## OVERLOOK APARTMENTS TRAFFIC IMPACT ANALYSIS



## Port Orchard, WA



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## OVERLOOK APARTMENTS

TRAFFIC IMPACT ANALYSIS

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# OVERLOOK APARTMENTS <br> TRAFFIC IMPACT ANALYSIS 

## 1. INTRODUCTION

The main goals of this study focus on the assessment of existing roadway conditions and forecasts of newly generated project traffic. The first task includes the review of general roadway information of the adjacent street network, baseline vehicular conditions, and pedestrian and safety reviews. Forecasts of future traffic and dispersion patterns on the street system are then determined using established trip generation and distribution techniques. A level of service analysis for forecast traffic conditions is then made to determine the future degree of intersection congestion. As a final step, appropriate conclusions and mitigation measures are defined if needed.

## 2. PROJECT DESCRIPTION

Overlook Apartments is a proposed multi-family development consisting of 98 new apartment dwelling units in the city of Port Orchard. The subject site is located on the following undeveloped tax parcels: 302402-3-063-2008; 4598-005-028-0007; 4598-005-022-0003; 4598-005-017-0109; 4598-006-001-0303; 4598-006-004-0003; 4598-006-007$0000 ; 4598-006-010-0104$. The subject site comprises a collective area of 6.04 acres and is bordered to the north by SE Orlando Street. Primary access to the site is proposed via a new roadway extending north from SE Lovell Street. Nearby land uses are primarily residential or commercial. A six-year horizon of 2025 was used to assess impacts under future conditions. An aerial image of the project site is shown below. A vicinity and roadway map of the adjacent street network is illustrated in Figure 1 on the following page. A conceptual site design is presented in Figure 2.




## 3. EXISTING CONDITIONS

### 3.1 Existing Street System

The street network serving the proposed project consists of a variety of roadways. The major roadways and arterials defined in the study area are listed and described below.

Table 1: Roadway Network

| Functional <br> Classification | Roadway | Speed <br> Limit | Lanes | Street <br> Parking | Sidewalk | Bike Facilities |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Minor Arterial | SE Mile Hill Dr | 35 mph | 3 | No | No | Yes- East of <br> Fircrest Dr SE |
| Local | SE Horstman Rd | 25 mph | 2 | No | No | No |
|  | SE Orlando St | 25 mph | 2 | No | No | No |
|  | Whittier Ave SE | 25 mph | 2 | No | No | No |

### 3.2 Non-Motorist Traffic

Minor non-motorist activity was observed during field data collection. During the PM peak hour, 3 pedestrians were noted along the north side of SE Mile Hill Drive at Whittier Avenue SE primarily influenced from the nearby transit stop. No bicycles were recorded during observations. As part of site development, the project would construct half-street improvements along the north side of SE Lovell Street which includes sidewalk extending from Russell Avenue SE to Whittier Avenue SE and continuing to SE Mile Hill Dr. Also included are ramps and marked crosswalks along Russell Avenue SE and Whittier Avenue SE. See appendix for proposed improvement detail exhibits. Moreover, complete walking paths would be provided internal to the project and would provide safe walking routes within the development.

### 3.3 Existing Peak Hour Volumes and Travel Patterns

Field data for this study was collected in December of 2019 at the study intersection of SE Mile Hill Drive \& Whittier Avenue SE. Turning movement counts were performed between 4:00 PM - 6:00 PM to capture and identify peak roadway conditions. The one hour exhibiting highest overall vehicular activity (peak hour) is then used for capacity and delay analysis. PM peak hour volumes at the study intersections are illustrated in Figure 3. Fullcount sheets are provided in the appendix.


### 3.4 Roadway Improvements

A review of the 2018-2023 City of Port Orchard Six-Year Transportation Improvement Program and the 2019-2022 WSDOT Statewide Transportation Improvement Program indicates improvement projects are planned in the vicinity. Descriptions of the nearest projects are provided below in Table 2 below.

Table 2: Transportation Improvement Projects

| Jurisdiction | Name | Location | Improvement | Cost |
| :---: | :---: | :---: | :---: | :---: |
| WSDOT | SR 166 ADA Compliance (STIP <br> ID: WDO-447) | Blackjack Creek <br> to Whittier Ave |  <br> pedestrian facilities | $\$ 612,982$ |
| WSDOT | SR 166/Bethel/Bay/Maple <br> Roundabout (STIP ID: WDO-479) | Intersection | Construct a roundabout | $\$ 1,007,350$ |
| WSDOT | SR 166/Port Orchard - Rebuild <br> Signals (STIP ID: WDO-478) | Along SR 166 <br> corridor | Update and replace <br> existing signals | $\$ 2,441,024$ |
| Port | Bethel Road Corridor Plan / <br> Design (P.N. 1.3 \& 1.4) | SE Mile Hill to <br> Sedgwick | City sponsored planning <br> and re-engineering of <br> previous corridor design | $\$ 900,000$ |

### 3.5 Transit Service

A review of the Kitsap Transit regional bus schedule indicates that transit service is provided in the general site vicinity. The nearest route with respect to the subject site is provided via Route 86 - Southworth Shuttle with stops located at the SE Mile Hill Drive \& Whittier Road SE intersection. Route 86 provides service from the Port Orchard Ferry to the Southworth Ferry Terminal from 4:47 AM to 7:00 PM. Service is contingent upon ferry arrivals, and weekend service is not available. Transit use can be expected given the proximity and proposed sidewalk connections to the nearby bus stop.

In addition, the proposed development is approximately 1.5 miles from the Annapolis Ferry terminal, and approximately 2.5 miles from the Port Orchard Foot Ferry. The Port Orchard Foot Ferry provides service from 4:30 AM - 9:10 PM on the weekdays, and 8:30 AM - 11:57 PM on Saturdays. The Annapolis Ferry runs from 4:30 AM - 9:10 PM on the weekdays and does not provide weekend service. Both ferry routes provide service to/from the Bremerton Ferry Dock, as shown in the image below. Refer to the Kitsap Transit regional schedule for more detailed information.

Annapolis / Port Orchard Ferry Routes


### 3.6 Site Access

The conceptual site plan indicates that access is to be provided via a single new Wendell Avenue SE roadway extension. Currently, Wendell Avenue SE is a dead-end street with sole access via Orlando Street. The project proposes for the construction of a new Wendell Avenue segment connection via SE Lovell Street for site ingress and egress. See site plan for access configuration. All new roadway shall comply and be designed in accordance with city engineering standards.

## 4. FORECAST TRAFFIC DEMAND AND ANALYSIS

### 4.1 Project Trip Generation

Trip generation is used to determine the magnitude of project impacts on the surrounding street system. This is denoted by the quantity or specific number of new trips that enter or exit a project during a designated time period, such as a specific peak hour or an entire day. Data presented in this report was obtained from the Institute of Transportation Engineer's (ITE) publication Trip Generation, 10th Edition. The designated land use for this project is defined by ITE's Land Use Code (LUC) 221 - Multi-Family Mid-Rise. Dwelling units was used as the input variable and equations were used to determine trip ends. Data for the PM peak hour was used for estimation purposes and was applied to the intersection network for future capacity analysis. Table 3 below summarizes the estimated project trip generation. Included are the average weekday daily traffic (AWDT) and the AM and PM peak hours. Refer to the appendix for trip generation output.

Table 3: Project Trip Generation

| Land Use | Dwelling Units | AWDT | AM Peak-Hour Trips |  |  | PM Peak-Hour Trips |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | In | Out | Total | In | Out | Total |
| Multi-Family | 98 | 533 | 9 | 26 | 35 | 26 | 17 | 43 |

Based on the data presented in Table 3, the project is anticipated to generate 35 AM peak hour trips ( 9 inbound / 26 outbound) and 43 PM peak hour trips ( 26 inbound / 17 outbound) at time of full-buildout.

### 4.2 Distribution \& Assignment

Trip distribution describes the anticipated travel routes for inbound and outbound project traffic during the peak hour study period. Trip distribution percentages are based on the location of nearby major arterials and amenities and similar past developments. PM peak hour trips are primarily comprised of commuter-based (leaving or returning home) and recreational-based trips. Primary access to the site would be via SE Mile Hill Drive \& Whittier Avenue SE. Project residents would route via Whittier Avenue SE and subsequently SE Lovell Street to the new Wendell Avenue SE roadway extending north from SE Lovell Street. Anticipated distribution percentages and travel routes are illustrated in Figure 4 on the following page.

### 4.3 Future Peak Hour Volumes

A 6-year horizon of 2025 was used for future traffic delay analysis. The proposed development is located within the city of Port Orchard, which is forecasted to grow at an annual rate of $2.67 \%^{1}$ according to the Kitsap County Comprehensive Plan. Forecast 2025 background traffic volumes were derived by applying a 3.0 percent compound annual growth rate to the existing volumes shown in Figure 3 to remain conservative in analysis. In addition, the nearby developments of Overlook PRD, Horstman Heights, Four Seasons Plat and Parkside Lane Plat will yield an increase to ambient traffic and were considered as pipeline. PM peak hour pipeline volumes are illustrated in Figure 5. Forecast 2025 PM peak hour volumes without and with the addition of project-generated traffic are shown in Figures 6 and 7, respectively.

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### 4.4 Forecast Level of Service

Peak hour delays were determined through the use of the Highway Capacity Manual6th Edition. Capacity analysis is used to determine level of service (LOS) which is an established measure of congestion for transportation facilities. The range ${ }^{2}$ for intersection level of service is LOS A to LOS F with the former indicating the best operating conditions with low control delays and the latter indicating the worst conditions with heavy control delays. Detailed descriptions of intersection LOS are given in the 2016 Highway Capacity Manual. For unsignalized, side-street stop-controlled intersections, LOS is determined by the movement with the highest delay. Level of service calculations were made through the use of the Synchro 10 analysis program and were conducted for existing and forecast 2025 PM peak hour conditions without and with the proposed development.

# Table 4: PM Peak Hour Level of Service <br> Delays Given in Seconds per Vehicle 

|  |  | Forecast 2025 Volumes |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Existing | Without Project | With Project |  |  |  |
| Intersection | Control | LOS | Delay | LOS | Delay | LOS | Delay |
|  <br> Whittier Ave SE | Stop | C | 15.1 | C | 18.6 | C | 20.7 |

Existing Level of Service is shown to operate at LOS C or better. Accounting for background growth and nearby planned residential developments, forecast 2025 LOS is shown to continue operating at LOS C with or without the proposed Overlook Apartments. SE Mile Hill Drive offers a center two-way left-turn land thereby allowing outbound traffic to perform a two-step maneuver to enter the flow of traffic. No operational deficiencies are identified at the study intersection.

[^1]
## 5. CONCLUSIONS AND MITIGATION MEASURES

Overlook Apartments is a proposed 98 -unit multi-family apartment development located in the city of Port Orchard. The subject property, bordered to the north by Orlando Street SE, is located on undeveloped parcels: 302402-3-063-2008; 4598-005-028-0007; 4598-005-022-0003; 4598-005-017-0109; 4598-006-001-0303; 4598-006-004-0003; 4598-006-0070000; 4598-006-010-0104. A conceptual site plan illustrating the proposed 98 apartment units and internal roadway network is presented in Figure 2. Access to the site is proposed via a new Wendell Avenue SE roadway segment extending north from SE Lovell Street. Site development also includes new sidewalks along SE Lovell and Whittier Avenue SE, as illustrated in Figure 2. Based one ITE data, the project is estimated to generate 533 weekday daily trips, 35 AM peak hour trips, and 43 PM peak hour trips.

The primary access intersection of SE Mile Hill Drive \& Whittier Avenue SE was evaluated in terms of Level of Service (LOS) under existing and forecast conditions. Currently, the study intersection is shown to operate with delays up to LOS C indicating stable conditions during the PM peak hour travel period. A six-year horizon of 2025 was analyzed without and with the proposed development and includes a background growth rate and additional nearby planned projects as pipeline. Service levels are shown to continue operating with LOS C conditions with or without Overlook Apartments indicating no operation deficiencies.

Based on the above analysis, recommended mitigation is as follows:

1. Pay traffic impact fees as required by the city of Port Orchard. Fees are assessed per net new dwelling unit. Exact fees and calculations will be determine by the City at the time of building permit issuance.

No other mitigation is identified at this time.

OVERLOOK APARTMENTS
TRAFFIC IMPACT ANALYSIS

APPENDIX

Heath \& Associates, Inc.
2214 Tacoma Road
Puyallup, WA 98371
Project Name: Overlook Apartments
Intersection: SE Mile Hill Dr \& Whittier Ave SE
Jurisdiction: City of Port Orchard

Date of Count: Tues., 12/03/19 Project Number: 4385

| Time Period | Soutbound Whittier Ave SE |  |  |  | Westbound SE Mile Hill Dr |  |  |  | Northbound |  |  |  | Eastbound SE Mile Hill Dr |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | HV | R | T | L | HV | R | T | L | HV | R | T | L | HV | R | T | L | Total |
| 4:00 PM | 0 | 13 | 0 | 2 | 3 | 3 | 157 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 188 | 12 | 375 |
| 4:15 PM | 1 | 11 | 0 | 1 | 9 | 2 | 166 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 193 | 7 | 380 |
| 4:30 PM | 0 | 7 | 0 | 1 | 1 | 0 | 152 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 202 | 8 | 370 |
| 4:45 PM | 0 | 22 | 0 | 2 | 3 | 1 | 166 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 194 | 17 | 402 |
| 5:00 PM | 0 | 8 | 0 | 1 | 5 | 3 | 132 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 211 | 12 | 367 |
| 5:15 PM | 0 | 6 | 0 | 3 | 2 | 3 | 152 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 195 | 10 | 369 |
| 5:30 PM | 0 | 7 | 0 | 3 | 0 | 3 | 132 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 194 | 12 | 351 |
| 5:45 PM | 0 | 4 | 0 | 0 | 0 | 0 | 134 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 181 | 5 | 324 |

Total | 1 | 78 | 0 | 13 | 23 | 15 | 1,191 | 0 | 0 | 0 | 0 | 0 | 7 | 0 | 1,558 | 83 | 2,938 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

| Peak Hour | 4:00 |  | to | 5:00 | PM |  |  |  |  |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Peak Total | 1 | 53 | 0 | 6 | 16 | 6 | 641 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 777 | 44 | 1,527 |
| Heavy Veh. | 1.1\% |  |  |  | 1.9\% |  |  |  | 0.0\% |  |  |  | 0.4\% |  |  |  |  |
| PHF | 0.61 |  |  |  | 0.96 |  |  |  | 0.00 |  |  |  | 0.97 |  |  |  |  |



# Multifamily Housing (Mid-Rise) <br> (221) 

Vehicle Trip Ends vs: Dwelling Units
On a: Weekday

## Setting/Location: General Urban/Suburban

Number of Studies: 27
Avg. Num. of Dwelling Units: 205
Directional Distribution: 50\% entering, $50 \%$ exiting

## Vehicle Trip Generation per Dwelling Unit

| Average Rate | Range of Rates | Standard Deviation |
| :---: | :---: | :---: |
| 5.44 | $1.27-12.50$ | 2.03 |

## Data Plot and Equation



# Multifamily Housing (Mid-Rise) <br> (221) 

Vehicle Trip Ends vs: Dwelling Units<br>On a: Weekday,<br>Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban
Number of Studies: 53
Avg. Num. of Dwelling Units: 207
Directional Distribution: $26 \%$ entering, $74 \%$ exiting
Vehicle Trip Generation per Dwelling Unit

Average Rate
0.36

Range of Rates
0.06-1.61

Standard Deviation 0.19

Data Plot and Equation


# Multifamily Housing (Mid-Rise) <br> (221) 

## Vehicle Trip Ends vs: Dwelling Units

On a: Weekday,
Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
Number of Studies: 60
Avg. Num. of Dwelling Units: 208
Directional Distribution: 61\% entering, 39\% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate
0.44

Range of Rates
0.15-1.11

Standard Deviation
0.19

Data Plot and Equation


Heath \& Associates, Inc
Overlook Apartments TIA, 12/16/2019
PM Peak Hour Forecast Intersection Volumes
Annual Growth Rate: 3 \% 2025
\# of Years to Horizon: 6

SE Mile Hill Dr \& Whittier Ave SE

|  | SBR | SBT | SBL | WBR | WBT | WBL | NBR | NBT | NBL | EBR | EBT | EBL |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Existing | 53 | 0 | 6 | 6 | 641 | 0 | 0 | 0 | 0 | 0 | 777 | 44 |
| Project Trips | 10 | 0 | 6 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| Pipeline | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 32 | 0 |
| Without | 63 | 0 | 7 | 7 | 787 | 0 | 0 | 0 | 0 | 0 | 960 | 53 |
| With | 73 | 0 | 13 | 16 | 787 | 0 | 0 | 0 | 0 | 0 | 960 | 69 |



| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 681 | 0 | - | 0 | 1588 | 678 |
| Stage 1 | - | - | - | - | 678 | - |
| Stage 2 | - | - | - | - | 910 | - |
| Critical Hdwy | 4.11 | - | - |  | 6.41 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.41 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.41 | - |
| Follow-up Hdwy | 2.209 | - | - |  | 3.509 | 3.309 |
| Pot Cap-1 Maneuver | 916 | - | - | - | 119 | 454 |
| Stage 1 | - | - | - | - | 506 | - |
| Stage 2 | - | - | - | - | 394 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 916 | - | - | - | 113 | 454 |
| Mov Cap-2 Maneuver | - | - | - | - | 249 | - |
| Stage 1 | - | - | - | . | 481 | - |
| Stage 2 | - | - | - |  | 394 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.5 |  | 0 |  | 15.1 |  |
| HCM LOS |  |  |  |  | C |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT | WBR SBLn1 |  |
| Capacity (veh/h) |  | 916 | - | - | - | 419 |
| HCM Lane VIC Ratio |  | 0.051 | - | - | - | 0.148 |
| HCM Control Delay (s) |  | 9.1 | - | - | - | 15.1 |
| HCM Lane LOS |  | A | - | - | - | C |
| HCM 95th \%tile Q(veh) |  | 0.2 | - | - | - | 0.5 |

[^2]Synchro 10 Light Report
Page 2

1: SE Mile Hill Dr \& Whittier Ave SE

| Intersection |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh 1 |  |  |  |  |  |
| Movement EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | 4 | F |  | * |  |
| Traffic Vol, veh/h 53 | 960 | 787 | 7 | 7 | 63 |
| Future Vol, veh/h 53 | 960 | 787 | 7 | 7 | 63 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 |
| Sign Control Free | Free | Free | Free | Stop | Stop |
| RT Channelized | None | - | None | - | None |
| Storage Length 50 | - | - | - | 0 | - |
| Veh in Median Storage, \# | 0 | 0 | - | 1 | - |
| Grade, \% | 0 | 0 | - | 0 | - |
| Peak Hour Factor 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, \% | 1 | 2 | 2 | 1 | 1 |
| Mvmt Flow 56 | 1011 | 828 | 7 | 7 | 66 |
| Major/Minor Major1 |  | Major2 |  | Minor2 |  |
| Conflicting Flow All 83 | 0 | - | 0 | 1955 | 832 |
| Stage 1 | - | - | - | 832 | - |
| Stage 2 | - | - | - | 1123 | - |
| Critical Hdwy 4.11 | - | - | - | 6.41 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | 5.41 | - |
| Critical Hdwy Stg 2 | - | - | - | 5.41 | - |
| Follow-up Hdwy 2.209 | - | - | - | 3.509 | 3.309 |
| Pot Cap-1 Maneuver 803 | - | - | - | 71 | 371 |
| Stage 1 | - | - | - | 429 | - |
| Stage 2 | - | - | - | 312 | - |
| Platoon blocked, \% | - | - | - |  |  |
| Mov Cap-1 Maneuver 803 | - | - | - | 66 | 371 |
| Mov Cap-2 Maneuver | - | - | - | 189 | - |
| Stage 1 | - | - | - | 399 | - |
| Stage 2 | - | - | - | 312 | - |
|  |  |  |  |  |  |
| Approach E |  | WB |  | SB |  |
| HCM Control Delay, s 0 |  | 0 |  | 18.6 |  |
| HCM LOS |  |  |  | C |  |
|  |  |  |  |  |  |
| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR S | SBLn1 |
| Capacity (veh/h) | 803 | - | - | - | 338 |
| HCM Lane V/C Ratio | 0.069 | - | - | - | 0.218 |
| HCM Control Delay (s) | 9.8 | - | - | - | 18.6 |
| HCM Lane LOS | A | - | - | - | C |
| HCM 95th \%tile Q(veh) | 0.2 | - | - | - | 0.8 |


| Intersection |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Int Delay, s/veh | 1.3 |  |  |  |  |  |
| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
| Lane Configurations | 1 | 4 | 个 |  | \% |  |
| Traffic Vol, veh/h | 69 | 960 | 787 | 16 | 13 | 73 |
| Future Vol, veh/h | 69 | 960 | 787 | 16 | 13 | 73 |
| Conflicting Peds, \#/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 50 | - | - | - | 0 | - |
| Veh in Median Storage, \# | \# | 0 | 0 | - | 1 | - |
| Grade, \% | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 95 | 95 | 95 | 95 | 95 | 95 |
| Heavy Vehicles, \% | 1 | 1 | 2 | 2 | 1 | 1 |
| Mvmt Flow | 73 | 1011 | 828 | 17 | 14 | 77 |


| Major/Minor | Major1 |  | Major2 |  | Minor2 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Conflicting Flow All | 845 | 0 | - | 0 | 1994 | 837 |
| Stage 1 | - | - | - | - | 837 | - |
| Stage 2 | - | - | - | - | 1157 | - |
| Critical Hdwy | 4.11 | - | - | - | 6.41 | 6.21 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.41 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.41 | - |
| Follow-up Hdwy | 2.209 | - | - | - | 3.509 | 3.309 |
| Pot Cap-1 Maneuver | 796 | - | - | - | 67 | 368 |
| Stage 1 | - | - | - | - | 427 | - |
| Stage 2 | - | - | - | - | 301 | - |
| Platoon blocked, \% |  | - | - | - |  |  |
| Mov Cap-1 Maneuver | 796 | - | - | - | 61 | 368 |
| Mov Cap-2 Maneuver | - | - | - | - | 182 | - |
| Stage 1 | - | - | - | - | 388 | - |
| Stage 2 | - | - | - | - | 301 | - |
|  |  |  |  |  |  |  |
| Approach | EB |  | WB |  | SB |  |
| HCM Control Delay, s | 0.7 |  | 0 |  | 20.7 |  |
| HCM LOS |  |  |  |  | C |  |
|  |  |  |  |  |  |  |
| Minor Lane/Major Mvmt |  | EBL | EBT | WBT | WBR SBLn1 |  |
| Capacity (veh/h) |  | 796 | - | - | - | 319 |
| HCM Lane V/C Ratio |  | 0.091 | - | - | - | 0.284 |
| HCM Control Delay (s) |  | 10 | - | - | - | 20.7 |
| HCM Lane LOS |  | A | - | - | - | C |
| HCM 95th \%tile Q(veh) |  | 0.3 | - | - | - | 1.1 |


[^0]:    ${ }^{1}$ Kitsap County Comprehensive Plan 2035: Chapter 3 Final Draft Countywide Population and Housing Growth

[^1]:    2 Signalized Intersections - Level of Service
    Control Delay per
    Level of Service
    A
    Vehicle (sec)
    B
    C
    D
    E
    F
    Highway Capacity Manual, 6 th Edition

[^2]:    HCM 6th TWSC

