REPORT

Hood Street Subdivision
Traffic Impact Study

January 26, 2022

H. Lee & Associates, PLLC

HOOD STREET SUBDIVISION
TRAFFIC IMPACT STUDY

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INTRODUCTION

This traffic impact analysis has been prepared to assess transportation impacts related to the proposed Hood Street Subdivision. The project site is located at 1811 NW Hood Street in Camas, Washington and is comprised of tax lots 127415-000 and 127440-000. Figure 1 shows the project vicinity.

Project Description

The proposed project will subdivide approximately 6.08 acres into 17 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 18. Access to the proposed project will be from a newly constructed roadway onto NW Hood Street. 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 Hood Street
- NW 18th Avenue/NW Astor Street
- NW Hood Street/Project Access

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 160 daily, 12 A.M. peak hour (3 in, 9 out), and 16 P.M. peak hour (10 in, 6 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 project access intersection 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. Because the access into the project site is not built, the corner sight distance should be re-verified in the final engineering/construction stages of development.

- Turn lane warrants at the proposed project access intersection 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.

Hood Street Subdivision TIA
Camas, WA

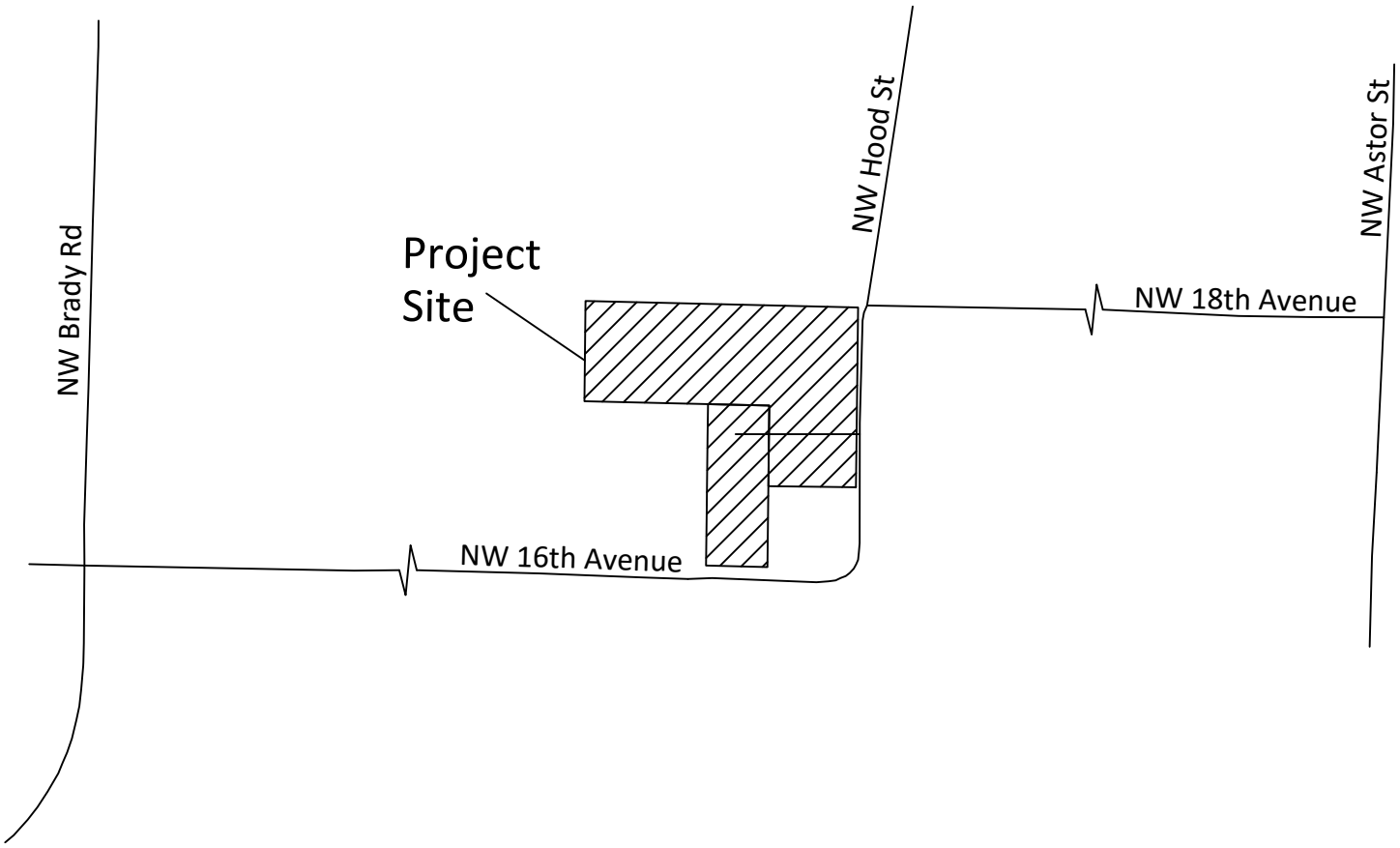

FIGURE 1
Site Vicinity Map

NOT TO SCALE

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Hood Street Subdivision TIA
Camas, WA

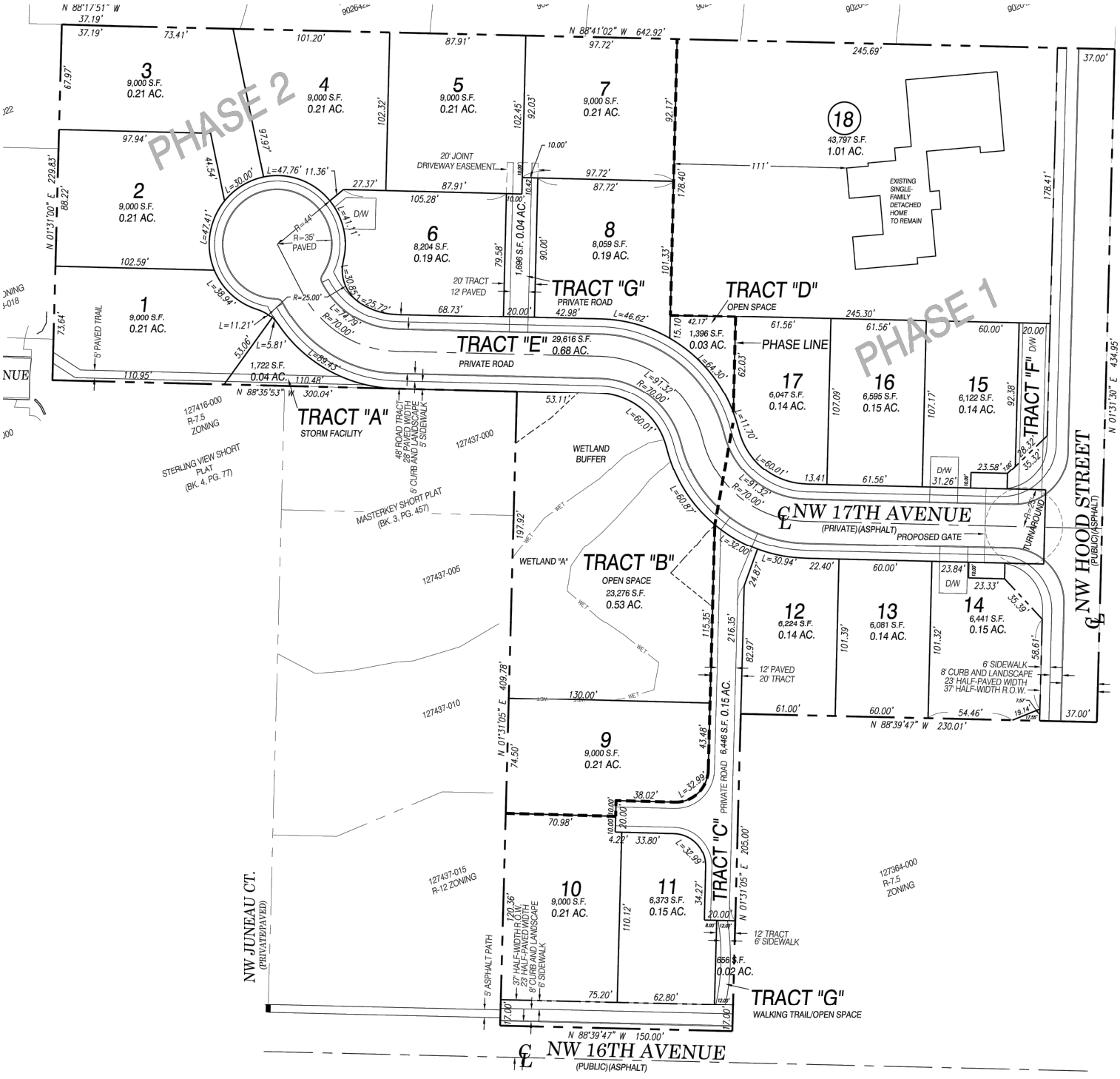

FIGURE 2
Site Plan

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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 boundary line adjusted into its own parcel. 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 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 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.

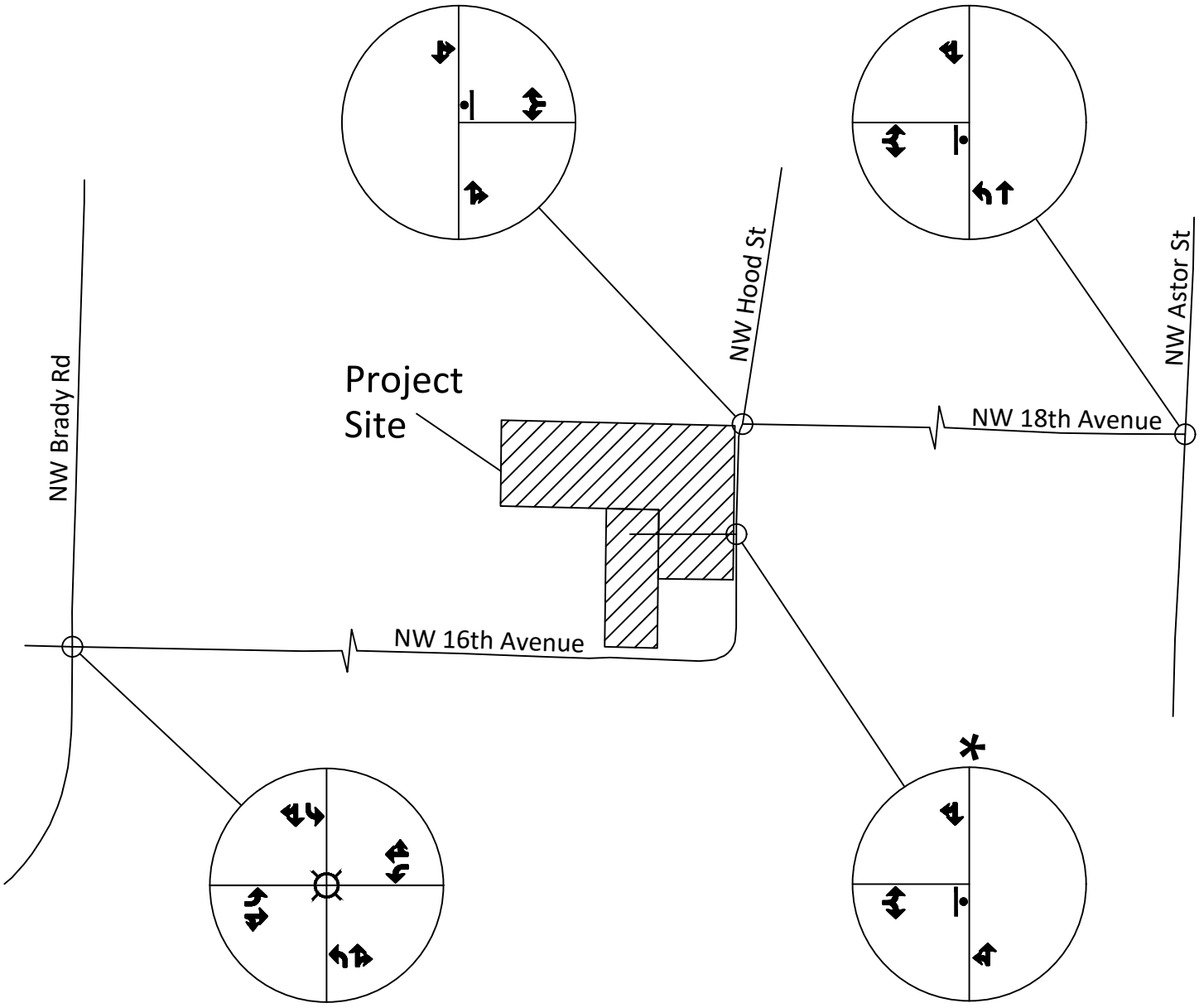
NW 18th Avenue: NW 18th Avenue is a two-lane minor arterial roadway. Intermittent sidewalks exist along both sides of the roadway. The posted speed limit is 35 mph.

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 Hood Street
- NW 18th Avenue/NW Astor Street
- NW Hood Street/Project Access

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.

Hood Street Subdivision TIA
Camas, WA



LEGEND

- Lane Usage
- Traffic Signal
- Stop Sign
- * 2026 "With Project" Lane Configuration and Traffic Control

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FIGURE 3
Existing Lane Configuration and Traffic Control

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EXISTING TRAFFIC VOLUMES

A.M. and P.M. peak hour traffic counts were obtained at the study area intersections by HLA in April 2021. To study for the potential decrease in overall traffic due to the pandemic at study area intersections that were collected in 2021, HLA compared the existing pandemic traffic counts to historical pre-pandemic traffic counts. The nearest pre-pandemic A.M. and P.M. peak hour traffic counts to the project site is at the NW 16th Avenue/NW Brady Road intersection conducted in 2018. To update this pre-pandemic count to the current year (2021), HLA developed an annual, compounded, historical growth rate from historical traffic data from 2015 and 2018 at the NW 16th Avenue/NW Brady Road intersection. Table 1 summarizes the historical traffic counts and the historical annual growth rate developed.

Table 1. Historical Traffic Counts and Historical Growth Rates

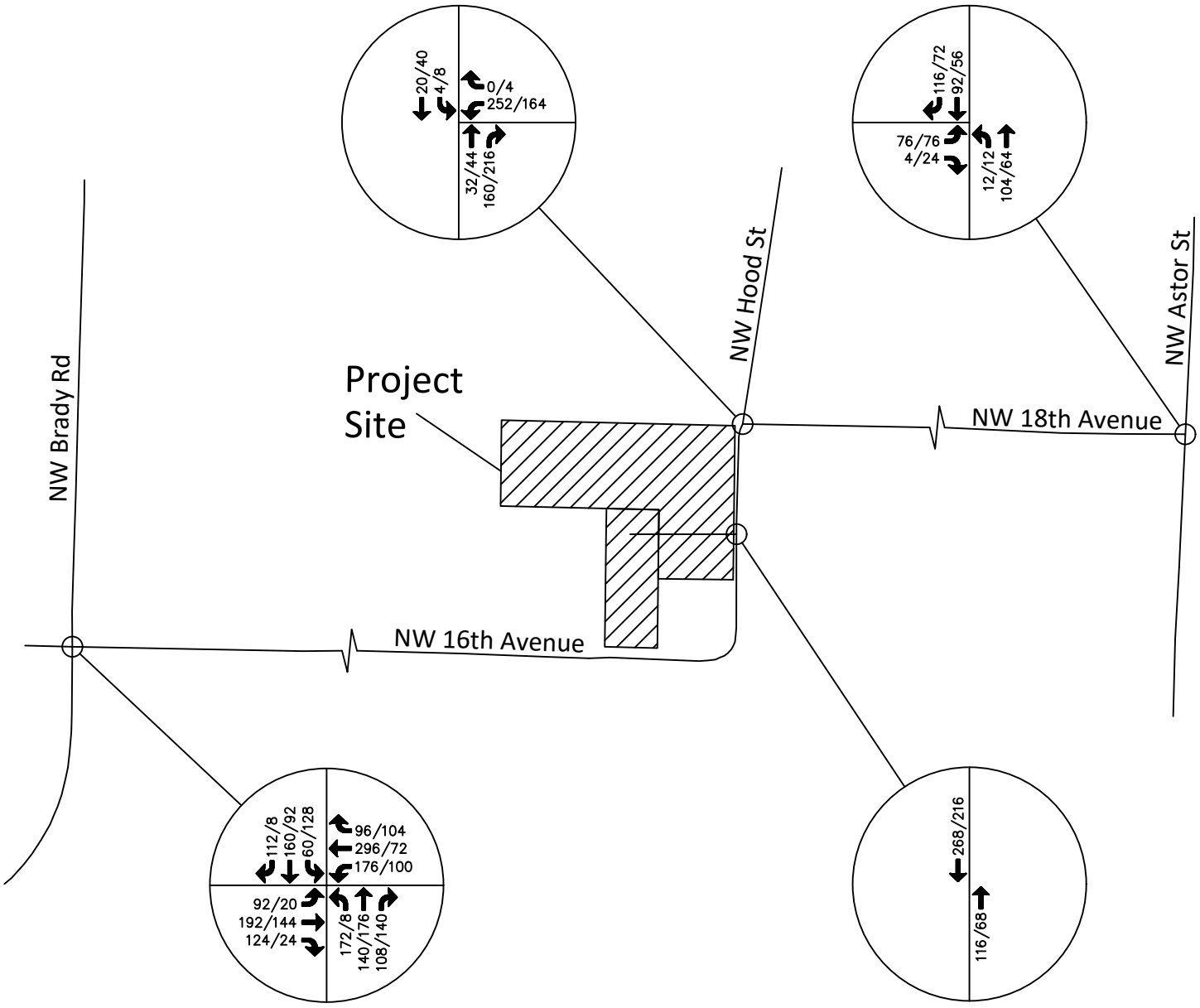
	A.M. Peak Hour			P.M. Peak Hour		
Intersection	2015	2018	Growth Rate	2015	2018	Growth Rate
NW 16th Avenue/NW Brady Road	845	817	<0%	925	952	1.0%

The P.M. peak hour historical annual growth rate was applied to both the 2018 A.M. and P.M. peak hour traffic volumes to reach the year 2021 projected traffic volumes since the A.M. peak hour historical growth was less than zero (0). Applying the 1% annual, compounded, historical growth rate to the A.M. peak hour yields a projected 2021 A.M. peak hour volume of 842. Applying the 1% annual, compounded, historical growth rate to the P.M. peak hour yields a projected 2021 P.M. peak hour volume of 981. The existing 2021 pandemic A.M. peak hour count volume at the NW 16th Avenue/NW Brady Road intersection is 981. The existing 2021 P.M. peak hour count volume at the NW 16th Avenue/NW Brady Road intersection is 866. Comparing the projected 2021 traffic volumes derived from the historical traffic counts to the existing 2021 pandemic traffic counts yields a no pandemic adjustment factor for the A.M. peak hour and a 13.3% pandemic adjustment factor for the P.M. peak hour. Since the A.M. peak hour pandemic adjustment factor is less than zero (0) it was not utilized to make adjustments to the A.M. peak hour. The A.M. and P.M. peak hour existing 2021 pandemic traffic counts were both adjusted upwards by 13.3% to be conservative.

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. The speed study data can be referenced in Appendix A.

Hood Street 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 2. As shown in Table 2, 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 2. 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	19.2	B	15.2
Unsignalized Intersection				
NW 18th Avenue/NW Hood Street				
Westbound Approach	B	11.0	B	11.0
Southbound Left	A	7.6	A	7.8
NW 18th Avenue/NW Astor Street				
Eastbound Approach	B	10.6	A	9.9
Northbound Left	A	7.8	A	7.5

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 3. Appendix C contains the accident data.

As shown in Table 3, 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 3. 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	0.7	0.5	0.2	1.4	0.30
NW 18th Avenue/NW Hood Street	0.0	0.0	0.0	0.0	0.00
NW 18th Avenue/NW Astor Street	0.0	0.0	0.0	0.0	0.00
NW Hood Street/Project Access	0.0	0.0	0.0	0.0	0.00

[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 1.64 miles northeast of the project site at the SE 192nd Avenue/SE 34th Street intersection.

NON-MOTORIZED TRANSPORTATION

No sidewalks or bike lanes exist immediately 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 Hood Street 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.

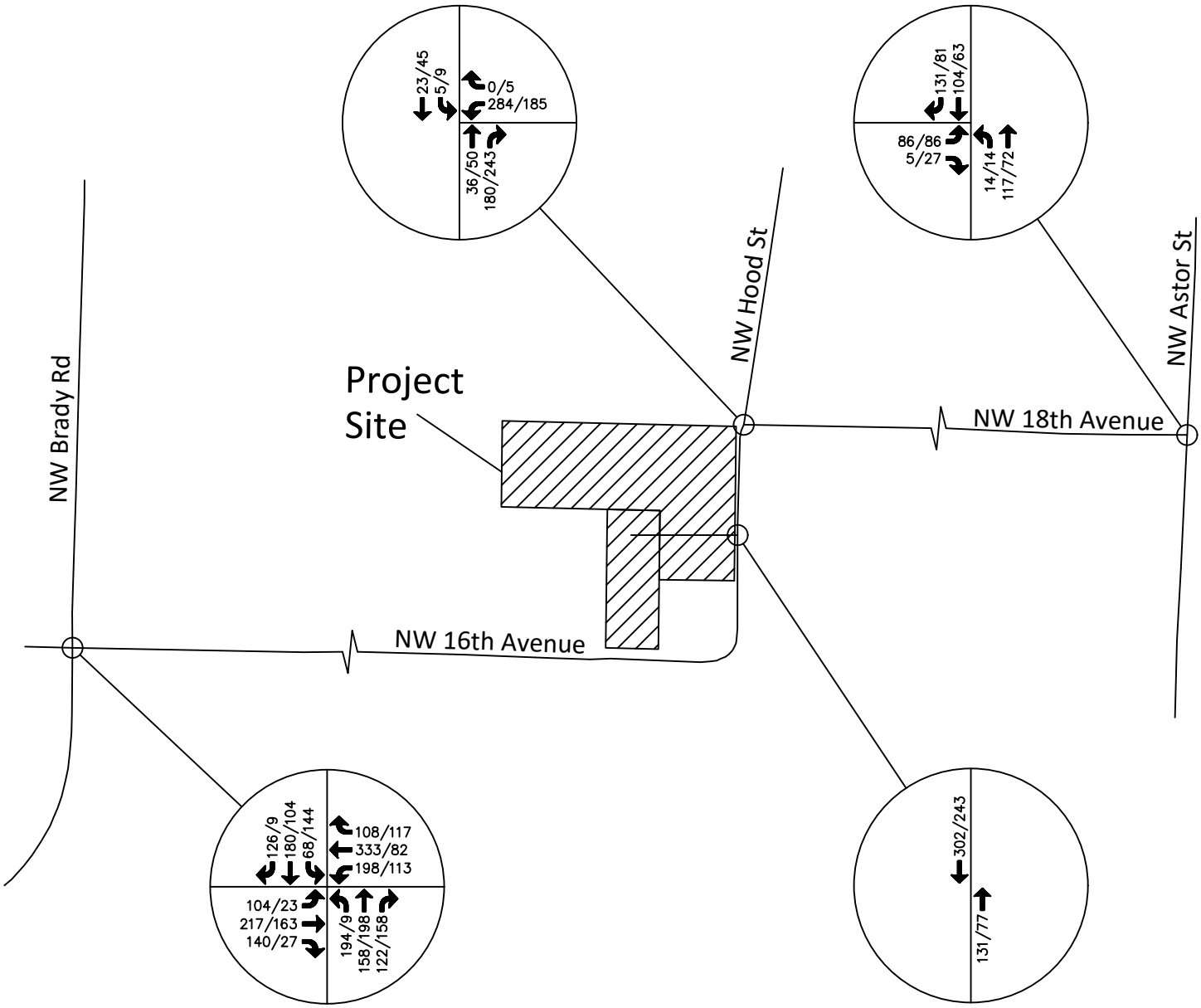
A detailed discussion of the methodology summarized above and the analysis results are contained in the remainder of this section.

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. It should be noted that the only "in-process" development in the project vicinity that is not fully built out is the Valley View Estates subdivision. 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.

Hood Street 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

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The 2027 "Without Project" A.M. and P.M. peak hour levels of service at the study area intersections are summarized in Table 4. As shown in Table 4, 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 4. 2027 "Without Project" Levels of Service

Signalized Intersection	LOS	Average Delay (sec)	LOS	Average Delay (sec)
NW 16th Avenue/NW Brady Road	C	21.6	B	16.1
Unsignalized Intersection				
NW 18th Avenue/NW Hood Street				
Westbound Approach	B	11.6	B	11.5
Southbound Left	A	7.6	A	7.8
NW 18th Avenue/NW Astor Street				
Eastbound Approach	B	11.1	B	10.1
Northbound Left	A	7.9	A	7.5

DEVELOPMENT PLANS

As previously stated, the proposed project will subdivide approximately 6.08 acres into 17 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 18. Access to the proposed project will be from a newly constructed roadway onto NW Hood Street. 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 160 daily, 12 A.M. peak hour (3 in, 9 out), and 16 P.M. peak hour (10 in, 6 out) net new trips. Table 5 summarizes the project's trip generation.

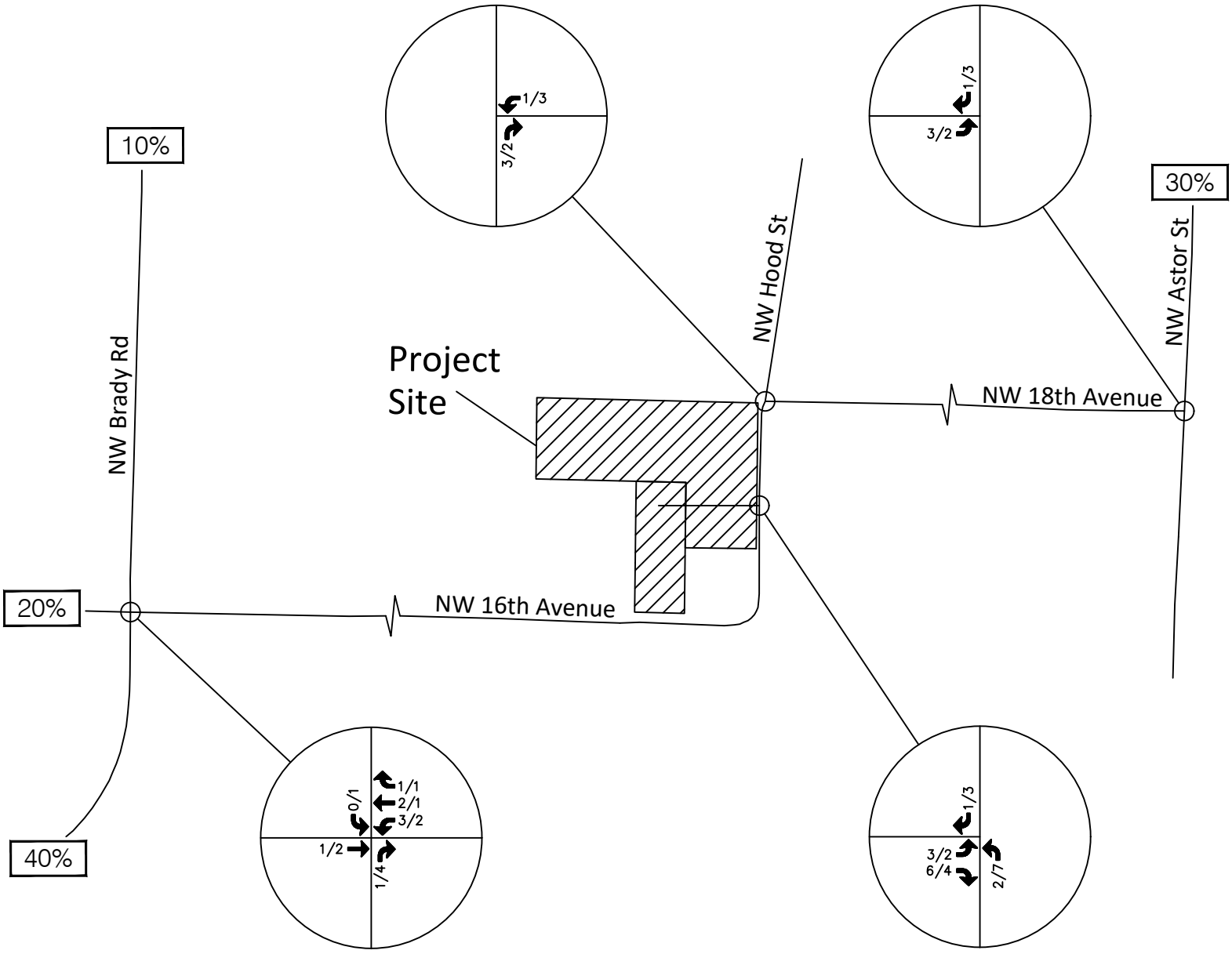
Table 5. Trip Generation Summary for Hood Street Subdivision

	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	17 new units	160	3	9	12	10	6	16

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.

Hood Street 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

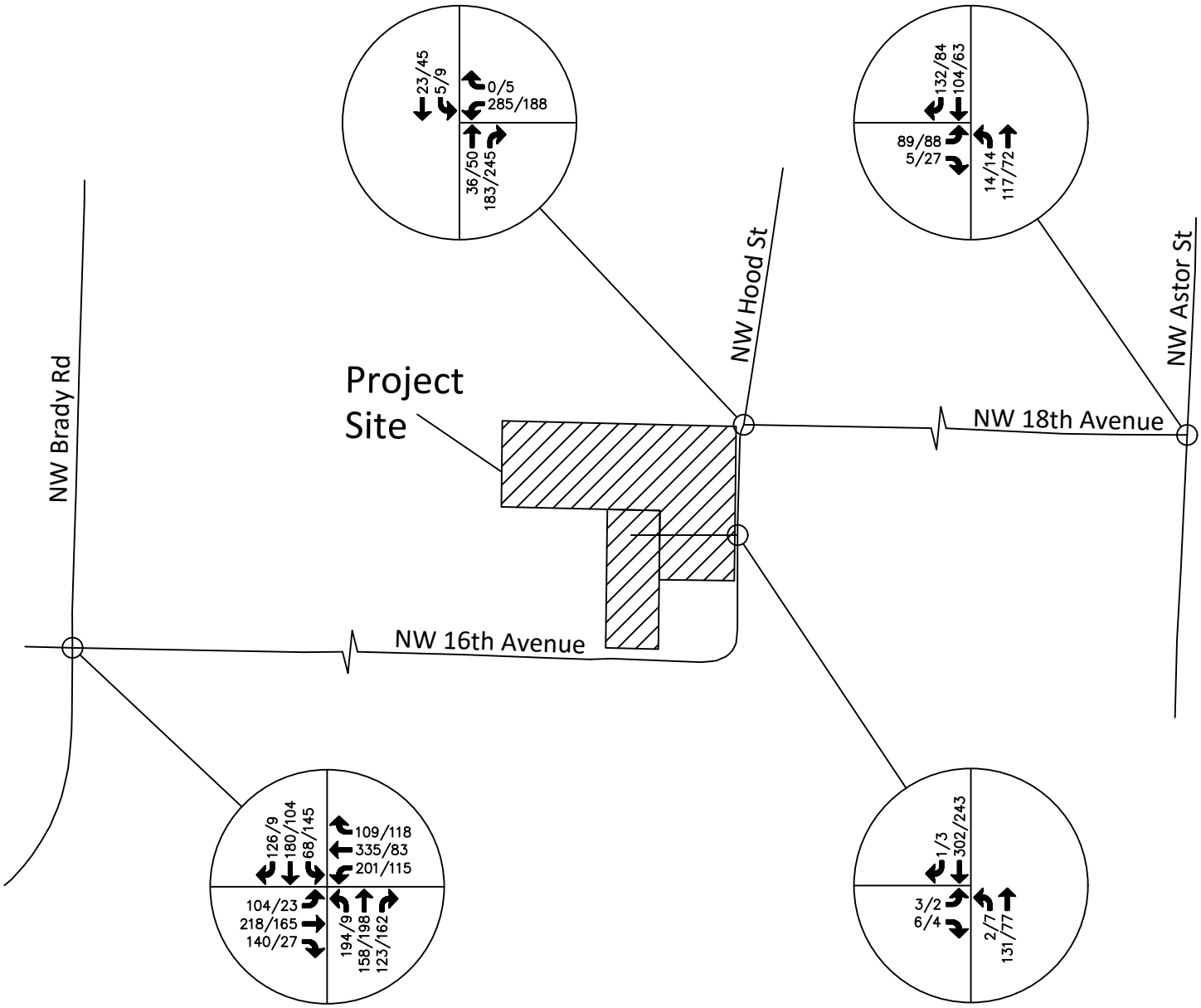
The traffic volumes shown in Figures 5 and 6 were combined to arrive at the 2027 "With Project" A.M. and P.M. peak hour traffic volumes. Figure 7 shows these traffic volumes. Levels of service were calculated for the 2027 "With Project" condition based on the traffic volumes shown in Figure 7 and the 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 6. As shown in Table 6, all of the study area intersections are projected to operate within the acceptable levels of service standards in the 2027 "With Project" condition.

Table 6. 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	C	21.7	B	16.2
Unsignalized Intersection				
NW 18th Avenue/NW Hood Street				
Westbound Approach	B	11.6	B	11.5
Southbound Left	A	7.7	A	7.8
NW 18th Avenue/NW Astor Street				
Eastbound Approach	B	11.1	B	10.1
Northbound Left	A	7.9	A	7.5
NW Hood Street/Project Access				
Eastbound Approach	B	10.4	A	9.9
Northbound Left	A	8.1	A	7.7

Hood Street 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

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CORNER SIGHT DISTANCE

The minimum corner sight distance was analyzed for the proposed Hood Street Subdivision. The minimum corner sight distance required for the proposed NW Hood Street/Project Access intersection 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 intersection:

- 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 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 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 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 distance at the proposed NW Hood Street/Project Access intersection was 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 proposed NW Hood Street/Project Access intersection 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. Since the intersection is not yet built, the intersection corner sight distance should be re-verified at the final engineering stage of the project.

LANE WARRANT ANALYSIS

Turn lane warrants at the proposed project access intersection 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.

CONCLUSIONS

Findings

The following are the findings from the traffic analysis:

- The proposed development is expected to generate 160 daily, 12 A.M. peak hour (3 in, 9 out), and 16 P.M. peak hour (10 in, 6 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 project access intersection 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. Because the access into the project site is not built, the corner sight distance should be re-verified in the final engineering/construction stages of development.

- Turn lane warrants at the proposed project access intersection 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: 06/08/21

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	8	25	8	0	7	7	27	0	14	20	8	1	2	2	3	0	131
7:15 - 7:30 AM	5	25	8	0	20	8	38	1	13	6	7	1	2	3	2	1	137
7:30 - 7:45 AM	8	28	4	4	17	25	46	2	11	19	7	4	3	9	6	3	183
7:45 - 8:00 AM	25	35	13	2	21	65	39	3	24	31	38	6	27	42	20	5	380
8:00 - 8:15 AM	2	26	16	2	17	24	40	2	9	18	11	5	15	23	12	3	213
8:15 - 8:30 AM	4	23	18	6	18	14	29	3	21	23	6	0	3	10	11	6	180
8:30 - 8:45 AM	6	25	13	2	31	30	27	7	13	34	8	4	3	10	8	5	208
8:45 - 9:00 AM	6	36	14	0	31	15	21	1	19	23	8	3	4	19	1	1	197
															Peak 15 Total		380
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	46	113	33	6	65	105	150	6	62	76	60	12	34	56	31	9	831
7:15 - 8:15 AM	40	114	41	8	75	122	163	8	57	74	63	16	47	77	40	12	913
7:30 - 8:30 AM	39	112	51	14	73	128	154	10	65	91	62	15	48	84	49	17	956
7:45 - 8:45 AM	37	109	60	12	87	133	135	15	67	106	63	15	48	85	51	19	981
8:00 - 9:00 AM	18	110	61	10	97	83	117	13	62	98	33	12	25	62	32	15	798
Peak Hour 7:45 - 8:45 AM	37	109	60	12	87	133	135	15	67	106	63	15	48	85	51	19	981
Peak Hour Factor		0.71				0.71				0.63				0.52			0.65
Peak Hour % Trucks		6%				4%				6%				10%			
Peak 15 Min % Trucks		7%				4%				9%				2%			

Intersection: NW 16th Avenue/NW Brady Road Date: 06/08/21

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	23	29	2	23	15	24	3	27	33	4	1	8	24	5	4	218
4:15 - 4:30 PM	2	20	28	0	23	16	22	3	31	39	2	1	5	32	4	1	224
4:30 - 4:45 PM	2	28	23	1	19	11	27	2	30	27	4	1	7	21	3	0	202
4:45 - 5:00 PM	5	30	25	2	25	15	23	2	38	23	4	0	4	28	2	0	222
5:00 - 5:15 PM	2	26	22	0	17	9	18	0	37	24	5	0	8	20	6	0	194
5:15 - 5:30 PM	5	30	24	1	24	10	18	0	44	35	2	0	4	23	3	0	222
5:30 - 5:45 PM	3	23	26	1	23	13	21	1	38	36	1	0	5	23	4	0	216
5:45 - 6:00 PM	7	30	24	0	23	17	22	0	36	27	5	0	6	19	7	0	223
															Peak 15 Total		224
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	12	101	105	5	90	57	96	10	126	122	14	3	24	105	14	5	866
4:15 - 5:15 PM	11	104	98	3	84	51	90	7	136	113	15	2	24	101	15	1	842
4:30 - 5:30 PM	14	114	94	4	85	45	86	4	149	109	15	1	23	92	14	0	840
4:45 - 5:45 PM	15	109	97	4	89	47	80	3	157	118	12	0	21	94	15	0	854
5:00 - 6:00 PM	17	109	96	2	87	49	79	1	155	122	13	0	23	85	20	0	855
Peak Hour 4:00 - 5:00 PM	12	101	105	5	90	57	96	10	126	122	14	3	24	105	14	5	866
Peak Hour Factor		0.91				0.96				0.91				0.87			0.97
Peak Hour % Trucks		2%				4%				1%				3%			
Peak 15 Min % Trucks		2%				2%				3%				4%			

Intersection: NW 18th Avenue/NW Hood Street Date: 06/08/21
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	5	0	0	0	0	30	1	20	2	0	0	0	0	0	0	57
7:15 - 7:30 AM	0	10	0	0	0	0	32	0	19	0	0	1	0	0	0	0	61
7:30 - 7:45 AM	0	8	3	1	1	0	47	0	18	0	0	2	0	0	0	0	77
7:45 - 8:00 AM	0	6	2	0	0	0	53	3	33	6	0	3	0	0	0	0	100
8:00 - 8:15 AM	0	4	1	0	0	0	56	2	35	7	0	2	0	0	0	0	103
8:15 - 8:30 AM	0	7	2	1	0	0	38	3	33	11	0	2	0	0	0	0	91
8:30 - 8:45 AM	0	6	2	0	0	0	54	6	34	2	0	4	0	0	0	0	98
8:45 - 9:00 AM	0	7	1	0	0	0	32	2	36	7	0	3	0	0	0	0	83
															Peak 15 Total		103
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	0	29	5	1	1	0	162	4	90	8	0	6	0	0	0	0	295
7:15 - 8:15 AM	0	28	6	1	1	0	188	5	105	13	0	8	0	0	0	0	341
7:30 - 8:30 AM	0	25	8	2	1	0	194	8	119	24	0	9	0	0	0	0	371
7:45 - 8:45 AM	0	23	7	1	0	0	201	14	135	26	0	11	0	0	0	0	392
8:00 - 9:00 AM	0	24	6	1	0	0	180	13	138	27	0	11	0	0	0	0	375
Peak Hour 7:45 - 8:45 AM	0	23	7	1	0	0	201	14	135	26	0	11	0	0	0	0	392
Peak Hour Factor		0.83				0.90				0.91				0.00			0.95
Peak Hour % Trucks		3%				7%				7%				0%			
Peak 15 Min % Trucks		0%				4%				5%				0%			

Intersection: NW 18th Avenue/NW Hood Street Date: 06/08/21
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	11	1	0	3	0	37	1	54	9	0	5	0	0	0	0	115
4:15 - 4:30 PM	0	9	1	1	1	0	35	2	45	9	0	0	0	0	0	0	100
4:30 - 4:45 PM	0	9	2	0	1	0	36	1	48	10	0	0	0	0	0	0	106
4:45 - 5:00 PM	0	5	1	0	1	0	37	2	67	7	0	0	0	0	0	0	118
5:00 - 5:15 PM	0	3	0	0	0	0	41	1	45	5	0	0	0	0	0	0	94
5:15 - 5:30 PM	0	5	0	0	0	0	31	2	49	9	0	1	0	0	0	0	94
5:30 - 5:45 PM	0	7	1	0	3	0	37	3	52	9	0	0	0	0	0	0	109
5:45 - 6:00 PM	0	9	1	0	2	0	42	0	52	10	0	0	0	0	0	0	116
															Peak 15 Total		118
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	0	34	5	1	6	0	145	6	214	35	0	5	0	0	0	0	439
4:15 - 5:15 PM	0	26	4	1	3	0	149	6	205	31	0	0	0	0	0	0	418
4:30 - 5:30 PM	0	22	3	0	2	0	145	6	209	31	0	1	0	0	0	0	412
4:45 - 5:45 PM	0	20	2	0	4	0	146	8	213	30	0	1	0	0	0	0	415
5:00 - 6:00 PM	0	24	2	0	5	0	151	6	198	33	0	1	0	0	0	0	413
Peak Hour 4:00 - 5:00 PM	0	34	5	1	6	0	145	6	214	35	0	5	0	0	0	0	439
Peak Hour Factor		0.81				0.94				0.84				0.00			0.93
Peak Hour % Trucks		3%				4%				2%				0%			
Peak 15 Min % Trucks		0%				2%				0%				0%			

Intersection: NW 18th Avenue/NW Astor Street Date: 06/08/21

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	8	2	0	1	0	0	0	0	0	8	3	0	0	0	1	0	22
7:15 - 7:30 AM	10	7	0	0	0	0	0	0	0	10	1	1	1	0	7	0	36
7:30 - 7:45 AM	10	5	0	1	0	0	0	0	0	12	0	0	1	0	10	2	38
7:45 - 8:00 AM	26	20	0	3	0	0	0	0	0	23	3	4	1	0	17	0	90
8:00 - 8:15 AM	28	21	0	3	0	0	0	0	0	19	1	0	0	0	18	0	87
8:15 - 8:30 AM	7	6	0	3	0	0	0	0	0	22	5	4	0	0	16	0	56
8:30 - 8:45 AM	16	7	0	2	0	0	0	0	0	9	3	0	2	0	12	2	49
8:45 - 9:00 AM	5	11	0	0	0	0	0	0	0	6	0	1	0	0	18	0	40
															Peak 15 Total		90
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	54	34	0	5	0	0	0	0	0	53	7	5	3	0	35	2	186
7:15 - 8:15 AM	74	53	0	7	0	0	0	0	0	64	5	5	3	0	52	2	251
7:30 - 8:30 AM	71	52	0	10	0	0	0	0	0	76	9	8	2	0	61	2	271
7:45 - 8:45 AM	77	54	0	11	0	0	0	0	0	73	12	8	3	0	63	2	282
8:00 - 9:00 AM	56	45	0	8	0	0	0	0	0	56	9	5	2	0	64	2	232
Peak Hour 7:45 - 8:45 AM	77	54	0	11	0	0	0	0	0	73	12	8	3	0	63	2	282
Peak Hour Factor		0.67				0.00				0.79				0.92			0.78
Peak Hour % Trucks		8%				0%				9%				3%			
Peak 15 Min % Trucks		7%				0%				15%				0%			

Intersection: NW 18th Avenue/NW Astor Street Date: 06/08/21
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	16	18	0	0	0	0	0	0	0	14	1	0	3	0	13	0	65
4:15 - 4:30 PM	7	5	0	0	0	0	0	0	0	10	0	0	2	0	6	0	30
4:30 - 4:45 PM	16	12	0	1	0	0	0	0	0	14	3	0	5	0	17	0	67
4:45 - 5:00 PM	19	8	0	0	0	0	0	0	0	5	3	0	2	0	15	0	52
5:00 - 5:15 PM	9	7	0	1	0	0	0	0	0	12	0	0	1	0	11	0	40
5:15 - 5:30 PM	7	16	0	0	0	0	0	0	0	15	2	0	5	0	19	0	64
5:30 - 5:45 PM	14	12	0	0	0	0	0	0	0	14	4	1	3	0	11	0	58
5:45 - 6:00 PM	11	5	0	0	0	0	0	0	0	8	0	0	1	0	16	0	41
															Peak 15 Total		67
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	58	43	0	1	0	0	0	0	0	43	7	0	12	0	51	0	214
4:15 - 5:15 PM	51	32	0	2	0	0	0	0	0	41	6	0	10	0	49	0	189
4:30 - 5:30 PM	51	43	0	2	0	0	0	0	0	46	8	0	13	0	62	0	223
4:45 - 5:45 PM	49	43	0	1	0	0	0	0	0	46	9	1	11	0	56	0	214
5:00 - 6:00 PM	41	40	0	1	0	0	0	0	0	49	6	1	10	0	57	0	203
Peak Hour 4:30 - 5:30 PM	51	43	0	2	0	0	0	0	0	46	8	0	13	0	62	0	223
Peak Hour Factor		0.84				0.00				0.79				0.78			0.83
Peak Hour % Trucks		2%				0%				0%				0%			
Peak 15 Min % Trucks		6%				0%				0%				0%			

Intersection: NW Hood Street/Project Access Date: 06/08/21
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	35	0	1	0	0	0	0	0	11	0	0	0	0	0	0	46
7:15 - 7:30 AM	0	42	0	0	0	0	0	0	0	11	0	1	0	0	0	0	53
7:30 - 7:45 AM	0	55	0	1	0	0	0	0	0	12	0	0	0	0	0	0	67
7:45 - 8:00 AM	0	59	0	3	0	0	0	0	0	26	0	4	0	0	0	0	85
8:00 - 8:15 AM	0	60	0	2	0	0	0	0	0	20	0	0	0	0	0	0	80
8:15 - 8:30 AM	0	45	0	4	0	0	0	0	0	27	0	4	0	0	0	0	72
8:30 - 8:45 AM	0	60	0	6	0	0	0	0	0	12	0	0	0	0	0	0	72
8:45 - 9:00 AM	0	39	0	2	0	0	0	0	0	6	0	1	0	0	0	0	45
															Peak 15 Total		85
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	0	191	0	5	0	0	0	0	0	60	0	5	0	0	0	0	251
7:15 - 8:15 AM	0	216	0	6	0	0	0	0	0	69	0	5	0	0	0	0	285
7:30 - 8:30 AM	0	219	0	10	0	0	0	0	0	85	0	8	0	0	0	0	304
7:45 - 8:45 AM	0	224	0	15	0	0	0	0	0	85	0	8	0	0	0	0	309
8:00 - 9:00 AM	0	204	0	14	0	0	0	0	0	65	0	5	0	0	0	0	269
Peak Hour 7:45 - 8:45 AM	0	224	0	15	0	0	0	0	0	85	0	8	0	0	0	0	309
Peak Hour Factor		0.93				0.00				0.79				0.00			0.91
Peak Hour % Trucks		7%				0%				9%				0%			
Peak 15 Min % Trucks		5%				0%				15%				0%			

Intersection: NW Hood Street/Project Access Date: 06/08/21

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	48	0	1	0	0	0	0	0	15	0	0	0	0	0	0	63
4:15 - 4:30 PM	0	44	0	3	0	0	0	0	0	10	0	0	0	0	0	0	54
4:30 - 4:45 PM	0	45	0	1	0	0	0	0	0	17	0	0	0	0	0	0	62
4:45 - 5:00 PM	0	42	0	2	0	0	0	0	0	8	0	0	0	0	0	0	50
5:00 - 5:15 PM	0	44	0	1	0	0	0	0	0	12	0	0	0	0	0	0	56
5:15 - 5:30 PM	0	36	0	2	0	0	0	0	0	17	0	0	0	0	0	0	53
5:30 - 5:45 PM	0	44	0	3	0	0	0	0	0	18	0	1	0	0	0	0	62
5:45 - 6:00 PM	0	51	0	0	0	0	0	0	0	8	0	0	0	0	0	0	59
															Peak 15 Total		63
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	0	179	0	7	0	0	0	0	0	50	0	0	0	0	0	0	229
4:15 - 5:15 PM	0	175	0	7	0	0	0	0	0	47	0	0	0	0	0	0	222
4:30 - 5:30 PM	0	167	0	6	0	0	0	0	0	54	0	0	0	0	0	0	221
4:45 - 5:45 PM	0	166	0	8	0	0	0	0	0	55	0	1	0	0	0	0	221
5:00 - 6:00 PM	0	175	0	6	0	0	0	0	0	55	0	1	0	0	0	0	230
Peak Hour 5:00 - 6:00 PM	0	175	0	6	0	0	0	0	0	55	0	1	0	0	0	0	230
Peak Hour Factor		0.86				0.00				0.76				0.00			0.93
Peak Hour % Trucks		3%				0%				2%				0%			
Peak 15 Min % Trucks		7%				0%				0%				0%			

Intersection: NW 16th Avenue/NW Brady Road
Date: 06/08/21
AM Peak Hour Turning Movement Volumes
Pandemic Adjusted

	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	9	28	9	0	8	8	31	0	16	23	9	1	2	2	3	0	148
7:15 - 7:30 AM	6	28	9	0	23	9	43	1	15	7	8	1	2	3	2	1	155
7:30 - 7:45 AM	9	32	5	5	19	28	52	2	12	22	8	5	3	10	7	3	207
7:45 - 8:00 AM	28	40	15	2	24	74	44	3	27	35	43	7	31	48	23	6	432
8:00 - 8:15 AM	2	29	18	2	19	27	45	2	10	20	12	6	17	26	14	3	239
8:15 - 8:30 AM	5	26	20	7	20	16	33	3	24	26	7	0	3	11	12	7	203
8:30 - 8:45 AM	7	28	15	2	35	34	31	8	15	39	9	5	3	11	9	6	236
8:45 - 9:00 AM	7	41	16	0	35	17	24	1	22	26	9	3	5	22	1	1	225
															Peak 15 Total		432
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	52	128	38	7	74	119	170	6	70	87	68	14	38	63	35	10	942
7:15 - 8:15 AM	45	129	47	9	85	138	184	8	64	84	71	19	53	87	46	13	1,033
7:30 - 8:30 AM	44	127	58	16	82	145	174	10	73	103	70	18	54	95	56	19	1,081
7:45 - 8:45 AM	42	123	68	13	98	151	153	16	76	120	71	18	54	96	58	22	1,110
8:00 - 9:00 AM	21	124	69	11	109	94	133	14	71	111	37	14	28	70	36	17	903
Peak Hour 7:45 - 8:45 AM	42	123	68	13	98	151	153	16	76	120	71	18	54	96	58	22	1,110
Peak Hour Factor		0.70				0.71				0.64				0.51			0.64
Peak Hour % Trucks		6%				4%				7%				11%			
Peak 15 Min % Trucks		2%				2%				7%				6%			

Intersection: NW 16th Avenue/NW Brady Road
Date: 06/08/21
PM Peak Hour Turning Movement Volumes
Pandemic Adjusted

	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	26	33	2	26	17	27	3	31	37	5	1	9	27	6	5	247
4:15 - 4:30 PM	2	23	32	0	26	18	25	3	35	44	2	1	6	36	5	1	254
4:30 - 4:45 PM	2	32	26	1	22	12	31	2	34	31	5	1	8	24	3	0	230
4:45 - 5:00 PM	6	34	28	2	28	17	26	2	43	26	5	0	5	32	2	0	252
5:00 - 5:15 PM	2	29	25	0	19	10	20	0	42	27	6	0	9	23	7	0	219
5:15 - 5:30 PM	6	34	27	1	27	11	20	0	50	40	2	0	5	26	3	0	251
5:30 - 5:45 PM	3	26	29	1	26	15	24	1	43	41	1	0	6	26	5	0	245
5:45 - 6:00 PM	8	34	27	0	26	19	25	0	41	31	6	0	7	22	8	0	254
															Peak 15 Total		254
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	13	115	119	5	102	64	109	10	143	138	17	3	28	119	16	6	983
4:15 - 5:15 PM	12	118	111	3	95	57	102	7	154	128	18	2	28	115	17	1	955
4:30 - 5:30 PM	16	129	106	4	96	50	97	4	169	124	18	1	27	105	15	0	952
4:45 - 5:45 PM	17	123	109	4	100	53	90	3	178	134	14	0	25	107	17	0	967
5:00 - 6:00 PM	19	123	108	2	98	55	89	1	176	139	15	0	27	97	23	0	969
Peak Hour 4:00 - 5:00 PM	13	115	119	5	102	64	109	10	143	138	17	3	28	119	16	6	983
Peak Hour Factor		0.91				0.97				0.92				0.87			0.97
Peak Hour % Trucks		2%				4%				1%				4%			
Peak 15 Min % Trucks		0%				4%				1%				2%			

Intersection: NW 18th Avenue/NW Hood Street
Date: 06/08/21
AM Peak Hour Turning Movement Volumes
Pandemic Adjusted

	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	6	0	0	0	0	34	1	23	2	0	0	0	0	0	0	65
7:15 - 7:30 AM	0	11	0	0	0	0	36	0	22	0	0	1	0	0	0	0	69
7:30 - 7:45 AM	0	9	3	1	1	0	53	0	20	0	0	2	0	0	0	0	86
7:45 - 8:00 AM	0	7	2	0	0	0	60	3	37	7	0	3	0	0	0	0	113
8:00 - 8:15 AM	0	5	1	0	0	0	63	2	40	8	0	2	0	0	0	0	117
8:15 - 8:30 AM	0	8	2	1	0	0	43	3	37	12	0	2	0	0	0	0	102
8:30 - 8:45 AM	0	7	2	0	0	0	61	7	39	2	0	5	0	0	0	0	111
8:45 - 9:00 AM	0	8	1	0	0	0	36	2	41	8	0	3	0	0	0	0	94
															Peak 15 Total		117
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	0	33	5	1	1	0	183	4	102	9	0	6	0	0	0	0	333
7:15 - 8:15 AM	0	32	6	1	1	0	212	5	119	15	0	8	0	0	0	0	385
7:30 - 8:30 AM	0	29	8	2	1	0	219	8	134	27	0	9	0	0	0	0	418
7:45 - 8:45 AM	0	27	7	1	0	0	227	15	153	29	0	12	0	0	0	0	443
8:00 - 9:00 AM	0	28	6	1	0	0	203	14	157	30	0	12	0	0	0	0	424
Peak Hour 7:45 - 8:45 AM	0	27	7	1	0	0	227	15	153	29	0	12	0	0	0	0	443
Peak Hour Factor		0.85				0.90				0.93				0.00			0.95
Peak Hour % Trucks		3%				7%				7%				0%			
Peak 15 Min % Trucks		0%				3%				4%				0%			

Intersection: NW 18th Avenue/NW Hood Street
Date: 06/08/21
PM Peak Hour Turning Movement Volumes
Pandemic Adjusted

	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	12	1	0	3	0	42	1	61	10	0	6	0	0	0	0	129
4:15 - 4:30 PM	0	10	1	1	1	0	40	2	51	10	0	0	0	0	0	0	113
4:30 - 4:45 PM	0	10	2	0	1	0	41	1	54	11	0	0	0	0	0	0	119
4:45 - 5:00 PM	0	6	1	0	1	0	42	2	76	8	0	0	0	0	0	0	134
5:00 - 5:15 PM	0	3	0	0	0	0	46	1	51	6	0	0	0	0	0	0	106
5:15 - 5:30 PM	0	6	0	0	0	0	35	2	56	10	0	1	0	0	0	0	107
5:30 - 5:45 PM	0	8	1	0	3	0	42	3	59	10	0	0	0	0	0	0	123
5:45 - 6:00 PM	0	10	1	0	2	0	48	0	59	11	0	0	0	0	0	0	131
															Peak 15 Total		134
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	0	38	5	1	6	0	165	6	242	39	0	6	0	0	0	0	495
4:15 - 5:15 PM	0	29	4	1	3	0	169	6	232	35	0	0	0	0	0	0	472
4:30 - 5:30 PM	0	25	3	0	2	0	164	6	237	35	0	1	0	0	0	0	466
4:45 - 5:45 PM	0	23	2	0	4	0	165	8	242	34	0	1	0	0	0	0	470
5:00 - 6:00 PM	0	27	2	0	5	0	171	6	225	37	0	1	0	0	0	0	467
Peak Hour 4:00 - 5:00 PM	0	38	5	1	6	0	165	6	242	39	0	6	0	0	0	0	495
Peak Hour Factor		0.83				0.95				0.84				0.00			0.92
Peak Hour % Trucks		2%				4%				2%				0%			
Peak 15 Min % Trucks		0%				5%				0%				0%			

Intersection: NW 18th Avenue/NW Astor Street
AM Peak Hour Turning Movement Volumes

Date: 06/08/21
Pandemic Adjusted

	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	9	2	0	1	0	0	0	0	0	9	3	0	0	0	1	0	24
7:15 - 7:30 AM	11	8	0	0	0	0	0	0	0	11	1	1	1	0	8	0	40
7:30 - 7:45 AM	11	6	0	1	0	0	0	0	0	14	0	0	1	0	11	2	43
7:45 - 8:00 AM	29	23	0	3	0	0	0	0	0	26	3	5	1	0	19	0	101
8:00 - 8:15 AM	32	24	0	3	0	0	0	0	0	22	1	0	0	0	20	0	99
8:15 - 8:30 AM	8	7	0	3	0	0	0	0	0	25	6	5	0	0	18	0	64
8:30 - 8:45 AM	18	8	0	2	0	0	0	0	0	10	3	0	2	0	14	2	55
8:45 - 9:00 AM	6	12	0	0	0	0	0	0	0	7	0	1	0	0	20	0	45
															Peak 15 Total		101
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	60	39	0	5	0	0	0	0	0	60	7	6	3	0	39	2	208
7:15 - 8:15 AM	83	61	0	7	0	0	0	0	0	73	5	6	3	0	58	2	283
7:30 - 8:30 AM	80	60	0	10	0	0	0	0	0	87	10	10	2	0	68	2	307
7:45 - 8:45 AM	87	62	0	11	0	0	0	0	0	83	13	10	3	0	71	2	319
8:00 - 9:00 AM	64	51	0	8	0	0	0	0	0	64	10	6	2	0	72	2	263
Peak Hour 7:45 - 8:45 AM	87	62	0	11	0	0	0	0	0	83	13	10	3	0	71	2	319
Peak Hour Factor		0.67				0.00				0.77				0.93			0.79
Peak Hour % Trucks		7%				0%				10%				3%			
Peak 15 Min % Trucks		6%				0%				17%				0%			

Intersection: NW 18th Avenue/NW Astor Street
Date: 06/08/21
PM Peak Hour Turning Movement Volumes
Pandemic Adjusted

	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	18	20	0	0	0	0	0	0	0	16	1	0	3	0	15	0	73
4:15 - 4:30 PM	8	6	0	0	0	0	0	0	0	11	0	0	2	0	7	0	34
4:30 - 4:45 PM	18	14	0	1	0	0	0	0	0	16	3	0	6	0	19	0	76
4:45 - 5:00 PM	22	9	0	0	0	0	0	0	0	6	3	0	2	0	17	0	59
5:00 - 5:15 PM	10	8	0	1	0	0	0	0	0	14	0	0	1	0	12	0	45
5:15 - 5:30 PM	8	18	0	0	0	0	0	0	0	17	2	0	6	0	22	0	73
5:30 - 5:45 PM	16	14	0	0	0	0	0	0	0	16	5	1	3	0	12	0	66
5:45 - 6:00 PM	12	6	0	0	0	0	0	0	0	9	0	0	1	0	18	0	46
															Peak 15 Total		76
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	66	49	0	1	0	0	0	0	0	49	7	0	13	0	58	0	242
4:15 - 5:15 PM	58	37	0	2	0	0	0	0	0	47	6	0	11	0	55	0	214
4:30 - 5:30 PM	58	49	0	2	0	0	0	0	0	53	8	0	15	0	70	0	253
4:45 - 5:45 PM	56	49	0	1	0	0	0	0	0	53	10	1	12	0	63	0	243
5:00 - 6:00 PM	46	46	0	1	0	0	0	0	0	56	7	1	11	0	64	0	230
Peak Hour 4:30 - 5:30 PM	58	49	0	2	0	0	0	0	0	53	8	0	15	0	70	0	253
Peak Hour Factor		0.84				0.00				0.80				0.76			0.83
Peak Hour % Trucks		2%				0%				0%				0%			
Peak 15 Min % Trucks		3%				0%				0%				0%			

Intersection: NW Hood Street/Project Access
Date: 06/08/21
AM Peak Hour Turning Movement Volumes
Pandemic Adjusted

	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	40	0	1	0	0	0	0	0	12	0	0	0	0	0	0	52
7:15 - 7:30 AM	0	48	0	0	0	0	0	0	0	12	0	1	0	0	0	0	60
7:30 - 7:45 AM	0	62	0	1	0	0	0	0	0	14	0	0	0	0	0	0	76
7:45 - 8:00 AM	0	67	0	3	0	0	0	0	0	29	0	5	0	0	0	0	96
8:00 - 8:15 AM	0	68	0	2	0	0	0	0	0	23	0	0	0	0	0	0	91
8:15 - 8:30 AM	0	51	0	5	0	0	0	0	0	31	0	5	0	0	0	0	82
8:30 - 8:45 AM	0	68	0	7	0	0	0	0	0	14	0	0	0	0	0	0	82
8:45 - 9:00 AM	0	44	0	2	0	0	0	0	0	7	0	1	0	0	0	0	51
															Peak 15 Total		96
Hourly Total by 15 minutes																	
7:00 - 8:00 AM	0	217	0	5	0	0	0	0	0	67	0	6	0	0	0	0	284
7:15 - 8:15 AM	0	245	0	6	0	0	0	0	0	78	0	6	0	0	0	0	323
7:30 - 8:30 AM	0	248	0	11	0	0	0	0	0	97	0	10	0	0	0	0	345
7:45 - 8:45 AM	0	254	0	17	0	0	0	0	0	97	0	10	0	0	0	0	351
8:00 - 9:00 AM	0	231	0	16	0	0	0	0	0	75	0	6	0	0	0	0	306
Peak Hour 7:45 - 8:45 AM	0	254	0	17	0	0	0	0	0	97	0	10	0	0	0	0	351
Peak Hour Factor		0.93				0.00				0.78				0.00			0.91
Peak Hour % Trucks		7%				0%				10%				0%			
Peak 15 Min % Trucks		4%				0%				17%				0%			

Intersection: NW Hood Street/Project Access — Date: 06/08/21
PM Peak Hour Turning Movement Volumes — Pandemic Adjusted

	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	54	0	1	0	0	0	0	0	17	0	0	0	0	0	0	71
4:15 - 4:30 PM	0	50	0	3	0	0	0	0	0	11	0	0	0	0	0	0	61
4:30 - 4:45 PM	0	51	0	1	0	0	0	0	0	19	0	0	0	0	0	0	70
4:45 - 5:00 PM	0	48	0	2	0	0	0	0	0	9	0	0	0	0	0	0	57
5:00 - 5:15 PM	0	50	0	1	0	0	0	0	0	14	0	0	0	0	0	0	64
5:15 - 5:30 PM	0	41	0	2	0	0	0	0	0	19	0	0	0	0	0	0	60
5:30 - 5:45 PM	0	50	0	3	0	0	0	0	0	20	0	1	0	0	0	0	70
5:45 - 6:00 PM	0	58	0	0	0	0	0	0	0	9	0	0	0	0	0	0	67
															Peak 15 Total		71
Hourly Total by 15 minutes																	
4:00 - 5:00 PM	0	203	0	7	0	0	0	0	0	56	0	0	0	0	0	0	259
4:15 - 5:15 PM	0	199	0	7	0	0	0	0	0	53	0	0	0	0	0	0	252
4:30 - 5:30 PM	0	190	0	6	0	0	0	0	0	61	0	0	0	0	0	0	251
4:45 - 5:45 PM	0	189	0	8	0	0	0	0	0	62	0	1	0	0	0	0	251
5:00 - 6:00 PM	0	199	0	6	0	0	0	0	0	62	0	1	0	0	0	0	261
Peak Hour 5:00 - 6:00 PM	0	199	0	6	0	0	0	0	0	62	0	1	0	0	0	0	261
Peak Hour Factor		0.86				0.00				0.78				0.00			0.93
Peak Hour % Trucks		3%				0%				2%				0%			
Peak 15 Min % Trucks		2%				0%				0%				0%			

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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
07/26/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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		

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
07/27/21	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		

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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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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

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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
07/26/21	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
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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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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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		

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

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

08/16/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	92	192	124	176	296	96	172	140	108	60	160	112
Future Volume (vph)	92	192	124	176	296	96	172	140	108	60	160	112
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		0.941			0.963			0.935			0.938	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	1687	0	1770	1794	0	1687	1660	0	1770	1747	0
Flt Permitted	0.385			0.278			0.323			0.605		
Satd. Flow (perm)	690	1687	0	518	1794	0	574	1660	0	1127	1747	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			20			46			38	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2524			540			660	
Travel Time (s)		17.5			49.2			10.5			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%	2%	2%	2%	7%	7%	7%	2%	2%	2%
Adj. Flow (vph)	92	192	124	176	296	96	172	140	108	60	160	112
Shared Lane Traffic (%)												
Lane Group Flow (vph)	92	316	0	176	392	0	172	248	0	60	272	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

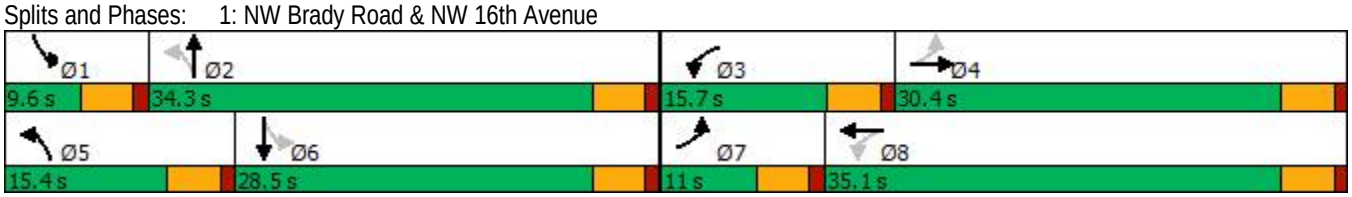
08/16/2021

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)	11.0	30.4		15.7	35.1		15.4	34.3		9.6	28.5	
Total Split (%)	12.2%	33.8%		17.4%	39.0%		17.1%	38.1%		10.7%	31.7%	
Maximum Green (s)	6.5	25.9		11.2	30.6		10.9	29.8		5.1	24.0	
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)	23.7	17.1		30.4	22.9		29.9	24.8		20.4	15.1	
Actuated g/C Ratio	0.34	0.24		0.43	0.32		0.42	0.35		0.29	0.21	
v/c Ratio	0.28	0.72		0.45	0.66		0.43	0.40		0.16	0.67	
Control Delay	15.5	33.1		17.0	27.6		17.8	19.0		15.4	32.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.5	33.1		17.0	27.6		17.8	19.0		15.4	32.0	
LOS	B	C		B	C		B	B		B	C	
Approach Delay		29.1			24.3			18.5			29.0	
Approach LOS		C			C			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 70.6
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 24.9 Intersection LOS: C
Intersection Capacity Utilization 67.2% 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

08/16/2021

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	92	316	176	392	172	248	60	272
v/c Ratio	0.28	0.72	0.45	0.66	0.43	0.40	0.16	0.67
Control Delay	15.5	33.1	17.0	27.6	17.8	19.0	15.4	32.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.5	33.1	17.0	27.6	17.8	19.0	15.4	32.0
Queue Length 50th (ft)	23	112	45	146	46	71	15	94
Queue Length 95th (ft)	57	227	99	273	103	155	42	194
Internal Link Dist (ft)		561		2444		460		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	330	668	436	822	422	756	374	643
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	0.28	0.47	0.40	0.48	0.41	0.33	0.16	0.42

Intersection Summary

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

08/16/2021

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	92	192	124	176	296	96	172	140	108	60	160	112
Future Volume (veh/h)	92	192	124	176	296	96	172	140	108	60	160	112
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	1870	1870	1870	1796	1796	1796	1870	1870	1870
Adj Flow Rate, veh/h	92	192	124	176	296	96	172	140	108	60	160	112
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	2	2	2	7	7	7	2	2	2
Cap, veh/h	329	252	163	396	379	123	383	245	189	380	213	149
Arrive On Green	0.07	0.25	0.25	0.10	0.28	0.28	0.11	0.26	0.26	0.06	0.21	0.21
Sat Flow, veh/h	1725	1028	664	1781	1353	439	1711	940	725	1781	1024	717
Grp Volume(v), veh/h	92	0	316	176	0	392	172	0	248	60	0	272
Grp Sat Flow(s),veh/h/ln	1725	0	1692	1781	0	1791	1711	0	1666	1781	0	1741
Q Serve(g_s), s	2.1	0.0	9.3	3.8	0.0	10.8	4.1	0.0	6.9	1.4	0.0	7.9
Cycle Q Clear(g_c), s	2.1	0.0	9.3	3.8	0.0	10.8	4.1	0.0	6.9	1.4	0.0	7.9
Prop In Lane	1.00		0.39	1.00		0.24	1.00		0.44	1.00		0.41
Lane Grp Cap(c), veh/h	329	0	415	396	0	501	383	0	434	380	0	362
V/C Ratio(X)	0.28	0.00	0.76	0.44	0.00	0.78	0.45	0.00	0.57	0.16	0.00	0.75
Avail Cap(c_a), veh/h	418	0	816	582	0	1021	546	0	924	451	0	778
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	14.2	0.0	18.8	13.6	0.0	17.8	14.5	0.0	17.3	15.3	0.0	20.0
Incr Delay (d2), s/veh	0.5	0.0	2.9	0.8	0.0	2.7	0.8	0.0	1.2	0.2	0.0	3.2
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	0.8	0.0	3.7	1.4	0.0	4.2	1.4	0.0	2.5	0.5	0.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.6	0.0	21.7	14.4	0.0	20.5	15.3	0.0	18.4	15.5	0.0	23.1
LnGrp LOS	B	A	C	B	A	C	B	A	B	B	A	C
Approach Vol, veh/h		408			568			420			332	
Approach Delay, s/veh		20.1			18.6			17.2			21.7	
Approach LOS		C			B			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.5	18.5	10.1	17.7	10.3	15.7	8.2	19.5
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	29.8	11.2	25.9	10.9	24.0	6.5	30.6
Max Q Clear Time (g_c+I1), s	3.4	8.9	5.8	11.3	6.1	9.9	4.1	12.8
Green Ext Time (p_c), s	0.0	1.4	0.2	1.7	0.2	1.3	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	19.2
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hood Street & NW 18th Avenue

08/16/2021

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	252	0	32	160	4	20
Future Volume (vph)	252	0	32	160	4	20
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			0.887			
Flt Protected	0.950					0.992
Satd. Flow (prot)	1752	0	1620	0	0	1885
Flt Permitted	0.950					0.992
Satd. Flow (perm)	1752	0	1620	0	0	1885
Link Speed (mph)	35		35			25
Link Distance (ft)	1973		678			697
Travel Time (s)	38.4		13.2			19.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	4%	4%	0%	0%
Adj. Flow (vph)	252	0	32	160	4	20
Shared Lane Traffic (%)						
Lane Group Flow (vph)	252	0	192	0	0	24
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 32.2%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
2: NW Hood Street & NW 18th Avenue 08/16/2021

Intersection	
Int Delay, s/veh	6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	252	0	32	160	4	20
Future Vol, veh/h	252	0	32	160	4	20
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, %	3	3	4	4	0	0
Mvmt Flow	252	0	32	160	4	20

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	140	112	0	0	192	0
Stage 1	112	-	-	-	-	-
Stage 2	28	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.2	-
Pot Cap-1 Maneuver	851	938	-	-	1394	-
Stage 1	910	-	-	-	-	-
Stage 2	992	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	848	938	-	-	1394	-
Mov Cap-2 Maneuver	848	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	989	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	848	1394	-
HCM Lane V/C Ratio	-	-	0.297	0.003	-
HCM Control Delay (s)	-	-	11	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0	-

Lanes, Volumes, Timings
3: NW Astor Street & NW 18th Avenue

08/16/2021

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	76	4	12	104	92	116
Future Volume (vph)	76	4	12	104	92	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.925	
Flt Protected	0.955		0.950			
Satd. Flow (prot)	1802	0	1543	1624	1658	0
Flt Permitted	0.955		0.950			
Satd. Flow (perm)	1802	0	1543	1624	1658	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	1973			585	600	
Travel Time (s)	38.4			11.4	11.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	17%	17%	6%	6%
Adj. Flow (vph)	76	4	12	104	92	116
Shared Lane Traffic (%)						
Lane Group Flow (vph)	80	0	12	104	208	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.1%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
3: NW Astor Street & NW 18th Avenue 08/16/2021

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	4	12	104	92	116
Future Vol, veh/h	76	4	12	104	92	116
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	-	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	17	17	6	6
Mvmt Flow	76	4	12	104	92	116

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	278	150	208	0	-	0
Stage 1	150	-	-	-	-	-
Stage 2	128	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.27	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.353	-	-	-
Pot Cap-1 Maneuver	716	902	1279	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	710	902	1279	-	-	-
Mov Cap-2 Maneuver	710	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	903	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1279	-	718	-	-
HCM Lane V/C Ratio	0.009	-	0.111	-	-
HCM Control Delay (s)	7.8	-	10.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

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

08/16/2021

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	144	24	100	72	104	8	176	140	128	92	8
Future Volume (vph)	20	144	24	100	72	104	8	176	140	128	92	8
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		0.979			0.911			0.934			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1824	0	1736	1664	0	1787	1757	0	1805	1877	0
Flt Permitted	0.646			0.424			0.692			0.388		
Satd. Flow (perm)	1203	1824	0	775	1664	0	1302	1757	0	737	1877	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			79			50			6	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2524			540			660	
Travel Time (s)		17.5			49.2			10.5			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 (%)	2%	2%	2%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	20	144	24	100	72	104	8	176	140	128	92	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	168	0	100	176	0	8	316	0	128	100	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

08/16/2021

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	26.0		13.0	29.0		10.0	37.0		14.0	41.0	
Total Split (%)	11.1%	28.9%		14.4%	32.2%		11.1%	41.1%		15.6%	45.6%	
Maximum Green (s)	5.5	21.5		8.5	24.5		5.5	32.5		9.5	36.5	
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)	15.2	11.9		19.8	18.5		23.5	22.3		28.6	29.8	
Actuated g/C Ratio	0.28	0.22		0.36	0.34		0.43	0.41		0.53	0.55	
v/c Ratio	0.05	0.41		0.23	0.28		0.01	0.42		0.23	0.10	
Control Delay	14.0	25.9		14.9	11.7		10.0	19.0		11.0	11.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.0	25.9		14.9	11.7		10.0	19.0		11.0	11.9	
LOS	B	C		B	B		A	B		B	B	
Approach Delay		24.6			12.9			18.7			11.4	
Approach LOS		C			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 54.3
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.42
Intersection Signal Delay: 16.6 Intersection LOS: B
Intersection Capacity Utilization 54.5% ICU Level of Service A
Analysis Period (min) 15

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

Queues

1: NW Brady Road & NW 16th Avenue

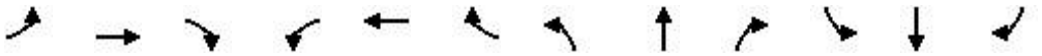
08/16/2021

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	20	168	100	176	8	316	128	100
v/c Ratio	0.05	0.41	0.23	0.28	0.01	0.42	0.23	0.10
Control Delay	14.0	25.9	14.9	11.7	10.0	19.0	11.0	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.0	25.9	14.9	11.7	10.0	19.0	11.0	11.9
Queue Length 50th (ft)	4	51	22	22	1	84	25	18
Queue Length 95th (ft)	19	120	61	87	8	179	59	61
Internal Link Dist (ft)		561		2444		460		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	410	875	497	902	626	1106	625	1260
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	0.19	0.20	0.20	0.01	0.29	0.20	0.08

Intersection Summary

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

08/16/2021



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	144	24	100	72	104	8	176	140	128	92	8
Future Volume (veh/h)	20	144	24	100	72	104	8	176	140	128	92	8
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	1870	1870	1870	1841	1841	1841	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	20	144	24	100	72	104	8	176	140	128	92	8
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, %	2	2	2	4	4	4	1	1	1	0	0	0
Cap, veh/h	349	234	39	387	140	203	522	249	198	433	580	50
Arrive On Green	0.02	0.15	0.15	0.08	0.21	0.21	0.01	0.26	0.26	0.09	0.34	0.34
Sat Flow, veh/h	1781	1563	260	1753	681	983	1795	972	774	1810	1723	150
Grp Volume(v), veh/h	20	0	168	100	0	176	8	0	316	128	0	100
Grp Sat Flow(s),veh/h/ln	1781	0	1823	1753	0	1664	1795	0	1746	1810	0	1873
Q Serve(g_s), s	0.4	0.0	3.7	2.0	0.0	4.0	0.1	0.0	7.0	2.0	0.0	1.6
Cycle Q Clear(g_c), s	0.4	0.0	3.7	2.0	0.0	4.0	0.1	0.0	7.0	2.0	0.0	1.6
Prop In Lane	1.00		0.14	1.00		0.59	1.00		0.44	1.00		0.08
Lane Grp Cap(c), veh/h	349	0	273	387	0	343	522	0	447	433	0	631
V/C Ratio(X)	0.06	0.00	0.62	0.26	0.00	0.51	0.02	0.00	0.71	0.30	0.00	0.16
Avail Cap(c_a), veh/h	534	0	919	594	0	955	734	0	1329	670	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	14.7	0.0	17.0	13.6	0.0	15.0	11.5	0.0	14.4	10.0	0.0	9.9
Incr Delay (d2), s/veh	0.1	0.0	2.3	0.3	0.0	1.2	0.0	0.0	2.1	0.4	0.0	0.1
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	0.1	0.0	1.5	0.7	0.0	1.3	0.0	0.0	2.5	0.6	0.0	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.8	0.0	19.2	13.9	0.0	16.2	11.5	0.0	16.5	10.3	0.0	10.0
LnGrp LOS	B	A	B	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		188			276			324			228	
Approach Delay, s/veh		18.8			15.4			16.4			10.2	
Approach LOS		B			B			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	15.4	8.0	10.9	5.0	18.9	5.6	13.3
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	9.5	32.5	8.5	21.5	5.5	36.5	5.5	24.5
Max Q Clear Time (g_c+I1), s	4.0	9.0	4.0	5.7	2.1	3.6	2.4	6.0
Green Ext Time (p_c), s	0.1	1.9	0.1	0.8	0.0	0.5	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	15.2
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hood Street & NW 18th Avenue

08/16/2021

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	164	4	44	216	8	40
Future Volume (vph)	164	4	44	216	8	40
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		0.888			
Flt Protected	0.953					0.992
Satd. Flow (prot)	1719	0	1687	0	0	1885
Flt Permitted	0.953					0.992
Satd. Flow (perm)	1719	0	1687	0	0	1885
Link Speed (mph)	35		35			25
Link Distance (ft)	1973		678			697
Travel Time (s)	38.4		13.2			19.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	5%	5%	0%	0%	0%	0%
Adj. Flow (vph)	164	4	44	216	8	40
Shared Lane Traffic (%)						
Lane Group Flow (vph)	168	0	260	0	0	48
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 31.6%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
2: NW Hood Street & NW 18th Avenue 08/16/2021

Intersection	
Int Delay, s/veh	4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	164	4	44	216	8	40
Future Vol, veh/h	164	4	44	216	8	40
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, %	5	5	0	0	0	0
Mvmt Flow	164	4	44	216	8	40

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	208	152	0	0	260	0
Stage 1	152	-	-	-	-	-
Stage 2	56	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.1	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.2	-
Pot Cap-1 Maneuver	774	886	-	-	1316	-
Stage 1	869	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	769	886	-	-	1316	-
Mov Cap-2 Maneuver	769	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	953	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	771	1316	-
HCM Lane V/C Ratio	-	-	0.218	0.006	-
HCM Control Delay (s)	-	-	11	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Lanes, Volumes, Timings
3: NW Astor Street & NW 18th Avenue

08/16/2021

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	76	24	12	64	56	72
Future Volume (vph)	76	24	12	64	56	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.968				0.924	
Flt Protected	0.963		0.950			
Satd. Flow (prot)	1771	0	1805	1900	1704	0
Flt Permitted	0.963		0.950			
Satd. Flow (perm)	1771	0	1805	1900	1704	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	1973			585	600	
Travel Time (s)	38.4			11.4	11.7	
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)	76	24	12	64	56	72
Shared Lane Traffic (%)						
Lane Group Flow (vph)	100	0	12	64	128	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.3%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
3: NW Astor Street & NW 18th Avenue 08/16/2021

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	24	12	64	56	72
Future Vol, veh/h	76	24	12	64	56	72
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	-	120	-	-	-
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	76	24	12	64	56	72

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	180	92	128	0	-	0
Stage 1	92	-	-	-	-	-
Stage 2	88	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	814	971	1470	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	807	971	1470	-	-	-
Mov Cap-2 Maneuver	807	-	-	-	-	-
Stage 1	930	-	-	-	-	-
Stage 2	940	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	1.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1470	-	841	-	-
HCM Lane V/C Ratio	0.008	-	0.119	-	-
HCM Control Delay (s)	7.5	-	9.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

APPENDIX C

ACCIDENT DATA

CITY STREET INTERSECTIONS

16th Ave @ Brady Rd

18th Ave @ Hood St - *No Reported Crashes*

18th Ave @ Astor St - *No Reported Crashes*

CITY STREET ROAD SEGMENTS

Hood St from 16th Ave to 18th Ave

OFFICER REPORTED CRASHES THAT OCCURRED *at* OR *in the vicinity of* MULTIPLE INTERSECTIONS & ROAD SEGMENT IN THE CITY OF CAMAS

01/01/2016 - *Avail 2021* *See 2nd tab below for road info*

Under 23 U.S. Code § 148 and 23 U.S. Code § 409, 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.

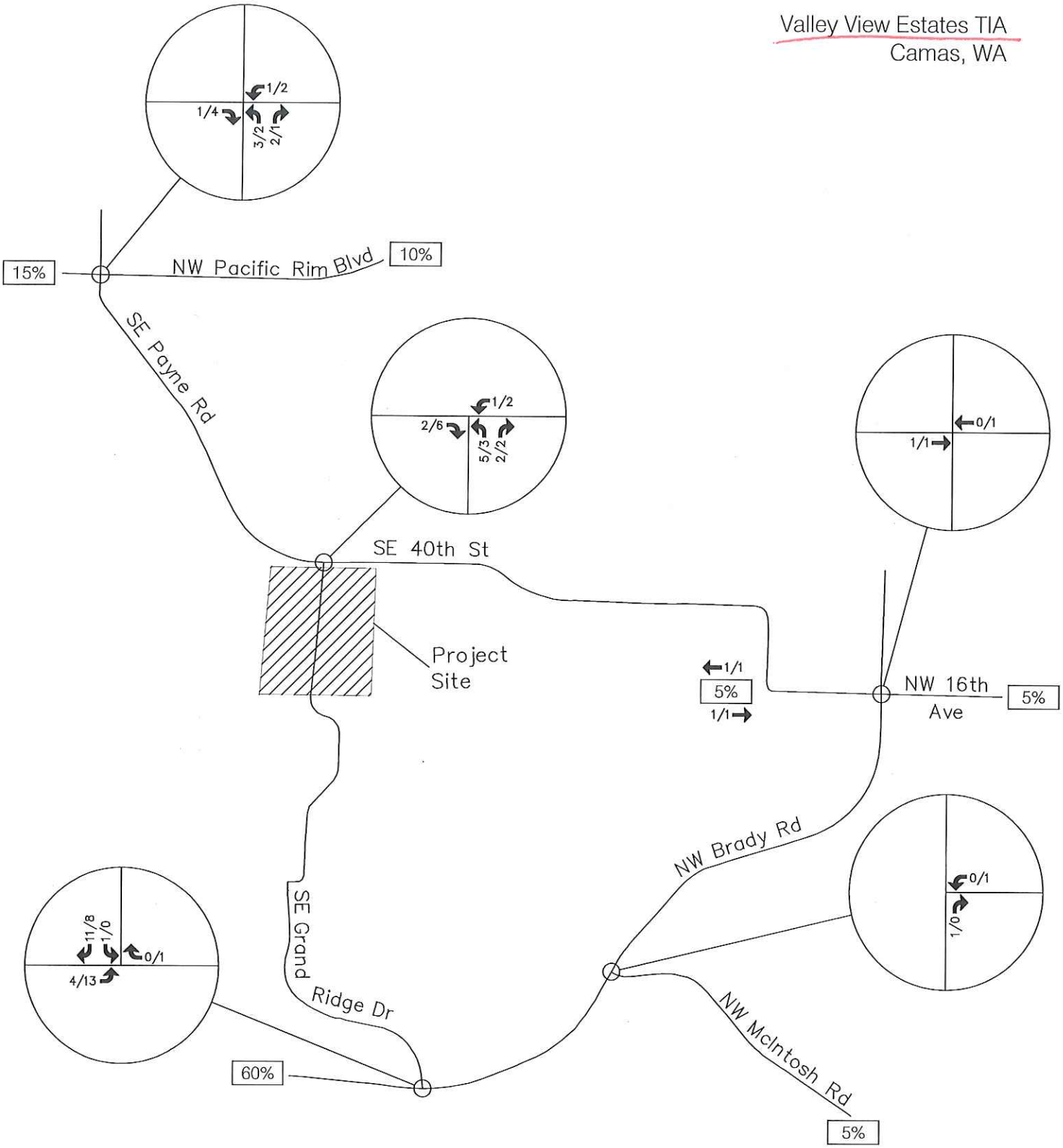
JURISDICTION	COUNTY	CITY	PRIMARY TRAFFICWAY	BLOCK NUMBER	INTERSECTING TRAFFICWAY	DIST FROM REF POINT	MI or FT	COMP DIR FROM REF POINT	REFERENCE POINT NAME	MILEPOST	A / B	SR ONLY HISTORY/ SUSPENSE	REPORT NUMBER	DATE	TIME	MOST SEVERE INJURY TYPE	# INJ	# FAT	# VEH	# PED	# BIKES	VEHICLE 1 TYPE	VEHICLE 2 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	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 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 KLICKITAT ST							No	E836219	09/09/2018	17:01	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		At Intersection and Not Related	Clear or Partly Cloudy	Dry	Daylight	Utility Box	Going Straight Ahead		West	East			Apparently Asleep or Fatigued	Inattention			Past the Outside Shoulder of Primary Trafficway	1142088.28	99984.73
City Street	Clark	Camas	NW 16TH AVE	0	NW KLICKITAT ST							No	E984561	11/04/2019	15:43	No Apparent Injury	0	0	2	0	0	Passenger Car	Passenger Car	At Intersection and Related	Clear or Partly Cloudy	Dry	Daylight	From same direction - both going straight - both moving - rear-end	Going Straight Ahead	Slowing	East	West	East	West	Follow Too Closely		None		Lane of Primary Trafficway	1142088.28	99984.72
City Street	Clark	Camas	NW 16TH AVE	3500		30	F	W	NW KLICKITAT ST			No	EA32416	05/03/2020	20:56	No Apparent Injury	0	0	3	0	0	Passenger Car	Passenger Car	Intersection Related but Not at Intersection	Clear	Dry	Dark-Street Lights On	From same direction - both going straight - one stopped - rear-end	Going Straight Ahead	Stopped for Traffic	West	East	Vehicle Stopped	Vehicle Stopped	Operating Handheld Cell Phone		None		Lane of Primary Trafficway	1142058.39	99985.57
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	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 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	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	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	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 HOOD ST	1600		194	F	N	NW 16TH AVE			No	3767118	05/31/2016	21:30	No Apparent Injury	0	0	1	0	0	Pickup,Panel Truck or Vanette under 10,000 lb		Not at Intersection and Not Related	Clear or Partly Cloudy	Dry	Dark-Street Lights On	Utility Pole	Going Straight Ahead		South	North			Exceeding Stated Speed Limit				Past the Outside Shoulder of Primary Trafficway	1143148.25	100171.95
City Street	Clark	Camas	NW	0	NW 16TH AVE							No	E857812	10/26/2018	09:24	No	0	0	1	0	0	Pickup,Panel		At Intersection	Raining	Wet	Daylight	Fire Hydrant	Making		West	North			Exceeding Reas.				Past the Outside	1142409.52	99978.25
City Street	Clark	Camas	NW	1600		176	F	N	NW 16TH AVE			No	3766508	12/09/2016	10:07	No	0	0	1	0	0	Pickup,Panel		Not at	Sleet or	Ice	Daylight	Street Light Pole	Going		South	North			Other				Past the Outside	1142358.17	100146.97

APPENDIX D

IN-PROCESS INFORMATION

0% Build-Out 8-12-21

Valley View Estates TIA
Camas, WA



LEGEND

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

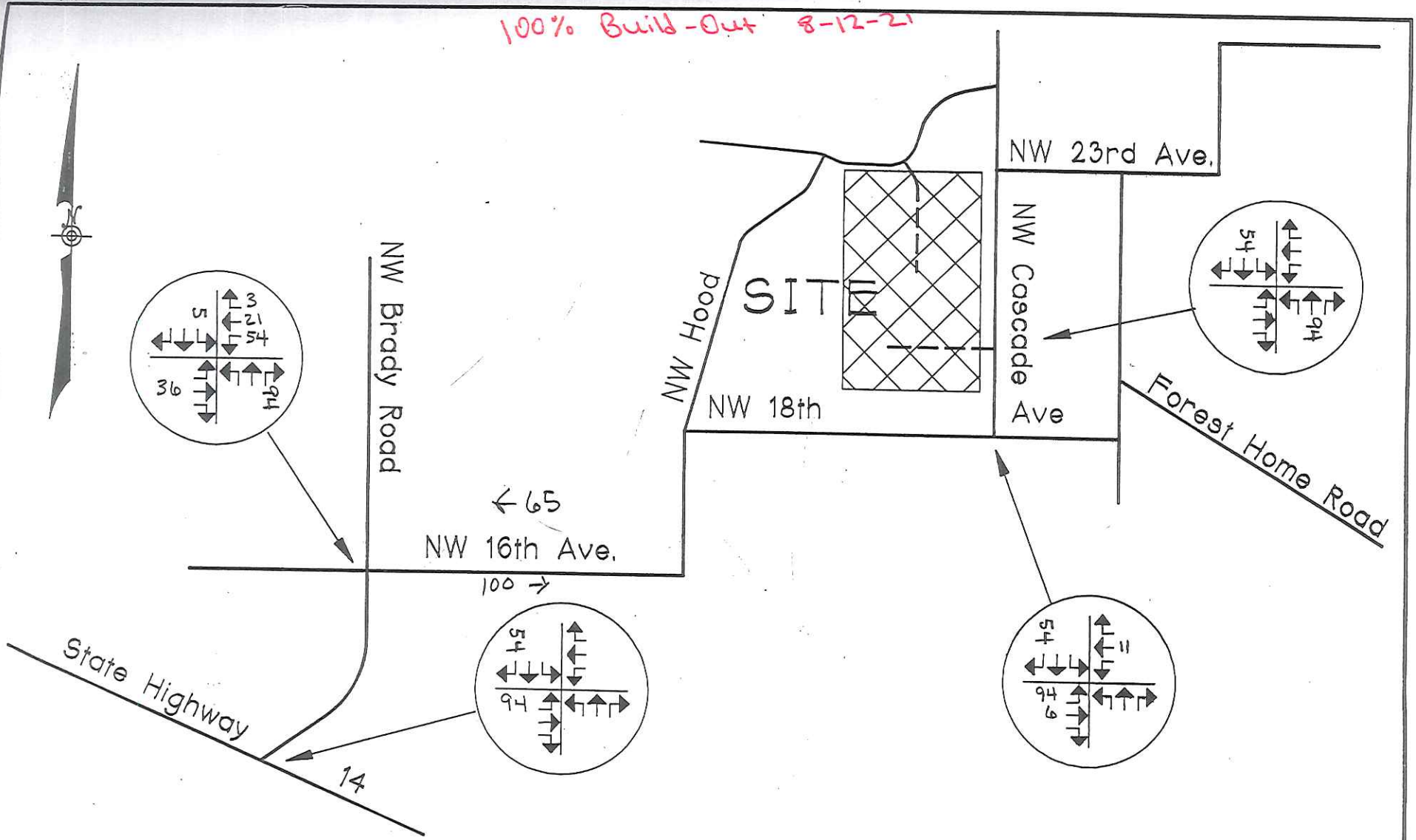
10% Peak Hour Trip Distribution

NOT TO SCALE

FIGURE 6
Trip Distribution and Assignment
Traffic Volumes

18006_Figures.Dwg

100% Build-Out 8-12-21



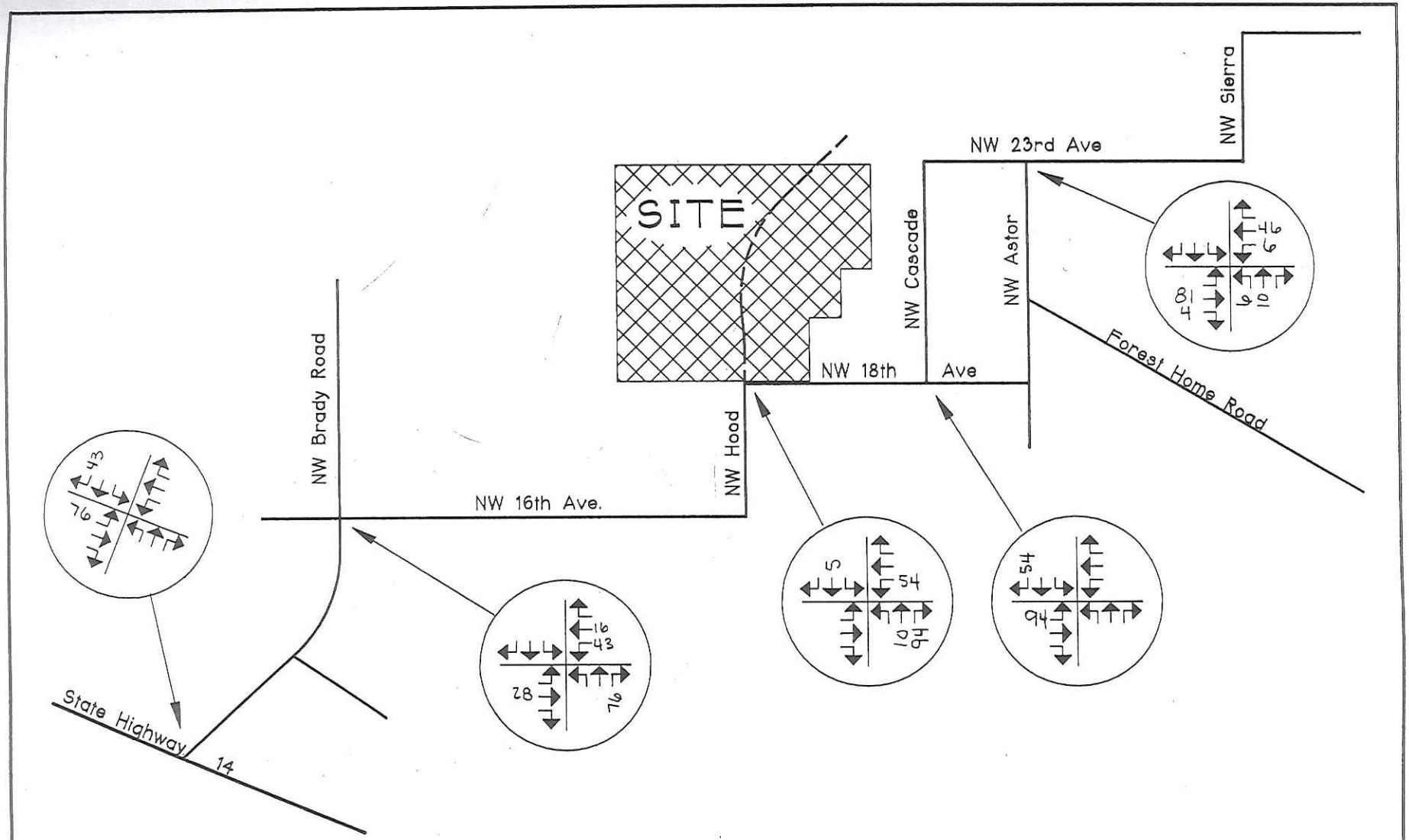
Cascade Drive Near NW 23rd Avenue

TRAFFIC GROWTH

PM PEAK HOUR

Robert
KEECH ASSOCIATES, INC.
CONSULTING TRAFFIC ENGINEER
1225 NW MURRAY BLVD., PORTLAND, OR 97229 (503) 641-6333

100% Build-Out 8-12-21



Ziegler Site Phase II

TRAFFIC GROWTH

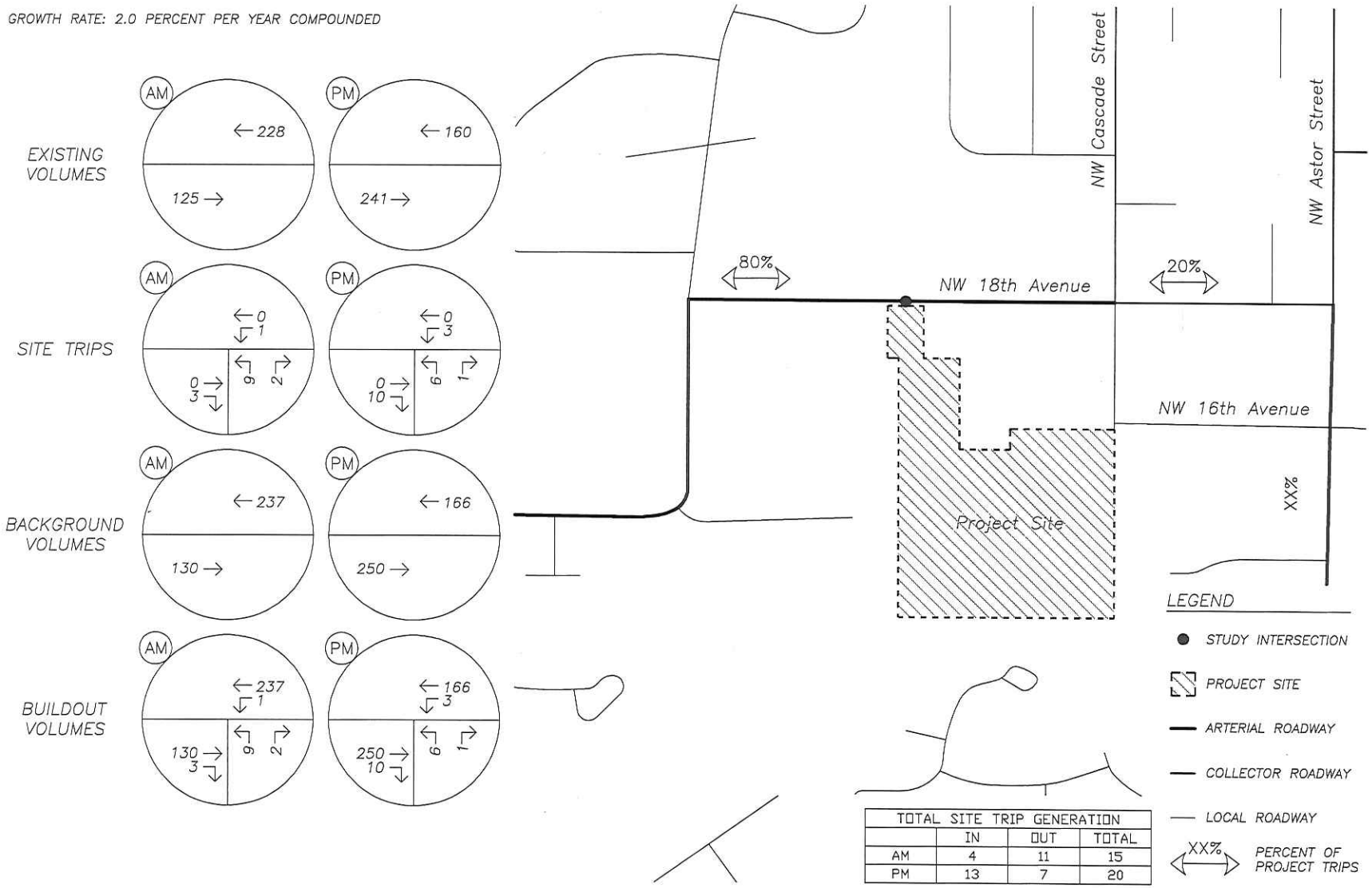
PM PEAK HOUR

Robert
KEECH ASSOCIATES, INC.
CONSULTING TRAFFIC ENGINEER
1225 NW MURRAY BLVD., PORTLAND, OR 97229 (503) 641-6333

Columbia Summit Estates II

95% Build-out 8-12-21

GROWTH RATE: 2.0 PERCENT PER YEAR COMPOUNDED



TOTAL SITE TRIP GENERATION			
	IN	OUT	TOTAL
AM	4	11	15
PM	13	7	20

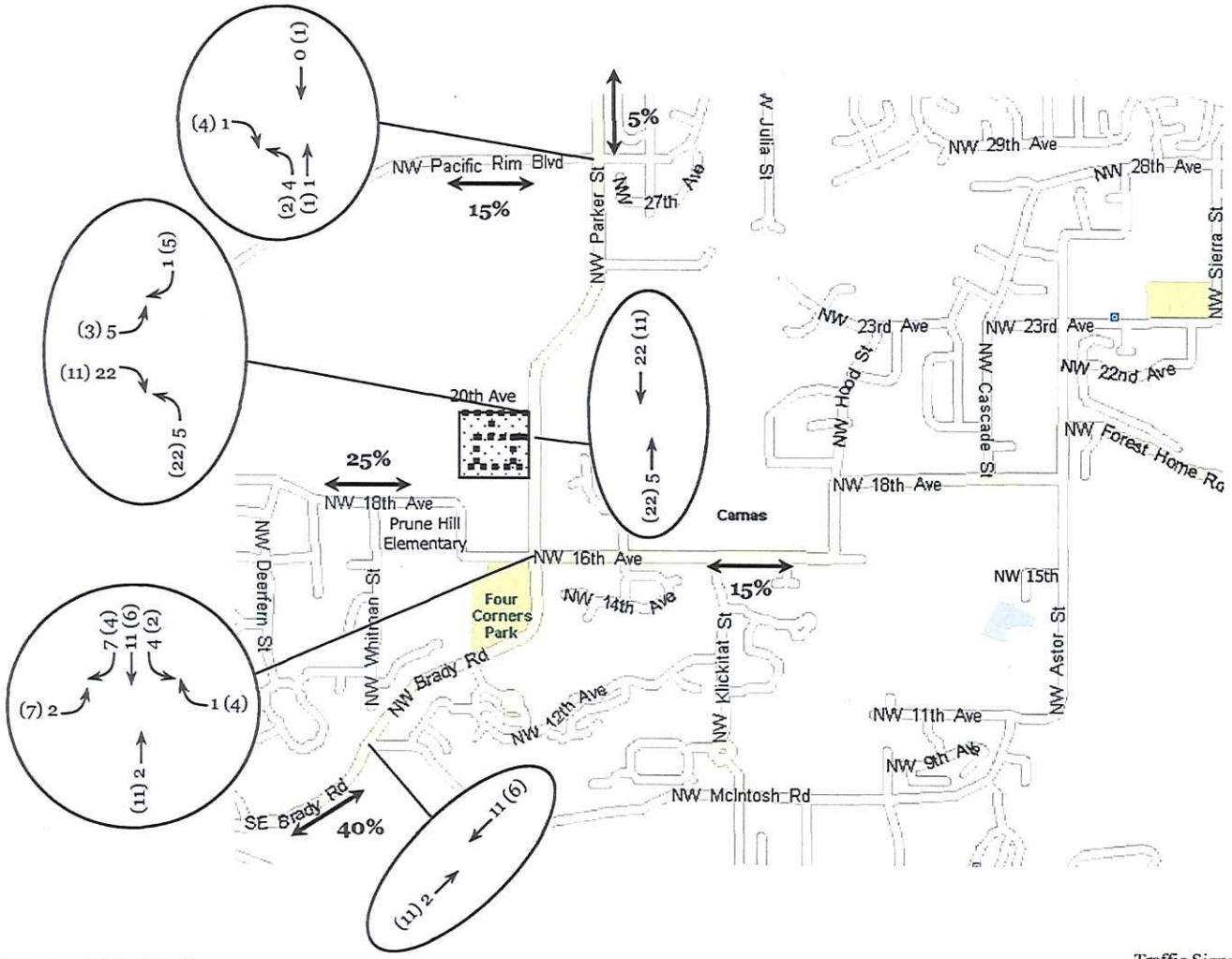
TRAFFIC VOLUMES
Existing, Background, and Buildout Conditions
AM & PM Peak Hours

FIGURE 4

PAGE 8

Hancock Springs / Haven Heights

Figure 8: Weekday Peak Hour Traffic Volumes Generated By Parker Village (Residential Development)



Generated Site Traffic

	In	Out
AM Peak	6	27
PM Peak	27	14

Traffic Signal

Stop Sign

Proposed Site

Proposed Roadway

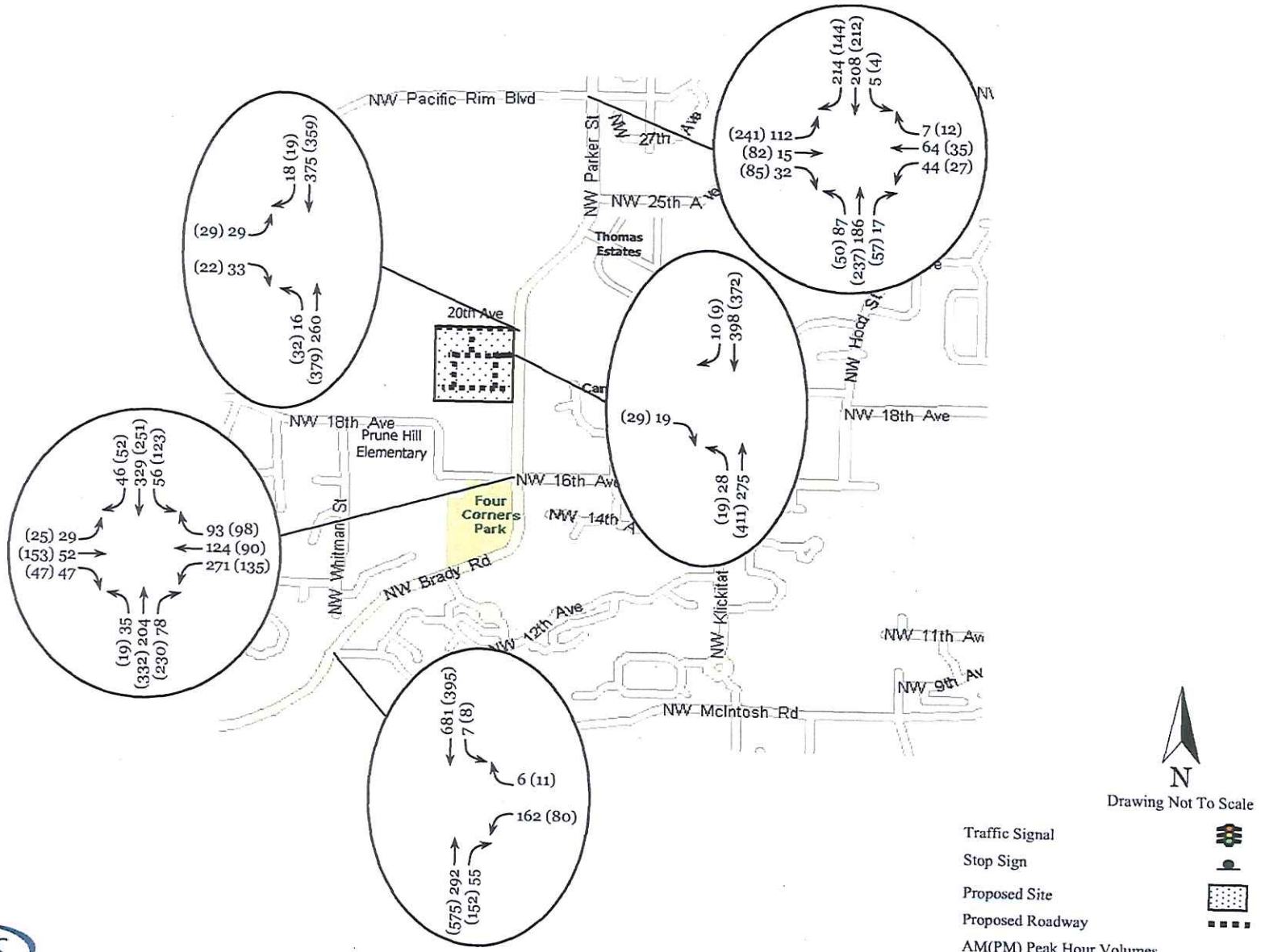
AM(PM) Peak Hour Volumes

OR04.093.T01 Parker Village

CTS Engineers

Figure 13: Total Future 2023 Weekday Peak Hour Traffic Volumes with the Buildout of Parker Village

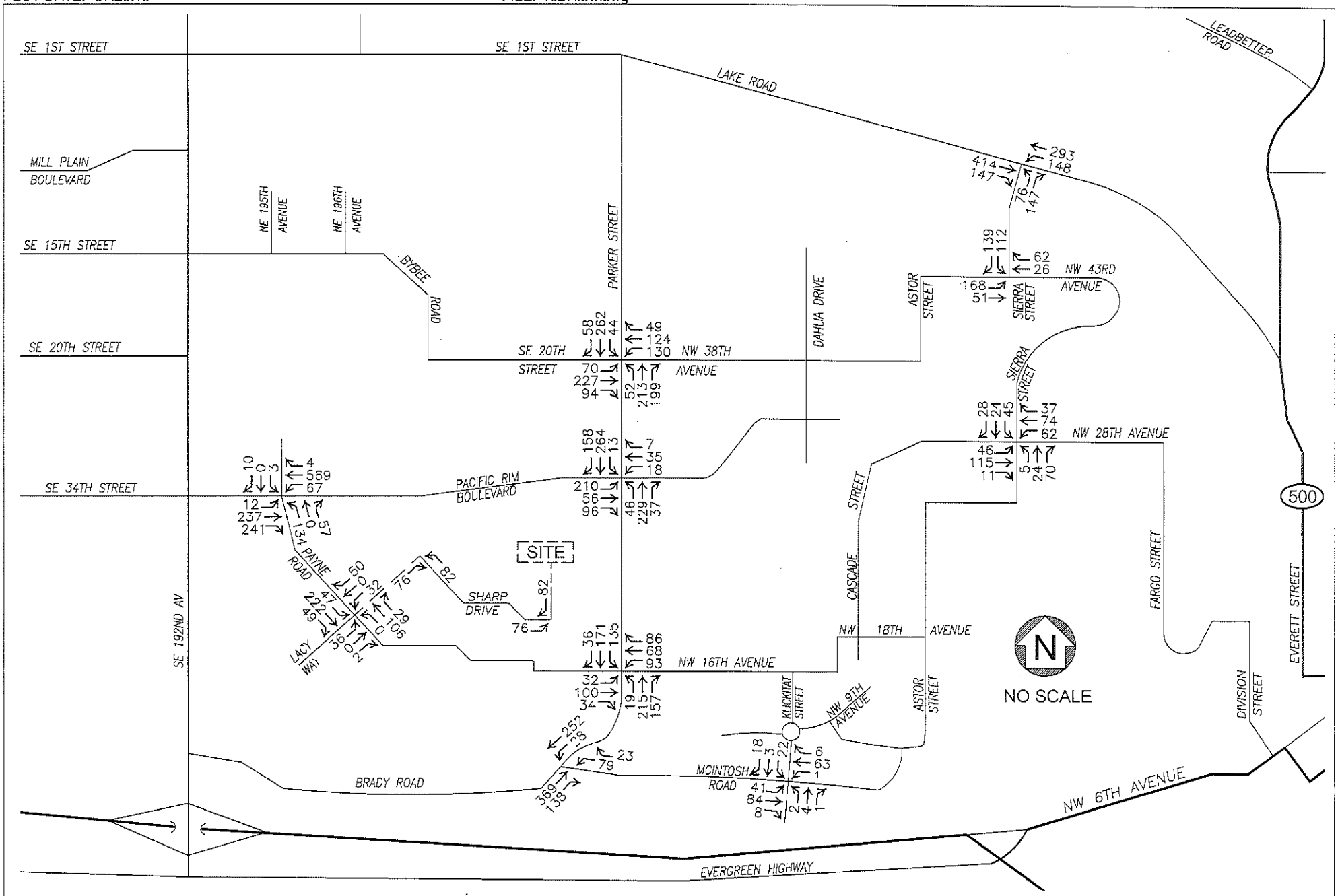
100% Build-out 8-12-21



CTS Engineers

100% Build-out 8-12-21

PLOT DATE: 07.25.16 FILE: 1627flow.dwg



CHARBONNEAU ENGINEERING LLC
PROJECT: 16-27

NOTES: 2019 Total Traffic (Figure 7c) = 2019 Background Traffic (Figure 3c) + Trip Assignment (Figure 5c & Figure 6c).

2019 TOTAL TRAFFIC
PM PEAK HOUR
NEW CAMAS M.S. & CAMAS H.S. - SHARP DRIVE

FIGURE 7c

APPENDIX E

2027 "WITHOUT PROJECT" LEVEL OF SERVICE

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

01/14/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	217	140	198	333	108	194	158	122	68	180	126
Future Volume (vph)	104	217	140	198	333	108	194	158	122	68	180	126
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		0.941			0.963			0.935			0.938	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	1687	0	1770	1794	0	1687	1660	0	1770	1747	0
Flt Permitted	0.353			0.241			0.276			0.588		
Satd. Flow (perm)	633	1687	0	449	1794	0	490	1660	0	1095	1747	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			20			46			39	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2524			540			660	
Travel Time (s)		17.5			49.2			10.5			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%	2%	2%	2%	7%	7%	7%	2%	2%	2%
Adj. Flow (vph)	104	217	140	198	333	108	194	158	122	68	180	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	357	0	198	441	0	194	280	0	68	306	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

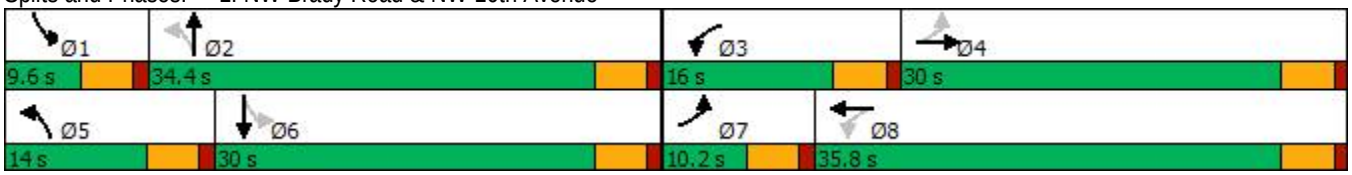
01/14/2022

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)	10.2	30.0		16.0	35.8		14.0	34.4		9.6	30.0	
Total Split (%)	11.3%	33.3%		17.8%	39.8%		15.6%	38.2%		10.7%	33.3%	
Maximum Green (s)	5.7	25.5		11.5	31.3		9.5	29.9		5.1	25.5	
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)	24.7	18.8		33.0	25.6		30.8	23.6		22.1	16.8	
Actuated g/C Ratio	0.34	0.26		0.45	0.35		0.42	0.32		0.30	0.23	
v/c Ratio	0.35	0.78		0.52	0.69		0.54	0.50		0.18	0.71	
Control Delay	16.9	36.7		18.4	28.1		21.4	22.3		16.0	33.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.9	36.7		18.4	28.1		21.4	22.3		16.0	33.6	
LOS	B	D		B	C		C	C		B	C	
Approach Delay		32.2			25.1			21.9			30.4	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 73.5
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 27.0 Intersection LOS: C
Intersection Capacity Utilization 73.8% ICU Level of Service D
Analysis Period (min) 15

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



Queues

1: NW Brady Road & NW 16th Avenue

01/14/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	104	357	198	441	194	280	68	306
v/c Ratio	0.35	0.78	0.52	0.69	0.54	0.50	0.18	0.71
Control Delay	16.9	36.7	18.4	28.1	21.4	22.3	16.0	33.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.9	36.7	18.4	28.1	21.4	22.3	16.0	33.6
Queue Length 50th (ft)	26	137	53	171	57	90	19	114
Queue Length 95th (ft)	63	265	111	312	115	178	47	215
Internal Link Dist (ft)		561		2444		460		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	298	629	417	802	365	726	377	653
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	0.35	0.57	0.47	0.55	0.53	0.39	0.18	0.47

Intersection Summary

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

01/14/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	217	140	198	333	108	194	158	122	68	180	126
Future Volume (veh/h)	104	217	140	198	333	108	194	158	122	68	180	126
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	1870	1870	1870	1796	1796	1796	1870	1870	1870
Adj Flow Rate, veh/h	104	217	140	198	333	108	194	158	122	68	180	126
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	2	2	2	7	7	7	2	2	2
Cap, veh/h	303	267	172	378	409	133	370	263	203	365	228	159
Arrive On Green	0.07	0.26	0.26	0.11	0.30	0.30	0.11	0.28	0.28	0.06	0.22	0.22
Sat Flow, veh/h	1725	1028	663	1781	1353	439	1711	940	726	1781	1024	717
Grp Volume(v), veh/h	104	0	357	198	0	441	194	0	280	68	0	306
Grp Sat Flow(s),veh/h/ln	1725	0	1692	1781	0	1791	1711	0	1666	1781	0	1741
Q Serve(g_s), s	2.6	0.0	12.1	4.8	0.0	13.9	5.1	0.0	8.9	1.8	0.0	10.1
Cycle Q Clear(g_c), s	2.6	0.0	12.1	4.8	0.0	13.9	5.1	0.0	8.9	1.8	0.0	10.1
Prop In Lane	1.00		0.39	1.00		0.24	1.00		0.44	1.00		0.41
Lane Grp Cap(c), veh/h	303	0	439	378	0	542	370	0	466	365	0	387
V/C Ratio(X)	0.34	0.00	0.81	0.52	0.00	0.81	0.53	0.00	0.60	0.19	0.00	0.79
Avail Cap(c_a), veh/h	347	0	705	515	0	916	441	0	814	413	0	725
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	15.9	0.0	21.3	15.1	0.0	19.7	15.8	0.0	19.1	16.8	0.0	22.5
Incr Delay (d2), s/veh	0.7	0.0	3.8	1.1	0.0	3.0	1.2	0.0	1.3	0.2	0.0	3.7
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	1.0	0.0	5.0	1.8	0.0	5.6	1.8	0.0	3.2	0.7	0.0	4.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	25.1	16.2	0.0	22.8	16.9	0.0	20.3	17.1	0.0	26.1
LnGrp LOS	B	A	C	B	A	C	B	A	C	B	A	C
Approach Vol, veh/h		461			639			474			374	
Approach Delay, s/veh		23.2			20.7			18.9			24.5	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	21.6	11.3	20.4	11.4	18.1	8.6	23.0
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	29.9	11.5	25.5	9.5	25.5	5.7	31.3
Max Q Clear Time (g_c+I1), s	3.8	10.9	6.8	14.1	7.1	12.1	4.6	15.9
Green Ext Time (p_c), s	0.0	1.5	0.2	1.8	0.1	1.5	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	21.6
HCM 6th LOS	C

Lanes, Volumes, Timings
2: NW Hood Street & NW 18th Avenue 01/14/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	284	0	36	180	5	23
Future Volume (vph)	284	0	36	180	5	23
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			0.887			
Flt Protected	0.950					0.991
Satd. Flow (prot)	1752	0	1620	0	0	1883
Flt Permitted	0.950					0.991
Satd. Flow (perm)	1752	0	1620	0	0	1883
Link Speed (mph)	35		35			25
Link Distance (ft)	1973		678			697
Travel Time (s)	38.4		13.2			19.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	4%	4%	0%	0%
Adj. Flow (vph)	284	0	36	180	5	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	284	0	216	0	0	28
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 35.4%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
2: NW Hood Street & NW 18th Avenue 01/14/2022

Intersection	
Int Delay, s/veh	6.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	284	0	36	180	5	23
Future Vol, veh/h	284	0	36	180	5	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	0	0
Mvmt Flow	284	0	36	180	5	23

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	159	126	0	0	216	0
Stage 1	126	-	-	-	-	-
Stage 2	33	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.2	-
Pot Cap-1 Maneuver	830	922	-	-	1366	-
Stage 1	897	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	827	922	-	-	1366	-
Mov Cap-2 Maneuver	827	-	-	-	-	-
Stage 1	897	-	-	-	-	-
Stage 2	983	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	827	1366	-
HCM Lane V/C Ratio	-	-	0.343	0.004	-
HCM Control Delay (s)	-	-	11.6	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0	-

Lanes, Volumes, Timings
3: NW Astor Street & NW 18th Avenue

01/14/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	86	5	14	117	104	131
Future Volume (vph)	86	5	14	117	104	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.925	
Flt Protected	0.955		0.950			
Satd. Flow (prot)	1802	0	1543	1624	1658	0
Flt Permitted	0.955		0.950			
Satd. Flow (perm)	1802	0	1543	1624	1658	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	1973			585	600	
Travel Time (s)	38.4			11.4	11.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	17%	17%	6%	6%
Adj. Flow (vph)	86	5	14	117	104	131
Shared Lane Traffic (%)						
Lane Group Flow (vph)	91	0	14	117	235	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.2%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
3: NW Astor Street & NW 18th Avenue 01/14/2022

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	86	5	14	117	104	131
Future Vol, veh/h	86	5	14	117	104	131
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	-	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	17	17	6	6
Mvmt Flow	86	5	14	117	104	131

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	315	170	235	0	-	0
Stage 1	170	-	-	-	-	-
Stage 2	145	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.27	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.353	-	-	-
Pot Cap-1 Maneuver	682	879	1249	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	674	879	1249	-	-	-
Mov Cap-2 Maneuver	674	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	887	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1249	-	683	-	-
HCM Lane V/C Ratio	0.011	-	0.133	-	-
HCM Control Delay (s)	7.9	-	11.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

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

01/14/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	163	27	113	82	117	9	198	158	144	104	9
Future Volume (vph)	23	163	27	113	82	117	9	198	158	144	104	9
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		0.979			0.912			0.933			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1824	0	1736	1666	0	1787	1755	0	1805	1877	0
Flt Permitted	0.633			0.461			0.684			0.306		
Satd. Flow (perm)	1179	1824	0	842	1666	0	1287	1755	0	581	1877	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		9			76			52			6	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2524			540			660	
Travel Time (s)		17.5			49.2			10.5			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 (%)	2%	2%	2%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	23	163	27	113	82	117	9	198	158	144	104	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	190	0	113	199	0	9	356	0	144	113	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

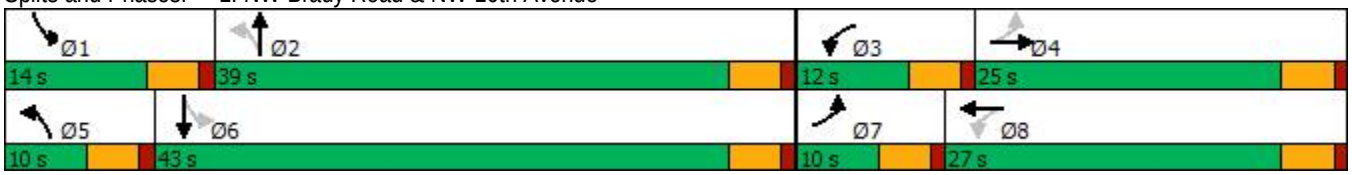
01/14/2022

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	25.0		12.0	27.0		10.0	39.0		14.0	43.0	
Total Split (%)	11.1%	27.8%		13.3%	30.0%		11.1%	43.3%		15.6%	47.8%	
Maximum Green (s)	5.5	20.5		7.5	22.5		5.5	34.5		9.5	38.5	
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)	16.3	12.4		20.0	17.7		21.2	17.3		26.5	25.1	
Actuated g/C Ratio	0.28	0.21		0.34	0.30		0.36	0.30		0.46	0.43	
v/c Ratio	0.06	0.48		0.27	0.36		0.02	0.64		0.32	0.14	
Control Delay	15.2	27.9		16.7	15.5		9.8	23.3		11.8	11.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.2	27.9		16.7	15.5		9.8	23.3		11.8	11.9	
LOS	B	C		B	B		A	C		B	B	
Approach Delay		26.5			15.9			22.9			11.9	
Approach LOS		C			B			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 58.1
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 19.2 Intersection LOS: B
Intersection Capacity Utilization 59.5% 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

01/14/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	23	190	113	199	9	356	144	113
v/c Ratio	0.06	0.48	0.27	0.36	0.02	0.64	0.32	0.14
Control Delay	15.2	27.9	16.7	15.5	9.8	23.3	11.8	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	27.9	16.7	15.5	9.8	23.3	11.8	11.9
Queue Length 50th (ft)	5	62	27	30	2	102	29	21
Queue Length 95th (ft)	22	140	72	109	9	206	66	67
Internal Link Dist (ft)		561		2444		460		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	397	771	432	814	525	1112	507	1262
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	0.06	0.25	0.26	0.24	0.02	0.32	0.28	0.09

Intersection Summary

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

01/14/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	163	27	113	82	117	9	198	158	144	104	9
Future Volume (veh/h)	23	163	27	113	82	117	9	198	158	144	104	9
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	1870	1870	1870	1841	1841	1841	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	23	163	27	113	82	117	9	198	158	144	104	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
Percent Heavy Veh, %	2	2	2	4	4	4	1	1	1	0	0	0
Cap, veh/h	333	249	41	373	147	210	534	268	214	416	614	53
Arrive On Green	0.03	0.16	0.16	0.08	0.21	0.21	0.01	0.28	0.28	0.09	0.36	0.36
Sat Flow, veh/h	1781	1565	259	1753	686	979	1795	971	775	1810	1724	149
Grp Volume(v), veh/h	23	0	190	113	0	199	9	0	356	144	0	113
Grp Sat Flow(s),veh/h/ln	1781	0	1824	1753	0	1665	1795	0	1746	1810	0	1873
Q Serve(g_s), s	0.5	0.0	4.5	2.4	0.0	4.9	0.2	0.0	8.5	2.4	0.0	1.9
Cycle Q Clear(g_c), s	0.5	0.0	4.5	2.4	0.0	4.9	0.2	0.0	8.5	2.4	0.0	1.9
Prop In Lane	1.00		0.14	1.00		0.59	1.00		0.44	1.00		0.08
Lane Grp Cap(c), veh/h	333	0	290	373	0	357	534	0	483	416	0	667
V/C Ratio(X)	0.07	0.00	0.65	0.30	0.00	0.56	0.02	0.00	0.74	0.35	0.00	0.17
Avail Cap(c_a), veh/h	496	0	810	513	0	812	727	0	1306	624	0	1563
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	15.5	0.0	18.2	14.4	0.0	16.2	11.7	0.0	15.2	10.4	0.0	10.2
Incr Delay (d2), s/veh	0.1	0.0	2.5	0.5	0.0	1.4	0.0	0.0	2.2	0.5	0.0	0.1
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	1.9	0.8	0.0	1.7	0.1	0.0	3.0	0.8	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.6	0.0	20.7	14.8	0.0	17.5	11.8	0.0	17.4	10.9	0.0	10.3
LnGrp LOS	B	A	C	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		213			312			365			257	
Approach Delay, s/veh		20.2			16.6			17.3			10.6	
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	17.3	8.3	11.8	5.0	20.9	5.8	14.4
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	9.5	34.5	7.5	20.5	5.5	38.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	4.4	10.5	4.4	6.5	2.2	3.9	2.5	6.9
Green Ext Time (p_c), s	0.1	2.2	0.1	0.9	0.0	0.6	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	16.1
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hood Street & NW 18th Avenue

01/14/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	185	5	50	243	9	45
Future Volume (vph)	185	5	50	243	9	45
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		0.888			
Flt Protected	0.954					0.992
Satd. Flow (prot)	1719	0	1687	0	0	1885
Flt Permitted	0.954					0.992
Satd. Flow (perm)	1719	0	1687	0	0	1885
Link Speed (mph)	35		35			25
Link Distance (ft)	1973		678			697
Travel Time (s)	38.4		13.2			19.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	5%	5%	0%	0%	0%	0%
Adj. Flow (vph)	185	5	50	243	9	45
Shared Lane Traffic (%)						
Lane Group Flow (vph)	190	0	293	0	0	54
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 34.8%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
2: NW Hood Street & NW 18th Avenue 01/14/2022

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	185	5	50	243	9	45
Future Vol, veh/h	185	5	50	243	9	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	5	5	0	0	0	0
Mvmt Flow	185	5	50	243	9	45

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	235	172	0	0	293	0
Stage 1	172	-	-	-	-	-
Stage 2	63	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.1	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.2	-
Pot Cap-1 Maneuver	747	864	-	-	1280	-
Stage 1	851	-	-	-	-	-
Stage 2	952	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	742	864	-	-	1280	-
Mov Cap-2 Maneuver	742	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	745	1280	-
HCM Lane V/C Ratio	-	-	0.255	0.007	-
HCM Control Delay (s)	-	-	11.5	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Lanes, Volumes, Timings
3: NW Astor Street & NW 18th Avenue

01/14/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	86	27	14	72	63	81
Future Volume (vph)	86	27	14	72	63	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.968				0.924	
Flt Protected	0.963		0.950			
Satd. Flow (prot)	1771	0	1805	1900	1704	0
Flt Permitted	0.963		0.950			
Satd. Flow (perm)	1771	0	1805	1900	1704	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	1973			585	600	
Travel Time (s)	38.4			11.4	11.7	
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)	86	27	14	72	63	81
Shared Lane Traffic (%)						
Lane Group Flow (vph)	113	0	14	72	144	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.7%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
3: NW Astor Street & NW 18th Avenue 01/14/2022

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	86	27	14	72	63	81
Future Vol, veh/h	86	27	14	72	63	81
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	-	120	-	-	-
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	86	27	14	72	63	81

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	204	104	144	0	-	0
Stage 1	104	-	-	-	-	-
Stage 2	100	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	789	956	1451	-	-	-
Stage 1	925	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	781	956	1451	-	-	-
Mov Cap-2 Maneuver	781	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	929	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1451	-	817	-	-
HCM Lane V/C Ratio	0.01	-	0.138	-	-
HCM Control Delay (s)	7.5	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

APPENDIX F

2027 "WITH PROJECT" LEVEL OF SERVICE

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

01/14/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	218	140	201	335	109	194	158	123	68	180	126
Future Volume (vph)	104	218	140	201	335	109	194	158	123	68	180	126
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		0.941			0.963			0.934			0.938	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1703	1687	0	1770	1794	0	1687	1659	0	1770	1747	0
Flt Permitted	0.354			0.242			0.275			0.587		
Satd. Flow (perm)	635	1687	0	451	1794	0	488	1659	0	1093	1747	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		36			20			47			39	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2524			540			660	
Travel Time (s)		17.5			49.2			10.5			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%	2%	2%	2%	7%	7%	7%	2%	2%	2%
Adj. Flow (vph)	104	218	140	201	335	109	194	158	123	68	180	126
Shared Lane Traffic (%)												
Lane Group Flow (vph)	104	358	0	201	444	0	194	281	0	68	306	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

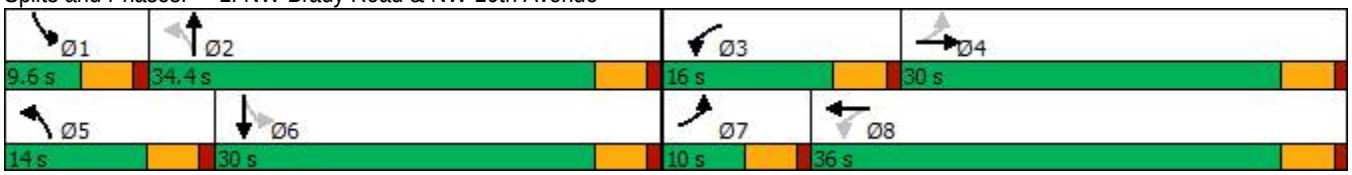
01/14/2022

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	30.0		16.0	36.0		14.0	34.4		9.6	30.0	
Total Split (%)	11.1%	33.3%		17.8%	40.0%		15.6%	38.2%		10.7%	33.3%	
Maximum Green (s)	5.5	25.5		11.5	31.5		9.5	29.9		5.1	25.5	
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)	24.6	18.9		33.2	25.9		30.8	23.6		22.1	16.8	
Actuated g/C Ratio	0.33	0.26		0.45	0.35		0.42	0.32		0.30	0.23	
v/c Ratio	0.35	0.78		0.53	0.69		0.54	0.50		0.18	0.71	
Control Delay	17.2	36.7		18.5	27.9		21.5	22.3		16.1	33.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.2	36.7		18.5	27.9		21.5	22.3		16.1	33.7	
LOS	B	D		B	C		C	C		B	C	
Approach Delay		32.3			25.0			22.0			30.5	
Approach LOS		C			C			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 73.7
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 27.0 Intersection LOS: C
Intersection Capacity Utilization 74.1% ICU Level of Service D
Analysis Period (min) 15

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



Queues

1: NW Brady Road & NW 16th Avenue

01/14/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	104	358	201	444	194	281	68	306
v/c Ratio	0.35	0.78	0.53	0.69	0.54	0.50	0.18	0.71
Control Delay	17.2	36.7	18.5	27.9	21.5	22.3	16.1	33.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.2	36.7	18.5	27.9	21.5	22.3	16.1	33.7
Queue Length 50th (ft)	26	138	54	171	58	91	19	115
Queue Length 95th (ft)	63	266	113	314	115	178	47	215
Internal Link Dist (ft)		561		2444		460		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	294	628	418	806	364	725	376	651
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	0.35	0.57	0.48	0.55	0.53	0.39	0.18	0.47

Intersection Summary

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

01/14/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	104	218	140	201	335	109	194	158	123	68	180	126
Future Volume (veh/h)	104	218	140	201	335	109	194	158	123	68	180	126
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	1870	1870	1870	1796	1796	1796	1870	1870	1870
Adj Flow Rate, veh/h	104	218	140	201	335	109	194	158	123	68	180	126
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	2	2	2	7	7	7	2	2	2
Cap, veh/h	302	268	172	379	411	134	369	262	204	363	227	159
Arrive On Green	0.07	0.26	0.26	0.11	0.30	0.30	0.11	0.28	0.28	0.06	0.22	0.22
Sat Flow, veh/h	1725	1030	662	1781	1351	440	1711	936	729	1781	1024	717
Grp Volume(v), veh/h	104	0	358	201	0	444	194	0	281	68	0	306
Grp Sat Flow(s),veh/h/ln	1725	0	1692	1781	0	1791	1711	0	1665	1781	0	1741
Q Serve(g_s), s	2.7	0.0	12.2	4.9	0.0	14.1	5.1	0.0	9.0	1.8	0.0	10.2
Cycle Q Clear(g_c), s	2.7	0.0	12.2	4.9	0.0	14.1	5.1	0.0	9.0	1.8	0.0	10.2
Prop In Lane	1.00		0.39	1.00		0.25	1.00		0.44	1.00		0.41
Lane Grp Cap(c), veh/h	302	0	440	379	0	545	369	0	465	363	0	387
V/C Ratio(X)	0.34	0.00	0.81	0.53	0.00	0.81	0.53	0.00	0.60	0.19	0.00	0.79
Avail Cap(c_a), veh/h	340	0	702	513	0	918	440	0	810	411	0	723
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	16.0	0.0	21.3	15.1	0.0	19.8	15.8	0.0	19.2	16.9	0.0	22.6
Incr Delay (d2), s/veh	0.7	0.0	4.0	1.2	0.0	3.0	1.2	0.0	1.3	0.2	0.0	3.7
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	1.0	0.0	5.0	1.8	0.0	5.6	1.8	0.0	3.3	0.7	0.0	4.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.6	0.0	25.3	16.2	0.0	22.8	17.0	0.0	20.5	17.2	0.0	26.2
LnGrp LOS	B	A	C	B	A	C	B	A	C	B	A	C
Approach Vol, veh/h		462			645			475			374	
Approach Delay, s/veh		23.3			20.7			19.0			24.6	
Approach LOS		C			C			B			C	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	21.7	11.4	20.5	11.5	18.1	8.7	23.2
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	5.1	29.9	11.5	25.5	9.5	25.5	5.5	31.5
Max Q Clear Time (g_c+I1), s	3.8	11.0	6.9	14.2	7.1	12.2	4.7	16.1
Green Ext Time (p_c), s	0.0	1.5	0.2	1.8	0.1	1.5	0.0	2.4

Intersection Summary	
HCM 6th Ctrl Delay	21.7
HCM 6th LOS	C

Lanes, Volumes, Timings
2: NW Hood Street & NW 18th Avenue

01/14/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	285	0	36	183	5	23
Future Volume (vph)	285	0	36	183	5	23
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			0.887			
Flt Protected	0.950					0.991
Satd. Flow (prot)	1752	0	1620	0	0	1883
Flt Permitted	0.950					0.991
Satd. Flow (perm)	1752	0	1620	0	0	1883
Link Speed (mph)	35		35			25
Link Distance (ft)	1973		281			697
Travel Time (s)	38.4		5.5			19.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	3%	3%	4%	4%	0%	0%
Adj. Flow (vph)	285	0	36	183	5	23
Shared Lane Traffic (%)						
Lane Group Flow (vph)	285	0	219	0	0	28
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 35.6%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
2: NW Hood Street & NW 18th Avenue 01/14/2022

Intersection	
Int Delay, s/veh	6.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	285	0	36	183	5	23
Future Vol, veh/h	285	0	36	183	5	23
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	4	4	0	0
Mvmt Flow	285	0	36	183	5	23

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	161	128	0	0	219	0
Stage 1	128	-	-	-	-	-
Stage 2	33	-	-	-	-	-
Critical Hdwy	6.43	6.23	-	-	4.1	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	-	-	2.2	-
Pot Cap-1 Maneuver	828	919	-	-	1362	-
Stage 1	895	-	-	-	-	-
Stage 2	987	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	825	919	-	-	1362	-
Mov Cap-2 Maneuver	825	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	983	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	1.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	825	1362	-
HCM Lane V/C Ratio	-	-	0.345	0.004	-
HCM Control Delay (s)	-	-	11.6	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.5	0	-

Lanes, Volumes, Timings
3: NW Astor Street & NW 18th Avenue

01/14/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	89	5	14	117	104	132
Future Volume (vph)	89	5	14	117	104	132
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.993				0.924	
Flt Protected	0.955		0.950			
Satd. Flow (prot)	1802	0	1543	1624	1656	0
Flt Permitted	0.955		0.950			
Satd. Flow (perm)	1802	0	1543	1624	1656	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	1973			585	600	
Travel Time (s)	38.4			11.4	11.7	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	17%	17%	6%	6%
Adj. Flow (vph)	89	5	14	117	104	132
Shared Lane Traffic (%)						
Lane Group Flow (vph)	94	0	14	117	236	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.5%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
3: NW Astor Street & NW 18th Avenue 01/14/2022

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	89	5	14	117	104	132
Future Vol, veh/h	89	5	14	117	104	132
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	-	120	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	0	0	17	17	6	6
Mvmt Flow	89	5	14	117	104	132

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	315	170	236	0	-	0
Stage 1	170	-	-	-	-	-
Stage 2	145	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.27	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.353	-	-	-
Pot Cap-1 Maneuver	682	879	1248	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	887	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	674	879	1248	-	-	-
Mov Cap-2 Maneuver	674	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	887	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.1	0.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1248	-	682	-	-
HCM Lane V/C Ratio	0.011	-	0.138	-	-
HCM Control Delay (s)	7.9	-	11.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Lanes, Volumes, Timings
4: NW Hood Street & Project Access 01/14/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	3	6	2	131	302	1
Future Volume (vph)	3	6	2	131	302	1
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	0.910					
Flt Protected	0.984			0.999		
Satd. Flow (prot)	1701	0	0	1622	1827	0
Flt Permitted	0.984			0.999		
Satd. Flow (perm)	1701	0	0	1622	1827	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	733			398	281	
Travel Time (s)	20.0			7.8	5.5	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	0%	0%	17%	17%	4%	4%
Adj. Flow (vph)	3	6	2	131	302	1
Shared Lane Traffic (%)						
Lane Group Flow (vph)	9	0	0	133	303	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.0%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
4: NW Hood Street & Project Access 01/14/2022

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	6	2	131	302	1
Future Vol, veh/h	3	6	2	131	302	1
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	17	17	4	4
Mvmt Flow	3	6	2	131	302	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	438	303	303	0	-	0
Stage 1	303	-	-	-	-	-
Stage 2	135	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.27	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.353	-	-	-
Pot Cap-1 Maneuver	580	741	1177	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	896	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	579	741	1177	-	-	-
Mov Cap-2 Maneuver	579	-	-	-	-	-
Stage 1	752	-	-	-	-	-
Stage 2	896	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1177	-	678	-	-
HCM Lane V/C Ratio	0.002	-	0.013	-	-
HCM Control Delay (s)	8.1	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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

01/14/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	23	165	27	115	83	118	9	198	162	145	104	9
Future Volume (vph)	23	165	27	115	83	118	9	198	162	145	104	9
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		0.979			0.912			0.932			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1824	0	1736	1666	0	1787	1753	0	1805	1877	0
Flt Permitted	0.632			0.458			0.684			0.303		
Satd. Flow (perm)	1177	1824	0	837	1666	0	1287	1753	0	576	1877	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		8			76			53			6	
Link Speed (mph)		25			35			35			35	
Link Distance (ft)		641			2524			540			660	
Travel Time (s)		17.5			49.2			10.5			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 (%)	2%	2%	2%	4%	4%	4%	1%	1%	1%	0%	0%	0%
Adj. Flow (vph)	23	165	27	115	83	118	9	198	162	145	104	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	23	192	0	115	201	0	9	360	0	145	113	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

01/14/2022

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	25.0		12.0	27.0		10.0	39.0		14.0	43.0	
Total Split (%)	11.1%	27.8%		13.3%	30.0%		11.1%	43.3%		15.6%	47.8%	
Maximum Green (s)	5.5	20.5		7.5	22.5		5.5	34.5		9.5	38.5	
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)	16.4	12.5		20.1	17.8		21.3	17.4		26.7	25.3	
Actuated g/C Ratio	0.28	0.21		0.34	0.30		0.36	0.30		0.46	0.43	
v/c Ratio	0.06	0.49		0.28	0.36		0.02	0.64		0.32	0.14	
Control Delay	15.3	28.2		16.8	15.6		9.8	23.4		11.9	11.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.3	28.2		16.8	15.6		9.8	23.4		11.9	11.9	
LOS	B	C		B	B		A	C		B	B	
Approach Delay		26.8			16.1			23.0			11.9	
Approach LOS		C			B			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 58.4
Natural Cycle: 65
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 19.4 Intersection LOS: B
Intersection Capacity Utilization 60.0% 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

01/14/2022

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	23	192	115	201	9	360	145	113
v/c Ratio	0.06	0.49	0.28	0.36	0.02	0.64	0.32	0.14
Control Delay	15.3	28.2	16.8	15.6	9.8	23.4	11.9	11.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.3	28.2	16.8	15.6	9.8	23.4	11.9	11.9
Queue Length 50th (ft)	5	64	28	31	2	104	29	21
Queue Length 95th (ft)	22	143	74	111	9	209	67	68
Internal Link Dist (ft)		561		2444		460		580
Turn Bay Length (ft)	225		280		270		210	
Base Capacity (vph)	396	767	431	812	526	1107	506	1257
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	0.06	0.25	0.27	0.25	0.02	0.33	0.29	0.09

Intersection Summary

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

01/14/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	23	165	27	115	83	118	9	198	162	145	104	9
Future Volume (veh/h)	23	165	27	115	83	118	9	198	162	145	104	9
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	1870	1870	1870	1841	1841	1841	1885	1885	1885	1900	1900	1900
Adj Flow Rate, veh/h	23	165	27	115	83	118	9	198	162	145	104	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
Percent Heavy Veh, %	2	2	2	4	4	4	1	1	1	0	0	0
Cap, veh/h	331	251	41	372	148	211	536	267	219	414	617	53
Arrive On Green	0.03	0.16	0.16	0.08	0.22	0.22	0.01	0.28	0.28	0.09	0.36	0.36
Sat Flow, veh/h	1781	1568	257	1753	687	977	1795	959	785	1810	1724	149
Grp Volume(v), veh/h	23	0	192	115	0	201	9	0	360	145	0	113
Grp Sat Flow(s),veh/h/ln	1781	0	1824	1753	0	1665	1795	0	1744	1810	0	1873
Q Serve(g_s), s	0.5	0.0	4.6	2.5	0.0	5.0	0.2	0.0	8.7	2.4	0.0	1.9
Cycle Q Clear(g_c), s	0.5	0.0	4.6	2.5	0.0	5.0	0.2	0.0	8.7	2.4	0.0	1.9
Prop In Lane	1.00		0.14	1.00		0.59	1.00		0.45	1.00		0.08
Lane Grp Cap(c), veh/h	331	0	292	372	0	359	536	0	486	414	0	670
V/C Ratio(X)	0.07	0.00	0.66	0.31	0.00	0.56	0.02	0.00	0.74	0.35	0.00	0.17
Avail Cap(c_a), veh/h	493	0	804	509	0	806	727	0	1294	619	0	1551
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	15.6	0.0	18.3	14.4	0.0	16.3	11.8	0.0	15.2	10.5	0.0	10.2
Incr Delay (d2), s/veh	0.1	0.0	2.5	0.5	0.0	1.4	0.0	0.0	2.2	0.5	0.0	0.1
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	2.0	0.9	0.0	1.7	0.1	0.0	3.1	0.8	0.0	0.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	15.7	0.0	20.9	14.9	0.0	17.6	11.8	0.0	17.5	11.0	0.0	10.3
LnGrp LOS	B	A	C	B	A	B	B	A	B	B	A	B
Approach Vol, veh/h		215			316			369			258	
Approach Delay, s/veh		20.3			16.6			17.3			10.7	
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	17.5	8.4	11.9	5.0	21.1	5.8	14.5
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	9.5	34.5	7.5	20.5	5.5	38.5	5.5	22.5
Max Q Clear Time (g_c+I1), s	4.4	10.7	4.5	6.6	2.2	3.9	2.5	7.0
Green Ext Time (p_c), s	0.1	2.2	0.1	0.9	0.0	0.6	0.0	0.9

Intersection Summary	
HCM 6th Ctrl Delay	16.2
HCM 6th LOS	B

Lanes, Volumes, Timings
2: NW Hood Street & NW 18th Avenue

01/14/2022

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	188	5	50	245	9	45
Future Volume (vph)	188	5	50	245	9	45
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		0.888			
Flt Protected	0.954					0.992
Satd. Flow (prot)	1721	0	1687	0	0	1885
Flt Permitted	0.954					0.992
Satd. Flow (perm)	1721	0	1687	0	0	1885
Link Speed (mph)	35		35			25
Link Distance (ft)	1973		281			697
Travel Time (s)	38.4		5.5			19.0
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles (%)	5%	5%	0%	0%	0%	0%
Adj. Flow (vph)	188	5	50	245	9	45
Shared Lane Traffic (%)						
Lane Group Flow (vph)	193	0	295	0	0	54
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 35.1%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
2: NW Hood Street & NW 18th Avenue 01/14/2022

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	188	5	50	245	9	45
Future Vol, veh/h	188	5	50	245	9	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	5	5	0	0	0	0
Mvmt Flow	188	5	50	245	9	45

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	236	173	0	0	295	0
Stage 1	173	-	-	-	-	-
Stage 2	63	-	-	-	-	-
Critical Hdwy	6.45	6.25	-	-	4.1	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.345	-	-	2.2	-
Pot Cap-1 Maneuver	746	863	-	-	1278	-
Stage 1	850	-	-	-	-	-
Stage 2	952	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	741	863	-	-	1278	-
Mov Cap-2 Maneuver	741	-	-	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	1.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	744	1278	-
HCM Lane V/C Ratio	-	-	0.259	0.007	-
HCM Control Delay (s)	-	-	11.5	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Lanes, Volumes, Timings
3: NW Astor Street & NW 18th Avenue

01/14/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	88	27	14	72	63	84
Future Volume (vph)	88	27	14	72	63	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	120			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		25			
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.968				0.923	
Flt Protected	0.963		0.950			
Satd. Flow (prot)	1771	0	1805	1900	1703	0
Flt Permitted	0.963		0.950			
Satd. Flow (perm)	1771	0	1805	1900	1703	0
Link Speed (mph)	35			35	35	
Link Distance (ft)	1973			585	600	
Travel Time (s)	38.4			11.4	11.7	
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	27	14	72	63	84
Shared Lane Traffic (%)						
Lane Group Flow (vph)	115	0	14	72	147	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 24.8%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
3: NW Astor Street & NW 18th Avenue 01/14/2022

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	88	27	14	72	63	84
Future Vol, veh/h	88	27	14	72	63	84
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	-	120	-	-	-
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	27	14	72	63	84

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	205	105	147	0	-	0
Stage 1	105	-	-	-	-	-
Stage 2	100	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	788	955	1447	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	780	955	1447	-	-	-
Mov Cap-2 Maneuver	780	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	929	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1447	-	815	-	-
HCM Lane V/C Ratio	0.01	-	0.141	-	-
HCM Control Delay (s)	7.5	-	10.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.5	-	-

Lanes, Volumes, Timings
4: NW Hood Street & Project Access

01/14/2022

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	2	4	7	77	243	3
Future Volume (vph)	2	4	7	77	243	3
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	0.910				0.998	
Flt Protected	0.984			0.996		
Satd. Flow (prot)	1701	0	0	1892	1859	0
Flt Permitted	0.984			0.996		
Satd. Flow (perm)	1701	0	0	1892	1859	0
Link Speed (mph)	25			35	35	
Link Distance (ft)	733			398	281	
Travel Time (s)	20.0			7.8	5.5	
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)	2	4	7	77	243	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	84	246	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
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	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 23.0%		ICU Level of Service A	
Analysis Period (min) 15			

HCM 6th TWSC
4: NW Hood Street & Project Access 01/14/2022

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	4	7	77	243	3
Future Vol, veh/h	2	4	7	77	243	3
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	2	4	7	77	243	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	336	245	246	0	-	0
Stage 1	245	-	-	-	-	-
Stage 2	91	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.1	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	663	799	1332	-	-	-
Stage 1	800	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	660	799	1332	-	-	-
Mov Cap-2 Maneuver	660	-	-	-	-	-
Stage 1	796	-	-	-	-	-
Stage 2	938	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1332	-	747	-	-
HCM Lane V/C Ratio	0.005	-	0.008	-	-
HCM Control Delay (s)	7.7	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-