

JOHN DAY

TRANSPORTATION STUDY

MAY 2021

PREPARED FOR:

CITY OF JOHN DAY

PREPARED BY DKS ASSOCIATES



TABLE OF CONTENTS

SECTION 1. INTRODUCTION	4
PROJECT AREA	4
SECTION 2. EXISTING CONDITIONS	5
PEDESTRIAN AND BICYCLE SYSTEM	5
TRANSIT SYSTEM	6
ROADWAY SYSTEM	7
EXISTING TRAVEL CONDITIONS	8
Daily Motor Vehicle Volumes	8
Intersection Operations	8
Safety Analysis	9
SECTION 3: ASSUMPTIONS AND METHODOLOGIES	11
PROJECT DESCRIPTION	11
SITE ACCESS	14
Internal Site Circulation	14
PLANNING HORIZONS	15
BACKGROUND TRAFFIC	16
TRIP GENERATION	17
Trip Generation for Sensitivity Scenario	18
TRIP DISTRIBUTION	19
SECTION 4: FUTURE CONDITIONS	20
2023 BACKGROUND CONDITIONS INTERSECTION OPERATIONS	20
2023 PROJECT CONDITIONS INTERSECTION OPERATIONS	20
2025 BACKGROUND CONDITIONS INTERSECTION OPERATIONS	21
2025 PROJECT CONDITIONS INTERSECTION OPERATIONS	22
Innovation Gateway Area Sensitivity Scenario	22
SECTION 5: RECOMMENDATIONS	24
Site Access	24
Sight Distance	24
PEDESTRIAN/BICYCLE IMPROVEMENTS	24

LIST OF FIGURES

FIGURE 1: IRONWOOD ESTATES PHASES 2 AND 3 SITE PLAN	11
FIGURE 2: THE RIDGE PHASES 1 AND 2 SITE PLAN	13
FIGURE 3: IMPROVEMENTS ASSUMED WITH SENSITIVITY SCENARIO	15

LIST OF TABLES

TABLE 1: STUDY AREA PEDESTRIAN AND BICYCLE CHARACTERISTICS	6
TABLE 2: STUDY AREA ROADWAY CHARACTERISTICS	7
TABLE 3: EXISTING STUDY INTERSECTION OPERATIONS.....	9
TABLE 4: CRASH DATA SUMMARY (2014-2018).....	10
TABLE 5: THE RIDGE PHASE 2 DEVELOPMENT ASSUMPTIONS	12
TABLE 6: VOLUME DATA ALONG MAIN STREET.....	17
TABLE 7: TRIP GENERATION FOR THE PROPOSED PROJECTS	18
TABLE 8: TRIP GENERATION FOR SENSITIVITY SCENARIO	19
TABLE 9: 2023 BACKGROUND CONDITIONS STUDY INTERSECTION OPERATIONS.....	20
TABLE 10: 2023 PROJECT CONDITIONS STUDY INTERSECTION OPERATIONS	21
TABLE 11: 2025 BACKGROUND CONDITIONS STUDY INTERSECTION OPERATIONS	21
TABLE 12: 2025 PROJECT CONDITIONS STUDY INTERSECTION OPERATIONS	22
TABLE 13: 2025 PROJECT CONDITIONS STUDY INTERSECTION OPERATIONS	23

SECTION 1. INTRODUCTION

The purpose of this transportation impact analysis is to identify potential transportation system needs triggered by the proposed Ironwood Estates (Phase 2 and 3) and The Ridge (Phase 1 and 2) developments located in John Day, OR.

Included in the following sections is a documentation of existing transportation conditions, a summary of the assumptions and methodologies used to analyze future transportation conditions, a detail of traffic operating conditions and a summary of recommendations related to the proposed project.

PROJECT AREA

The proposed Ironwood Estates (Phase 2 and 3) development will be located off Valley View Drive and Government Entry Road, at the north end of the City. The proposed Ridge (Phase 1 and 2) development will be located at the east end of the City, to the south of US 26. The following intersections were evaluated as study intersections, with their intersection control listed:

- W. Main Street (US 26) / Patterson Bridge Road (existing stop controlled on the side street)
- W. Main Street (US 26) / NW 3rd Avenue (existing stop controlled on the side street)
- E. Main Street (US 26) / NW 3rd Avenue (existing stop controlled on the side street)
- E. Main Street (US 26) / The Ridge Access (proposed stop controlled on the side street)

SECTION 2. EXISTING CONDITIONS

Much of the land within the study area is rural, except for land surrounding W Main Street through downtown John Day. As a result, many roadways are not constructed to urban standards. Evaluating the transportation impacts of the proposed hotel and conference center development requires an understanding of the current transportation facilities in this area. This section includes descriptions of existing infrastructure to serve pedestrian, bicycle, transit and motor vehicle modes of travel in the immediate study area.

PEDESTRIAN AND BICYCLE SYSTEM

An inventory of existing pedestrian and bicycle facilities was conducted to summarize current pedestrian and bike facilities within the project area. Table 1 shows the key roadways, along with existing pedestrian and bicycle facilities. Due to the rural nature of the abutting land uses, many streets in the study area have not been improved to urban standards and generally lack accommodation for pedestrian and bicycle users.

W Main Street is an important connection for pedestrian and bicycle travel in the City. It provides the only current direct route for pedestrians and bicyclists to access all parts of the City. Those walking or biking along this highway often must walk along the shoulder or share the travel lane with motor vehicles. In addition, frequent driveways negatively impact the walking experience and introduce conflict points between pedestrians and motor vehicles. Motor vehicle traffic volumes along this segment of the highway is over 5,000 vehicles per day and the posted speed is 35 miles per hour. These conditions are generally not conducive to comfortable shared walking and biking travel conditions. W Main Street through John Day is also designated as part of the Old West Oregon Scenic Bikeway. Much of this route lacks accommodations for bicyclists.

Pedestrian and bicycle count data during the evening peak period was collected at the study intersections¹. The count data shows that the only pedestrian activity observed occurred at the W Main Street / NW 3rd Avenue intersection (8 crossings during the p.m. peak period). No bicycle activity was recorded at the study intersections during the p.m. peak period.

¹ Based on traffic counts conducted during December 2019.

TABLE 1: STUDY AREA PEDESTRIAN AND BICYCLE CHARACTERISTICS

ROADWAY (LIMITS)	PEDESTRIAN FACILITIES	BIKE FACILITIES
W MAIN STREET - US 26 / US 395 (PATTERSON BRIDGE ROAD TO 3RD AVENUE)	Sidewalk on north side from 3rd Avenue to the west for 0.25 miles; Intermittent sidewalks on south side	None
NW 3RD AVENUE / NE 3RD AVENUE EXTENSION (US 26 / US 395 TO US 26 / E MAIN STREET)	Sidewalk on both sides from US 26 / US 395 to Brent Drive; sidewalks on south side from Canton Street to Bridge Street; none between Brent Drive and Canton Street and east of Bridge Street	None / Shoulder east of NE Elm Street
VALLEY VIEW DRIVE (BOULDER LANE TO THE WEST)	None	None

TRANSIT SYSTEM

Transit service is provided in John Day and other nearby cities by the Grant County People Mover via several fixed bus routes, a Dial-a-Ride service and two deviated fixed route systems. The People Mover connects riders in John Day to nearby cities including Bend, Redmond, Prineville, Mount Vernon, Monument, Pendleton, Walla Walla, Burns, Prairie City and Baker City. The Bend, Redmond, Prineville, Mount Vernon route runs Monday, Wednesday, and Friday; the Monument route runs on Thursdays; the Pendleton and Walla Walla route runs on Tuesdays; the Burns route runs on the 1st, 3rd, and 5th Thursday of the month; and the Prairie City and Baker City route runs on the 2nd and 4th Thursday of the month. Each of these routes typically depart John Day in the morning and return in the evening.

The deviated fixed route services in the John Day valley run Monday through Friday. The route will deviate ½ mile from the fixed route line. The PC MV Route runs between Prairie City and Mt Vernon three times a day, at 7 am, 12 pm and 6 pm. The JD CC Loop runs a set route in John Day and Canyon City every hour, beginning at 7 am and ending at 6 pm. Both the PC MV Route and the JD CC Loop are free.

The Dial-a-Ride, or Demand Response service runs Monday through Friday 8 am to 6 pm and Saturday 9 am to 4 pm. This service picks and drops off passengers at a location of their choosing. Anyone is eligible to ride this service, and it is available in John Day, Canyon City, Mt Vernon and Prairie City.

The deviated fixed routes have transit stops throughout John Day, with 56 stops in and around the City. Most of the intercity routes pick-up and drop-off passengers at the People Mover Bus Depot

located on NE Dayton Street near at NE 1st Avenue. However, the Monument to John Day route pick-ups and drop-offs passengers at the Senior Center parking lot on NE Dayton Street south of NE 1st Avenue.

Transit users in the study area are generally less than one quarter mile from the closest bus stop (within the typical trip length for the average walking trip).

ROADWAY SYSTEM

The major characteristics of the roadways in the study area are summarized in Table 2. W Main Street provides higher capacity motor vehicle movement through the study area. It is classified by the state as a Statewide Highway and runs east-to-west maintaining a two-lane (i.e., one through lane in each direction) to three-lane cross-section (i.e., one through lane in each direction and a center turn lane) through the study area. Posted speeds along the highway in the study area range between 25 and 35 miles per hour. It is designated as a scenic byway and freight route, and the segment near the NW 3rd Avenue intersection is within an urban business area.

Patterson Bridge Road and Bridge Street run north-to-south from W Main Street, providing the only current crossings of the John Day River. 3rd Avenue runs east-to-west through the center of John Day, connecting to W Main Street. These streets are classified as collectors and generally have lower vehicle-carrying capacity than the highway. All other roadways in the study area are local streets and primarily serve local traffic traveling to and from the highway.

TABLE 2: STUDY AREA ROADWAY CHARACTERISTICS

ROADWAY (LIMITS)	FUNCTIONAL CLASSIFICATION*	CROSS SECTION	SPECIAL DESIGNATIONS
W MAIN STREET - US 26 / US 395 (PATTERSON BRIDGE ROAD TO 3RD AVENUE)	Statewide	2 to 3 lanes	Scenic Byway; Freight Route; Urban Business Area (City limits to 3rd Avenue)
PATTERSON BRIDGE ROAD (US 26 / US 395 TO NORTHERN TERMINUS)	Collector	2 lanes	None
3RD AVENUE (US 26 / US 395 TO US 26 / E MAIN STREET)	Collector	2 lanes	None
VALLEY VIEW DRIVE (BOULDER LANE TO THE WEST)	Local	2 lanes	None

*Source: Oregon Highway Plan; John Day Transportation System Plan, December 1996.

EXISTING TRAVEL CONDITIONS

To determine intersection operations, turning movement counts were conducted at study intersections during the weekday evening peak period (4 to 6 p.m.). The raw traffic count data is included in the Appendix.

DAILY MOTOR VEHICLE VOLUMES

Daily motor vehicle count data was also collected at the two existing motor vehicle crossings of the John Day River, including along NW Bridge Street near the NW 7th Avenue intersection and Patterson Bridge Road north of US 26. The count data indicates that approximately 1,266 vehicles use NW Bridge Street, and 898 vehicles use Patterson Bridge Road to cross the John Day River during an average weekday. The highest number of vehicle crossings occurred during the p.m. peak hour at both locations (4:00 p.m.), with 123 crossings at NW Bridge Street and 100 at Patterson Bridge Road.

INTERSECTION OPERATIONS

This section discusses the existing conditions for motor vehicles at the study intersections, including an analysis of traffic operations.

Intersection Performance Measures

Level of service (LOS) ratings and volume-to-capacity (v/c) ratios are two commonly used performance measures that provide a good picture of intersection operations. Agencies often incorporate these performance measures into their mobility standards. Descriptions are given below:

- Level of service (LOS): A “report card” rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hours travel demand. LOS D and E are progressively worse operation conditions. LOS F represents conditions where average vehicle delay has become excessive, and demand has exceeded capacity.
- Volume-to-capacity (v/c) ratio: A decimal representation (typically between 0.00 and 1.00) of the proportion of capacity that is being used at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases, and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

Jurisdictional Mobility Standards

The mobility standards for the study intersections vary according to the agency of jurisdiction for each roadway. All of the study intersections are under ODOT jurisdiction. ODOT requires a volume

to capacity ratio of 0.85 or less to be maintained for highway movements and a volume to capacity ratio of 0.95 or less to be maintained for the minor approaches².

Existing Operating Conditions

Motor vehicle conditions were evaluated during the p.m. peak hour at the study intersections (see Table 3). During the peak hour, all study intersections operate well within the adopted mobility standards.

TABLE 3: EXISTING STUDY INTERSECTION OPERATIONS

INTERSECTION	MOBILITY STANDARD	DELAY	LOS	V/C
W. MAIN STREET / PATTERSON BRIDGE ROAD		13	A/B	0.18
W. MAIN STREET / NW 3RD AVENUE	W. Main Street: 0.85 V/C;	11	A/B	0.10
E. MAIN STREET / NE 3RD AVENUE	Minor: Approaches: 0.95 V/C	11	A/B	0.19
E. MAIN STREET / THE RIDGE ACCESS		-	-	-

v/c = Volume-to-Capacity Ratio of Worst Movement

Delay = Average Intersection Delay (sec.) of Worst Approach

LOS = Level of Service of Major Street/Minor Street

SAFETY ANALYSIS

Five years of available collision data (2014 – 2018) for the study intersections was obtained from Oregon Department of Transportation (ODOT) and used to evaluate the collision history³. Three crashes were recorded, two at the W. Main Street / Patterson Bridge Road intersection and one at the E. Main Street / NE 3rd Avenue intersection, over the five-year period.

Crash rates at study intersections were calculated to identify problem areas in need of mitigation. The total number of crashes experienced at an intersection is typically proportional to the number of vehicles entering it, therefore, a crash rate describing the frequency of crashes per million entering vehicles (MEV) is used to determine if the number of crashes should be considered high. Using this technique, a collision rate of 1.0 MEV or greater is commonly used to identify when collision occurrences are higher than average and should be further evaluated. As shown in Table 4, crash rates calculated at all study intersections are well below this threshold, indicating the frequency of collisions is typical for the volume of traffic served.

² Table 6, Policy 1F, Oregon Highway Plan, Oregon Department of Transportation, Amended May 2015.

³ ODOT reported collisions for January 1, 2014 through December 31, 2018.

TABLE 4: CRASH DATA SUMMARY (2014-2018)

INTERSECTION	TOTAL CRASHES	CRASH TYPE		CRASH SEVERITY		COLLISION RATE
		REAR END	TURN	PDO*	POSSIBLE INJURY	
W. MAIN STREET / PATTERSON BRIDGE ROAD	2	1	1	0	2	0.28
W. MAIN STREET / NW 3RD AVENUE	0	0	0	0	0	0.00
E. MAIN STREET / NE 3RD AVENUE	1	1	0	1	0	0.21

*PDO = Property Damage Only

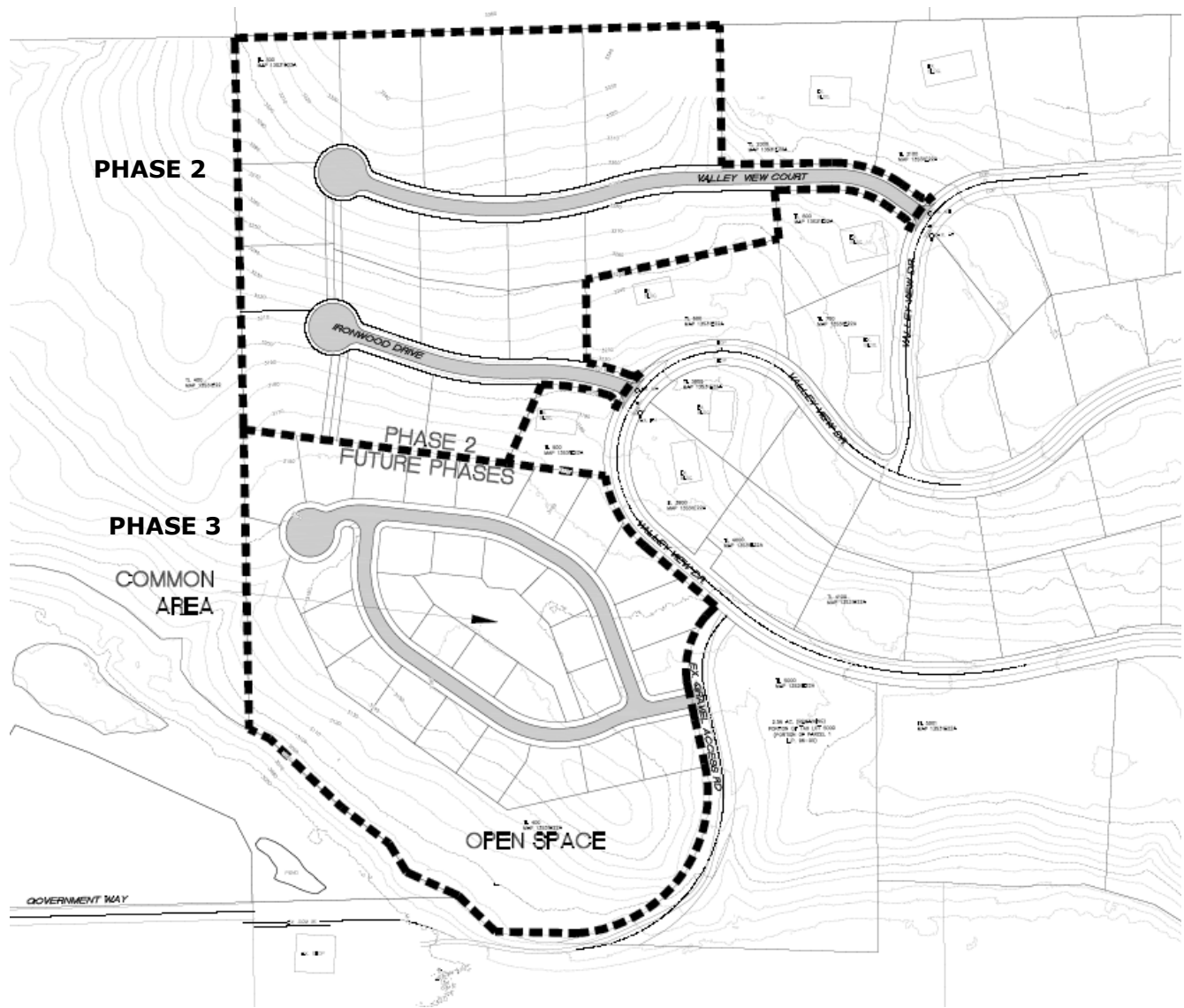
SECTION 3: ASSUMPTIONS AND METHODOLOGIES

This section outlines key assumptions and methodologies that were used to analyze future conditions and identify any potential impacts at study intersections. Areas of interest covered in this section are trip generation, trip distribution and background traffic growth.

PROJECT DESCRIPTION

The proposed Ironwood Estates Phase 2 development will consist of 17 single family units (see Figure 1), while the proposed Ironwood Estates Phase 3 will consist of 56 duplex units along with a 2,500 square foot common building (see Figure 1).

FIGURE 1: IRONWOOD ESTATES PHASES 2 AND 3 SITE PLAN



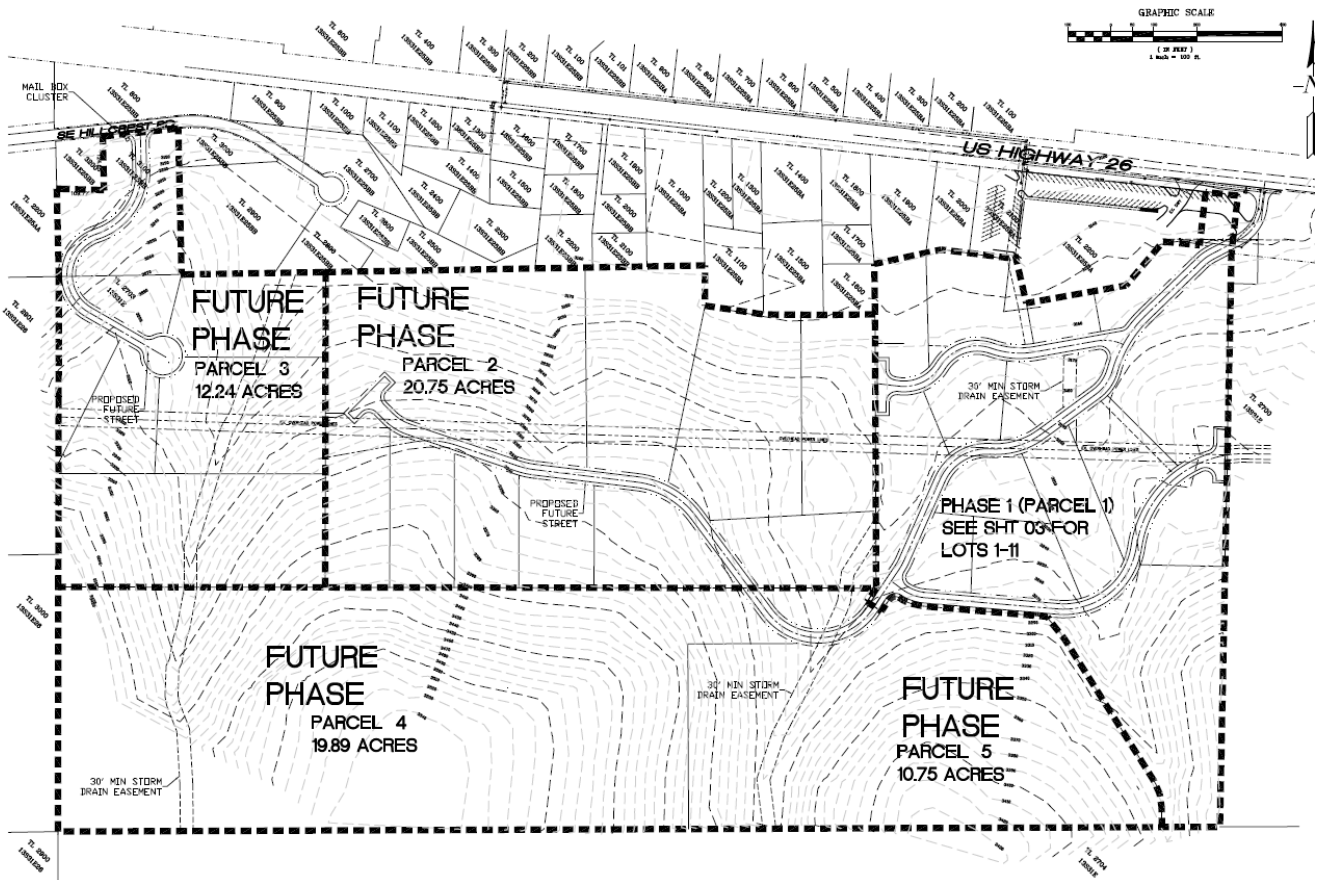
The proposed Ridge development is proposed to occur in two phases as shown in Figure 2, with a proposed 11 single family units in Phase 1 (parcel 1; lots 1-11). Phase 2 is expected to occur among parcels 2 to 5, for a total area of about 63 acres. Several assumptions were utilized to determine the amount of buildable land and sizes of potential development to base trip generation estimates (see Table 5). Average assumptions regarding development densities that can reasonably be expected were utilized to estimate the net quantities of potential development. The development assumptions were based on single family units, and a minimum lot size of 10,000 square feet per unit for the Residential General (RG) zone. Overall, an estimated 221 single family units will be assumed for Phase 2. This represents a conservative estimate for the potential development that could occur within the future Phase 2.

TABLE 5: THE RIDGE PHASE 2 DEVELOPMENT ASSUMPTIONS

ZONING	PARCEL	SIZE	DEVELOPMENT DENSITY	NET SIZE
RG	Parcel 2	20.75 acres	20 percent reduction for infrastructure and unbuildable areas	72 single family units
	Parcel 3	12.24 acres		43 single family units
	Parcel 4	19.89 acres	10,000 square foot minimum lot size per unit*	69 single family units
	Parcel 5	10.75 acres		37 single family units
Total	63.63 acres			221 single family units

*Source: City of John Day Development Code

FIGURE 2: THE RIDGE PHASES 1 AND 2 SITE PLAN



SITE ACCESS

The Ironwood Estates Phase 2 project has two proposed accesses to Valley View Drive. Both proposed accesses result in cul-de-sacs to the west. Both accesses are recommended to be constructed as residential streets⁴. The access spacing standard for a roadway of this type is 300 feet⁵. The proposed access points will meet this standard.

The Ironwood Estates Phase 3 project has one proposed access to Government Entry Road. The access is recommended to be constructed as a residential street. The access spacing standard for a roadway of this type is 300 feet. The proposed access would not meet the City standard of 300 feet minimum spacing between intersections, as Valley View Drive is approximately 150 feet north of the proposed access. Although the proposed driveway would be located 150 feet closer than the 300-foot spacing standard, no operational or safety issues are anticipated due to the low number of vehicles using the driveway, and a deviation to the Code will be required.

The proposed Ridge development will have one access to E. Main Street. E. Main Street is classified as a statewide highway with a posted speed of 35 mph adjacent to the project site. The access spacing standard for a roadway of this type is 500 feet. The proposed driveway to E. Main Street would be approximately 700 feet east, and 1,150 feet west of the nearest driveways, complying with the spacing standard.

INTERNAL SITE CIRCULATION

The proposed site plan for Ironwood Estates (shown earlier in Figure 1) shows two connections to Valley View Drive serving Phase 2, and one connection to Government Entry Road serving Phase 3. These roadways will provide access to residential lots. The proposed roadways will provide adequate circulation to the surrounding existing roadway network, and internally within the site.

The proposed site will provide streets with a 25-foot paved width, allowing for two 10-foot travel lanes for the circulation of vehicle traffic and a 5-foot width for pedestrians to walk along the shoulder. Bicyclists will share the roadways with motor vehicles along the internal local streets. The proposed internal pedestrian and bicycle facilities are adequate for the site given the low traffic volumes and speeds expected.

The proposed site plan for The Ridge (shown earlier in Figure 2) shows one connection to E. Main Street serving Phase 1, and one additional connection to SE Hillcrest Road serving the future Phase. These roadways will provide access to residential lots. The proposed roadways will provide adequate circulation to the surrounding existing roadway network, and internally within the site.

The proposed site will provide streets with a 25-foot paved width, allowing for two 10-foot travel lanes for the circulation of vehicle traffic and a 5-foot width for pedestrians to walk along the shoulder. Bicyclists will share the roadways with motor vehicles along the internal local streets. The

⁴ John Day Transportation System Plan

proposed internal pedestrian and bicycle facilities are adequate for the site given the low traffic volumes and speeds expected.

PLANNING HORIZONS

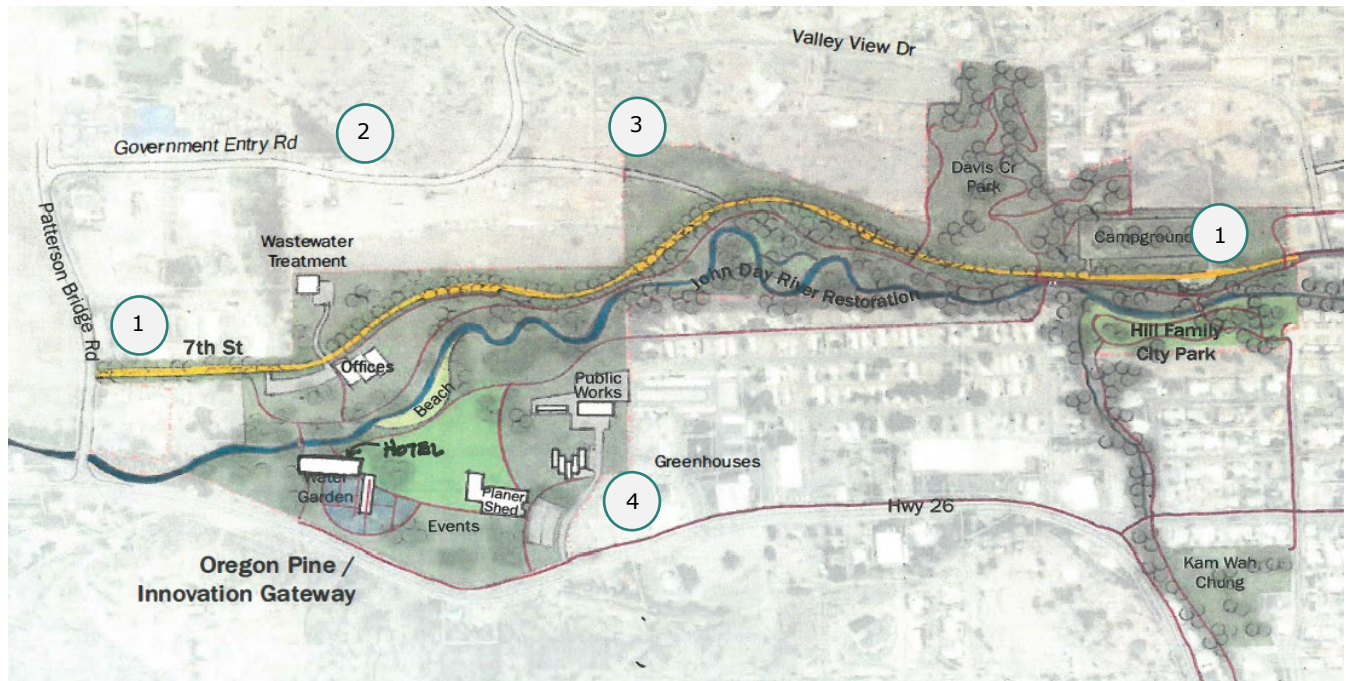
The planning horizon years selected for analysis are 2023 and 2025, which represent the expected year of build-out and occupancy for the proposed projects. Four scenarios were evaluated to allow for the identification of capacity constraints associated with proposed project, including:

- **2023 Background Conditions** – Existing traffic volumes plus background traffic growth.
- **2023 Project Conditions** – Existing traffic volumes plus background traffic growth, with the added traffic associated with the proposed project (Ironwood Estates Phase 2 and The Ridge Phase 1).
- **2025 Background Conditions** – Existing traffic volumes plus background traffic growth.
- **2025 Project Conditions** – Existing traffic volumes plus background traffic growth, with the added traffic associated with the proposed project (Ironwood Estates Phase 3 and The Ridge Phase 2).

An additional sensitivity option was tested for the 2025 Project Conditions Scenario that assumed full build-out of the Innovation Gateway Area site and associated transportation network improvements. This scenario includes the proposed Ironwood Estates and The Ridge projects, a hotel and conference center, offices, a wastewater treatment plant, parks and open space and a campground north of the John Day river, and parks and open space, public works facility and greenhouses south of the river. The sensitivity scenario also includes the following improvements that are not associated with the currently proposed project (see Figure 3):

- 1) 7th Street extension from Bridge Street to Patterson Bridge Road
- 2) Government Entry Road construction from Patterson Bridge Road to Valley View Drive
- 3) Gateway Drive construction from 7th Street to Government Entry Road
- 4) Johnson Drive construction north of W Main Street
- 5) 7th Street east extension and 3rd Avenue Bridge across the John Day River

FIGURE 3: IMPROVEMENTS ASSUMED WITH SENSITIVITY SCENARIO



BACKGROUND TRAFFIC

In addition to the trips generated from the proposed project, a half percent background traffic growth rate was applied to existing volumes to represent traffic volumes in 2023 and 2025. Although traffic volumes along W. Main Street adjacent to the project site have been steady or even declining slightly in recent years (see Table 6), as a conservative approach the background traffic growth rate would cover any in-process developments that could potentially build-out and increase traffic volumes before the completion of the proposed projects in 2023 and 2025.

TABLE 6: VOLUME DATA ALONG MAIN STREET

LOCATION	YEAR	AADT*
MAIN STREET (US 26) MILE POINT 161.30	2011	4,500
	2019	4,100
ANNUAL GROWTH RATE (2011 TO 2019)		-1.1%

*Source: ODOT Transportation Volume Tables, 2011 and 2018

TRIP GENERATION

Trip generation is the method used to estimate the number of vehicles that are added to the surrounding roadway network as a result of proposed project. The trip generations for the proposed projects were estimated using the Single-Family Detached Housing (ITE Code 210) and Recreational Community Center (ITE Code 495) land uses as reported by the Institute of Transportation Engineers (ITE)⁵.

Table 7 summarizes the expected trip generation for each phase of each proposed project. As shown, the proposed sites are expected to generate approximately 307 (192 in, 115 out) p.m. peak hour trips.

⁵ *Trip Generation Manual*, Institute of Transportation Engineers, 10th Edition.

TABLE 7: TRIP GENERATION FOR THE PROPOSED PROJECTS

LAND USE	TRIP GENERATION SOURCE	LAND USE SIZE	PM PEAK HOUR		
			IN	OUT	TOTAL
IRONWOOD ESTATES PHASE 2					
SINGLE-FAMILY DETACHED HOUSING	ITE Code 210	17 units	11	6	17
IRONWOOD ESTATES PHASE 3					
SINGLE-FAMILY DETACHED HOUSING	ITE Code 210	56 units	34	21	55
RECREATIONAL COMMUNITY CENTER	ITE Code 495	2,500 sq. ft.	3	3	6
THE RIDGE PHASE 1					
SINGLE-FAMILY DETACHED HOUSING	ITE Code 210	11 units	7	4	11
THE RIDGE PHASE 2					
SINGLE-FAMILY DETACHED HOUSING	ITE Code 210	221 units	137	81	218
Total Proposed Project Trips			192	115	307

TRIP GENERATION FOR SENSITIVITY SCENARIO

The estimated trip generation for the Sensitivity Scenario was obtained from the John Day Innovation Gateway Area Plan⁶. Overall, the build-out of the proposed land use assumed for the Innovation Gateway Area is expected to generate about 197 (90 in, 107 out) p.m. peak hour trips (see Table 8).

⁶ John Day Gateway Transportation Impact Analysis. DKS Associates, March 2020.

TABLE 8: TRIP GENERATION FOR SENSITIVIY SCENARIO

LAND USE	TRIP GENERATION SOURCE	LAND USE SIZE	PM PEAK HOUR		
			IN	OUT	TOTAL
HOTEL	ITE- Hotel land use (ITE Code 310)	60 rooms	18	18	36
CONFERENCE CENTER	Based on space planning practices, auto occupancy rates and arrival and departure patterns	6,500 square feet	38	25	63
OFFICE	ITE- General Office Building (ITE Code 710)	42,000 square feet	7	41	48
PUBLIC WORKS FACILITY	ITE- Small Office Building (ITE Code 712)	7 employees	3	5	8
PARKS AND OPEN SPACES (I.E., PAVILION, LAWN, OPEN SPACE, BEACH, TRAILS, WATER GARDEN, GREENHOUSES)	ITE- Public Park (ITE Code 411)	90 acres	15	13	28
CAMPGROUND	ITE- Campground/ Recreation Vehicle Park (ITE Code 416)	50 campsites	9	5	14
TOTAL PROPOSED PROJECT TRIPS*			90	107	197

* Source: John Day Innovation Gateway Area Plan

TRIP DISTRIBUTION

Trip distribution involves estimating how project generated traffic will leave and arrive at the proposed site. The trip distribution was estimated based on regional population distribution and current traffic patterns. It is estimated that 20 percent of the traffic would originate or end from the west along W. Main Street, 30 percent from the east along W. Main Street and 50 percent from within John Day.

SECTION 4: FUTURE CONDITIONS

The following section summarizes the peak hour transportation operating conditions for the planning horizon years of 2023 and 2025. Future traffic operating conditions were analyzed at the study intersections to determine if the transportation network can support traffic generated by the proposed project. If intersection mobility standards are not met, then mitigations may be necessary to improve network performance.

2023 BACKGROUND CONDITIONS INTERSECTION OPERATIONS

Table 9 shows the future 2023 intersection operations at study intersections, without the proposed projects. As shown, the background traffic growth is expected to have little impact on traffic operations. All study intersections are expected to operate with a v/c ratio of 0.19 or better.

TABLE 9: 2023 BACKGROUND CONDITIONS STUDY INTERSECTION OPERATIONS

INTERSECTION	MOBILITY STANDARD	DELAY	LOS	V/C
W. MAIN STREET / PATTERSON BRIDGE ROAD		13	A/B	0.18
W. MAIN STREET / NW 3RD AVENUE	W. Main Street: 0.85 V/C;	11	A/B	0.10
E. MAIN STREET / NE 3RD AVENUE	Minor: Approaches: 0.95 V/C	11	A/B	0.19
E. MAIN STREET / THE RIDGE ACCESS		-	-	-

v/c = Volume-to-Capacity Ratio of Worst Movement

Delay = Average Intersection Delay (sec.) of Worst Approach

LOS = Level of Service of Major Street/Minor Street

2023 PROJECT CONDITIONS INTERSECTION OPERATIONS

The 2023 project conditions peak hour operations at study intersection are shown in Table 10. As shown, the added traffic associated with the proposed projects (Ironwood Phase 2 and The Ridge Phase 1) is expected to have little impact on traffic operations when compared to the background conditions without the project (see Table 9 earlier in this document). All study intersections are still expected to operate with a v/c ratio of 0.19 or better.

TABLE 10: 2023 PROJECT CONDITIONS STUDY INTERSECTION OPERATIONS

INTERSECTION	MOBILITY STANDARD	DELAY	LOS	V/C
W. MAIN STREET / PATTERSON BRIDGE ROAD		14	A/B	0.19
W. MAIN STREET / NW 3RD AVENUE	W. Main Street: 0.85 V/C;	11	A/B	0.10
E. MAIN STREET / NE 3RD AVENUE	Minor: Approaches: 0.95 V/C	11	A/B	0.19
E. MAIN STREET / THE RIDGE ACCESS		11	A/B	0.17

v/c = Volume-to-Capacity Ratio of Worst Movement

Delay = Average Intersection Delay (sec.) of Worst Approach

LOS = Level of Service of Major Street/Minor Street

2025 BACKGROUND CONDITIONS INTERSECTION OPERATIONS

Table 11 shows the future 2025 intersection operations at study intersections, without the Phase 2 (The Ridge) and 3 (Ironwood Estates) proposed projects. As shown, the background traffic growth is expected to have little impact on traffic operations. All study intersections are expected to operate with a v/c ratio of 0.20 or better.

TABLE 11: 2025 BACKGROUND CONDITIONS STUDY INTERSECTION OPERATIONS

INTERSECTION	MOBILITY STANDARD	DELAY	LOS	V/C
W. MAIN STREET / PATTERSON BRIDGE ROAD		14	A/B	0.19
W. MAIN STREET / NW 3RD AVENUE	W. Main Street: 0.85 V/C;	11	A/B	0.10
E. MAIN STREET / NE 3RD AVENUE	Minor: Approaches: 0.95 V/C	11	A/B	0.20
E. MAIN STREET / THE RIDGE ACCESS		11	A/B	0.17

v/c = Volume-to-Capacity Ratio of Worst Movement

Delay = Average Intersection Delay (sec.) of Worst Approach

LOS = Level of Service of Major Street/Minor Street

2025 PROJECT CONDITIONS INTERSECTION OPERATIONS

The 2025 project conditions peak hour operations at study intersection are shown in Table 12. As shown, the added traffic associated with the proposed projects (Ironwood Phase 3 and The Ridge Phase 2) is expected to have little impact on traffic operations when compared to the background conditions without the project (see Table 11 earlier in this document). All study intersections are still expected to operate with a v/c ratio of 0.33 or better.

TABLE 12: 2025 PROJECT CONDITIONS STUDY INTERSECTION OPERATIONS

INTERSECTION	MOBILITY STANDARD	DELAY	LOS	V/C
W. MAIN STREET / PATTERSON BRIDGE ROAD		19	A/C	0.33
W. MAIN STREET / NW 3RD AVENUE	W. Main Street: 0.85 V/C;	17	A/C	0.27
E. MAIN STREET / NE 3RD AVENUE	Minor: Approaches: 0.95 V/C	13	A/B	0.27
E. MAIN STREET / THE RIDGE ACCESS		15	A/C	0.25

v/c = Volume-to-Capacity Ratio of Worst Movement

Delay = Average Intersection Delay (sec.) of Worst Approach

LOS = Level of Service of Major Street/Minor Street

INNOVATION GATEWAY AREA SENSITIVITY SCENARIO

To ensure the future roadway network can accommodate the expected growth from the proposed Ironwood Estates (Phase 2 and 3) and The Ridge (Phase 1 and 2) developments, in addition to the potential growth from the Innovation Gateway Area, the future volumes and study intersection operations under the 2025 Project Conditions were tested with the assumed full build-out of these areas and associated transportation network improvements (see the summary of improvements earlier in this document).

As shown in Table 13, the traffic associated with the assumed full build-out of the Innovation Gateway Area site and rerouted traffic associated with the transportation network improvements is expected to have little impact on intersection operations when compared to the scenario without them. The change to study intersection operations is mostly a result of the additional trips associated with the full build-out of the Innovation Gateway Area site.

TABLE 13: 2025 PROJECT CONDITIONS STUDY INTERSECTION OPERATIONS

INTERSECTION	MOBILITY STANDARD	DELAY	LOS	V/C
W. MAIN STREET / PATTERSON BRIDGE ROAD		22	A/C	0.46
W. MAIN STREET / NW 3RD AVENUE	W. Main Street: 0.85 V/C;	18	A/C	0.29
E. MAIN STREET / NE 3RD AVENUE	Minor: Approaches: 0.95 V/C	13	A/B	0.28
E. MAIN STREET / THE RIDGE ACCESS		16	A/C	0.26

v/c = Volume-to-Capacity Ratio of Worst Movement

Delay = Average Intersection Delay (sec.) of Worst Approach

LOS = Level of Service of Major Street/Minor Street

SECTION 5: RECOMMENDATIONS

The proposed project will not have an impact to the study intersection operations based on projected growth. However, a few improvements are recommended to support the proposed project.

SITE ACCESS

The Ironwood Estates Phase 3 project has one proposed access to Government Entry Road. Although the proposed driveway would be located 150 feet closer than the 300-foot spacing standard, no operational or safety issues are anticipated due to the low number of vehicles using the driveway, and a deviation to the Code will be required. All other proposed site accesses meet minimum access spacing requirements.

SIGHT DISTANCE

Prior to occupancy, sight distance at the project driveway will need to be verified, documented, and stamped by a registered professional Civil or Traffic Engineer licensed in the State of Oregon.

PEDESTRIAN/BICYCLE IMPROVEMENTS

The proposed sites will provide streets with a 25-foot paved width, allowing for two 10-foot travel lanes for the circulation of vehicle traffic and a 5-foot width for pedestrians to walk along the shoulder. Bicyclists will share the roadways with motor vehicles along the internal local streets.

APPENDIX

CONTENTS

TRAFFIC COUNTS

ODOT CRASH DATA AND ANALYSIS

SYNCHRO HCM REPORTS

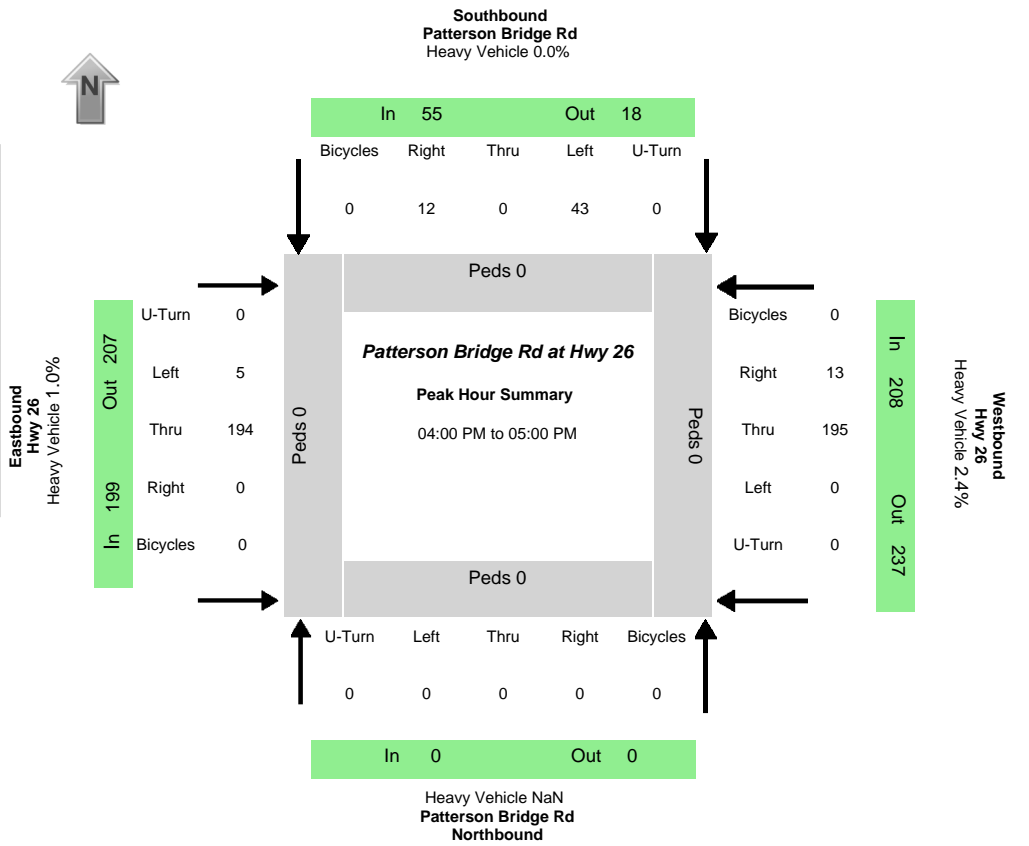


720 SW WASHINGTON STREET, SUITE 500, PORTLAND, OR 97205 • 503.243.3500 • DKSASSOCIATES.COM

TRAFFIC COUNTS

Data Provided by K-D-N.com 503-594-4224

N/S street	Patterson Bridge Rd
E/W street	Hwy 26
City, State	John Day OR
Site Notes	
Location	44.420258 - -118.974304
Start Date	Tuesday, December 17, 2019
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:00:00 PM
Peak 15 Min Start	04:00:00 PM
PHF (15-Min Int)	0.70



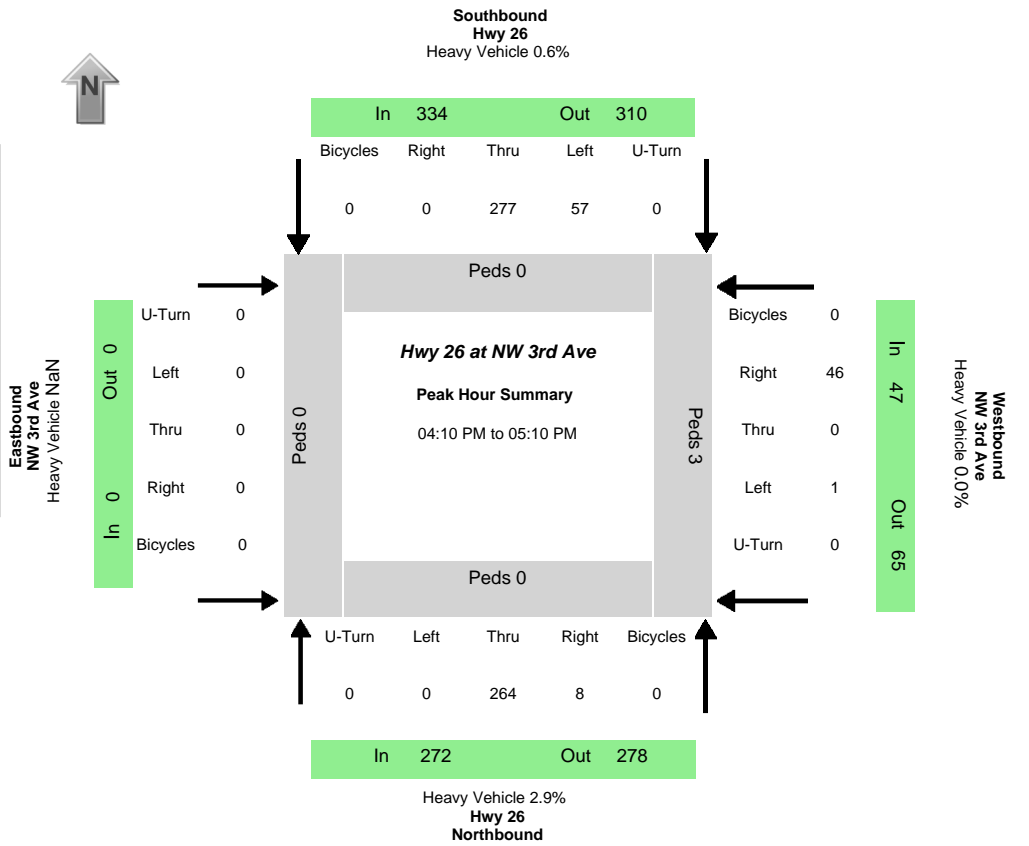
Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	43	0	12	0	5	194	0	0	0	195	13	0	0	55	199	208	0	18	207	237
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	2.1%	7.7%	0.0%	NaN	0.0%	1.0%	2.4%	NaN	5.6%	1.9%	0.8%

PHV - Bicycles														PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

All Vehicle Volumes																		
Time	Northbound Patterson Bridge Rd				Southbound Patterson Bridge Rd				Eastbound Hwy 26				Westbound Hwy 26				15 Min Sum	1 HR Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:00:00 PM	0	0	0	0	7	0	1	0	0	36	0	0	0	31	0	0		
04:05:00 PM	0	0	0	0	5	0	1	0	0	15	0	0	0	19	2	0		
04:10:00 PM	0	0	0	0	3	0	0	0	0	24	0	0	0	21	0	0	165	
04:15:00 PM	0	0	0	0	3	0	0	0	3	11	0	0	0	7	2	0	116	
04:20:00 PM	0	0	0	0	3	0	2	0	0	9	0	0	0	17	1	0	106	
04:25:00 PM	0	0	0	0	3	0	2	0	0	11	0	0	0	14	3	0	91	
04:30:00 PM	0	0	0	0	3	0	1	0	0	19	0	0	0	15	0	0	103	
04:35:00 PM	0	0	0	0	4	0	1	0	0	7	0	0	0	16	2	0	101	
04:40:00 PM	0	0	0	0	3	0	3	0	0	11	0	0	0	16	0	0	101	
04:45:00 PM	0	0	0	0	2	0	0	0	1	16	0	0	0	20	1	0	103	
04:50:00 PM	0	0	0	0	3	0	1	0	0	17	0	0	0	11	0	0	105	
04:55:00 PM	0	0	0	0	4	0	0	0	1	18	0	0	0	8	2	0	105	462
05:00:00 PM	0	0	0	0	6	0	0	0	1	17	0	0	0	13	1	0	103	425
05:05:00 PM	0	0	0	0	4	0	2	0	1	18	0	0	0	18	0	0	114	426
05:10:00 PM	0	0	0	0	2	0	1	0	1	9	0	0	0	14	0	0	108	405
05:15:00 PM	0	0	0	0	3	0	0	0	1	11	0	0	0	27	1	0	113	422
05:20:00 PM	0	0	0	0	2	0	1	0	0	10	0	0	0	18	1	0	102	422
05:25:00 PM	0	0	0	0	2	0	0	0	0	15	0	0	0	22	1	0	115	429
05:30:00 PM	0	0	0	0	1	0	1	0	1	10	0	0	0	5	1	0	91	410
05:35:00 PM	0	0	0	0	1	0	0	0	0	8	0	0	0	7	0	0	75	396
05:40:00 PM	0	0	0	0	1	0	0	0	0	11	0	0	0	10	1	0	58	386
05:45:00 PM	0	0	0	0	0	0	1	0	1	6	0	0	0	7	1	0	55	362
05:50:00 PM	0	0	0	0	0	0	1	0	0	9	0	0	0	9	0	0	58	349
05:55:00 PM	0	0	0	0	1	0	0	0	0	5	0	0	0	7	0	0	48	329

Data Provided by K-D-N.com 503-594-4224

N/S street	Hwy 26
E/W street	NW 3rd Ave
City, State	John Day OR
Site Notes	
Location	44.419346 - -118.958715
Start Date	Tuesday, December 17, 2019
Start Time	04:00:00 PM
Weather	
Study ID #	
Peak Hour Start	04:10:00 PM
Peak 15 Min Start	04:55:00 PM
PHF (15-Min Int)	0.84



Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	264	8	0	57	277	0	0	0	0	0	0	1	0	46	0	272	334	0	47	278	310	0	65
Percent Heavy Vehicles																							
0.0%	3.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	0.6%	NaN	0.0%	0.7%	2.6%	NaN	0.0%

PHV - Bicycles												PHV - Pedestrians									
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3

Time	Northbound Hwy 26				Southbound Hwy 26				Eastbound NW 3rd Ave				Westbound NW 3rd Ave				15 Min Sum	1 HR Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:00:00 PM	0	31	1	0	3	29	0	0	0	0	0	0	2	0	4	0		
04:05:00 PM	0	22	0	0	2	32	0	0	0	0	0	0	0	0	3	0		
04:10:00 PM	0	22	0	0	6	19	0	0	0	0	0	0	1	0	4	0	181	
04:15:00 PM	0	18	1	0	4	27	0	0	0	0	0	0	0	0	5	0	166	
04:20:00 PM	0	16	0	0	4	18	0	0	0	0	0	0	0	0	2	0	147	
04:25:00 PM	0	24	0	0	8	22	0	0	0	0	0	0	0	0	4	0	153	
04:30:00 PM	0	18	2	0	4	20	0	0	0	0	0	0	0	0	3	0	145	
04:35:00 PM	0	22	0	0	2	24	0	0	0	0	0	0	0	0	7	0	160	
04:40:00 PM	0	23	1	0	5	16	0	0	0	0	0	0	0	0	3	0	150	
04:45:00 PM	0	28	0	0	3	16	0	0	0	0	0	0	0	0	3	0	153	
04:50:00 PM	0	19	1	0	4	27	0	0	0	0	0	0	0	0	3	0	152	
04:55:00 PM	0	28	0	0	4	28	0	0	0	0	0	0	0	0	2	0	166	650
05:00:00 PM	0	18	0	0	3	32	0	0	0	0	0	0	0	0	3	0	172	636
05:05:00 PM	0	28	3	0	10	28	0	0	0	0	0	0	0	0	7	0	194	653
05:10:00 PM	0	12	0	0	4	20	0	0	0	0	0	0	0	0	5	0	173	642
05:15:00 PM	0	25	2	0	7	18	0	0	0	0	0	0	0	0	2	0	171	641
05:20:00 PM	0	19	0	0	3	20	0	0	0	0	0	0	0	0	6	0	143	649
05:25:00 PM	0	21	0	0	5	18	0	0	0	0	0	0	1	0	4	0	151	640
05:30:00 PM	0	12	0	0	6	22	0	0	0	0	0	0	0	0	1	0	138	634
05:35:00 PM	0	14	0	0	7	18	0	0	0	0	0	0	0	0	3	0	132	621
05:40:00 PM	0	16	1	0	2	19	0	0	0	0	0	0	0	0	3	0	124	614
05:45:00 PM	0	13	0	0	5	12	0	0	0	0	0	0	0	0	3	0	116	597
05:50:00 PM	0	13	0	0	2	15	0	0	0	0	0	0	0	0	0	0	104	573
05:55:00 PM	1	14	0	0	1	12	0	0	0	0	0	0	0	0	1	0	92	540

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

Patterson Bridge Rd north of Hwy 26
 Date Start: 12/17/2019
 Latitude: 44' 25.2436 North
 Longitude: 118' 58.4583 West

Start Time	12/18/2019 Wed	SB	NB	Combined Total	
12:00 AM		1	1	2	█
01:00		1	3	4	█
02:00		3	5	8	█
03:00		4	3	7	█
04:00		8	2	10	█
05:00		2	13	15	█
06:00		8	53	61	█
07:00		19	45	64	█
08:00		23	26	49	█
09:00		27	26	53	█
10:00		34	32	66	█
11:00		51	36	87	█
12:00 PM		38	47	85	█
01:00		35	44	79	█
02:00		35	28	63	█
03:00		44	34	78	█
04:00		66	34	100	█
05:00		35	12	47	█
06:00		6	4	10	█
07:00		2	0	2	█
08:00		2	1	3	█
09:00		0	2	2	█
10:00		2	0	2	█
11:00		0	1	1	█
Total		446	452	898	
Percent		49.7%	50.3%		

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

Patterson Bridge Rd north of Hwy 26
 Date Start: 12/17/2019
 Latitude: 44' 25.2436 North
 Longitude: 118' 58.4583 West

Start Time	12/19/2019 Thu	SB	NB	Combined Total	
12:00 AM		1	1	2	█
01:00		1	2	3	█
02:00		5	3	8	██
03:00		3	0	3	█
04:00		2	1	3	█
05:00		9	20	29	██████████
06:00		10	46	56	██████████████████
07:00		21	52	73	██████████████████████
08:00		32	32	64	██████████████████████
09:00		21	35	56	██████████████████████
10:00		7	15	22	██████
11:00		*	*	*	
12:00 PM		*	*	*	
01:00		*	*	*	
02:00		*	*	*	
03:00		*	*	*	
04:00		*	*	*	
05:00		*	*	*	
06:00		*	*	*	
07:00		*	*	*	
08:00		*	*	*	
09:00		*	*	*	
10:00		*	*	*	
11:00		*	*	*	
Total		112	207	319	
Percent		35.1%	64.9%		
Grand Total		677	716		
Percentage		48.6%	51.4%		
ADT		ADT 892		AADT 892	

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

Patterson Bridge Rd north of Hwy 26
 Date Start: 17-Dec-19
 Latitude: 44' 25.2436 North
 Longitude: 118' 58.4583 West

SB

Start Time	1	21	23	25	27	29	31	33	35	37	39	41	43	45	Total	85th Percent	95th Percent
	20	22	24	26	28	30	32	34	36	38	40	42	44	999			
12/17/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	34	12	7	2	0	0	0	0	0	0	0	0	0	0	55	22	23
17:00	27	7	3	1	1	0	0	0	0	0	0	0	0	0	39	21	24
18:00	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17	19
19:00	12	2	0	0	0	0	0	0	0	0	0	0	0	0	14	19	21
20:00	4	2	0	0	0	0	0	0	0	0	0	0	0	0	6	21	21
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	21	21
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	21	21
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
Total	80	25	10	3	1	0	0	0	0	0	0	0	0	0	119		
Percent	67.2%	21.0%	8.4%	2.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	16:00	16:00	16:00	16:00	17:00										16:00		
	34	12	7	2	1										55		

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

Patterson Bridge Rd north of Hwy 26
 Date Start: 17-Dec-19
 Latitude: 44' 25.2436 North
 Longitude: 118' 58.4583 West

SB

Start Time	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	999	Total	85th Percent	95th Percent
12/18/19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19	
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19	
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	23	23	
03:00	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	17	19	
04:00	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	19	21	
05:00	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	21	21	
06:00	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	19	23	
07:00	15	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	22	23	
08:00	17	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	21	22	
09:00	19	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	22	23	
10:00	23	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	21	23	
11:00	32	9	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	22	23	
12 PM	20	12	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	22	23
13:00	21	10	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	21	23
14:00	27	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	20	22
15:00	37	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	20	23
16:00	45	15	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	66	21	23
17:00	23	5	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	22	24
18:00	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	22	23
19:00	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	23	23	
20:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	21	21	
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
22:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	21	21	
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
Total	305	84	48	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	446			
Percent	68.4%	18.8%	10.8%	1.6%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak	11:00	11:00	11:00	10:00	11:00																							11:00		
Vol.	32	9	8	1	1																							51		
PM Peak	16:00	16:00	12:00	17:00	16:00																							16:00		
Vol.	45	15	5	2	1																							66		

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

Patterson Bridge Rd north of Hwy 26
 Date Start: 17-Dec-19
 Latitude: 44' 25.2436 North
 Longitude: 118' 58.4583 West

SB

Start Time	1	21	23	25	27	29	31	33	35	37	39	41	43	45	Total	85th Percent	95th Percent
	20	22	24	26	28	30	32	34	36	38	40	42	44	999			
12/19/19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19
02:00	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	17	19
03:00	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	17	19
04:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	17	19
05:00	8	1	0	0	0	0	0	0	0	0	0	0	0	0	9	19	21
06:00	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	17	19
07:00	19	2	0	0	0	0	0	0	0	0	0	0	0	0	21	18	20
08:00	26	3	2	0	1	0	0	0	0	0	0	0	0	0	32	20	23
09:00	14	3	4	0	0	0	0	0	0	0	0	0	0	0	21	22	23
10:00	5	1	0	1	0	0	0	0	0	0	0	0	0	0	7	21	25
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	94	10	6	1	1	0	0	0	0	0	0	0	0	0	112		
Percent	83.9%	8.9%	5.4%	0.9%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	08:00	09:00	10:00	08:00											08:00	
Vol.	26	3	4	1	1											32	
PM Peak																	
Vol.																	
Grand Total	479	119	64	11	4	0	0	0	0	0	0	0	0	0	677		
Percent	70.8%	17.6%	9.5%	1.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 4 MPH
 50th Percentile : 14 MPH
 85th Percentile : 21 MPH
 95th Percentile : 23 MPH

Statistics
 10 MPH Pace Speed : 15-24 MPH
 Number in Pace : 327
 Percent in Pace : 48.3%
 Number of Vehicles > 25 MPH : 9
 Percent of Vehicles > 25 MPH : 1.4%
 Mean Speed(Average) : 14 MPH

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

Patterson Bridge Rd north of Hwy 26
 Date Start: 17-Dec-19
 Latitude: 44' 25.2436 North
 Longitude: 118' 58.4583 West

NB

Start Time	1	21	23	25	27	29	31	33	35	37	39	41	43	45	Total	85th Percent	95th Percent
	20	22	24	26	28	30	32	34	36	38	40	42	44	999			
12/17/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	13	5	3	1	1	0	0	0	0	0	0	0	0	0	23	23	25
17:00	11	3	1	1	0	0	0	0	0	0	0	0	0	0	16	21	24
18:00	6	0	2	0	0	0	0	0	0	0	0	0	0	0	8	22	23
19:00	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	17	19
20:00	0	1	1	1	0	0	0	0	0	0	0	0	0	0	3	25	25
21:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
22:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	21	21
Total	36	10	7	3	1	0	0	0	0	0	0	0	0	0	57		
Percent	63.2%	17.5%	12.3%	5.3%	1.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	16:00 13	16:00 5	16:00 3	16:00 1	16:00 1										16:00 23		

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

Patterson Bridge Rd north of Hwy 26
 Date Start: 17-Dec-19
 Latitude: 44' 25.2436 North
 Longitude: 118' 58.4583 West

NB

Start Time	1	21	23	25	27	29	31	33	35	37	39	41	43	45	Total	85th Percent	95th Percent
	20	22	24	26	28	30	32	34	36	38	40	42	44	999			
12/19/19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19
01:00	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	17	19
02:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	3	23	23
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19
05:00	14	3	3	0	0	0	0	0	0	0	0	0	0	0	20	22	23
06:00	25	14	3	2	2	0	0	0	0	0	0	0	0	0	46	22	25
07:00	30	11	10	1	0	0	0	0	0	0	0	0	0	0	52	22	23
08:00	19	9	4	0	0	0	0	0	0	0	0	0	0	0	32	21	23
09:00	25	7	3	0	0	0	0	0	0	0	0	0	0	0	35	21	22
10:00	11	2	0	1	1	0	0	0	0	0	0	0	0	0	15	21	26
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	130	46	24	4	3	0	0	0	0	0	0	0	0	0	207		
Percent	62.8%	22.2%	11.6%	1.9%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	07:00	06:00	07:00	06:00	06:00										07:00		
Vol.	30	14	10	2	2										52		
PM Peak																	
Vol.																	
Grand Total	446	151	76	29	12	2	0	0	0	0	0	0	0	0	716		
Percent	62.3%	21.1%	10.6%	4.1%	1.7%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 4 MPH
 50th Percentile : 16 MPH
 85th Percentile : 22 MPH
 95th Percentile : 24 MPH

Statistics
 10 MPH Pace Speed : 15-24 MPH
 Number in Pace : 361
 Percent in Pace : 50.4%
 Number of Vehicles > 25 MPH : 29
 Percent of Vehicles > 25 MPH : 4.0%
 Mean Speed(Average) : 15 MPH

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

NW Bridge St south of 7th
 Date Start: 12/17/2019
 Latitude: 44' 25.3402 North
 Longitude: 118' 57.2681 West

Start Time	12/18/2019 Wed	NB	SB	Combined Total	
12:00 AM		1	2	3	█
01:00		1	0	1	█
02:00		0	0	0	
03:00		1	0	1	█
04:00		3	2	5	█
05:00		1	3	4	█
06:00		8	14	22	█
07:00		7	28	35	█
08:00		13	57	70	█
09:00		21	31	52	█
10:00		38	35	73	█
11:00		35	41	76	█
12:00 PM		48	42	90	█
01:00		60	54	114	█
02:00		55	50	105	█
03:00		43	60	103	█
04:00		62	61	123	█
05:00		51	41	92	█
06:00		70	43	113	█
07:00		25	38	63	█
08:00		34	18	52	█
09:00		22	18	40	█
10:00		10	8	18	█
11:00		6	5	11	█
Total		615	651	1266	
Percent		48.6%	51.4%		

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

NW Bridge St south of 7th
 Date Start: 12/17/2019
 Latitude: 44' 25.3402 North
 Longitude: 118' 57.2681 West

Start Time	12/19/2019 Thu	NB	SB	Combined Total	
12:00 AM		1	1	2	█
01:00		1	0	1	█
02:00		1	0	1	█
03:00		1	3	4	█
04:00		1	0	1	█
05:00		1	1	2	█
06:00		10	17	27	██████████
07:00		5	24	29	██████████
08:00		20	69	89	████████████████████
09:00		34	39	73	██████████████████
10:00		30	50	80	██████████████████
11:00		21	20	41	██████████
12:00 PM		*	*	*	
01:00		*	*	*	
02:00		*	*	*	
03:00		*	*	*	
04:00		*	*	*	
05:00		*	*	*	
06:00		*	*	*	
07:00		*	*	*	
08:00		*	*	*	
09:00		*	*	*	
10:00		*	*	*	
11:00		*	*	*	
Total		126	224	350	
Percent		36.0%	64.0%		
Grand Total		956	1054		
Percentage		47.6%	52.4%		
ADT		ADT 1,272		AADT 1,272	

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

NW Bridge St south of 7th
 Date Start: 17-Dec-19
 Latitude: 44' 25.3402 North
 Longitude: 118' 57.2681 West

NB

Start Time	1	21	23	25	27	29	31	33	35	37	39	41	43	45	Total	85th Percent	95th Percent
12/17/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	40	7	1	0	0	0	0	0	0	0	0	0	0	0	48	20	21
18:00	43	14	4	1	0	1	0	0	0	0	0	0	0	0	63	21	23
19:00	19	11	6	2	0	0	0	0	0	0	0	0	0	0	38	22	24
20:00	22	4	1	1	0	0	0	0	0	0	0	0	0	0	28	20	23
21:00	15	7	2	1	0	0	0	0	0	0	0	0	0	0	25	21	23
22:00	8	1	2	0	0	0	0	0	0	0	0	0	0	0	11	22	23
23:00	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	21	21
Total	148	45	16	5	0	1	0	0	0	0	0	0	0	0	215		
Percent	68.8%	20.9%	7.4%	2.3%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	18:00	18:00	19:00	19:00		18:00									18:00		
	43	14	6	2		1									63		

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

NW Bridge St south of 7th
 Date Start: 17-Dec-19
 Latitude: 44' 25.3402 North
 Longitude: 118' 57.2681 West

NB

Start Time	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	999	Total	85th Percent	95th Percent
12/18/19	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	21	21	
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	23	23	
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
03:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	27	27	
04:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	23	23	
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19	
06:00	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	22	23	
07:00	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	21	23	
08:00	11	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	20	24	
09:00	20	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	17	19	
10:00	18	11	5	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	23	26	
11:00	24	6	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	21	25	
12 PM	21	14	8	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	23	25	
13:00	21	21	11	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	60	23	25	
14:00	32	9	10	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	23	24	
15:00	26	10	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	22	23	
16:00	43	11	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	62	21	23	
17:00	37	12	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	21	21	
18:00	45	14	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	70	22	23	
19:00	20	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	20	21	
20:00	21	5	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	22	23	
21:00	18	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	20	22	
22:00	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	18	21	
23:00	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	21	21	
Total	381	128	71	26	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	615			
Percent	62.0%	20.8%	11.5%	4.2%	1.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%				
AM Peak	11:00	10:00	10:00	11:00	03:00	10:00																						10:00		
Vol.	24	11	5	3	1	1																						38		
PM Peak	18:00	13:00	13:00	13:00	12:00																							18:00		
Vol.	45	21	11	5	2																							70		

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

NW Bridge St south of 7th
 Date Start: 17-Dec-19
 Latitude: 44' 25.3402 North
 Longitude: 118' 57.2681 West

NB

Start Time	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	999	Total	85th Percent	95th Percent
12/19/19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19	
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19	
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	23	23	
03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19	
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19	
05:00	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	21	21	
06:00	8	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	23	27	
07:00	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	21	21	
08:00	15	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	21	25	
09:00	20	9	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	21	24	
10:00	20	5	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	22	23	
11:00	16	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	21	22	
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	86	23	11	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126			
Percent	68.3%	18.3%	8.7%	2.4%	1.6%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%					
AM Peak	09:00	09:00	10:00	08:00	06:00	10:00																					09:00			
Vol.	20	9	4	2	1	1																					34			
PM Peak																														
Vol.																														
Grand Total	615	196	98	34	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	956			
Percent	64.3%	20.5%	10.3%	3.6%	0.9%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%					

15th Percentile : 4 MPH
 50th Percentile : 15 MPH
 85th Percentile : 22 MPH
 95th Percentile : 23 MPH

Statistics
 10 MPH Pace Speed : 15-24 MPH
 Number in Pace : 478
 Percent in Pace : 50.0%
 Number of Vehicles > 35 MPH : 0
 Percent of Vehicles > 35 MPH : 0.0%
 Mean Speed(Average) : 15 MPH

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

NW Bridge St south of 7th
 Date Start: 17-Dec-19
 Latitude: 44' 25.3402 North
 Longitude: 118' 57.2681 West

SB

Start Time	1	21	23	25	27	29	31	33	35	37	39	41	43	45	Total	85th Percent	95th Percent
	20	22	24	26	28	30	32	34	36	38	40	42	44	999			
12/17/19	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	32	9	1	0	1	0	0	0	0	0	0	0	0	0	43	21	21
18:00	40	6	4	0	0	0	0	0	0	0	0	0	0	0	50	20	22
19:00	25	4	3	1	0	1	0	0	0	0	0	0	0	0	34	21	24
20:00	15	1	0	0	0	0	0	0	0	0	0	0	0	0	16	18	20
21:00	17	3	5	1	0	0	0	0	0	0	0	0	0	0	26	22	23
22:00	3	1	1	1	0	0	0	0	0	0	0	0	0	0	6	24	25
23:00	2	2	0	0	0	0	0	0	0	0	0	0	0	0	4	21	21
Total	134	26	14	3	1	1	0	0	0	0	0	0	0	0	179		
Percent	74.9%	14.5%	7.8%	1.7%	0.6%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	18:00	17:00	21:00	19:00	17:00	19:00									18:00		
	40	9	5	1	1	1									50		

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

NW Bridge St south of 7th
 Date Start: 17-Dec-19
 Latitude: 44' 25.3402 North
 Longitude: 118' 57.2681 West

SB

Start Time	1	21	23	25	27	29	31	33	35	37	39	41	43	45	Total	85th Percent	95th Percent
	20	22	24	26	28	30	32	34	36	38	40	42	44	999			
12/18/19	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	21	21
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2	23	23
05:00	1	0	2	0	0	0	0	0	0	0	0	0	0	0	3	23	23
06:00	9	3	2	0	0	0	0	0	0	0	0	0	0	0	14	21	23
07:00	18	7	2	1	0	0	0	0	0	0	0	0	0	0	28	21	23
08:00	45	6	6	0	0	0	0	0	0	0	0	0	0	0	57	21	23
09:00	29	2	0	0	0	0	0	0	0	0	0	0	0	0	31	18	20
10:00	22	10	2	0	1	0	0	0	0	0	0	0	0	0	35	21	23
11:00	28	9	2	2	0	0	0	0	0	0	0	0	0	0	41	21	23
12 PM	24	13	3	2	0	0	0	0	0	0	0	0	0	0	42	21	23
13:00	31	13	10	0	0	0	0	0	0	0	0	0	0	0	54	22	23
14:00	36	8	4	2	0	0	0	0	0	0	0	0	0	0	50	21	23
15:00	47	12	0	1	0	0	0	0	0	0	0	0	0	0	60	20	21
16:00	50	8	3	0	0	0	0	0	0	0	0	0	0	0	61	20	21
17:00	28	11	2	0	0	0	0	0	0	0	0	0	0	0	41	21	21
18:00	30	11	2	0	0	0	0	0	0	0	0	0	0	0	43	21	21
19:00	29	6	3	0	0	0	0	0	0	0	0	0	0	0	38	21	22
20:00	13	2	2	1	0	0	0	0	0	0	0	0	0	0	18	22	24
21:00	14	2	2	0	0	0	0	0	0	0	0	0	0	0	18	21	23
22:00	5	2	1	0	0	0	0	0	0	0	0	0	0	0	8	21	23
23:00	3	1	0	0	0	0	1	0	0	0	0	0	0	0	5	30	31
Total	464	127	49	9	1	0	1	0	0	0	0	0	0	0	651		
Percent	71.3%	19.5%	7.5%	1.4%	0.2%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak	08:00	10:00	08:00	11:00	10:00										08:00		
Vol.	45	10	6	2	1										57		
PM Peak	16:00	12:00	13:00	12:00		23:00									16:00		
Vol.	50	13	10	2		1									61		

KEY DATA NETWORK

K-D-N.com
 Tualatin, OR 97062
 503-804-3294

NW Bridge St south of 7th
 Date Start: 17-Dec-19
 Latitude: 44' 25.3402 North
 Longitude: 118' 57.2681 West

SB

Start Time	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	999	Total	85th Percent	95th Percent
12/19/19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19	
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
03:00	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	23	23		
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
05:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	19		
06:00	11	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	21	23		
07:00	19	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	20	21		
08:00	51	13	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	21	22		
09:00	30	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	21	24		
10:00	36	11	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	21	22		
11:00	19	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	17	20		
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Total	170	38	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	224				
Percent	75.9%	17.0%	6.3%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%					
AM Peak	08:00	08:00	08:00	09:00														08:00												
Vol.	51	13	5	2														69												
PM Peak																														
Vol.																														
Grand Total	768	191	77	14	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1054				
Percent	72.9%	18.1%	7.3%	1.3%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%					

15th Percentile : 4 MPH
 50th Percentile : 13 MPH
 85th Percentile : 21 MPH
 95th Percentile : 23 MPH

Statistics
 10 MPH Pace Speed : 15-24 MPH
 Number in Pace : 498
 Percent in Pace : 47.2%
 Number of Vehicles > 35 MPH : 0
 Percent of Vehicles > 35 MPH : 0.0%
 Mean Speed(Average) : 14 MPH

ODOT CRASH DATA AND ANALYSIS

001 Crash ID	001 Crash Year	005 Crash Hour	009 Jurisdiction	014 Street Name	015 Intersecting Street Name	021 Collision Type	022 Crash Cause	024 Crash Severity Detail	026 Lighting	029 Traffic Control	035 Bike or Ped Flag	042 Crash Date	043 Crash Type	023 Crash Event	025 Crash Severity Categ	027 Road Surface	028 Weather	034 Road Character	045 Veh1 Type	046 Veh1 Striking Flag	049 Veh2 Type	071 Veh2 Striking Flag	072 Veh2 Hit Run Flag	073 Veh2 Speed Flag	074 Driver1 Acc	075 Driver1 Error
170255	2017	13P	Grant County	Marl	Patterson	REAR	TOD-CLOS	Possible Injury	DAY	UNKNOWN	Neither	10/27/2017 5-STOP	INI	INI	DRY	CLR	CURVE	PSNGR CAR	TRUE	PSNGR CAR	FALSE	FALSE	FALSE	FALSE	60	TOD-CLOSE
179493	2018	6A	Grant County	Marl	Patterson	TURN	NO-YIELD	Possible Injury	DAWN	UNKNOWN	Neither	4/4/2018 ANGL-OTH	INI	INI	DRY	CLR	ALLEY	PSNGR CAR	TRUE	PSNGR CAR	FALSE	FALSE	FALSE	49	NONE	
175762	2017	3P	John Day	W MAIN ST	N 3RD AVE	REAR	TOD-CLOS	POD	DAY	NONE	Neither	01/17/2017 5-STOP	PSNGR TOW	POD	DRY	CLR	STRAIGHT	PSNGR CAR	TRUE	PSNGR CAR	FALSE	FALSE	FALSE	0	NONE	

General & Site Information

Analyst:	DKS
Agency/Company:	
Date:	4/27/2021
Project Name:	John Day

Intersection Crash Data

Intersection	Intersection Type	Year					Total	Intersection
		2014	2015	2016	2017	2018		
W Main St/ Patterson Brid	Urban 3ST	0	0	0	1	1	2	1
W Main St./NW 3rd Ave.	Urban 3ST	0	0	0	0	0	0	2
E Main St./NE 3rd Ave.	Urban 3ST	0	0	0	1	0	1	3
							0	4
							0	5
							0	6
							0	7
							0	8
							0	9
							0	10
							0	11
							0	12
							0	13
							0	14
							0	15
							0	16
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
							0	
Total		0	0	0	2	1	3	

Intersection Population Type Crash Rate

Average Crash Rate per intersection type

Intersection Pop. Type	Sum of Crashes	Sum of 5-year MEV	Avg Crash Rate for Ref Pop.	INT in Pop
Rural 3SG	0	0		
Rural 3ST	0	0		
Rural 4SG	0	0		
Rural 4ST	0	0		
Urban 3ST	3	21	0.1455	3
Urban 3SG	0	0		
Urban 4ST	0	0		
Urban 4SG	0	0		

Critical Rate Calculation

Intersection	AADT Entering Intersection	5-year MEV	Crash Total	Intersection Population Type	Intersection Crash Rate	Reference Population Crash Rate	Critical Rate	Over Critical	APM Exhibit 4-1 Mean Crash Rate	Statewide Critical Rate	Over Statewide Critical	APM Exhibit 4-1 90th Percentile Rate	Over 90th
W Main St./ Patterson Brid	3,900	7.1	2	Urban 3ST	0.281	APM Exhibit 4-1			0.131	0.424	Under	0.293	Under
W Main St./NW 3rd Ave.	4,800	8.8	0	Urban 3ST	0.000	APM Exhibit 4-1			0.131	0.389	Under	0.293	Under
E Main St./NE 3rd Ave.	2,600	4.7	1	Urban 3ST	0.211	APM Exhibit 4-1			0.131	0.510	Under	0.293	Under

SYNCHRO HCM REPORTS

HCM 6th TWSC
 1: W. Main Street & Patterson Bridge Road

05/05/2021

Intersection

Int Delay, s/veh 1.8

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	5	195	195	15	45	15
Future Vol, veh/h	5	195	195	15	45	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	7	279	279	21	64	21

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	300	0	-	0	583	290
Stage 1	-	-	-	-	290	-
Stage 2	-	-	-	-	293	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1273	-	-	-	478	754
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	762	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1273	-	-	-	475	754
Mov Cap-2 Maneuver	-	-	-	-	475	-
Stage 1	-	-	-	-	759	-
Stage 2	-	-	-	-	762	-

Approach EB WB SB

HCM Control Delay, s	0.2	0	13.2
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1273	-	-	-	523
HCM Lane V/C Ratio	0.006	-	-	-	0.164
HCM Control Delay (s)	7.8	0	-	-	13.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

HCM 6th TWSC
2: W. Main Street & NW 3rd Avenue

05/05/2021

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	5	50	60	280	265	10
Future Vol, veh/h	5	50	60	280	265	10
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	0	3	0
Mvmt Flow	6	60	71	333	315	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	796	321	327	0	-	0
Stage 1	321	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	359	724	1238	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	339	724	1238	-	-	-
Mov Cap-2 Maneuver	339	-	-	-	-	-
Stage 1	698	-	-	-	-	-
Stage 2	630	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	11.1	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	656	1238
HCM Lane V/C Ratio	-	-	0.1	0.058
HCM Control Delay (s)	-	-	11.1	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

HCM 6th TWSC
 3: E. Main Street & NE 3rd Avenue

05/05/2021

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	25	260	260	25	10	25
Future Vol, veh/h	25	260	260	25	10	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	283	283	27	11	27

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	310	0	-	0	634 297
Stage 1	-	-	-	-	297 -
Stage 2	-	-	-	-	337 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1250	-	-	-	443 742
Stage 1	-	-	-	-	754 -
Stage 2	-	-	-	-	723 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1250	-	-	-	431 742
Mov Cap-2 Maneuver	-	-	-	-	431 -
Stage 1	-	-	-	-	734 -
Stage 2	-	-	-	-	723 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1250	-	-	-	615
HCM Lane V/C Ratio	0.022	-	-	-	0.062
HCM Control Delay (s)	7.9	0	-	-	11.2
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
 4: Mahogany Ridge Access & E. Main Street

05/05/2021

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	250	0	0	250	0	0
Future Vol, veh/h	250	0	0	250	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	272	0	0	272	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	272	0	544
Stage 1	-	-	-	-	272
Stage 2	-	-	-	-	272
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1291	-	500
Stage 1	-	-	-	-	774
Stage 2	-	-	-	-	774
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1291	-	500
Mov Cap-2 Maneuver	-	-	-	-	500
Stage 1	-	-	-	-	774
Stage 2	-	-	-	-	774

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1291	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

HCM 6th TWSC
 1: W. Main Street & Patterson Bridge Road

05/05/2021

Intersection

Int Delay, s/veh 1.8

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↔		↕	
Traffic Vol, veh/h	5	200	200	15	45	15
Future Vol, veh/h	5	200	200	15	45	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	7	286	286	21	64	21

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	307	0	-	0	597	297
Stage 1	-	-	-	-	297	-
Stage 2	-	-	-	-	300	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1265	-	-	-	469	747
Stage 1	-	-	-	-	758	-
Stage 2	-	-	-	-	756	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1265	-	-	-	466	747
Mov Cap-2 Maneuver	-	-	-	-	466	-
Stage 1	-	-	-	-	753	-
Stage 2	-	-	-	-	756	-

Approach EB WB SB

HCM Control Delay, s	0.2	0	13.4
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1265	-	-	-	514
HCM Lane V/C Ratio	0.006	-	-	-	0.167
HCM Control Delay (s)	7.9	0	-	-	13.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	5	50	60	285	270	10
Future Vol, veh/h	5	50	60	285	270	10
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	0	3	0
Mvmt Flow	6	60	71	339	321	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	808	327	333	0	-	0
Stage 1	327	-	-	-	-	-
Stage 2	481	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	353	719	1232	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	626	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	333	719	1232	-	-	-
Mov Cap-2 Maneuver	333	-	-	-	-	-
Stage 1	692	-	-	-	-	-
Stage 2	626	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	11.2	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	650	1232
HCM Lane V/C Ratio	-	-	0.101	0.058
HCM Control Delay (s)	-	-	11.2	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

HCM 6th TWSC
 3: E. Main Street & NE 3rd Avenue

05/05/2021

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	25	265	265	25	10	25
Future Vol, veh/h	25	265	265	25	10	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	288	288	27	11	27

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	315	0	-	0	644 302
Stage 1	-	-	-	-	302 -
Stage 2	-	-	-	-	342 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1245	-	-	-	437 738
Stage 1	-	-	-	-	750 -
Stage 2	-	-	-	-	719 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1245	-	-	-	426 738
Mov Cap-2 Maneuver	-	-	-	-	426 -
Stage 1	-	-	-	-	731 -
Stage 2	-	-	-	-	719 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1245	-	-	-	610
HCM Lane V/C Ratio	0.022	-	-	-	0.062
HCM Control Delay (s)	8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
 4: Mahogany Ridge Access & E. Main Street

05/05/2021

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	255	0	0	255	0	0
Future Vol, veh/h	255	0	0	255	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	277	0	0	277	0	0

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	277	0	554
Stage 1	-	-	-	-	277
Stage 2	-	-	-	-	277
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1286	-	493
Stage 1	-	-	-	-	770
Stage 2	-	-	-	-	770
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1286	-	493
Mov Cap-2 Maneuver	-	-	-	-	493
Stage 1	-	-	-	-	770
Stage 2	-	-	-	-	770

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	-	-	-	1286	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	-	-	-	0	-

HCM 6th TWSC
 1: W. Main Street & Patterson Bridge Road

05/05/2021

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	10	200	200	25	50	15
Future Vol, veh/h	10	200	200	25	50	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	14	286	286	36	71	21

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	322	0	0	618	304
Stage 1	-	-	-	304	-
Stage 2	-	-	-	314	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1249	-	-	456	740
Stage 1	-	-	-	753	-
Stage 2	-	-	-	745	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1249	-	-	450	740
Mov Cap-2 Maneuver	-	-	-	450	-
Stage 1	-	-	-	743	-
Stage 2	-	-	-	745	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.4	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1249	-	-	-	495
HCM Lane V/C Ratio	0.011	-	-	-	0.188
HCM Control Delay (s)	7.9	0	-	-	13.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	5	50	60	290	275	10
Future Vol, veh/h	5	50	60	290	275	10
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	0	3	0
Mvmt Flow	6	60	71	345	327	12

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	820	333	339	0	0
Stage 1	333	-	-	-	-
Stage 2	487	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-
Pot Cap-1 Maneuver	347	713	1226	-	-
Stage 1	731	-	-	-	-
Stage 2	622	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	327	713	1226	-	-
Mov Cap-2 Maneuver	327	-	-	-	-
Stage 1	689	-	-	-	-
Stage 2	622	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	11.2	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	644	1226
HCM Lane V/C Ratio	-	-	0.102	0.058
HCM Control Delay (s)	-	-	11.2	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	25	270	270	25	10	25
Future Vol, veh/h	25	270	270	25	10	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	293	293	27	11	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	320	0	654
Stage 1	-	-	307
Stage 2	-	-	347
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	1240	-	431
Stage 1	-	-	746
Stage 2	-	-	716
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1240	-	420
Mov Cap-2 Maneuver	-	-	420
Stage 1	-	-	727
Stage 2	-	-	716

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1240	-	-	-	604
HCM Lane V/C Ratio	0.022	-	-	-	0.063
HCM Control Delay (s)	8	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
4: Mahogany Ridge Access & E. Main Street

05/05/2021

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	260	5	0	260	5	5
Future Vol, veh/h	260	5	0	260	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	283	5	0	283	5	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	288	0	569 286
Stage 1	-	-	-	-	286 -
Stage 2	-	-	-	-	283 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1274	-	484 753
Stage 1	-	-	-	-	763 -
Stage 2	-	-	-	-	765 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1274	-	484 753
Mov Cap-2 Maneuver	-	-	-	-	484 -
Stage 1	-	-	-	-	763 -
Stage 2	-	-	-	-	765 -

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	589	-	-	1274	-
HCM Lane V/C Ratio	0.018	-	-	-	-
HCM Control Delay (s)	11.2	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
 1: W. Main Street & Patterson Bridge Road

05/05/2021

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	10	200	200	25	50	15
Future Vol, veh/h	10	200	200	25	50	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	14	286	286	36	71	21

Major/Minor

	Major1	Major2	Minor2		
Conflicting Flow All	322	0	0	618	304
Stage 1	-	-	-	304	-
Stage 2	-	-	-	314	-
Critical Hdwy	4.1	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	3.5	3.3
Pot Cap-1 Maneuver	1249	-	-	456	740
Stage 1	-	-	-	753	-
Stage 2	-	-	-	745	-
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	1249	-	-	450	740
Mov Cap-2 Maneuver	-	-	-	450	-
Stage 1	-	-	-	743	-
Stage 2	-	-	-	745	-

Approach

	EB	WB	SB
HCM Control Delay, s	0.4	0	13.9
HCM LOS			B

Minor Lane/Major Mvmt

	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1249	-	-	-	495
HCM Lane V/C Ratio	0.011	-	-	-	0.188
HCM Control Delay (s)	7.9	0	-	-	13.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.7

Intersection						
Int Delay, s/veh	1.6					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	5	50	60	295	280	10
Future Vol, veh/h	5	50	60	295	280	10
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	0	3	0
Mvmt Flow	6	60	71	351	333	12

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	832	339	345	0	-	0
Stage 1	339	-	-	-	-	-
Stage 2	493	-	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-	-
Pot Cap-1 Maneuver	342	708	1220	-	-	-
Stage 1	726	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	322	708	1220	-	-	-
Mov Cap-2 Maneuver	322	-	-	-	-	-
Stage 1	684	-	-	-	-	-
Stage 2	618	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	11.3	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	638	1220
HCM Lane V/C Ratio	-	-	0.103	0.059
HCM Control Delay (s)	-	-	11.3	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.2

Intersection

Int Delay, s/veh 1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	25	275	275	25	10	25
Future Vol, veh/h	25	275	275	25	10	25
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	299	299	27	11	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	326	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1234	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1234	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	11.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1234	-	-	-	598
HCM Lane V/C Ratio	0.022	-	-	-	0.064
HCM Control Delay (s)	8	0	-	-	11.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
 4: Mahogany Ridge Access & E. Main Street

05/05/2021

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	265	5	0	265	5	5
Future Vol, veh/h	265	5	0	265	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	288	5	0	288	5	5

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	293	0	579 291
Stage 1	-	-	-	-	291 -
Stage 2	-	-	-	-	288 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1269	-	477 748
Stage 1	-	-	-	-	759 -
Stage 2	-	-	-	-	761 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1269	-	477 748
Mov Cap-2 Maneuver	-	-	-	-	477 -
Stage 1	-	-	-	-	759 -
Stage 2	-	-	-	-	761 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	583	-	-	1269	-
HCM Lane V/C Ratio	0.019	-	-	-	-
HCM Control Delay (s)	11.3	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
 1: W. Main Street & Patterson Bridge Road

05/05/2021

Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	20	260	230	50	70	20
Future Vol, veh/h	20	260	230	50	70	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	29	371	329	71	100	29

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	400	0	794
Stage 1	-	-	365
Stage 2	-	-	429
Critical Hdwy	4.1	-	6.4
Critical Hdwy Stg 1	-	-	5.4
Critical Hdwy Stg 2	-	-	5.4
Follow-up Hdwy	2.2	-	3.5
Pot Cap-1 Maneuver	1170	-	360
Stage 1	-	-	707
Stage 2	-	-	661
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1170	-	349
Mov Cap-2 Maneuver	-	-	349
Stage 1	-	-	685
Stage 2	-	-	661

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	18.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1170	-	-	-	392
HCM Lane V/C Ratio	0.024	-	-	-	0.328
HCM Control Delay (s)	8.2	0	-	-	18.6
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	35	55	65	370	330	25
Future Vol, veh/h	35	55	65	370	330	25
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	0	3	0
Mvmt Flow	42	65	77	440	393	30

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	1002	408	423	0	0
Stage 1	408	-	-	-	-
Stage 2	594	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-
Pot Cap-1 Maneuver	271	648	1142	-	-
Stage 1	676	-	-	-	-
Stage 2	555	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	253	648	1142	-	-
Mov Cap-2 Maneuver	253	-	-	-	-
Stage 1	631	-	-	-	-
Stage 2	555	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	17.1	1.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	403	1142
HCM Lane V/C Ratio	-	-	0.266	0.068
HCM Control Delay (s)	-	-	17.1	8.4
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.1	0.2

HCM 6th TWSC
3: E. Main Street & NE 3rd Avenue

05/05/2021

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	30	375	335	35	10	30
Future Vol, veh/h	30	375	335	35	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	408	364	38	11	33

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	402	0	-	0	857 383
Stage 1	-	-	-	-	383 -
Stage 2	-	-	-	-	474 -
Critical Hdwy	4.12	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	2.218	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	1157	-	-	-	328 664
Stage 1	-	-	-	-	689 -
Stage 2	-	-	-	-	626 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1157	-	-	-	316 664
Mov Cap-2 Maneuver	-	-	-	-	316 -
Stage 1	-	-	-	-	664 -
Stage 2	-	-	-	-	626 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1157	-	-	-	521
HCM Lane V/C Ratio	0.028	-	-	-	0.083
HCM Control Delay (s)	8.2	0	-	-	12.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

HCM 6th TWSC
 4: Mahogany Ridge Access & E. Main Street

05/05/2021

Intersection						
Int Delay, s/veh	2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	275	115	25	280	60	30
Future Vol, veh/h	275	115	25	280	60	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	299	125	27	304	65	33

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	424	0	720
Stage 1	-	-	-	-	362
Stage 2	-	-	-	-	358
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1135	-	395
Stage 1	-	-	-	-	704
Stage 2	-	-	-	-	707
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1135	-	384
Mov Cap-2 Maneuver	-	-	-	-	384
Stage 1	-	-	-	-	704
Stage 2	-	-	-	-	686

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	15.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	450	-	-	1135	-
HCM Lane V/C Ratio	0.217	-	-	0.024	-
HCM Control Delay (s)	15.2	-	-	8.2	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.1	-

Intersection

Int Delay, s/veh 4.1

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	25	265	235	60	90	30
Future Vol, veh/h	25	265	235	60	90	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	36	379	336	86	129	43

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	422	0	-	0	830	379
Stage 1	-	-	-	-	379	-
Stage 2	-	-	-	-	451	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1148	-	-	-	343	672
Stage 1	-	-	-	-	696	-
Stage 2	-	-	-	-	646	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1148	-	-	-	329	672
Mov Cap-2 Maneuver	-	-	-	-	329	-
Stage 1	-	-	-	-	668	-
Stage 2	-	-	-	-	646	-

Approach EB WB SB

HCM Control Delay, s	0.7	0	22.3
HCM LOS			C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1148	-	-	-	377
HCM Lane V/C Ratio	0.031	-	-	-	0.455
HCM Control Delay (s)	8.2	0	-	-	22.3
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	2.3

Intersection						
Int Delay, s/veh	2.5					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Traffic Vol, veh/h	35	60	70	395	345	25
Future Vol, veh/h	35	60	70	395	345	25
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	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	0	0	1	0	3	0
Mvmt Flow	42	71	83	470	411	30

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	1062	426	441	0	0
Stage 1	426	-	-	-	-
Stage 2	636	-	-	-	-
Critical Hdwy	6.4	6.2	4.11	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	2.209	-	-
Pot Cap-1 Maneuver	250	633	1124	-	-
Stage 1	663	-	-	-	-
Stage 2	531	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	232	633	1124	-	-
Mov Cap-2 Maneuver	232	-	-	-	-
Stage 1	614	-	-	-	-
Stage 2	531	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s	18.1	1.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	387	1124
HCM Lane V/C Ratio	-	-	0.292	0.074
HCM Control Delay (s)	-	-	18.1	8.5
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	1.2	0.2

Intersection

Int Delay, s/veh 0.9

Movement EBL EBT WBT WBR SBL SBR

Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	30	400	350	35	10	30
Future Vol, veh/h	30	400	350	35	10	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	435	380	38	11	33

Major/Minor Major1 Major2 Minor2

Conflicting Flow All	418	0	-	0	900	399
Stage 1	-	-	-	-	399	-
Stage 2	-	-	-	-	501	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1141	-	-	-	309	651
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	609	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1141	-	-	-	297	651
Mov Cap-2 Maneuver	-	-	-	-	297	-
Stage 1	-	-	-	-	652	-
Stage 2	-	-	-	-	609	-

Approach EB WB SB

HCM Control Delay, s	0.6	0	12.9
HCM LOS			B

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1141	-	-	-	502
HCM Lane V/C Ratio	0.029	-	-	-	0.087
HCM Control Delay (s)	8.2	0	-	-	12.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

HCM 6th TWSC
4: Mahogany Ridge Access & E. Main Street

05/05/2021

Intersection

Int Delay, s/veh 2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	295	115	25	285	60	30
Future Vol, veh/h	295	115	25	285	60	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	321	125	27	310	65	33

Major/Minor

	Major1	Major2	Minor1		
Conflicting Flow All	0	0	446	0	748
Stage 1	-	-	-	-	384
Stage 2	-	-	-	-	364
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1114	-	380
Stage 1	-	-	-	-	688
Stage 2	-	-	-	-	703
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1114	-	369
Mov Cap-2 Maneuver	-	-	-	-	369
Stage 1	-	-	-	-	688
Stage 2	-	-	-	-	683

Approach

	EB	WB	NB
HCM Control Delay, s	0	0.7	15.7
HCM LOS			C

Minor Lane/Major Mvmt

	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	433	-	-	1114	-
HCM Lane V/C Ratio	0.226	-	-	0.024	-
HCM Control Delay (s)	15.7	-	-	8.3	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.1	-