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June 24, 2026

Project# 24995.20

To: Shana Olson and Kolson Shanks
City of Lebanon
925 Main Street
Lebanon, OR 97355

From: Matt Hughart, Chris Brehmer, PE, and Robert Olney

RE: Emerald Crossing – Traffic Impact Study

REGISTERED PROFESSIONAL ENGINEER 62836PE
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OREGON JULY 11, 2000 CHRISTOPHER LYNN BREHMER
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SUMMARY

The Conser Group is proposing the development of a new master planned residential neighborhood on the western edge of the City of Lebanon, Oregon, herein referred to as the Emerald Crossing development. This report presents a Traffic Impact Study supporting a proposed land use amendment for a portion of the development site that requires a zone change and a development-specific traffic/circulation analysis to support the formal residential master plan.

The following findings inform study recommendations:

- The City plans to design and construct a 12th Street extension from south of Kees Street to Walker Road/Stoltz Hill Road, a new connection and realignment of 12th Street to Stoltz Hill Road, and signalization of the Airport Road/12th Street intersection.
  - With these City-led projects in place, the study intersections are forecast to satisfy City of Lebanon operating standards during the weekday AM and PM peak hours under existing and future traffic conditions.
- No additional capacity-based mitigation needs were identified at the study intersections to support the Emerald Crossing development.

The following recommendations are identified for implementation in conjunction with site development, subject to City approval:

- The city-led 12th Street extension, the connection and realignment of 12th Street to Stoltz Hill Road, and signalization of the Airport Road/12th Street intersection projects should all be completed and open to public traffic before issuance of final plat or building permits for Emerald Crossing.
- At the proposed Collector Street intersection with 12th Street, it is recommended that the future eastbound and westbound approaches to 12th Street be stop controlled in accordance with City standards and the *Manual on Uniform Traffic Control Devices* (MUTCD).
- To confirm adequate sight lines at the Collector Street intersection with 12th Street, it is recommended that a final sight distance evaluation be performed post construction and prior to site occupancy.

Regardless of Emerald Crossing development, it is recommended that the City of Lebanon do the following:

- As opportunities allow, work with local property owners to obtain right-of-way (either through right-of-way dedication from redevelopment opportunities or right-of-way purchases) and continue to plan for the extension of Airway Road south of Airport Road. This Transportation System Plan identified project will provide additional north-south connectivity to the Emerald Crossing project and reduce future traffic demand at the Airport Road/12th Street intersection.
- As part of potential future property redevelopment, monitor opportunities to construct a separate eastbound right-turn lane at the Airport Road/12th Street intersection.

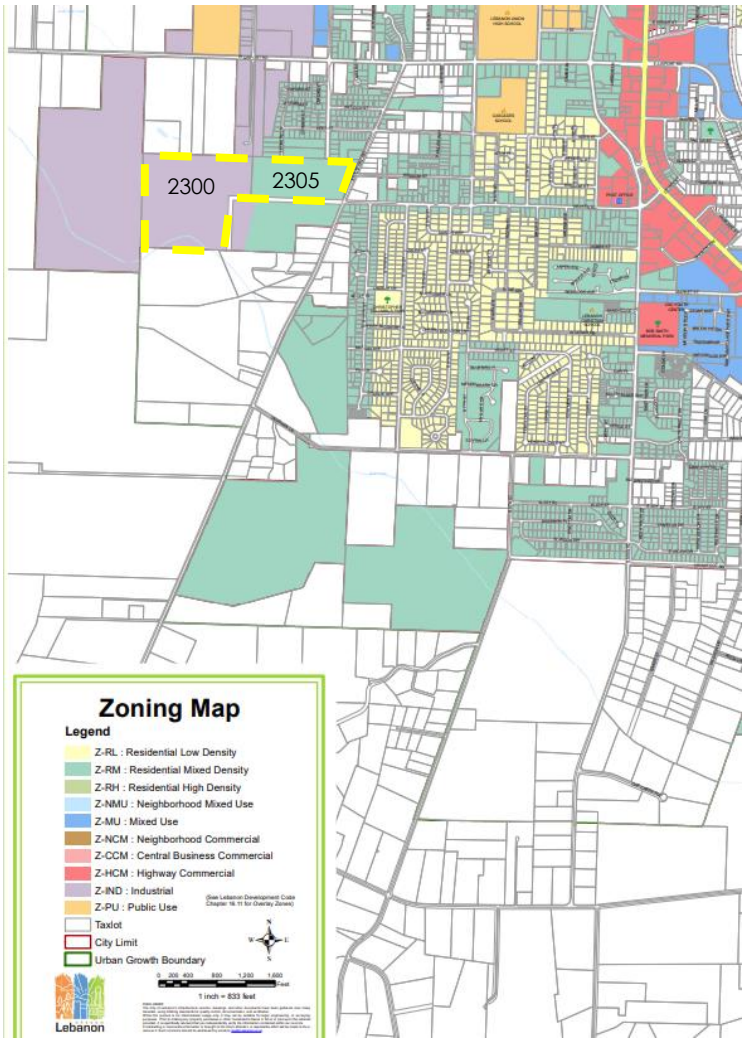
Additional details are provided herein.

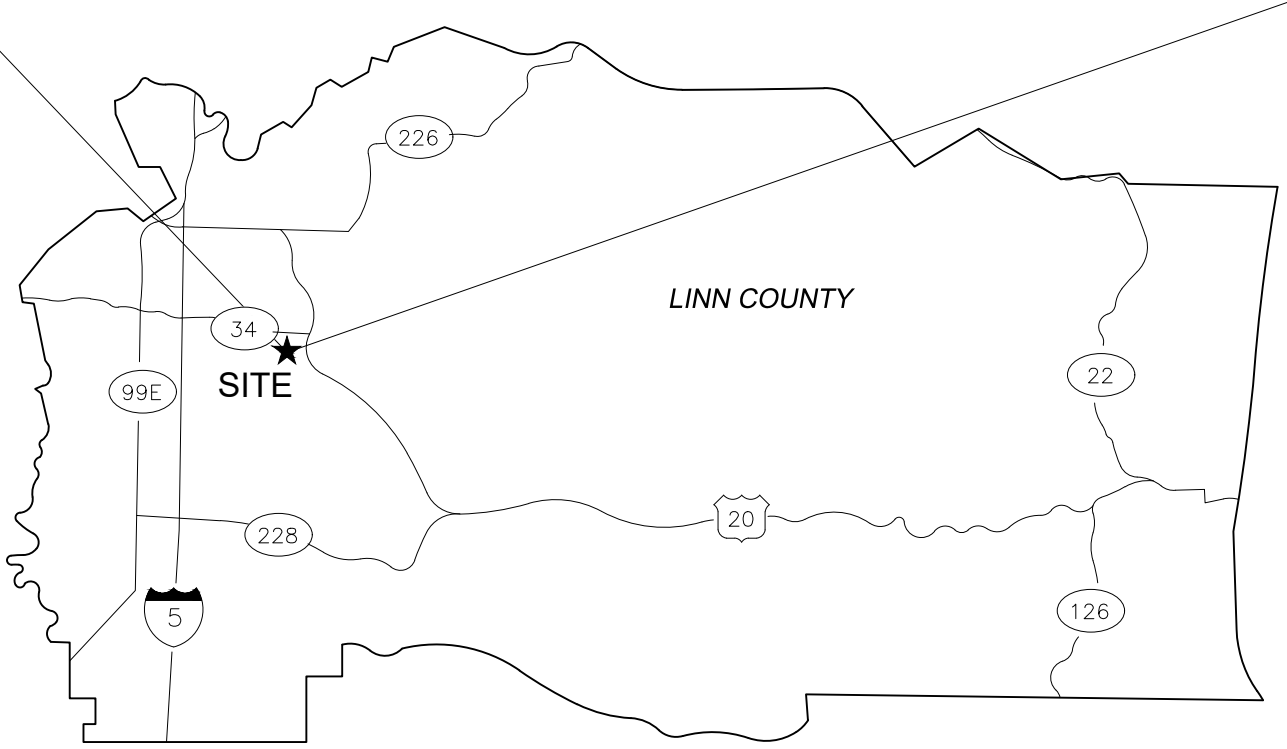
INTRODUCTION

Located at the western edge of Lebanon, the 57-acre site consists of Tax Lots 2300 and 2305 on Map 12S02W16 (See Exhibit 1). Tax Lot 2305 is zoned Residential Mixed Density (RM) while Tax Lot 2300 is zoned Industrial (IND). To support the proposed mixed-use development plan, the applicant proposes both a Comprehensive Plan Map Amendment to redesignate both Tax Lot 2300 and Tax Lot 2305 from RM and IND to MU – as well as a Zone Map Amendment to rezone the property from RM and IND zoning designations to MU zoning designation. The site vicinity is shown in Figure 1.

Modifications to existing zoning designations must be shown to meet the applicable criteria in Oregon Administrative Rule 660-012-0060, also known as the Transportation Planning Rule (TPR). Per the TPR, an analysis of whether the zone change has the potential to significantly affect a transportation facility must be conducted. The following report addresses the TPR requirements and the specific transportation-related impacts of the proposed residential master plan.

Exhibit 1 – Study Area (Yellow Dashed Line) Existing Zoning





Site Vicinity Map
Lebanon, Oregon

Figure
1

SCOPE OF THE REPORT

This analysis identifies the transportation-related impacts associated with the proposed Comprehensive Plan and Zoning Map Amendment as well as the subsequent master planned development. The study was prepared in accordance with scoping direction from City of Lebanon staff as well as the City of Lebanon Traffic Impact Study requirements.

COMPREHENSIVE PLAN AND ZONE MAP AMENDMENT

- Existing land use and transportation system conditions within the site vicinity;
- Review of regional traffic growth and planned transportation improvements identified in the City of Lebanon Transportation System Plan (TSP);
- Site trip generation estimates for reasonable worst-case development scenarios under the current and proposed study area zoning; and
- Assessment of zone change compliance with the TPR (OAR Section 660-12-060)

CONSER MASTER PLANNED RESIDENTIAL SUBDIVISION

- Subdivision buildout horizon year 2036 background traffic conditions during the weekday AM and PM peak periods, considering background growth and planned transportation improvements;
- Trip generation and distribution estimates for the proposed master planned development;
- Forecast year 2036 total traffic conditions during the weekday AM and PM peak period with build-out of the master planned development; and
- Development-specific mitigation recommendations.

Study intersections were identified in collaboration with City staff and a review of local and regional transportation infrastructure that could potentially be impacted by the rezone and subsequent residential development. Although proximate to the site, the Airport Road/Stoltz Hill Road intersection was excluded from the list of study intersections given the recent traffic control improvements (turn lane additions and signalization) at the intersection and anticipated limited development-related impacts.

The five study intersections identified were:

1. Stoltz Hill Road/Walker Road
2. Stoltz Hill Road/Kees Street
3. Stoltz Hill Road/Antioch Street
4. Airport Road/12th Street
5. 12th Street/Future Collector Street

Analysis Methodology

All operational analyses described in this report were performed in accordance with the procedures stated in the *Highway Capacity Manual* (*HCM*). The 7th Edition of the *HCM* was used to assess study intersection operations during the peak 15 minutes of the peak hour. The peak hour factor (PHF) was derived from the existing raw manual turning movement counts and applied uniformly over each scenario. The operations analysis presented in this report was completed using PTV Vistro 2026 analysis software.

City of Lebanon Mobility Standards

The City of Lebanon has adopted the following mobility standards for all city-owned/maintained intersections.

- **Signalized, All-way Stop, or Roundabout Controlled Intersections**: The intersection as a whole must operate with a Level of Service (LOS) "E" or better and a volume to capacity (v/c) ratio not higher than 1.00 during the highest one-hour period on an average weekday (typically, but not always the evening peak period between 4 PM and 6 PM during the spring or fall).
- **Two-way Stop and Yield Controlled Intersections**: All intersection approaches during the highest one-hour period on an average weekday (typically, but not always the evening peak period between 4 PM and 6 PM during the spring or fall) shall operate with a v/c ratio not greater than 0.90.

EXISTING CONDITIONS

This section summarizes the existing characteristics of the transportation system and adjacent land uses in the vicinity of the proposed development, including an inventory of the existing multimodal transportation facilities and options, a summary of recent crash history, and an evaluation of existing intersection operations for motor vehicles at the study intersections.

Site Conditions and Adjacent Land Uses

The proposed rezone and Emerald Crossing development site is located at the southwestern corner of the city, west of the Stoltz Hill Road corridor and several blocks south of the Airport Road corridor. The eastern half of the site is zoned (and carries a Comprehensive Plan designation of) Residential Mixed Density, while the western half is zoned (and carries Comprehensive Plan designation of) Industrial. Apartments and residential subdivisions lie immediately north of the site, with undeveloped land and farmland lying to the west and southwest. The Community Bible Church is located adjacent to the southeastern corner of the development site.

Transportation Facilities

Table 1 summarizes the characteristics of roadways within the site vicinity. **Figure 2** illustrates the existing lane configurations and traffic control devices at the study intersections.[1]

[1] In reviewing Figure 2, note that the northbound approach at Airport Road/12th Street has a short, flared through-right lane. However, the length of this lane limits its usage to a single vehicle; therefore, this approach was modeled with a single shared left-through-right lane to represent operations on the approach.

Table 1 – Existing Transportation Facilities

Roadway	Functional Classification[1]	Number of Motor Vehicle Lanes	Posted Speed (mph)	Sidewalks Provided?	Striped Bicycle Lanes Provided?	On-Street Parking Allowed?
Airport Road	Minor Arterial	3 lanes	25-35	Partial	Yes	No
12th Street	Minor Arterial	3 lanes	25-35	Partial	Yes	No
Antioch Street	Local	2 lanes	25	Yes	No	Yes
Kees Street	Local	2 lanes	25	Yes	No	Yes
Walker Road	Collector	2 lanes	25	Yes	Yes	North Side
Stoltz Hill Road	Minor Arterial (south of Walker Road) Collector (north of Walker Road	2 lanes	35	Partial	No	No

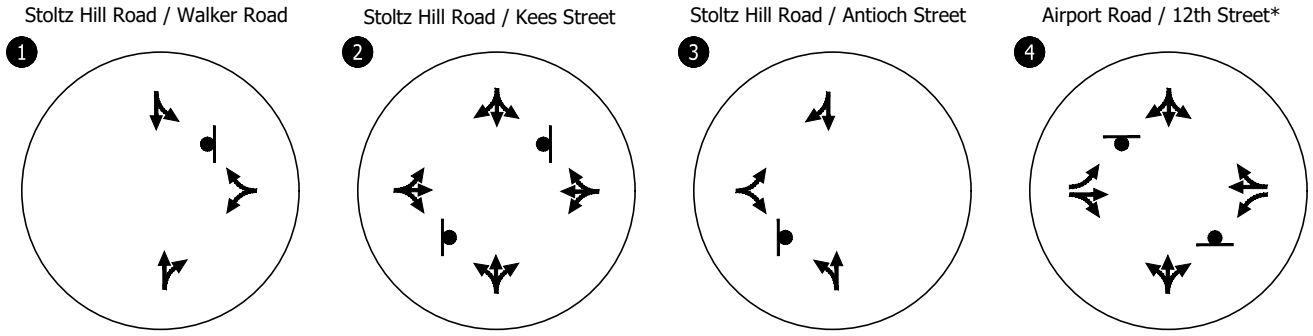
[1] Per the *City of Lebanon Transportation System Plan* (2018).

MULTI-USE FACILITIES

On Stoltz Hill Road, 12th Street, and Airport Road, sidewalks exist in some locations (often only on one side of the street) but are largely discontinuous. There is complete sidewalk system on the west side of 12th Street between the north project site property line and a point approximately 40 feet south of Airport Road. Sidewalks exist on most of the classified Local streets within the immediate vicinity of the development site.

TRANSIT FACILITIES

There are no regular transit services in the western portion of the City and the development site is not within a half-mile radius of a regular transit stop. LINX Dial-A-Bus offers curb-to-curb service for the public within city limits. As of now, this service would be available to residents of the proposed Conser Development.



* The northbound approach at Airport Road / 12th Street has a short, flared through-right lane. Because its length severely limits its usage (one vehicle), this approach was modeled as a single lane.

- STOP SIGN

Existing Lane Configurations & Traffic Control Devices Lebanon, Oregon

Figure 2

Intersection Crash History

The ODOT Crash Data System was queried to obtain crash records at the study intersections for the five-year period from January 1, 2020 to December 31, 2024. Table 2 summarizes the crash data (final year 2025 crash data was not available from ODOT at the time this report was prepared). *Appendix A provides the ODOT crash report which provides additional detail on the reported crashes.*

Table 2 – Reported Crash History (January 1, 2020 – December 31, 2024)

Intersection	Crash Type				Severity			*Total Crashes*
	Turn	Angle	Read-End	Fixed Object	PDO	Injury	Fatal	
Airport Road/12th Street	2	10	0	0	3	9	0	***12***
Stoltz Hill Road/Antioch Street	0	0	0	0	0	0	0	***0***
Stoltz Hill Road/Kees Street	2	0	0	0	0	2	0	***2***
Stoltz Hill Road/Walker Road	0	0	1	1	2	0	0	***2***

PDO = Property Damage Only

Intersection crash rates were calculated and compared to statewide crash rate performance thresholds following the analysis methodology presented in the ODOT *Analysis Procedures Manual (APM)*. Per the APM, intersections with crash rates that exceed the 90th-percentile values shown in APM Exhibit 4-1 or with a crash rate that exceeds its critical crash rate should be flagged for further analysis. For this analysis, the critical crash rate was calculated and compared to the 90th-percentile crash rates for urban stop-controlled intersections with three and four-legged configuration. This is shown in Table 3.

Table 3 – Intersection Crash Rate Assessment

Intersection	Total Crashes	Observed Crash Rate	90th-Percentile Crash Rate by Lane Type and Traffic Control	Observed Crash Rate >90th-Percentile Crash Rate?
Airport Road/12th Street	10	0.48	0.41	**Yes**
Stoltz Hill Road/Antioch Street	0	0.00	0.41	No
Stoltz Hill Road/Kees Street	2	0.22	0.41	No
Stoltz Hill Road/Walker Road	2	0.22	0.29	No

CRASH DATA SUMMARY

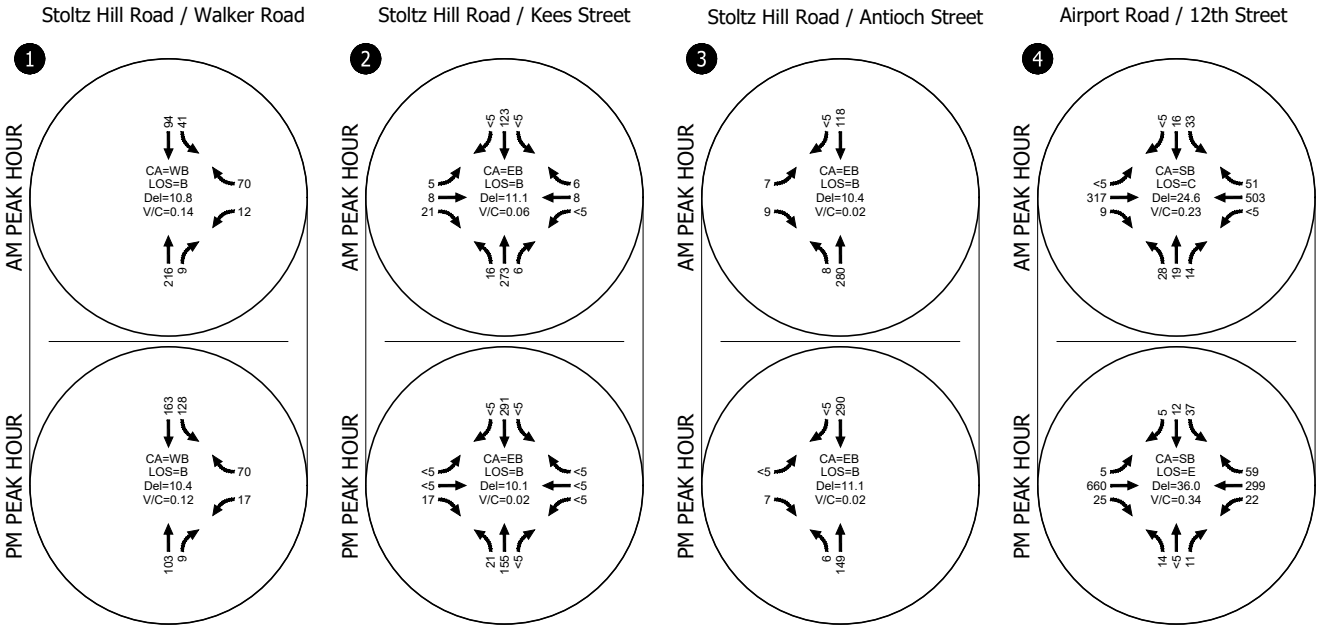
As shown in Table 3, the observed crash rate at the Airport Road/12th Street intersection exceeds the 90th-percentile crash rate for other similar intersections in Oregon. The majority of the reported crashes were angle-type collisions involving either a northbound or southbound vehicle on 12th Street and a westbound or eastbound vehicle on Airport Road. In almost all cases, the northbound or southbound vehicle was reported to not have the right of way. The City of Lebanon plans to add turn lanes to 12th Street and signalize the intersection in conjunction with an extension of 12th Street as discussed later in this report. Given the planned improvements by the City, no additional safety-based mitigation needs were identified.

Existing Traffic Conditions

Vehicle turning movement, pedestrian, and bicycle counts were conducted at the study intersections on January 30, 2025. On this date, local schools were in session and on normal start/stop times; the weather was fair and no nearby roadway construction projects or blockages were noted. System peak hours of 7:05 AM to 8:05 AM and 4:05 PM to 5:05 PM were identified. *Appendix B contains count data summary sheets*.

EXISTING CONDITIONS

Figure 3 summarizes the corresponding traffic volumes and traffic operations during the weekday AM and PM peak hours. As shown, the study intersection operations satisfy applicable City standards during both the AM and PM peak hours under existing traffic conditions. *Appendix C includes the existing conditions volumes and operations analysis worksheets.*



CA = INTERSECTION CRITICAL APPROACH

Del = CRITICAL APPROACH/MOVEMENT CONTROL DELAY

LOS = CRITICAL APPROACH/MOVEMENT LEVEL OF SERVICE

V/C = CRITICAL APPROACH/MOVEMENT VOLUME-TO-CAPACITY RATIO

Existing Traffic Volumes & Operations
AM & PM Peak Hours
Lebanon, Oregon

Figure 3

COMPREHENSIVE PLAN AND ZONING MAP AMENDMENT – TPR ANALYSIS

This section of the report contains a detailed assessment of the long-term traffic impacts without and with the proposed Comprehensive Plan and Zoning Map Amendment for the western half of the site. The analysis of long-term traffic conditions is required by the State's Transportation Planning Rule (TPR) (OAR Section 660-12-0060) because the proposed zone modification would require an amendment to an acknowledged land use regulation and may have the potential to significantly affect a transportation facility.

Two sections of Oregon's TPR apply to amendments to acknowledged land use designations. Per OAR 660-012-0060(1) and (2), the first step in assessing an amendment's potential transportation impact is to compare the vehicular trip generation of the site assuming a "reasonable worst - case" development scenario under the existing and proposed zoning. If the trip generation potential increases under the proposed zoning, additional analysis is required to assess whether the rezone will "significantly affect" the transportation system. Conversely, if the trip generation under the proposed zoning is equal to or less than that under the existing zoning, no additional quantitative analysis is necessary to conclude that the proposal does not "significantly affect" the transportation system. We further note that Table 1, Policy 1F.5 of the Oregon Highway Plan establishes a threshold which says "Any proposed amendment that does not increase the average daily trips by more than 400 is not considered significant."

To test for a significant effect, a targeted trip generation assessment was conducted for reasonable "worst-case" (i.e., most dense) site development scenarios under the current and proposed zoning.

STUDY AREA ZONING SCENARIOS

Two reasonable worst-case (i.e., most dense) development scenarios were identified for the western half of the subject site to compare the traffic impacts under the current and proposed zoning for TPR analysis purposes.

CURRENT ZONING

Approximately 40 acres of the study area proposed to be rezoned is currently zoned Industrial (IND) by the City of Lebanon. For the current zoning scenario, it is assumed that all 40 acres could develop as an industrial use as allowed by the Lebanon Development Code within the 2040 planning horizon. However, there is approximately nine acres of undevelopable land (Oak Creek watershed/wetland area). Discounting this, the remaining 31 acres of land was assumed to develop as a general light industrial use. For this use, a 25% coverage rate was assumed, resulting in approximately 340,000 square feet of general industrial building.

The other portion of the study area proposed to be rezoned is currently zoned Residential Mixed Density (RM). For the current zoning scenario, it is assumed that this land could be developed into 166 units of single-family detached housing (this corresponds to the density proposed by the development plan). Although more units would fit within the parcel, an airport overlay from the nearby airport limits the buildable density within a portion of the parcel.

PROPOSED ZONING

The entire study area is proposed to be rezoned to Mixed Use (MU) to support development of a new master planned residential community and commercial area.

ZONE CHANGE TRIP GENERATION COMPARISON

Trip generation estimates for the two reasonable worst-case zoning development scenarios were derived from empirical observations at other similar developments. These observations are summarized in the *Trip Generation Manual, 12th Edition*, published by the Institute of Transportation Engineers (ITE). Table 4 summarizes the trip generation estimates for the current and proposed development scenarios for the typical weekday as well as the weekday AM and PM peak hours. Fitted equation trip rates were used for the residential homes while average rates were used for the light industrial and retail uses per ITE guidance.

Table 4 – Trip Comparison for Highest Uses Under Current and Proposed Zoning

Land Use	ITE Code	Size	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total	In	Out	Total	In	Out
Current Zoning									
General Light Industrial	110	340 KSF	1,224	163	140	23	167	40	127
Single-Family Detached	210	166 units	1,605	117	32	85	153	95	58
Current Zoning Total			2,829	280	172	108	320	135	185
Proposed Zoning									
Single-Family Detached	210	284	2,558	196	53	143	251	156	95
Strip Retail Plaza	822	27 KSF	1,369	106	58	48	170	85	85
Retail Pass-By (20%)				*(21)*	*(12)*	*(10)*	*(34)*	*(17)*	*(17)*
Proposed Zoning Total			3,936	*270*	*94*	*175*	*382*	*222*	*160*
		Difference	**1,107**	**-10**	**-78**	**67**	**62**	**87**	**-25**

As shown in Table 4, the proposed Mixed Use zoning is projected to have a higher *daily* trip-making potential, lower *AM peak-hour* trip-making potential, and higher *PM peak-hour* trip-making potential. Accordingly, further capacity analysis is needed to confirm if the transportation system can support the proposed rezone.

YEAR 2040 REZONE INTERSECTION OPERATIONS ANALYSIS

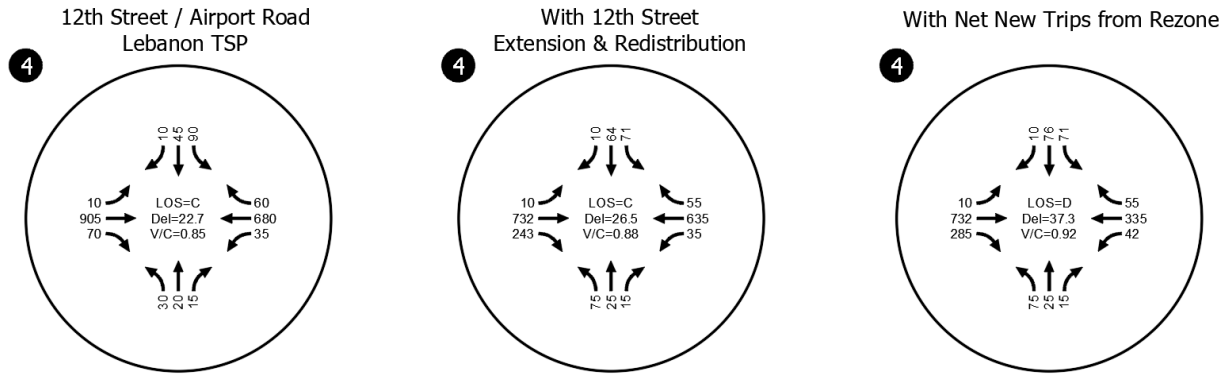
To evaluate the impact of the rezone on the transportation system, year 2040 conditions were assessed at the 12th Street/Airport Road intersection. The Lebanon TSP projected year 2040 PM peak hour volumes at 12th Street/Airport Road and identified the need for intersection control improvements (traffic signal or roundabout). Based on a review of the TSP analysis volumes at the intersection, an extension of 12th Street to Stoltz Hill Road was not previously assumed (nor was a closure of Stoltz Hill Road at Walker Road).

Projected year 2040 conditions were re-assessed assuming trips associated with the proposed rezone as follows:

- The 2040 Lebanon TSP volumes (representative of area buildout under the existing size zoning) were adjusted to reflect the reprioritization of 12th Street as a north-south arterial as envisioned by the TSP.
- The net increase in PM peak hour trips estimated to result from the rezone (shown in Table 4) were assigned to the local street system and added to the project 2040 volumes.
- Future year 2040 weekday PM peak hour operations of the 12th Street/Airport Road intersection were re-evaluated assuming signalization of the intersection along with the addition of a separate left-turn lane and shared through/right lane on the northbound and southbound 12th Street approaches as currently planned by the City.

The intersection was found to continue to operate acceptably per the City mobility standards (LOS D, v/c = 0.92) with the additional trips associated with the rezone, as shown in Figure 4. *Appendix D contains the 2040 traffic operations worksheets for these scenarios.*

Figure 4. 12th Street/Airport Road Year 2040 Intersection Weekday PM Peak Hour Conditions



COMPLIANCE WITH 660-012-0060 PLAN

Table 5 summarizes the criteria in OAR Section 660-012-0060 and the applicability to the proposed zone change. The relevant portions of the TPR are then reproduced below in italics followed by the response for this project in standard text.

Table 5 - Summary of Criteria in OAR 660-012-0060

Section	Criteria	Applicable?
1	Describes how to determine if a proposed land use action results in a significant effect.	Yes
2	Describes measures for complying with Criteria #1 where a significant effect is determined.	No
3	Describes measures for complying with Criteria #1 and #2 without assuring that the allowed land uses are consistent with the function, capacity and performance standards of the facility.	No
4	Determinations under Criteria #1, #2, and #3 are coordinated with other local agencies.	Yes
5	Indicates that the presence of a transportation facility shall not be the basis for an exception to allow development on rural lands.	No
6	Indicates that local agencies should credit developments that provide a reduction in trips.	No
7	Outlines requirements for a local street plan, access management plan, or future street plan.	No
8	Defines a mixed-use, pedestrian-friendly neighborhood.	No
9	A significant effect may not occur if the rezone is identified on the City's Comprehensive Plan and assumed in the adopted Transportation System Plan.	No
10	Agencies may consider measures other than vehicular capacity if within an identified multimodal mixed-use area (MMA).	No
11	Allows agencies to override the finding of a significant effect if the application meets the balancing test.	No

(1) If an amendment to a functional plan, an acknowledged comprehensive plan, or a land use regulation (including a zoning map) would significantly affect an existing or planned transportation facility, then the local government must put in place measures as provided in section (2) of this rule, unless the amendment is allowed under section (3), (9) or (10) of this rule. A plan or land use regulation amendment significantly affects a transportation facility if it would:

(a) Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);

Response: No changes to the City's functional street classification designations or standards as defined in the *City of Lebanon TSP* are warranted by the change in zone, and the adjacent facilities are appropriate for the proposed zone. These street classifications are reflective of the overall current and proposed Comprehensive Plan designation. Therefore, no significant effect will result from the zone change as defined in OAR 660-012-0060(1)(a).

(b) Change standards implementing a functional classification system; or

Response: The zone change would not change the standards for implementing the functional classification systems identified in the *City of Lebanon TSP*. These standards are reflective of the current and proposed Comprehensive Plan designation. Therefore, no significant effect occurs as defined in OAR 660-012-0060(1)(b).

(c) Result in any of the effects listed in paragraphs (A) through (C) of this subsection. If a local government is evaluating a performance standard based on projected levels of motor vehicle traffic, then the results must be based on projected conditions measured at the end of the planning period identified in the adopted TSP. As part of evaluating projected conditions, the amount of traffic projected to be generated within the area of the amendment may be reduced if the amendment includes an enforceable, ongoing requirement that would demonstrably limit traffic generation, including, but not limited to, transportation demand management. This reduction may diminish or completely eliminate the significant effect of the amendment.

(A) Types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;

(B) Degrade the performance of an existing or planned transportation facility such that it would not meet the performance standards identified in the TSP or comprehensive plan; or

(C) Degrade the performance of an existing or planned transportation facility that is otherwise projected to not meet the performance standards identified in the TSP or comprehensive plan.

Response: As documented above, the 12th Street/Airport Road intersection is projected to continue to satisfy the City's mobility standards under the reasonable worst case development scenario. For this reason, we conclude that the rezone results in travel levels that are consistent with the City TSP designations and plans and does not degrade the performance of the transportation system as planned for in the TSP.

(4) Determinations under sections (1)–(3) of this rule shall be coordinated with affected transportation facility and service providers and other affected local governments.

Response: There are no Linn County or ODOT facilities in the site vicinity that require further coordination.

TRANSPORTATION ASSESSMENT

The Emerald Crossing project is planned to be built out in multiple phases, with construction on Phase 1 commencing in 2027. This transportation impact analysis identifies how the study intersections will operate in the year 2036 when the full development is anticipated to be complete and occupied.

Future Transportation Improvements

The following two capital improvement projects are being planned by the City of Lebanon and are expected to be complete in 2027.

12TH STREET REALIGNMENT

As identified in the Lebanon TSP, the 12th Street and Stoltz Hill Road corridors are planned to be realigned together to create a continuous north-south arterial on the west side of the City. To implement this planned improvement, the City will be constructing a three-lane extension of 12th Street from its current southerly terminus to Stoltz Hill Road. At the intersection of Stoltz Hill Road, 12th Street and Stoltz Hill Road will be aligned to create a continuous north-south transition between the two roadways. This alignment will disconnect the existing north leg of Stoltz Hill Road in a new cul-de-sac configuration at Wassam Street. The west end of Walker Road will be extended and stop controlled at the new 12th Street/Stoltz Hill Road corridor alignment in conjunction with the realignment project.

AIRPORT ROAD/12TH STREET SIGNALIZATION

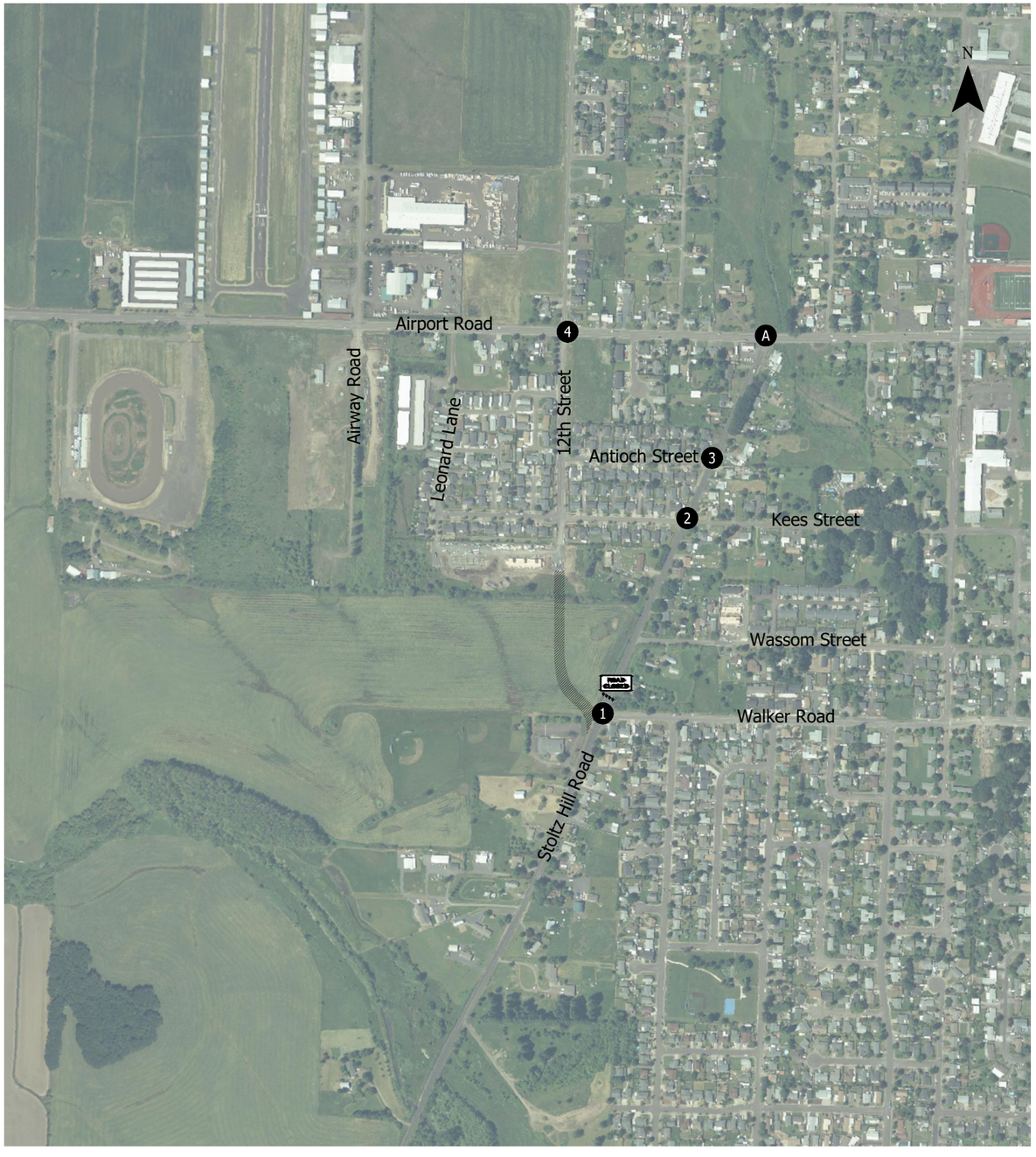
To address the future traffic demands that are anticipated by the previously noted 12th Street extension and realignment project, the Airport Road/12th Street intersection is being planned for signalization. The signalization project will include widening of the north and south legs of 12th Street to arterial standards creating separate left-turn lanes and shared through/right-turn lanes.

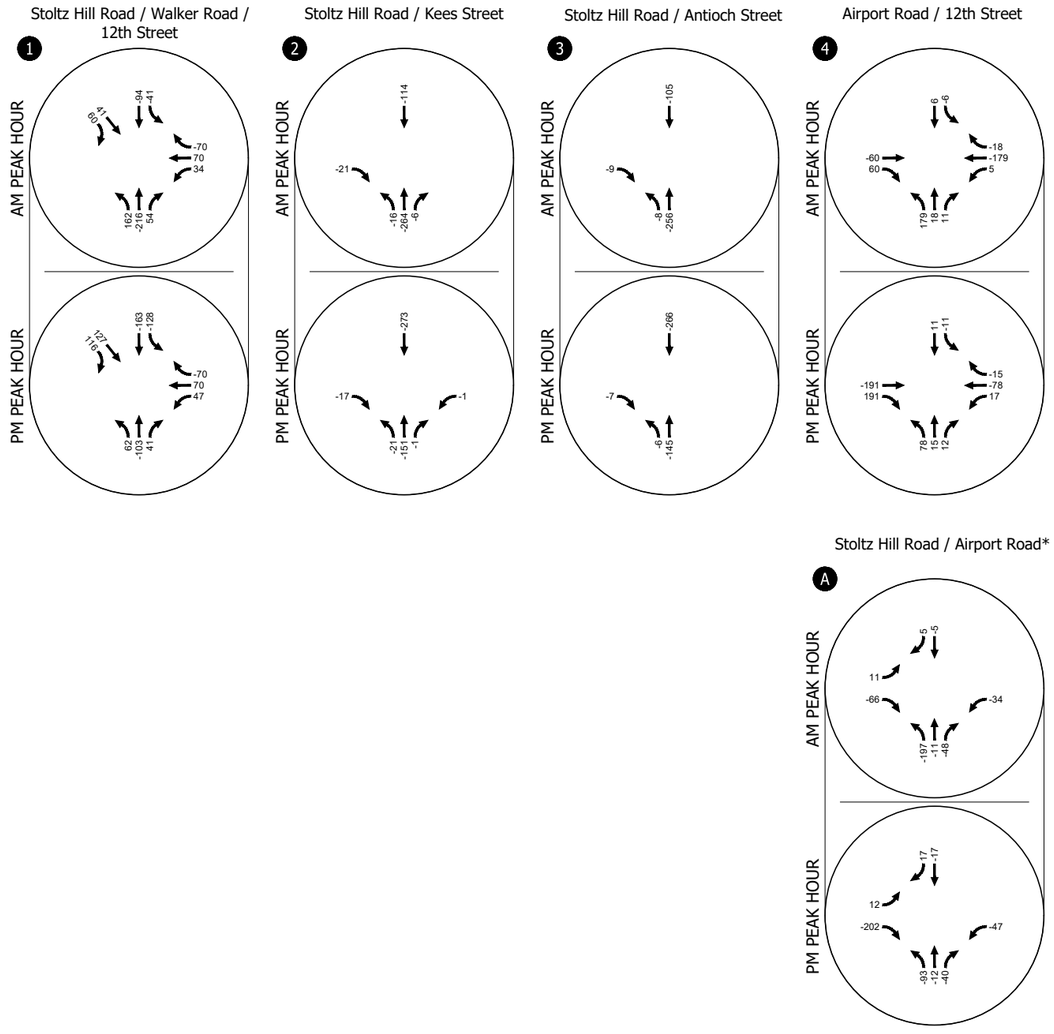
2036 Background Operational Analysis

To address the expected shift of traffic volumes associated with the two capital projects noted above, traffic counts were collected at the Airport Road/Stoltz Hill Road intersection in March of 2026. Using these counts, all applicable Stoltz Hill Road volumes were reassigned to the 12th Street corridor and adjusted turning movements were estimated at the Airport Road/12th Street intersection. In addition, adjusted traffic volumes were estimated at the Stoltz Hill Road/Walker Road, Stoltz Hill Road/Kees Street, and Stoltz Hill Road/Antioch Street intersections to account for the expected shift in north-south traffic travel demand to the new 12th Street extension. Figure 5 documents the assumed re-routed peak hour traffic volumes at the study intersections.

To capture long-term 2036 background traffic growth estimates in the study area, a 2% annual growth rate (consistent with the growth rates forecast in the Lebanon TSP) was applied to the adjusted study intersection traffic volumes. Figure 6 summarizes the resulting year 2036 background traffic volumes and operational analysis for the weekday AM and PM peak hours. As shown, all of the study intersections are expected to continue to satisfy the respective City mobility standards under background conditions and with the inclusion of the noted transportation improvements.

Appendix E includes the 2036 background conditions volumes and operations analysis worksheets.





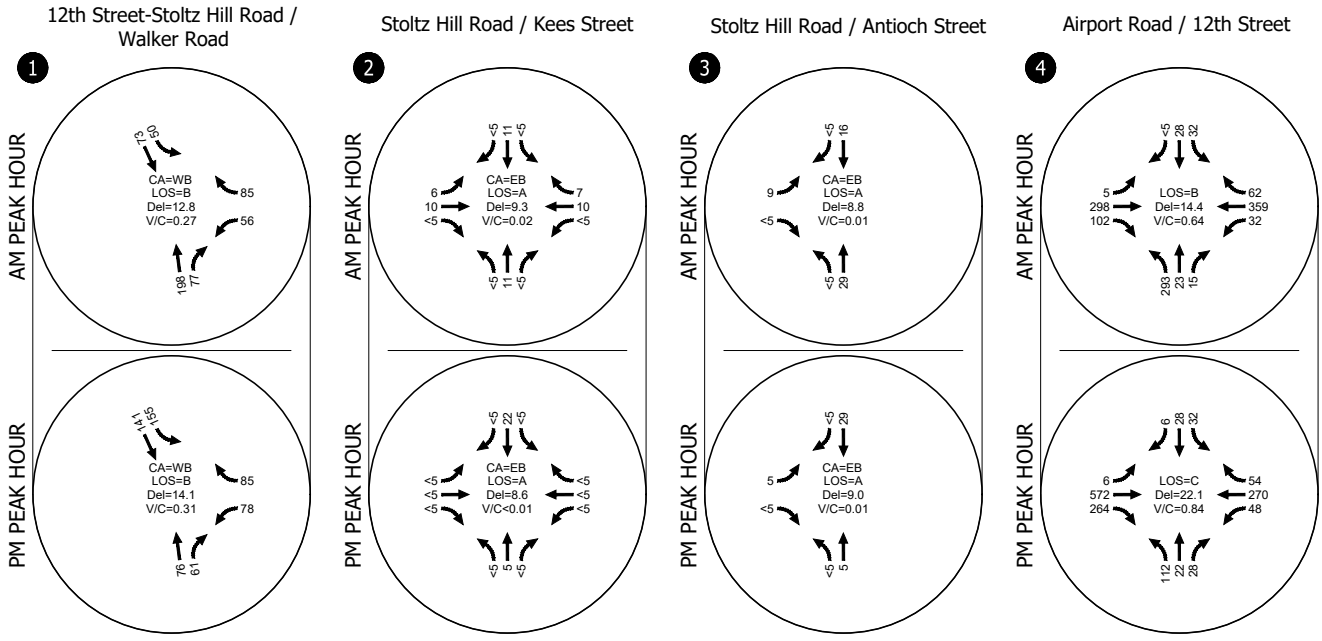
ROAD CLOSED Approximate termination of Stoltz Hill Road

* Stoltz Hill Road / Airport Road is not a study intersection but is shown here to provide context for volume redistribution

Estimated Traffic Redistribution to 12th Street
AM & PM Peak Hours
Lebanon, OR

Figure 5

KITTELSON & ASSOCIATES



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Year 2036 Background Traffic Volumes & Operations AM & PM Peak Hours Lebanon, Oregon

Figure 6

ROAD CLOSED Approximate termination of Stoltz Hill Road

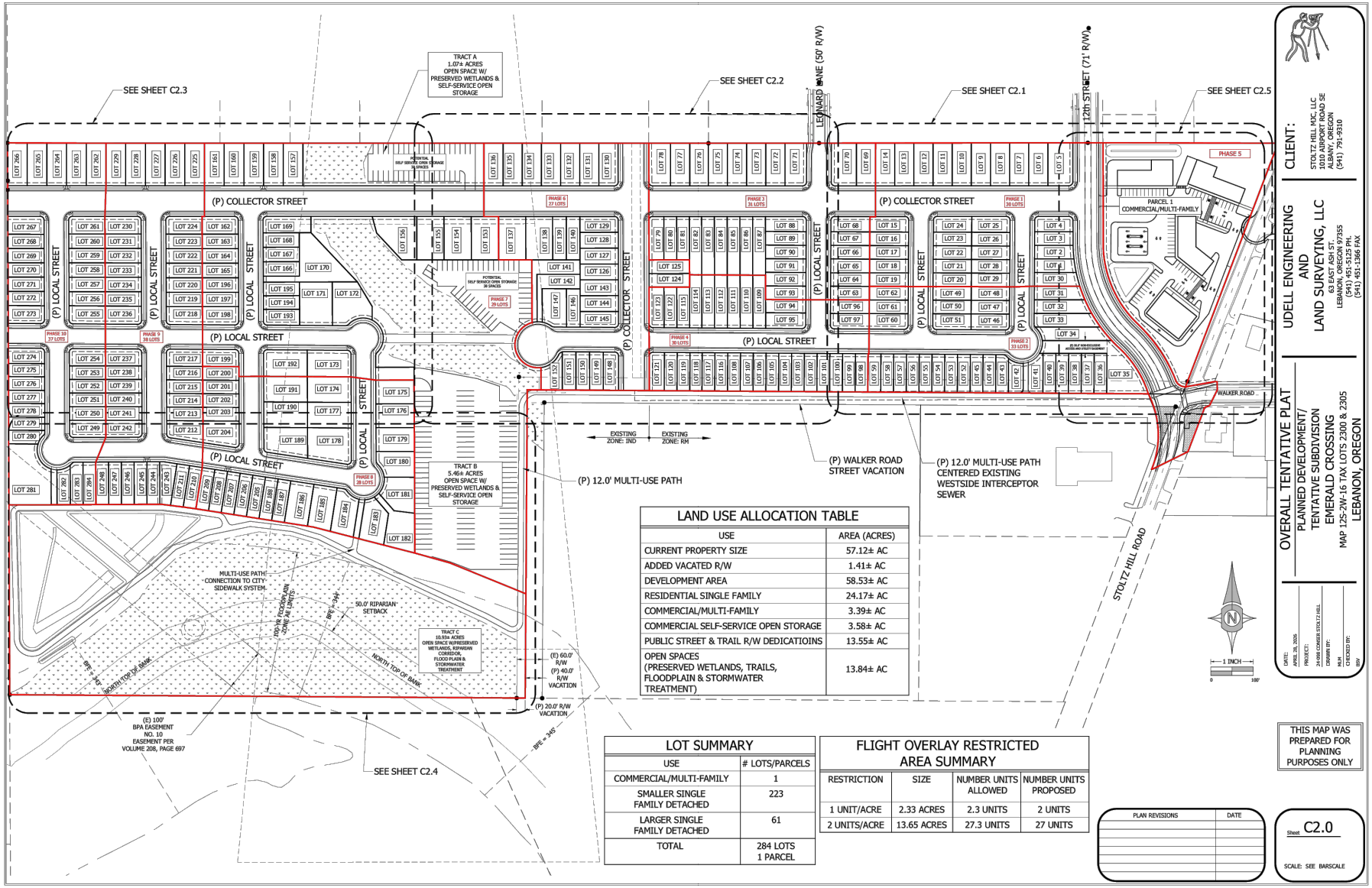
Proposed Development Plan

The proposed Emerald Crossing development is planned to include 284 detached single-family homes and a 133-lot self-service open storage lot designed to accommodate RVs, campers, boats, and other oversized vehicles. Vehicular access to the single-family and storage lot portion of the development is proposed via a new street grid network that will connect to the previously noted extension of 12th Street and the existing Leonard Lane street stub to the north of the site. The 12th Street connection will consist of a new east-west Collector Street that will run the length of the master planned development and stub at the western property line. One additional north-south Collector Street roadway will traverse the mid-point of the development, stubbing to the north property line (for a potential connection to the TSP-planned extension of Airway Road) and south property line. A supporting grid network of north-south and east-west local streets will provide access to individual home sites and self-service storage lot.

The development plan also includes a 3.2-acre parcel for commercial development located between the future 12th Street extension and Stoltz Hill Road. While no specific development plans are included in the application, this study assumes a conservative mix of retail uses including retail shops, a convenience store and fueling station, and a drive-thru restaurant. The commercial development will also take access from the 12th Street extension, as well as from Stoltz Hill Road across from Wassom Street.

The development site plan is shown in Figure 7. Figure 8 shows the assumed lane configurations and traffic control devices at the study intersections and the Collector Street access to the future 12th Street extension.

Full build-out and occupancy of the proposed development is expected in 2036.



LAND USE ALLOCATION TABLE

USE	AREA (ACRES)
CURRENT PROPERTY SIZE	57.12± AC
ADDED VACATED R/W	1.41± AC
DEVELOPMENT AREA	58.53± AC
RESIDENTIAL SINGLE FAMILY	24.17± AC
COMMERCIAL/MULTI-FAMILY	3.39± AC
COMMERCIAL SELF-SERVICE OPEN STORAGE	3.58± AC
PUBLIC STREET & TRAIL R/W DEDICATIOINS	13.55± AC
OPEN SPACES (PRESERVED WETLANDS, TRAILS, FLOODPLAIN & STORMWATER TREATMENT)	13.84± AC

LOT SUMMARY

USE	# LOTS/PARCELS
COMMERCIAL/MULTI-FAMILY	1
SMALLER SINGLE FAMILY DETACHED	223
LARGER SINGLE FAMILY DETACHED	61
TOTAL	284 LOTS 1 PARCEL

FLIGHT OVERLAY RESTRICTED AREA SUMMARY

RESTRICTION	SIZE	NUMBER UNITS ALLOWED	NUMBER UNITS PROPOSED
1 UNIT/ACRE	2.33 ACRES	2.3 UNITS	2 UNITS
2 UNITS/ACRE	13.65 ACRES	27.3 UNITS	27 UNITS

PLAN REVISIONS	DATE

CLIENT:
STOLTZ HILL M2C, LLC
1010 AIRPORT ROAD SE
ALBANY, OREGON
(541) 791-9310

UDELL ENGINEERING AND LAND SURVEYING, LLC
63 EAST ASH ST.
LEBANON, OREGON 97355
(541) 451-5125 PH.
(541) 451-1366 FAX

OVERALL TENTATIVE PLAT
PLANNED DEVELOPMENT/
TENTATIVE SUBDIVISION
EMERALD CROSSING
MAP 12S-2W-16 TAX LOTS 2300 & 2305
LEBANON, OREGON

DATE: APRIL 28, 2026
PROJECT: 24-088 CONNER STOLTZ HILL
DRAWN BY: MLH
CHECKED BY: RDK

THIS MAP WAS PREPARED FOR PLANNING PURPOSES ONLY

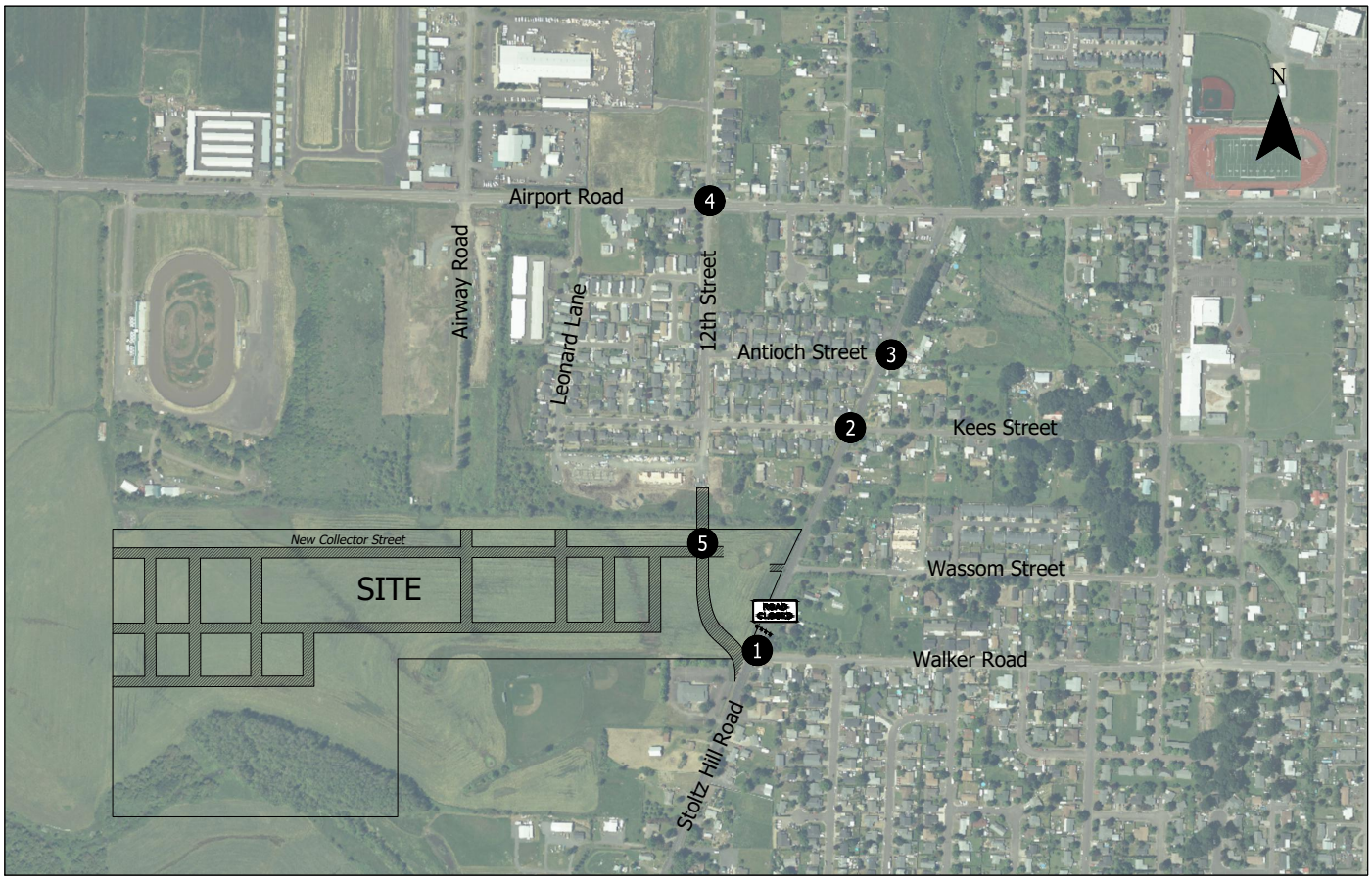
Sheet C2.0

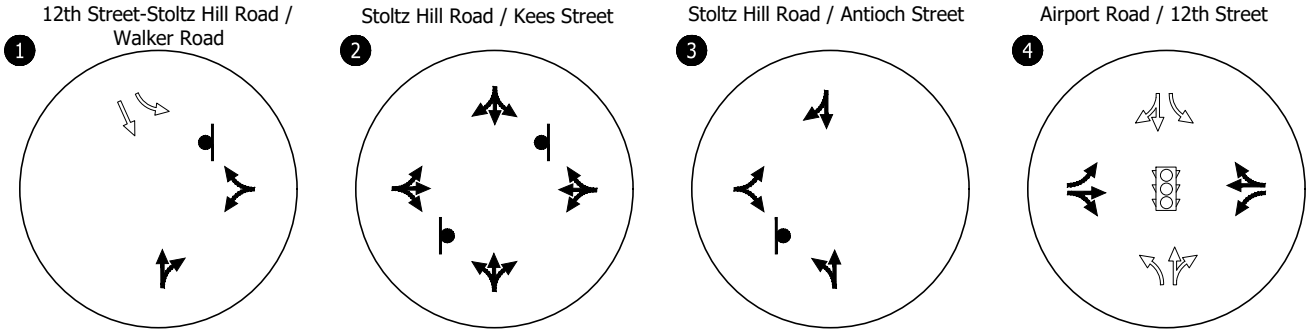
SCALE: SEE BARSCALE

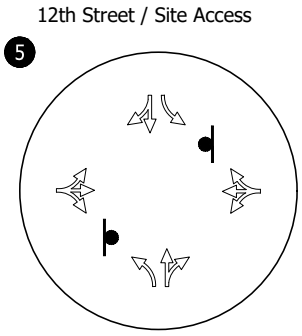
RECEIVED FROM UDELL ENGINEERING: (MAY 1, 2026)

Proposed Site Plan
Lebanon, Oregon

Figure
7







Note: Hollow denotes new lane configuration or traffic control

- STOP SIGN

ROAD CLOSED Approximate termination of Stoltz Hill Road

Assumed Future Lane Configurations & Traffic Control Devices Lebanon, Oregon

Figure 8

TRIP GENERATION ESTIMATE

A trip generation estimate was prepared for the proposed development based on information provided in the *Trip Generation Manual, 12th Edition*. ITE land use code 210 (Single-Family Detached Housing) was used as a basis for the single-family housing portion of the development; 35 (Truck and Trailer Parking) for the self-service open storage lot, and a combination of office and retail uses the commercial portion of the development. Table summarizes the estimates for the daily and weekday AM and PM peak hours. Fitted equation trip rates were used for the residential homes while average rates were used for the other uses per ITE guidance

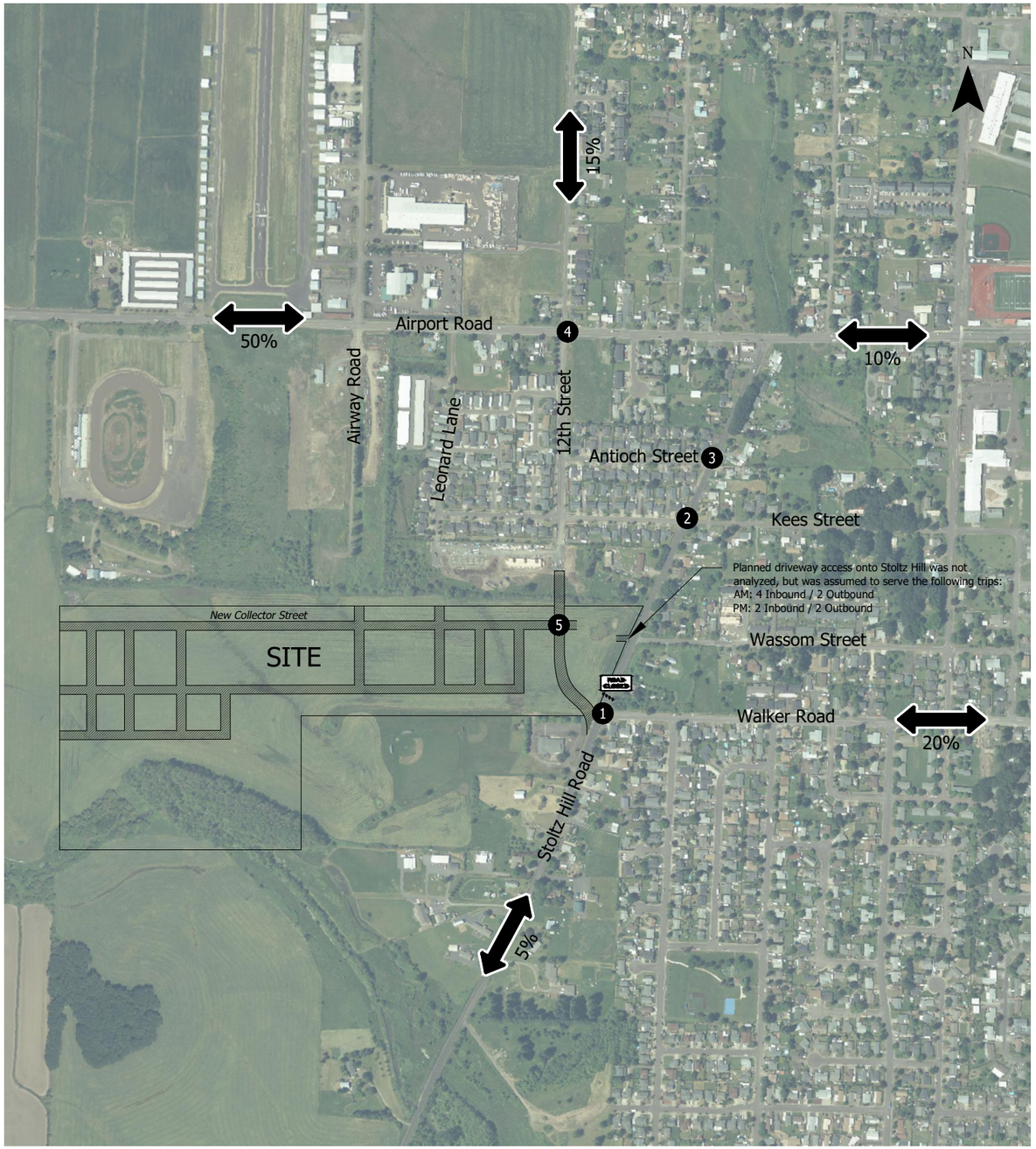
Table 6 – Trip Generation Estimate

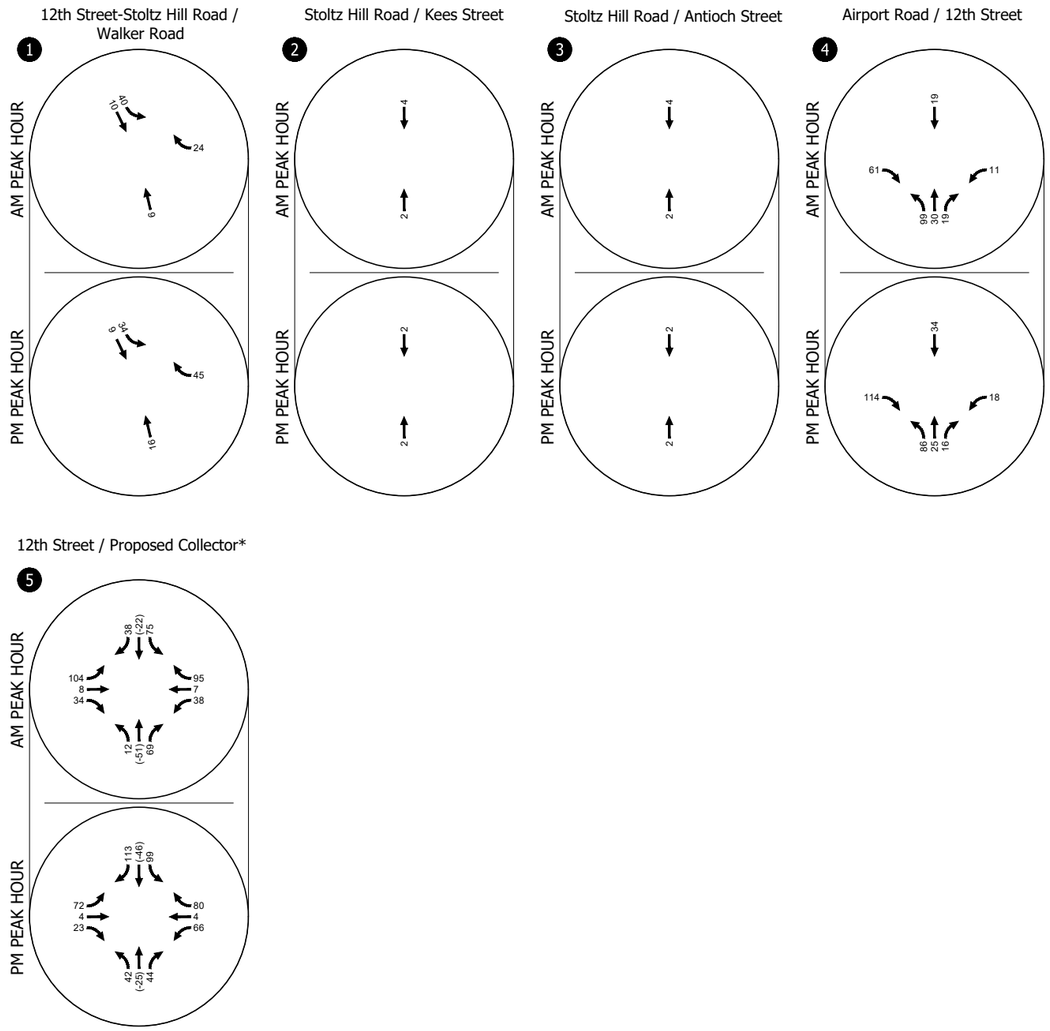
Land Use	ITE Code	Units	Daily Trips	Weekday AM Peak Hour				Weekday PM Peak Hour			
				Rate	Total	In	Out	Rate	Total	In	Out
Single-Family Detached	210	284	2,558	0.70	196	53	143	0.93	251	156	95
Truck and Trailer Parking	35	171	120	0.04	7	4	3	0.04	7	3	4
Small Office Building	712	11,960 ksf	172	1.67	20	16	4	2.16	26	9	17
Convenience Store/Gas Station (2-4ksf GFA)	945	4 VFP	844	13.65	55	27	28	15.85	63	32	31
Fast Food Drive-Thru w/ Seating	934	6,665 ksf	2,989	33.24	222	113	109	31.6	211	110	101
Convenience Store/Gas Station Pass-By Trips[1]	945				(34)	(17)	(17)		(36)	(18)	(18)
Fast Food Drive-Thru w/ Seating Pass-By Trips[2]	934				(112)	(56)	(56)		(106)	(53)	(53)
Total Pass-By Trip Reduction					*(146)*	*(73)*	*(73)*		*(142)*	*(71)*	*(71))*
Commercial Subtotal			4,005		151	83	68		158	80	78
Total			**6,694**		**354**	**140**	**214**		**416**	**239**	**177**

[1] AM pass-by rate: 60%. PM pass-by rate: 56%. Inbound and outbound pass-by trips were balanced.
[2] AM and PM pass-by rate: 50%. Inbound and outbound pass-by trips were balanced.

SITE TRIP DISTRIBUTION/TRIP ASSIGNMENT

The site-generated trips shown in Table were distributed onto the study area roadways based on a review of traffic patterns and the location of the site in relation to the major draws (schools, retail, employment centers) in the regional site vicinity. The resulting trip distribution pattern and trip assignment are illustrated in **Figure 9**.





ROAD CLOSED Approximate termination of Stoltz Hill Road

* Negative volumes are a result of pass-by trips.

XX% Estimated Project Trip Distribution

Year 2036 Estimated Trip Distribution & Assignment
AM & PM Peak Hours
Lebanon, OR

Figure 9

KITTELSON & ASSOCIATES

Year 2036 Total Traffic Conditions

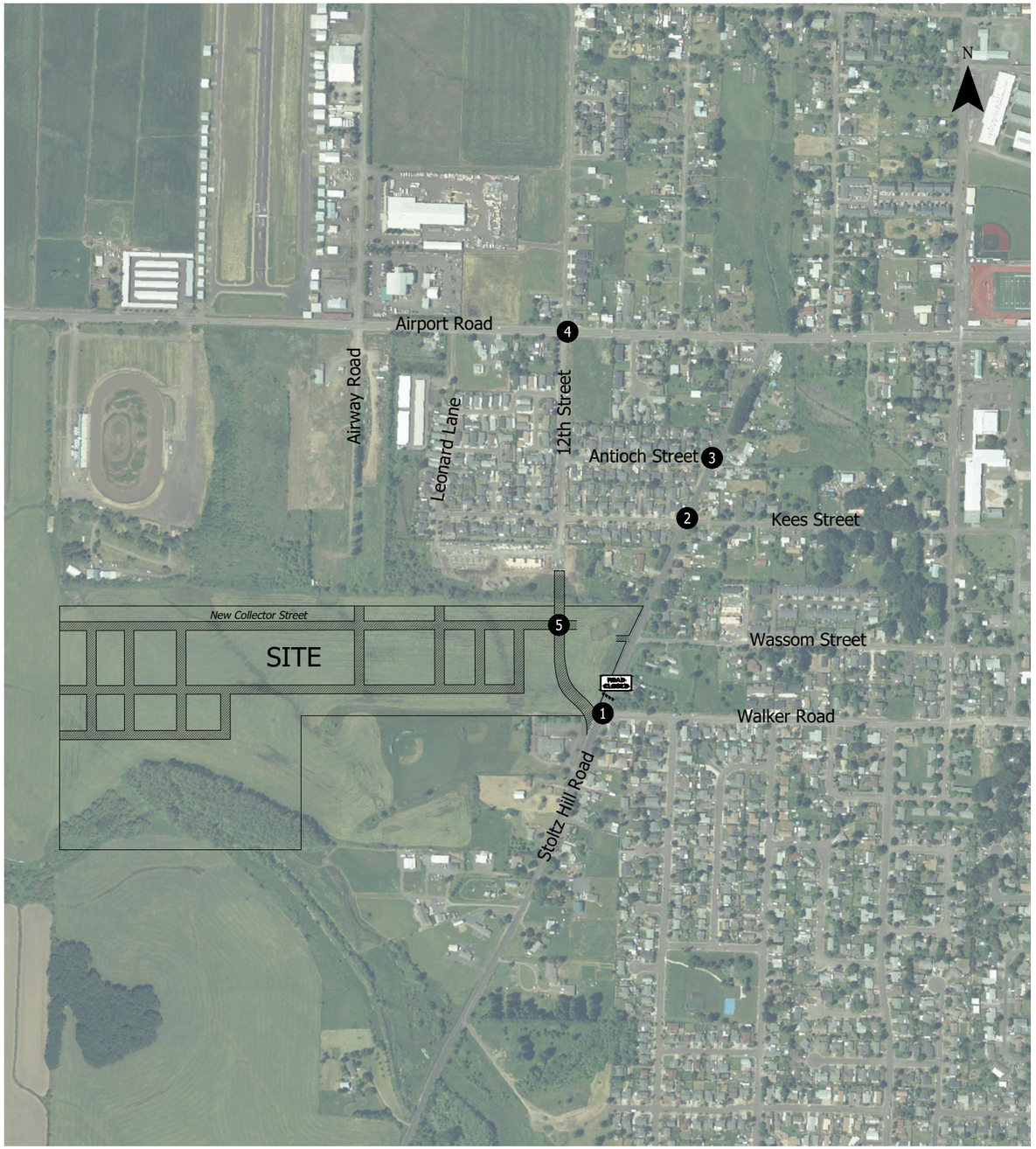
The total traffic conditions analysis forecasts the operation of the study intersections with the inclusion of traffic generated by the proposed Emerald Crossing development. Total traffic conditions were determined by adding the estimated site-generated trips to the year 2036 background volumes for the weekday AM and PM peak hours.

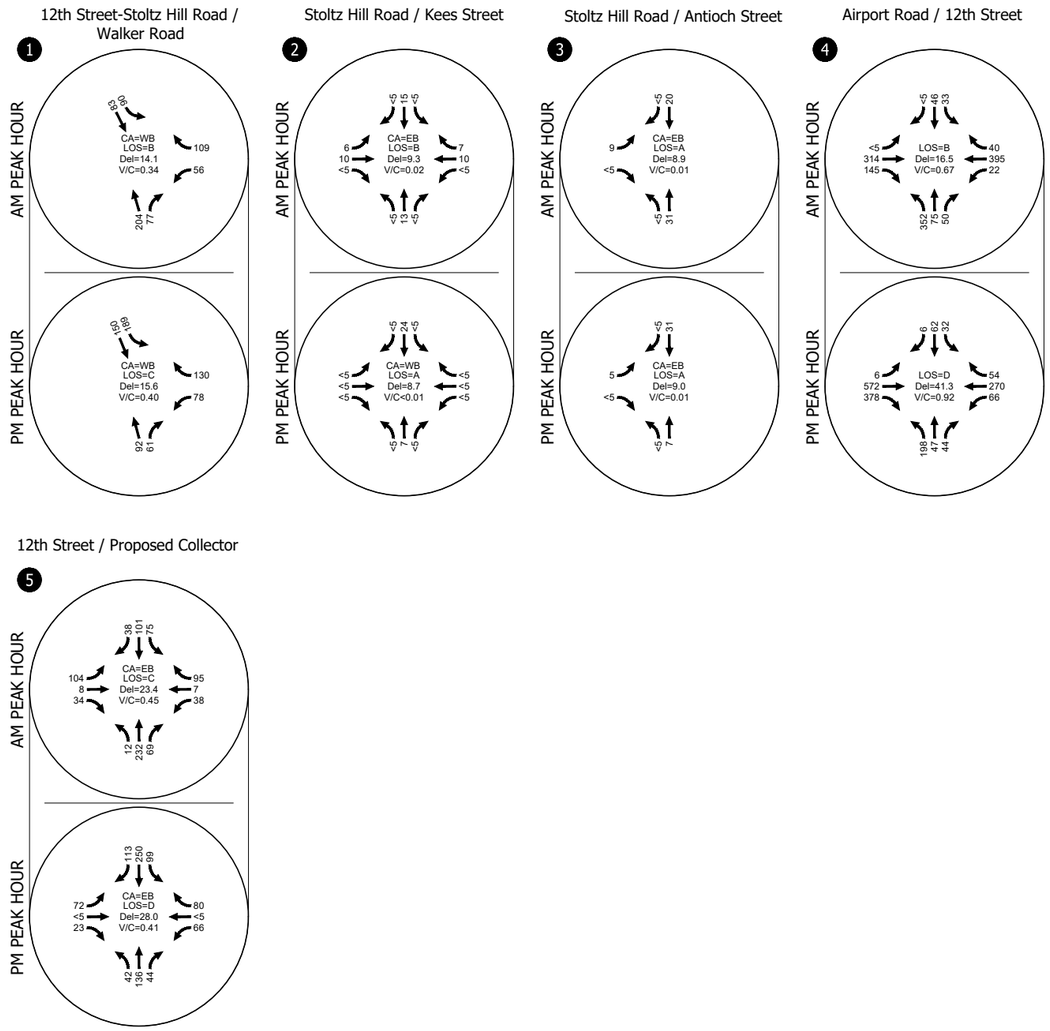
Figure 10 summarizes the corresponding operational analysis for the weekday AM and PM peak hours. As shown, all of the study intersections are expected to satisfy City mobility standards under full buildout conditions. *Appendix F includes the 2036 total traffic volumes and operations analysis worksheets.*

AIRPORT ROAD/12TH STREET INTERSECTION CONSIDERATIONS

As noted in Figure 10, the future signalized Airport Road/12th Street intersection is forecast to operate at acceptable conditions under 2036 total traffic conditions. However, it is noted that the forecast westbound through/right-turn approach is forecast to experience high traffic demands during the weekday PM peak hour. As a result, the approach could experience relatively long future vehicle queues. To address these forecast conditions, it is recommended that the City of Lebanon plan for the following to the extent practical:

- Work with local property owners to obtain right-of-way (either through future development opportunities or right-of-way purchases) and continue to plan for the development of Airway Road south of Airport Road. This TSP-planned project will provide additional north-south connectivity to the Emerald Crossing project and future development projects to the south. This added connectivity will help further distribute local residential traffic demand in the area and thereby improve operations at the Airport Road/12th Street intersection in the long-term.
- Seek opportunities to obtain right-of-way for the construction of a future separate eastbound right-turn lane at the Airport Road/12th Street intersection in the potential event of future property redevelopment in the area that would accommodate the turn lane.





ROAD CLOSED Approximate termination of Stoltz Hill Road

CA = INTERSECTION CRITICAL APPROACH
LOS = CRITICAL APPROACH/MOVEMENT LEVEL OF SERVICE
Del = CRITICAL APPROACH/MOVEMENT CONTROL DELAY
V/C = CRITICAL APPROACH/MOVEMENT VOLUME-TO-CAPACITY RATIO

Year 2036 Total Traffic Volumes & Operations
AM & PM Peak Hours
Lebanon, OR

Figure 10

KITTELSON & ASSOCIATES

FINDINGS AND RECOMMENDATIONS

The primary findings of this study are summarized below.

- The city-led 12th Street extension, the connection and realignment of 12th Street to Stoltz Hill Road, and signalization of the Airport Road/12th Street intersection projects should all be completed and open to background traffic before certificate of occupancy should be issued for any of the Emerald Crossing housing or retail uses.
- With the aforementioned projects in place, the study intersections are forecast to meet the City of Lebanon operating standards during the weekday AM and PM peak hours under existing and future traffic conditions.
- No specific off-site capacity-based mitigation needs were identified at the study intersections to support the Emerald Crossing development.
- At the proposed Collector Street intersection with 12th Street, it is recommended that the future eastbound and westbound approaches to 12th Street be stop controlled in accordance with City standards and the Manual on Uniform Traffic Control Devices (MUTCD).
- To confirm adequate sight lines at the Collector Street intersection with 12th Street, it is recommended that a final sight distance evaluation be performed post construction and prior to site occupancy.

Regardless of Emerald Crossing development, it is recommended that the City of Lebanon do the following:

- As opportunities allow, work with local property owners to obtain right-of-way (either through right-of-way dedication from redevelopment opportunities or right-of-way purchases) and continue to plan for the extension of Airway Road south of Airport Road. This TSP-planned project will provide additional north-south connectivity to the Emerald Crossing project and reduce future traffic demand at the Airport Road/12th Street intersection.
- As part of potential future property redevelopment, monitor opportunities to construct a separate eastbound right-turn lane at the Airport Road/12th Street intersection.

We trust this memorandum adequately addresses the traffic and circulation impacts associated with the proposed Conser Development. Please let us know if you have any questions regarding our analyses or need additional information.

APPENDIX

A. Crash Data
B. Traffic Count Data
C. Existing Traffic Conditions Worksheets and Volumes
D. 2040 Traffic Conditions Worksheets and Volumes
E. 2036 Background Traffic Conditions Worksheets and Volumes
F. 2036 Total Traffic Conditions Worksheets and Volumes

Appendix A
Crash Data

OREGON.. DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANAYLYSIS AND REPORTING UNIT
COUNTY ROAD CRASH LISTING

LINN COUNTY

STOLZ HILL RD, MP 5.51 to 5.51, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2020 to 12/31/2024

1 - 1 of 1 Crash records shown.

SER#	S P	D R	M J	S	W	DATE	MILEPNT	COUNTY ROADS		INT-TYPE					SPCL USE													
INVEST	E	A	U	I	C	O	DAY	DIST FROM	FIRST STREET	RD CHAR	(MEDIAN)	INT-REL	OFFRD	WTHR	CRASH	TRLR	QTY	MOVE				A	S					
RD DPT	E	L	G	N	H	R	TIME	INTERSECT	SECOND STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL	OWNER		FROM		PRTC	INJ	G	E	X	LICNS	PED			
UNLOC?	D	C	S	V	L	K	LAT	LONG	LRS	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	TYPE	TO	P#	TYPE	SVRTY	E			RES	LOC	ERROR	ACT	EVENT	CAUSE
00183	N	N	N	N	N	N	02/04/2020	5.51	STOLZ HILL RD	INTER	3-LEG	N	N	UNK	S-1STOP	01	NONE	9 STRGHT												27,07
CITY							TU			E		UNKNOWN	N	ICE	REAR		N/A	E -W										000		00
N							8A			06	0		N	DAY	PDO		PSNGR	CAR	01	DRVR	NONE	00	Unk	UNK		000		000		00
N							44 31 16.61	-122 55 21.89																UNK						
																02	NONE	9 STOP												
																	N/A	E -W										012		00
																	PSNGR	CAR	01	DRVR	NONE	00	Unk	UNK		000		000		00
																								UNK						

CITY OF LEBANON, LINN COUNTY

WALKER RD and STOLTZ HILL RD, City of Lebanon, Linn County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2020 to 12/31/2024

1 - 2 of 2 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G N V	J I H L	S C O R K	W DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT	EVENT	CAUSE
00683	N	N	N N		N	05/19/2023	17	STOLTZ HILL RD	STRGHT		N	Y	CLR	FIX OBJ	01	NONE 9	STRGHT										079	16
NO RPT						FR	30	WALKER RD	SW	(NONE)	UNKNOWN	N	DRY	FIX		N/A	NE-SW									000		00
Y						1A			07			N	DLIT	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N						44 31 16.21	-122 55 22.16			(02)													UNK					
01403	N	N	N N	N	N N	10/05/2023	19	STOLTZ HILL RD	STRGHT		N	N	CLR	ANIMAL	01	NONE 0	STRGHT										035	12
COUNTY						TH	5728	WALKER RD	SW	(NONE)	NONE	N	DRY	OTH		PRVTE	NE-SW									000	035	00
N						12A			07			N	DARK	INJ		PSNGR CAR		01	DRVR	INJB	34	F	OR-Y		000	000		00
N						44 30 24.14	-122 55 51.33			(02)													OR<25					

Misplaced - located a mile south on Stoltz Hill Road.

CITY OF LEBANON, LINN COUNTY

STOLTZ HILL RD and KEES ST, City of Lebanon, Linn County, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2020 to 12/31/2024

1 - 1 of 1 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	CLASS / DIST / FROM / LONG	CITY STREET / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS RES	PED LOC	ERROR	ACT EVENT	CAUSE
01894	N	N	N N N	N	N	N	11/28/2024	16	KEES ST	INTER	CROSS	N	N	CLD	O-1 L-TURN	01	NONE 0	STRGHT										02
CITY			TH				0	STOLTZ HILL RD	CN		STOP SIGN	N	DRY	TURN			PRVTE	S -N									000	00
N			1P						04	0		N	DAY	INJ			PSNGR CAR		01	DRVR	NONE	47	M	OR-Y		000	000	00
N			44 31 26.4				-122 55 16.45																	OR<25				
																01	NONE 0	STRGHT										
																	PRVTE	S -N									000	00
																	PSNGR CAR		02	PSNG	INJB	44	F			000	000	00
																02	NONE 0	TURN-L										
																	PRVTE	N -E									000	00
																	PSNGR CAR		01	DRVR	NONE	64	M	OR-Y		028,004	000	02
																								OR<25				

LINN COUNTY

STOLZ HILL RD, MP 5.7 to 5.72, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2020 to 12/31/2024

1 - 1 of 1 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D R U G S	M J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	MILEPNT / DIST FROM / INTERSECT / LONG	COUNTY ROADS / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS / (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC TYPE	INJ SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01723	N	N	N	N			11/16/2022	5.70	STOLZ HILL RD	INTER	CROSS	N	N	CLR	S-1TURN	01	NONE 0	STRGHT										06,02
COUNTY							WE			CN		STOP SIGN	N	DRY	TURN		PRVTE	N -S									031	00
N							1P			04	0		N	DAY	INJ		MTRCYCLE		01	DRVR	INJA	46	M	SUSP		034,028	000		06,02
N							44 31 26.38	-122 55 16.4																OR<25					
																02	NONE 0	TURN-L									006		00
																	PRVTE	N -E											
																	PSNGR CAR		01	DRVR	NONE	39	F	OR-Y		000	000		00
																								OR<25					

LINN COUNTY

AIRPORT DR, MP 1.6 to 1.7, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2020 to 12/31/2024

1 - 5 of 10 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	MILEPNT / DIST FROM / INTERSECT / LONG	COUNTY ROADS / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01024	N	N	N	N	N	N	07/19/2022	1.60	AIRPORT DR	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										02
CITY			TU				0			CN		STOP SIGN	N	DRY	ANGL		PRVTE	S -N									015	00
N			6A							02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		028	000	02
N			44 31 35.78				-122 55 25.41																	OR<25				
																02	NONE 0	STRGHT										
																	PRVTE	E -W									000	00
																	PSNGR CAR		01	DRVR	INJC	73	M	OR-Y		000	000	00
																								OR<25				
00420	N	N	N	N			03/28/2022	1.68	AIRPORT DR	INTER	CROSS	N	N	UNK	ANGL-OTH	01	NONE 9	STRGHT										03
NONE			MO							UN		STOP SIGN	N	UNK	ANGL		N/A	S -N									000	00
N			8A							02	0		N	DAWN	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
N			44 31 35.8				-122 55 25.46																	UNK				
																02	NONE 9	STRGHT										
																	N/A	E -W									000	00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000	00
																								UNK				
00445	N	N	N	N	N	N	03/29/2023	1.68	AIRPORT DR	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										02
CITY			WE							CN		STOP SIGN	N	DRY	ANGL		PRVTE	S -N									015	00
N			5P							02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	58	M	SUSP		028	000	02
N			44 31 35.8				-122 55 25.46																	OR<25				
																02	NONE 0	STRGHT										
																	PRVTE	E -W									000	00
																	PSNGR CAR		01	DRVR	INJB	60	M	OR-Y		000	000	00
																								OR<25				
																02	NONE 0	STRGHT										
																	PRVTE	E -W									000	00
																	PSNGR CAR		02	PSNG	INJB	60	F			000	000	00
00713	N	N	N	N	N	N	05/24/2023	1.68	AIRPORT DR	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										02
CITY			WE							CN		STOP SIGN	N	DRY	ANGL		PRVTE	S -N									015	00
N			11A							02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	85	M	OR-Y		028	000	02
N			44 31 35.8				-122 55 25.46																	OR<25				
																02	NONE 0	STRGHT										
																	PRVTE	E -W									000	00
																	PSNGR CAR		01	DRVR	INJC	30	F	NONE		000	000	00
																								OR<25				
01727	Y	N	N	N	N	N	11/10/2024	1.68	AIRPORT DR	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT										30,02
CITY			SU							CN		STOP SIGN	N	WET	ANGL		PRVTE	E -W									000	00
N			6P							02	0		N	DUSK	INJ		PSNGR CAR		01	DRVR	INJC	25	M	OR-Y		050	000	30
N			44 31 35.8				-122 55 25.46																	OR<25				
																02	NONE 0	STRGHT										
																	PRVTE	S -N									000	00
																	PSNGR CAR		01	DRVR	NONE	36	F	SUSP		028	000	02
																								OR<25				

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G	J I N V	S C H L	W O R K	DATE / DAY / TIME / LAT	MILEPNT / DIST FROM / INTERSECT / LONG	COUNTY ROADS / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER	MOVE / FROM / TO	P#	PRTC / INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01644	N	N	N	N	N	N	11/03/2022	1.68	AIRPORT DR	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 0	STRGHT									132	40,03
COUNTY			TH							CN		STOP SIGN	N	WET	ANGL		PRVTE	N -S								000		00
N			7P							03	0		N	DLIT	INJ		PSNGR CAR		01	DRVR	NONE	61	F	OR-Y		021	000	132	40,03
N			44 31 35.8					-122 55 25.46																OR<25					
																02	NONE 0	STRGHT										
																	PRVTE	W -E								000		00
																	PSNGR CAR		01	DRVR	INJB	18	F	OR-Y		000	000		00
																								OR<25					
																02	NONE 0	STRGHT										
																	PRVTE	W -E								000		00
																	PSNGR CAR		02	PSNG	INJC	22	M			000	000		00
																02	NONE 0	STRGHT										
																	PRVTE	W -E								000		00
																	PSNGR CAR		03	PSNG	INJC	16	F			000	000		00
00638	N	N	N	N	N	N	05/07/2024	1.68	AIRPORT DR	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 9	STRGHT										27,02
CITY			TU							CN		STOP SIGN	N	DRY	ANGL		N/A	W -E								000		00
N			5P							03	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N			44 31 35.8					-122 55 25.46																UNK					
																02	NONE 9	STRGHT										
																	N/A	N -S								015		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					
01333	N	N	N	N	N	N	11/06/2020	1.68	AIRPORT DR	INTER	CROSS	N	N	RAIN	ANGL-OTH	01	NONE 9	STRGHT										08,02
CITY			FR							CN		STOP SIGN	N	WET	TURN		N/A	W -E								000		00
N			1P							04	0		N	DAY	PDO		PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
N			44 31 35.79					-122 55 25.42																UNK					
																02	NONE 9	TURN-L										
																	N/A	S -W								000		00
																	PSNGR CAR		01	DRVR	NONE	00	Unk	UNK		000	000		00
																								UNK					
01195	N	N	N	N			09/12/2021	1.68	AIRPORT DR	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										03
STATE			SU							CN		STOP SIGN	N	DRY	ANGL		PRVTE	S -N								000		00
N			10A							04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	20	M	OR-Y		073,021	088		03
N			44 31 35.79					-122 55 25.41																OR<25					
																02	NONE 0	STRGHT										
																	PRVTE	W -E								000		00
																	PSNGR CAR		01	DRVR	INJB	23	F	OR-Y		000	000		00
																								OR>25					
00397	N	N	N	N	N	N	03/21/2023	1.68	AIRPORT DR	INTER	CROSS	N	N	FOG	ANGL-OTH	01	NONE 0	STRGHT										02
CITY			TU							CN		STOP SIGN	N	DRY	TURN		PRVTE	W -E								000		00
N			7A							04	0		N	DAY	INJ		PSNGR CAR		01	DRVR	INJC	34	M	OTH-Y		000	000		00
N			44 31 35.8					-122 55 25.46																OR<25					

LINN COUNTY

AIRPORT DR, MP 1.6 to 1.7, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2020 to 12/31/2024

10 - 10 of 10 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D R G S	M J U N V	S I H L	W C O R K	DATE / DAY / TIME / LAT	MILEPNT / DIST FROM / INTERSECT / LONG	COUNTY ROADS / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	SPCL USE / TRLR QTY / OWNER / V# / TYPE	MOVE / FROM / TO / P# / TYPE	PRTC / INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
																02 NONE 0	TURN-L									
																PRVTE	S -W							015		00
																PSNGR CAR		01 DRVR NONE	45	M	OR-Y		028,004	000		02
																					OR<25					

LINN COUNTY

AIRPORT RD, MP 1.68 to 1.68, ALL Crashes Severity, ALL Crashes Circumstance, 01/01/2020 to 12/31/2024

1 - 2 of 2 Crash records shown.

SER# / INVEST / RD DPT / UNLOC?	S P E D	A L C	D M R U G S	J N S	I H V	C O L	W R K	DATE / DAY / TIME / LAT	MILEPNT / DIST FROM / INTERSECT / LONG	COUNTY ROADS / FIRST STREET / SECOND STREET / LRS	RD CHAR / DIRECT / LOCTN	INT-TYPE (MEDIAN) / LEGS (#LANES)	INT-REL / TRAF- / CONTL	OFFRD / RNDBT / DRVWY	WTHR / SURF / LIGHT	CRASH / COLL / SVRTY	V#	SPCL USE / TRLR QTY / OWNER / TYPE	MOVE / FROM / TO	P#	PRTC / TYPE	INJ / SVRTY	A G E	S E X	LICNS / RES	PED LOC	ERROR	ACT	EVENT	CAUSE
01039	N	N	N	N	N	N	N	07/21/2022	1.68	AIRPORT RD	INTER	CROSS	N	N	CLD	ANGL-OTH	01	NONE 0	STRGHT										03
CITY			TH								CN		STOP SIGN	N	DRY	ANGL		PRVTE	S -N									000	00
N			8A								02	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	17	M	OR-Y		021	000		03
N			44 31 35.8		-122 55 25.46																				OR<25					
																	02	NONE 0	STRGHT										
																		PRVTE	E -W									000	00
																		PSNGR CAR		01	DRVR	INJC	73	M	OR-Y		000	000		00
																									OR<25				
00690	N	N	N	N				06/08/2021	1.68	AIRPORT RD	INTER	CROSS	N	N	CLR	ANGL-OTH	01	NONE 0	STRGHT										02
NO RPT			TU								CN		STOP SIGN	N	DRY	ANGL		PRVTE	N -S									015	00
N			2P								03	0		N	DAY	INJ		PSNGR CAR		01	DRVR	NONE	53	F	OR-Y		028	000		02
N			44 31 35.78		-122 55 25.41																				OR<25				
																	02	NONE 0	STRGHT										
																		PRVTE	W -E									000	00
																		PSNGR CAR		01	DRVR	INJB	65	F	OR-Y		000	000		00
																									OR<25				

Appendix B
Traffic Count Data

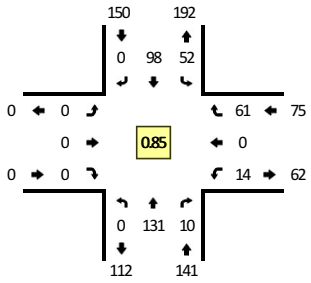
Type of peak hour being reported: Intersection Peak

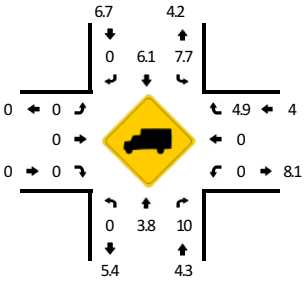
Method for determining peak hour: Total Entering Volume

LOCATION: Stoltz Hill Rd -- Walker Rd
CITY/STATE: Lebanon, OR

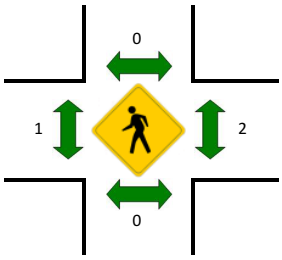
QC JOB #: 16900101
DATE: Thu, Jan 30 2025

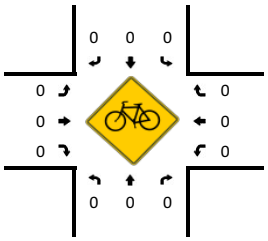
Peak-Hour: 7:20 AM -- 8:20 AM
Peak 15-Min: 7:40 AM -- 7:55 AM

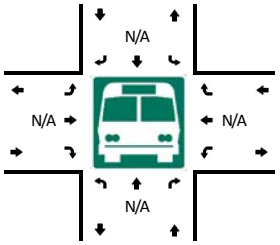


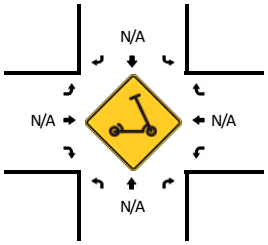


TRUE DATA TO IMPROVE MOBILITY









5-Min Count Period Beginning At	Stoltz Hill Rd (Northbound)				Stoltz Hill Rd (Southbound)				Walker Rd (Eastbound)				Walker Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	4	2	0	5	9	0	0	0	0	0	0	0	0	4	0	24	
7:05 AM	0	12	0	0	2	4	0	0	0	0	0	0	2	0	11	0	31	
7:10 AM	0	7	0	0	0	1	0	0	0	0	0	0	1	0	5	0	14	
7:15 AM	0	12	2	0	1	7	0	0	0	0	0	0	0	0	6	0	28	
7:20 AM	0	14	0	0	2	4	0	0	0	0	0	0	0	0	8	0	28	
7:25 AM	0	9	2	0	4	3	0	0	0	0	0	0	0	0	7	0	25	
7:30 AM	0	13	1	0	7	5	0	0	0	0	0	0	3	0	7	0	36	
7:35 AM	0	12	0	0	5	8	0	0	0	0	0	0	3	0	4	0	32	
7:40 AM	0	7	4	0	2	12	0	0	0	0	0	0	0	0	3	0	28	
7:45 AM	0	13	0	0	3	15	0	0	0	0	0	0	2	0	7	0	40	
7:50 AM	0	14	0	0	4	17	0	0	0	0	0	0	1	0	4	0	40	
7:55 AM	0	9	0	0	5	6	0	0	0	0	0	0	0	0	7	0	27	353
8:00 AM	0	13	0	0	6	12	0	0	0	0	0	0	0	0	1	0	32	361
8:05 AM	0	10	2	0	3	8	0	0	0	0	0	0	2	0	1	0	26	356
8:10 AM	0	5	0	0	6	4	0	0	0	0	0	0	1	0	5	0	21	363
8:15 AM	0	12	1	0	5	4	0	0	0	0	0	0	2	0	7	0	31	366
8:20 AM	0	10	0	0	2	3	0	0	0	0	0	0	0	0	7	0	22	360
8:25 AM	0	8	0	0	2	2	0	0	0	0	0	0	2	0	4	0	18	353
8:30 AM	0	8	1	0	2	2	0	0	0	0	0	0	2	0	4	0	19	336
8:35 AM	0	3	1	0	0	2	0	0	0	0	0	0	0	0	3	0	9	313
8:40 AM	0	7	1	0	0	5	0	0	0	0	0	0	0	0	4	0	17	302
8:45 AM	0	5	0	0	0	6	0	0	0	0	0	0	0	0	3	0	14	276
8:50 AM	0	6	0	0	1	4	0	0	0	0	0	0	0	0	5	0	16	252
8:55 AM	0	5	2	0	1	3	0	0	0	0	0	0	0	0	2	0	13	238

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	136	16	0	36	176	0	0	0	0	0	0	12	0	56	0	432
Heavy Trucks	0	4	0		0	8	0		0	0	0		0	0	0		12
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/4/2025 12:22 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

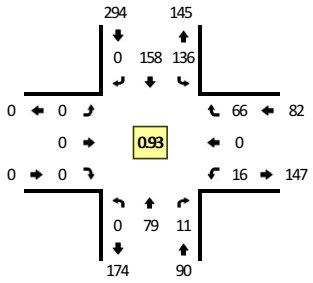
Type of peak hour being reported: Intersection Peak

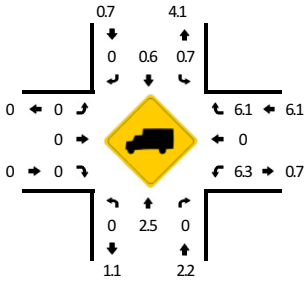
Method for determining peak hour: Total Entering Volume

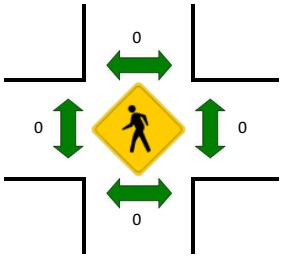
LOCATION: Stoltz Hill Rd -- Walker Rd
CITY/STATE: Lebanon, OR

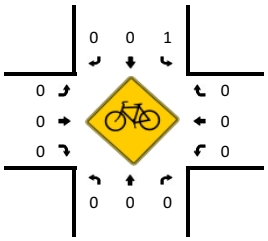
QC JOB #: 16900102
DATE: Thu, Jan 30 2025

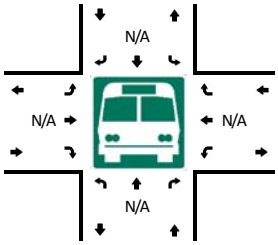
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

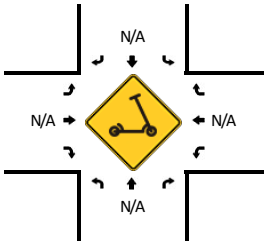












5-Min Count Period Beginning At	Stoltz Hill Rd (Northbound)				Stoltz Hill Rd (Southbound)				Walker Rd (Eastbound)				Walker Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	6	2	0	16	12	0	0	0	0	0	0	2	0	1	0	39	
4:05 PM	0	7	0	0	9	13	0	0	0	0	0	0	0	0	9	0	38	
4:10 PM	0	7	1	0	10	11	0	0	0	0	0	0	2	0	9	0	40	
4:15 PM	0	8	0	0	12	12	0	0	0	0	0	0	1	0	5	0	38	
4:20 PM	0	4	0	0	10	16	0	0	0	0	0	0	2	0	5	0	37	
4:25 PM	0	9	2	0	10	18	0	0	0	0	0	0	1	0	4	0	44	
4:30 PM	0	10	1	0	8	8	0	0	0	0	0	0	0	0	6	0	33	
4:35 PM	0	6	0	0	20	16	0	0	0	0	0	0	1	0	2	0	45	
4:40 PM	0	5	4	0	8	5	0	0	0	0	0	0	0	0	5	0	27	
4:45 PM	0	5	1	0	12	19	0	0	0	0	0	0	2	0	7	0	46	
4:50 PM	0	7	0	0	12	16	0	0	0	0	0	0	4	0	5	0	44	
4:55 PM	0	5	0	0	9	12	0	0	0	0	0	0	1	0	8	0	35	466
5:00 PM	0	6	0	0	8	17	0	0	0	0	0	0	3	0	5	0	39	466
5:05 PM	0	6	4	0	11	10	0	0	0	0	0	0	2	0	2	0	35	463
5:10 PM	0	6	3	0	9	5	0	0	0	0	0	0	2	0	1	0	26	449
5:15 PM	0	6	5	0	8	16	0	0	0	0	0	0	0	0	4	0	39	450
5:20 PM	0	9	3	0	11	12	0	0	0	0	0	0	1	0	5	0	41	454
5:25 PM	0	4	2	0	8	12	0	0	0	0	0	0	2	0	8	0	36	446
5:30 PM	0	7	1	0	13	12	0	0	0	0	0	0	1	0	5	0	39	452
5:35 PM	0	7	1	0	10	10	0	0	0	0	0	0	1	0	4	0	33	440
5:40 PM	0	5	3	0	11	12	0	0	0	0	0	0	2	0	1	0	34	447
5:45 PM	0	2	1	0	7	13	0	0	0	0	0	0	0	0	5	0	28	429
5:50 PM	0	4	0	0	6	12	0	0	0	0	0	0	1	0	3	0	26	411
5:55 PM	0	7	4	0	4	9	0	0	0	0	0	0	2	0	3	0	29	405

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	0	68	4	0	132	188	0	0	0	0	0	0	28	0	80	0	500
Heavy Trucks	0	0	0		0	0	0		0	0	0		0	0	4		4
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

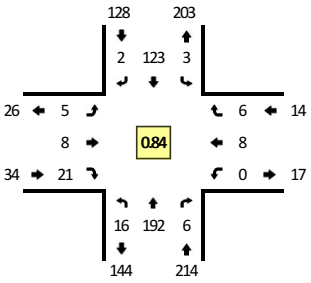
Report generated on 2/4/2025 12:22 PM

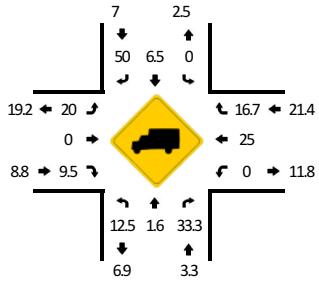
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

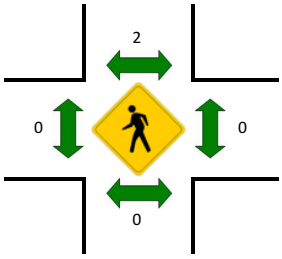
LOCATION: Stoltz Hill Rd -- Kees St | **QC JOB #:** 16900103
CITY/STATE: Linn, OR | **DATE:** Thu, Jan 30 2025

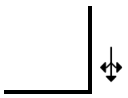
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

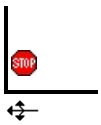


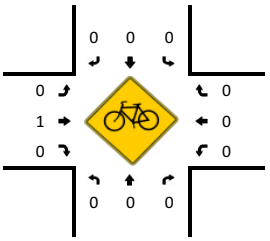


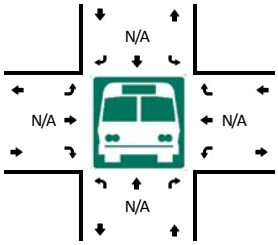
TRUE DATA TO IMPROVE MOBILITY

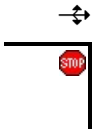


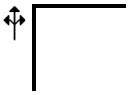


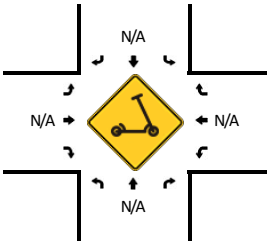












5-Min Count Period Beginning At	Stoltz Hill Rd (Northbound)				Stoltz Hill Rd (Southbound)				Kees St (Eastbound)				Kees St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	8	0	0	0	11	0	0	0	0	2	0	0	0	0	0	21	
7:05 AM	0	23	0	0	0	4	0	0	0	0	1	0	0	0	0	0	28	
7:10 AM	1	14	0	0	0	2	1	0	1	1	0	0	0	0	0	0	20	
7:15 AM	2	15	0	0	0	7	0	0	0	1	1	0	0	1	0	0	27	
7:20 AM	1	19	2	0	0	8	0	0	1	0	0	0	0	0	0	0	31	
7:25 AM	1	17	0	0	1	5	0	0	1	2	3	0	0	1	0	0	31	
7:30 AM	1	18	1	0	0	12	0	0	0	2	1	0	0	1	4	0	40	
7:35 AM	1	17	2	0	1	13	0	0	2	1	4	0	0	2	2	0	45	
7:40 AM	0	10	0	0	1	12	0	0	0	0	3	0	0	1	0	0	27	
7:45 AM	4	16	0	0	0	18	0	0	0	0	1	0	0	1	0	0	40	
7:50 AM	2	18	0	0	0	15	1	0	0	0	2	0	0	0	0	0	38	
7:55 AM	3	13	1	0	0	10	0	0	0	0	3	0	0	0	0	0	30	378
8:00 AM	0	12	0	0	0	17	0	0	0	1	2	0	0	1	0	0	33	390
8:05 AM	1	13	0	0	0	10	0	0	0	0	0	0	0	0	0	0	24	386
8:10 AM	0	11	0	0	0	10	0	0	0	0	2	0	0	0	1	0	24	390
8:15 AM	2	13	2	0	0	7	0	0	0	0	1	0	0	0	0	0	25	388
8:20 AM	0	13	4	0	0	4	0	0	0	0	1	0	0	0	0	0	22	379
8:25 AM	1	12	0	0	0	5	0	0	0	0	0	0	0	0	0	0	18	366
8:30 AM	1	13	0	0	0	2	0	0	0	0	0	0	0	0	0	0	16	342
8:35 AM	1	5	0	0	0	2	0	0	1	0	0	0	0	0	1	0	10	307
8:40 AM	0	10	0	0	1	4	0	0	0	0	1	0	0	1	0	0	17	297
8:45 AM	1	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	14	271
8:50 AM	0	12	0	0	0	3	0	0	0	0	0	0	1	0	0	0	16	249
8:55 AM	2	5	0	0	0	4	1	0	0	0	0	0	0	0	0	0	12	231

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	12	208	12	0	8	120	0	0	12	20	32	0	0	16	24	0	464
Heavy Trucks	4	8	0		0	4	0		0	0	0		0	4	4		24
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	4	0		0	0	0		4
Scooters																	

Comments:

Report generated on 2/4/2025 12:22 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

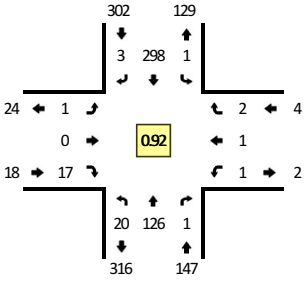
Type of peak hour being reported: Intersection Peak

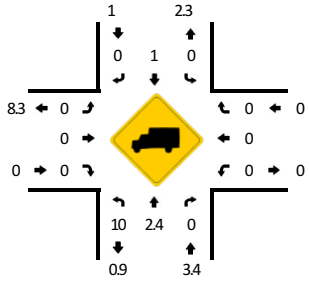
Method for determining peak hour: Total Entering Volume

LOCATION: Stoltz Hill Rd -- Kees St
CITY/STATE: Linn, OR

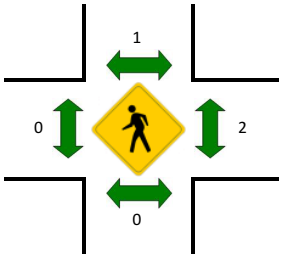
QC JOB #: 16900104
DATE: Thu, Jan 30 2025

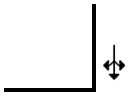
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:45 PM -- 5:00 PM

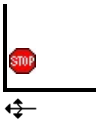


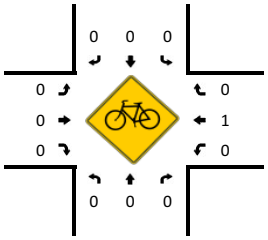


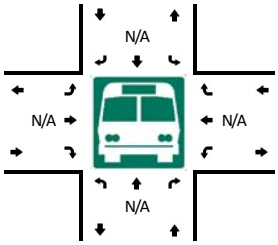
TRUE DATA TO IMPROVE MOBILITY

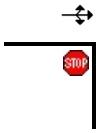


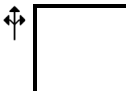


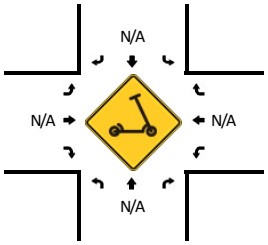












5-Min Count Period Beginning At	Stoltz Hill Rd (Northbound)				Stoltz Hill Rd (Southbound)				Kees St (Eastbound)				Kees St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	7	0	0	0	29	0	0	1	0	2	0	0	0	0	0	39	
4:05 PM	1	16	0	0	0	20	0	0	0	0	2	0	0	0	0	0	39	
4:10 PM	3	14	0	0	0	21	0	0	0	0	1	0	0	1	0	0	40	
4:15 PM	1	15	0	0	0	24	0	0	0	0	2	0	0	0	0	0	42	
4:20 PM	0	9	0	0	0	26	1	0	0	0	2	0	0	0	0	0	38	
4:25 PM	1	11	0	0	1	29	0	0	0	0	1	0	0	0	0	0	43	
4:30 PM	6	8	0	0	0	16	0	0	0	0	0	0	0	0	1	0	31	
4:35 PM	0	7	0	0	0	35	0	0	0	0	1	0	0	0	0	0	43	
4:40 PM	3	8	0	0	0	16	1	0	0	0	0	0	0	0	0	0	28	
4:45 PM	1	11	0	0	0	26	0	0	0	0	6	0	1	0	0	0	45	
4:50 PM	3	9	1	0	0	29	0	0	0	0	0	0	0	0	0	0	42	
4:55 PM	1	11	0	0	0	27	1	0	0	0	0	0	0	0	1	0	41	471
5:00 PM	1	12	0	0	0	22	0	0	0	0	2	0	0	0	0	0	37	469
5:05 PM	2	7	0	0	0	21	0	0	0	0	1	0	0	0	0	0	31	461
5:10 PM	3	3	0	0	1	13	0	0	0	0	0	0	0	1	1	0	22	443
5:15 PM	2	8	0	0	1	26	0	0	0	0	0	0	0	0	0	0	37	438
5:20 PM	1	9	0	0	0	24	0	0	0	1	1	0	1	0	0	0	37	437
5:25 PM	3	9	0	0	0	22	0	0	0	0	0	0	0	0	0	0	34	428
5:30 PM	2	10	0	0	0	23	0	0	0	1	2	0	0	0	0	0	38	435
5:35 PM	2	10	0	0	0	18	1	0	0	1	1	0	0	1	0	0	34	426
5:40 PM	2	4	0	0	0	22	0	0	1	0	0	0	0	0	0	0	29	427
5:45 PM	1	8	0	0	0	20	0	0	0	0	1	0	0	0	0	0	30	412
5:50 PM	0	6	1	0	0	17	0	0	0	0	2	0	0	0	0	0	26	396
5:55 PM	2	5	0	0	1	16	2	0	0	0	0	0	0	0	0	0	26	381

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	20	124	4	0	0	328	4	0	0	0	24	0	4	0	4	0	512
Heavy Trucks	4	0	0		0	0	0		0	0	0		0	0	0		4
Buses																	
Pedestrians		0				4				0				4			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/4/2025 12:22 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

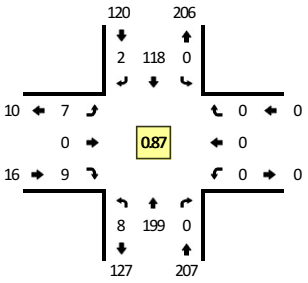
Type of peak hour being reported: Intersection Peak

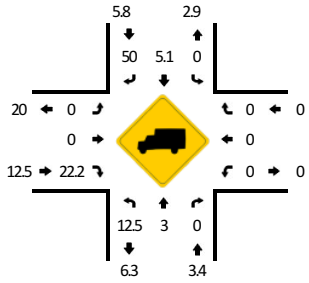
Method for determining peak hour: Total Entering Volume

LOCATION: Stoltz Hill Rd -- Antioch St
CITY/STATE: Linn, OR

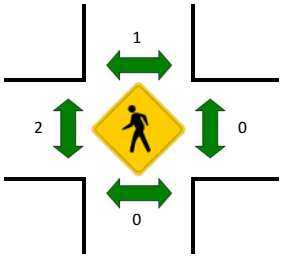
QC JOB #: 16900105
DATE: Thu, Jan 30 2025

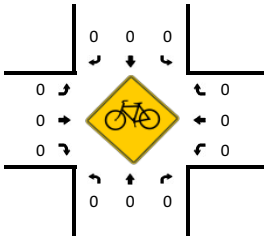
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:45 AM -- 8:00 AM

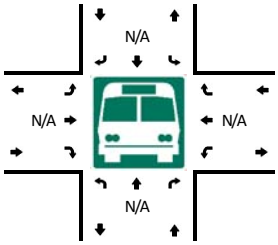


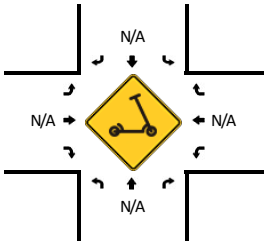


TRUE DATA TO IMPROVE MOBILITY









5-Min Count Period Beginning At	Stoltz Hill Rd (Northbound)				Stoltz Hill Rd (Southbound)				Antioch St (Eastbound)				Antioch St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	9	0	0	0	10	0	0	0	0	1	0	0	0	0	0	20	
7:05 AM	0	23	0	0	0	4	1	0	0	0	0	0	0	0	0	0	28	
7:10 AM	0	15	0	0	0	3	0	0	1	0	0	0	0	0	0	0	19	
7:15 AM	1	14	0	0	0	5	0	0	1	0	2	0	0	0	0	0	23	
7:20 AM	1	20	0	0	0	6	0	0	1	0	0	0	0	0	0	0	28	
7:25 AM	1	17	0	0	0	4	0	0	1	0	2	0	0	0	0	0	25	
7:30 AM	2	19	0	0	0	10	1	0	0	0	2	0	0	0	0	0	34	
7:35 AM	2	20	0	0	0	13	0	0	1	0	1	0	0	0	0	0	37	
7:40 AM	0	10	0	0	0	13	0	0	1	0	0	0	0	0	0	0	24	
7:45 AM	0	17	0	0	0	19	0	0	1	0	0	0	0	0	0	0	37	
7:50 AM	0	17	0	0	0	15	0	0	0	0	1	0	0	0	0	0	33	
7:55 AM	1	15	0	0	0	13	0	0	0	0	0	0	0	0	0	0	29	337
8:00 AM	0	12	0	0	0	13	0	0	0	0	1	0	0	0	0	0	26	343
8:05 AM	0	13	0	0	0	9	0	0	0	0	0	0	0	0	0	0	22	337
8:10 AM	2	10	0	0	0	11	1	0	0	0	0	0	0	0	0	0	24	342
8:15 AM	0	13	0	0	0	6	0	0	0	0	0	0	0	0	0	0	19	338
8:20 AM	0	13	0	0	0	5	0	0	0	0	0	0	0	0	0	0	18	328
8:25 AM	1	11	0	0	0	4	0	0	0	0	0	0	0	0	0	0	16	319
8:30 AM	0	13	0	0	0	2	2	0	0	0	0	0	0	0	0	0	17	302
8:35 AM	0	7	0	0	0	2	0	0	0	0	0	0	0	0	0	0	9	274
8:40 AM	0	10	0	0	0	4	0	0	0	0	1	0	0	0	0	0	15	265
8:45 AM	0	7	0	0	0	6	0	0	0	0	0	0	0	0	0	0	13	241
8:50 AM	0	12	0	0	0	3	0	0	0	0	0	0	0	0	0	0	15	223
8:55 AM	0	5	0	0	0	3	0	0	0	0	2	0	0	0	0	0	10	204

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	196	0	0	0	188	0	0	4	0	4	0	0	0	0	0	396
Heavy Trucks	0	4	0		0	12	0		0	0	0		0	0	0		16
Buses																	
Pedestrians		0				0				4				0			4
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

Report generated on 2/4/2025 12:22 PM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

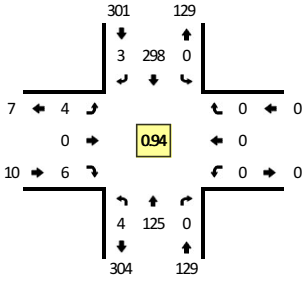
Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

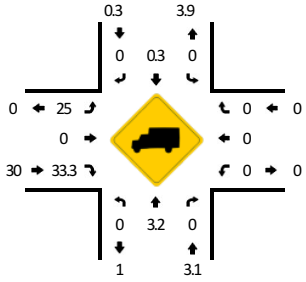
LOCATION: Stoltz Hill Rd -- Antioch St
CITY/STATE: Linn, OR

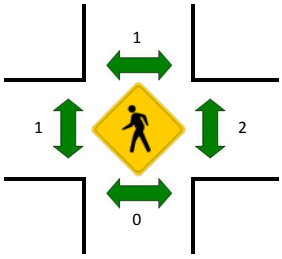
QC JOB #: 16900106
DATE: Thu, Jan 30 2025

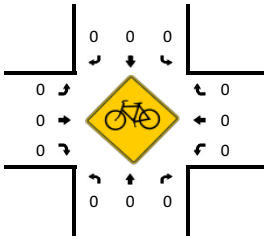
Peak-Hour: 4:00 PM -- 5:00 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

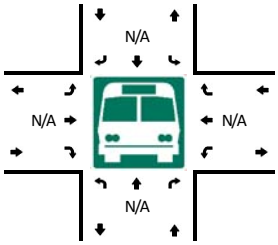


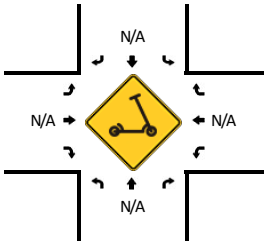
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	Stoltz Hill Rd (Northbound)				Stoltz Hill Rd (Southbound)				Antioch St (Eastbound)				Antioch St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	9	0	0	0	29	0	0	0	0	0	0	0	0	0	0	38	
4:05 PM	0	16	0	0	0	21	0	0	0	0	0	0	0	0	0	0	37	
4:10 PM	0	14	0	0	0	22	0	0	1	0	0	0	0	0	0	0	37	
4:15 PM	0	14	0	0	0	22	1	0	1	0	2	0	0	0	0	0	40	
4:20 PM	0	9	0	0	0	27	0	0	1	0	0	0	0	0	0	0	37	
4:25 PM	1	9	0	0	0	30	0	0	0	0	0	0	0	0	0	0	40	
4:30 PM	0	10	0	0	0	16	1	0	0	0	0	0	0	0	0	0	27	
4:35 PM	0	7	0	0	0	33	0	0	0	0	1	0	0	0	0	0	41	
4:40 PM	0	8	0	0	0	16	1	0	1	0	1	0	0	0	0	0	27	
4:45 PM	0	11	0	0	0	27	0	0	0	0	0	0	0	0	0	0	38	
4:50 PM	1	8	0	0	0	27	0	0	0	0	2	0	0	0	0	0	38	
4:55 PM	2	10	0	0	0	28	0	0	0	0	0	0	0	0	0	0	40	440
5:00 PM	2	9	0	0	0	21	0	0	0	0	1	0	0	0	0	0	33	435
5:05 PM	0	8	0	0	0	20	1	0	0	0	0	0	0	0	0	0	29	427
5:10 PM	0	4	0	0	0	14	0	0	0	0	0	0	0	0	0	0	18	408
5:15 PM	0	8	0	0	0	27	0	0	1	0	1	0	0	0	0	0	37	405
5:20 PM	0	9	0	0	0	23	0	0	1	0	1	0	0	0	0	0	34	402
5:25 PM	2	7	0	0	0	21	0	0	0	0	0	0	0	0	0	0	30	392
5:30 PM	1	9	0	0	0	26	0	0	0	0	0	0	0	0	0	0	36	401
5:35 PM	1	9	0	0	0	17	1	0	0	0	0	0	0	0	0	0	28	388
5:40 PM	0	5	0	0	0	21	0	0	0	0	0	0	0	0	0	0	26	387
5:45 PM	1	7	0	0	0	22	2	0	0	0	0	0	0	0	0	0	32	381
5:50 PM	1	6	0	0	0	15	1	0	0	0	0	0	0	0	0	0	23	366
5:55 PM	1	3	0	0	0	20	2	0	0	0	0	0	0	0	0	0	26	352

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	4	128	0	0	0	316	4	0	8	0	8	0	0	0	0	0	468
Heavy Trucks	0	4	0		0	0	0		4	0	8		0	0	0		16
Buses																	
Pedestrians		0				4				4				0			8
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

Comments:

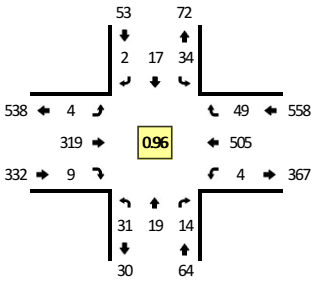
Report generated on 2/4/2025 12:22 PM

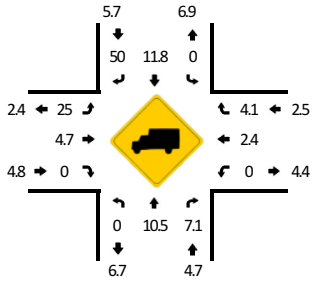
SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

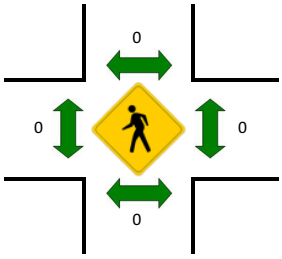
LOCATION: 12th St -- Airport Rd | **QC JOB #:** 16900107
CITY/STATE: Linn, OR | **DATE:** Thu, Jan 30 2025

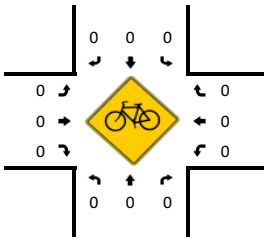
Peak-Hour: 7:00 AM -- 8:00 AM
Peak 15-Min: 7:10 AM -- 7:25 AM

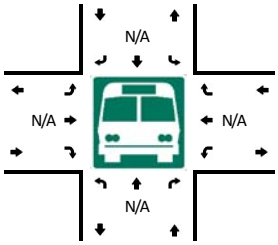


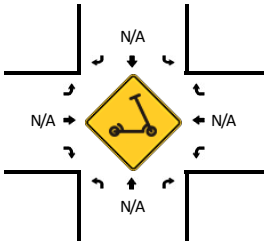


TRUE DATA TO IMPROVE MOBILITY









5-Min Count Period Beginning At	12th St (Northbound)				12th St (Southbound)				Airport Rd (Eastbound)				Airport Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	1	1	0	3	1	0	0	0	29	0	0	0	41	1	0	83	
7:05 AM	2	1	2	0	1	0	0	0	1	15	2	0	0	50	3	0	77	
7:10 AM	1	0	2	0	3	0	0	0	0	25	1	0	0	54	5	0	91	
7:15 AM	6	1	2	0	0	2	1	0	0	20	1	0	1	47	10	0	91	
7:20 AM	4	4	0	0	4	1	0	0	0	27	1	0	0	33	6	0	80	
7:25 AM	2	1	2	0	3	3	0	0	1	26	1	0	0	46	3	0	88	
7:30 AM	1	6	2	0	3	1	0	0	0	28	2	0	2	34	7	0	86	
7:35 AM	1	3	1	0	3	2	0	0	0	29	0	0	0	27	3	0	69	
7:40 AM	0	1	1	0	4	2	0	0	1	20	0	0	0	48	3	0	80	
7:45 AM	2	0	0	0	5	2	0	0	0	38	0	0	0	40	5	0	92	
7:50 AM	0	0	0	0	2	1	1	0	1	34	1	0	1	41	2	0	84	
7:55 AM	6	1	1	0	3	2	0	0	0	28	0	0	0	44	1	0	86	1007
8:00 AM	3	1	1	0	2	0	0	0	0	27	0	0	0	39	3	0	76	1000
8:05 AM	3	0	0	0	3	0	0	0	0	24	1	0	0	33	3	0	67	990
8:10 AM	1	0	2	0	1	0	1	0	0	24	0	0	1	47	2	0	79	978
8:15 AM	2	0	2	0	1	0	0	0	0	24	0	0	0	35	1	0	65	952
8:20 AM	0	1	1	0	2	1	0	0	0	20	1	0	1	39	1	0	67	939
8:25 AM	1	2	0	0	0	0	0	0	0	13	0	0	1	37	5	0	59	910
8:30 AM	0	0	0	0	0	0	0	0	0	20	0	0	0	41	4	0	65	889
8:35 AM	1	2	1	0	1	1	0	0	0	17	0	0	0	33	2	0	58	878
8:40 AM	0	0	1	0	0	0	0	0	0	16	0	0	3	22	2	0	44	842
8:45 AM	1	0	3	0	0	0	1	0	1	20	0	0	0	26	2	0	54	804
8:50 AM	0	1	1	0	6	1	1	0	0	24	0	0	2	24	0	0	60	780
8:55 AM	1	0	0	0	2	0	0	0	0	18	0	0	2	24	5	0	52	746

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	44	20	16	0	28	12	4	0	0	288	12	0	4	536	84	0	1048
Heavy Trucks	0	4	4		0	0	4		0	24	0		0	8	4		48
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0
Scooters																	

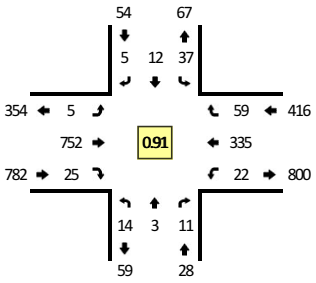
Comments:

Report generated on 2/4/2025 12:22 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

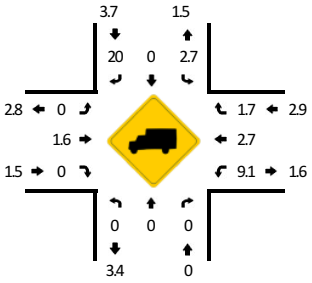
Type of peak hour being reported: Intersection Peak | Method for determining peak hour: Total Entering Volume

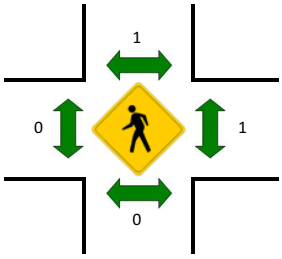
LOCATION: 12th St -- Airport Rd | **QC JOB #:** 16900108
CITY/STATE: Linn, OR | **DATE:** Thu, Jan 30 2025

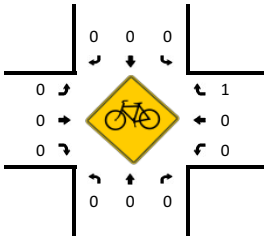
Peak-Hour: 4:05 PM -- 5:05 PM
Peak 15-Min: 4:15 PM -- 4:30 PM

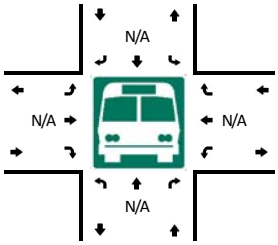


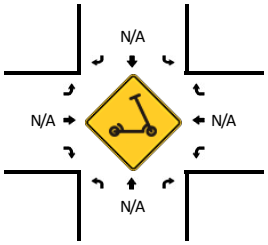
TRUE DATA TO IMPROVE MOBILITY











5-Min Count Period Beginning At	12th St (Northbound)				12th St (Southbound)				Airport Rd (Eastbound)				Airport Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	1	0	3	1	0	0	0	58	3	0	1	23	2	0	92	
4:05 PM	1	0	0	0	2	1	0	0	1	54	0	0	2	38	2	0	101	
4:10 PM	0	0	3	0	0	0	0	0	1	58	4	0	2	35	5	0	108	
4:15 PM	0	0	0	0	8	4	1	0	0	69	3	0	2	36	3	0	126	
4:20 PM	0	1	0	0	2	1	0	0	0	70	0	0	2	22	5	0	103	
4:25 PM	2	0	2	0	7	1	1	0	0	69	5	0	3	28	3	0	121	
4:30 PM	2	1	1	0	3	0	0	0	0	56	2	0	2	35	10	0	112	
4:35 PM	3	0	0	0	3	0	0	0	0	59	1	0	1	23	5	0	95	
4:40 PM	1	0	0	0	3	1	0	0	0	55	1	0	1	34	8	0	104	
4:45 PM	0	0	2	0	0	0	0	0	1	74	2	0	4	25	3	0	111	
4:50 PM	1	0	2	0	6	1	1	0	0	53	2	0	2	14	5	0	87	
4:55 PM	2	1	1	0	0	1	0	0	2	67	1	0	0	19	5	0	99	1259
5:00 PM	2	0	0	0	3	2	2	0	0	68	4	0	1	26	5	0	113	1280
5:05 PM	1	1	1	0	0	2	0	0	2	56	1	0	1	24	5	0	94	1273
5:10 PM	0	2	0	0	2	0	0	0	1	52	3	0	1	21	1	0	83	1248
5:15 PM	1	0	2	0	3	0	0	0	1	77	2	0	0	26	5	0	117	1239
5:20 PM	0	1	1	0	4	1	1	0	1	58	2	0	2	33	3	0	107	1243
5:25 PM	0	0	2	0	4	1	1	0	0	55	2	0	1	29	4	0	99	1221
5:30 PM	0	2	2	0	1	1	1	0	0	73	1	0	0	26	1	0	108	1217
5:35 PM	2	1	0	0	0	1	0	0	1	50	3	0	2	28	7	0	95	1217
5:40 PM	1	0	1	0	1	0	2	0	0	64	4	0	2	24	6	0	105	1218
5:45 PM	0	2	2	0	3	0	1	0	2	57	0	0	1	24	2	0	94	1201
5:50 PM	0	0	0	0	4	0	0	0	0	47	6	0	0	28	4	0	89	1203
5:55 PM	1	1	0	0	1	0	0	0	1	53	1	0	0	24	1	0	83	1187

Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	
All Vehicles	8	4	8	0	68	24	8	0	0	832	32	0	28	344	44	0	1400
Heavy Trucks	0	0	0		0	0	0		0	24	0		4	16	4		48
Buses																	
Pedestrians		0				0				0				0			0
Bicycles	0	0	0		0	0	0		0	0	0		0	0	4		4
Scooters																	

Comments:

Report generated on 2/4/2025 12:22 PM | SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

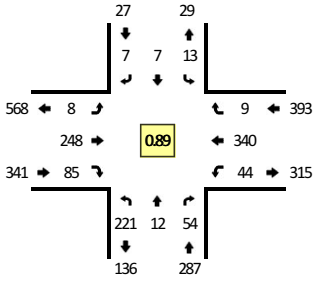
Type of peak hour being reported: Intersection Peak

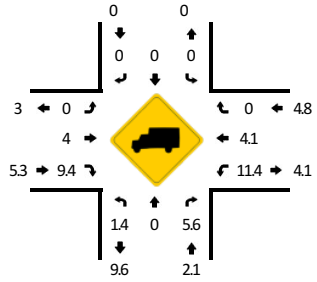
Method for determining peak hour: Total Entering Volume

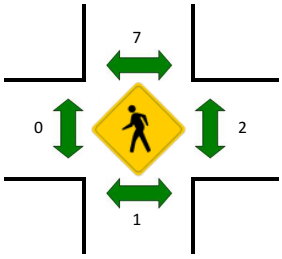
LOCATION: Stoltz Hill Rd -- Airport Rd
CITY/STATE: Linn, OR

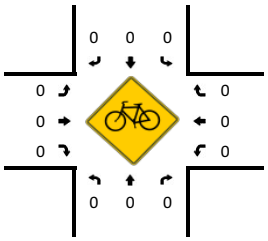
QC JOB #: 17497701
DATE: Thu, Mar 12 2026

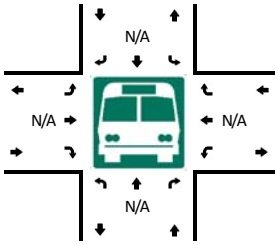
Peak-Hour: 7:05 AM -- 8:05 AM
Peak 15-Min: 7:25 AM -- 7:40 AM

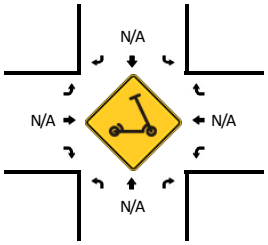












R* = RTOR

5-Min Count Period Beginning At	Stoltz Hill Rd (Northbound)					Stoltz Hill Rd (Southbound)					Airport Rd (Eastbound)					Airport Rd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
7:00 AM	18	2	0	0	4	1	0	1	0	0	1	18	3	0	0	0	22	0	0	1	71	
7:05 AM	24	1	2	0	0	0	1	0	0	0	1	19	5	0	1	2	30	0	0	0	86	
7:10 AM	19	1	3	0	4	2	0	2	0	1	0	20	2	0	1	2	28	1	0	0	86	
7:15 AM	27	1	5	0	1	2	1	0	0	0	1	12	1	0	2	5	28	0	0	0	86	
7:20 AM	12	3	2	0	2	0	1	0	0	1	1	26	7	0	2	2	22	0	0	0	81	
7:25 AM	19	1	3	0	1	1	1	0	0	0	0	24	5	0	0	3	40	2	0	0	100	
7:30 AM	13	0	1	0	2	1	1	0	0	2	1	30	5	0	1	2	34	1	0	0	94	
7:35 AM	18	2	6	0	5	2	0	0	0	0	0	29	10	0	0	4	26	0	0	0	102	
7:40 AM	21	0	3	0	3	1	0	0	0	0	2	20	7	0	1	7	30	3	0	0	98	
7:45 AM	13	0	1	0	1	2	1	0	0	0	0	17	11	0	0	8	29	0	0	0	83	
7:50 AM	17	1	0	0	4	1	0	0	0	0	1	15	13	0	0	2	28	2	0	0	84	
7:55 AM	16	0	1	0	0	1	0	0	0	0	0	17	4	0	0	3	27	0	0	0	69	1040
8:00 AM	22	2	4	0	0	0	1	0	0	1	1	19	7	0	0	4	18	0	0	0	79	1048
8:05 AM	23	0	0	0	0	0	1	1	0	0	1	17	4	0	0	2	19	0	0	0	68	1030
8:10 AM	17	1	3	0	2	1	1	0	0	0	0	12	2	0	0	2	15	0	0	0	56	1000
8:15 AM	10	1	1	0	0	2	2	0	0	0	0	11	5	0	0	1	19	1	0	0	53	967
8:20 AM	11	0	5	0	1	2	0	1	0	0	2	12	5	0	0	1	22	0	0	0	62	948
8:25 AM	11	2	2	0	1	3	1	1	0	0	0	15	9	0	1	1	21	2	0	0	70	918
8:30 AM	2	2	2	0	4	0	0	0	0	0	2	13	3	0	0	3	27	0	0	0	58	882
8:35 AM	13	1	0	0	0	1	1	0	0	0	3	11	6	0	0	0	21	0	0	0	57	837
8:40 AM	5	0	0	0	0	1	0	0	0	0	1	20	4	0	0	0	31	2	0	0	64	803
8:45 AM	13	1	1	0	3	2	2	1	0	2	3	10	3	0	1	3	20	1	0	0	66	786
8:50 AM	12	0	2	0	0	2	1	0	0	0	0	19	6	0	0	0	19	0	0	0	61	763
8:55 AM	8	0	1	0	2	1	0	0	0	0	1	13	6	0	0	0	13	0	0	0	45	739

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	200	12	72	0	32	16	8	8	0	8	4	332	84	0	4	36	400	12	0	0	1228
Heavy Trucks	0	0	4			0	0	0			0	4	16			0	8	0			32
Buses																					
Pedestrians		0					12					0					4				16
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 3/18/2026 9:44 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

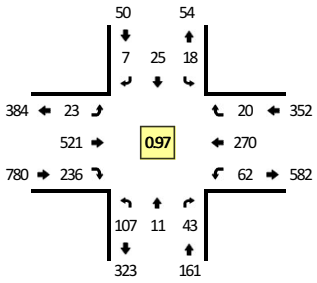
Type of peak hour being reported: Intersection Peak

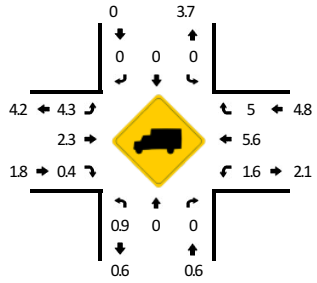
Method for determining peak hour: Total Entering Volume

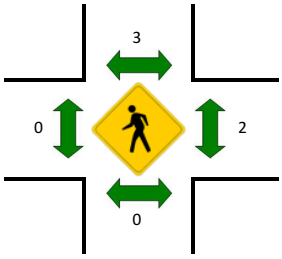
LOCATION: Stoltz Hill Rd -- Airport Rd
CITY/STATE: Linn, OR

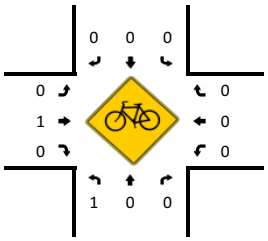
QC JOB #: 17497702
DATE: Thu, Mar 12 2026

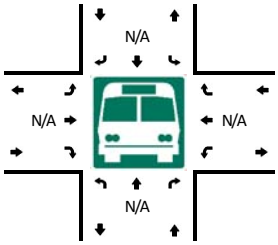
Peak-Hour: 4:35 PM -- 5:35 PM
Peak 15-Min: 5:15 PM -- 5:30 PM

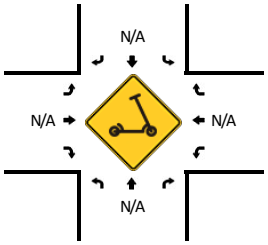












R* = RTOR

5-Min Count Period Beginning At	Stoltz Hill Rd (Northbound)					Stoltz Hill Rd (Southbound)					Airport Rd (Eastbound)					Airport Rd (Westbound)					Total	Hourly Totals
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*		
4:00 PM	10	0	3	0	2	3	0	0	0	0	2	41	19	0	2	3	20	2	0	0	107	
4:05 PM	11	0	0	0	2	2	1	0	0	1	1	31	19	0	1	1	31	0	0	0	101	
4:10 PM	9	2	0	0	1	2	1	0	0	1	1	40	16	0	2	5	24	2	0	0	106	
4:15 PM	9	0	2	0	0	1	5	0	0	0	2	36	23	0	1	5	24	2	0	0	110	
4:20 PM	6	3	1	0	3	2	0	0	0	2	0	32	17	0	5	2	11	1	0	0	85	
4:25 PM	11	2	0	0	2	1	0	0	0	1	2	36	13	0	1	4	29	1	0	0	103	
4:30 PM	6	2	0	0	2	1	1	0	0	1	2	37	15	0	1	2	20	1	0	1	92	
4:35 PM	8	0	7	0	1	2	2	0	0	0	1	50	20	0	3	9	36	1	0	0	140	
4:40 PM	9	1	1	0	2	1	0	0	0	1	2	41	21	0	0	8	19	0	0	0	106	
4:45 PM	7	2	1	0	5	1	3	0	0	0	1	41	13	0	2	4	16	3	0	0	99	
4:50 PM	7	0	1	0	3	3	1	0	0	0	2	42	13	0	1	3	22	1	0	0	99	
4:55 PM	7	0	2	0	2	0	2	1	0	0	2	37	17	0	2	7	18	0	0	2	99	1247
5:00 PM	8	1	2	0	2	0	2	2	0	0	2	45	14	0	2	2	22	2	0	1	107	1247
5:05 PM	13	1	1	0	0	3	2	0	0	0	2	45	17	0	0	5	22	0	0	0	111	1257
5:10 PM	6	1	1	0	0	1	2	0	0	0	1	40	17	0	2	5	25	2	0	1	104	1255
5:15 PM	13	1	1	0	2	0	4	0	0	0	4	49	20	0	2	1	34	0	0	0	131	1276
5:20 PM	7	1	1	0	1	3	2	0	0	0	3	35	19	0	3	4	13	4	0	1	97	1288
5:25 PM	12	2	2	0	0	0	3	0	0	1	0	46	25	0	1	8	18	1	0	0	119	1304
5:30 PM	10	1	3	0	2	4	2	0	0	2	3	50	21	0	1	6	25	1	0	0	131	1343
5:35 PM	5	0	1	0	4	2	2	1	0	1	1	41	17	0	1	7	20	1	0	3	107	1310
5:40 PM	9	1	5	0	1	1	1	0	0	0	1	38	11	0	0	10	9	1	0	0	88	1292
5:45 PM	10	1	5	0	2	0	3	0	0	0	3	50	16	0	0	1	22	1	0	0	114	1307
5:50 PM	8	2	2	0	1	2	0	0	0	0	0	31	18	0	1	4	26	0	0	0	95	1303
5:55 PM	5	2	3	0	1	2	5	0	0	1	0	50	15	0	0	3	14	1	0	1	103	1307

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	Left	Thru	Right	U	R*	
All Vehicles	128	16	28	0	12	12	36	4	0	4	28	520	280	0	24	52	260	24	0	4	1432
Heavy Trucks	0	0	0			0	0	0			4	12	0			0	20	4			40
Buses																					
Pedestrians		0					0					0					4				4
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0
Scooters																					

Comments:

Report generated on 3/18/2026 9:44 AM

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Appendix C
Existing Traffic Conditions Worksheets and Volumes

Intersection Level Of Service Report
Intersection 1: Stoltz Hill Rd / Walker Rd

Control Type:	Two-way stop	Delay (sec / veh):	12.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.026

Intersection Setup

Name	Stoltz Hill Rd		Stoltz Hill Rd		Walker Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		Stoltz Hill Rd		Walker Rd	
Base Volume Input [veh/h]	216	9	41	94	12	70
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	6.00	0.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	216	9	41	94	12	70
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	64	3	12	28	4	21
Total Analysis Volume [veh/h]	257	11	49	112	14	83
Pedestrian Volume [ped/h]	0		0		2	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.00	0.03	0.11
d_M, Delay for Movement [s/veh]	0.00	0.00	7.84	0.00	12.58	10.46
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.08	0.08	0.46	0.46
95th-Percentile Queue Length [ft/ln]	0.00	0.00	2.10	2.10	11.59	11.59
d_A, Approach Delay [s/veh]	0.00		2.39		10.77	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	2.72					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Stoltz Hill Rd / Kees St

Control Type:	Two-way stop	Delay (sec / veh):	14.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Base Volume Input [veh/h]	16	273	6	3	123	2	5	8	21	0	8	6
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	12.00	2.00	33.00	0.00	7.00	50.00	20.00	0.00	10.00	0.00	25.00	17.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	16	273	6	3	123	2	5	8	21	0	8	6
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	81	2	1	37	1	1	2	6	0	2	2
Total Analysis Volume [veh/h]	19	325	7	4	146	2	6	10	25	0	10	7
Pedestrian Volume [ped/h]	0			2			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.02	0.03	0.00	0.02	0.01
d_M, Delay for Movement [s/veh]	7.64	0.00	0.00	7.91	0.00	0.00	14.24	13.38	9.50	13.73	13.84	10.58
Movement LOS	A	A	A	A	A	A	B	B	A	B	B	B
95th-Percentile Queue Length [veh/ln]	0.03	0.03	0.03	0.01	0.01	0.01	0.21	0.21	0.21	0.11	0.11	0.11
95th-Percentile Queue Length [ft/ln]	0.80	0.80	0.80	0.17	0.17	0.17	5.23	5.23	5.23	2.65	2.65	2.65
d_A, Approach Delay [s/veh]	0.41			0.21			11.14			12.50		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	1.51											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Stoltz Hill Rd / Antioch St

Control Type:	Two-way stop	Delay (sec / veh):	11.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Base Volume Input [veh/h]	8	280	118	2	7	9
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	12.00	3.00	5.00	50.00	0.00	22.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	8	280	118	2	7	9
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	80	34	1	2	3
Total Analysis Volume [veh/h]	9	322	136	2	8	10
Pedestrian Volume [ped/h]	0		1		2	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	7.62	0.00	0.00	0.00	11.78	9.34
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.08	0.08
95th-Percentile Queue Length [ft/ln]	0.38	0.38	0.00	0.00	2.03	2.03
d_A, Approach Delay [s/veh]	0.21		0.00		10.43	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.53					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Airport Rd / 12th St

Control Type:	Two-way stop	Delay (sec / veh):	25.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.158

Intersection Setup

Name	12th St			12th St			Airport Rd			Airport Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			35.00			35.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th St			12th St			Airport Rd			Airport Rd		
Base Volume Input [veh/h]	28	19	14	33	16	2	4	317	9	4	503	51
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	11.00	7.00	3.00	12.00	50.00	25.00	4.00	0.00	0.00	3.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	28	19	14	33	16	2	4	317	9	4	503	51
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	5	4	9	4	1	1	83	2	1	132	13
Total Analysis Volume [veh/h]	29	20	15	35	17	2	4	334	9	4	529	54
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	1	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.12	0.08	0.02	0.16	0.07	0.00	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	23.98	22.81	13.81	25.70	23.25	17.44	9.07	0.00	0.00	7.94	0.00	0.00
Movement LOS	C	C	B	D	C	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.84	0.84	0.84	0.85	0.85	0.85	0.01	0.00	0.00	0.01	0.00	0.00
95th-Percentile Queue Length [ft/ln]	21.05	21.05	21.05	21.34	21.34	21.34	0.34	0.00	0.00	0.25	0.00	0.00
d_A, Approach Delay [s/veh]	21.23			24.62			0.10			0.05		
Approach LOS	C			C			A			A		
d_I, Intersection Delay [s/veh]	2.62											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 1: Stoltz Hill Rd / Walker Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.042

Intersection Setup

Name	Stoltz Hill Rd		Stoltz Hill Rd		Walker Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		Stoltz Hill Rd		Walker Rd	
Base Volume Input [veh/h]	103	9	128	163	17	70
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	1.00	1.00	6.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	103	9	128	163	17	70
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	28	2	34	44	5	19
Total Analysis Volume [veh/h]	111	10	138	175	18	75
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.09	0.00	0.04	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	7.61	0.00	14.07	9.56
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.25	0.25	0.42	0.42
95th-Percentile Queue Length [ft/ln]	0.00	0.00	6.22	6.22	10.47	10.47
d_A, Approach Delay [s/veh]	0.00		3.36		10.43	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	3.83					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Stoltz Hill Rd / Kees St

Control Type:	Two-way stop	Delay (sec / veh):	13.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.002

Intersection Setup

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Base Volume Input [veh/h]	21	155	1	1	291	3	0	0	17	1	1	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	10.00	2.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	21	155	1	1	291	3	0	0	17	1	1	2
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	6	42	0	0	79	1	0	0	5	0	0	1
Total Analysis Volume [veh/h]	23	168	1	1	316	3	0	0	18	1	1	2
Pedestrian Volume [ped/h]	0			1			0			2		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.03	0.00	0.00	7.54	0.00	0.00	13.20	13.26	10.07	13.40	13.19	9.16
Movement LOS	A	A	A	A	A	A	B	B	B	B	B	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.04	0.00	0.00	0.00	0.08	0.08	0.08	0.02	0.02	0.02
95th-Percentile Queue Length [ft/ln]	0.97	0.97	0.97	0.04	0.04	0.04	1.90	1.90	1.90	0.52	0.52	0.52
d_A, Approach Delay [s/veh]	0.96			0.02			10.07			11.23		
Approach LOS	A			A			B			B		
d_I, Intersection Delay [s/veh]	0.78											
Intersection LOS	B											

Intersection Level Of Service Report
Intersection 3: Stoltz Hill Rd / Antioch St

Control Type:	Two-way stop	Delay (sec / veh):	12.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.008

Intersection Setup

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Base Volume Input [veh/h]	6	149	290	3	4	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	3.00	0.00	0.00	25.00	29.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	149	290	3	4	7
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	40	78	1	1	2
Total Analysis Volume [veh/h]	6	160	312	3	4	8
Pedestrian Volume [ped/h]	0		1		1	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	7.88	0.00	0.00	0.00	12.37	10.52
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.01	0.01	0.00	0.00	0.06	0.06
95th-Percentile Queue Length [ft/ln]	0.25	0.25	0.00	0.00	1.53	1.53
d_A, Approach Delay [s/veh]	0.28		0.00		11.14	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.37					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 4: Airport Rd / 12th St

Control Type:	Two-way stop	Delay (sec / veh):	38.3
Analysis Method:	HCM 7th Edition	Level Of Service:	E
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.262

Intersection Setup

Name	12th St			12th St			Airport Rd			Airport Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			35.00			35.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th St			12th St			Airport Rd			Airport Rd		
Base Volume Input [veh/h]	14	3	11	37	12	5	5	660	25	22	299	59
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	3.00	0.00	20.00	0.00	2.00	0.00	9.00	3.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	14	3	11	37	12	5	5	660	25	22	299	59
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	1	3	10	3	1	1	181	7	6	82	16
Total Analysis Volume [veh/h]	15	3	12	41	13	5	5	725	27	24	329	65
Pedestrian Volume [ped/h]	0			1			0			1		

Intersection Settings

Priority Scheme	Stop	Stop	Free	Free
Flared Lane	No	No		
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance	No	No		
Number of Storage Spaces in Median	1	1	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.10	0.02	0.03	0.26	0.07	0.01	0.00	0.01	0.00	0.03	0.00	0.00
d_M, Delay for Movement [s/veh]	31.18	27.55	16.39	38.26	34.49	20.86	8.08	0.00	0.00	9.48	0.00	0.00
Movement LOS	D	D	C	E	D	C	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.49	0.49	0.49	1.40	1.40	1.40	0.01	0.00	0.00	0.09	0.00	0.00
95th-Percentile Queue Length [ft/ln]	12.19	12.19	12.19	35.07	35.07	35.07	0.32	0.00	0.00	2.24	0.00	0.00
d_A, Approach Delay [s/veh]	24.90			35.96			0.05			0.54		
Approach LOS	C			E			A			A		
d_I, Intersection Delay [s/veh]	2.48											
Intersection LOS	E											

Appendix D
2040 Traffic Conditions Worksheets and Volumes

Intersection Level Of Service Report
Intersection 4: Airport Rd / 12th St

Control Type:	Signalized	Delay (sec / veh):	22.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.849

Intersection Setup

Name	12th St			12th St			Airport Rd			Airport Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			35.00			35.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th St			12th St			Airport Rd			Airport Rd		
Base Volume Input [veh/h]	30	20	15	90	45	10	10	905	70	35	680	60
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	4.00	10.00	0.00	0.00	2.00	0.00	0.00	5.00	5.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	30	20	15	90	45	10	10	905	70	35	680	60
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	5	4	24	12	3	3	238	18	9	179	16
Total Analysis Volume [veh/h]	32	21	16	95	47	11	11	953	74	37	716	63
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			1		
v_di, Inbound Pedestrian Volume crossing m	1			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Flashing Yellow Arrow	No			No			No			No		
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	5.0	10.0	0.0	5.0	10.0	0.0	5.0	60.0	0.0	5.0	60.0	0.0
Amber [s]	3.5	3.5	0.0	3.5	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5.0	5.0	0.0	5.0	5.0	0.0	5.0	10.0	0.0	5.0	10.0	0.0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Calculated Cycle Length [s]	83	83	83	83	83	83	83	83
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.13	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	8.5	5.4	12.9	7.7	54.9	52.7	58.6	54.5
g / C, Green / Cycle	0.10	0.06	0.15	0.09	0.66	0.63	0.70	0.65
(v / s)_i Volume / Saturation Flow Rate	0.01	0.02	0.05	0.04	0.02	0.60	0.12	0.47
s, saturation flow rate [veh/h]	1477	1620	1462	1560	742	1701	631	1654
c, Capacity [veh/h]	227	104	282	145	371	1074	216	1079
d1, Uniform Delay [s]	29.51	37.41	30.45	35.69	9.22	14.30	19.62	9.52
k, delay calibration	0.11	0.11	0.32	0.11	0.11	0.35	0.26	0.21
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.28	2.05	2.08	1.79	0.03	14.75	0.90	1.82
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.14	0.36	0.34	0.40	0.03	0.96	0.17	0.72
d, Delay for Lane Group [s/veh]	29.79	39.45	32.54	37.49	9.25	29.05	20.52	11.34
Lane Group LOS	C	D	C	D	A	C	C	B
Critical Lane Group	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.56	0.78	1.79	1.15	0.04	18.48	0.20	8.49
50th-Percentile Queue Length [ft/ln]	13.93	19.50	44.68	28.80	1.06	462.12	5.12	212.30
95th-Percentile Queue Length [veh/ln]	1.00	1.40	3.22	2.07	0.08	25.54	0.37	13.27
95th-Percentile Queue Length [ft/ln]	25.08	35.11	80.43	51.84	1.90	638.40	9.21	331.78

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	29.79	39.45	39.45	32.54	37.49	37.49	9.25	29.05	29.05	20.52	11.34	11.34
Movement LOS	C	D	D	C	D	D	A	C	C	C	B	B
d_A, Approach Delay [s/veh]	34.97			34.41			28.84			11.75		
Approach LOS	C			C			C			B		
d_I, Intersection Delay [s/veh]	22.74											
Intersection LOS	C											
Intersection V/C	0.849											

Emissions

Vehicle Miles Traveled [mph]	2.08	2.40	5.20	3.17	0.65	60.85	1.79	37.73
Stops [stops/h]	24.04	33.64	77.07	49.68	1.82	797.10	8.82	366.19
Fuel consumption [US gal/h]	0.38	0.53	1.41	0.94	0.06	14.39	0.27	4.90
CO [g/h]	26.53	37.33	98.34	65.50	4.14	1005.59	18.80	342.45
NOx [g/h]	5.16	7.26	19.13	12.74	0.81	195.65	3.66	66.63
VOC [g/h]	6.15	8.65	22.79	15.18	0.96	233.05	4.36	79.37

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	5152.24	0.00	7706.39
d_p, Pedestrian Delay [s]	33.23	33.23	33.23	33.23
l_p,int, Pedestrian LOS Score for Intersectio	2.036	2.043	2.626	2.459
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	240	240	1437	1437
d_b, Bicycle Delay [s]	32.34	32.34	3.30	3.30
l_b,int, Bicycle LOS Score for Intersection	1.673	1.812	3.272	2.906
Bicycle LOS	A	A	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Airport Rd / 12th St

Control Type:	Signalized	Delay (sec / veh):	26.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.875

Intersection Setup

Name	12th St			12th St			Airport Rd			Airport Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			35.00			35.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th St			12th St			Airport Rd			Airport Rd		
Base Volume Input [veh/h]	75	25	15	71	64	10	10	732	243	35	635	55
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	4.00	10.00	0.00	0.00	2.00	0.00	0.00	5.00	5.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	25	15	71	64	10	10	732	243	35	635	55
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	7	4	19	17	3	3	193	64	9	167	14
Total Analysis Volume [veh/h]	79	26	16	75	67	11	11	771	256	37	668	58
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			1		
v_di, Inbound Pedestrian Volume crossing m	1			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Flashing Yellow Arrow	No			No			No			No		
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	5.0	10.0	0.0	5.0	10.0	0.0	5.0	60.0	0.0	5.0	60.0	0.0
Amber [s]	3.5	3.5	0.0	3.5	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5.0	5.0	0.0	5.0	5.0	0.0	5.0	10.0	0.0	5.0	10.0	0.0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Calculated Cycle Length [s]	91	91	91	91	91	91	91	91
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14.5	7.1	12.3	7.0	60.6	58.4	64.4	60.2
g / C, Green / Cycle	0.16	0.08	0.14	0.08	0.67	0.64	0.71	0.66
(v / s)_i Volume / Saturation Flow Rate	0.05	0.03	0.04	0.05	0.02	0.62	0.13	0.44
s, saturation flow rate [veh/h]	1465	1635	1460	1573	774	1650	627	1654
c, Capacity [veh/h]	248	129	247	121	414	1060	195	1096
d1, Uniform Delay [s]	32.87	39.60	32.65	40.74	8.30	15.40	22.68	9.23
k, delay calibration	0.27	0.11	0.24	0.11	0.11	0.43	0.32	0.22
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.80	1.46	1.52	5.62	0.03	19.27	1.37	1.41
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.32	0.33	0.30	0.64	0.03	0.97	0.19	0.66
d, Delay for Lane Group [s/veh]	34.67	41.07	34.17	46.36	8.32	34.67	24.05	10.64
Lane Group LOS	C	D	C	D	A	C	C	B
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.63	0.94	1.50	1.85	0.05	21.78	0.24	8.02
50th-Percentile Queue Length [ft/ln]	40.73	23.51	37.41	46.16	1.17	544.46	6.03	200.45
95th-Percentile Queue Length [veh/ln]	2.93	1.69	2.69	3.32	0.08	29.43	0.43	12.66
95th-Percentile Queue Length [ft/ln]	73.32	42.32	67.34	83.09	2.11	735.79	10.85	316.55

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	34.67	41.07	41.07	34.17	46.36	46.36	8.32	34.67	34.67	24.05	10.64	10.64
Movement LOS	C	D	D	C	D	D	A	C	C	C	B	B
d_A, Approach Delay [s/veh]	36.89			40.39			34.39			11.29		
Approach LOS	D			D			C			B		
d_I, Intersection Delay [s/veh]	26.49											
Intersection LOS	C											
Intersection V/C	0.875											

Emissions

Vehicle Miles Traveled [mph]	5.13	2.73	4.11	4.27	0.65	60.85	1.79	35.17
Stops [stops/h]	64.53	37.25	59.27	73.12	1.85	862.52	9.55	317.55
Fuel consumption [US gal/h]	1.04	0.62	1.12	1.45	0.06	16.05	0.30	4.37
CO [g/h]	72.37	43.09	78.55	101.25	4.01	1122.06	20.85	305.59
NOx [g/h]	14.08	8.38	15.28	19.70	0.78	218.31	4.06	59.46
VOC [g/h]	16.77	9.99	18.21	23.47	0.93	260.05	4.83	70.82

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	4705.37	0.00	7001.34
d_p, Pedestrian Delay [s]	36.89	36.89	36.89	36.89
l_p,int, Pedestrian LOS Score for Intersectio	2.109	2.047	2.640	2.396
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	220	220	1320	1320
d_b, Bicycle Delay [s]	36.00	36.00	5.25	5.25
l_b,int, Bicycle LOS Score for Intersection	1.759	1.812	3.272	2.819
Bicycle LOS	A	A	C	C

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 4: Airport Rd / 12th St

Control Type:	Signalized	Delay (sec / veh):	37.7
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.916

Intersection Setup

Name	12th St			12th St			Airport Rd			Airport Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			35.00			35.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th St			12th St			Airport Rd			Airport Rd		
Base Volume Input [veh/h]	75	25	15	71	77	10	10	732	286	42	335	55
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	4.00	10.00	0.00	0.00	2.00	0.00	0.00	5.00	5.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	75	25	15	71	77	10	10	732	286	42	335	55
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	7	4	19	20	3	3	193	75	11	88	14
Total Analysis Volume [veh/h]	79	26	16	75	81	11	11	771	301	44	353	58
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			1		
v_di, Inbound Pedestrian Volume crossing m	1			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Flashing Yellow Arrow	No			No			No			No		
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	5.0	10.0	0.0	5.0	10.0	0.0	5.0	60.0	0.0	5.0	60.0	0.0
Amber [s]	3.5	3.5	0.0	3.5	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5.0	5.0	0.0	5.0	5.0	0.0	5.0	10.0	0.0	5.0	10.0	0.0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Calculated Cycle Length [s]	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.14	2.00
g_i, Effective Green Time [s]	13.5	8.0	13.5	8.0	63.3	61.0	67.5	63.1
g / C, Green / Cycle	0.14	0.08	0.14	0.08	0.67	0.64	0.71	0.66
(v / s)_i Volume / Saturation Flow Rate	0.05	0.03	0.04	0.06	0.01	0.65	0.18	0.25
s, saturation flow rate [veh/h]	1464	1636	1453	1578	1015	1641	610	1634
c, Capacity [veh/h]	209	138	250	134	663	1054	171	1086
d1, Uniform Delay [s]	34.13	40.85	33.81	42.27	5.05	17.00	24.16	7.14
k, delay calibration	0.29	0.11	0.27	0.11	0.11	0.50	0.48	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.00	1.22	1.62	6.18	0.01	32.14	3.49	0.22
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.38	0.30	0.30	0.69	0.02	1.02	0.26	0.38
d, Delay for Lane Group [s/veh]	37.13	42.07	35.43	48.45	5.06	49.14	27.66	7.35
Lane Group LOS	D	D	D	D	A	F	C	A
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	1.75	0.97	1.57	2.29	0.05	28.06	0.38	3.47
50th-Percentile Queue Length [ft/ln]	43.74	24.34	39.29	57.13	1.22	701.41	9.47	86.63
95th-Percentile Queue Length [veh/ln]	3.15	1.75	2.83	4.11	0.09	37.30	0.68	6.24
95th-Percentile Queue Length [ft/ln]	78.74	43.81	70.72	102.84	2.20	932.55	17.05	155.94

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	37.13	42.07	42.07	35.43	48.45	48.45	5.06	49.14	49.14	27.66	7.35	7.35
Movement LOS	D	D	D	D	D	D	A	D	D	C	A	A
d_A, Approach Delay [s/veh]	38.84			42.60			48.70			9.32		
Approach LOS	D			D			D			A		
d_I, Intersection Delay [s/veh]	37.67											
Intersection LOS	D											
Intersection V/C	0.916											

Emissions

Vehicle Miles Traveled [mph]	5.13	2.73	4.11	5.04	0.65	63.52	2.13	19.91
Stops [stops/h]	66.31	36.90	59.56	86.60	1.86	1063.18	14.36	131.31
Fuel consumption [US gal/h]	1.08	0.62	1.15	1.75	0.05	21.14	0.40	2.01
CO [g/h]	75.61	43.60	80.04	122.34	3.50	1477.47	27.86	140.79
NOx [g/h]	14.71	8.48	15.57	23.80	0.68	287.46	5.42	27.39
VOC [g/h]	17.52	10.10	18.55	28.35	0.81	342.42	6.46	32.63

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	4411.59	0.00	6665.72
d_p, Pedestrian Delay [s]	38.93	38.93	38.93	38.93
l_p,int, Pedestrian LOS Score for Intersectio	2.134	2.055	2.538	2.315
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	211	211	1263	1263
d_b, Bicycle Delay [s]	38.03	38.03	6.45	6.45
l_b,int, Bicycle LOS Score for Intersection	1.759	1.835	3.347	2.310
Bicycle LOS	A	A	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix E
2036 Background Traffic Conditions Worksheets and Volumes

Intersection Level Of Service Report
Intersection 1: Stoltz Hill Rd / 12th Street-Walker Rd

Control Type:	Two-way stop	Delay (sec / veh):	14.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.131

Intersection Setup

Name	Stoltz Hill Rd		12th Street		Walker Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		12th Street		Walker Rd	
Base Volume Input [veh/h]	198	77	50	73	56	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	6.00	0.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	198	77	50	73	56	85
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	59	23	15	22	17	25
Total Analysis Volume [veh/h]	236	92	60	87	67	101
Pedestrian Volume [ped/h]	0		1		2	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.13	0.14
d_M, Delay for Movement [s/veh]	0.00	0.00	8.08	0.00	14.07	11.87
Movement LOS	A	A	A	A	B	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.15	0.00	1.07	1.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.85	0.00	26.66	26.66
d_A, Approach Delay [s/veh]	0.00		3.30		12.75	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.08					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Stoltz Hill Rd / Kees St

Control Type:	Two-way stop	Delay (sec / veh):	9.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Base Volume Input [veh/h]	0	11	0	4	11	2	6	10	0	0	10	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	12.00	2.00	33.00	0.00	7.00	50.00	20.00	0.00	10.00	0.00	25.00	17.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	11	0	4	11	2	6	10	0	0	10	7
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	3	0	1	3	1	2	3	0	0	3	2
Total Analysis Volume [veh/h]	0	13	0	5	13	2	7	12	0	0	12	8
Pedestrian Volume [ped/h]	0			2			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	7.34	0.00	0.00	7.23	0.00	0.00	9.17	9.30	8.54	8.89	9.55	8.62
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.01	0.01	0.01	0.07	0.07	0.07	0.07	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.21	0.21	0.21	1.68	1.68	1.68	1.74	1.74	1.74
d_A, Approach Delay [s/veh]	0.00			1.81			9.25			9.18		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.49											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 3: Stoltz Hill Rd / Antioch St

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.010

Intersection Setup

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Base Volume Input [veh/h]	0	29	16	2	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	12.00	3.00	5.00	50.00	0.00	22.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	29	16	2	9	0
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	8	5	1	3	0
Total Analysis Volume [veh/h]	0	33	18	2	10	0
Pedestrian Volume [ped/h]	0		1		2	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	7.36	0.00	0.00	0.00	8.81	8.64
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.79	0.79
d_A, Approach Delay [s/veh]	0.00		0.00		8.81	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.40					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: Airport Rd / 12th St

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.639

Intersection Setup

Name	12th St			12th St			Airport Rd			Airport Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			35.00			35.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th St			12th St			Airport Rd			Airport Rd		
Base Volume Input [veh/h]	253	45	31	33	27	2	5	314	84	11	395	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	11.00	7.00	3.00	12.00	50.00	25.00	4.00	0.00	0.00	3.00	4.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	253	45	31	33	27	2	5	314	84	11	395	40
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	12	8	9	7	1	1	83	22	3	104	11
Total Analysis Volume [veh/h]	266	47	33	35	28	2	5	331	88	12	416	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Flashing Yellow Arrow	No			No			No			No		
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	5.0	10.0	0.0	5.0	10.0	0.0	5.0	60.0	0.0	5.0	60.0	0.0
Amber [s]	3.5	3.5	0.0	3.5	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5.0	5.0	0.0	5.0	5.0	0.0	5.0	10.0	0.0	5.0	10.0	0.0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Calculated Cycle Length [s]	42	42	42	42	42	42	42	42
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.19	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12.9	7.9	6.8	4.6	15.3	14.0	17.7	14.4
g / C, Green / Cycle	0.31	0.19	0.16	0.11	0.37	0.34	0.42	0.34
(v / s)_i Volume / Saturation Flow Rate	0.13	0.05	0.01	0.02	0.01	0.26	0.01	0.27
s, saturation flow rate [veh/h]	1531	1489	1411	1566	810	1634	1047	1681
c, Capacity [veh/h]	621	282	401	172	289	549	390	579
d1, Uniform Delay [s]	11.55	14.51	10.47	16.87	9.21	12.39	8.87	12.33
k, delay calibration	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	2.15	0.55	0.09	0.48	0.02	2.24	0.03	2.47
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.28	0.09	0.17	0.02	0.76	0.03	0.79
d, Delay for Lane Group [s/veh]	13.70	15.05	10.56	17.35	9.23	14.64	8.90	14.80
Lane Group LOS	B	B	B	B	A	B	A	B
Critical Lane Group	Yes	No	No	Yes	Yes	No	No	Yes
50th-Percentile Queue Length [veh/ln]	2.01	0.61	0.18	0.24	0.02	2.93	0.05	3.51
50th-Percentile Queue Length [ft/ln]	50.20	15.33	4.48	6.09	0.46	73.31	1.22	87.77
95th-Percentile Queue Length [veh/ln]	3.61	1.10	0.32	0.44	0.03	5.28	0.09	6.32
95th-Percentile Queue Length [ft/ln]	90.36	27.60	8.06	10.96	0.83	131.95	2.20	157.98

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	13.70	15.05	15.05	10.56	17.35	17.35	9.23	14.64	14.64	8.90	14.80	14.80
Movement LOS	B	B	B	B	B	B	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	14.01			13.69			14.57			14.65		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	14.41											
Intersection LOS	B											
Intersection V/C	0.639											

Emissions

Vehicle Miles Traveled [mph]	17.26	5.19	1.92	1.64	0.30	24.83	0.58	22.19
Stops [stops/h]	173.06	52.86	15.43	20.99	1.59	252.72	4.21	302.57
Fuel consumption [US gal/h]	2.18	0.68	0.26	0.33	0.03	4.10	0.06	3.54
CO [g/h]	152.52	47.63	18.48	22.81	2.28	286.26	4.48	247.29
NOx [g/h]	29.67	9.27	3.59	4.44	0.44	55.70	0.87	48.11
VOC [g/h]	35.35	11.04	4.28	5.29	0.53	66.34	1.04	57.31

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	12.86	12.86	12.86	12.86
l_p,int, Pedestrian LOS Score for Intersectio	2.037	1.964	2.380	2.150
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	479	479	2873	2873
d_b, Bicycle Delay [s]	12.08	12.08	3.98	3.98
l_b,int, Bicycle LOS Score for Intersection	2.131	1.667	2.259	2.335
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 1: Stoltz Hill Rd / 12th Street-Walker Rd

Control Type:	Two-way stop	Delay (sec / veh):	16.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.208

Intersection Setup

Name	Stoltz Hill Rd		12th Street		Walker Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		12th Street		Walker Rd	
Base Volume Input [veh/h]	76	61	155	141	78	85
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	1.00	1.00	6.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	76	61	155	141	78	85
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	20	16	42	38	21	23
Total Analysis Volume [veh/h]	82	66	167	152	84	91
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.12	0.00	0.21	0.10
d_M, Delay for Movement [s/veh]	0.00	0.00	7.83	0.00	16.67	11.64
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.39	0.00	1.29	1.29
95th-Percentile Queue Length [ft/ln]	0.00	0.00	9.82	0.00	32.26	32.26
d_A, Approach Delay [s/veh]	0.00		4.10		14.06	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	5.87					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: Stoltz Hill Rd / Kees St

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

Intersection Setup

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Base Volume Input [veh/h]	0	5	0	1	22	4	0	0	0	0	1	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	10.00	2.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	5	0	1	22	4	0	0	0	0	1	2
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	0	0	6	1	0	0	0	0	0	1
Total Analysis Volume [veh/h]	0	5	0	1	24	4	0	0	0	0	1	2
Pedestrian Volume [ped/h]	0			1			0			2		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.35	0.00	0.00	7.22	0.00	0.00	8.71	9.19	8.41	8.71	9.21	8.35
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.00	0.00	0.23	0.23	0.23
d_A, Approach Delay [s/veh]	0.00			0.25			8.77			8.64		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.90											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 3: Stoltz Hill Rd / Antioch St

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.005

Intersection Setup

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Base Volume Input [veh/h]	0	5	29	4	5	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	3.00	0.00	0.00	25.00	29.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	5	29	4	5	0
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	8	1	1	0
Total Analysis Volume [veh/h]	0	5	31	4	5	0
Pedestrian Volume [ped/h]	0		1		1	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	7.27	0.00	0.00	0.00	8.96	8.75
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.02	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.41	0.41
d_A, Approach Delay [s/veh]	0.00		0.00		8.96	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: Airport Rd / 12th St

Control Type:	Signalized	Delay (sec / veh):	22.1
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.836

Intersection Setup

Name	12th St			12th St			Airport Rd			Airport Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			35.00			35.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th St			12th St			Airport Rd			Airport Rd		
Base Volume Input [veh/h]	112	22	28	32	28	6	6	572	264	48	270	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	3.00	0.00	20.00	0.00	2.00	0.00	9.00	3.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	112	22	28	32	28	6	6	572	264	48	270	54
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	31	6	8	9	8	2	2	157	73	13	74	15
Total Analysis Volume [veh/h]	123	24	31	35	31	7	7	629	290	53	297	59
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			1		
v_di, Inbound Pedestrian Volume crossing m	1			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Flashing Yellow Arrow	No			No			No			No		
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	5.0	10.0	0.0	5.0	10.0	0.0	5.0	60.0	0.0	5.0	60.0	0.0
Amber [s]	3.5	3.5	0.0	3.5	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5.0	5.0	0.0	5.0	5.0	0.0	5.0	10.0	0.0	5.0	10.0	0.0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Calculated Cycle Length [s]	77	77	77	77	77	77	77	77
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.15	2.00	2.00	2.00	2.00	2.00	2.29	2.00
g_i, Effective Green Time [s]	12.8	7.6	8.5	5.3	47.9	46.2	52.6	48.9
g / C, Green / Cycle	0.17	0.10	0.11	0.07	0.62	0.60	0.68	0.63
(v / s)_i Volume / Saturation Flow Rate	0.07	0.03	0.02	0.02	0.01	0.56	0.15	0.22
s, saturation flow rate [veh/h]	1510	1587	1446	1695	1064	1631	655	1653
c, Capacity [veh/h]	313	157	248	116	682	974	240	1044
d1, Uniform Delay [s]	27.83	32.57	26.62	34.36	4.74	14.41	15.37	6.69
k, delay calibration	0.42	0.11	0.11	0.11	0.11	0.27	0.42	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.11	1.34	0.26	1.62	0.01	11.44	1.77	0.19
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.39	0.35	0.14	0.33	0.01	0.94	0.22	0.34
d, Delay for Lane Group [s/veh]	30.94	33.90	26.87	35.98	4.75	25.84	17.13	6.88
Lane Group LOS	C	C	C	D	A	C	B	A
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	2.25	1.01	0.53	0.71	0.03	14.79	0.33	2.44
50th-Percentile Queue Length [ft/ln]	56.14	25.27	13.34	17.75	0.64	369.79	8.37	61.06
95th-Percentile Queue Length [veh/ln]	4.04	1.82	0.96	1.28	0.05	21.10	0.60	4.40
95th-Percentile Queue Length [ft/ln]	101.05	45.49	24.01	31.95	1.16	527.47	15.06	109.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.94	33.90	33.90	26.87	35.98	35.98	4.75	25.84	25.84	17.13	6.88	6.88
Movement LOS	C	C	C	C	D	D	A	C	C	B	A	A
d_A, Approach Delay [s/veh]	31.86			31.61			25.68			8.21		
Approach LOS	C			C			C			A		
d_I, Intersection Delay [s/veh]	22.14											
Intersection LOS	C											
Intersection V/C	0.836											

Emissions

Vehicle Miles Traveled [mph]	7.98	3.57	1.92	2.08	0.41	54.45	2.57	17.24
Stops [stops/h]	104.43	47.01	24.81	33.02	1.20	687.86	15.56	113.58
Fuel consumption [US gal/h]	1.53	0.72	0.45	0.61	0.03	12.08	0.36	1.71
CO [g/h]	107.23	50.35	31.53	42.35	2.21	844.53	25.16	119.51
NOx [g/h]	20.86	9.80	6.13	8.24	0.43	164.31	4.89	23.25
VOC [g/h]	24.85	11.67	7.31	9.81	0.51	195.73	5.83	27.70

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	5954.80	0.00	8069.22
d_p, Pedestrian Delay [s]	30.23	30.23	30.23	30.23
l_p,int, Pedestrian LOS Score for Intersectio	2.131	2.003	2.464	2.241
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	258	258	1550	1550
d_b, Bicycle Delay [s]	29.35	29.35	1.96	1.96
l_b,int, Bicycle LOS Score for Intersection	1.853	1.680	3.088	2.234
Bicycle LOS	A	A	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Appendix F
2036 Total Traffic Conditions Worksheets and Volumes

Intersection Level Of Service Report
Intersection 1: Stoltz Hill Rd / 12th Street-Walker Rd

Control Type:	Two-way stop	Delay (sec / veh):	16.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.158

Intersection Setup

Name	Stoltz Hill Rd		12th Street		Walker Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		12th Street		Walker Rd	
Base Volume Input [veh/h]	204	77	90	83	56	109
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	0.00	2.00	6.00	0.00	4.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	204	77	90	83	56	109
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	61	23	27	25	17	32
Total Analysis Volume [veh/h]	243	92	107	99	67	130
Pedestrian Volume [ped/h]	0		1		2	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.09	0.00	0.16	0.18
d_M, Delay for Movement [s/veh]	0.00	0.00	8.23	0.00	16.54	12.89
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.29	0.00	1.46	1.46
95th-Percentile Queue Length [ft/ln]	0.00	0.00	7.20	0.00	36.51	36.51
d_A, Approach Delay [s/veh]	0.00		4.28		14.13	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	4.97					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: Stoltz Hill Rd / Kees St

Control Type:	Two-way stop	Delay (sec / veh):	9.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.015

Intersection Setup

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Base Volume Input [veh/h]	0	13	0	4	15	2	6	10	0	0	10	7
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	12.00	2.00	33.00	0.00	7.00	50.00	20.00	0.00	10.00	0.00	25.00	17.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	13	0	4	15	2	6	10	0	0	10	7
Peak Hour Factor	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400	0.8400
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	4	0	1	4	1	2	3	0	0	3	2
Total Analysis Volume [veh/h]	0	15	0	5	18	2	7	12	0	0	12	8
Pedestrian Volume [ped/h]	0			2			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01	0.01
d_M, Delay for Movement [s/veh]	7.35	0.00	0.00	7.23	0.00	0.00	9.22	9.33	8.57	8.93	9.59	8.63
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.01	0.01	0.01	0.07	0.07	0.07	0.07	0.07	0.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.21	0.21	0.21	1.70	1.70	1.70	1.75	1.75	1.75
d_A, Approach Delay [s/veh]	0.00			1.45			9.29			9.21		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	5.02											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 3: Stoltz Hill Rd / Antioch St

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.011

Intersection Setup

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Base Volume Input [veh/h]	0	31	20	2	9	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	12.00	3.00	5.00	50.00	0.00	22.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	31	20	2	9	0
Peak Hour Factor	0.8700	0.8700	0.8700	0.8700	0.8700	0.8700
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	9	6	1	3	0
Total Analysis Volume [veh/h]	0	36	23	2	10	0
Pedestrian Volume [ped/h]	0		1		2	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	7.37	0.00	0.00	0.00	8.85	8.67
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.03	0.03
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.80	0.80
d_A, Approach Delay [s/veh]	0.00		0.00		8.85	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.25					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: Airport Rd / 12th St

Control Type:	Signalized	Delay (sec / veh):	16.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.669

Intersection Setup

Name	12th St			12th St			Airport Rd			Airport Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			35.00			35.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th St			12th St			Airport Rd			Airport Rd		
Base Volume Input [veh/h]	352	75	50	33	46	2	5	314	145	22	395	40
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	11.00	7.00	3.00	12.00	5.00	5.00	4.00	0.00	0.00	3.00	4.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	352	75	50	33	46	2	5	314	145	22	395	40
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	93	20	13	9	12	1	1	83	38	6	104	11
Total Analysis Volume [veh/h]	371	79	53	35	48	2	5	331	153	23	416	42
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Flashing Yellow Arrow	No			No			No			No		
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	5.0	10.0	0.0	5.0	10.0	0.0	5.0	60.0	0.0	5.0	60.0	0.0
Amber [s]	3.5	3.5	0.0	3.5	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5.0	5.0	0.0	5.0	5.0	0.0	5.0	10.0	0.0	5.0	10.0	0.0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Calculated Cycle Length [s]	46	46	46	46	46	46	46	46
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	1.31	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13.4	8.4	7.5	5.2	18.1	16.8	21.1	17.8
g / C, Green / Cycle	0.29	0.18	0.16	0.11	0.40	0.37	0.46	0.39
(v / s)_i Volume / Saturation Flow Rate	0.19	0.09	0.02	0.03	0.01	0.30	0.03	0.27
s, saturation flow rate [veh/h]	1511	1492	1364	1573	961	1605	1006	1681
c, Capacity [veh/h]	558	273	369	178	348	590	368	653
d1, Uniform Delay [s]	15.25	16.77	11.89	18.59	8.78	13.13	9.28	11.77
k, delay calibration	0.50	0.11	0.11	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	6.13	1.32	0.11	0.85	0.02	2.92	0.07	1.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.66	0.48	0.09	0.28	0.01	0.82	0.06	0.70
d, Delay for Lane Group [s/veh]	21.39	18.09	12.00	19.43	8.80	16.05	9.35	13.16
Lane Group LOS	C	B	B	B	A	B	A	B
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	3.87	1.22	0.21	0.46	0.02	3.90	0.10	3.48
50th-Percentile Queue Length [ft/ln]	96.80	30.52	5.35	11.59	0.47	97.52	2.47	86.89
95th-Percentile Queue Length [veh/ln]	6.97	2.20	0.39	0.83	0.03	7.02	0.18	6.26
95th-Percentile Queue Length [ft/ln]	174.24	54.93	9.63	20.87	0.85	175.53	4.44	156.40

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	21.39	18.09	18.09	12.00	19.43	19.43	8.80	16.05	16.05	9.35	13.16	13.16
Movement LOS	C	B	B	B	B	B	A	B	B	A	B	B
d_A, Approach Delay [s/veh]	20.52			16.37			15.97			12.97		
Approach LOS	C			B			B			B		
d_I, Intersection Delay [s/veh]	16.54											
Intersection LOS	B											
Intersection V/C	0.669											

Emissions

Vehicle Miles Traveled [mph]	24.07	8.57	1.92	2.74	0.30	28.68	1.11	22.19
Stops [stops/h]	304.34	95.95	16.83	36.45	1.49	306.59	7.76	273.19
Fuel consumption [US gal/h]	3.86	1.24	0.29	0.58	0.03	4.98	0.12	3.27
CO [g/h]	270.15	86.63	19.92	40.28	2.20	348.06	8.64	228.72
NOx [g/h]	52.56	16.85	3.88	7.84	0.43	67.72	1.68	44.50
VOC [g/h]	62.61	20.08	4.62	9.33	0.51	80.67	2.00	53.01

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.79	14.79	14.79	14.79
l_p,int, Pedestrian LOS Score for Intersectio	2.119	1.989	2.603	2.163
Crosswalk LOS	B	A	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	437	437	2620	2620
d_b, Bicycle Delay [s]	13.99	13.99	2.20	2.20
l_b,int, Bicycle LOS Score for Intersection	2.390	1.700	2.366	2.353
Bicycle LOS	B	A	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: 12th Street / Site Access

Control Type:	Two-way stop	Delay (sec / veh):	25.5
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.387

Intersection Setup

Name	12th Street			12th Street			Site Access			Site Access		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th Street			12th Street			Site Access			Site Access		
Base Volume Input [veh/h]	12	232	69	75	101	38	104	8	34	38	7	95
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	6.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	12	232	69	75	101	38	104	8	34	38	7	95
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	3	63	19	20	27	10	28	2	9	10	2	26
Total Analysis Volume [veh/h]	13	252	75	82	110	41	113	9	37	41	8	103
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.07	0.00	0.00	0.39	0.02	0.04	0.12	0.02	0.14
d_M, Delay for Movement [s/veh]	7.54	0.00	0.00	8.13	0.00	0.00	25.53	23.19	17.11	18.13	17.32	12.35
Movement LOS	A	A	A	A	A	A	D	C	C	C	C	B
95th-Percentile Queue Length [veh/ln]	0.03	0.00	0.00	0.21	0.00	0.00	2.27	2.27	2.27	1.14	1.14	1.14
95th-Percentile Queue Length [ft/ln]	0.69	0.00	0.00	5.34	0.00	0.00	56.64	56.64	56.64	28.45	28.45	28.45
d_A, Approach Delay [s/veh]	0.29			2.86			23.44			14.17		
Approach LOS	A			A			C			B		
d_I, Intersection Delay [s/veh]	7.52											
Intersection LOS	D											

Intersection Level Of Service Report
Intersection 1: Stoltz Hill Rd / 12th Street-Walker Rd

Control Type:	Two-way stop	Delay (sec / veh):	19.7
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.245

Intersection Setup

Name	Stoltz Hill Rd		12th Street		Walker Rd	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	11.00	11.00
No. of Lanes in Entry Pocket	0	0	1	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		12th Street		Walker Rd	
Base Volume Input [veh/h]	92	61	189	150	78	130
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	3.00	0.00	1.00	1.00	6.00	6.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	92	61	189	150	78	130
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	25	16	51	40	21	35
Total Analysis Volume [veh/h]	99	66	203	161	84	140
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.14	0.00	0.25	0.15
d_M, Delay for Movement [s/veh]	0.00	0.00	7.96	0.00	19.70	13.17
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.50	0.00	1.91	1.91
95th-Percentile Queue Length [ft/ln]	0.00	0.00	12.48	0.00	47.72	47.72
d_A, Approach Delay [s/veh]	0.00		4.44		15.62	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	6.79					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: Stoltz Hill Rd / Kees St

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.001

Intersection Setup

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	Stoltz Hill Rd			Stoltz Hill Rd			Kees St			Kees St		
Base Volume Input [veh/h]	0	7	0	1	24	4	0	0	0	0	1	2
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	10.00	2.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	0	1	24	4	0	0	0	0	1	2
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	0	0	7	1	0	0	0	0	0	1
Total Analysis Volume [veh/h]	0	8	0	1	26	4	0	0	0	0	1	2
Pedestrian Volume [ped/h]	0			1			0			2		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.35	0.00	0.00	7.22	0.00	0.00	8.73	9.22	8.42	8.74	9.24	8.37
Movement LOS	A	A	A	A	A	A	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.04	0.04	0.04	0.00	0.00	0.00	0.23	0.23	0.23
d_A, Approach Delay [s/veh]	0.00			0.23			8.79			8.66		
Approach LOS	A			A			A			A		
d_I, Intersection Delay [s/veh]	0.79											
Intersection LOS	A											

Intersection Level Of Service Report
Intersection 3: Stoltz Hill Rd / Antioch St

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.006

Intersection Setup

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	10.00	10.00	10.00	10.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Stoltz Hill Rd		Stoltz Hill Rd		Antioch St	
Base Volume Input [veh/h]	0	7	31	4	5	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	3.00	0.00	0.00	25.00	29.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	7	31	4	5	0
Peak Hour Factor	0.9300	0.9300	0.9300	0.9300	0.9300	0.9300
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	2	8	1	1	0
Total Analysis Volume [veh/h]	0	8	33	4	5	0
Pedestrian Volume [ped/h]	0		1		1	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	7.27	0.00	0.00	0.00	8.98	8.76
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.02	0.02
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.41	0.41
d_A, Approach Delay [s/veh]	0.00		0.00		8.98	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.90					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 4: Airport Rd / 12th St

Control Type:	Signalized	Delay (sec / veh):	41.3
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.921

Intersection Setup

Name	12th St			12th St			Airport Rd			Airport Rd		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	1	0	0	1	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00			35.00			35.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th St			12th St			Airport Rd			Airport Rd		
Base Volume Input [veh/h]	198	47	44	32	62	6	6	572	378	66	270	54
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	3.00	0.00	5.00	0.00	2.00	0.00	9.00	3.00	2.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	198	47	44	32	62	6	6	572	378	66	270	54
Peak Hour Factor	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100	0.9100
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	54	13	12	9	17	2	2	157	104	18	74	15
Total Analysis Volume [veh/h]	218	52	48	35	68	7	7	629	415	73	297	59
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			1		
v_di, Inbound Pedestrian Volume crossing m	1			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			1			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			1		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			1		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Active Pattern	Free Running (No Pattern)
Coordination Type	*Free Running*
Actuation Type	*Fully actuated*
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	16.00

Phasing & Timing (Basic)

Control Type	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss	ProtPer	Permiss	Permiss
Flashing Yellow Arrow	No			No			No			No		
Signal Group	7	4	0	3	8	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Maximum Green [s]	5.0	10.0	0.0	5.0	10.0	0.0	5.0	60.0	0.0	5.0	60.0	0.0
Amber [s]	3.5	3.5	0.0	3.5	3.5	0.0	4.0	4.0	0.0	4.0	4.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Walk [s]	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0	0.0	5.0	0.0
Pedestrian Clearance [s]	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0	0.0	10.0	0.0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Advanced Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Phasing & Timing: Free Running (No Pattern)

Split [s]	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0	9.0	14.0	0.0
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	5.0	5.0	0.0	5.0	5.0	0.0	5.0	10.0	0.0	5.0	10.0	0.0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	L	C	L	C	L	C
C, Calculated Cycle Length [s]	94	94	94	94	94	94	94	94
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	1.63	2.00
g_i, Effective Green Time [s]	14.2	8.6	10.2	6.7	62.9	61.0	68.7	64.4
g / C, Green / Cycle	0.15	0.09	0.11	0.07	0.67	0.65	0.73	0.68
(v / s)_i Volume / Saturation Flow Rate	0.14	0.06	0.02	0.04	0.01	0.65	0.29	0.22
s, saturation flow rate [veh/h]	1470	1609	1403	1722	1061	1609	595	1653
c, Capacity [veh/h]	240	147	177	122	728	1039	185	1126
d1, Uniform Delay [s]	41.34	41.57	34.13	42.64	4.31	16.74	24.21	6.11
k, delay calibration	0.50	0.11	0.11	0.11	0.11	0.49	0.50	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	38.40	5.38	0.54	4.95	0.01	28.79	6.19	0.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.91	0.68	0.20	0.62	0.01	1.00	0.39	0.32
d, Delay for Lane Group [s/veh]	79.74	46.95	34.67	47.59	4.32	45.52	30.41	6.27
Lane Group LOS	E	D	C	D	A	F	C	A
Critical Lane Group	Yes	No	No	Yes	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	7.38	2.48	0.70	1.84	0.03	26.46	0.65	2.64
50th-Percentile Queue Length [ft/ln]	184.56	61.97	17.45	45.90	0.71	661.42	16.27	65.93
95th-Percentile Queue Length [veh/ln]	11.84	4.46	1.26	3.30	0.05	35.03	1.17	4.75
95th-Percentile Queue Length [ft/ln]	295.96	111.55	31.41	82.62	1.28	875.86	29.29	118.67

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	79.74	46.95	46.95	34.67	47.59	47.59	4.32	45.52	45.52	30.41	6.27	6.27
Movement LOS	E	D	D	C	D	D	A	D	D	C	A	A
d_A, Approach Delay [s/veh]	69.43			43.48			45.25			10.38		
Approach LOS	E			D			D			B		
d_I, Intersection Delay [s/veh]	41.34											
Intersection LOS	D											
Intersection V/C	0.921											

Emissions

Vehicle Miles Traveled [mph]	14.15	6.49	1.92	4.11	0.41	61.86	3.54	17.24
Stops [stops/h]	281.32	94.46	26.60	69.96	1.08	1008.17	24.80	100.49
Fuel consumption [US gal/h]	5.25	1.61	0.52	1.41	0.03	19.61	0.71	1.62
CO [g/h]	367.13	112.51	36.35	98.48	2.10	1370.78	49.34	112.91
NOx [g/h]	71.43	21.89	7.07	19.16	0.41	266.70	9.60	21.97
VOC [g/h]	85.09	26.07	8.42	22.82	0.49	317.69	11.43	26.17

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	4503.65	0.00	6066.69
d_p, Pedestrian Delay [s]	38.67	38.67	38.67	38.67
l_p,int, Pedestrian LOS Score for Intersectio	2.250	2.038	2.716	2.260
Crosswalk LOS	B	B	B	B
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	212	212	1270	1270
d_b, Bicycle Delay [s]	37.77	37.77	6.29	6.29
l_b,int, Bicycle LOS Score for Intersection	2.084	1.741	3.294	2.267
Bicycle LOS	B	A	C	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Intersection Level Of Service Report
Intersection 5: 12th Street / Site Access

Control Type:	Two-way stop	Delay (sec / veh):	30.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.359

Intersection Setup

Name	12th Street			12th Street			Site Access			Site Access		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00			35.00			25.00			25.00		
Grade [%]	0.00			0.00			0.00			0.00		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	12th Street			12th Street			Site Access			Site Access		
Base Volume Input [veh/h]	42	136	44	99	250	113	72	4	23	66	4	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	1.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	42	136	44	99	250	113	72	4	23	66	4	80
Peak Hour Factor	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200	0.9200
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	37	12	27	68	31	20	1	6	18	1	22
Total Analysis Volume [veh/h]	46	148	48	108	272	123	78	4	25	72	4	87
Pedestrian Volume [ped/h]	0			0			0			0		

Intersection Settings

Priority Scheme	Free	Free	Stop	Stop
Flared Lane			No	No
Storage Area [veh]	0	0	0	0
Two-Stage Gap Acceptance			No	No
Number of Storage Spaces in Median	0	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.08	0.00	0.00	0.36	0.01	0.04	0.29	0.02	0.10
d_M, Delay for Movement [s/veh]	8.22	0.00	0.00	7.84	0.00	0.00	30.78	27.66	19.30	25.87	25.28	15.28
Movement LOS	A	A	A	A	A	A	D	D	C	D	D	C
95th-Percentile Queue Length [veh/ln]	0.12	0.00	0.00	0.25	0.00	0.00	1.89	1.89	1.89	1.95	1.95	1.95
95th-Percentile Queue Length [ft/ln]	3.08	0.00	0.00	6.37	0.00	0.00	47.31	47.31	47.31	48.85	48.85	48.85
d_A, Approach Delay [s/veh]	1.56			1.68			27.98			20.20		
Approach LOS	A			A			D			C		
d_I, Intersection Delay [s/veh]	7.40											
Intersection LOS	D											