left Turn	Going Straight Ahead	East	South	South	North	Did Not Grant RW to Vehicle		None		Lane of Primary Trafficway	1139002.96	98479.44
City Street	Clark	Camas	NW BRADY RD	20900		106	F	S	NW 16TH AVE			No	E810631	06/16/2018	12:42	No Apparent Injury	0	0	2	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - both moving - sideswipe	Going Straight Ahead	Going Straight Ahead	North	South	North	South	Inattention		Inattention		Lane of Primary Trafficway	1140521.2	99926.95
City Street	Clark	Camas	NW BRADY RD	20800		500	F	S	NW 16TH AVE			No	E841548	09/24/2018	15:15	No Apparent Injury	0	0	2	0	0	Pickup,Panel Truck or Vanette under 10,000 lb	Passenger Car	Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	From opposite direction - both moving - head-on	Going Straight Ahead	Going Straight Ahead	South	North	North	South	Inattention		None		Lane of Primary Trafficway	1140463.87	99541.35
City Street	Clark	Camas	NW BRADY RD	20800		195	F	SW	NW MCINTOSH RD			No	EB22271	04/12/2021	19:13	Suspected Minor Injury	1	0	1	0	0	Motorcycle		Not at Intersection and Not Related	Clear	Dry	Daylight	Vehicle Strikes Deer	Going Straight Ahead		Southwest	Northeast			Other Contributing Circ Not Listed				Lane of Primary Trafficway	1138915.87	98304.51
City Street	Clark	Camas	NW BRADY RD	20600		417	F	SW	NW MCINTOSH RD			No	EB05875	02/05/2021	14:59	Suspected Minor Injury	2	0	3	0	0	Passenger Car	Pickup,Panel Truck or Vanette under 10,000 lb	Driveway Related but Not at Driveway	Overcast	Dry	Daylight	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	West	East	Vehicle Stopped	Vehicle Stopped	Follow Too Closely		None		Lane of Primary Trafficway	1138780.84	98127.04

APPENDIX D

IN-PROCESS INFORMATION





lancaster mobley

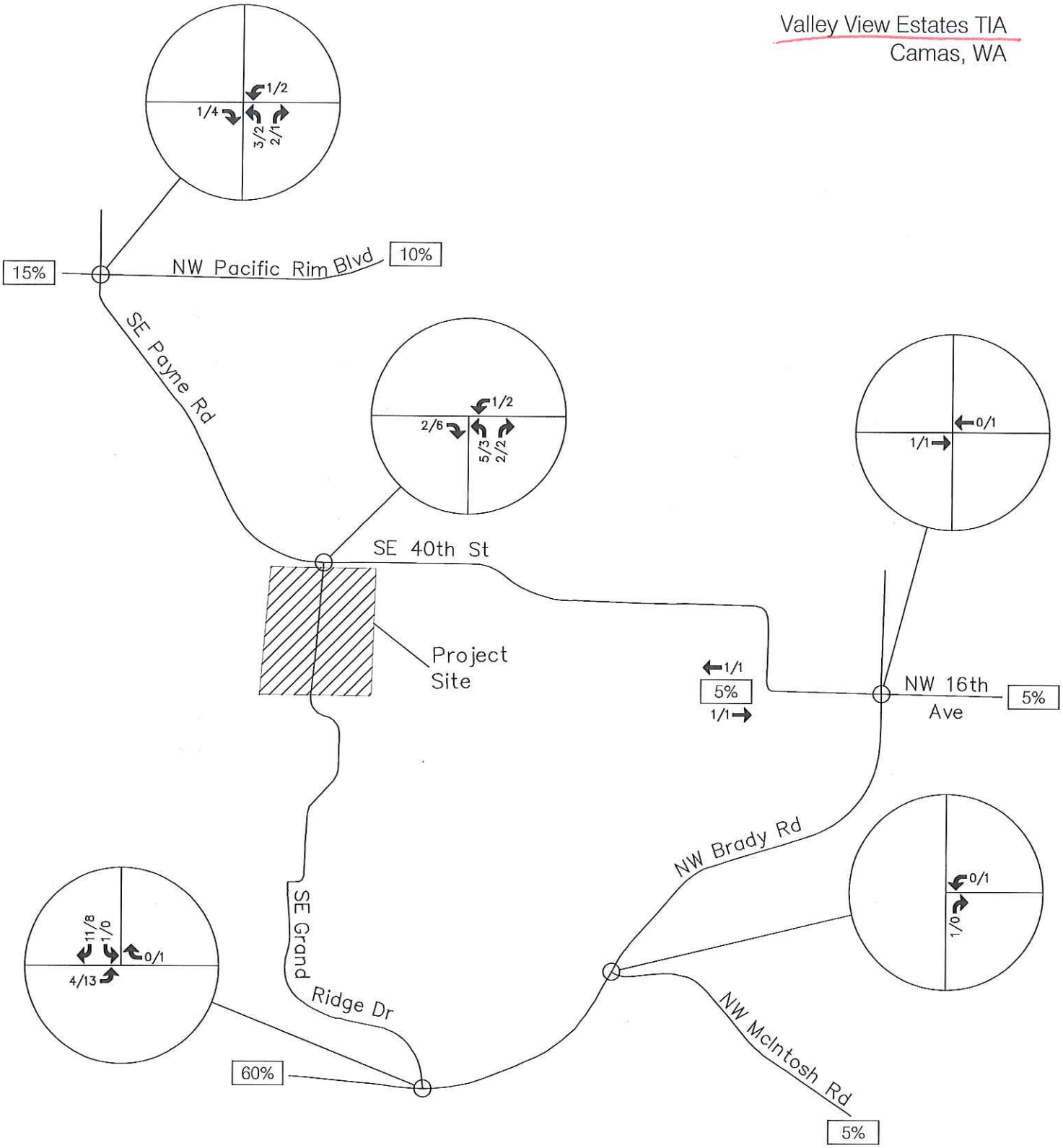
TRAFFIC VOLUMES
Trip Distribution & Assignment
AM & PM Peak Hour

NOT TO SCALE

Figure 3
Camas Station TIS
2/3/2022

0% Build-Out 8-12-21

Valley View Estates TIA
Camas, WA



LEGEND

128/200 A.M./P.M. Peak Hour Traffic Volume

10% Peak Hour Trip Distribution

NOT TO SCALE

FIGURE 6
Trip Distribution and Assignment
Traffic Volumes

18006_Figures.Dwg

APPENDIX E

2027 "WITHOUT PROJECT" LEVEL OF SERVICE

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

04/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	187	102	172	297	102	135	137	75	31	174	102
Future Volume (vph)	100	187	102	172	297	102	135	137	75	31	174	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	280		0	270		0	210		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.962			0.947			0.945	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	1697	0	1787	1810	0	1736	1730	0	1787	1778	0
Flt Permitted	0.391			0.348			0.328			0.625		
Satd. Flow (perm)	701	1697	0	655	1810	0	599	1730	0	1176	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			21			33			33	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2512			1232			660	
Travel Time (s)		17.5			48.9			24.0			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	6%	6%	1%	1%	1%	4%	4%	4%	1%	1%	1%
Adj. Flow (vph)	100	187	102	172	297	102	135	137	75	31	174	102
Shared Lane Traffic (%)												
Lane Group Flow (vph)	100	289	0	172	399	0	135	212	0	31	276	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

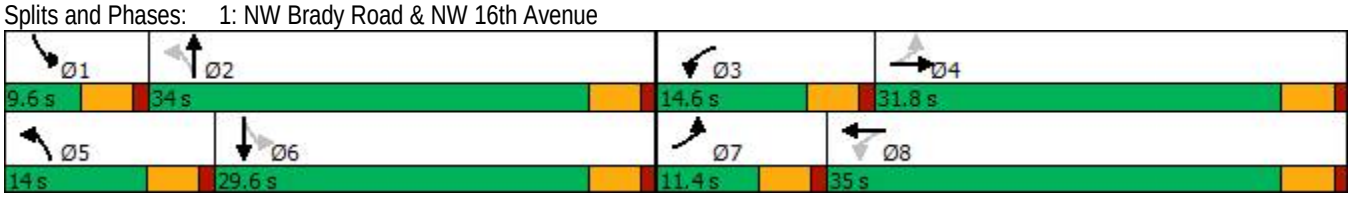
04/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	11.4	31.8		14.6	35.0		14.0	34.0		9.6	29.6	
Total Split (%)	12.7%	35.3%		16.2%	38.9%		15.6%	37.8%		10.7%	32.9%	
Maximum Green (s)	6.9	27.3		10.1	30.5		9.5	29.5		5.1	25.1	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	24.5	17.4		29.9	23.0		25.4	22.4		19.1	15.3	
Actuated g/C Ratio	0.37	0.26		0.45	0.34		0.38	0.34		0.29	0.23	
v/c Ratio	0.27	0.62		0.38	0.63		0.35	0.35		0.08	0.64	
Control Delay	14.6	27.7		15.2	26.0		16.9	17.9		14.6	29.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.6	27.7		15.2	26.0		16.9	17.9		14.6	29.8	
LOS	B	C		B	C		B	B		B	C	
Approach Delay		24.3			22.8			17.5			28.3	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 66.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 23.1 Intersection LOS: C
Intersection Capacity Utilization 65.2% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: NW Brady Road & NW 16th Avenue



Queues

1: NW Brady Road & NW 16th Avenue

04/12/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	100	289	172	399	135	212	31	276
v/c Ratio	0.27	0.62	0.38	0.63	0.35	0.35	0.08	0.64
Control Delay	14.6	27.7	15.2	26.0	16.9	17.9	14.6	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.6	27.7	15.2	26.0	16.9	17.9	14.6	29.8
Queue Length 50th (ft)	24	98	42	145	35	47	8	94
Queue Length 95th (ft)	59	198	94	274	83	136	26	195
Internal Link Dist (ft)		561		2432		1152		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	375	778	486	917	409	855	387	752
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.37	0.35	0.44	0.33	0.25	0.08	0.37

Intersection Summary

HCM 6th Signalized Intersection Summary
1: NW Brady Road & NW 16th Avenue

04/12/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	187	102	172	297	102	135	137	75	31	174	102
Future Volume (veh/h)	100	187	102	172	297	102	135	137	75	31	174	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1885	1885	1885	1841	1841	1841	1885	1885	1885
Adj Flow Rate, veh/h	100	187	102	172	297	102	135	137	75	31	174	102
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	1	1	1	4	4	4	1	1	1
Cap, veh/h	343	284	155	436	382	131	358	292	160	387	235	138
Arrive On Green	0.07	0.26	0.26	0.10	0.29	0.29	0.09	0.26	0.26	0.03	0.21	0.21
Sat Flow, veh/h	1725	1102	601	1795	1342	461	1753	1118	612	1795	1114	653
Grp Volume(v), veh/h	100	0	289	172	0	399	135	0	212	31	0	276
Grp Sat Flow(s),veh/h/ln	1725	0	1703	1795	0	1802	1753	0	1731	1795	0	1768
Q Serve(g_s), s	2.1	0.0	7.9	3.5	0.0	10.6	3.0	0.0	5.4	0.7	0.0	7.6
Cycle Q Clear(g_c), s	2.1	0.0	7.9	3.5	0.0	10.6	3.0	0.0	5.4	0.7	0.0	7.6
Prop In Lane	1.00		0.35	1.00		0.26	1.00		0.35	1.00		0.37
Lane Grp Cap(c), veh/h	343	0	439	436	0	514	358	0	452	387	0	372
V/C Ratio(X)	0.29	0.00	0.66	0.39	0.00	0.78	0.38	0.00	0.47	0.08	0.00	0.74
Avail Cap(c_a), veh/h	445	0	893	603	0	1056	528	0	981	500	0	852
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.3	0.0	17.3	12.6	0.0	17.1	14.5	0.0	16.2	15.2	0.0	19.2
Incr Delay (d2), s/veh	0.5	0.0	1.7	0.6	0.0	2.6	0.7	0.0	0.8	0.1	0.0	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	3.0	1.2	0.0	4.1	1.1	0.0	1.9	0.3	0.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.7	0.0	19.0	13.1	0.0	19.7	15.2	0.0	17.0	15.2	0.0	22.1
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	C
Approach Vol, veh/h		389			571			347			307	
Approach Delay, s/veh		17.6			17.7			16.3			21.4	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.3	18.1	9.7	17.9	8.9	15.5	8.3	19.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	29.5	10.1	27.3	9.5	25.1	6.9	30.5
Max Q Clear Time (g_c+I1), s	2.7	7.4	5.5	9.9	5.0	9.6	4.1	12.6
Green Ext Time (p_c), s	0.0	1.1	0.2	1.7	0.1	1.4	0.1	2.3

Intersection Summary	
HCM 6th Ctrl Delay	18.1
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hancock Drive & NW 18th Avenue

04/12/2022

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	278	9	4	327	4	13
Future Volume (vph)	278	9	4	327	4	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.897	
Flt Protected				0.999	0.988	
Satd. Flow (prot)	1837	0	0	1808	1684	0
Flt Permitted				0.999	0.988	
Satd. Flow (perm)	1837	0	0	1808	1684	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	672			668	634	
Travel Time (s)	13.1			13.0	17.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	5%	5%	0%	0%
Adj. Flow (vph)	278	9	4	327	4	13
Shared Lane Traffic (%)						
Lane Group Flow (vph)	287	0	0	331	17	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 30.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	278	9	4	327	4	13
Future Vol, veh/h	278	9	4	327	4	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	5	5	0	0
Mvmt Flow	278	9	4	327	4	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	287	0	618	283
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	335	-
Critical Hdwy	-	-	4.15	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.245	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1258	-	456	761
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	729	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1258	-	454	761
Mov Cap-2 Maneuver	-	-	-	-	454	-
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	726	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	657	-	-	1258	-
HCM Lane V/C Ratio	0.026	-	-	0.003	-
HCM Control Delay (s)	10.6	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings
3: NW 16th Avenue & NW Hood Street

04/12/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	14	0	185	14	0	266
Future Volume (vph)	14	0	185	14	0	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.991			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1760	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1760	0	0	1863
Link Speed (mph)	25		35			35
Link Distance (ft)	566		102			615
Travel Time (s)	15.4		2.0			12.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	7%	7%	2%	2%
Adj. Flow (vph)	14	0	185	14	0	266
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	199	0	0	266
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

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

HCM 6th TWSC
3: NW 16th Avenue & NW Hood Street 04/12/2022

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	14	0	185	14	0	266
Future Vol, veh/h	14	0	185	14	0	266
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	7	7	2	2
Mvmt Flow	14	0	185	14	0	266

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	458	192	0	0	199	0
Stage 1	192	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	565	855	-	-	1373	-
Stage 1	845	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	565	855	-	-	1373	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	845	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	565	1373	-
HCM Lane V/C Ratio	-	-	0.025	-	-
HCM Control Delay (s)	-	-	11.5	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lanes, Volumes, Timings
4: NW Brady Road & NW McIntosh Road 04/12/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	141	53	269	57	26	477
Future Volume (vph)	141	53	269	57	26	477
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140	0		0	100	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.976			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1719	1538	1783	0	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1719	1538	1783	0	1752	1845
Link Speed (mph)	35		40			35
Link Distance (ft)	919		673			1232
Travel Time (s)	17.9		11.5			24.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	5%	5%	4%	4%	3%	3%
Adj. Flow (vph)	141	53	269	57	26	477
Shared Lane Traffic (%)						
Lane Group Flow (vph)	141	53	326	0	26	477
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.6%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
4: NW Brady Road & NW McIntosh Road 04/12/2022

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	141	53	269	57	26	477
Future Vol, veh/h	141	53	269	57	26	477
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	140	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	5	5	4	4	3	3
Mvmt Flow	141	53	269	57	26	477

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	827	298	0	0	326	0
Stage 1	298	-	-	-	-	-
Stage 2	529	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.13	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.227	-
Pot Cap-1 Maneuver	337	734	-	-	1228	-
Stage 1	746	-	-	-	-	-
Stage 2	585	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	330	734	-	-	1228	-
Mov Cap-2 Maneuver	330	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	573	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.1	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	330	734	1228	-
HCM Lane V/C Ratio	-	-	0.427	0.072	0.021	-
HCM Control Delay (s)	-	-	23.8	10.3	8	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	2.1	0.2	0.1	-

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

04/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	124	26	106	58	88	20	216	212	132	188	18
Future Volume (vph)	46	124	26	106	58	88	20	216	212	132	188	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	280		0	270		0	210		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.910			0.926			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1851	0	1770	1695	0	1805	1759	0	1752	1821	0
Flt Permitted	0.664			0.522			0.629			0.320		
Satd. Flow (perm)	1262	1851	0	972	1695	0	1195	1759	0	590	1821	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			77			69			7	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2512			1232			660	
Travel Time (s)		17.5			48.9			24.0			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Adj. Flow (vph)	46	124	26	106	58	88	20	216	212	132	188	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	150	0	106	146	0	20	428	0	132	206	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

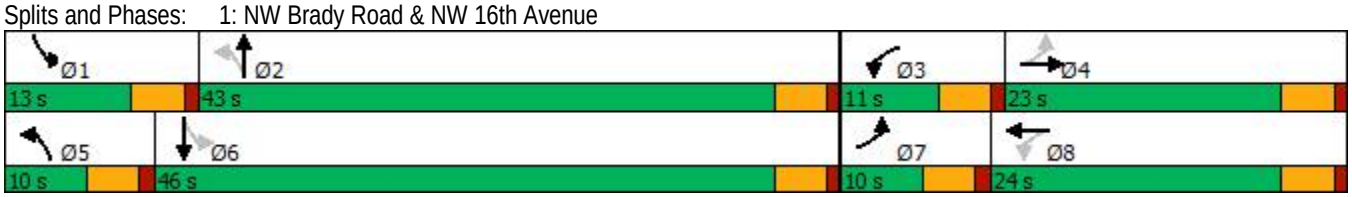
04/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	10.0	23.0		11.0	24.0		10.0	43.0		13.0	46.0	
Total Split (%)	11.1%	25.6%		12.2%	26.7%		11.1%	47.8%		14.4%	51.1%	
Maximum Green (s)	5.5	18.5		6.5	19.5		5.5	38.5		8.5	41.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	14.5	10.9		16.7	13.4		27.4	25.8		32.1	33.2	
Actuated g/C Ratio	0.26	0.19		0.30	0.24		0.48	0.46		0.57	0.59	
v/c Ratio	0.12	0.41		0.27	0.32		0.03	0.51		0.26	0.19	
Control Delay	16.8	27.3		18.0	15.2		8.4	17.8		9.8	10.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.8	27.3		18.0	15.2		8.4	17.8		9.8	10.8	
LOS	B	C		B	B		A	B		A	B	
Approach Delay		24.8			16.4			17.4			10.4	
Approach LOS		C			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 56.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.51
Intersection Signal Delay: 16.5 Intersection LOS: B
Intersection Capacity Utilization 60.6% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: NW Brady Road & NW 16th Avenue



Queues

1: NW Brady Road & NW 16th Avenue

04/12/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	46	150	106	146	20	428	132	206
v/c Ratio	0.12	0.41	0.27	0.32	0.03	0.51	0.26	0.19
Control Delay	16.8	27.3	18.0	15.2	8.4	17.8	9.8	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.8	27.3	18.0	15.2	8.4	17.8	9.8	10.8
Queue Length 50th (ft)	11	47	26	22	3	117	24	37
Queue Length 95th (ft)	37	113	72	77	13	228	55	107
Internal Link Dist (ft)		561		2432		1152		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	386	739	405	751	651	1220	546	1311
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.20	0.26	0.19	0.03	0.35	0.24	0.16

Intersection Summary

HCM 6th Signalized Intersection Summary
1: NW Brady Road & NW 16th Avenue

04/12/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	124	26	106	58	88	20	216	212	132	188	18
Future Volume (veh/h)	46	124	26	106	58	88	20	216	212	132	188	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	46	124	26	106	58	88	20	216	212	132	188	18
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	3	3	3
Cap, veh/h	343	199	42	360	109	165	563	284	279	403	642	61
Arrive On Green	0.05	0.13	0.13	0.08	0.16	0.16	0.02	0.32	0.32	0.09	0.39	0.39
Sat Flow, veh/h	1810	1523	319	1781	670	1017	1810	880	864	1767	1667	160
Grp Volume(v), veh/h	46	0	150	106	0	146	20	0	428	132	0	206
Grp Sat Flow(s),veh/h/ln	1810	0	1843	1781	0	1687	1810	0	1744	1767	0	1827
Q Serve(g_s), s	1.0	0.0	3.6	2.4	0.0	3.8	0.3	0.0	10.4	2.2	0.0	3.7
Cycle Q Clear(g_c), s	1.0	0.0	3.6	2.4	0.0	3.8	0.3	0.0	10.4	2.2	0.0	3.7
Prop In Lane	1.00		0.17	1.00		0.60	1.00		0.50	1.00		0.09
Lane Grp Cap(c), veh/h	343	0	241	360	0	274	563	0	563	403	0	704
V/C Ratio(X)	0.13	0.00	0.62	0.29	0.00	0.53	0.04	0.00	0.76	0.33	0.00	0.29
Avail Cap(c_a), veh/h	467	0	720	463	0	695	729	0	1419	567	0	1602
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.4	0.0	19.5	15.9	0.0	18.2	10.2	0.0	14.4	10.1	0.0	10.1
Incr Delay (d2), s/veh	0.2	0.0	2.6	0.5	0.0	1.6	0.0	0.0	2.2	0.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.6	0.9	0.0	1.4	0.1	0.0	3.6	0.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	22.1	16.3	0.0	19.8	10.2	0.0	16.5	10.5	0.0	10.3
LnGrp LOS	B	A	C	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		196			252			448			338	
Approach Delay, s/veh		20.8			18.3			16.3			10.4	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.6	19.8	8.3	10.7	5.7	22.7	6.8	12.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	38.5	6.5	18.5	5.5	41.5	5.5	19.5
Max Q Clear Time (g_c+I1), s	4.2	12.4	4.4	5.6	2.3	5.7	3.0	5.8
Green Ext Time (p_c), s	0.1	2.8	0.0	0.6	0.0	1.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hancock Drive & NW 18th Avenue 04/12/2022

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	261	4	0	208	9	0
Future Volume (vph)	261	4	0	208	9	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998					
Flt Protected					0.950	
Satd. Flow (prot)	1896	0	0	1900	1805	0
Flt Permitted					0.950	
Satd. Flow (perm)	1896	0	0	1900	1805	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	672			668	634	
Travel Time (s)	13.1			13.0	17.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	261	4	0	208	9	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	265	0	0	208	9	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

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

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	261	4	0	208	9	0
Future Vol, veh/h	261	4	0	208	9	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	261	4	0	208	9	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	265	0	471	263
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	208	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1311	-	555	781
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	832	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	555	781
Mov Cap-2 Maneuver	-	-	-	-	555	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	832	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	555	-	-	1311	-
HCM Lane V/C Ratio	0.016	-	-	-	-
HCM Control Delay (s)	11.6	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

Lanes, Volumes, Timings
3: NW 16th Avenue & NW Hood Street

04/12/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	8	0	311	8	0	203
Future Volume (vph)	8	0	311	8	0	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.997			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1894	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1894	0	0	1863
Link Speed (mph)	25		35			35
Link Distance (ft)	566		102			615
Travel Time (s)	15.4		2.0			12.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	2%	2%
Adj. Flow (vph)	8	0	311	8	0	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	8	0	319	0	0	203
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.9%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
3: NW 16th Avenue & NW Hood Street 04/12/2022

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	0	311	8	0	203
Future Vol, veh/h	8	0	311	8	0	203
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	2	2
Mvmt Flow	8	0	311	8	0	203

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	518	315	0	0	319	0
Stage 1	315	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	521	730	-	-	1241	-
Stage 1	744	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	521	730	-	-	1241	-
Mov Cap-2 Maneuver	521	-	-	-	-	-
Stage 1	744	-	-	-	-	-
Stage 2	836	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	521	1241	-
HCM Lane V/C Ratio	-	-	0.015	-	-
HCM Control Delay (s)	-	-	12	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Lanes, Volumes, Timings
4: NW Brady Road & NW McIntosh Road 04/12/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	88	9	389	119	18	291
Future Volume (vph)	88	9	389	119	18	291
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140	0		0	100	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.968			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1805	1615	1839	0	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1805	1615	1839	0	1752	1845
Link Speed (mph)	35		40			35
Link Distance (ft)	919		673			1232
Travel Time (s)	17.9		11.5			24.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	3%	3%
Adj. Flow (vph)	88	9	389	119	18	291
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	9	508	0	18	291
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.3%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
4: NW Brady Road & NW McIntosh Road 04/12/2022

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	9	389	119	18	291
Future Vol, veh/h	88	9	389	119	18	291
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	140	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	3	3
Mvmt Flow	88	9	389	119	18	291

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	776	449	0	0	508	0
Stage 1	449	-	-	-	-	-
Stage 2	327	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	369	614	-	-	1052	-
Stage 1	647	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	363	614	-	-	1052	-
Mov Cap-2 Maneuver	363	-	-	-	-	-
Stage 1	647	-	-	-	-	-
Stage 2	723	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.4	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	363	614	1052	-
HCM Lane V/C Ratio	-	-	0.242	0.015	0.017	-
HCM Control Delay (s)	-	-	18.1	11	8.5	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	0.9	0	0.1	-

APPENDIX F

2027 "WITH PROJECT" LEVEL OF SERVICE

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

04/19/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	188	102	179	301	104	135	137	77	32	174	102
Future Volume (vph)	100	188	102	179	301	104	135	137	77	32	174	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	280		0	270		0	210		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.947			0.961			0.946			0.945	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	1697	0	1787	1808	0	1736	1728	0	1787	1778	0
Flt Permitted	0.388			0.344			0.328			0.624		
Satd. Flow (perm)	695	1697	0	647	1808	0	599	1728	0	1174	1778	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			21			33			32	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2512			1232			660	
Travel Time (s)		17.5			48.9			24.0			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	6%	6%	6%	1%	1%	1%	4%	4%	4%	1%	1%	1%
Adj. Flow (vph)	100	188	102	179	301	104	135	137	77	32	174	102
Shared Lane Traffic (%)												
Lane Group Flow (vph)	100	290	0	179	405	0	135	214	0	32	276	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

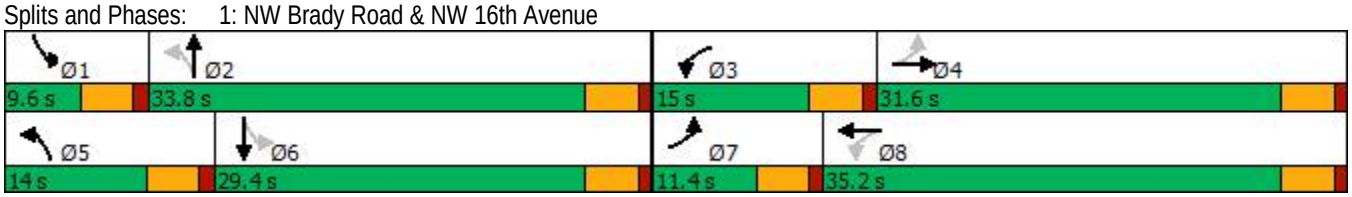
04/19/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	11.4	31.6		15.0	35.2		14.0	33.8		9.6	29.4	
Total Split (%)	12.7%	35.1%		16.7%	39.1%		15.6%	37.6%		10.7%	32.7%	
Maximum Green (s)	6.9	27.1		10.5	30.7		9.5	29.3		5.1	24.9	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	24.6	17.4		30.3	23.3		25.5	22.4		19.1	15.4	
Actuated g/C Ratio	0.37	0.26		0.45	0.35		0.38	0.33		0.29	0.23	
v/c Ratio	0.28	0.63		0.40	0.63		0.35	0.36		0.08	0.64	
Control Delay	14.7	28.1		15.3	26.2		17.1	18.1		14.8	30.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.7	28.1		15.3	26.2		17.1	18.1		14.8	30.1	
LOS	B	C		B	C		B	B		B	C	
Approach Delay		24.6			22.9			17.7			28.5	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 67
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 23.2 Intersection LOS: C
Intersection Capacity Utilization 65.6% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: NW Brady Road & NW 16th Avenue



Queues

1: NW Brady Road & NW 16th Avenue

04/19/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	100	290	179	405	135	214	32	276
v/c Ratio	0.28	0.63	0.40	0.63	0.35	0.36	0.08	0.64
Control Delay	14.7	28.1	15.3	26.2	17.1	18.1	14.8	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.7	28.1	15.3	26.2	17.1	18.1	14.8	30.1
Queue Length 50th (ft)	24	99	44	149	35	48	8	96
Queue Length 95th (ft)	59	201	98	280	83	138	27	197
Internal Link Dist (ft)		561		2432		1152		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	372	768	494	917	407	844	386	742
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.38	0.36	0.44	0.33	0.25	0.08	0.37

Intersection Summary

HCM 6th Signalized Intersection Summary
1: NW Brady Road & NW 16th Avenue

04/19/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	100	188	102	179	301	104	135	137	77	32	174	102
Future Volume (veh/h)	100	188	102	179	301	104	135	137	77	32	174	102
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1811	1811	1811	1885	1885	1885	1841	1841	1841	1885	1885	1885
Adj Flow Rate, veh/h	100	188	102	179	301	104	135	137	77	32	174	102
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	6	6	6	1	1	1	4	4	4	1	1	1
Cap, veh/h	341	284	154	439	386	133	356	288	162	384	234	137
Arrive On Green	0.07	0.26	0.26	0.10	0.29	0.29	0.09	0.26	0.26	0.04	0.21	0.21
Sat Flow, veh/h	1725	1104	599	1795	1339	463	1753	1107	622	1795	1114	653
Grp Volume(v), veh/h	100	0	290	179	0	405	135	0	214	32	0	276
Grp Sat Flow(s),veh/h/ln	1725	0	1703	1795	0	1802	1753	0	1729	1795	0	1768
Q Serve(g_s), s	2.2	0.0	8.0	3.7	0.0	10.8	3.1	0.0	5.5	0.7	0.0	7.7
Cycle Q Clear(g_c), s	2.2	0.0	8.0	3.7	0.0	10.8	3.1	0.0	5.5	0.7	0.0	7.7
Prop In Lane	1.00		0.35	1.00		0.26	1.00		0.36	1.00		0.37
Lane Grp Cap(c), veh/h	341	0	438	439	0	519	356	0	449	384	0	371
V/C Ratio(X)	0.29	0.00	0.66	0.41	0.00	0.78	0.38	0.00	0.48	0.08	0.00	0.74
Avail Cap(c_a), veh/h	442	0	880	612	0	1055	524	0	966	495	0	839
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	13.4	0.0	17.4	12.6	0.0	17.1	14.7	0.0	16.4	15.3	0.0	19.4
Incr Delay (d2), s/veh	0.5	0.0	1.7	0.6	0.0	2.6	0.7	0.0	0.8	0.1	0.0	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	3.1	1.3	0.0	4.2	1.1	0.0	2.0	0.3	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.9	0.0	19.2	13.2	0.0	19.7	15.3	0.0	17.2	15.4	0.0	22.3
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	C
Approach Vol, veh/h		390			584			349			308	
Approach Delay, s/veh		17.8			17.7			16.5			21.6	
Approach LOS		B			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.4	18.1	10.0	18.0	9.0	15.5	8.3	19.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.1	29.3	10.5	27.1	9.5	24.9	6.9	30.7
Max Q Clear Time (g_c+I1), s	2.7	7.5	5.7	10.0	5.1	9.7	4.2	12.8
Green Ext Time (p_c), s	0.0	1.2	0.2	1.7	0.1	1.4	0.1	2.3

Intersection Summary	
HCM 6th Ctrl Delay	18.2
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hancock Drive & NW 18th Avenue

04/19/2022

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	278	9	6	327	4	18
Future Volume (vph)	278	9	6	327	4	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.996				0.890	
Flt Protected				0.999	0.991	
Satd. Flow (prot)	1837	0	0	1808	1676	0
Flt Permitted				0.999	0.991	
Satd. Flow (perm)	1837	0	0	1808	1676	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	672			668	634	
Travel Time (s)	13.1			13.0	17.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	5%	5%	0%	0%
Adj. Flow (vph)	278	9	6	327	4	18
Shared Lane Traffic (%)						
Lane Group Flow (vph)	287	0	0	333	22	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 32.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	278	9	6	327	4	18
Future Vol, veh/h	278	9	6	327	4	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	5	5	0	0
Mvmt Flow	278	9	6	327	4	18

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	287	0	622	283
Stage 1	-	-	-	-	283	-
Stage 2	-	-	-	-	339	-
Critical Hdwy	-	-	4.15	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.245	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1258	-	454	761
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	726	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1258	-	451	761
Mov Cap-2 Maneuver	-	-	-	-	451	-
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	722	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	676	-	-	1258	-
HCM Lane V/C Ratio	0.033	-	-	0.005	-
HCM Control Delay (s)	10.5	-	-	7.9	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings
3: NW 16th Avenue & NW Hood Street

04/19/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	27	0	185	18	0	266
Future Volume (vph)	27	0	185	18	0	266
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.988			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1754	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1754	0	0	1863
Link Speed (mph)	25		35			35
Link Distance (ft)	566		102			615
Travel Time (s)	15.4		2.0			12.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	7%	7%	2%	2%
Adj. Flow (vph)	27	0	185	18	0	266
Shared Lane Traffic (%)						
Lane Group Flow (vph)	27	0	203	0	0	266
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

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

HCM 6th TWSC
3: NW 16th Avenue & NW Hood Street 04/19/2022

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	0	185	18	0	266
Future Vol, veh/h	27	0	185	18	0	266
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	7	7	2	2
Mvmt Flow	27	0	185	18	0	266

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	460	194	0	0	203	0
Stage 1	194	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	563	853	-	-	1369	-
Stage 1	844	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	563	853	-	-	1369	-
Mov Cap-2 Maneuver	563	-	-	-	-	-
Stage 1	844	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	563	1369	-
HCM Lane V/C Ratio	-	-	0.048	-	-
HCM Control Delay (s)	-	-	11.7	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0	-

Lanes, Volumes, Timings
4: NW Brady Road & NW McIntosh Road 04/19/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	141	53	271	57	26	484
Future Volume (vph)	141	53	271	57	26	484
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140	0		0	100	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.977			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1719	1538	1785	0	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1719	1538	1785	0	1752	1845
Link Speed (mph)	35		40			35
Link Distance (ft)	919		673			1232
Travel Time (s)	17.9		11.5			24.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	5%	5%	4%	4%	3%	3%
Adj. Flow (vph)	141	53	271	57	26	484
Shared Lane Traffic (%)						
Lane Group Flow (vph)	141	53	328	0	26	484
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 40.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	141	53	271	57	26	484
Future Vol, veh/h	141	53	271	57	26	484
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	140	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	5	5	4	4	3	3
Mvmt Flow	141	53	271	57	26	484

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	836	300	0	0	328	0
Stage 1	300	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.13	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.227	-
Pot Cap-1 Maneuver	333	733	-	-	1226	-
Stage 1	745	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	326	733	-	-	1226	-
Mov Cap-2 Maneuver	326	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	569	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.4	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	326	733	1226	-
HCM Lane V/C Ratio	-	-	0.433	0.072	0.021	-
HCM Control Delay (s)	-	-	24.2	10.3	8	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	2.1	0.2	0.1	-

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

04/19/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	128	26	111	60	89	20	216	220	134	188	18
Future Volume (vph)	46	128	26	111	60	89	20	216	220	134	188	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	225		0	280		0	270		0	210		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.975			0.910			0.924			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1852	0	1770	1695	0	1805	1756	0	1752	1821	0
Flt Permitted	0.662			0.476			0.629			0.312		
Satd. Flow (perm)	1258	1852	0	887	1695	0	1195	1756	0	576	1821	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		10			77			70			7	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2512			1232			660	
Travel Time (s)		17.5			48.9			24.0			12.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	0%	0%	0%	3%	3%	3%
Adj. Flow (vph)	46	128	26	111	60	89	20	216	220	134	188	18
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	154	0	111	149	0	20	436	0	134	206	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
Trailing Detector (ft)	0	0		0	0		0	0		0	0	
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	

Lanes, Volumes, Timings
1: NW Brady Road & NW 16th Avenue

04/19/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	10.0	23.0		12.0	25.0		10.0	42.0		13.0	45.0	
Total Split (%)	11.1%	25.6%		13.3%	27.8%		11.1%	46.7%		14.4%	50.0%	
Maximum Green (s)	5.5	18.5		7.5	20.5		5.5	37.5		8.5	40.5	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	Min		None	Min	
Walk Time (s)		7.0			7.0			7.0			7.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	14.8	11.4		18.2	14.4		28.1	26.6		32.8	34.0	
Actuated g/C Ratio	0.25	0.20		0.31	0.25		0.48	0.46		0.56	0.58	
v/c Ratio	0.12	0.42		0.28	0.31		0.03	0.52		0.27	0.19	
Control Delay	17.0	28.3		18.2	15.2		8.8	18.5		10.3	11.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.0	28.3		18.2	15.2		8.8	18.5		10.3	11.3	
LOS	B	C		B	B		A	B		B	B	
Approach Delay		25.7			16.5			18.0			10.9	
Approach LOS		C			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 58.2
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.52
Intersection Signal Delay: 17.0 Intersection LOS: B
Intersection Capacity Utilization 61.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 1: NW Brady Road & NW 16th Avenue

Queues

1: NW Brady Road & NW 16th Avenue

04/19/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	46	154	111	149	20	436	134	206
v/c Ratio	0.12	0.42	0.28	0.31	0.03	0.52	0.27	0.19
Control Delay	17.0	28.3	18.2	15.2	8.8	18.5	10.3	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.0	28.3	18.2	15.2	8.8	18.5	10.3	11.3
Queue Length 50th (ft)	11	50	28	23	4	125	25	39
Queue Length 95th (ft)	38	120	75	80	14	241	59	111
Internal Link Dist (ft)		561		2432		1152		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	384	732	432	780	647	1172	537	1259
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.21	0.26	0.19	0.03	0.37	0.25	0.16

Intersection Summary

HCM 6th Signalized Intersection Summary
1: NW Brady Road & NW 16th Avenue

04/19/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	128	26	111	60	89	20	216	220	134	188	18
Future Volume (veh/h)	46	128	26	111	60	89	20	216	220	134	188	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1870	1870	1900	1900	1900	1856	1856	1856
Adj Flow Rate, veh/h	46	128	26	111	60	89	20	216	220	134	188	18
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	0	0	0	2	2	2	0	0	0	3	3	3
Cap, veh/h	342	203	41	359	112	166	565	282	287	399	648	62
Arrive On Green	0.05	0.13	0.13	0.08	0.16	0.16	0.02	0.33	0.33	0.09	0.39	0.39
Sat Flow, veh/h	1810	1533	311	1781	680	1009	1810	863	879	1767	1667	160
Grp Volume(v), veh/h	46	0	154	111	0	149	20	0	436	134	0	206
Grp Sat Flow(s),veh/h/ln	1810	0	1844	1781	0	1689	1810	0	1742	1767	0	1827
Q Serve(g_s), s	1.0	0.0	3.8	2.5	0.0	3.9	0.3	0.0	10.8	2.3	0.0	3.7
Cycle Q Clear(g_c), s	1.0	0.0	3.8	2.5	0.0	3.9	0.3	0.0	10.8	2.3	0.0	3.7
Prop In Lane	1.00		0.17	1.00		0.60	1.00		0.50	1.00		0.09
Lane Grp Cap(c), veh/h	342	0	244	359	0	279	565	0	568	399	0	710
V/C Ratio(X)	0.13	0.00	0.63	0.31	0.00	0.53	0.04	0.00	0.77	0.34	0.00	0.29
Avail Cap(c_a), veh/h	463	0	710	493	0	720	728	0	1359	558	0	1539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	16.6	0.0	19.7	16.1	0.0	18.4	10.3	0.0	14.6	10.2	0.0	10.1
Incr Delay (d2), s/veh	0.2	0.0	2.7	0.5	0.0	1.6	0.0	0.0	2.2	0.5	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	1.7	0.9	0.0	1.4	0.1	0.0	3.8	0.7	0.0	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	0.0	22.4	16.5	0.0	20.0	10.3	0.0	16.8	10.7	0.0	10.4
LnGrp LOS	B	A	C	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		200			260			456			340	
Approach Delay, s/veh		21.1			18.5			16.5			10.5	
Approach LOS		C			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	20.2	8.4	10.9	5.7	23.2	6.8	12.4
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	8.5	37.5	7.5	18.5	5.5	40.5	5.5	20.5
Max Q Clear Time (g_c+I1), s	4.3	12.8	4.5	5.8	2.3	5.7	3.0	5.9
Green Ext Time (p_c), s	0.1	2.9	0.1	0.6	0.0	1.2	0.0	0.6

Intersection Summary	
HCM 6th Ctrl Delay	16.0
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hancock Drive & NW 18th Avenue

04/19/2022

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	261	4	6	208	9	4
Future Volume (vph)	261	4	6	208	9	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.998				0.958	
Flt Protected				0.999	0.967	
Satd. Flow (prot)	1896	0	0	1898	1760	0
Flt Permitted				0.999	0.967	
Satd. Flow (perm)	1896	0	0	1898	1760	0
Link Speed (mph)	35			35	25	
Link Distance (ft)	672			668	634	
Travel Time (s)	13.1			13.0	17.3	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	261	4	6	208	9	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	265	0	0	214	13	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	261	4	6	208	9	4
Future Vol, veh/h	261	4	6	208	9	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	261	4	6	208	9	4

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	265	0	483	263
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	220	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1311	-	546	781
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	821	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1311	-	543	781
Mov Cap-2 Maneuver	-	-	-	-	543	-
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	817	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	599	-	-	1311	-
HCM Lane V/C Ratio	0.022	-	-	0.005	-
HCM Control Delay (s)	11.1	-	-	7.8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Lanes, Volumes, Timings
3: NW 16th Avenue & NW Hood Street

04/19/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	16	0	311	22	0	203
Future Volume (vph)	16	0	311	22	0	203
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.991			
Flt Protected	0.950					
Satd. Flow (prot)	1805	0	1883	0	0	1863
Flt Permitted	0.950					
Satd. Flow (perm)	1805	0	1883	0	0	1863
Link Speed (mph)	25		35			35
Link Distance (ft)	566		102			615
Travel Time (s)	15.4		2.0			12.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	2%	2%
Adj. Flow (vph)	16	0	311	22	0	203
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	333	0	0	203
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 27.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	16	0	311	22	0	203
Future Vol, veh/h	16	0	311	22	0	203
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	2	2
Mvmt Flow	16	0	311	22	0	203

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	525	322	0	0	333	0
Stage 1	322	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.12	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.218	-
Pot Cap-1 Maneuver	516	724	-	-	1226	-
Stage 1	739	-	-	-	-	-
Stage 2	836	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	516	724	-	-	1226	-
Mov Cap-2 Maneuver	516	-	-	-	-	-
Stage 1	739	-	-	-	-	-
Stage 2	836	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	516	1226	-
HCM Lane V/C Ratio	-	-	0.031	-	-
HCM Control Delay (s)	-	-	12.2	0	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lanes, Volumes, Timings
4: NW Brady Road & NW McIntosh Road 04/19/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	88	9	397	119	18	296
Future Volume (vph)	88	9	397	119	18	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	140	0		0	100	
Storage Lanes	1	1		0	1	
Taper Length (ft)	25				25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.969			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1805	1615	1841	0	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1805	1615	1841	0	1752	1845
Link Speed (mph)	35		40			35
Link Distance (ft)	919		673			1232
Travel Time (s)	17.9		11.5			24.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	0%	0%	3%	3%
Adj. Flow (vph)	88	9	397	119	18	296
Shared Lane Traffic (%)						
Lane Group Flow (vph)	88	9	516	0	18	296
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 39.7%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
4: NW Brady Road & NW McIntosh Road 04/19/2022

Intersection	
Int Delay, s/veh	2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	9	397	119	18	296
Future Vol, veh/h	88	9	397	119	18	296
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	140	0	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	0	0	3	3
Mvmt Flow	88	9	397	119	18	296

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	789	457	0	0	516	0
Stage 1	457	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	362	608	-	-	1045	-
Stage 1	642	-	-	-	-	-
Stage 2	731	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	356	608	-	-	1045	-
Mov Cap-2 Maneuver	356	-	-	-	-	-
Stage 1	642	-	-	-	-	-
Stage 2	719	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.7	0	0.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	356	608	1045	-
HCM Lane V/C Ratio	-	-	0.247	0.015	0.017	-
HCM Control Delay (s)	-	-	18.4	11	8.5	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1	0	0.1	-