EXHIBIT 42
SUB15-04

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MEMORANDUM

To: City of Camas Staff & Hearing Examiner

From: Hann Lee, P.E.

Date: July 7, 2016

Subject: Village at Camas Meadows – Supplemental Traffic Analysis

7/7/16

This memorandum addresses the scenario of the City of Camas barricading the access to NW Larkspur Street from the NW Camas Meadows Drive extension and if the development of NW Payne Road is unresolved through the development of the Village at Camas Meadows project.

The proposed project will extend NW Camas Meadows Parkway to connect with the existing terminus of NW Larkspur Street. Because of comments by the residents along the existing section of NW Larkspur Street during the Parklands at Camas Meadows Master Plan and Developer's Agreement Hearing, city staff developed a condition (Section 4.5) to barricade the connection of NW Camas Meadows Drive to NW Larkspur Street. As stated in the executed DA, the barricade removal is at the sole discretion of the City. Neither the Parklands at Camas Meadows or Village at Camas Meadows projects were formally conditioned on that occurring. The City will improve the existing section of NW Larkspur Street through its 2016-2021 6-Year Transportation Improvement Program (TIP) project which is described below:

> #4 – NW Larkspur Street from NW Lake Road to NW 60th Avenue
> This improvement project is to widen NW Larkspur Street and to build sidewalks. The project budget is estimated at $1,070,000 and is to be funded in state and local dollar. Preliminary engineering is scheduled to start in July 2017. Right of way acquisition is planned for July 2018. Construction is scheduled for June 2019.

It should be noted that the barricade condition in the Parklands at Camas Meadows DA hearing was imposed without sound technical justification and could have unintended consequences if applied. First, the project proponent's traffic study, which was conducted by H. Lee & Associates, PLLC (HLA), clearly demonstrated that transportation concurrency requirements were met with the extension of NW Camas Meadows Drive to NW Larkspur Street. The NW Lake Road/NW Parker Street/NW Larkspur Street intersection was projected to be within the level of service standard in the 2020 "With Project" condition and has a projected level of service of LOS C or better. Second, the accident history section showed an acceptable accident rate of 0.09 accidents per million entering vehicles at the NW Lake Road/NW Parker Street/NW

Larkspur Street intersection. Third, the pavement width along the existing section of NW Larkspur Street is an acceptable width for two-way traffic. For these reasons, the connection of NW Camas Meadows Drive to NW Larkspur Street meets both concurrency and safety standards. Because all of the relevant minimum standards are met, no off-site transportation conditions should be imposed on the proposed Village at Camas Meadows project.

To placate concerned residents along NW Larkspur Street, the City developed the barricade condition during the Parklands at Camas Meadows DA hearing. While this may have placated the residents, there was no technical justification for the condition because the Parklands at Camas Meadows applicant met all of the minimum required standards. Likewise, several months after the DA hearing, the proposed Village at Camas Meadows project also meets all the minimum required standards. Any additional requirements should be the sole responsibility of the City of Camas to provide because the project proponent has met their responsibility to meet all the applicable minimum code requirements. The way the City of Camas intends on managing the public infrastructure built by the Parklands at Camas Meadows and Village at Camas Meadows projects is an internal issue that should be separate from the proposed project should the City of Camas choose to apply a higher standard. Because there is no nexus between this higher standard and any code requirements regarding the mitigation of project impacts, the Village at Camas Meadows project cannot be required to meet this higher standard created by the unintended impacts of barricading the connection between NW Camas Meadows Drive and NW Larkspur Street.

The City thought that the barricade condition would not have any unintended consequences because it is trying to coincide the NW Larkspur Street TIP project construction with the occupancy/build out of the Parklands at Camas Meadows and Village at Camas Meadows projects. The barricade condition was developed to assure residents along NW Larkspur Street that the City was committed to construct the NW Larkspur Street TIP improvement in a timely manner. In any case, the Village at Camas Meadows project proponent should not be held to greater standards and for purposes of the subdivision process, should be allowed to consider NW Larkspur Street open and thereby meeting all concurrency requirements. Allowing this is similar to meeting concurrency requirements by either reasonably funding or constructing an improvement. Reasonably funding and/or constructing an improvement allows the assumption that the improvement is functional for the concurrency analysis.

Another perspective regarding the barricade issue is that the removal of the barricade is already met with the Village at Camas Meadows development proposal because the City did not condition the proposed Village at Camas Meadows or Parklands at Camas Meadows Subdivision to the same condition as the DA. Section 4.5 of the DA is quoted below for reference and attached to this memorandum for reference:

> "Section 4.5 NW Larkspur Street. All road barricades preventing circulation on NW Larkspur Street shall remain in place pending analysis of traffic and roadway conditions in the vicinity of the Property, and shall only be removed at the sole discretion of the City."

While the DA mentions a barricade on NW Larkspur Street, the presence of a barricade is conditional based on the results of a traffic analysis and is at the sole discretion of the City to be removed. In fact, a barricade already exists at the northern terminus of NW Larkspur Street. This existing barricade is to remain in place until it is proven safe to connect to the proposed NW

Camas Meadows Drive extension. The HLA traffic study for the Village at Camas Meadows project assumed that the NW Camas Meadows Drive/NW Larkspur Street connection is to made at the time of development because level of services standards are met, there is no historical evidence that safety is a problem along NW Larkspur Street, and the most recent speed study (attached to this memorandum) shows that the 85th percentile speed is within the roadway speed limit (25 mph) which is considered reasonable and acceptable. The northbound 85th percentile speed is 23 mph south of NW 60th Avenue. The southbound 85th percentile speed is 21 mph south of NW 60th Avenue. The narrow width of NW Larkspur Street is essentially a traffic calming measure keeping travel speeds to a minimum.

Discussions regarding the corner sight distance at the NW Larkspur Street/NW 60th Avenue and NW Larkspur Street/NW 61st Circle intersections have occurred but no one to date have actually measured the corner sight distances at these intersections. HLA has field measured these intersection corner sight distances and compared those measurements to the adopted sight distance standards. The Camas Municipal Code establishes that intersection corner sight distance standard is based on the current "A Policy on Geometric Design on Highways and Streets," as published by AASHTO (American Association of State Highway and Transportation Officials." The most recent edition of this reference is the 2011 – 6th Edition.

From AASHTO, there are the following three intersection sight distances relevant to the NW Larkspur Street/NW 60th Avenue and NW Larkspur Street/NW 61st Circle intersections:

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

The required sight distance for Case B1 for a roadway with a posted speed limit of 25 mph such as NW Larkspur Street is 280 feet. This requirement can be found in Table 9-6 of the "A Policy on Geometric Design on Highways and Streets," page 9-38.

The required sight distance for Case B2 for a roadway with a posted speed limit of 25 mph such as NW Larkspur Street is 240 feet. This requirement can be found in Table 9-8 of the "A Policy on Geometric Design on Highways and Streets," page 9-41.

The required sight distance for Case F for a roadway with a posted speed limit of 25 mph such as NW Larkspur Street is 205 feet. This requirement can be found in Table 9-14 of the "A Policy on Geometric Design on Highways and Streets," page 9-52.

The corner sight distance at the NW Larkspur Street/NW 60th Avenue and NW Larkspur Street/NW 61st Circle intersections were field measured and compared to the minimum acceptable AASHTO standards described above. Based on field measurements conducted by HLA, all of the AASHTO sight distance requirements as long as any vegetation within the sight distance triangles are properly maintained and no obstructions that obscure the driver's sight distance are located within the sight distance triangles. There is a bush on the northeast corner of the NW Larkspur Street/NW 60th Avenue intersection that is starting to encroach within the sight distance triangle that should be trimmed.

Although through the process of the previous Parklands at Camas Meadows DA and subdivision hearings there have been comments regarding safety issues along NW Larkspur Street, HLA's analysis has clearly shown that these comments are hearsay and not based on facts. The accident record, sight distance measurements, and speed study do not reveal any safety issues along NW Larkspur Street.

The HLA study conducted for the Village at Camas Meadows project assumed build out of the entire development with the connection to NW Larkspur Street in place as well as NW Payne Road becoming public. At this time with both issues potentially still unresolved, it was demonstrated that all three phases of the Village at Camas Meadows can meet transportation concurrency requirements without the connection to NW Larkspur Street or access onto NW Payne Road. A supplemental traffic analysis has been conducted by HLA showing the traffic impacts of the Village at Camas Meadows project with the assumption that NW Larkspur Street would not connect to NW Camas Meadows Drive due to a barricade and that because NW Payne Street is currently a private street, no Village at Camas Meadows traffic would utilize it. In this alternate traffic study, all access to the street network would occur at the NW Camas Meadows Drive/NE Goodwin Road intersection.

Table 1 shows a revised trip generation for the project with a change in phasing. Phase 1 is now the townhome portion of the development. Phase 2 is the single family subdivision portion of the proposed project. Phase 3 is the apartment portion of the proposed project. It should be noted that in the original HLA study the single family detached single family rate was utilized to estimate the trip generation for the townhome portion of the proposed project. Table 1 has revised the townhome trip generation to utilize the ITE Trip Generation Manual's (9th Edition) townhome trip generation rate.

Figure 1 shows the revised trip distribution and assignment of the Village at Camas Meadows project. Figure 2 shows the 2020 "With Project" condition traffic volumes assuming no access to NW Larkspur Street from the project site and the no legal access is available to the private road, NW Payne Street. Tables 1a and 1b summarizes the 2020 "With Project" condition levels of service based on the traffic volumes shown in Figure 2. The level of service worksheets are attached for reference for the 2020 "With Project" condition. Queuing information can also be obtained from these worksheets.

As shown in Tables 1a and 1b, all of the study area intersections are projected to function at acceptable levels of service in the 2020 "With Project" condition.

Under all three approaches outlined in this memorandum, transportation concurrency requirements are met for the Village at Camas Meadows development regardless of whether NW Larkspur Street is connected to the proposed extension of NW Camas Meadows Drive or whether NW Payne Street is ever dedicated as a public street.

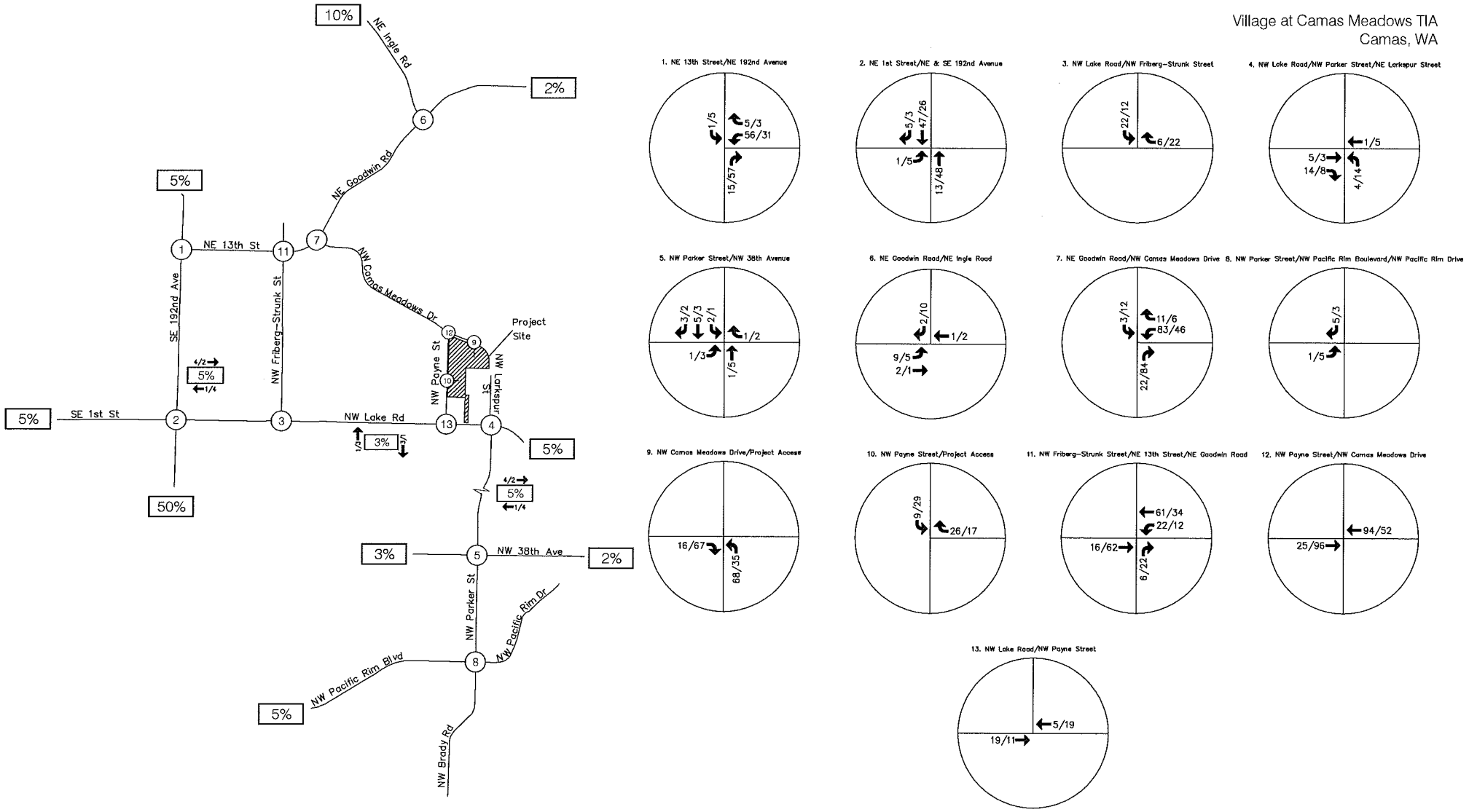
Table 1A. 2020 "With Project" Levels of Service at City of Camas Intersections

Signalized Intersection	A.M. Peak Hour LOS	A.M. Peak Hour Average Delay (sec)	A.M. Peak Hour V/C Ratio	P.M. Peak Hour LOS	P.M. Peak Hour Average Delay (sec)	P.M. Peak Hour V/C Ratio
NW Lake Road/NW Friberg-Strunk Street	A	7.1	0.17	C	25.4	0.29
NW Lake Road/NW Parker Street/NW Larkspur Road	B	15.7	0.43	B	18.9	0.43
NW Parker Street/NW 38th Avenue	B	16.6	0.44	B	16.2	0.45
NE Goodwin Road/NW Ingle Road	A	8.5	0.38	B	15.2	0.53
All Way Stop Intersections						
NW Parker St/NW Pacific Rim Blvd/NW Pacific Rim Dr	B	13.4	0.18	B	12.7	0.19
Unsignalized Intersections						
NE Goodwin Road/NW Camas Meadows Drive						
Westbound Left	C	21.4	0.37	C	22.6	0.35
Westbound Right	A	9.2	0.08	B	12.0	0.15
Southbound Left	A	7.7	0.08	A	8.5	0.06
NW Camas Meadows Drive/Project Access						
Eastbound Left	A	0.0	0.00	A	0.0	0.00
Westbound Left	A	0.0	0.00	A	0.0	0.00
Northbound Approach	A	9.8	0.10	B	11.0	0.07
Southbound Approach	A	0.0	0.00	A	0.0	0.00
NW Payne Street/Project Access						
Westbound Approach	A	8.8	0.03	A	9.9	0.03
Southbound Left	A	7.4	0.01	A	7.9	0.03

Table 1B. 2020 "With Project" Levels of Service at City of Vancouver Intersections

Signalized Intersection	A.M. Peak Hour LOS	A.M. Peak Hour Average Delay (sec)	A.M. Peak Hour V/C Ratio	P.M. Peak Hour LOS	P.M. Peak Hour Average Delay (sec)	P.M. Peak Hour V/C Ratio
NE 13th Street/NE 192nd Avenue						
Westbound Approach	D	37.4	0.77	D	46.3	0.77
Northbound Approach	D	35.8	0.74	D	47.5	0.97
Southbound Approach	C	23.5	0.52	B	15.8	0.37
Overall Intersection LOS	C	30.4	0.75	D	37.7	0.86
SE 1st Street/NE & SE 192nd Avenue						
Eastbound Approach	D	35.9	0.41	D	35.7	0.49
Westbound Approach	C	33.9	0.57	D	42.5	0.70
Northbound Approach	D	18.1	0.31	C	24.0	0.42
Southbound Approach	B	22.4	0.39	C	25.8	0.35
Overall Intersection LOS	C	26.9	0.52	C	31.6	0.69

Village at Camas Meadows TIA
Camas, WA



1. NE 13th Street/NE 192nd Avenue

2. NE 1st Street/NE & SE 192nd Avenue

3. NW Lake Road/NW Friberg-Strunk Street

4. NW Lake Road/NW Parker Street/NE Larkspur Street

5. NW Parker Street/NW 38th Avenue

6. NE Goodwin Road/NE Ingle Road

7. NE Goodwin Road/NW Camas Meadows Drive

8. NW Parker Street/NW Pacific Rim Boulevard/NW Pacific Rim Drive

9. NW Camas Meadows Drive/Project Access

10. NW Payne Street/Project Access

11. NW Friberg-Strunk Street/NE 13th Street/NE Goodwin Road

12. NW Payne Street/NW Camas Meadows Drive

13. NW Lake Road/NW Payne Street

NOT TO SCALE

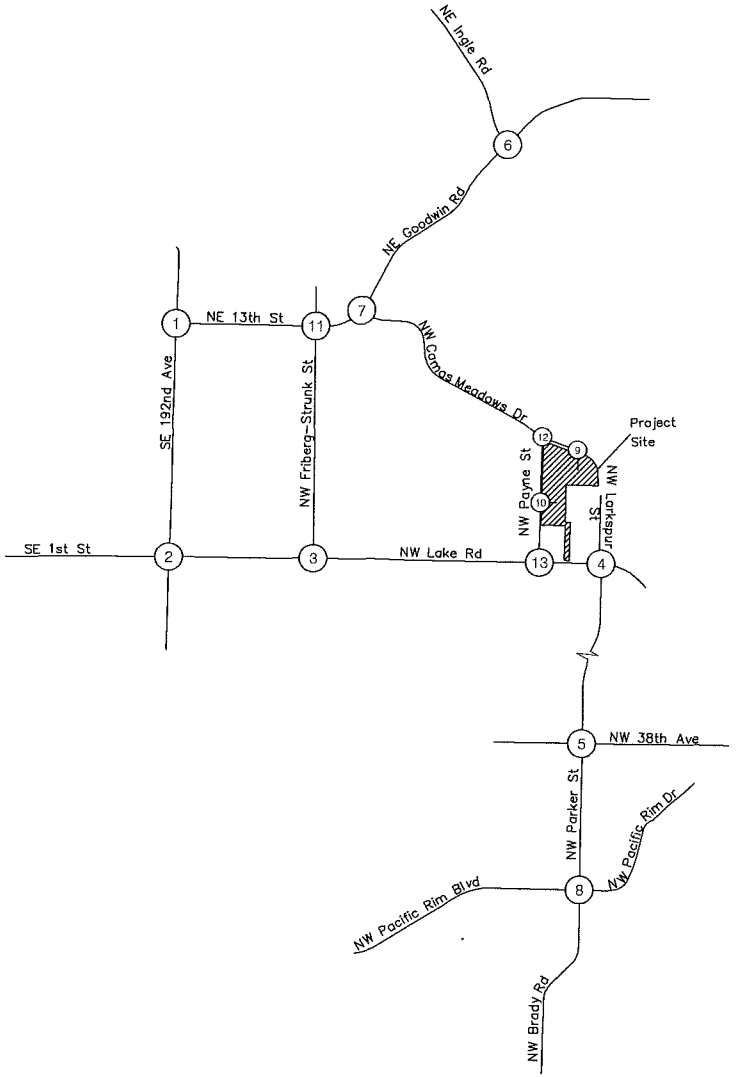
LEGEND

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

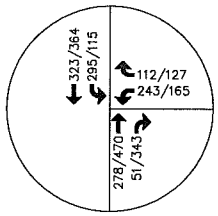
10% A.M. and P.M. Peak Hour Trip Distribution

FIGURE 1
Trip Distribution and Assignment
Traffic Volumes

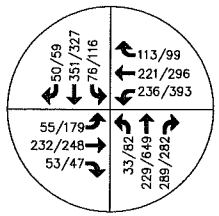
16025_Figures.Dwg



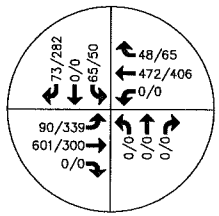
1. NE 13th Street/NE 192nd Avenue



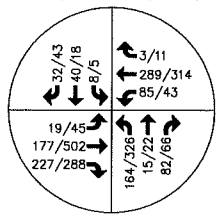
2. NE 1st Street/NE & SE 192nd Avenue



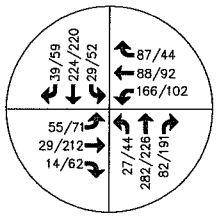
3. NW Lake Road/NW Friberg–Strunk Street



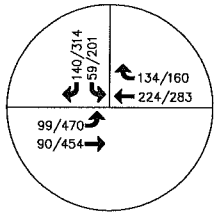
4. NW Lake Road/NW Parker Street/NE Larkspur Street



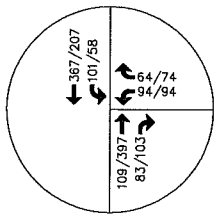
5. NW Parker Street/NW 38th Avenue



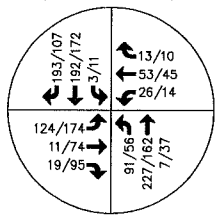
6. NE Goodwin Road/NE Ingle Road



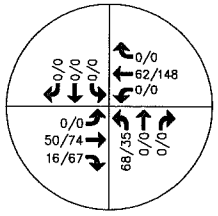
7. NE Goodwin Road/NW Camas Meadows Drive



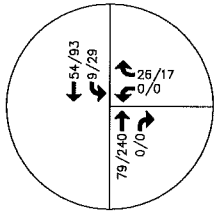
8. NW Parker Street/NW Pacific Rim Boulevard/NW Pacific Rim Drive



9. NW Camas Meadows Drive/Project Access



10. NW Payne Street/Project Access



LEGEND

128/200 AM/PM Peak Hour Traffic Volume

NOT TO SCALE

FIGURE 2
2020 "With Project"
A.M. and P.M. Peak Hour Traffic Volumes

16025_Figures.Dwg

ATTACHMENT A

DEVELOPER'S AGREEMENT

5268706 AGR
RecFee - $111.00 Pages: 39 - AARON BARR
Clark County, WA 03/28/2016 12:59

After recording, return to:

Aaron Barr
Parklands at Camas Meadows
1903 SE 12th Ave
Camas, WA 98607

Space Above for Recording Information Only

Parcel # 175948-000 #21 SEC 28 T2NR3EWM
Parcel # 986031-650 #69 SEC 28 T2NR3E WM

DEVELOPMENT AGREEMENT

This Development Agreement (the "Agreement") is made and entered into by and between the CITY OF CAMAS, a Washington Municipal Corporation (hereinafter referred to as the "City") and Parklands at Camas Meadows, LLC (hereinafter referred to as the "Owner") (and collectively referred to as "Parties").

RECITALS

WHEREAS, Owner owns or controls certain real property that is located within the City's municipal boundary and that is more fully described within the Master Plan and attached Exhibit "A", (hereinafter referred to as the "Property"); and,

WHEREAS, the City and the Owner recognize this area will develop with multiple uses and wish to provide predictability about the development standards that will apply to the Property over the course of its full development in order to increase efficient use of urban services and land, and provide compatibility amongst the various phases of the Property as they develop; and,

WHEREAS, the City is a Washington Municipal Corporation with land use planning and permitting authority over all land within its corporate limits; and,

WHEREAS, the City has established a Mixed Use Planned Development Overlay Zone (hereinafter referred to as "MXPD") applicable to a portion of the property; and,

WHEREAS, development of land under the MXPD requires approval of a Master Plan and Development Agreement; and

WHEREAS, the Washington State Legislature has authorized the execution of Development Agreements between local governments and a person having ownership or control of real property within its jurisdiction pursuant to RCW 36.70B.170(1); and,

WHEREAS, pursuant to RCW 36.70B.170, a Development Agreement may set forth the development standards and other provisions that shall apply to, govern and vest the development, use and mitigation of the development of real property for the duration specified in the agreement; which statute provides:

(1) A local government may enter into a Development Agreement with a person having ownership or control of real property within its jurisdiction. A city may enter into a development agreement for real property outside its boundaries as part of a proposed annexation or a service agreement. A development agreement must set forth the development standards and other provisions that shall apply to and govern and vest the development, use, and mitigation of the development of the real property for the duration specified in the agreement. A development agreement shall be consistent with applicable development regulations adopted by a local government planning under chapter 36.70A RCW; and

WHEREAS, the legislative findings supporting the enactment of this section provide:

The legislature finds that the lack of certainty of the approval of development projects can result in a waste of public and private resources escalate housing costs for consumers and discourage the commitment to comprehensive planning that would make maximum efficient use of resources at the least economic cost to the public. Assurance to a development project applicant that upon government approval the project may proceed in accordance with existing policies and regulations, and subject to conditions of approval, all as set forth in a development agreement, will strengthen the public planning process, encourage private participation and comprehensive planning, and reduce the economic cost of development. Further, the lack of public facilities and services is a serious impediment to development of new housing and commercial uses. Project applicants and local governments may include provisions and agreements whereby applicants are reimbursed over time for financing public facilities. It is the intent of the legislature by RCW 36.70B.170 through 36.70B.210 to allow local governments and owners and developers of real property to enter into development agreements; and

WHEREAS, for the purposes of this Agreement, "Development Standards" includes, but is not limited to, all of the standards listed in RCW 36.70B.170(3); and,

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

Section 1. Development Agreement. This Agreement is a Development Agreement to be implemented under the authority of and in accordance with RCW 36.70B.170 through RCW 36.70B.210. It shall become a contract between the Owner and the City upon its approval by ordinance or resolution following a public hearing as provided for in RCW 36.70B.170; and upon execution by all parties.

Section 2. Term of Agreement. This Agreement shall commence upon the Effective Date, and shall be valid for a period of Ten (10) years; unless extended or terminated by mutual consent of the Parties; provided however, if this Agreement or any initial land use applications related to the Property and filed within one year of the effective date of this Agreement, are appealed, the term of this Agreement shall be tolled for the time during which the appeal is pending or 18 months, whichever is less. The "Effective Date" shall be the date of recording, which shall occur within thirty days of the date of the adopting Resolution.

Section 3. Vesting. Any land use applications submitted with respect to the Property during the term of this Agreement, shall be vested to the following land use regulations and Development Standards in effect on the effective date of this Agreement CMC title 16.01-16.21; CMC 16.31; CMC Title 17 and CMC Title 18 (through Ordinance 15-017), unless otherwise provided for in this Agreement through Exhibit "B" Dimensional Standards or Exhibit "C" MXPD Employment Uses. Any land use approvals affecting the Property issued after the effective date of this Agreement shall remain in effect during the term of this Agreement; provided however, that preliminary plat approvals shall be valid for a period of seven years from the date of the approval, regardless of whether the end of such seven years occurs during or after the term of this Agreement. The vesting provided for under this Agreement shall not apply to System Development Charges, Impact Fees or application or review fees.

Section 4. Master Plan. Parties agree to incorporate by reference **Exhibit D** The Parklands at Camas Meadows Master Plan (Master Plan) dated ***January 14, 2016*** as the Master Plan for development of the Property. The Master Plan provides the Parties with predictability regarding the future development of the Property. Minimum dimensional standards that the Owner shall utilize for development under the Master Plan are provided for in Exhibit "B". Owner agrees to make best efforts to obtain permits and construct a natural loop path and wetland interpretive overlook within a public access easement, to be maintained by the Owner consistent with the Master Plan. The trail and overlook will be constructed concurrent with the subdivision improvements for the initial phase. Consistent with Camas Municipal Code (CMC) 18.09.060 D. the lot size, width, depth and setback standards applicable to the R-15 portion of the site as shown on Exhibit "B" are herein negotiated consistent with the preservation of open space and trail development. The property may be developed with a maximum 42 single family lots, maximum 24 residential units in Building 2 of the business park, and a minimum of 90,000 square feet of business park building space. A number of studies have been completed that aided in the master plan as well as subdivision application already submitted to the city. Those studies include:

Phase 1 Environmental Site Assessment, Columbia West Engineering, Inc., August 31, 2015

Existing Conditions & Boundary Survey – without Trees (Sheets 1 and 2), Minister-Glaeser Surveying, Inc., December 10, 2015.

Existing Conditions & Boundary Survey – with Trees (Sheets 1 and 2), Minister-Glaeser Surveying, Inc., December 10,2015.

City of Camas Archaeological Predetermination Survey of 542 NW 218th Ave, Camas, Washington, Applied Archaeological Research, Inc., March 17, 2015.

Parklands Executive Residential Subdivision And Parklands Business Park: Preliminary Stormwater Design Report (TIR), Kessi Consulting, January 24, 2016.

Parklands at Camas Meadows Traffic Impact Study, H. Lee & Associates, November 18, 2015

Wetland Delineation Report for Parklands at Camas Meadows Camas (Final Report), Washington, Ecological Land Services, Inc., December 15, 2015.

Geotechnical Site Investigation Parklands at Camas Meadows Camas, Washington, Columbia West Engineering, Inc., June 23, 2015.

Section 4.1 SEPA. The City issued a SEPA determination of nonsignificance regarding this Agreement and the Master Plan **(SEPA 15-14).** Impacts that are identified at future stages of the development that have been previously analyzed through this SEPA process shall not be re-analyzed, provided the future identified adverse impacts are substantially similar to and of the same or less intensity as those previously analyzed under this or other SEPA processes. Nothing in this Section shall preclude the City from requesting information on the potential adverse environmental impacts associated with a substantial change in the master plan that have not been previously analyzed as required under the State Environmental Policy Act.

Section 4.2 Flood Plain & Floodways. The Property includes land designated by the National Flood Insurance Programs (NFIP), Map Number 53011C0414D, with an effective date of September 5, 2012, as a Special Flood Hazard Area Subject To Inundation by the 1% Annual Chance Flood (Zone AE). Parties recognize the area under Zone AE are "frequently flooded areas" as defined in the Camas Municipal Code and as such no lot or portion of a newly created lot will be proposed, designed or platted to include any portion of the site Zoned AE under the aforementioned NFIP Map. All portions of the Property Zoned AE shall be placed in an Open Space tract at the time of plat approval.

Section 4.3 Phasing. Only the single family residential shall be required to build structures in phases. With the exception of the half-width street improvements along the entire frontage and all street-scaping per the submitted plan, which shall be completed prior to final platting of any residential lots, the Owner will have the ability to install roads, utilities, etc. as one complete project, provided a grading plan is submitted in advance to the City. The lots within the existing R-15 area shall be released upon subdivision approval. The ten (10) lots within Phase 2 shall be released upon the business park being graded, platted and ready for a prospective user to submit for site plan review. The final eight (8) lots within Phase 3 shall be released once building permit is acquired on either business park Building 2, 3, 4 (4A), or 5 (4B).

Section 4.4 Streetscape. Owner agrees to incorporate into its development application submittal package streetscape standards for primary streets within the Property addressing street specifications, tree spacing and species, sidewalk separation, trash receptacles, benches and other street amenities that will create an inviting, safe passage for not only vehicular but pedestrian and bicycle traffic. Streetscape standards will be consistent with the streetscape standards identified in the Master Plan. The Business Park Owners (or representative building association) are responsible to privately maintain all of the public streetscape and vegetation along their half street frontage of Camas Meadows Drive, including the pedestrian path and full width of any street center or median planter strips.

Section 4.5 NW Larkspur Street. All road barricades preventing circulation on NW Larkspur Street shall remain in place pending analysis of traffic and roadway conditions in the vicinity of the Property, and shall only be removed at the sole discretion of the City.

Section 5. Remedies. Should a disagreement arise between the City and Owner regarding the interpretation and application of this Agreement, the parties agree to attempt to resolve the

disagreement by first meeting and conferring. If such meeting proves unsuccessful to resolve the dispute, the disagreement may be resolved by judicial action filed in the Clark County Superior Court.

Section 6. Performance. Failure by either party at any time to require performance by the other party of any of the provisions hereof shall in no way affect the parties' rights hereunder to enforce the same, nor shall any waiver by a party of the breach hereof be held to be a waiver of any succeeding breach or a waiver of this non-waiver clause.

Section 7. Venue. This Agreement shall be construed in accordance with and, governed by, the laws of the State of Washington. The parties agree to venue in the Superior Court for Clark County, State of Washington, to resolve any disputes that may arise under this Agreement.

Section 8. Severability. If any portion of this Agreement shall be invalid or unenforceable to any extent, the validity of the remaining provisions shall not be affected thereby.

Section 9. Inconsistencies. If any provisions of the Camas Municipal Code or Master Plan are deemed inconsistent with the provisions of this Agreement, the provisions of this Agreement shall prevail.

Section 10. Binding on Successors and Recording. The rights and obligations created by this Agreement are assignable and shall be binding upon and inure to the benefit of Owner, the City, and their respective heirs, successors and assigns. Only Owner and the City or their assigns shall have the right to enforce the terms of this Amendment. This Agreement shall be recorded against the real property indicated in the Master Plan with the Clark County Auditor.

Section 11. Recitals. Each of the recitals contained herein are intended to be, and are incorporated as, covenants between the parties and shall be so construed.

Section 12. Amendments. This Agreement may only be amended by mutual agreement of the parties. While nothing contained herein shall be construed to obligate either party to amend the Master Plan, it is recognized that future evolution of the City may warrant consideration of such issues. The City reserves authority to impose new or different regulations to the extent required by a serious threat to public health and safety pursuant to RCW 36.70B.

IN WITNESS WHEREOF, the parties hereto have caused this
to be executed as of the dates set forth below:

CITY OF CAMAS

By _____
Title Mayor

PARKLANDS @ CAMAS MEADOWS, LLC

By _____
Title Manager

CHINOOK LAND OWNERS GROUP OF VANCOUVER, WASHINGTON, LLC

By _____
Title GENERAL MANAGER

STATE OF WASHINGTON)
) ss.
County of Skamania)

I certify that I know or have satisfactory evidence that James McIntosh is the Person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument and acknowledged it as the **Development Agreement** of Parklands @ Camas Meadows, LLC to be free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: 3/25/16

Notary Public
State of Washington
SHELLEY R TURNER
My Appointment Expires Apr 23, 2018

Shelley R Turner
NOTARY PUBLIC for the State of Washington,
Residing in the County of Skamania / Camas
My Commission Expires: April 23, 2018

STATE OF WASHINGTON)
) ss.
County of Clark)

I certify that I know or have satisfactory evidence that Aaron Barr is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument and acknowledged it as the Development Agreement of Parklands @ Camas Meadows, LLC to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: March 24, 2016 ~~2015~~.

Notary Public
State of Washington
ROBYN O WESTON
MY COMMISSION EXPIRES
September 30, 2017

Robyn O. Weston
NOTARY PUBLIC for the State of Washington,
Residing in the County of Clark
My Commission Expires: 9302017

STATE OF WASHINGTON)
) ss.
County of Clark)

I certify that I know or have satisfactory evidence that Scott Higgins is the person who appeared before me, and said person acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument and acknowledged it as the Mayor of the CITY OF CAMAS, to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

DATED: March 21, 2016.

BERNIE BACON
Commission Expires
NOTARY
PUBLIC
SEPT. 18, 2019
STATE OF WASHINGTON

Bernie Bacon
NOTARY PUBLIC for the State of Washington,
Residing in the County of Clark
My Commission Expire 9/18/19

EXHIBIT A: PROPERTY DESCRIPTION

The project site is located just east of Camas Meadows Golf Course Club House and just north of Camas Meadows Drive, in Camas, Washington 98607, in the SE & SW ¼ of Sec. 28, T2N, R3E, W.M. The site is comprised of two (2) parent parcels plus the existing 74 foot wide public City ROW for Camas Meadows Drive. The abbreviated legal description for the two parcels is:

Parcel 175948-000
#21 SEC 28 T2NR3EWM 15.72A

Parcel 986031-650
#68 SEC 28 T2NR3EWM 20.97A

ATTACHMENT B

SPEED STUDY

H. Lee & Associates, PLLC
P.O. Box 1849
Vancouver, WA 98668

SPEED STUDY

NW Larkspur St.
South of NW 60th Ave

Northbound

Start Time	0 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 9999	Total	85th Percent	95th Percent
06/22/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	**2**	**21**	**27**	**6**	0	0	0	0	0	0	0	0	0	0	**56**	24	27
12 PM	6	15	26	2	0	0	0	0	0	0	0	0	0	0	49	23	25
13:00	3	24	15	2	0	0	0	0	0	0	0	0	0	0	44	22	25
14:00	3	19	**32**	3	0	0	0	0	0	0	0	0	0	0	**57**	24	26
15:00	**7**	28	19	2	0	0	0	0	0	0	0	0	0	0	56	22	25
16:00	4	25	21	**5**	0	0	0	0	0	0	0	0	0	0	55	23	26
17:00	6	**32**	17	2	0	0	0	0	0	0	0	0	0	0	57	22	24
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	31	164	157	22	0	0	0	0	0	0	0	0	0	0	374		
Percent	8.3%	43.9%	42.0%	5.9%	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	11:00	11:00											11:00		
Vol.	2	21	27	6											56		
PM Peak	15:00	17:00	14:00	16:00											14:00		
Vol.	7	32	32	5											57		
Grand Total	31	164	157	22	0	0	0	0	0	0	0	0	0	0	374		
Percent	8.3%	43.9%	42.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile :	11 MPH
50th Percentile :	18 MPH
85th Percentile :	23 MPH
95th Percentile :	25 MPH

Statistics

10 MPH Pace Speed :	15-24 MPH
Number in Pace :	234
Percent in Pace :	62.6%
Number of Vehicles > 55 MPH :	0
Percent of Vehicles > 55 MPH :	0.0%
Mean Speed(Average) :	18 MPH

H. Lee & Associates, PLLC
P.O. Box 1849
Vancouver, WA 98668

SPEED STUDY

NW Larkspur St.
South of NW 60th Ave

Southbound

Start Time	0 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 9999	Total	85th Percent	95th Percent
06/22/16	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	**10**	**33**	**19**	**2**	0	0	0	0	**1**	0	0	0	0	0	**65**	22	25
12 PM	6	21	12	1	0	0	0	0	0	0	0	0	0	0	40	21	24
13:00	**14**	26	12	1	0	0	0	0	0	0	0	0	0	0	**53**	20	23
14:00	6	24	14	0	0	0	0	0	0	0	0	0	0	0	44	21	24
15:00	10	26	10	**2**	0	0	0	0	0	0	0	0	0	0	48	21	24
16:00	5	**27**	**16**	0	0	0	0	0	0	0	0	0	0	0	48	21	24
17:00	7	17	14	1	0	0	0	0	0	0	0	0	0	0	39	22	24
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	58	174	97	7	0	0	0	0	1	0	0	0	0	0	337		
Percent	17.2%	51.6%	28.8%	2.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	11:00	11:00	11:00	11:00					11:00						11:00		
Vol.	10	33	19	2					1						65		
PM Peak	13:00	16:00	16:00	15:00											13:00		
Vol.	14	27	16	2											53		
Grand Total	58	174	97	7	0	0	0	0	1	0	0	0	0	0	337		
Percent	17.2%	51.6%	28.8%	2.1%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile :	9 MPH
50th Percentile :	16 MPH
85th Percentile :	21 MPH
95th Percentile :	24 MPH

Statistics

10 MPH Pace Speed :	13-22 MPH
Number in Pace :	202
Percent in Pace :	59.9%
Number of Vehicles > 55 MPH :	0
Percent of Vehicles > 55 MPH :	0.0%
Mean Speed(Average) :	16 MPH

ATTACHMENT C

2020 "WITH PROJECT" LEVELS OF SERVICE

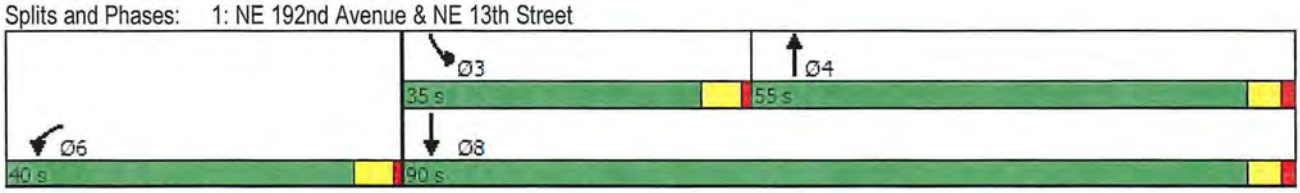
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	243	112	278	51	295	323
Future Volume (vph)	243	112	278	51	295	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.958		0.979			
Flt Protected	0.967				0.950	
Satd. Flow (prot)	1676	0	1676	0	1752	1845
Flt Permitted	0.967				0.950	
Satd. Flow (perm)	1676	0	1676	0	1752	1845
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	17		8			
Link Speed (mph)	35		40			40
Link Distance (ft)	2013		3859			1400
Travel Time (s)	39.2		65.8			23.9
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	5%	5%	11%	11%	3%	3%
Adj. Flow (vph)	270	124	309	57	328	359
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	0	366	0	328	359
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2		1	2
Detector Template	Left		Thru		Left	Thru
Leading Detector (ft)	20		100		20	100
Trailing Detector (ft)	0		0		0	0
Detector 1 Position(ft)	0		0		0	0
Detector 1 Size(ft)	20		6		20	6
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA		Prot	NA
Protected Phases	6		4		3	8
Permitted Phases						
Detector Phase	6		4		3	8
Switch Phase						

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0		7.0		5.0	15.0
Minimum Split (s)	25.0		28.0		10.0	20.0
Total Split (s)	40.0		55.0		35.0	90.0
Total Split (%)	30.8%		42.3%		26.9%	69.2%
Maximum Green (s)	35.0		50.0		30.0	85.0
Yellow Time (s)	4.0		3.4		4.0	3.4
All-Red Time (s)	1.0		1.6		1.0	1.6
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0		5.0	5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		Min		None	Min
Walk Time (s)	7.0		7.0			0.0
Flash Dont Walk (s)	13.0		16.0			0.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	27.7		26.9		23.7	55.9
Actuated g/C Ratio	0.29		0.29		0.25	0.59
v/c Ratio	0.78		0.76		0.75	0.33
Control Delay	43.3		42.5		46.5	10.9
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	43.3		42.5		46.5	10.9
LOS	D		D		D	B
Approach Delay	43.3		42.5			27.9
Approach LOS	D		D			C

Intersection Summary

Area Type: Other
Cycle Length: 130
Actuated Cycle Length: 94.2
Natural Cycle: 70
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 35.8 Intersection LOS: D
Intersection Capacity Utilization 66.9% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 1: NE 192nd Avenue & NE 13th Street



Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	394	366	328	359
v/c Ratio	0.78	0.76	0.75	0.33
Control Delay	43.3	42.5	46.5	10.9
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	43.3	42.5	46.5	10.9
Queue Length 50th (ft)	211	201	186	104
Queue Length 95th (ft)	#415	345	#347	174
Internal Link Dist (ft)	1933	3779		1320
Turn Bay Length (ft)				
Base Capacity (vph)	671	947	591	1602
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.59	0.39	0.55	0.22

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	243	112	278	51	295	323
Future Volume (vph)	243	112	278	51	295	323
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		5.0	5.0
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.96		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1675		1676		1752	1845
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	1675		1676		1752	1845
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	270	124	309	57	328	359
RTOR Reduction (vph)	12	0	6	0	0	0
Lane Group Flow (vph)	382	0	360	0	328	359
Heavy Vehicles (%)	5%	5%	11%	11%	3%	3%
Turn Type	Prot		NA		Prot	NA
Protected Phases	6		4		3	8
Permitted Phases						
Actuated Green, G (s)	27.7		27.2		23.7	55.9
Effective Green, g (s)	27.7		27.2		23.7	55.9
Actuated g/C Ratio	0.30		0.29		0.25	0.60
Clearance Time (s)	5.0		5.0		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	495		487		443	1101
v/s Ratio Prot	c0.23		c0.22		c0.19	0.19
v/s Ratio Perm						
v/c Ratio	0.77		0.74		0.74	0.33
Uniform Delay, d1	30.1		30.0		32.1	9.4
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	7.3		5.8		6.5	0.2
Delay (s)	37.4		35.8		38.7	9.6
Level of Service	D		D		D	A
Approach Delay (s)	37.4		35.8			23.5
Approach LOS	D		D			C

Intersection Summary			
HCM 2000 Control Delay	30.4	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	93.6	Sum of lost time (s)	15.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

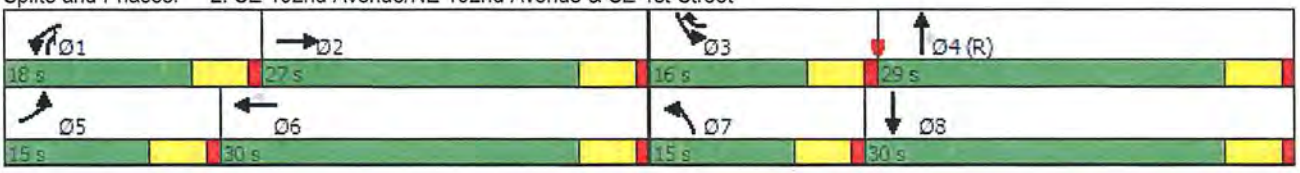
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	232	53	236	221	113	33	229	289	76	351	50
Future Volume (vph)	55	232	53	236	221	113	33	229	289	76	351	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt		0.972				0.850			0.850		0.981	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3303	3310	0	3242	1759	1495	1719	3438	1538	1687	3310	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3303	3310	0	3242	1759	1495	1719	3438	1538	1687	3310	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29				138			293		17	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		5794			1907			4001			3859	
Travel Time (s)		98.8			32.5			68.2			65.8	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	6%	6%	6%	8%	8%	8%	5%	5%	5%	7%	7%	7%
Adj. Flow (vph)	67	283	65	288	270	138	40	279	352	93	428	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	348	0	288	270	138	40	279	352	93	489	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)		24			24			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	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		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	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		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	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	Prot	NA		Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	5	2		1	6	3	7	4	1	3	8	
Permitted Phases						6			4			
Detector Phase	5	2		1	6	3	7	4	1	3	8	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	15.0	5.0	5.0	15.0	
Minimum Split (s)	10.0	27.0		10.0	30.0	10.0	10.0	29.0	10.0	10.0	29.0	
Total Split (s)	15.0	27.0		18.0	30.0	16.0	15.0	29.0	18.0	16.0	30.0	
Total Split (%)	16.7%	30.0%		20.0%	33.3%	17.8%	16.7%	32.2%	20.0%	17.8%	33.3%	
Maximum Green (s)	10.0	22.0		13.0	25.0	11.0	10.0	24.0	13.0	11.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		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	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		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	3.0	3.0	
Recall Mode	None	None		None	None	None	None	C-Max	None	None	Max	
Walk Time (s)		6.0			6.0			6.0			6.0	
Flash Dont Walk (s)		16.0			19.0			18.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	7.2	14.8		12.0	21.8	36.5	7.6	33.4	50.4	9.7	39.9	
Actuated g/C Ratio	0.08	0.16		0.13	0.24	0.41	0.08	0.37	0.56	0.11	0.44	
v/c Ratio	0.25	0.61		0.67	0.64	0.20	0.28	0.22	0.36	0.51	0.33	
Control Delay	40.7	36.0		44.9	38.1	3.4	42.7	22.0	3.9	47.4	19.4	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	40.7	36.0		44.9	38.1	3.4	42.7	22.0	3.9	47.4	19.4	
LOS	D	D		D	D	A	D	C	A	D	B	
Approach Delay		36.8			34.0			13.8			23.9	
Approach LOS		D			C			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 77 (86%), Referenced to phase 4:NBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.67
Intersection Signal Delay: 26.3 Intersection LOS: C
Intersection Capacity Utilization 49.2% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 2: SE 192nd Avenue/NE 192nd Avenue & SE 1st Street



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	67	348	288	270	138	40	279	352	93	489
v/c Ratio	0.25	0.61	0.67	0.64	0.20	0.28	0.22	0.36	0.51	0.33
Control Delay	40.7	36.0	44.9	38.1	3.4	42.7	22.0	3.9	47.4	19.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.7	36.0	44.9	38.1	3.4	42.7	22.0	3.9	47.4	19.4
Queue Length 50th (ft)	19	90	80	142	0	22	56	14	50	97
Queue Length 95th (ft)	35	108	109	186	23	47	91	51	88	148
Internal Link Dist (ft)		5714		1827			3921			3779
Turn Bay Length (ft)										
Base Capacity (vph)	367	831	468	490	712	191	1275	1004	212	1477
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.18	0.42	0.62	0.55	0.19	0.21	0.22	0.35	0.44	0.33

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	232	53	236	221	113	33	229	289	76	351	50
Future Volume (vph)	55	232	53	236	221	113	33	229	289	76	351	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	0.97	0.95		0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.97		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3303	3310		3242	1759	1495	1719	3438	1538	1687	3311	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3303	3310		3242	1759	1495	1719	3438	1538	1687	3311	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	67	283	65	288	270	138	40	279	352	93	428	61
RTOR Reduction (vph)	0	24	0	0	0	90	0	0	148	0	10	0
Lane Group Flow (vph)	67	324	0	288	270	48	40	279	204	93	479	0
Heavy Vehicles (%)	6%	6%	6%	8%	8%	8%	5%	5%	5%	7%	7%	7%
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	5	2		1	6	3	7	4	1	3	8	
Permitted Phases						6			4			
Actuated Green, G (s)	6.1	15.9		12.0	21.8	31.5	5.2	32.4	44.4	9.7	36.9	
Effective Green, g (s)	6.1	15.9		12.0	21.8	31.5	5.2	32.4	44.4	9.7	36.9	
Actuated g/C Ratio	0.07	0.18		0.13	0.24	0.35	0.06	0.36	0.49	0.11	0.41	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	223	584		432	426	606	99	1237	844	181	1357	
v/s Ratio Prot	0.02	0.10		c0.09	c0.15	0.01	0.02	0.08	0.03	c0.06	c0.14	
v/s Ratio Perm						0.02			0.10			
v/c Ratio	0.30	0.56		0.67	0.63	0.08	0.40	0.23	0.24	0.51	0.35	
Uniform Delay, d1	39.9	33.8		37.1	30.5	19.6	40.9	20.1	13.1	37.9	18.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.8	1.1		3.9	3.1	0.1	2.7	0.4	0.1	2.5	0.7	
Delay (s)	40.7	35.0		41.0	33.6	19.6	43.6	20.5	13.3	40.4	19.0	
Level of Service	D	C		D	C	B	D	C	B	D	B	
Approach Delay (s)		35.9			33.9			18.1			22.4	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM 2000 Control Delay	26.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

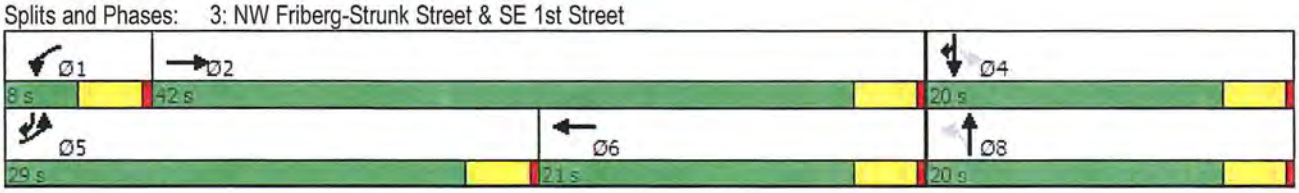
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	90	601	0	0	472	48	0	0	0	65	0	73
Future Volume (vph)	90	601	0	0	472	48	0	0	0	65	0	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.986							0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	1787	3574	0	1863	3490	0	0	1900	0	0	1770	1583
Flt Permitted	0.950										0.757	
Satd. Flow (perm)	1787	3574	0	1863	3490	0	0	1900	0	0	1410	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					14							73
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1907			212			588			2706	
Travel Time (s)		32.5			3.6			13.4			61.5	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	1%	1%	1%	2%	2%	2%	0%	0%	0%	2%	2%	2%
Adj. Flow (vph)	94	626	0	0	492	50	0	0	0	68	0	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	94	626	0	0	542	0	0	0	0	0	68	76
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			0			0	
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	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	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	0.0
Detector 1 Queue (s)	0.0	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	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	Prot	NA		Prot	NA					Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases							8			4		
Detector Phase	5	2		1	6		8	8		4	4	4 5
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	29.0	42.0		8.0	21.0		20.0	20.0		20.0	20.0	
Total Split (%)	41.4%	60.0%		11.4%	30.0%		28.6%	28.6%		28.6%	28.6%	
Maximum Green (s)	25.0	38.0		4.0	17.0		16.0	16.0		16.0	16.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	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	Max		None	Max		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	8.3	42.1			31.7						8.1	18.5
Actuated g/C Ratio	0.15	0.76			0.57						0.15	0.33
v/c Ratio	0.35	0.23			0.27						0.33	0.13
Control Delay	24.3	3.1			9.2						25.1	3.7
Queue Delay	0.0	0.0			0.0						0.0	0.0
Total Delay	24.3	3.1			9.2						25.1	3.7
LOS	C	A			A						C	A
Approach Delay		5.9			9.2						13.8	
Approach LOS		A			A						B	

Intersection Summary

Area Type: Other
Cycle Length: 70
Actuated Cycle Length: 55.5
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.35
Intersection Signal Delay: 8.0 Intersection LOS: A
Intersection Capacity Utilization 33.5% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 3: NW Friberg-Strunk Street & SE 1st Street



Lane Group	EBL	EBT	WBT	SBT	SBR
Lane Group Flow (vph)	94	626	542	68	76
v/c Ratio	0.35	0.23	0.27	0.33	0.13
Control Delay	24.3	3.1	9.2	25.1	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	24.3	3.1	9.2	25.1	3.7
Queue Length 50th (ft)	27	27	50	20	1
Queue Length 95th (ft)	62	53	97	49	18
Internal Link Dist (ft)		1827	132	2626	
Turn Bay Length (ft)					
Base Capacity (vph)	805	2708	1997	406	1031
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.12	0.23	0.27	0.17	0.07

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	601	0	0	472	48	0	0	0	65	0	73
Future Volume (veh/h)	90	601	0	0	472	48	0	0	0	65	0	73
Number	5	2	12	1	6	16	3	8	18	7	4	14
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
Adj Sat Flow, veh/h/ln	1881	1881	1900	1863	1863	1900	1900	1900	1900	1900	1863	1863
Adj Flow Rate, veh/h	94	626	0	0	492	50	0	0	0	68	0	76
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	1	1	1	2	2	2	0	0	0	2	2	2
Cap, veh/h	125	2712	0	4	1978	200	0	155	0	259	0	239
Arrive On Green	0.07	0.76	0.00	0.00	0.61	0.61	0.00	0.00	0.00	0.08	0.00	0.08
Sat Flow, veh/h	1792	3668	0	1774	3246	329	0	1900	0	1412	0	1583
Grp Volume(v), veh/h	94	626	0	0	268	274	0	0	0	68	0	76
Grp Sat Flow(s),veh/h/ln	1792	1787	0	1774	1770	1805	0	1900	0	1412	0	1583
Q Serve(g_s), s	2.6	2.6	0.0	0.0	3.5	3.5	0.0	0.0	0.0	2.3	0.0	2.1
Cycle Q Clear(g_c), s	2.6	2.6	0.0	0.0	3.5	3.5	0.0	0.0	0.0	2.3	0.0	2.1
Prop In Lane	1.00		0.00	1.00		0.18	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	125	2712	0	4	1078	1100	0	155	0	259	0	239
V/C Ratio(X)	0.75	0.23	0.00	0.00	0.25	0.25	0.00	0.00	0.00	0.26	0.00	0.32
Avail Cap(c_a), veh/h	894	2712	0	142	1078	1100	0	607	0	595	0	616
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	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.9	1.8	0.0	0.0	4.5	4.5	0.0	0.0	0.0	22.2	0.0	19.0
Incr Delay (d2), s/veh	8.9	0.2	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.5	0.0	0.8
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	1.6	1.3	0.0	0.0	1.8	1.8	0.0	0.0	0.0	0.9	0.0	1.0
LnGrp Delay(d),s/veh	31.8	2.0	0.0	0.0	5.1	5.0	0.0	0.0	0.0	22.7	0.0	19.7
LnGrp LOS	C	A			A	A				C		B
Approach Vol, veh/h		720			542			0			144	
Approach Delay, s/veh		5.9			5.0			0.0			21.1	
Approach LOS		A			A						C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	42.0		8.1	7.5	34.5		8.1
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	38.0		16.0	25.0	17.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	4.6		4.3	4.6	5.5		0.0
Green Ext Time (p_c), s	0.0	8.4		0.4	0.2	5.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	7.1
HCM 2010 LOS	A

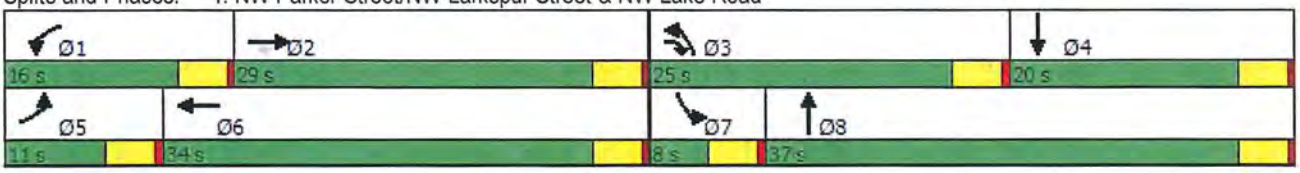
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	177	227	85	289	3	164	15	82	8	40	32
Future Volume (vph)	19	177	227	85	289	3	164	15	82	8	40	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.998			0.874			0.933	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1687	1776	1509	1770	3532	0	1736	1597	0	1752	1721	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1687	1776	1509	1770	3532	0	1736	1597	0	1752	1721	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			311		1			112			39	
Link Speed (mph)		40			35			35			35	
Link Distance (ft)		2066			8793			1133			1857	
Travel Time (s)		35.2			171.3			22.1			36.2	
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Heavy Vehicles (%)	7%	7%	7%	2%	2%	2%	4%	4%	4%	3%	3%	3%
Adj. Flow (vph)	26	242	311	116	396	4	225	21	112	11	55	44
Shared Lane Traffic (%)												
Lane Group Flow (vph)	26	242	311	116	400	0	225	133	0	11	99	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	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	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	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	0.0	
Detector 1 Queue (s)	0.0	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	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	Prot	NA	pm+ov	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2	3	1	6		3	8		7	4	
Permitted Phases			2									
Detector Phase	5	2	3	1	6		3	8		7	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	8.0	20.0	8.0	8.0	20.0		8.0	20.0		8.0	20.0	
Total Split (s)	11.0	29.0	25.0	16.0	34.0		25.0	37.0		8.0	20.0	
Total Split (%)	12.2%	32.2%	27.8%	17.8%	37.8%		27.8%	41.1%		8.9%	22.2%	
Maximum Green (s)	7.0	25.0	21.0	12.0	30.0		21.0	33.0		4.0	16.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	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	3.0	
Recall Mode	None	Min	None	None	Min		None	None		None	None	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	7.5	14.7	36.0	10.2	21.4		14.2	22.0		5.0	9.0	
Actuated g/C Ratio	0.13	0.25	0.62	0.18	0.37		0.25	0.38		0.09	0.16	
v/c Ratio	0.12	0.54	0.29	0.37	0.31		0.53	0.20		0.07	0.33	
Control Delay	32.8	27.6	2.0	31.5	16.1		28.3	5.9		35.8	22.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	32.8	27.6	2.0	31.5	16.1		28.3	5.9		35.8	22.5	
LOS	C	C	A	C	B		C	A		D	C	
Approach Delay		14.1			19.6			20.0			23.9	
Approach LOS		B			B			B			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 57.8
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.54
Intersection Signal Delay: 17.9 Intersection LOS: B
Intersection Capacity Utilization 39.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 4: NW Parker Street/NW Larkspur Street & NW Lake Road



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	26	242	311	116	400	225	133	11	99
v/c Ratio	0.12	0.54	0.29	0.37	0.31	0.53	0.20	0.07	0.33
Control Delay	32.8	27.6	2.0	31.5	16.1	28.3	5.9	35.8	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.8	27.6	2.0	31.5	16.1	28.3	5.9	35.8	22.5
Queue Length 50th (ft)	9	79	0	39	44	74	4	4	20
Queue Length 95th (ft)	30	138	12	85	94	133	27	18	54
Internal Link Dist (ft)		1986			8713		1053		1777
Turn Bay Length (ft)									
Base Capacity (vph)	254	903	1140	457	2014	785	1013	150	619
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.27	0.27	0.25	0.20	0.29	0.13	0.07	0.16

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	19	177	227	85	289	3	164	15	82	8	40	32
Future Volume (veh/h)	19	177	227	85	289	3	164	15	82	8	40	32
Number	5	2	12	1	6	16	3	8	18	7	4	14
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
Adj Sat Flow, veh/h/ln	1776	1776	1776	1863	1863	1900	1827	1827	1900	1845	1845	1900
Adj Flow Rate, veh/h	26	242	311	116	396	4	225	21	112	11	55	44
Adj No. of Lanes	1	1	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73
Percent Heavy Veh, %	7	7	7	2	2	2	4	4	4	3	3	3
Cap, veh/h	42	502	680	151	1232	12	293	68	362	20	108	86
Arrive On Green	0.02	0.28	0.28	0.09	0.34	0.34	0.17	0.27	0.27	0.01	0.11	0.11
Sat Flow, veh/h	1691	1776	1509	1774	3590	36	1740	251	1339	1757	950	760
Grp Volume(v), veh/h	26	242	311	116	195	205	225	0	133	11	0	99
Grp Sat Flow(s),veh/h/ln	1691	1776	1509	1774	1770	1856	1740	0	1591	1757	0	1711
Q Serve(g_s), s	0.7	5.2	6.5	2.9	3.7	3.7	5.6	0.0	3.0	0.3	0.0	2.5
Cycle Q Clear(g_c), s	0.7	5.2	6.5	2.9	3.7	3.7	5.6	0.0	3.0	0.3	0.0	2.5
Prop In Lane	1.00		1.00	1.00		0.02	1.00		0.84	1.00		0.44
Lane Grp Cap(c), veh/h	42	502	680	151	608	637	293	0	430	20	0	194
V/C Ratio(X)	0.62	0.48	0.46	0.77	0.32	0.32	0.77	0.00	0.31	0.55	0.00	0.51
Avail Cap(c_a), veh/h	259	972	1080	466	1163	1220	800	0	1149	154	0	599
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	22.1	13.6	8.7	20.4	11.1	11.1	18.1	0.0	13.3	22.5	0.0	19.0
Incr Delay (d2), s/veh	14.3	0.7	0.5	7.8	0.3	0.3	4.2	0.0	0.4	21.4	0.0	2.1
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	0.5	2.6	2.8	1.7	1.8	1.9	3.0	0.0	1.4	0.3	0.0	1.3
LnGrp Delay(d),s/veh	36.4	14.3	9.2	28.3	11.4	11.4	22.4	0.0	13.7	43.8	0.0	21.1
LnGrp LOS	D	B	A	C	B	B	C		B	D		C
Approach Vol, veh/h		579			516			358			110	
Approach Delay, s/veh		12.5			15.2			19.2			23.4	
Approach LOS		B			B			B			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	16.9	11.7	9.2	5.1	19.7	4.5	16.3
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	25.0	21.0	16.0	7.0	30.0	4.0	33.0
Max Q Clear Time (g_c+I1), s	4.9	8.5	7.6	4.5	2.7	5.7	2.3	5.0
Green Ext Time (p_c), s	0.1	4.4	0.5	0.9	0.0	4.9	0.0	1.4

Intersection Summary	
HCM 2010 Ctrl Delay	15.7
HCM 2010 LOS	B

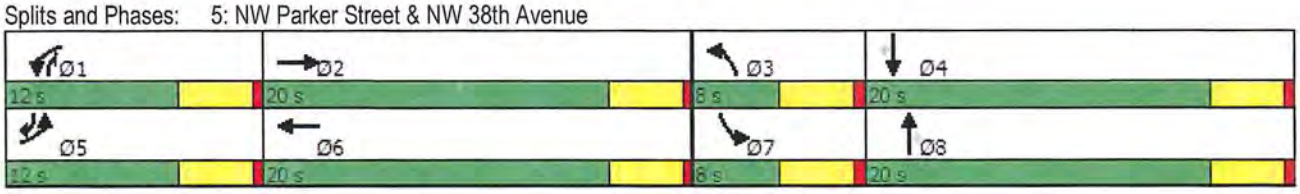
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	55	29	14	166	88	87	27	282	82	29	224	39
Future Volume (vph)	55	29	14	166	88	87	27	282	82	29	224	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	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		0.952			0.926				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1739	0	1787	1742	0	1719	1810	1538	1719	1810	1538
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1736	1739	0	1787	1742	0	1719	1810	1538	1719	1810	1538
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			80				108			91
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		5118			2897			2475			2991	
Travel Time (s)		99.7			56.4			48.2			58.3	
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Heavy Vehicles (%)	4%	4%	4%	1%	1%	1%	5%	5%	5%	5%	5%	5%
Adj. Flow (vph)	72	38	18	218	116	114	36	371	108	38	295	51
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	56	0	218	230	0	36	371	108	38	295	51
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	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		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	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		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	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	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8	1	7	4	5
Permitted Phases									8			4
Detector Phase	5	2		1	6		3	8	1	7	4	5
Switch Phase												

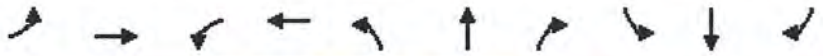
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	12.0	20.0		12.0	20.0		8.0	20.0	12.0	8.0	20.0	12.0
Total Split (%)	20.0%	33.3%		20.0%	33.3%		13.3%	33.3%	20.0%	13.3%	33.3%	20.0%
Maximum Green (s)	8.0	16.0		8.0	16.0		4.0	16.0	8.0	4.0	16.0	8.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		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	3.0	3.0
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	7.1	9.1		8.4	15.4		4.2	13.6	26.2	4.2	13.6	24.9
Actuated g/C Ratio	0.15	0.20		0.18	0.33		0.09	0.29	0.57	0.09	0.29	0.54
v/c Ratio	0.27	0.16		0.67	0.36		0.23	0.69	0.12	0.25	0.55	0.06
Control Delay	23.6	13.7		36.7	13.2		28.1	25.3	2.6	28.4	20.1	1.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.6	13.7		36.7	13.2		28.1	25.3	2.6	28.4	20.1	1.1
LOS	C	B		D	B		C	C	A	C	C	A
Approach Delay		19.3			24.6			20.8			18.4	
Approach LOS		B			C			C			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 46.2
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 21.2 Intersection LOS: C
Intersection Capacity Utilization 44.8% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: NW Parker Street & NW 38th Avenue





Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	72	56	218	230	36	371	108	38	295	51
v/c Ratio	0.27	0.16	0.67	0.36	0.23	0.69	0.12	0.25	0.55	0.06
Control Delay	23.6	13.7	36.7	13.2	28.1	25.3	2.6	28.4	20.1	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.6	13.7	36.7	13.2	28.1	25.3	2.6	28.4	20.1	1.1
Queue Length 50th (ft)	16	8	50	32	8	73	0	9	55	0
Queue Length 95th (ft)	47	27	#147	74	31	166	14	32	131	3
Internal Link Dist (ft)		5038		2817		2395			2911	
Turn Bay Length (ft)										
Base Capacity (vph)	314	641	323	710	155	655	918	155	655	911
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.09	0.67	0.32	0.23	0.57	0.12	0.25	0.45	0.06

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	29	14	166	88	87	27	282	82	29	224	39
Future Volume (veh/h)	55	29	14	166	88	87	27	282	82	29	224	39
Number	5	2	12	1	6	16	3	8	18	7	4	14
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
Adj Sat Flow, veh/h/ln	1827	1827	1900	1881	1881	1900	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	72	38	18	218	116	114	36	371	108	38	295	51
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76	0.76
Percent Heavy Veh, %	4	4	4	1	1	1	5	5	5	5	5	5
Cap, veh/h	96	132	62	277	185	181	57	535	692	59	538	542
Arrive On Green	0.06	0.11	0.11	0.15	0.21	0.21	0.03	0.30	0.30	0.03	0.30	0.30
Sat Flow, veh/h	1740	1173	556	1792	872	857	1723	1810	1538	1723	1810	1538
Grp Volume(v), veh/h	72	0	56	218	0	230	36	371	108	38	295	51
Grp Sat Flow(s),veh/h/ln	1740	0	1729	1792	0	1730	1723	1810	1538	1723	1810	1538
Q Serve(g_s), s	1.6	0.0	1.2	4.7	0.0	4.8	0.8	7.2	1.6	0.9	5.4	0.9
Cycle Q Clear(g_c), s	1.6	0.0	1.2	4.7	0.0	4.8	0.8	7.2	1.6	0.9	5.4	0.9
Prop In Lane	1.00		0.32	1.00		0.50	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	0	194	277	0	366	57	535	692	59	538	542
V/C Ratio(X)	0.75	0.00	0.29	0.79	0.00	0.63	0.63	0.69	0.16	0.64	0.55	0.09
Avail Cap(c_a), veh/h	351	0	697	361	0	697	174	729	857	174	729	705
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.5	0.0	16.2	16.2	0.0	14.2	19.0	12.4	6.5	18.9	11.7	8.6
Incr Delay (d2), s/veh	11.0	0.0	0.8	8.4	0.0	1.8	11.0	1.7	0.1	10.9	0.9	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	1.1	0.0	0.6	2.9	0.0	2.5	0.6	3.8	0.7	0.6	2.8	0.4
LnGrp Delay(d),s/veh	29.5	0.0	17.0	24.6	0.0	16.0	30.0	14.1	6.6	29.8	12.6	8.7
LnGrp LOS	C		B	C		B	C	B	A	C	B	A
Approach Vol, veh/h		128			448			515			384	
Approach Delay, s/veh		24.0			20.2			13.6			13.8	
Approach LOS		C			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	10.1	8.5	5.3	15.8	6.2	12.4	5.4	15.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	16.0	4.0	16.0	8.0	16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	6.7	3.2	2.8	7.4	3.6	6.8	2.9	9.2
Green Ext Time (p_c), s	0.1	1.3	0.0	3.0	0.0	1.1	0.0	2.5

Intersection Summary	
HCM 2010 Ctrl Delay	16.6
HCM 2010 LOS	B

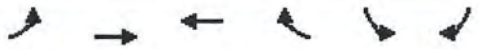
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	99	90	224	134	59	140
Future Volume (vph)	99	90	224	134	59	140
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1671	1759	1881	1599	1671	1495
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1671	1759	1881	1599	1671	1495
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				147		154
Link Speed (mph)		50	50		50	
Link Distance (ft)		2410	2610		1800	
Travel Time (s)		32.9	35.6		24.5	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	8%	8%	1%	1%	8%	8%
Adj. Flow (vph)	109	99	246	147	65	154
Shared Lane Traffic (%)						
Lane Group Flow (vph)	109	99	246	147	65	154
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	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
Detector 1 Queue (s)	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
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	4	4	5
Permitted Phases				6		4
Detector Phase	5	2	6	4	4	5
Switch Phase						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	20.0	40.0	20.0	20.0	20.0	20.0
Total Split (%)	33.3%	66.7%	33.3%	33.3%	33.3%	33.3%
Maximum Green (s)	16.0	36.0	16.0	16.0	16.0	16.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	None	None
Walk Time (s)		5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	0	
Act Effct Green (s)	8.1	25.2	15.7	24.3	7.2	16.7
Actuated g/C Ratio	0.22	0.68	0.43	0.66	0.20	0.45
v/c Ratio	0.30	0.08	0.31	0.13	0.20	0.20
Control Delay	16.2	3.5	13.0	1.4	16.4	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	3.5	13.0	1.4	16.4	2.1
LOS	B	A	B	A	B	A
Approach Delay		10.2	8.6		6.4	
Approach LOS		B	A		A	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 36.8
Natural Cycle: 50
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.31
Intersection Signal Delay: 8.4 Intersection LOS: A
Intersection Capacity Utilization 30.6% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 6: NE Goodwin Road & NE Ingle Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	109	99	246	147	65	154
v/c Ratio	0.30	0.08	0.31	0.13	0.20	0.20
Control Delay	16.2	3.5	13.0	1.4	16.4	2.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	3.5	13.0	1.4	16.4	2.1
Queue Length 50th (ft)	19	7	41	0	11	0
Queue Length 95th (ft)	58	20	102	14	41	19
Internal Link Dist (ft)		2330	2530		1720	
Turn Bay Length (ft)						
Base Capacity (vph)	762	1620	992	1361	762	1079
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.06	0.25	0.11	0.09	0.14

Intersection Summary

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	99	90	224	134	59	140
Future Volume (veh/h)	99	90	224	134	59	140
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1759	1881	1881	1759	1759
Adj Flow Rate, veh/h	109	99	246	147	65	154
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	8	8	1	1	8	8
Cap, veh/h	144	912	499	659	246	348
Arrive On Green	0.09	0.52	0.27	0.27	0.15	0.15
Sat Flow, veh/h	1675	1759	1881	1599	1675	1495
Grp Volume(v), veh/h	109	99	246	147	65	154
Grp Sat Flow(s),veh/h/ln	1675	1759	1881	1599	1675	1495
Q Serve(g_s), s	1.5	0.7	2.6	1.4	0.8	2.1
Cycle Q Clear(g_c), s	1.5	0.7	2.6	1.4	0.8	2.1
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	144	912	499	659	246	348
V/C Ratio(X)	0.75	0.11	0.49	0.22	0.26	0.44
Avail Cap(c_a), veh/h	1121	2649	1259	1305	1121	1130
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.7	2.9	7.4	4.6	9.1	7.8
Incr Delay (d2), s/veh	7.7	0.1	0.8	0.2	0.6	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.0	0.3	1.5	0.8	0.4	1.9
LnGrp Delay(d),s/veh	18.4	3.0	8.2	4.7	9.6	8.7
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h		208	393		219	
Approach Delay, s/veh		11.1	6.9		9.0	
Approach LOS		B	A		A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		16.4		7.5	6.1	10.3		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		36.0		16.0	16.0	16.0		
Max Q Clear Time (g_c+I1), s		2.7		4.1	3.5	4.6		
Green Ext Time (p_c), s		2.3		0.5	0.2	1.7		

Intersection Summary	
HCM 2010 Ctrl Delay	8.5
HCM 2010 LOS	A

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	94	64	109	81	101	367
Future Volume (vph)	94	64	109	81	101	367
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		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1805	1615	1863	1583	1736	1827
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1805	1615	1863	1583	1736	1827
Link Speed (mph)	35		50			50
Link Distance (ft)	1963		2608			3163
Travel Time (s)	38.2		35.6			43.1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	2%	2%	4%	4%
Adj. Flow (vph)	111	75	128	95	119	432
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	75	128	95	119	432
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	94	64	109	81	101	367
Future Vol, veh/h	94	64	109	81	101	367
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	0	-	0	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	2	2	4	4
Mvmt Flow	111	75	128	95	119	432

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	797	128	0	0	128	0
Stage 1	128	-	-	-	-	-
Stage 2	669	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.14	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.236	-
Pot Cap-1 Maneuver	358	927	-	-	1446	-
Stage 1	903	-	-	-	-	-
Stage 2	513	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	329	927	-	-	1446	-
Mov Cap-2 Maneuver	329	-	-	-	-	-
Stage 1	903	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	1.7
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	329	927	1446	-
HCM Lane V/C Ratio	-	-	0.336	0.081	0.082	-
HCM Control Delay (s)	-	-	21.4	9.2	7.7	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	1.4	0.3	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	11	19	26	53	13	91	227	7	3	192	193
Future Volume (vph)	124	11	19	26	53	13	91	227	7	3	192	193
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00
Frt			0.850		0.970			0.995				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1736	1827	1553	1752	3400	0	1770	3522	0	1736	1827	1553
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1736	1827	1553	1752	3400	0	1770	3522	0	1736	1827	1553
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		3054			1626			1405			2475	
Travel Time (s)		59.5			44.3			27.4			48.2	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
Heavy Vehicles (%)	4%	4%	4%	3%	3%	3%	2%	2%	2%	4%	4%	4%
Adj. Flow (vph)	159	14	24	33	68	17	117	291	9	4	246	247
Shared Lane Traffic (%)												
Lane Group Flow (vph)	159	14	24	33	85	0	117	300	0	4	246	247
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
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	13.4
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	124	11	19	0	26	53	13	0	91	227	7
Future Vol, veh/h	0	124	11	19	0	26	53	13	0	91	227	7
Peak Hour Factor	0.92	0.78	0.78	0.78	0.92	0.78	0.78	0.78	0.92	0.78	0.78	0.78
Heavy Vehicles, %	2	4	4	4	2	3	3	3	2	2	2	2
Mvmt Flow	0	159	14	24	0	33	68	17	0	117	291	9
Number of Lanes	0	1	1	1	0	1	2	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	14.2	11.3	12.7
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	92%	0%	100%	0%	0%	100%	58%	0%	100%
Vol Right, %	0%	0%	8%	0%	0%	100%	0%	0%	42%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	91	151	83	124	11	19	26	35	31	3	192
LT Vol	91	0	0	124	0	0	26	0	0	3	0
Through Vol	0	151	76	0	11	0	0	35	18	0	192
RT Vol	0	0	7	0	0	19	0	0	13	0	0
Lane Flow Rate	117	194	106	159	14	24	33	45	39	4	246
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.237	0.368	0.199	0.356	0.03	0.046	0.077	0.098	0.082	0.008	0.462
Departure Headway (Hd)	7.432	6.932	6.873	8.06	7.56	6.86	8.297	7.797	7.5	7.355	6.855
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	487	522	526	448	476	525	434	462	480	490	529
Service Time	5.132	4.632	4.573	5.764	5.264	4.564	6.005	5.505	5.209	5.055	4.555
HCM Lane V/C Ratio	0.24	0.372	0.202	0.355	0.029	0.046	0.076	0.097	0.081	0.008	0.465
HCM Control Delay	12.4	13.6	11.3	15.2	10.5	9.9	11.7	11.4	10.9	10.1	15.3
HCM Lane LOS	B	B	B	C	B	A	B	B	B	B	C
HCM 95th-tile Q	0.9	1.7	0.7	1.6	0.1	0.1	0.2	0.3	0.3	0	2.4

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	3	192	193
Future Vol, veh/h	0	3	192	193
Peak Hour Factor	0.92	0.78	0.78	0.78
Heavy Vehicles, %	2	4	4	4
Mvmt Flow	0	4	246	247
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	14.2
HCM LOS	B

Lane	SBLn3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	50	16	0	62	0	68	0	0	0	0	0
Future Volume (vph)	0	50	16	0	62	0	68	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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		0.963										
Flt Protected								0.950				
Satd. Flow (prot)	1900	1830	0	1900	1900	0	0	1805	0	0	1900	0
Flt Permitted								0.950				
Satd. Flow (perm)	1900	1830	0	1900	1900	0	0	1805	0	0	1900	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		1282			975			927			288	
Travel Time (s)		35.0			26.6			25.3			7.9	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	59	19	0	73	0	80	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	78	0	0	73	0	0	80	0	0	0	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			0			0	
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
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	14.0%	ICU Level of Service	A
Analysis Period (min)	15		

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	50	16	0	62	0	68	0	0	0	0	0
Future Vol, veh/h	0	50	16	0	62	0	68	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	59	19	0	73	0	80	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	73	0	0	78	0	0	141	141	68	141	151	73
Stage 1	-	-	-	-	-	-	68	68	-	73	73	-
Stage 2	-	-	-	-	-	-	73	73	-	68	78	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1540	-	-	1533	-	-	833	754	1001	833	744	995
Stage 1	-	-	-	-	-	-	947	842	-	942	838	-
Stage 2	-	-	-	-	-	-	942	838	-	947	834	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1540	-	-	1533	-	-	833	754	1001	833	744	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	833	754	-	833	744	-
Stage 1	-	-	-	-	-	-	947	842	-	942	838	-
Stage 2	-	-	-	-	-	-	942	838	-	947	834	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	9.8	0
HCM LOS			A	A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	833	1540	-	-	1533	-	-	-
HCM Lane V/C Ratio	0.096	-	-	-	-	-	-	-
HCM Control Delay (s)	9.8	0	-	-	0	-	-	0
HCM Lane LOS	A	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	26	79	0	9	54
Future Volume (vph)	0	26	79	0	9	54
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	0.865					
Flt Protected						0.993
Satd. Flow (prot)	1644	0	1900	0	0	1887
Flt Permitted						0.993
Satd. Flow (perm)	1644	0	1900	0	0	1887
Link Speed (mph)	25		25			25
Link Distance (ft)	649		833			1148
Travel Time (s)	17.7		22.7			31.3
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	31	95	0	11	65
Shared Lane Traffic (%)						
Lane Group Flow (vph)	31	0	95	0	0	76
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 20.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	26	79	0	9	54
Future Vol, veh/h	0	26	79	0	9	54
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	83	83	83	83	83	83
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	31	95	0	11	65

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	182	95	0	0	95	0
Stage 1	95	-	-	-	-	-
Stage 2	87	-	-	-	-	-
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	812	967	-	-	1512	-
Stage 1	934	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	806	967	-	-	1512	-
Mov Cap-2 Maneuver	806	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	933	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	1.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	967	1512	-
HCM Lane V/C Ratio	-	-	0.032	0.007	-
HCM Control Delay (s)	-	-	8.8	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	165	127	470	343	115	364
Future Volume (vph)	165	127	470	343	115	364
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	0.941		0.943			
Flt Protected	0.973				0.950	
Satd. Flow (prot)	1722	0	1774	0	1752	1845
Flt Permitted	0.973				0.950	
Satd. Flow (perm)	1722	0	1774	0	1752	1845
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	29		33			
Link Speed (mph)	35		40			40
Link Distance (ft)	2013		3859			1400
Travel Time (s)	39.2		65.8			23.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	1%	3%	3%
Adj. Flow (vph)	179	138	511	373	125	396
Shared Lane Traffic (%)						
Lane Group Flow (vph)	317	0	884	0	125	396
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Number of Detectors	1		2		1	2
Detector Template	Left		Thru		Left	Thru
Leading Detector (ft)	20		100		20	100
Trailing Detector (ft)	0		0		0	0
Detector 1 Position(ft)	0		0		0	0
Detector 1 Size(ft)	20		6		20	6
Detector 1 Type	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0		0.0		0.0	0.0
Detector 1 Queue (s)	0.0		0.0		0.0	0.0
Detector 1 Delay (s)	0.0		0.0		0.0	0.0
Detector 2 Position(ft)			94			94
Detector 2 Size(ft)			6			6
Detector 2 Type			Cl+Ex			Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)			0.0			0.0
Turn Type	Prot		NA		Prot	NA
Protected Phases	6		4		3	8
Permitted Phases						
Detector Phase	6		4		3	8
Switch Phase						

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Minimum Initial (s)	5.0		7.0		5.0	15.0
Minimum Split (s)	25.0		28.0		10.0	20.0
Total Split (s)	40.0		55.0		35.0	90.0
Total Split (%)	30.8%		42.3%		26.9%	69.2%
Maximum Green (s)	35.0		50.0		30.0	85.0
Yellow Time (s)	4.0		3.4		4.0	3.4
All-Red Time (s)	1.0		1.6		1.0	1.6
Lost Time Adjust (s)	0.0		0.0		0.0	0.0
Total Lost Time (s)	5.0		5.0		5.0	5.0
Lead/Lag			Lag		Lead	
Lead-Lag Optimize?			Yes		Yes	
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Recall Mode	None		Min		None	Min
Walk Time (s)	7.0		7.0			0.0
Flash Dont Walk (s)	13.0		16.0			0.0
Pedestrian Calls (#/hr)	0		0			0
Act Effct Green (s)	22.2		50.5		12.7	68.3
Actuated g/C Ratio	0.22		0.50		0.13	0.68
v/c Ratio	0.79		0.97		0.57	0.32
Control Delay	48.3		50.7		52.9	8.3
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	48.3		50.7		52.9	8.3
LOS	D		D		D	A
Approach Delay	48.3		50.7			19.0
Approach LOS	D		D			B

Intersection Summary			
Area Type:	Other		
Cycle Length: 130			
Actuated Cycle Length: 100.6			
Natural Cycle: 90			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 40.6		Intersection LOS: D	
Intersection Capacity Utilization 81.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: NE 192nd Avenue & NE 13th Street

Lane Group	WBL	NBT	SBL	SBT
Lane Group Flow (vph)	317	884	125	396
v/c Ratio	0.79	0.97	0.57	0.32
Control Delay	48.3	50.7	52.9	8.3
Queue Delay	0.0	0.0	0.0	0.0
Total Delay	48.3	50.7	52.9	8.3
Queue Length 50th (ft)	174	511	76	91
Queue Length 95th (ft)	289	#1008	147	185
Internal Link Dist (ft)	1933	3779		1320
Turn Bay Length (ft)				
Base Capacity (vph)	624	907	528	1575
Starvation Cap Reductn	0	0	0	0
Spillback Cap Reductn	0	0	0	0
Storage Cap Reductn	0	0	0	0
Reduced v/c Ratio	0.51	0.97	0.24	0.25

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	165	127	470	343	115	364
Future Volume (vph)	165	127	470	343	115	364
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0		5.0		5.0	5.0
Lane Util. Factor	1.00		1.00		1.00	1.00
Frt	0.94		0.94		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	1722		1774		1752	1845
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	1722		1774		1752	1845
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	138	511	373	125	396
RTOR Reduction (vph)	23	0	16	0	0	0
Lane Group Flow (vph)	294	0	868	0	125	396
Heavy Vehicles (%)	1%	1%	1%	1%	3%	3%
Turn Type	Prot		NA		Prot	NA
Protected Phases	6		4		3	8
Permitted Phases						
Actuated Green, G (s)	22.2		50.6		12.7	68.3
Effective Green, g (s)	22.2		50.6		12.7	68.3
Actuated g/C Ratio	0.22		0.50		0.13	0.68
Clearance Time (s)	5.0		5.0		5.0	5.0
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	380		893		221	1253
v/s Ratio Prot	c0.17		c0.49		c0.07	0.21
v/s Ratio Perm						
v/c Ratio	0.77		0.97		0.57	0.32
Uniform Delay, d1	36.8		24.3		41.3	6.6
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	9.5		23.3		3.3	0.1
Delay (s)	46.3		47.5		44.6	6.7
Level of Service	D		D		D	A
Approach Delay (s)	46.3		47.5			15.8
Approach LOS	D		D			B

Intersection Summary			
HCM 2000 Control Delay	37.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	100.5	Sum of lost time (s)	15.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

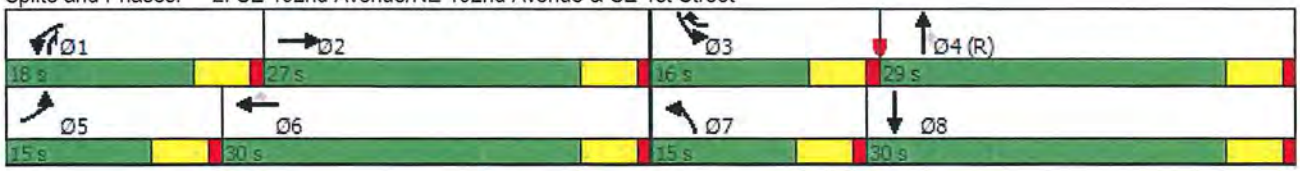
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	248	47	393	296	99	82	649	282	116	327	59
Future Volume (vph)	179	248	47	393	296	99	82	649	282	116	327	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	0.95	0.95	0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	0.95
Frt		0.976				0.850			0.850		0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3502	3523	0	3433	1863	1583	1770	3539	1583	1770	3458	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3502	3523	0	3433	1863	1583	1770	3539	1583	1770	3458	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		23				85			284		22	
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		5794			1907			4001			3859	
Travel Time (s)		98.8			32.5			68.2			65.8	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	186	258	49	409	308	103	85	676	294	121	341	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	186	307	0	409	308	103	85	676	294	121	402	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)		24			24			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	1	2	1	1	2	
Detector Template	Left	Thru		Left	Thru	Right	Left	Thru	Right	Left	Thru	
Leading Detector (ft)	20	100		20	100	20	20	100	20	20	100	
Trailing Detector (ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Position(ft)	0	0		0	0	0	0	0	0	0	0	
Detector 1 Size(ft)	20	6		20	6	20	20	6	20	20	6	
Detector 1 Type	Cl+Ex	Cl+Ex		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	0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		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	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	Prot	NA		Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	5	2		1	6	3	7	4	1	3	8	
Permitted Phases						6			4			
Detector Phase	5	2		1	6	3	7	4	1	3	8	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	5.0		5.0	5.0	5.0	5.0	15.0	5.0	5.0	15.0	
Minimum Split (s)	10.0	27.0		10.0	30.0	10.0	10.0	29.0	10.0	10.0	29.0	
Total Split (s)	15.0	27.0		18.0	30.0	16.0	15.0	29.0	18.0	16.0	30.0	
Total Split (%)	16.7%	30.0%		20.0%	33.3%	17.8%	16.7%	32.2%	20.0%	17.8%	33.3%	
Maximum Green (s)	10.0	22.0		13.0	25.0	11.0	10.0	24.0	13.0	11.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	1.0	1.0		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	0.0	0.0	
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead	Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		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	3.0	3.0	
Recall Mode	None	None		None	None	None	None	C-Max	None	None	Max	
Walk Time (s)		6.0			6.0			6.0			6.0	
Flash Dont Walk (s)		16.0			19.0			18.0			18.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	9.3	16.2		12.8	19.8	35.2	9.0	30.5	48.4	10.4	34.2	
Actuated g/C Ratio	0.10	0.18		0.14	0.22	0.39	0.10	0.34	0.54	0.12	0.38	
v/c Ratio	0.52	0.47		0.84	0.75	0.15	0.48	0.56	0.30	0.59	0.30	
Control Delay	43.5	31.9		54.0	44.4	5.2	47.4	28.2	2.9	49.6	21.8	
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	43.5	31.9		54.0	44.4	5.2	47.4	28.2	2.9	49.6	21.8	
LOS	D	C		D	D	A	D	C	A	D	C	
Approach Delay		36.3			44.2			22.7			28.2	
Approach LOS		D			D			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 77 (86%), Referenced to phase 4:NBT, Start of Green
Natural Cycle: 80
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 32.1 Intersection LOS: C
Intersection Capacity Utilization 61.7% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 2: SE 192nd Avenue/NE 192nd Avenue & SE 1st Street



Lane Group	EBL	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	186	307	409	308	103	85	676	294	121	402
v/c Ratio	0.52	0.47	0.84	0.75	0.15	0.48	0.56	0.30	0.59	0.30
Control Delay	43.5	31.9	54.0	44.4	5.2	47.4	28.2	2.9	49.6	21.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	43.5	31.9	54.0	44.4	5.2	47.4	28.2	2.9	49.6	21.8
Queue Length 50th (ft)	52	75	118	164	6	46	168	3	66	83
Queue Length 95th (ft)	85	107	#190	237	33	92	246	45	122	135
Internal Link Dist (ft)		5714		1827			3921			3779
Turn Bay Length (ft)										
Base Capacity (vph)	389	878	495	517	689	201	1199	984	226	1326
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.35	0.83	0.60	0.15	0.42	0.56	0.30	0.54	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	179	248	47	393	296	99	82	649	282	116	327	59
Future Volume (vph)	179	248	47	393	296	99	82	649	282	116	327	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Lane Util. Factor	0.97	0.95		0.97	1.00	1.00	1.00	0.95	1.00	1.00	0.95	
Frt	1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	3502	3524		3433	1863	1583	1770	3539	1583	1770	3459	
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	3502	3524		3433	1863	1583	1770	3539	1583	1770	3459	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	186	258	49	409	308	103	85	676	294	121	341	61
RTOR Reduction (vph)	0	19	0	0	0	56	0	0	147	0	14	0
Lane Group Flow (vph)	186	288	0	409	308	47	85	676	147	121	388	0
Heavy Vehicles (%)	0%	0%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Prot	NA		Prot	NA	pm+ov	Prot	NA	pm+ov	Prot	NA	
Protected Phases	5	2		1	6	3	7	4	1	3	8	
Permitted Phases						6			4			
Actuated Green, G (s)	9.3	16.3		12.8	19.8	30.2	7.8	30.5	43.3	10.4	33.1	
Effective Green, g (s)	9.3	16.3		12.8	19.8	30.2	7.8	30.5	43.3	10.4	33.1	
Actuated g/C Ratio	0.10	0.18		0.14	0.22	0.34	0.09	0.34	0.48	0.12	0.37	
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	361	638		488	409	619	153	1199	849	204	1272	
v/s Ratio Prot	0.05	0.08		c0.12	c0.17	0.01	0.05	c0.19	0.02	c0.07	c0.11	
v/s Ratio Perm						0.02			0.07			
v/c Ratio	0.52	0.45		0.84	0.75	0.08	0.56	0.56	0.17	0.59	0.31	
Uniform Delay, d1	38.2	32.9		37.6	32.8	20.4	39.4	24.3	13.2	37.8	20.3	
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	1.2	0.5		11.9	7.7	0.1	4.3	1.9	0.1	4.6	0.6	
Delay (s)	39.5	33.4		49.5	40.5	20.4	43.8	26.2	13.3	42.4	20.9	
Level of Service	D	C		D	D	C	D	C	B	D	C	
Approach Delay (s)		35.7			42.5			24.0			25.8	
Approach LOS		D			D			C			C	

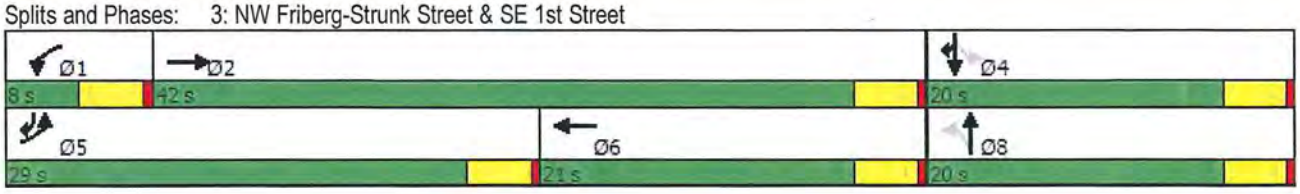
Intersection Summary			
HCM 2000 Control Delay	31.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	61.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	339	300	0	0	406	65	0	0	0	50	0	282
Future Volume (vph)	339	300	0	0	406	65	0	0	0	50	0	282
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.979							0.850
Flt Protected	0.950										0.950	
Satd. Flow (prot)	1687	3374	0	1845	3431	0	0	1900	0	0	1641	1468
Flt Permitted	0.950										0.757	
Satd. Flow (perm)	1687	3374	0	1845	3431	0	0	1900	0	0	1308	1468
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					24							32
Link Speed (mph)		40			40			30			30	
Link Distance (ft)		1907			212			588			2706	
Travel Time (s)		32.5			3.6			13.4			61.5	
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles (%)	7%	7%	7%	3%	3%	3%	0%	0%	0%	10%	10%	10%
Adj. Flow (vph)	530	469	0	0	634	102	0	0	0	78	0	441
Shared Lane Traffic (%)												
Lane Group Flow (vph)	530	469	0	0	736	0	0	0	0	0	78	441
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			0			0	
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	1
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100		20	100	20
Trailing Detector (ft)	0	0		0	0		0	0		0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0		0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6		20	6	20
Detector 1 Type	Cl+Ex	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	0.0
Detector 1 Queue (s)	0.0	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	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	Prot	NA		Prot	NA					Perm	NA	pt+ov
Protected Phases	5	2		1	6			8			4	4 5
Permitted Phases							8			4		
Detector Phase	5	2		1	6		8	8		4	4	4 5
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	29.0	42.0		8.0	21.0		20.0	20.0		20.0	20.0	
Total Split (%)	41.4%	60.0%		11.4%	30.0%		28.6%	28.6%		28.6%	28.6%	
Maximum Green (s)	25.0	38.0		4.0	17.0		16.0	16.0		16.0	16.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	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	Max		None	Max		None	None		None	None	
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0			0		0	0		0	0	
Act Effct Green (s)	23.4	44.6			17.1						14.1	41.5
Actuated g/C Ratio	0.35	0.67			0.26						0.21	0.62
v/c Ratio	0.90	0.21			0.82						0.28	0.48
Control Delay	41.6	4.7			32.9						25.6	8.0
Queue Delay	0.0	0.0			0.0						0.0	0.0
Total Delay	41.6	4.7			32.9						25.6	8.0
LOS	D	A			C						C	A
Approach Delay		24.3			32.9						10.7	
Approach LOS		C			C						B	

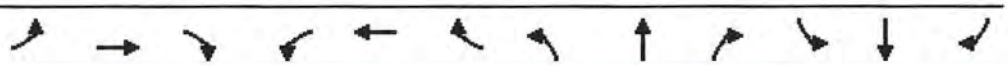
Intersection Summary	
Area Type:	Other
Cycle Length: 70	
Actuated Cycle Length: 66.7	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 24.0	Intersection LOS: C
Intersection Capacity Utilization 45.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: NW Friberg-Strunk Street & SE 1st Street



Lane Group	EBL	EBT	WBT	SBT	SBR
Lane Group Flow (vph)	530	469	736	78	441
v/c Ratio	0.90	0.21	0.82	0.28	0.48
Control Delay	41.6	4.7	32.9	25.6	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	41.6	4.7	32.9	25.6	8.0
Queue Length 50th (ft)	210	35	155	28	75
Queue Length 95th (ft)	200	35	138	42	75
Internal Link Dist (ft)		1827	132	2626	
Turn Bay Length (ft)					
Base Capacity (vph)	637	2255	898	315	960
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.83	0.21	0.82	0.25	0.46

Intersection Summary



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	339	300	0	0	406	65	0	0	0	50	0	282
Future Volume (veh/h)	339	300	0	0	406	65	0	0	0	50	0	282
Number	5	2	12	1	6	16	3	8	18	7	4	14
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
Adj Sat Flow, veh/h/ln	1776	1776	1900	1845	1845	1900	1900	1900	1900	1900	1727	1727
Adj Flow Rate, veh/h	530	469	0	0	634	102	0	0	0	78	0	441
Adj No. of Lanes	1	2	0	1	2	0	0	1	0	0	1	1
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Percent Heavy Veh, %	7	7	7	3	3	3	0	0	0	10	10	10
Cap, veh/h	575	2214	0	3	774	124	0	424	0	401	0	827
Arrive On Green	0.34	0.66	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.22	0.00	0.22
Sat Flow, veh/h	1691	3463	0	1757	3025	486	0	1900	0	1309	0	1468
Grp Volume(v), veh/h	530	469	0	0	367	369	0	0	0	78	0	441
Grp Sat Flow(s),veh/h/ln	1691	1687	0	1757	1752	1759	0	1900	0	1309	0	1468
Q Serve(g_s), s	20.0	3.7	0.0	0.0	13.1	13.1	0.0	0.0	0.0	3.3	0.0	12.5
Cycle Q Clear(g_c), s	20.0	3.7	0.0	0.0	13.1	13.1	0.0	0.0	0.0	3.3	0.0	12.5
Prop In Lane	1.00		0.00	1.00		0.28	0.00		0.00	1.00		1.00
Lane Grp Cap(c), veh/h	575	2214	0	3	448	450	0	424	0	401	0	827
V/C Ratio(X)	0.92	0.21	0.00	0.00	0.82	0.82	0.00	0.00	0.00	0.19	0.00	0.53
Avail Cap(c_a), veh/h	636	2214	0	106	448	450	0	458	0	424	0	853
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	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.1	4.6	0.0	0.0	23.3	23.3	0.0	0.0	0.0	21.3	0.0	9.0
Incr Delay (d2), s/veh	17.9	0.2	0.0	0.0	15.2	15.3	0.0	0.0	0.0	0.2	0.0	0.6
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	12.1	1.8	0.0	0.0	8.2	8.3	0.0	0.0	0.0	1.2	0.0	5.2
LnGrp Delay(d),s/veh	39.0	4.8	0.0	0.0	38.5	38.6	0.0	0.0	0.0	21.5	0.0	9.6
LnGrp LOS	D	A			D	D				C		A
Approach Vol, veh/h		999			736			0			519	
Approach Delay, s/veh		22.9			38.5			0.0			11.4	
Approach LOS		C			D						B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	0.0	47.6		18.8	26.6	21.0		18.8
Change Period (Y+Rc), s	4.0	4.0		4.0	4.0	4.0		4.0
Max Green Setting (Gmax), s	4.0	38.0		16.0	25.0	17.0		16.0
Max Q Clear Time (g_c+I1), s	0.0	5.7		14.5	22.0	15.1		0.0
Green Ext Time (p_c), s	0.0	8.7		0.4	0.6	1.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	25.4
HCM 2010 LOS	C

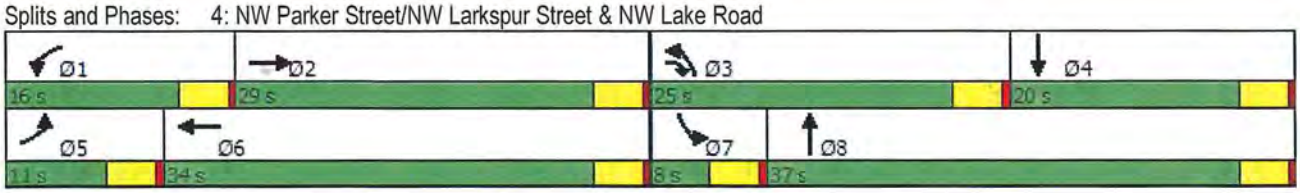
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	502	288	43	314	11	326	22	66	5	18	43
Future Volume (vph)	45	502	288	43	314	11	326	22	66	5	18	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.995			0.887			0.895	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1881	1599	1805	3592	0	1770	1652	0	1752	1651	0
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	1881	1599	1805	3592	0	1770	1652	0	1752	1651	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			313		4			72			47	
Link Speed (mph)		40			35			35			35	
Link Distance (ft)		2066			8793			1133			1857	
Travel Time (s)		35.2			171.3			22.1			36.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	2%	2%	2%	3%	3%	3%
Adj. Flow (vph)	49	546	313	47	341	12	354	24	72	5	20	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	546	313	47	353	0	354	96	0	5	67	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	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100	20	20	100		20	100		20	100	
Trailing Detector (ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Position(ft)	0	0	0	0	0		0	0		0	0	
Detector 1 Size(ft)	20	6	20	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	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	0.0	
Detector 1 Queue (s)	0.0	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	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	Prot	NA	pm+ov	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2	3	1	6		3	8		7	4	
Permitted Phases			2									
Detector Phase	5	2	3	1	6		3	8		7	4	
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Minimum Split (s)	8.0	20.0	8.0	8.0	20.0		8.0	20.0		8.0	20.0	
Total Split (s)	11.0	29.0	25.0	16.0	34.0		25.0	37.0		8.0	20.0	
Total Split (%)	12.2%	32.2%	27.8%	17.8%	37.8%		27.8%	41.1%		8.9%	22.2%	
Maximum Green (s)	7.0	25.0	21.0	12.0	30.0		21.0	33.0		4.0	16.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	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	3.0	
Recall Mode	None	Min	None	None	Min		None	None		None	None	
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	6.8	26.6	51.6	7.6	27.4		18.4	23.1		4.3	7.1	
Actuated g/C Ratio	0.10	0.40	0.78	0.12	0.42		0.28	0.35		0.07	0.11	
v/c Ratio	0.26	0.72	0.24	0.23	0.24		0.72	0.15		0.04	0.31	
Control Delay	36.9	29.3	1.3	34.3	16.5		33.8	7.6		37.0	19.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	36.9	29.3	1.3	34.3	16.5		33.8	7.6		37.0	19.5	
LOS	D	C	A	C	B		C	A		D	B	
Approach Delay		20.1			18.6			28.2			20.8	
Approach LOS		C			B			C			C	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 65.9
Natural Cycle: 80
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 21.8 Intersection LOS: C
Intersection Capacity Utilization 64.5% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 4: NW Parker Street/NW Larkspur Street & NW Lake Road



Lane Group	EBL	EBT	EBR	WBL	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	49	546	313	47	353	354	96	5	67
v/c Ratio	0.26	0.72	0.24	0.23	0.24	0.72	0.15	0.04	0.31
Control Delay	36.9	29.3	1.3	34.3	16.5	33.8	7.6	37.0	19.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	36.9	29.3	1.3	34.3	16.5	33.8	7.6	37.0	19.5
Queue Length 50th (ft)	22	239	0	21	62	150	7	2	9
Queue Length 95th (ft)	58	#467	28	53	101	#298	40	13	45
Internal Link Dist (ft)		1986			8713		1053		1777
Turn Bay Length (ft)									
Base Capacity (vph)	202	760	1319	350	1744	600	914	113	461
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.24	0.72	0.24	0.13	0.20	0.59	0.11	0.04	0.15

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	502	288	43	314	11	326	22	66	5	18	43
Future Volume (veh/h)	45	502	288	43	314	11	326	22	66	5	18	43
Number	5	2	12	1	6	16	3	8	18	7	4	14
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
Adj Sat Flow, veh/h/ln	1881	1881	1881	1900	1900	1900	1863	1863	1900	1845	1845	1900
Adj Flow Rate, veh/h	49	546	313	47	341	12	354	24	72	5	20	47
Adj No. of Lanes	1	1	1	1	2	0	1	1	0	1	1	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	1	1	1	0	0	0	2	2	2	3	3	3
Cap, veh/h	68	688	964	67	1297	46	420	128	383	9	39	91
Arrive On Green	0.04	0.37	0.37	0.04	0.36	0.36	0.24	0.31	0.31	0.01	0.08	0.08
Sat Flow, veh/h	1792	1881	1599	1810	3558	125	1774	411	1234	1757	490	1151
Grp Volume(v), veh/h	49	546	313	47	173	180	354	0	96	5	0	67
Grp Sat Flow(s),veh/h/ln	1792	1881	1599	1810	1805	1878	1774	0	1645	1757	0	1641
Q Serve(g_s), s	1.5	14.7	5.5	1.5	3.8	3.8	10.8	0.0	2.4	0.2	0.0	2.2
Cycle Q Clear(g_c), s	1.5	14.7	5.5	1.5	3.8	3.8	10.8	0.0	2.4	0.2	0.0	2.2
Prop In Lane	1.00		1.00	1.00		0.07	1.00		0.75	1.00		0.70
Lane Grp Cap(c), veh/h	68	688	964	67	658	685	420	0	511	9	0	130
V/C Ratio(X)	0.72	0.79	0.32	0.70	0.26	0.26	0.84	0.00	0.19	0.53	0.00	0.52
Avail Cap(c_a), veh/h	221	827	1082	382	952	991	655	0	955	124	0	462
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	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	16.1	5.6	27.1	12.7	12.7	20.7	0.0	14.3	28.2	0.0	25.1
Incr Delay (d2), s/veh	13.4	4.5	0.2	12.7	0.2	0.2	5.9	0.0	0.2	39.7	0.0	3.1
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	1.0	8.4	2.5	1.0	1.9	2.0	5.9	0.0	1.1	0.2	0.0	1.1
LnGrp Delay(d),s/veh	40.5	20.6	5.8	39.8	12.9	12.9	26.6	0.0	14.5	68.0	0.0	28.3
LnGrp LOS	D	C	A	D	B	B	C		B	E		C
Approach Vol, veh/h		908			400			450			72	
Approach Delay, s/veh		16.6			16.1			24.0			31.0	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	24.8	17.5	8.5	6.2	24.7	4.3	21.7
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	12.0	25.0	21.0	16.0	7.0	30.0	4.0	33.0
Max Q Clear Time (g_c+I1), s	3.5	16.7	12.8	4.2	3.5	5.8	2.2	4.4
Green Ext Time (p_c), s	0.0	4.0	0.7	0.6	0.0	7.0	0.0	0.9

Intersection Summary	
HCM 2010 Ctrl Delay	18.9
HCM 2010 LOS	B

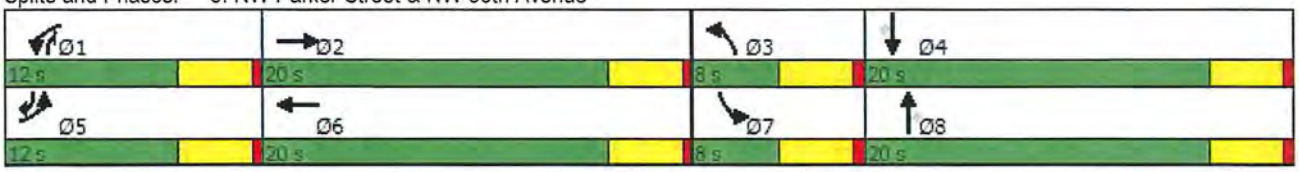
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	212	62	102	92	44	44	226	191	52	220	59
Future Volume (vph)	71	212	62	102	92	44	44	226	191	52	220	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. 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		0.966			0.951				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1817	0	1805	1807	0	1787	1881	1599	1787	1881	1599
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	1817	0	1805	1807	0	1787	1881	1599	1787	1881	1599
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			39				203			91
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		5118			2897			2475			2991	
Travel Time (s)		99.7			56.4			48.2			58.3	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	1%	1%	0%	0%	0%	1%	1%	1%	1%	1%	1%
Adj. Flow (vph)	76	226	66	109	98	47	47	240	203	55	234	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	292	0	109	145	0	47	240	203	55	234	63
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	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		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	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		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	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	Prot	NA		Prot	NA		Prot	NA	pm+ov	Prot	NA	pm+ov
Protected Phases	5	2		1	6		3	8	1	7	4	5
Permitted Phases									8			4
Detector Phase	5	2		1	6		3	8	1	7	4	5
Switch Phase												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		8.0	20.0	8.0	8.0	20.0	8.0
Total Split (s)	12.0	20.0		12.0	20.0		8.0	20.0	12.0	8.0	20.0	12.0
Total Split (%)	20.0%	33.3%		20.0%	33.3%		13.3%	33.3%	20.0%	13.3%	33.3%	20.0%
Maximum Green (s)	8.0	16.0		8.0	16.0		4.0	16.0	8.0	4.0	16.0	8.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag	Lead	Lead	Lag	Lead
Lead-Lag Optimize?	Yes	Yes		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	3.0	3.0
Recall Mode	None	Min		None	Min		None	None	None	None	None	None
Walk Time (s)		5.0			5.0			5.0			5.0	
Flash Dont Walk (s)		11.0			11.0			11.0			11.0	
Pedestrian Calls (#/hr)		0			0			0			0	
Act Effct Green (s)	8.3	18.3		8.5	18.5		5.1	12.6	20.1	5.1	13.9	21.3
Actuated g/C Ratio	0.18	0.41		0.19	0.41		0.11	0.28	0.45	0.11	0.31	0.47
v/c Ratio	0.23	0.39		0.32	0.19		0.23	0.46	0.24	0.27	0.40	0.08
Control Delay	24.0	17.6		25.0	13.5		28.5	20.5	2.6	30.2	18.4	1.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	17.6		25.0	13.5		28.5	20.5	2.6	30.2	18.4	1.7
LOS	C	B		C	B		C	C	A	C	B	A
Approach Delay		18.9			18.4			13.9			17.3	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 44.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.46
Intersection Signal Delay: 16.8 Intersection LOS: B
Intersection Capacity Utilization 49.1% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 5: NW Parker Street & NW 38th Avenue



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	76	292	109	145	47	240	203	55	234	63
v/c Ratio	0.23	0.39	0.32	0.19	0.23	0.46	0.24	0.27	0.40	0.08
Control Delay	24.0	17.6	25.0	13.5	28.5	20.5	2.6	30.2	18.4	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	24.0	17.6	25.0	13.5	28.5	20.5	2.6	30.2	18.4	1.7
Queue Length 50th (ft)	22	74	31	26	14	67	0	17	50	0
Queue Length 95th (ft)	59	152	79	69	#46	131	29	#58	128	11
Internal Link Dist (ft)		5038		2817		2395			2911	
Turn Bay Length (ft)										
Base Capacity (vph)	405	837	409	841	202	853	881	202	881	869
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.19	0.35	0.27	0.17	0.23	0.28	0.23	0.27	0.27	0.07

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	212	62	102	92	44	44	226	191	52	220	59
Future Volume (veh/h)	71	212	62	102	92	44	44	226	191	52	220	59
Number	5	2	12	1	6	16	3	8	18	7	4	14
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
Adj Sat Flow, veh/h/ln	1881	1881	1900	1900	1900	1900	1881	1881	1881	1881	1881	1881
Adj Flow Rate, veh/h	76	226	66	109	98	47	47	240	203	55	234	63
Adj No. of Lanes	1	1	0	1	1	0	1	1	1	1	1	1
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	1	1	1	0	0	0	1	1	1	1	1	1
Cap, veh/h	103	334	97	141	314	151	73	432	492	82	442	467
Arrive On Green	0.06	0.24	0.24	0.08	0.26	0.26	0.04	0.23	0.23	0.05	0.23	0.23
Sat Flow, veh/h	1792	1400	409	1810	1215	583	1792	1881	1599	1792	1881	1599
Grp Volume(v), veh/h	76	0	292	109	0	145	47	240	203	55	234	63
Grp Sat Flow(s),veh/h/ln	1792	0	1809	1810	0	1797	1792	1881	1599	1792	1881	1599
Q Serve(g_s), s	1.6	0.0	5.7	2.3	0.0	2.6	1.0	4.4	3.9	1.2	4.3	1.1
Cycle Q Clear(g_c), s	1.6	0.0	5.7	2.3	0.0	2.6	1.0	4.4	3.9	1.2	4.3	1.1
Prop In Lane	1.00		0.23	1.00		0.32	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	103	0	431	141	0	465	73	432	492	82	442	467
V/C Ratio(X)	0.74	0.00	0.68	0.77	0.00	0.31	0.64	0.56	0.41	0.67	0.53	0.13
Avail Cap(c_a), veh/h	366	0	738	369	0	734	183	768	777	183	768	745
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	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	13.6	17.7	0.0	11.7	18.5	13.3	10.8	18.4	13.1	10.2
Incr Delay (d2), s/veh	9.8	0.0	1.9	8.7	0.0	0.4	9.0	1.1	0.6	8.9	1.0	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	1.1	0.0	3.1	1.5	0.0	1.3	0.7	2.4	1.8	0.8	2.3	0.5
LnGrp Delay(d),s/veh	28.0	0.0	15.4	26.5	0.0	12.1	27.5	14.4	11.3	27.4	14.1	10.3
LnGrp LOS	C		B	C		B	C	B	B	C	B	B
Approach Vol, veh/h		368			254			490			352	
Approach Delay, s/veh		18.0			18.3			14.4			15.5	
Approach LOS		B			B			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	13.3	5.6	13.2	6.3	14.1	5.8	13.0
Change Period (Y+Rc), s	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Max Green Setting (Gmax), s	8.0	16.0	4.0	16.0	8.0	16.0	4.0	16.0
Max Q Clear Time (g_c+I1), s	4.3	7.7	3.0	6.3	3.6	4.6	3.2	6.4
Green Ext Time (p_c), s	0.1	1.6	0.0	2.6	0.0	1.9	0.0	2.6

Intersection Summary	
HCM 2010 Ctrl Delay	16.2
HCM 2010 LOS	B

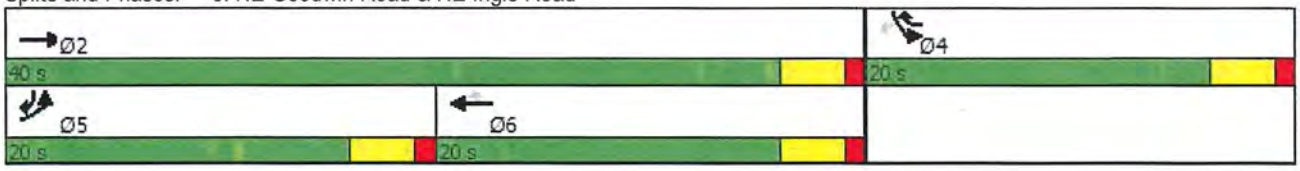
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	470	454	283	160	201	314
Future Volume (vph)	470	454	283	160	201	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850		0.850
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1770	1863	1863	1583	1736	1553
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1770	1863	1863	1583	1736	1553
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)				98		262
Link Speed (mph)		50	50		50	
Link Distance (ft)		2410	2610		1800	
Travel Time (s)		32.9	35.6		24.5	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	2%	2%	2%	2%	4%	4%
Adj. Flow (vph)	485	468	292	165	207	324
Shared Lane Traffic (%)						
Lane Group Flow (vph)	485	468	292	165	207	324
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	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
Number of Detectors	1	2	2	1	1	1
Detector Template	Left	Thru	Thru	Right	Left	Right
Leading Detector (ft)	20	100	100	20	20	20
Trailing Detector (ft)	0	0	0	0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0
Detector 1 Size(ft)	20	6	6	20	20	20
Detector 1 Type	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
Detector 1 Queue (s)	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
Detector 2 Position(ft)		94	94			
Detector 2 Size(ft)		6	6			
Detector 2 Type		Cl+Ex	Cl+Ex			
Detector 2 Channel						
Detector 2 Extend (s)		0.0	0.0			
Turn Type	Prot	NA	NA	pm+ov	Prot	pm+ov
Protected Phases	5	2	6	4	4	5
Permitted Phases				6		4
Detector Phase	5	2	6	4	4	5
Switch Phase						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	8.0
Total Split (s)	20.0	40.0	20.0	20.0	20.0	20.0
Total Split (%)	33.3%	66.7%	33.3%	33.3%	33.3%	33.3%
Maximum Green (s)	16.0	36.0	16.0	16.0	16.0	16.0
Yellow Time (s)	3.0	3.0	3.0	3.0	3.0	3.0
All-Red Time (s)	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
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead		Lag			Lead
Lead-Lag Optimize?	Yes		Yes			Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	Min	Min	None	None	None
Walk Time (s)		5.0	5.0	5.0	5.0	
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)		0	0	0	0	
Act Effct Green (s)	16.2	33.0	12.7	28.1	11.3	31.6
Actuated g/C Ratio	0.31	0.63	0.24	0.54	0.22	0.60
v/c Ratio	0.89	0.40	0.65	0.18	0.55	0.31
Control Delay	42.1	6.6	25.9	3.2	24.8	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	6.6	25.9	3.2	24.8	2.3
LOS	D	A	C	A	C	A
Approach Delay		24.7	17.7		11.1	
Approach LOS		C	B		B	

Intersection Summary

Area Type: Other
Cycle Length: 60
Actuated Cycle Length: 52.4
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.89
Intersection Signal Delay: 19.3 Intersection LOS: B
Intersection Capacity Utilization 62.1% ICU Level of Service B
Analysis Period (min) 15

Splits and Phases: 6: NE Goodwin Road & NE Ingle Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	485	468	292	165	207	324
v/c Ratio	0.89	0.40	0.65	0.18	0.55	0.31
Control Delay	42.1	6.6	25.9	3.2	24.8	2.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	42.1	6.6	25.9	3.2	24.8	2.3
Queue Length 50th (ft)	143	59	81	9	58	7
Queue Length 95th (ft)	#353	131	161	28	116	35
Internal Link Dist (ft)		2330	2530		1720	
Turn Bay Length (ft)						
Base Capacity (vph)	548	1298	576	1032	537	1040
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.89	0.36	0.51	0.16	0.39	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	470	454	283	160	201	314
Future Volume (veh/h)	470	454	283	160	201	314
Number	5	2	6	16	7	14
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1863	1863	1827	1827
Adj Flow Rate, veh/h	485	468	292	165	207	324
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	4	4
Cap, veh/h	547	1183	451	694	342	784
Arrive On Green	0.31	0.63	0.24	0.24	0.20	0.20
Sat Flow, veh/h	1774	1863	1863	1583	1740	1553
Grp Volume(v), veh/h	485	468	292	165	207	324
Grp Sat Flow(s),veh/h/ln	1774	1863	1863	1583	1740	1553
Q Serve(g_s), s	12.3	5.8	6.7	3.1	5.1	6.2
Cycle Q Clear(g_c), s	12.3	5.8	6.7	3.1	5.1	6.2
Prop In Lane	1.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	547	1183	451	694	342	784
V/C Ratio(X)	0.89	0.40	0.65	0.24	0.61	0.41
Avail Cap(c_a), veh/h	599	1415	629	845	588	1003
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.6	4.2	16.1	8.3	17.4	7.3
Incr Delay (d2), s/veh	14.1	0.2	1.6	0.2	1.7	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	8.1	2.9	3.6	1.9	2.6	6.4
LnGrp Delay(d),s/veh	29.7	4.4	17.7	8.5	19.1	7.7
LnGrp LOS	C	A	B	A	B	A
Approach Vol, veh/h		953	457		531	
Approach Delay, s/veh		17.3	14.4		12.1	
Approach LOS		B	B		B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		
Phs Duration (G+Y+Rc), s		34.1		13.3	18.6	15.5		
Change Period (Y+Rc), s		4.0		4.0	4.0	4.0		
Max Green Setting (Gmax), s		36.0		16.0	16.0	16.0		
Max Q Clear Time (g_c+I1), s		7.8		8.2	14.3	8.7		
Green Ext Time (p_c), s		5.0		1.1	0.3	2.8		

Intersection Summary	
HCM 2010 Ctrl Delay	15.2
HCM 2010 LOS	B

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	94	74	397	103	58	207
Future Volume (vph)	94	74	397	103	58	207
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		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1805	1615	1863	1583	1752	1845
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1805	1615	1863	1583	1752	1845
Link Speed (mph)	35		50			50
Link Distance (ft)	1963		2608			3163
Travel Time (s)	38.2		35.6			43.1
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Heavy Vehicles (%)	0%	0%	2%	2%	3%	3%
Adj. Flow (vph)	111	87	467	121	68	244
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	87	467	121	68	244
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

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

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	94	74	397	103	58	207
Future Vol, veh/h	94	74	397	103	58	207
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	0	-	0	0	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	85	85	85	85	85	85
Heavy Vehicles, %	0	0	2	2	3	3
Mvmt Flow	111	87	467	121	68	244

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	847	467	0	0	467	0
Stage 1	467	-	-	-	-	-
Stage 2	380	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.13	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.227	-
Pot Cap-1 Maneuver	335	600	-	-	1089	-
Stage 1	635	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	314	600	-	-	1089	-
Mov Cap-2 Maneuver	314	-	-	-	-	-
Stage 1	635	-	-	-	-	-
Stage 2	653	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.9	0	1.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	314	600	1089	-
HCM Lane V/C Ratio	-	-	0.352	0.145	0.063	-
HCM Control Delay (s)	-	-	22.6	12	8.5	-
HCM Lane LOS	-	-	C	B	A	-
HCM 95th %tile Q(veh)	-	-	1.5	0.5	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	174	74	95	14	45	10	56	162	37	11	172	107
Future Volume (vph)	174	74	95	14	45	10	56	162	37	11	172	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00
Frt			0.850		0.972			0.972				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1787	1881	1599	1752	3407	0	1770	3440	0	1752	1845	1568
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1787	1881	1599	1752	3407	0	1770	3440	0	1752	1845	1568
Link Speed (mph)		35			25			35			35	
Link Distance (ft)		3054			1626			1405			2475	
Travel Time (s)		59.5			44.3			27.4			48.2	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Heavy Vehicles (%)	1%	1%	1%	3%	3%	3%	2%	2%	2%	3%	3%	3%
Adj. Flow (vph)	218	93	119	18	56	13	70	203	46	14	215	134
Shared Lane Traffic (%)												
Lane Group Flow (vph)	218	93	119	18	69	0	70	249	0	14	215	134
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
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBU	NBL	NBT	NBR
Traffic Vol, veh/h	0	174	74	95	0	14	45	10	0	56	162	37
Future Vol, veh/h	0	174	74	95	0	14	45	10	0	56	162	37
Peak Hour Factor	0.92	0.80	0.80	0.80	0.92	0.80	0.80	0.80	0.92	0.80	0.80	0.80
Heavy Vehicles, %	2	1	1	1	2	3	3	3	2	2	2	2
Mvmt Flow	0	218	93	119	0	18	56	13	0	70	203	46
Number of Lanes	0	1	1	1	0	1	2	0	0	1	2	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	SB
Opposing Lanes	3	3	3
Conflicting Approach Left	SB	NB	EB
Conflicting Lanes Left	3	3	3
Conflicting Approach Right	NB	SB	WB
Conflicting Lanes Right	3	3	3
HCM Control Delay	13.4	11	11.8
HCM LOS	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	EBLn2	EBLn3	WBLn1	WBLn2	WBLn3	SBLn1	SBLn2
Vol Left, %	100%	0%	0%	100%	0%	0%	100%	0%	0%	100%	0%
Vol Thru, %	0%	100%	59%	0%	100%	0%	0%	100%	60%	0%	100%
Vol Right, %	0%	0%	41%	0%	0%	100%	0%	0%	40%	0%	0%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	56	108	91	174	74	95	14	30	25	11	172
LT Vol	56	0	0	174	0	0	14	0	0	11	0
Through Vol	0	108	54	0	74	0	0	30	15	0	172
RT Vol	0	0	37	0	0	95	0	0	10	0	0
Lane Flow Rate	70	135	114	218	92	119	18	38	31	14	215
Geometry Grp	8	8	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.146	0.263	0.213	0.443	0.175	0.202	0.04	0.081	0.065	0.029	0.416
Departure Headway (Hd)	7.522	7.022	6.738	7.329	6.829	6.129	8.258	7.758	7.478	7.465	6.965
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	473	508	528	489	522	581	436	465	482	477	514
Service Time	5.321	4.821	4.536	5.118	4.618	3.918	5.958	5.458	5.178	5.258	4.758
HCM Lane V/C Ratio	0.148	0.266	0.216	0.446	0.176	0.205	0.041	0.082	0.064	0.029	0.418
HCM Control Delay	11.6	12.3	11.4	15.9	11.1	10.5	11.3	11.1	10.7	10.5	14.7
HCM Lane LOS	B	B	B	C	B	B	B	B	B	B	B
HCM 95th-tile Q	0.5	1	0.8	2.2	0.6	0.7	0.1	0.3	0.2	0.1	2

Intersection	
Intersection Delay, s/veh	
Intersection LOS	

Movement	SBU	SBL	SBT	SBR
Traffic Vol, veh/h	0	11	172	107
Future Vol, veh/h	0	11	172	107
Peak Hour Factor	0.92	0.80	0.80	0.80
Heavy Vehicles, %	2	3	3	3
Mvmt Flow	0	14	215	134
Number of Lanes	0	1	1	1

Approach	SB
Opposing Approach	NB
Opposing Lanes	3
Conflicting Approach Left	WB
Conflicting Lanes Left	3
Conflicting Approach Right	EB
Conflicting Lanes Right	3
HCM Control Delay	13.2
HCM LOS	B

Lane	SBLn3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	74	67	0	148	0	35	0	0	0	0	0
Future Volume (vph)	0	74	67	0	148	0	35	0	0	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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		0.928										
Flt Protected								0.950				
Satd. Flow (prot)	1900	1763	0	1900	1900	0	0	1805	0	0	1900	0
Flt Permitted								0.950				
Satd. Flow (perm)	1900	1763	0	1900	1900	0	0	1805	0	0	1900	0
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		1282			975			927			288	
Travel Time (s)		35.0			26.6			25.3			7.9	
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	90	82	0	180	0	43	0	0	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	172	0	0	180	0	0	43	0	0	0	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			0			0	
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
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Traffic Vol, veh/h	0	74	67	0	148	0	35	0	0	0	0	0
Future Vol, veh/h	0	74	67	0	148	0	35	0	0	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	0	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	82	82	82	82	82	82	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	90	82	0	180	0	43	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	180	0	0	172	0	0	311	311	131	311	352	180
Stage 1	-	-	-	-	-	-	131	131	-	180	180	-
Stage 2	-	-	-	-	-	-	180	180	-	131	172	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1408	-	-	1417	-	-	645	607	924	645	576	868
Stage 1	-	-	-	-	-	-	877	792	-	826	754	-
Stage 2	-	-	-	-	-	-	826	754	-	877	760	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1408	-	-	1417	-	-	645	607	924	645	576	868
Mov Cap-2 Maneuver	-	-	-	-	-	-	645	607	-	645	576	-
Stage 1	-	-	-	-	-	-	877	792	-	826	754	-
Stage 2	-	-	-	-	-	-	826	754	-	877	760	-

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

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	645	1408	-	-	1417	-	-	-
HCM Lane V/C Ratio	0.066	-	-	-	-	-	-	-
HCM Control Delay (s)	11	0	-	-	0	-	-	0
HCM Lane LOS	B	A	-	-	A	-	-	A
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	0	17	240	0	29	93
Future Volume (vph)	0	17	240	0	29	93
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	0.865					
Flt Protected						0.988
Satd. Flow (prot)	1644	0	1900	0	0	1877
Flt Permitted						0.988
Satd. Flow (perm)	1644	0	1900	0	0	1877
Link Speed (mph)	25		25			25
Link Distance (ft)	649		833			1148
Travel Time (s)	17.7		22.7			31.3
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	21	293	0	35	113
Shared Lane Traffic (%)						
Lane Group Flow (vph)	21	0	293	0	0	148
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 32.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Traffic Vol, veh/h	0	17	240	0	29	93
Future Vol, veh/h	0	17	240	0	29	93
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	82	82	82	82	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	21	293	0	35	113

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	477	293	0	0	293	0
Stage 1	293	-	-	-	-	-
Stage 2	184	-	-	-	-	-
Critical Hdwy	7.1	6.2	-	-	4.1	-
Critical Hdwy Stg 1	6.1	-	-	-	-	-
Critical Hdwy Stg 2	6.1	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	502	751	-	-	1280	-
Stage 1	719	-	-	-	-	-
Stage 2	822	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	491	751	-	-	1280	-
Mov Cap-2 Maneuver	491	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	798	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.9	0	1.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	751	1280	-
HCM Lane V/C Ratio	-	-	0.028	0.028	-
HCM Control Delay (s)	-	-	9.9	7.9	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1	-