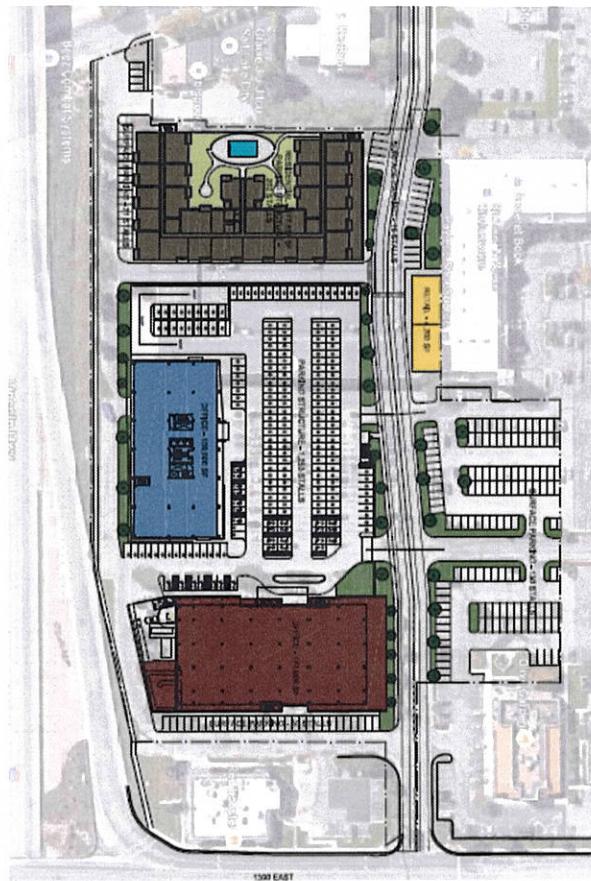


Shopko Redevelopment

Traffic Impact Study



Sugarhouse, Utah

January 2017

UT16-965

EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed Shopko redevelopment located in Sugarhouse, Utah. The Shopko redevelopment project is located between 1300 East and Highland Drive, just north of I-80.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 and 2040 conditions were also analyzed.

TRAFFIC ANALYSIS

The following is an outline of the traffic analysis performed by Hales Engineering for the traffic conditions of this project.

Existing (2016) Background Conditions Analysis

Weekday morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak period traffic counts were performed at the following intersections:

- Wilmington Avenue / 1300 East
- Simpson Avenue / 1300 East
- Stringham Avenue / 1300 East
- Simpson Avenue / Highland Drive
- Stringham Avenue / Highland Drive
- Ashton Avenue / Highland Drive
- South Access / Highland Drive

The counts were performed on Thursday, November 17, 2016. The morning peak hour was determined to be between 7:45 and 8:45 a.m. and the evening peak hour was determined to be between 5:00 and 6:00 p.m. The evening peak hour volumes were approximately 15 percent higher than the morning peak hour volumes. Therefore, the evening peak hour volumes were used in the analysis to represent the worst-case conditions.

As shown in Table ES-1, the Ashton Avenue / Highland Drive intersection is currently operating at LOS F. All other study intersections are currently operating at an acceptable LOS during the evening peak hour.

95th percentile queues of approximately 350 feet and 450 feet are anticipated at the eastbound approach of the Ashton Avenue / Highland Drive intersection and the southbound

approach of the Stringham Avenue / 1300 East intersection, respectively. No other significant queueing was observed during the evening peak hour.

Project Conditions Analysis

The redevelopment consists of demolishing the Shopko and adding residential and office space. After the Shopko is demolished, the first construction phase of the project will be the construction of a medical office building of approximately 172,000 square feet on the east side of the property. The second phase will be the construction of a general office building of approximately 150,000 square feet on the south side of the property. The third phase will be the construction of a multi-family residential complex of approximately 140 units on the west side of the property. It is anticipated that the all three phases of the project will be completed in 2019. For the plus project analyses, it was assumed that the first phase was completed by 2016 and that the other phases were completed by 2020.

The proposed land use for the development has been identified as follows:

• Medical Office Building	172,000 sq. ft
• Office Building	150,000 sq. ft
• Apartments	140 units

Due to the mixed-use nature of the residential and office space in the project, the Institute of Transportation Engineers (ITE) Internal Trip Capture Estimation Tool was used to calculate the mixed-use internal capture for the area. Based on the results of the estimation tool, an evening peak hour mixed-use internal capture rate of 1% was used for all project land uses.

The project site has several transit opportunities in the surrounding area. The UTA S-line has a station approximately 1000 feet northeast of the project. Also, there are UTA bus routes along 1300 East, Highland Drive, and 2100 South near the project. Because of these opportunities, a 5% transit reduction was used on the trip generation for the project. While the transit usage in the area may be more than this value, 5% was used as a conservative estimate for this analysis. It is anticipated that higher transit usage will improve traffic in the area.

The trip generation for the project is as follows:

• Daily Trips:	9,498
• Morning Peak Hour Trips:	748
• Evening Peak Hour Trips:	814

Existing (2016) Plus Project Conditions Analysis

A count was performed at the existing Shopko on Tuesday, December 13, 2016 to determine the current Shopko trip generation. The count was done during the previously-observed evening peak hour between 5:00 and 6:00 p.m. Customers were counted as they entered and exited the store to determine the vehicle traffic. People walking together were counted as one vehicle trip. Detailed count data is shown in Appendix A. The Shopko trips were removed from the existing (2016) background volumes before adding in project trips.

The observed trip generation of the existing Shopko development during the evening peak hour is as follows:

- | | |
|----------------------------------|-----|
| • Total Evening Peak Hour Trips: | 286 |
| • Trips Entering: | 139 |
| • Trips Exiting: | 147 |

As shown in Table ES-1, the Ashton Avenue / Highland Drive intersection is currently operating at LOS F. All other study intersections are currently operating at an acceptable LOS during the evening peak hour.

95th percentile queues of approximately 350 feet and 450 feet are anticipated at the eastbound approach of the Ashton Avenue / Highland Drive intersection and the southbound approach of the Stringham Avenue / 1300 East intersection, respectively. No other significant queueing is anticipated during the evening peak hour.

Future (2020) Background Conditions Analysis

As shown in Table ES-1, the Simpson Avenue / 1300 East and Ashton Avenue / Highland Drive intersections are anticipated to operate at LOS F during the evening peak hour. All other study intersections are anticipated to operate at an acceptable LOS during the evening peak hour.

A 95th percentile queue of approximately 450 feet is anticipated at the southbound approach of the Stringham Avenue / 1300 East intersection. A 95th percentile queue length of approximately 350 feet is anticipated at the eastbound approach of the Simpson Avenue / 1300 East intersection. No other significant queuing is anticipated during the evening peak hour.

Future (2020) Plus Project Conditions Analysis

As shown in Table ES-1, both the Simpson Avenue / 1300 East intersection and the Ashton Avenue / Highland Drive intersection are anticipated to operate at LOS F during the evening peak hour. All other study intersections are anticipated to operate at an acceptable LOS during the evening peak hour.

A 95th percentile queue of approximately 450 feet is anticipated at the southbound approach of the Wilmington Avenue / 1300 East intersection. 95th percentile queue lengths of approximately 650 and 550 feet are anticipated at the southbound and eastbound approaches, respectively, of the Stringham Avenue / 1300 East intersection. No other significant queuing is anticipated during the evening peak hour.

Future (2040) Background Conditions Analysis

As shown in Table ES-1, the Simpson Avenue / 1300 East, South Access / Highland Drive, and Ashton Avenue / Highland Drive intersections are anticipated to operate at LOS F during the evening peak hour. All other study intersections are anticipated to operate at an acceptable LOS during the evening peak hour.

95th percentile queues of approximately 550 and 600 feet are anticipated at the southbound approaches of the Stringham Avenue / 1300 East and Wilmington Avenue / 1300 East intersections, respectively. 95th percentile queue lengths of approximately 600 and 500 feet are anticipated at the eastbound approaches of the Simpson Avenue / 1300 East and Ashton Avenue / Highland Drive intersections, respectively. No other significant queuing is anticipated during the evening peak hour.

Future (2040) Plus Project Conditions Analysis

As shown in Table ES-1, the Simpson Avenue / 1300 East, South Access / Highland Drive, and Ashton Avenue / Highland Drive intersections are anticipated to operate at LOS F during the evening peak hour. All other study intersections are anticipated to operate at an acceptable LOS during the evening peak hour.

95th percentile queues of over 1,000 feet and 700 feet are anticipated at the southbound approaches of the Wilmington Avenue / 1300 East and Stringham Avenue / 1300 East intersections. 95th percentile queue lengths of approximately 700, 600, and 500 feet are anticipated at the eastbound approaches of the Simpson Avenue / 1300 East, Stringham Avenue / 1300 East, and Ashton Avenue / Highland Drive intersections, respectively. No other significant queuing is anticipated.

TABLE ES-1
Evening Peak Hour
Sugarhouse Shopko Redevelopment TIS

Intersection	Existing 2016 Background	Existing 2016 Plus Project	Future 2020 Background	Future 2020 Plus Project	Future 2040 Background	Future 2040 Plus Project
Description	LOS (Sec/Veh ¹)	LOS (Sec/Veh ¹)	LOS (Sec/Veh ¹)	LOS (Sec/Veh ¹)	LOS (Sec/Veh ¹)	LOS (Sec/Veh ¹)
Wilmington Avenue / 1300 East	B (15.0)	B (14.7)	B (16.5)	B (19.5)	C (22.5)	D (44.3)
Simpson Avenue / 1300 East	C (22.4) / EB	D (27.8) / EB	F (>50) / EB	F (> 50) / EB	F (> 50) / EB	F (> 50) / EB
Stringham Avenue / 1300 East	C (23.0)	C (23.8)	C (27.5)	D (42.5)	C (34.4)	D (54.8)
Simpson Avenue / Highland Drive	B (10.9)	B (10.4)	B (10.9)	B (11.4)	B (12.4)	B (13.0)
Stringham Avenue / Highland Drive	A (7.9) / WB	B (12.5) / WB	B (12.3) / WB	B (13.4) / WB	C (16.0) / WB	C (20.8) / WB
Ashton Avenue / Highland Drive	F (> 50) / EB	F (> 50) / EB	F (> 50) / EB	F (> 50) / EB	F (> 50) / EB	F (> 50) / EB
South Access / Highland Drive	C (19.6) / WB	C (17.4) / WB	C (19.5) / WB	E (35.5) / WB	F (> 50) / WB	F (> 50) / WB

1. Intersection LOS and delay (seconds/vehicle) values represent the overall intersection average for roundabout, signalized, all-way stop controlled intersections and the worst approach for all other unsignalized intersections.

Source: Hales Engineering, January 2017

RECOMMENDATIONS

Existing (2016) Background Conditions Analysis

It is recommended that separate left- and right-turn lanes be provided at the eastbound approach of the Ashton Avenue / Highland Drive intersection. It is anticipated that the intersection will operate at an acceptable LOS during the evening peak hour with this improvement. No other mitigation measures are recommended.

Existing (2016) Plus Project Conditions Analysis

It is recommended that Stringham Avenue be widened to a three-lane cross-section west of the Stringham Avenue / 1300 East intersection. It is recommended that the middle lane be a two-way left-turn lane to accommodate left turns and the high anticipated volume on Stringham Avenue. The center two-way left-turn lane can then be used as a left-turn pocket at 1300 East and Highland Drive. No other mitigation measures are recommended at this time.

Future (2020) Background Conditions Analysis

Although the Simpson Avenue / 1300 East intersection is anticipated to operate at level of service F during the evening peak hour, no mitigation measures are recommended. This access is already limited to a $\frac{3}{4}$ access. The primary source of delay is the queues from the Stringham Avenue / 1300 East signal, which prevents vehicles from turning right onto 1300 East.

Future (2020) Plus Project Conditions Analysis

No mitigation measures are recommended.

Future (2040) Background Conditions Analysis

It is recommended that separate left- and right-turn lanes be provided at the westbound approach of the South Access / Highland Drive intersection. No other mitigation measures are recommended.

Future (2040) Plus Project Conditions Analysis

No mitigation measures are recommended. Although a few of the stop controlled accesses are anticipated to operate at poor levels of service, this is expected at a busy arterial during the peak hours.

SUMMARY OF KEY FINDINGS/RECOMMENDATIONS

The following is a summary of key findings and recommendations:

- All study intersections are currently operating at acceptable levels of service except for the Ashton Avenue / Highland Drive intersection (LOS F).
- It is recommended that separate left- and right-turn lanes be provided at the eastbound approach of the Ashton Avenue / Highland Drive intersection. It is anticipated that the intersection will operate at an acceptable LOS during the evening peak hour with this improvement.
- The redevelopment consists of demolishing the Shopko and adding residential and office space. After the Shopko is demolished, the first construction phase of the project will be the construction of a medical office building of approximately 172,000 square feet on the east side of the property. The second phase will be the construction of a general office building of approximately 150,000 square feet on the south side of the property. The third phase will be the construction of a multi-family residential complex of approximately 140 units on the west side of the property. It is anticipated that the all three phases of the project will be completed in 2019. For the plus project analyses, it was assumed that the first phase was completed by 2016 and that the other phases were completed by 2020.
- With the Shopko removed from the property, Stringham Avenue will once again be connected from Highland Drive to 1300 East. This will provide additional opportunity for east-to-west traffic movement in Sugarhouse.
- It is recommended that Stringham Avenue be widened to a three-lane cross-section west of the Stringham Avenue / 1300 East intersection. It is recommended that the middle lane be a two-way left-turn lane to accommodate left turns and the high anticipated volume on Stringham Avenue. The center two-way left-turn lane can then be used as a left-turn pocket at 1300 East and Highland Drive.
- By 2040, the Simpson Avenue / 1300 East, South Access / Highland Drive, and Ashton Avenue / Highland Drive intersections are anticipated to operate at LOS F during the evening peak hour. All other study intersections are anticipated to operate at an acceptable LOS during the evening peak hour.
- It is recommended that separate left- and right-turn lanes be provided at the westbound approach of the South Access / Highland Drive intersection.
- No additional mitigation measures are recommended. Although a few of the stop controlled accesses are anticipated to operate at poor levels of service, this is expected at a busy arterial during the peak hours.

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I. INTRODUCTION

A. Purpose

This study addresses the traffic impacts associated with the proposed Shopko redevelopment located in Sugarhouse, Utah. The Shopko redevelopment project is located between 1300 East and Highland Drive, just north of I-80. Figure 1 shows a vicinity map of the proposed development.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 and 2040 conditions were also analyzed.



Figure 1 Vicinity Map Showing the Project Location in Sugarhouse, Utah

B. Scope

The study area was defined based on conversations with the development team. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersections:

- Wilmington Avenue / 1300 East
- Simpson Avenue / 1300 East
- Stringham Avenue / 1300 East
- Simpson Avenue / Highland Drive
- Stringham Avenue / Highland Drive
- Ashton Avenue / Highland Drive
- South Access / Highland Drive

C. Analysis Methodology

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections. Figure 2 provides a visual representation of each LOS letter designation.

The Highway Capacity Manual 2010 (HCM 2010) methodology was used in this study to remain consistent with “state-of-the-practice” professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized and all-way stop intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections LOS is reported based on the worst approach.

D. Level of Service Standards

For the purposes of this study, a minimum overall intersection performance for each of the study intersections was set at LOS D. However, if LOS E or F conditions exist, an explanation and/or mitigation measures will be presented. An LOS D threshold is consistent with “state-of-the-practice” traffic engineering principles for urbanized areas.

Table 1 Level of Service Description

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
		Overall Intersection
	Signalized Intersections	
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	$0 \leq 10.0$
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	$> 10.0 \text{ and } \leq 20.0$
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	$> 20.0 \text{ and } \leq 35.0$
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	$> 35.0 \text{ and } \leq 55.0$
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	$> 55.0 \text{ and } \leq 80.0$
F	Unacceptable progression with forced or breakdown operating conditions.	> 80.0
	Unsignalized Intersections	Worst Approach
A	Free Flow / Insignificant Delay	$0 \leq 10.0$
B	Stable Operations / Minimum Delays	$> 10.0 \text{ and } \leq 15.0$
C	Stable Operations / Acceptable Delays	$> 15.0 \text{ and } \leq 25.0$
D	Approaching Unstable Flows / Tolerable Delays	$> 25.0 \text{ and } \leq 35.0$
E	Unstable Operations / Significant Delays Can Occur	$> 35.0 \text{ and } \leq 50.0$
F	Forced Flows / Unpredictable Flows / Excessive Delays Occur	> 50.0

Source: Hales Engineering Descriptions, based on Highway Capacity Manual, 2010 Methodology (Transportation Research Board, 2010)

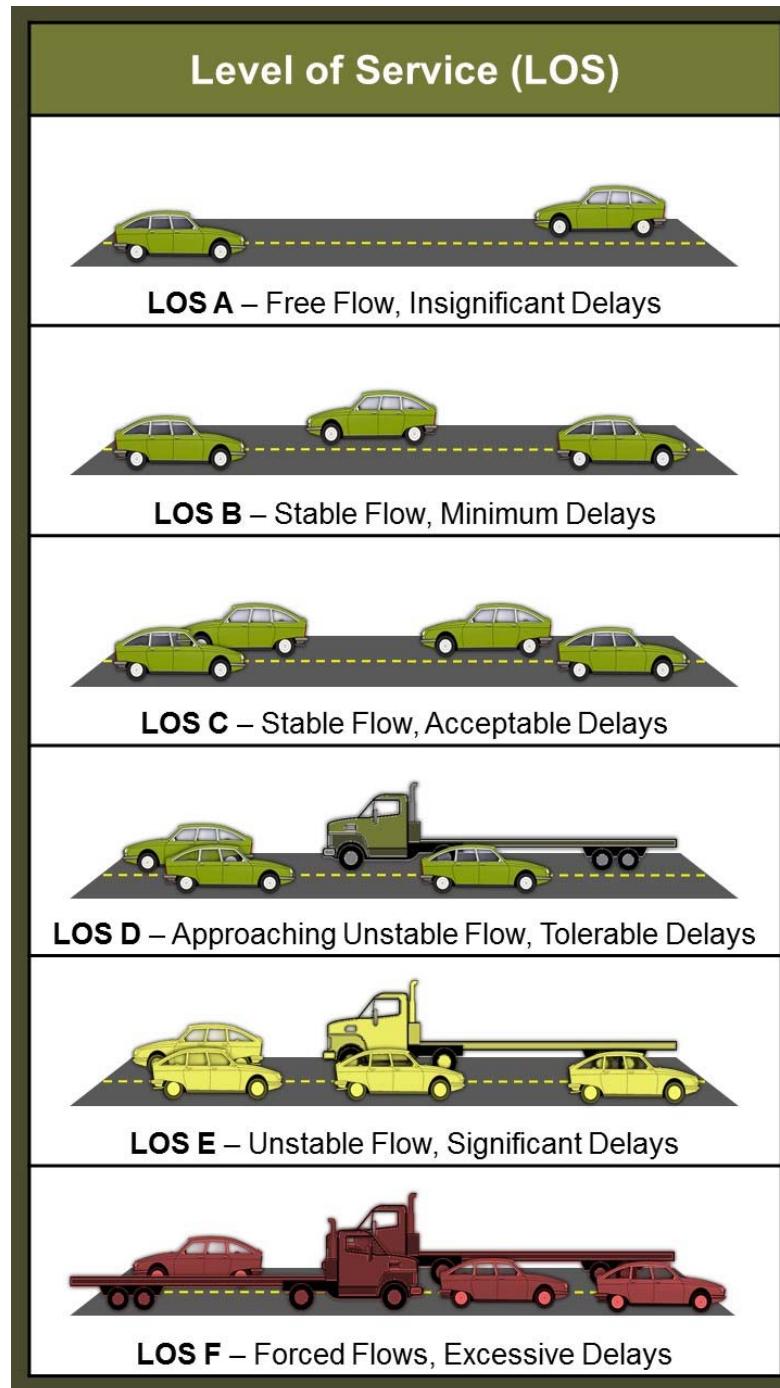


Figure 2 LOS Letter Designation

II. EXISTING (2016) BACKGROUND CONDITIONS

A. Purpose

The purpose of the background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified and potential mitigation measures recommended. This analysis will provide a baseline condition that may be compared to the build conditions to identify the impacts of the development.

B. Roadway System

The primary roadways that will provide access to the project site are described below:

1300 East – is classified by Salt Lake City as an arterial. The roadway has three through lanes in each direction. The posted speed limit is 35 mph in the study area.

Highland Drive – is classified by Salt Lake City as an arterial. The roadway has two through lanes in each direction. The posted speed limit is 30 mph in the study area.

C. Traffic Volumes

Weekday morning (7:00 to 9:00 a.m.) and evening (4:00 to 6:00 p.m.) peak period traffic counts were performed at the following intersections:

- Wilmington Avenue / 1300 East
- Simpson Avenue / 1300 East
- Stringham Avenue / 1300 East
- Simpson Avenue / Highland Drive
- Stringham Avenue / Highland Drive
- Ashton Avenue / Highland Drive
- South Access / Highland Drive

The counts were performed on Thursday, November 17, 2016. The morning peak hour was determined to be between 7:45 and 8:45 a.m. and the evening peak hour was determined to be between 5:00 and 6:00 p.m. The evening peak hour volumes were approximately 15 percent higher than the morning peak hour volumes. Therefore, the evening peak hour volumes were used in the analysis to represent the worst-case conditions. Detailed count data are included in Appendix A. Figure 3 shows the existing evening peak hour volume as well as intersection geometry at the study intersections.

**Sugarhouse - Shopko Redevelopment TIS
Existing (2016) Background**

**Evening Peak Hour
Figure 3**



D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 2 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2016) conditions. As shown in Table 2, the Ashton Avenue / Highland Drive intersection is currently operating at LOS F. All other study intersections are currently operating at an acceptable LOS during the evening peak hour.

Table 2 Background (2016) Evening Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection		
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²	
Wilmington Avenue / 1300 East	Signalized	-	-	-	15.0	B	
Simpson Avenue / 1300 East	EB Stop	EB	22.4	C	-	-	
Stringham Avenue / 1300 East	Signalized	-	-	-	23.0	C	
Simpson Avenue / Highland Drive	Signalized	-	-	-	10.9	B	
Stringham Avenue / Highland Drive	WB Stop	WB	7.9	A	-	-	
Ashton Avenue / Highland Drive	EB Stop	EB	> 50	F	-	-	
South Access / Highland Drive	WB Stop	WB	19.6	C	-	-	

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, January 2017

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. 95th percentile queues of approximately 350 feet and 450 feet are anticipated at the eastbound approach of the Ashton Avenue / Highland Drive intersection and the southbound approach of the Stringham Avenue / 1300 East intersection, respectively. No other significant queueing was observed during the evening peak hour.

F. Mitigation Measures

It is recommended that separate left- and right-turn lanes be provided at the eastbound approach of the Ashton Avenue / Highland Drive intersection. It is anticipated that the intersection will operate at an acceptable LOS during the evening peak hour with this improvement. No other mitigation measures are recommended at this time.

III. PROJECT CONDITIONS

A. Purpose

The project conditions analysis explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in the Introduction.

B. Project Description

This study addresses the traffic impacts associated with the proposed Shopko redevelopment located in Sugarhouse, Utah. The Shopko redevelopment project is located between 1300 East and Highland Drive, just north of I-80. The redevelopment consists of demolishing the Shopko and adding residential and office space. After the Shopko is demolished, the first construction phase of the project will be the construction of a medical office building of approximately 172,000 square feet on the east side of the property. The second phase will be the construction of a general office building of approximately 150,000 square feet on the south side of the property. The third phase will be the construction of a multi-family residential complex of approximately 140 units on the west side of the property.

It is anticipated that the all three phases of the project will be completed in 2019. For the plus project analyses, it was assumed that the first phase was completed by 2016 and that the other two phases were completed by 2020. A concept plan for the proposed developments has been included in Appendix C.

The proposed land use for the development has been identified as follows:

• Medical Office Building	172,000 sq. ft
• Office Building	150,000 sq. ft
• Apartments	140 units

C. Trip Generation

Due to the mixed-use nature of the residential and office space in the project, the Institute of Transportation Engineers (ITE) Internal Trip Capture Estimation Tool was used to calculate the mixed-use internal capture for the area. The mixed-use internal capture report can be found in Appendix E. Based on the results of the estimation tool, an evening peak hour mixed-use internal capture rate of 1% was used for all project land uses.

The project site has several transit opportunities in the surrounding area. The UTA S-line has a station approximately 1000 feet northeast of the project. Also, there are UTA bus routes along

1300 East, Highland Drive, and 2100 South near the project. Based of these opportunities, a 5% transit reduction was used on the trip generation for the project. While the transit usage in the area may be more than this value, 5% was used as a conservative estimate for this analysis. It is anticipated that higher transit usage will improve traffic in the area.

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) Trip Generation (9th Edition, 2012). Trip Generation for the proposed project is included in Table 3.

The trip generation for the project is as follows:

• Daily Trips:	9,108
• Morning Peak Hour Trips:	714
• Evening Peak Hour Trips:	772

D. Trip Distribution and Assignment

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially in close proximity to the site. The resulting distribution of project generated trips during the evening peak hour is as follows:

To/From Project:

- 35% West via I-80
- 20% East via I-80
- 15% North via 1300 East
- 15% South via 1300 East
- 10% North via Highland Drive
- 5% South via Highland Drive

These trip distribution assumptions were used to assign the evening peak hour generated traffic at the study intersections to create trip assignment for the proposed development. Trip assignment for Phase 1 of the development is shown in Figure 4. Trip assignment for all phases of the development is shown in Figure 5.

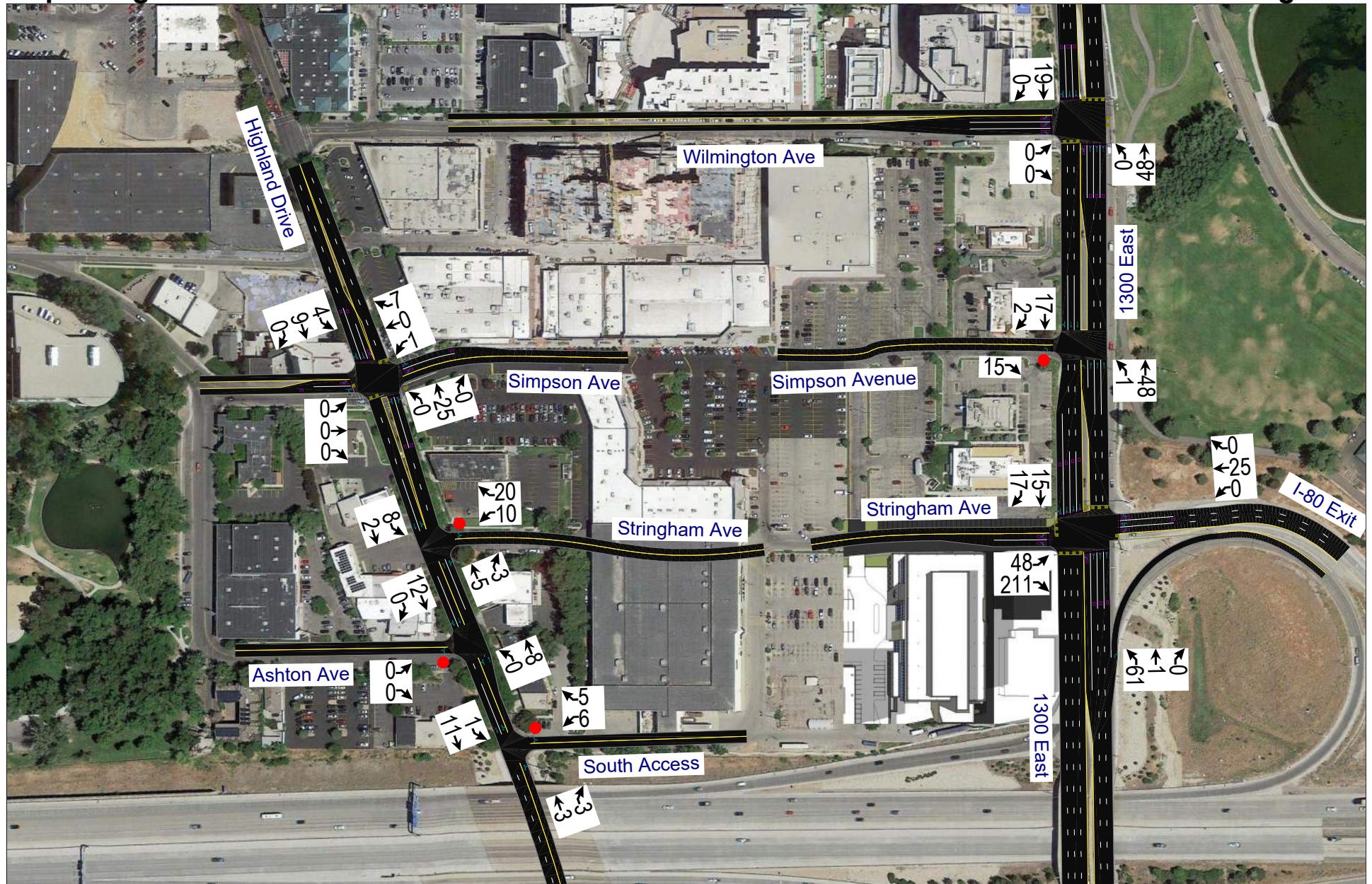
Table 3
Sugarhouse - Shopko Redevelopment TIS
Trip Generation

		Sugarhouse - Shopko Redevelopment TIS													
		Trip Generation													
		Weekday Daily		Trip		Trips		Mixed-Use		Transit		Net Trips		Total Daily	
Land Use ¹	Units	Unit Type	Generation	Entering	Exiting	Trips	Exiting	Internal Capture	Reduction	Entering	Exiting	Net Trips	Total Trips	Total Daily Trips	
General Office Building (710)	150	1,000 Sq. Ft. GFA	1,788	50%	894	894	0%	5%	849	849	0%	849	1,698		
Medical/Dental Office Building (720)	172	1,000 Sq. Ft. GFA	6,820	50%	3,410	3,410	0%	5%	3,240	3,240	0%	3,240	6,480		
Apartment (220)	140	Dwelling Units	972	50%	486	486	0%	5%	462	462	0%	462	924		
Project Total Daily Trips					4,790	4,790			4,551	4,551		4,551	9,102		
		Morning Peak Hour		Trip		Trips		Mixed-Use		Transit		Net Trips		Total a.m.	
Land Use ¹	Units	Unit Type	Generation	Entering	Exiting	Trips	Exiting	Internal Capture	Reduction	Entering	Exiting	Net Trips	Total Trips	Total a.m. Trips	
General Office Building (710)	150	1,000 Sq. Ft. GFA	266	88%	12%	234	32	0%	5%	222	30	0%	222	252	
Medical/Dental Office Building (720)	172	1,000 Sq. Ft. GFA	412	79%	21%	325	87	0%	5%	309	83	0%	309	392	
Apartment (220)	140	Dwelling Units	74	20%	80%	15	59	0%	5%	14	56	0%	14	70	
Project Total a.m. Peak Hour Trips					574	178			545	169		545	714		
		Evening Peak Hour		Trip		Trips		Mixed-Use		Transit		Net Trips		Total p.m.	
Land Use ¹	Units	Unit Type	Generation	Entering	Exiting	Trips	Exiting	Internal Capture	Reduction	Entering	Exiting	Net Trips	Total Trips	Total p.m. Trips	
General Office Building (710)	150	1,000 Sq. Ft. GFA	248	17%	83%	42	206	1%	5%	40	194	0%	40	234	
Medical/Dental Office Building (720)	172	1,000 Sq. Ft. GFA	476	28%	72%	133	343	1%	5%	125	323	0%	125	448	
Apartment (220)	140	Dwelling Units	96	65%	35%	62	34	1%	5%	58	32	0%	58	90	
Project Total p.m. Peak Hour Trips					237	583			223	549		223	772		
		Saturday Daily		Trip		Trips		Mixed-Use		Transit		Net Trips		Total Sat. Daily	
Land Use ¹	Units	Unit Type	Generation	Entering	Exiting	Trips	Exiting	Internal Capture	Reduction	Entering	Exiting	Net Trips	Total Trips	Total Sat. Daily Trips	
General Office Building (710)	150	1,000 Sq. Ft. GFA	338	50%	50%	169	169	0%	5%	161	161	0%	161	322	
Medical/Dental Office Building (720)	172	1,000 Sq. Ft. GFA	1,542	50%	50%	771	771	0%	5%	732	732	0%	732	1,464	
Apartment (220)	140	Dwelling Units	844	50%	50%	422	422	0%	5%	401	401	0%	401	802	
Project Total Saturday Trips					1,362	1,362			1,294	1,294		1,294	2,588		
		Saturday Peak Hour		Trip		Trips		Mixed-Use		Transit		Net Trips		Total Sat Pk Hr	
Land Use ¹	Units	Unit Type	Generation	Entering	Exiting	Trips	Exiting	Internal Capture	Reduction	Entering	Exiting	Net Trips	Total Trips	Total Sat Pk Hr Trips	
General Office Building (710)	150	1,000 Sq. Ft. GFA	66	54%	48%	36	30	0%	5%	34	29	0%	34	63	
Medical/Dental Office Building (720)	172	1,000 Sq. Ft. GFA	626	57%	43%	357	269	0%	5%	339	256	0%	339	595	
Apartment (220)	140	Dwelling Units	74	54%	46%	40	34	0%	5%	38	32	0%	38	70	
Project Total Saturday Peak Hour Trips					433	333			411	317		411	728		

¹ Land Use Code from the Institute of Transportation Engineers Trip Generation Manual (8th Edition - 2012)
 SOURCE: Hales Engineering, 2016

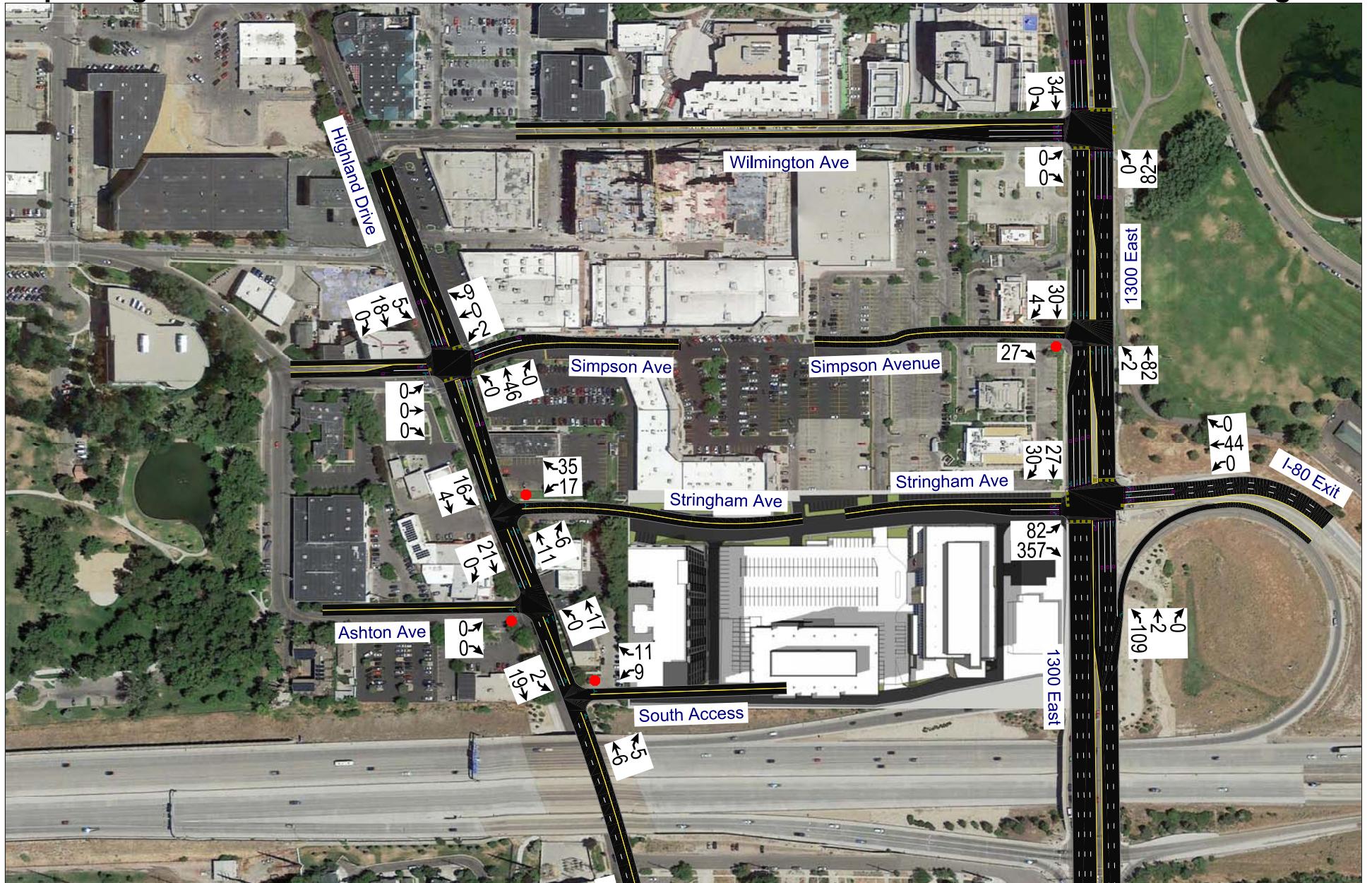
**Sugarhouse - Shopko Redevelopment TIS
Trip Assignment - Phase 1**

**Evening Peak Hour
Figure 4**



Sugarhouse - Shopko Redevelopment TIS Trip Assignment - All Phases

Evening Peak Hour
Figure 5



E. Access

The proposed access for the site will be gained at the following locations (see also concept plan in Appendix C):

1300 East:

- Stringham Avenue will access the project site on the east side from 1300 East. The intersection is signalized and includes a freeway exit from WB I-80 on the westbound approach. This is currently the major signalized access for the existing Shopko development.
- Simpson Avenue will access the project site on the east side from 1300 East. Simpson Avenue is located approximately 350 feet north of the Stringham Avenue / 1300 East intersection. The access is a three-quarter access, with a prohibited left turn on the eastbound approach. The access is stop-controlled in the eastbound direction.

Highland Drive:

- Stringham Avenue will access the project site on the west side from Highland Drive. This roadway currently provides access to parking areas west of the Shopko development. With the Shopko redevelopment, Stringham Avenue will connect through from Highland Drive to 1300 East, making the development more accessible from Highland Drive via Stringham Avenue. The access is stop-controlled in the westbound direction.
- Simpson Avenue will access the project site on the west side from Highland Drive. The intersection is a four-leg signalized intersection, with easy access to the shopping center north of the project.
- The South Access will access the project site on the west side from Highland Drive. The roadway is located south of the project and is stop-controlled in the westbound direction.

IV. EXISTING (2016) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the existing (2016) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for existing background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

B. Traffic Volumes

Due to the connection of Stringham Avenue from Highland Drive to 1300 East as part of the project, the existing (2016) background trips were redistributed to represent the anticipated use of Stringham Avenue compared to the other roadways.

A count was performed at the existing Shopko on Tuesday, December 13, 2016 to determine the current Shopko trip generation. The count was done during the previously-observed evening peak hour between 5:00 and 6:00 p.m. Customers were counted as they entered and exited the store to determine the vehicle traffic. People walking together were counted as one vehicle trip. Detailed count data is shown in Appendix A. The Shopko trips were removed from the existing (2016) background volumes before adding in project trips.

The observed trip generation of the existing Shopko development during the evening peak hour is as follows:

• Total Evening Peak Hour Trips:	286
• Trips Entering:	139
• Trips Exiting:	147

As mentioned previously, it was assumed that the medical office was completed by 2016 (Phase 1), while the office building and residential complex (Phase 2 and 3) were not. The Phase 1 trip assignment was added to the existing (2016) background conditions to determine the existing (2016) plus project traffic volumes. The existing (2016) plus project evening peak hour volumes are shown in Figure 6.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 4 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between

the intersections. As shown in Table 4, the Ashton Avenue / Highland Drive intersection is currently operating at LOS F. All other study intersections are currently operating at an acceptable LOS during the evening peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. 95th percentile queues of approximately 350 feet and 450 feet are anticipated at the eastbound approach of the Ashton Avenue / Highland Drive intersection and the southbound approach of the Stringham Avenue / 1300 East intersection, respectively. No other significant queueing is anticipated during the evening peak hour.

E. Mitigation Measures

It is recommended that Stringham Avenue be widened to a three-lane cross-section west of the Stringham Avenue / 1300 East intersection. It is recommended that the middle lane be a two-way left-turn lane to accommodate left turns and the high anticipated volume on Stringham Avenue. The center two-way left-turn lane can then be used as a left-turn pocket at 1300 East and Highland Drive. No other mitigation measures are recommended at this time.

**Sugarhouse - Shopko Redevelopment TIS
Existing (2016) Plus Project**

**Evening Peak Hour
Figure 6**

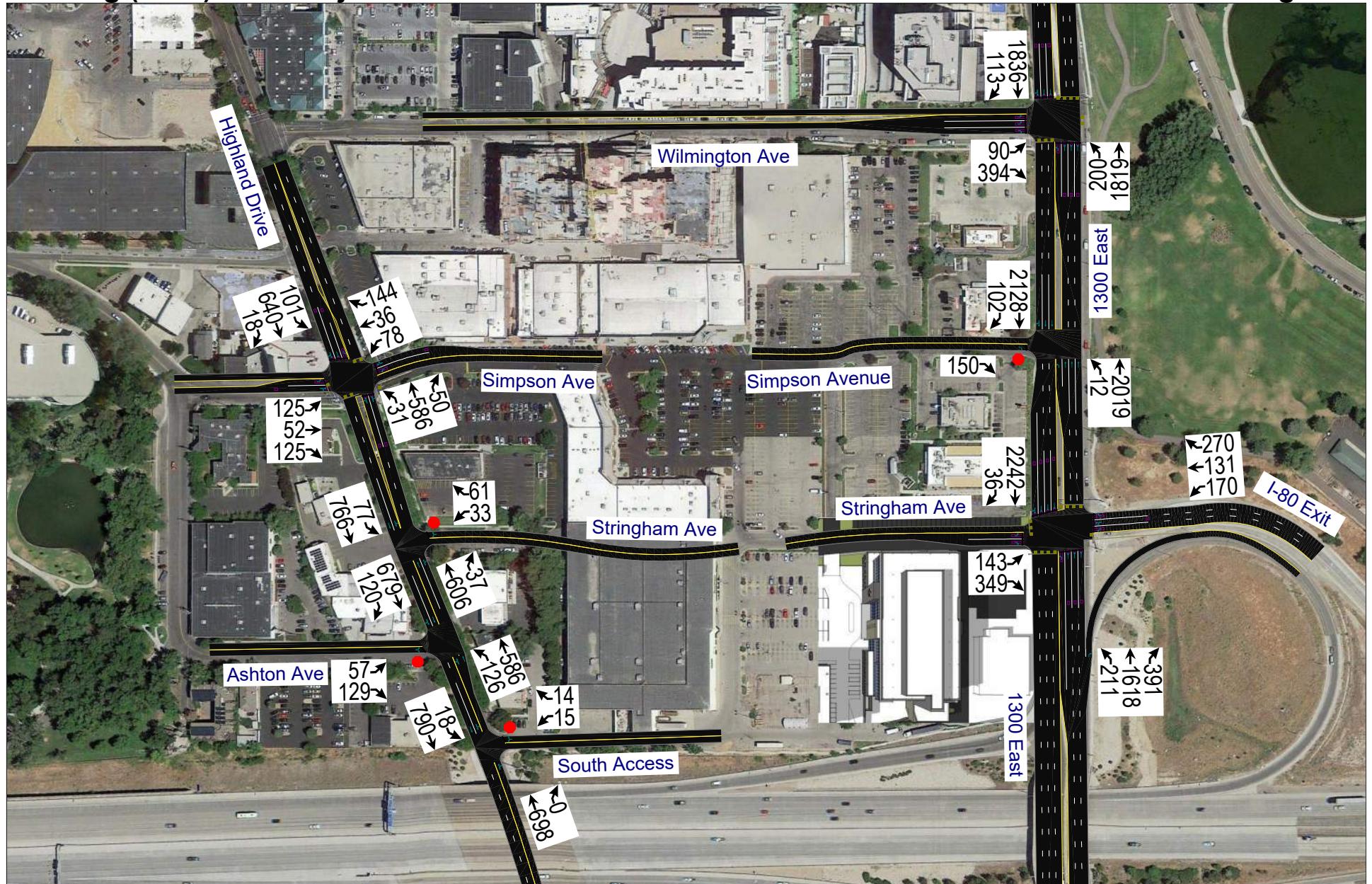


Table 4 Existing (2016) Plus Project Evening Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection		
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²	
Wilmington Avenue / 1300 East	Signalized	-	-	-	14.7	B	
Simpson Avenue / 1300 East	EB Stop	EB	27.8	D	-	-	
Stringham Avenue / 1300 East	Signalized	-	-	-	23.8	C	
Simpson Avenue / Highland Drive	Signalized	-	-	-	10.4	B	
Stringham Avenue / Highland Drive	WB Stop	WB	12.5	B	-	-	
Ashton Avenue / Highland Drive	EB Stop	EB	> 50	F	-	-	
South Access / Highland Drive	WB Stop	WB	17.4	C	-	-	

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, January 2017

V. FUTURE (2020) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2020) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified and potential mitigation measures recommended.

B. Roadway Network

According to the WFRC Regional Transportation Plan, there are no projects planned before 2020 in the study area. However, it was assumed that a separate left- and right- turn lane configuration was in place at the eastbound approach of the Ashton Avenue / Highland Drive intersection for 2020 conditions, as recommended for the existing (2016) background analysis.

Based on conversations with the design team, it is anticipated that the Shopko will be demolished soon, and Stringham Avenue will be extended from Highland Drive to 1300 East. In order to provide a comparable background for future plus project conditions, it was assumed that this change was in place for future background scenarios.

C. Traffic Volumes

Hales Engineering obtained future (2020) forecasted volumes from the Wasatch Front Regional Council (WFRC) / Mountainlands Association of Governments (MAG) travel demand model. Peak period turning movement counts were estimated using NCHRP 255 methodologies which utilize existing peak period turn volumes and future AWDT volumes to project the future turn volumes at the major intersections. Future (2020) evening peak hour volumes are shown in Figure 7.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 5 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development for future (2020) conditions. As shown in Table 5, the Simpson Avenue / 1300 East and Ashton Avenue / Highland Drive intersections are anticipated to operate at LOS F during the evening peak hour. All other study intersections are anticipated to operate at an acceptable LOS during the evening peak hour.

**Sugarhouse - Shopko Redevelopment TIS
Future (2020) Background**

**Evening Peak Hour
Figure 7**



Table 5 Future (2020) Background Evening Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection		
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²	
Wilmington Avenue / 1300 East	Signalized	-	-	-	16.5	B	
Simpson Avenue / 1300 East	EB Stop	EB	> 50	F	-	-	
Stringham Avenue / 1300 East	Signalized	-	-	-	27.5	C	
Simpson Avenue / Highland Drive	Signalized	-	-	-	10.9	B	
Stringham Avenue / Highland Drive	WB Stop	WB	12.3	B	-	-	
Ashton Avenue / Highland Drive	EB Stop	EB	> 50	F	-	-	
South Access / Highland Drive	WB Stop	WB	19.5	C	-	-	

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, January 2017

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. A 95th percentile queue of approximately 450 feet is anticipated at the southbound approach of the Stringham Avenue / 1300 East intersection. A 95th percentile queue length of approximately 350 feet is anticipated at the eastbound approach of the Simpson Avenue / 1300 East intersection. No other significant queuing is anticipated during the evening peak hour.

F. Mitigation Measures

Although the Simpson Avenue / 1300 East intersection is anticipated to operate at level of service F during the evening peak hour, no mitigation measures are recommended at this time. This access is already limited to a $\frac{3}{4}$ access. The primary source of delay is the queueing from the Stringham Avenue / 1300 East signal, which prevents vehicles from turning right onto 1300 East.

VI. FUTURE (2020) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the future (2020) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

Hales Engineering used the future (2020) background traffic volumes and added the project trips to predict future (2020) plus project conditions. As mentioned previously, it was assumed that all phases of the project were complete by 2020. Therefore, the trip assignment for all phases was included as project trips. Trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. It was assumed that Stringham Avenue will be constructed as a three-lane cross section as recommended previously. Future (2020) plus project evening peak hour turning movement volumes are shown in Figure 8.

C. Level of Service Analysis

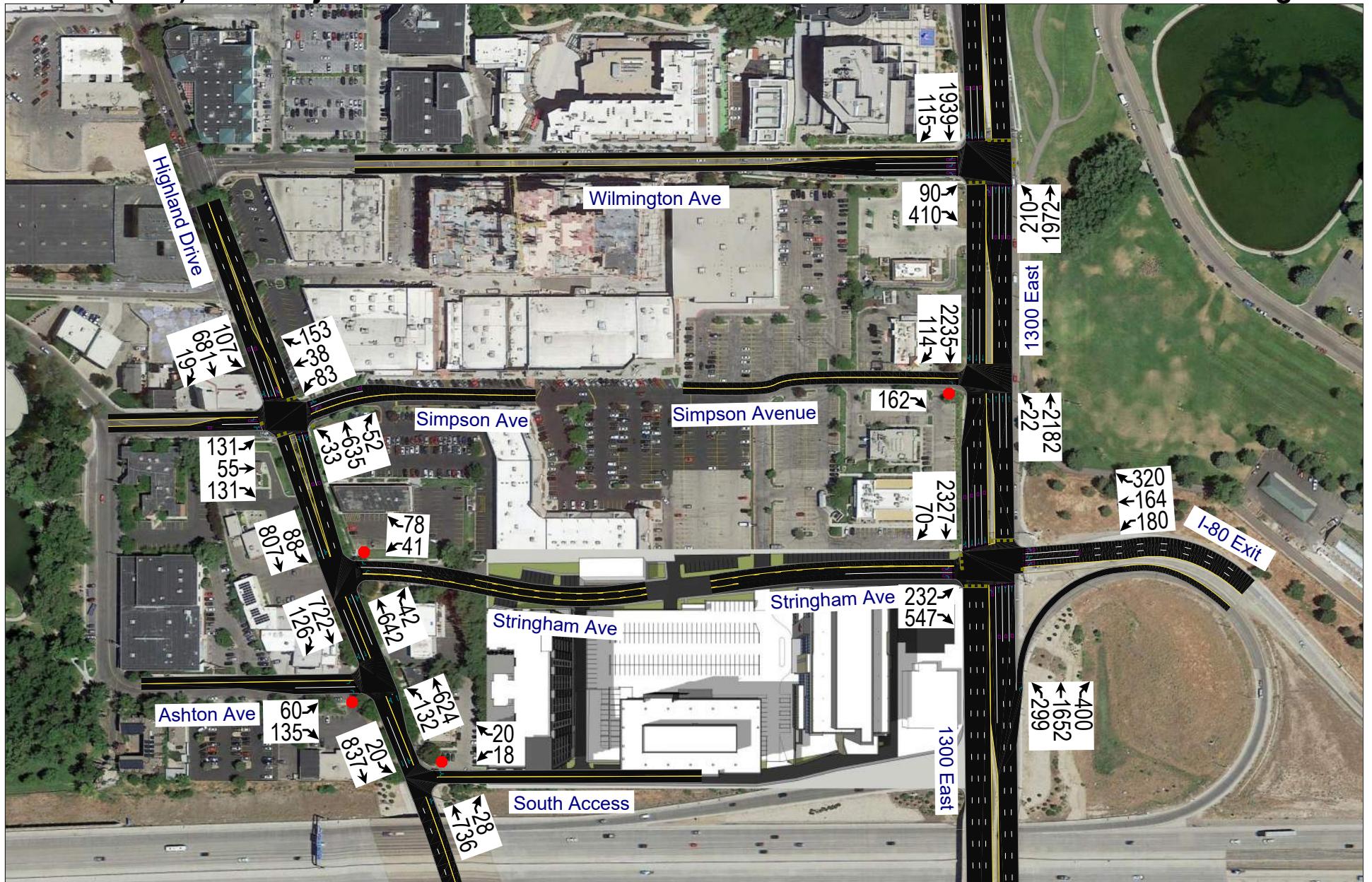
Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 6 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 6, both the Simpson Avenue / 1300 East intersection and the Ashton Avenue / Highland Drive intersection are anticipated to operate at LOS F during the evening peak hour. All other study intersections are anticipated to operate at an acceptable LOS during the evening peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. A 95th percentile queue of approximately 450 feet is anticipated at the southbound approach of the Wilmington Avenue / 1300 East intersection. 95th percentile queue lengths of approximately 650 and 550 feet are anticipated at the southbound and eastbound approaches, respectively, of the Stringham Avenue / 1300 East intersection. No other significant queuing is anticipated during the evening peak hour.

**Sugarhouse - Shopko Redevelopment TIS
Future (2020) Plus Project**

**Evening Peak Hour
Figure 8**



Hales Engineering
1220 North 500 West, Ste. 202 Lehi, Utah 84043

801.766.4343
01/05/2017

Table 6 Future (2020) Plus Project Evening Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection		
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²	
Wilmington Avenue / 1300 East	Signalized	-	-	-	19.5	B	
Simpson Avenue / 1300 East	EB Stop	EB	> 50	F	-	-	
Stringham Avenue / 1300 East	Signalized	-	-	-	42.5	D	
Simpson Avenue / Highland Drive	Signalized	-	-	-	11.4	B	
Stringham Avenue / Highland Drive	WB Stop	WB	13.4	B	-	-	
Ashton Avenue / Highland Drive	EB Stop	EB	> 50	F	-	-	
South Access / Highland Drive	WB Stop	WB	35.5	E	-	-	

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, January 2017

E. Mitigation Measures

No mitigation measures are recommended at this time.

VII. FUTURE (2040) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2040) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified and potential mitigation measures recommended.

B. Roadway Network

There are several roadway and transit projects planned for the roadways that surround the study area before 2040 based on the Wasatch Front Regional Council (WFRC) Regional Transportation Plan. It is anticipated that the following projects will be completed by 2040:

- The Sugarhouse S Line streetcar will be extended from the McClelland Street / Sugarmont Drive intersection to the Highland Drive / 2100 South intersection. The line will continue along 1100 East north of 2100 South. It is anticipated that the S Line will have two tracks by 2040, providing two directions of flow for the streetcar. Since the exact route has not yet been determined, modeling the S-Line streetcar was not included in the analysis.
- There are “enhanced bus” projects planned for 2100 South and 1300 East. It is anticipated that this will include improvements to the bus stops and bus schedule to provide better service to transit users.
- Operational improvement highway projects are planned for 2100 South and 1300 East. It is anticipated that these projects will result in signal timing improvements, turn lane changes, and/or coordination improvements. It is not anticipated that these projects will add lanes or capacity to the roadways. Therefore, no changes were made to the roadway network for the Future (2040) analysis.

It was assumed that a separate left- and right- turn lane configuration was in place at the eastbound approach of the Ashton Avenue / Highland Drive intersection as recommended previously.

C. Traffic Volumes

Hales Engineering obtained future (2040) forecasted volumes from the WFRC / Mountainlands Association of Governments (MAG) travel demand model. Peak period turning movement counts were estimated using NCHRP 255 methodologies which utilize existing peak period turn volumes and future AWDT volumes to project the future turn volumes at the major intersections. Future (2040) background evening peak hour turning movement volumes are shown in Figure 9.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 7 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development for future (2040) conditions. As shown in Table 7, the Simpson Avenue / 1300 East, South Access / Highland Drive, and Ashton Avenue / Highland Drive intersections are anticipated to operate at LOS F during the evening peak hour. All other study intersections are anticipated to operate at an acceptable LOS during the evening peak hour.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. 95th percentile queues of approximately 550 and 600 feet are anticipated at the southbound approaches of the Stringham Avenue / 1300 East and Wilmington Avenue / 1300 East intersections, respectively. 95th percentile queue lengths of approximately 600 and 500 feet are anticipated at the eastbound approaches of the Simpson Avenue / 1300 East and Ashton Avenue / Highland Drive intersections, respectively. No other significant queuing is anticipated during the evening peak hour.

F. Mitigation Measures

It is recommended that separate left- and right-turn lanes be provided at the westbound approach of the South Access / Highland Drive intersection. No other mitigation measures are recommended at this time.

Sugarhouse - Shopko Redevelopment TIS Future (2040) Background

Evening Peak Hour
Figure 9

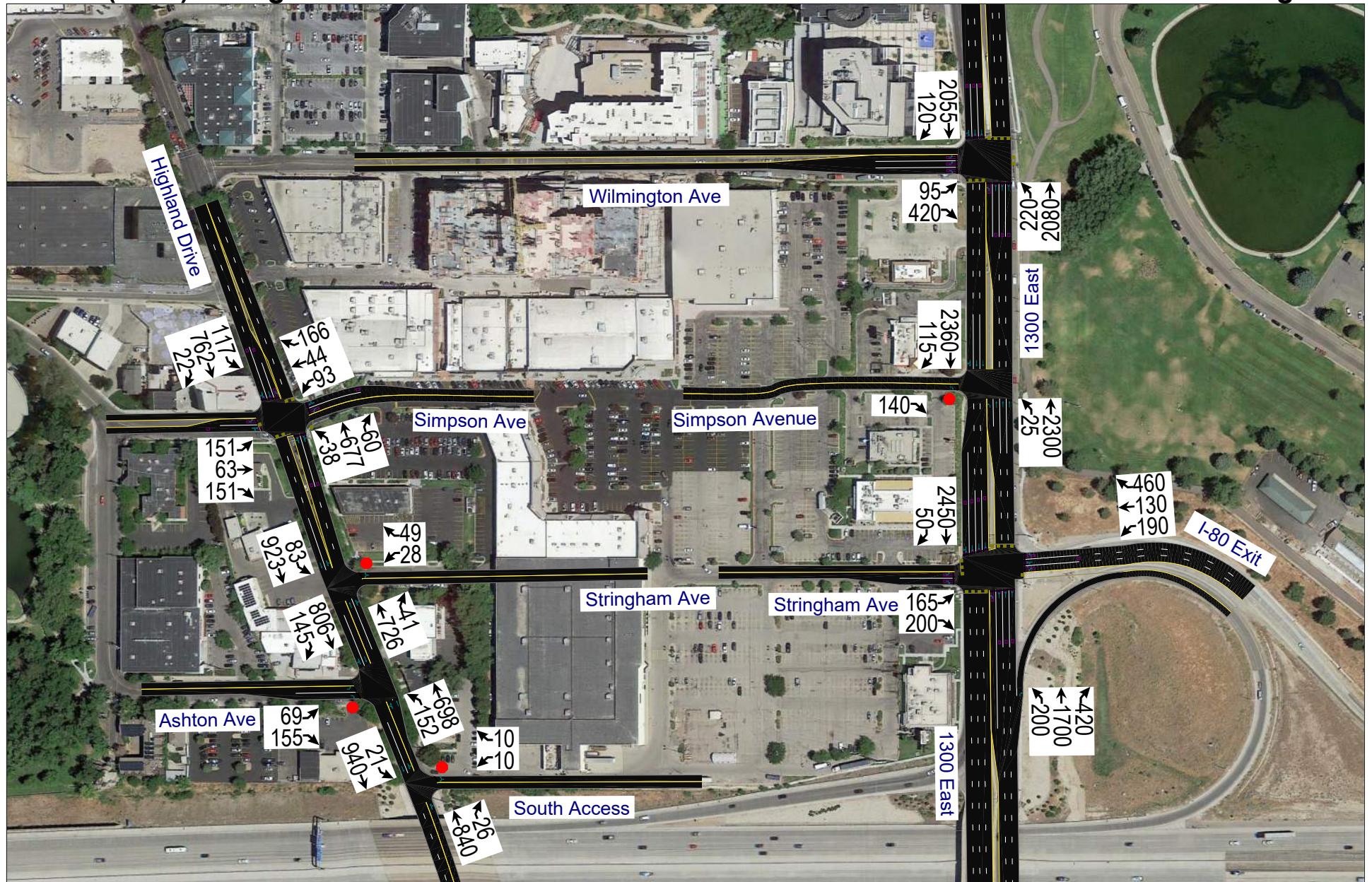


Table 7 Future (2040) Background Evening Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection		
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²	
Wilmington Avenue / 1300 East	Signalized	-	-	-	22.5	C	
Simpson Avenue / 1300 East	EB Stop	EB	> 50	F	-	-	
Stringham Avenue / 1300 East	Signalized	-	-	-	34.4	C	
Simpson Avenue / Highland Drive	Signalized	-	-	-	12.4	B	
Stringham Avenue / Highland Drive	WB Stop	WB	16.0	C	-	-	
Ashton Avenue / Highland Drive	EB Stop	EB	> 50	F	-	-	
South Access / Highland Drive	WB Stop	WB	> 50	F	-	-	

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, January 2017

VIII. FUTURE (2040) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the future (2040) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

Hales Engineering obtained future (2040) forecasted volumes from the WFRC travel demand model. Peak period turning movement counts were estimated using NCHRP 255 methodologies which utilize existing peak period turn volumes and future ADT volumes to project the future turn volumes at the major intersections.

Trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. It was assumed that Stringham Avenue will be constructed as a three-lane cross section as recommended previously. Future (2040) plus project evening peak hour turning movement volumes are shown in Figure 10.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the evening peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 8 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 8, the Simpson Avenue / 1300 East, South Access / Highland Drive, and Ashton Avenue / Highland Drive intersections are anticipated to operate at LOS F during the evening peak hour. All other study intersections are anticipated to operate at an acceptable LOS during the evening peak hour.

**Sugarhouse - Shopko Redevelopment TIS
Future (2040) Plus Project**

**Evening Peak Hour
Figure 10**

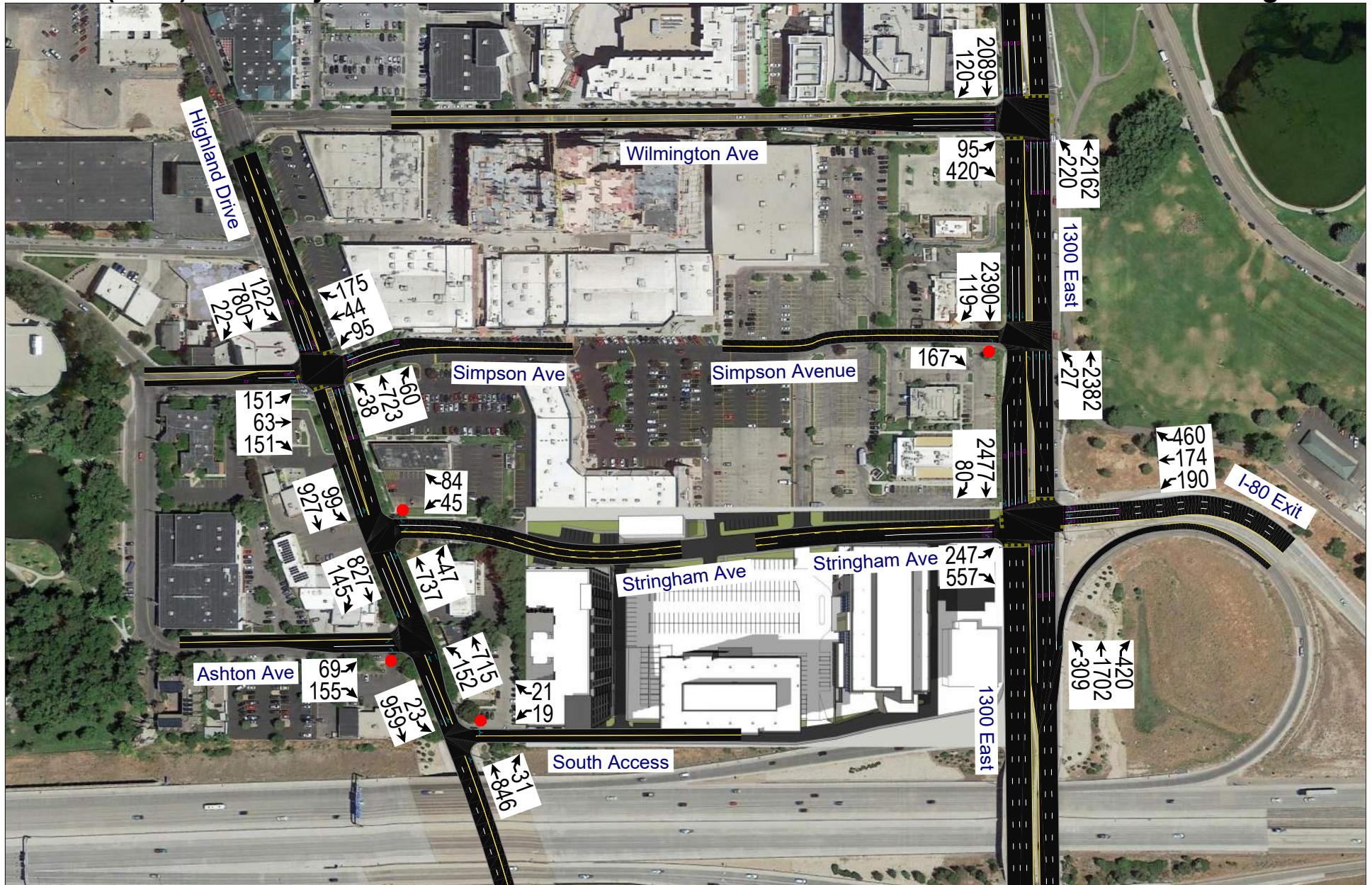


Table 8 Future (2040) Plus Project Evening Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach ^{1,3}	Aver. Delay (Sec/Veh) ¹	LOS ¹	Aver. Delay (Sec/Veh) ²	LOS ²
Wilmington Avenue / 1300 East	Signalized	-	-	-	44.3	D
Simpson Avenue / 1300 East	EB Stop	EB	> 50	F	-	-
Stringham Avenue / 1300 East	Signalized	-	-	-	54.8	D
Simpson Avenue / Highland Drive	Signalized	-	-	-	13.0	B
Stringham Avenue / Highland Drive	WB Stop	WB	20.8	C	-	-
Ashton Avenue / Highland Drive	EB Stop	EB	> 50	F	-	-
South Access / Highland Drive	WB Stop	WB	> 50	F	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.

2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop and signal controlled intersections.

3. SB = Southbound approach, etc.

Source: Hales Engineering, January 2017

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. 95th percentile queues of over 1,000 feet and 700 feet are anticipated at the southbound approaches of the Wilmington Avenue / 1300 East and Stringham Avenue / 1300 East intersections. 95th percentile queue lengths of approximately 700, 600, and 500 feet are anticipated at the eastbound approaches of the Simpson Avenue / 1300 East, Stringham Avenue / 1300 East, and Ashton Avenue / Highland Drive intersections, respectively. No other significant queuing is anticipated.

E. Mitigation Measures

No mitigation measures are recommended at this time. Although a few of the stop controlled accesses are anticipated to operate at poor levels of service, this is expected at a busy arterial during the peak hours.



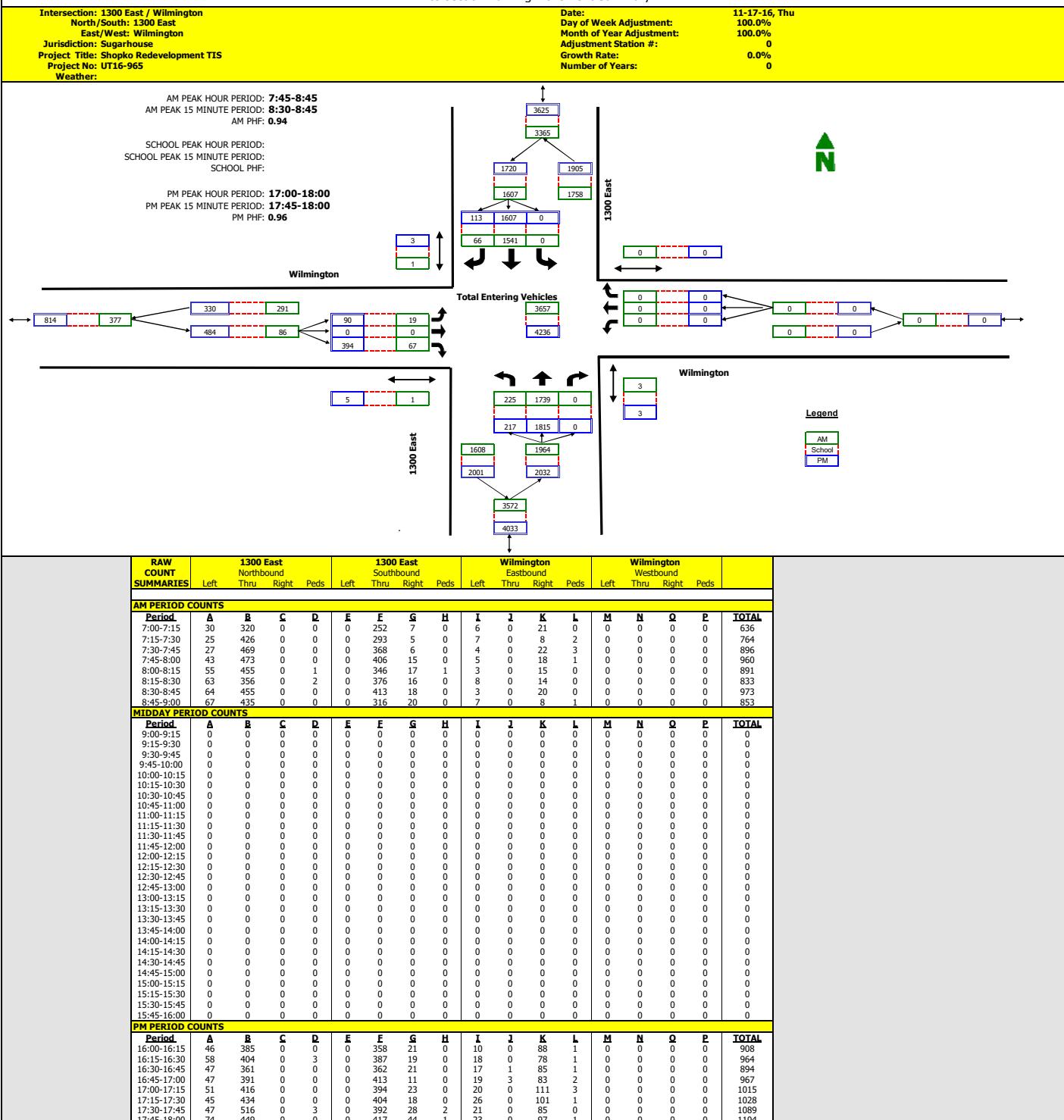
APPENDIX A

Turning Movement Counts

Traffic Counts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

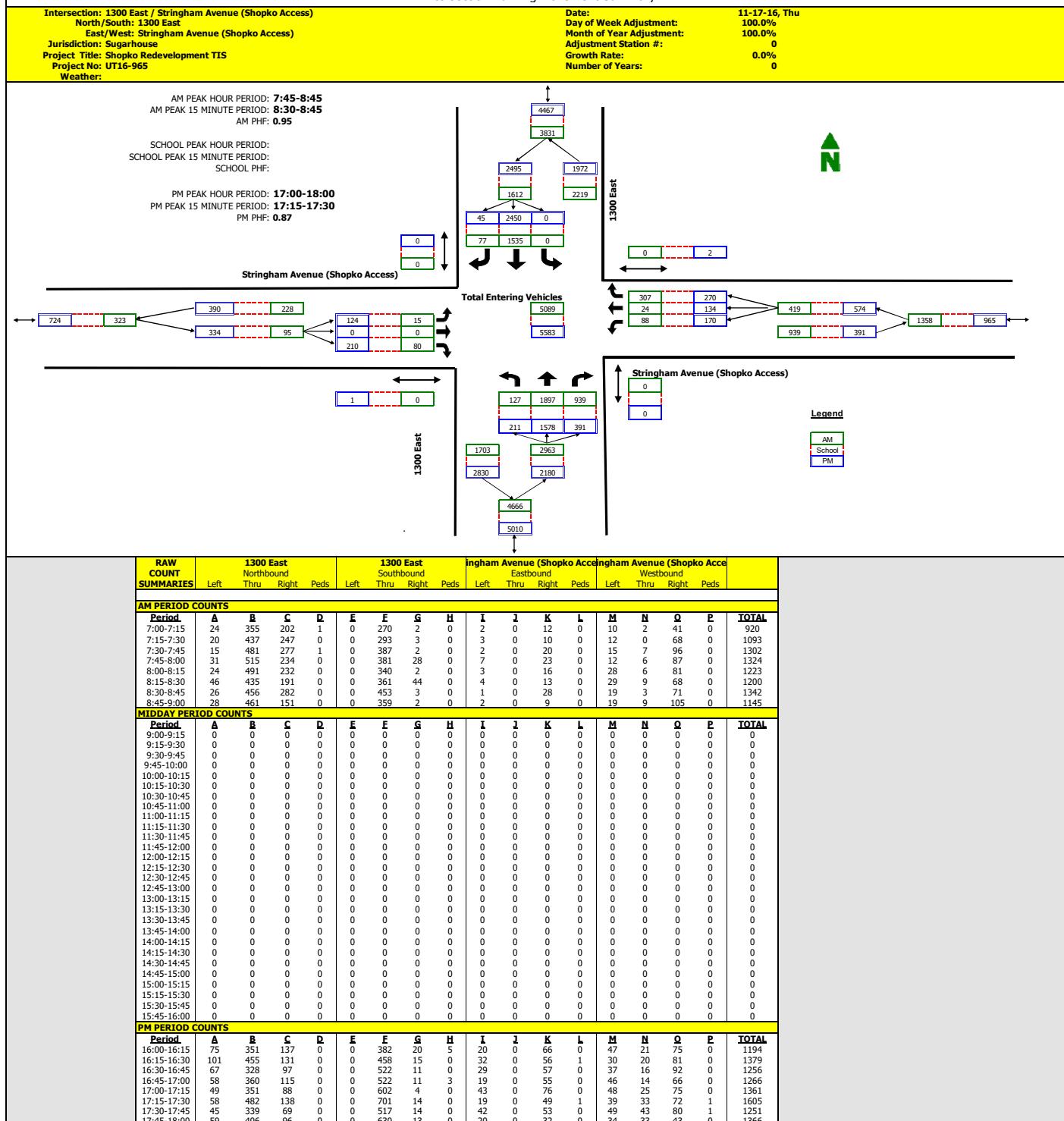
Intersection Turning Movement Summary



Traffic Counts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary



TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

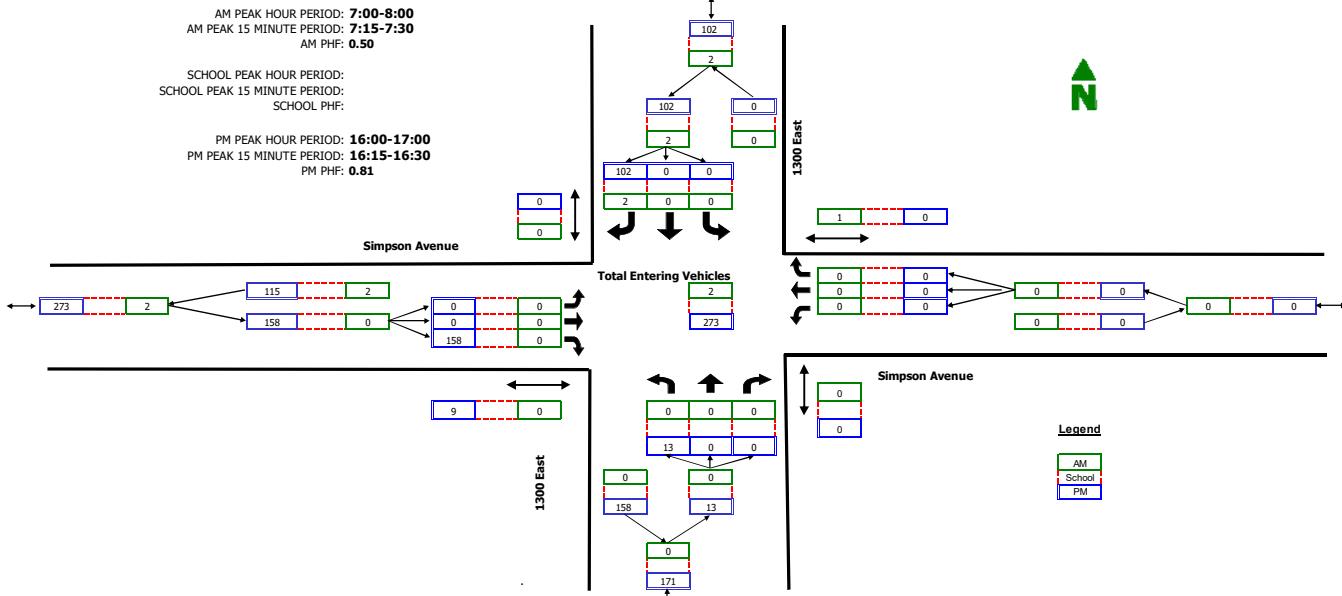
Intersection: 1300 East / Simpson Avenue
North/South: 1300 East
East/West: Simpson Avenue
Jurisdiction: Sugarhouse
Project Title: Shopko Redevelopment TIS
Project No: UT16-965
Weather:

Date: 11-17-16, Thu
Day of Week Adjustment: 100.00%
Month of Year Adjustment: 100.00%
Adjustment Station #: 0
Growth Rate: 0.00%
Number of Years: 0

AM PEAK HOUR PERIOD: 7:00-8:00
AM PEAK 15 MINUTE PERIOD: 7:15-7:30
AM PHF: 0.50

SCHOOL PEAK HOUR PERIOD:
SCHOOL PEAK 15 MINUTE PERIOD:
SCHOOL PHF:

PM PEAK HOUR PERIOD: 16:00-17:00
PM PEAK 15 MINUTE PERIOD: 16:15-16:30
PM PHF: 0.81

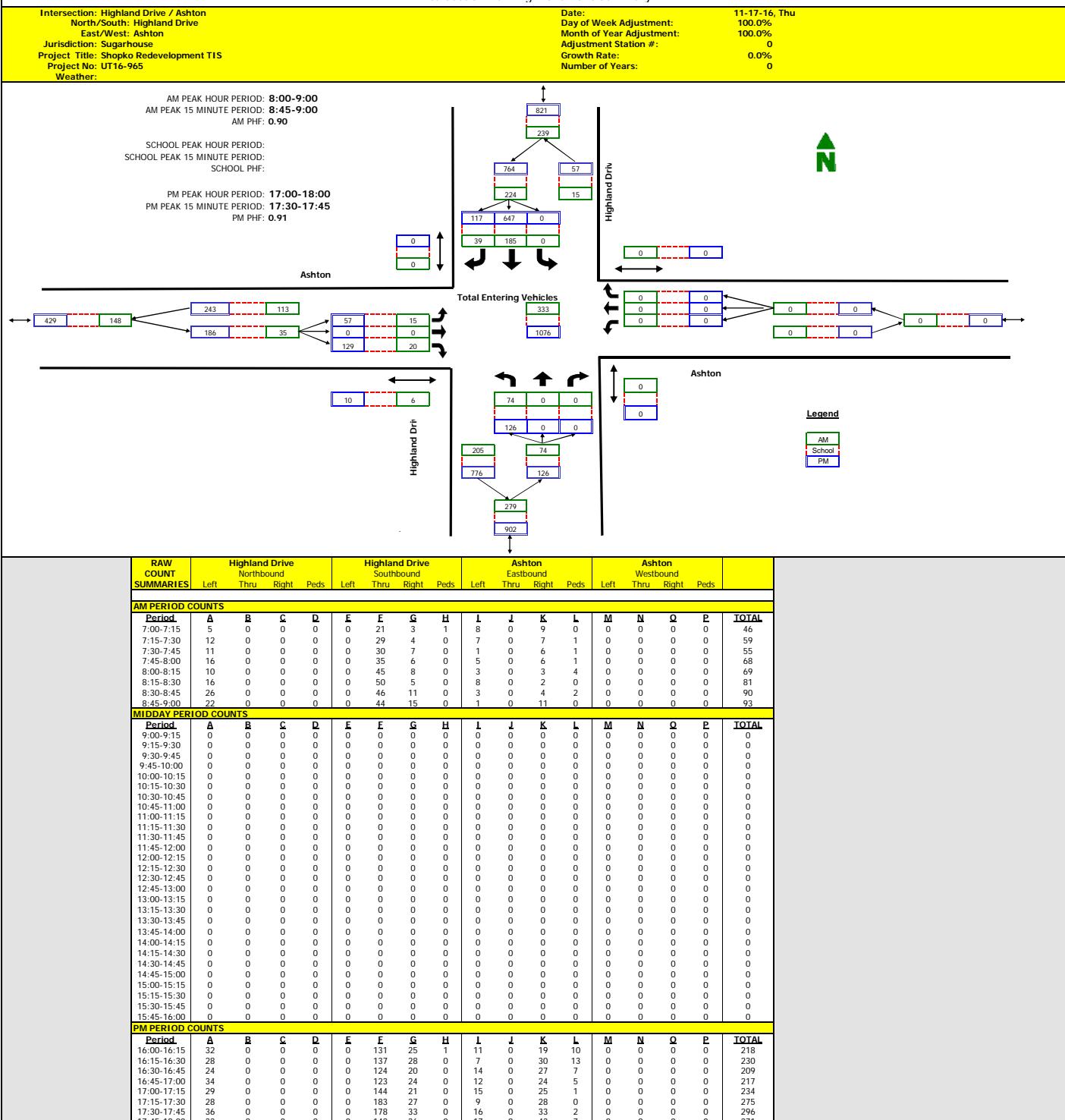


RAW COUNT SUMMARIES	1300 East Northbound				1300 East Southbound				Simpson Avenue Eastbound				Simpson Avenue Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
7:15-7:30	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MIDDAY PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
9:00-9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15-9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30-9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45-10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00-10:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15-10:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30-10:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45-11:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:00-13:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:15-13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:30-13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13:45-14:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:00-14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:15-14:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:30-14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14:45-15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00-15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15-15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30-15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45-16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	6	0	0	0	0	0	34	0	0	35	3	0	0	0	0	0	75
16:15-16:30	3	0	0	0	0	0	35	0	0	0	46	3	0	0	0	0	84
16:30-16:45	1	0	0	0	0	0	15	0	0	0	47	0	0	0	0	0	63
16:45-17:00	3	0	0	0	0	0	18	0	0	30	3	0	0	0	0	0	51
17:00-17:15	2	0	0	0	0	0	28	0	0	40	2	0	0	0	0	0	70
17:15-17:30	1	0	0	0	0	0	16	0	0	42	1	0	0	0	0	0	59
17:30-17:45	1	0	0	0	0	0	26	0	0	47	0	0	0	0	0	0	74
17:45-18:00	2	0	0	0	0	0	28	0	0	34	1	0	0	0	0	0	64

Traffic Counts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

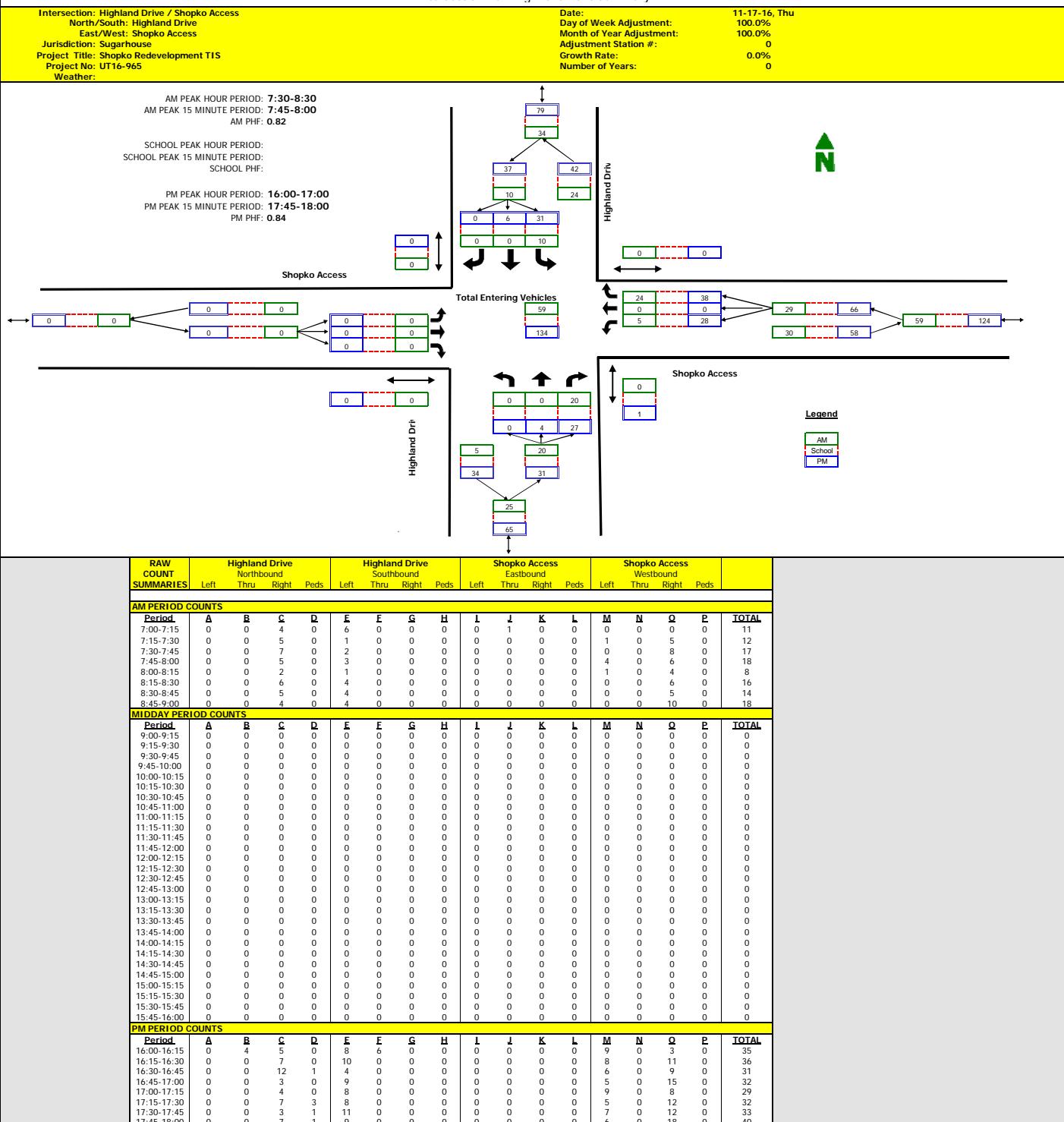
Intersection Turning Movement Summary



Traffic Counts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

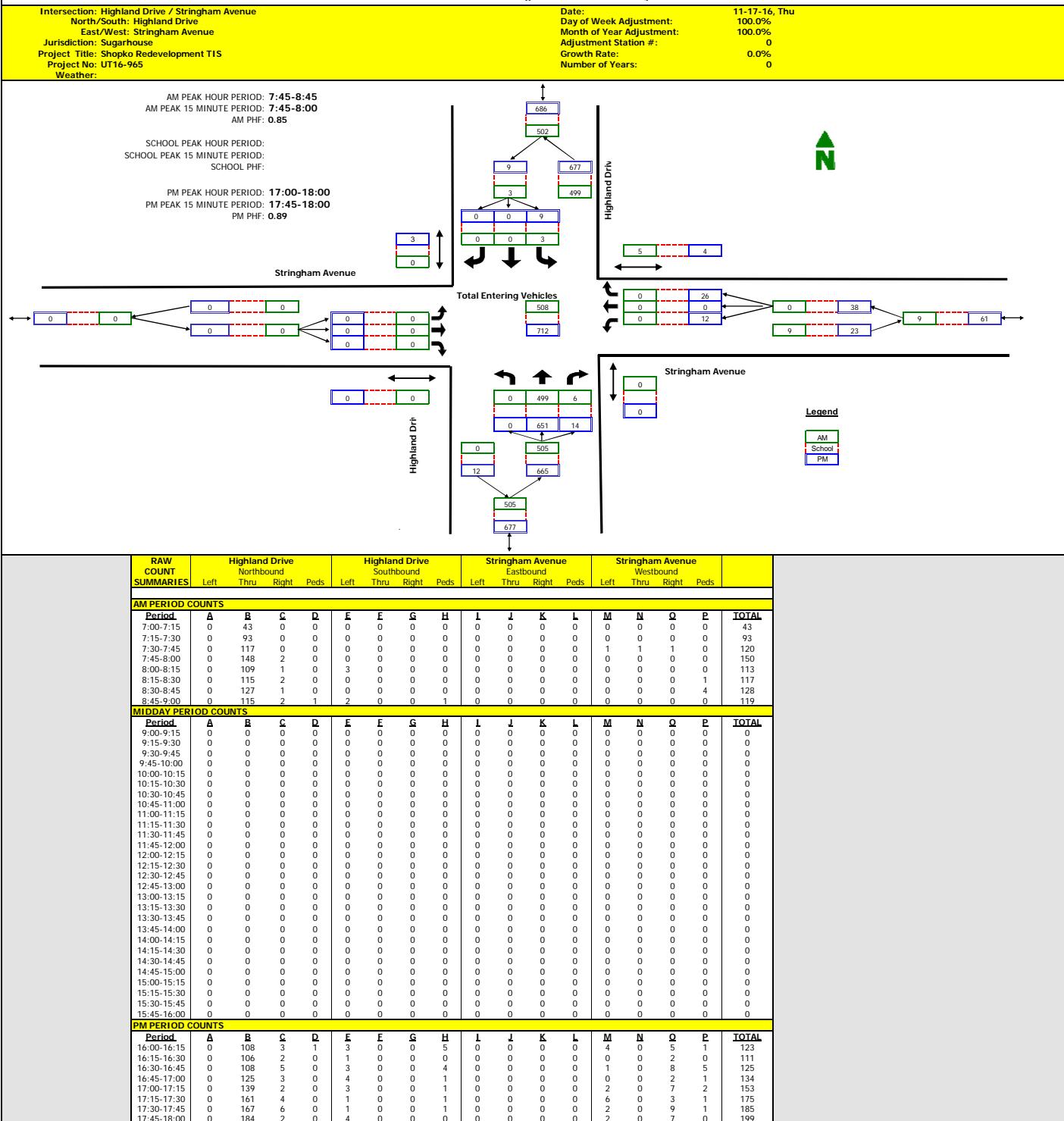
Intersection Turning Movement Summary



Traffic Counts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

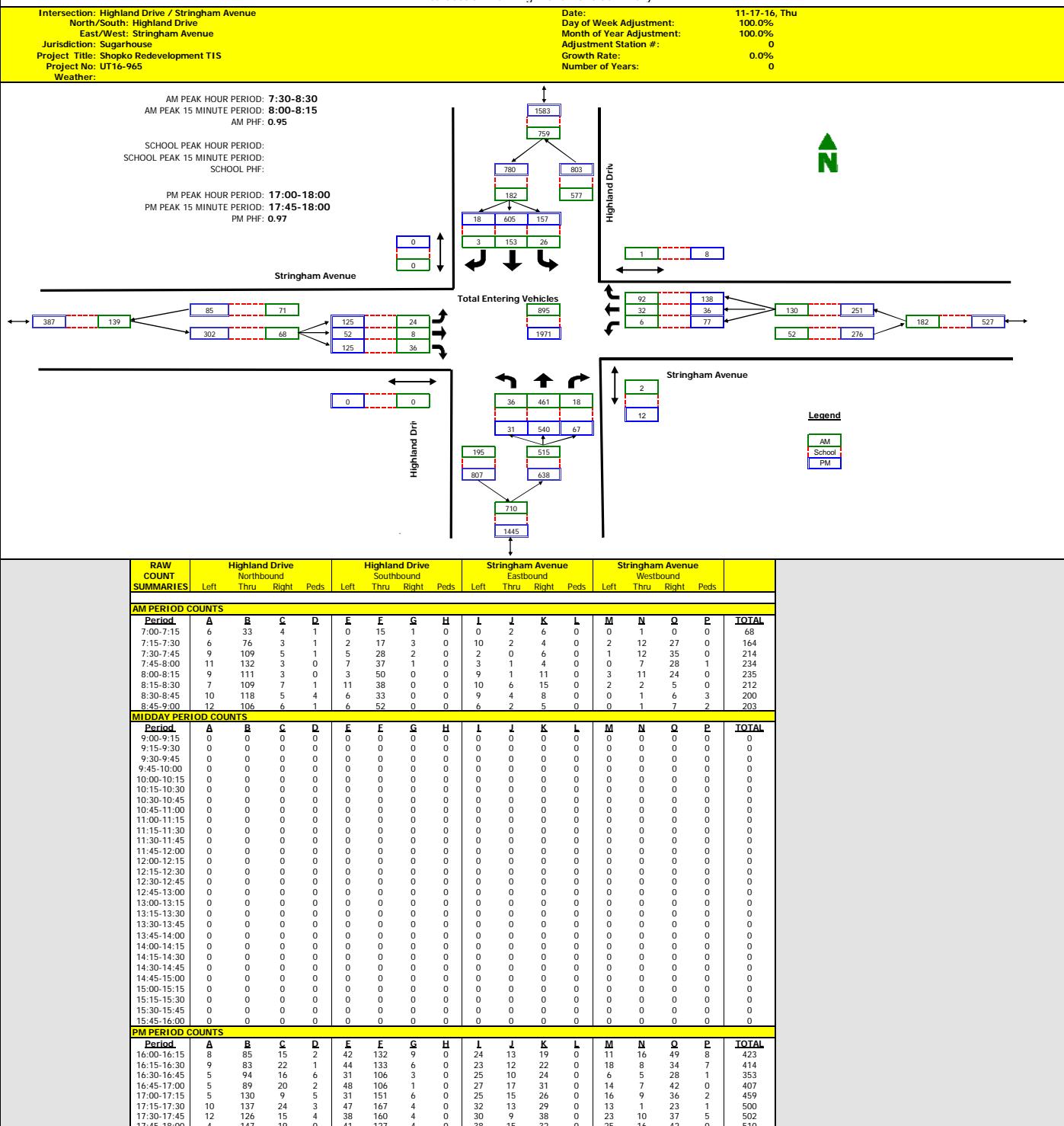
Intersection Turning Movement Summary



Traffic Counts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary



APPENDIX B

LOS Results

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Existing (2016) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Wilmington Ave
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	200	195	98	44.2	D
	T	1,800	1,798	100	4.1	A
	Subtotal	2,000	1,993	100	8.0	A
SB	T	1,845	1,836	99	19.5	B
	R	113	117	103	13.6	B
	Subtotal	1,958	1,953	100	19.1	B
EB	L	90	90	100	45.7	D
	R	394	391	99	22.6	C
	Subtotal	484	481	99	26.9	C
Total		4,442	4,427	100	15.0	B

Intersection: 1300 East & Simpson Avenue
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	13	14	106	43.6	E
	T	2,000	1,996	100	2.2	A
	Subtotal	2,013	2,010	100	2.5	A
SB	T	2,138	2,121	99	5.8	A
	R	102	105	103	4.7	A
	Subtotal	2,240	2,226	99	5.7	A
<i>EB</i>	R	158	153	97	22.4	C
	<i>Subtotal</i>	<i>158</i>	<i>153</i>	<i>97</i>	<i>22.4</i>	<i>C</i>
Total		4,411	4,389	99	4.9	A

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Existing (2016) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Stringham Ave/I-80 Exit

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	211	210	100	40.8	D
	T	1,619	1,617	100	15.5	B
	R	391	395	101	5.5	A
	Subtotal	2,221	2,222	100	16.1	B
SB	T	2,250	2,226	99	26.2	C
	R	45	46	102	19.9	B
	Subtotal	2,295	2,272	99	26.1	C
EB	L	124	126	102	62.8	E
	R	210	217	103	13.8	B
	Subtotal	334	343	103	31.8	C
WB	L	170	164	96	46.2	D
	T	134	122	91	47.3	D
	R	270	264	98	16.0	B
	Subtotal	574	550	96	31.9	C
Total		5,424	5,387	99	23.0	C

Intersection: Highland Drive & Simpson Ave

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	31	30	97	13.2	B
	T	576	581	101	7.1	A
	R	71	71	100	4.2	A
	Subtotal	678	682	101	7.1	A
SB	L	157	151	96	18.4	B
	T	585	593	101	5.9	A
	R	18	19	107	3.0	A
	Subtotal	760	763	100	8.3	A
EB	L	125	120	96	29.4	C
	T	52	50	97	25.6	C
	R	125	132	106	9.7	A
	Subtotal	302	302	100	20.2	C
WB	L	77	73	94	29.9	C
	T	36	38	106	25.3	C
	R	138	135	98	9.6	A
	Subtotal	251	246	98	18.0	B
Total		1,990	1,993	100	10.9	B

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Existing (2016) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & Stringham Ave

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	651	658	101	0.7	A
	R	14	15	105	0.3	A
	Subtotal	665	673	101	0.7	A
SB	L	9	8	86	5.7	A
	T	778	790	102	1.0	A
	Subtotal	787	798	101	1.0	A
<i>WB</i>	L	12	12	98	15.8	C
	R	26	24	93	3.9	A
	Subtotal	38	36	95	7.9	A
Total		1,490	1,507	101	1.1	A

Intersection: Highland Drive & Ashton Ave

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	126	127	101	9.3	A
	T	608	619	102	4.0	A
	Subtotal	734	746	102	4.9	A
SB	T	671	687	102	0.6	A
	R	120	117	97	0.4	A
	Subtotal	791	804	102	0.6	A
<i>EB</i>	L	57	55	97	111.2	F
	R	129	126	98	84.7	F
	Subtotal	186	181	97	92.8	F
Total		1,711	1,731	101	12.2	B

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Existing (2016) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & South Access

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	696	702	101	3.0	A
	R	27	26	97	2.5	A
	Subtotal	723	728	101	3.0	A
SB	L	31	31	100	7.3	A
	T	768	781	102	0.6	A
	Subtotal	799	812	102	0.9	A
WB	L	28	28	101	25.7	D
	R	38	44	116	15.7	C
	Subtotal	66	72	109	19.6	C
Total		1,588	1,612	102	2.7	A

1: 1300 East & Wilmington Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.1	0.2	0.4
Total Delay (hr)	0.3	0.5	0.5	0.4	2.0	0.1	3.8
Total Del/Veh (s)	40.8	18.1	38.1	3.8	15.9	9.9	12.7
Vehicles Entered	21	99	44	423	436	28	1051
Vehicles Exited	22	100	46	422	421	28	1039
Hourly Exit Rate	88	400	184	1688	1684	112	4156
Input Volume	87	383	194	1748	1792	110	4314
% of Volume	101	104	95	97	94	102	96

1: 1300 East & Wilmington Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.1	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	0.6	0.6	0.5	2.3	0.1	4.4
Total Del/Veh (s)	43.1	21.7	42.1	3.7	17.3	12.8	13.8
Vehicles Entered	22	94	50	452	451	28	1097
Vehicles Exited	21	93	47	452	467	29	1109
Hourly Exit Rate	84	372	188	1808	1868	116	4436
Input Volume	87	383	194	1748	1792	110	4314
% of Volume	97	97	97	103	104	105	103

1: 1300 East & Wilmington Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.9	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	0.8	0.7	0.7	3.3	0.2	6.0
Total Del/Veh (s)	41.9	25.2	48.3	5.1	23.1	17.4	17.6
Vehicles Entered	25	108	49	476	494	33	1185
Vehicles Exited	27	109	53	475	467	32	1163
Hourly Exit Rate	108	436	212	1900	1868	128	4652
Input Volume	98	428	217	1957	2005	123	4828
% of Volume	110	102	98	97	93	104	96

1: 1300 East & Wilmington Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.2	0.2	0.4
Total Delay (hr)	0.3	0.6	0.6	0.5	2.4	0.1	4.5
Total Del/Veh (s)	46.3	21.7	40.9	3.7	17.8	11.6	14.0
Vehicles Entered	21	90	52	449	453	27	1092
Vehicles Exited	20	89	48	449	482	28	1116
Hourly Exit Rate	80	356	192	1796	1928	112	4464
Input Volume	87	383	194	1748	1792	110	4314
% of Volume	92	93	99	103	108	102	103

1: 1300 East & Wilmington Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.3	0.0	0.0	0.1	0.0	0.5
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.2	0.2	0.4
Total Delay (hr)	1.2	2.5	2.4	2.1	10.0	0.4	18.6
Total Del/Veh (s)	45.7	22.6	44.2	4.1	19.5	13.6	15.0
Vehicles Entered	90	391	196	1799	1834	116	4426
Vehicles Exited	90	391	195	1798	1836	117	4427
Hourly Exit Rate	90	391	195	1798	1836	117	4427
Input Volume	90	394	200	1800	1845	113	4442
% of Volume	100	99	98	100	99	103	100

2: 1300 East & Simpson Avenue Performance by movement Interval #1 5:00

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.3	0.6	0.0	1.1
Total Del/Veh (s)	16.8	25.8	2.0	4.1	3.0	3.7
Vehicles Entered	38	4	472	496	25	1035
Vehicles Exited	38	4	467	499	24	1032
Hourly Exit Rate	152	16	1868	1996	96	4128
Input Volume	153	13	1942	2076	99	4283
% of Volume	99	123	96	96	97	96

2: 1300 East & Simpson Avenue Performance by movement Interval #2 5:15

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.3	0.7	0.0	1.2
Total Del/Veh (s)	15.2	48.3	2.1	4.7	3.5	4.0
Vehicles Entered	35	4	497	532	27	1095
Vehicles Exited	35	4	502	530	27	1098
Hourly Exit Rate	140	16	2008	2120	108	4392
Input Volume	153	13	1942	2076	99	4283
% of Volume	92	123	103	102	109	103

2: 1300 East & Simpson Avenue Performance by movement Interval #3 5:30

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.4	0.0	0.4	1.2	0.1	2.1
Total Del/Veh (s)	32.0	53.8	2.4	7.9	6.7	6.4
Vehicles Entered	45	3	532	550	27	1157
Vehicles Exited	44	3	526	552	28	1153
Hourly Exit Rate	176	12	2104	2208	112	4612
Input Volume	172	14	2175	2324	111	4796
% of Volume	102	86	97	95	101	96

2: 1300 East & Simpson Avenue Performance by movement Interval #4 5:45

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.3	0.9	0.0	1.5
Total Del/Veh (s)	19.8	50.9	2.1	6.1	4.8	4.9
Vehicles Entered	36	3	494	544	26	1103
Vehicles Exited	36	3	501	540	26	1106
Hourly Exit Rate	144	12	2004	2160	104	4424
Input Volume	153	13	1942	2076	99	4283
% of Volume	94	92	103	104	105	103

2: 1300 East & Simpson Avenue Performance by movement Entire Run

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.0	0.2	1.2	3.4	0.1	5.9
Total Del/Veh (s)	22.4	43.6	2.2	5.8	4.7	4.9
Vehicles Entered	154	14	1995	2123	106	4392
Vehicles Exited	153	14	1996	2121	105	4389
Hourly Exit Rate	153	14	1996	2121	105	4389
Input Volume	158	13	2000	2138	102	4411
% of Volume	97	106	100	99	103	99

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #1 5:00

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.7	3.6	0.1	0.2	0.2	1.8	0.4	1.6	0.0	0.0	0.5
Total Delay (hr)	0.5	0.2	0.5	0.4	0.2	0.6	1.7	0.1	3.3	0.0	7.6
Total Del/Veh (s)	56.1	11.4	43.8	45.4	12.1	38.8	14.8	5.3	22.2	11.6	20.4
Vehicles Entered	29	53	40	28	63	50	392	97	526	11	1289
Vehicles Exited	31	54	43	30	64	52	380	97	509	11	1271
Hourly Exit Rate	124	216	172	120	256	208	1520	388	2036	44	5084
Input Volume	120	204	165	130	262	205	1572	380	2185	44	5267
% of Volume	103	106	104	92	98	101	97	102	93	100	97

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #2 5:15

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.8	3.7	0.1	0.2	0.3	1.7	0.4	1.7	0.0	0.0	0.5
Total Delay (hr)	0.5	0.2	0.5	0.5	0.3	0.6	1.6	0.1	3.4	0.1	7.7
Total Del/Veh (s)	57.2	12.3	47.1	49.8	14.8	37.3	13.1	5.1	21.3	20.7	19.9
Vehicles Entered	29	52	38	31	61	54	404	90	553	11	1323
Vehicles Exited	26	52	35	30	60	53	416	91	570	11	1344
Hourly Exit Rate	104	208	140	120	240	212	1664	364	2280	44	5376
Input Volume	120	204	165	130	262	205	1572	380	2185	44	5267
% of Volume	87	102	85	92	92	103	106	96	104	100	102

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #3 5:30

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.9	3.6	0.2	0.2	0.3	1.7	0.4	1.7	0.0	0.0	0.5
Total Delay (hr)	0.8	0.3	0.6	0.4	0.4	0.7	2.2	0.2	5.4	0.1	11.0
Total Del/Veh (s)	68.2	16.6	43.0	41.3	19.0	40.6	17.7	5.6	32.7	26.4	26.5
Vehicles Entered	36	62	46	32	78	59	436	108	584	12	1453
Vehicles Exited	38	62	49	34	78	58	419	106	551	12	1407
Hourly Exit Rate	152	248	196	136	312	232	1676	424	2204	48	5628
Input Volume	135	228	185	146	293	229	1760	425	2447	49	5897
% of Volume	113	109	106	93	106	101	95	100	90	98	95

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #4 5:45

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.8	3.6	0.1	0.2	0.3	1.7	0.4	1.6	0.0	0.0	0.5
Total Delay (hr)	0.5	0.2	0.5	0.4	0.3	0.5	1.6	0.2	4.2	0.1	8.5
Total Del/Veh (s)	52.0	13.1	47.2	45.5	15.8	37.5	14.0	5.4	24.7	19.4	21.5
Vehicles Entered	33	49	40	31	64	48	385	102	565	12	1329
Vehicles Exited	31	49	38	29	64	48	402	102	596	12	1371
Hourly Exit Rate	124	196	152	116	256	192	1608	408	2384	48	5484
Input Volume	120	204	165	130	262	205	1572	380	2185	44	5267
% of Volume	103	96	92	89	98	94	102	107	109	109	104

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Entire Run

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.0	0.7
Denied Del/Veh (s)	0.8	3.6	0.1	0.2	0.3	1.7	0.4	1.7	0.0	0.0	0.5
Total Delay (hr)	2.3	0.8	2.2	1.7	1.2	2.4	7.0	0.6	16.2	0.3	34.7
Total Del/Veh (s)	62.8	13.8	46.2	47.3	16.0	40.8	15.5	5.5	26.2	19.9	23.0
Vehicles Entered	127	216	164	123	265	211	1617	396	2228	46	5393
Vehicles Exited	126	217	164	122	264	210	1617	395	2226	46	5387
Hourly Exit Rate	126	217	164	122	264	210	1617	395	2226	46	5387
Input Volume	124	210	170	134	270	211	1619	391	2250	45	5424
% of Volume	102	103	96	91	98	100	100	101	99	102	99

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.5	0.6	0.6	3.8	3.8	0.0	0.0	0.0	2.9	0.2	0.2
Total Delay (hr)	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.2	0.0	0.2	0.2	0.0
Total Del/Veh (s)	29.5	26.3	9.4	31.0	28.2	9.5	11.6	5.6	3.3	16.9	4.8	1.9
Vehicles Entered	28	12	28	16	8	33	7	142	18	35	147	4
Vehicles Exited	27	11	28	16	8	33	7	144	18	36	149	4
Hourly Exit Rate	108	44	112	64	32	132	28	576	72	144	596	16
Input Volume	121	50	121	75	35	134	30	559	69	152	568	17
% of Volume	89	88	93	85	91	99	93	103	104	95	105	94

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.3
Total Del/Veh (s)	9.8
Vehicles Entered	478
Vehicles Exited	481
Hourly Exit Rate	1924
Input Volume	1931
% of Volume	100

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.5	0.5	0.7	3.9	3.8	0.0	0.0	0.0	3.0	0.2	0.2
Total Delay (hr)	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.3	0.0	0.2	0.2	0.0
Total Del/Veh (s)	27.7	24.7	9.7	29.3	26.9	9.0	13.4	6.5	3.6	16.7	5.3	1.8
Vehicles Entered	30	12	35	16	9	32	7	141	17	38	150	5
Vehicles Exited	29	12	35	16	9	32	7	141	17	39	151	5
Hourly Exit Rate	116	48	140	64	36	128	28	564	68	156	604	20
Input Volume	121	50	121	75	35	134	30	559	69	152	568	17
% of Volume	96	96	116	85	103	96	93	101	99	103	106	118

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.4
Total Del/Veh (s)	10.1
Vehicles Entered	492
Vehicles Exited	493
Hourly Exit Rate	1972
Input Volume	1931
% of Volume	102

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.7	0.6	0.7	3.5	3.8	0.0	0.0	0.0	3.0	0.2	0.3
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.2	0.3	0.0
Total Del/Veh (s)	28.3	25.1	9.8	27.9	21.7	9.6	15.3	8.0	5.0	20.4	7.2	5.2
Vehicles Entered	34	14	37	21	12	37	8	150	18	43	156	6
Vehicles Exited	36	14	37	21	12	37	8	148	18	42	154	6
Hourly Exit Rate	144	56	148	84	48	148	32	592	72	168	616	24
Input Volume	136	57	136	84	39	150	34	626	77	171	636	20
% of Volume	106	98	109	100	123	99	94	95	94	98	97	120

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	1.0
Total Delay (hr)	1.8
Total Del/Veh (s)	11.8
Vehicles Entered	536
Vehicles Exited	533
Hourly Exit Rate	2132
Input Volume	2166
% of Volume	98

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.7	0.5	0.5	3.5	3.9	0.0	0.0	0.0	3.0	0.2	0.2
Total Delay (hr)	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.2	0.2	0.0
Total Del/Veh (s)	27.5	24.5	9.5	30.1	26.0	9.9	10.9	7.9	4.6	17.5	6.0	2.3
Vehicles Entered	28	12	32	21	10	33	8	149	18	34	138	4
Vehicles Exited	28	12	32	21	10	34	8	148	18	34	140	4
Hourly Exit Rate	112	48	128	84	40	136	32	592	72	136	560	16
Input Volume	121	50	121	75	35	134	30	559	69	152	568	17
% of Volume	93	96	106	112	114	101	107	106	104	89	99	94

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.5
Total Del/Veh (s)	11.0
Vehicles Entered	487
Vehicles Exited	489
Hourly Exit Rate	1956
Input Volume	1931
% of Volume	101

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	3.6	0.6	0.6	0.6	3.7	3.8	0.0	0.0	0.0	3.0	0.2	0.3
Total Delay (hr)	1.0	0.4	0.4	0.6	0.3	0.4	0.1	1.2	0.1	0.8	1.0	0.0
Total Del/Veh (s)	29.4	25.6	9.7	29.9	25.3	9.6	13.2	7.1	4.2	18.4	5.9	3.0
Vehicles Entered	120	50	132	73	39	135	30	582	71	150	591	18
Vehicles Exited	120	50	132	73	38	135	30	581	71	151	593	19
Hourly Exit Rate	120	50	132	73	38	135	30	581	71	151	593	19
Input Volume	125	52	125	77	36	138	31	576	71	157	585	18
% of Volume	96	97	106	94	106	98	97	101	100	96	101	107

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.9
Total Delay (hr)	6.1
Total Del/Veh (s)	10.9
Vehicles Entered	1991
Vehicles Exited	1993
Hourly Exit Rate	1993
Input Volume	1990
% of Volume	100

5: Highland Drive & Stringham Ave Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	15.4	3.9	0.7	0.3	7.2	1.0	1.0
Vehicles Entered	3	6	161	3	2	191	366
Vehicles Exited	3	6	161	3	2	190	365
Hourly Exit Rate	12	24	644	12	8	760	1460
Input Volume	12	25	632	14	9	755	1447
% of Volume	100	96	102	86	89	101	101

5: Highland Drive & Stringham Ave Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	13.1	4.1	0.7	0.3	4.4	1.0	1.0
Vehicles Entered	4	6	159	4	2	200	375
Vehicles Exited	4	6	159	4	2	201	376
Hourly Exit Rate	16	24	636	16	8	804	1504
Input Volume	12	25	632	14	9	755	1447
% of Volume	133	96	101	114	89	106	104

5: Highland Drive & Stringham Ave Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	12.5	3.6	0.8	0.3	6.2	1.1	1.1
Vehicles Entered	2	7	170	4	2	210	395
Vehicles Exited	3	7	169	4	2	209	394
Hourly Exit Rate	12	28	676	16	8	836	1576
Input Volume	13	28	708	15	10	847	1621
% of Volume	92	100	95	107	80	99	97

5: Highland Drive & Stringham Ave Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total Del/Veh (s)	18.1	3.4	0.7	0.3	5.0	1.0	1.1
Vehicles Entered	3	6	168	4	2	190	373
Vehicles Exited	3	6	169	4	2	190	374
Hourly Exit Rate	12	24	676	16	8	760	1496
Input Volume	12	25	632	14	9	755	1447
% of Volume	100	96	107	114	89	101	103

5: Highland Drive & Stringham Ave Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.2	0.5
Total Del/Veh (s)	15.8	3.9	0.7	0.3	5.7	1.0	1.1
Vehicles Entered	12	24	659	15	8	791	1509
Vehicles Exited	12	24	658	15	8	790	1507
Hourly Exit Rate	12	24	658	15	8	790	1507
Input Volume	12	26	651	14	9	778	1490
% of Volume	98	93	101	105	86	102	101

6: Highland Drive & Ashton Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	1.1	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.3	0.4	0.1	0.1	0.0	0.0	0.9
Total Del/Veh (s)	66.3	46.1	7.7	3.3	0.5	0.4	7.6
Vehicles Entered	14	28	31	152	166	27	418
Vehicles Exited	13	28	31	151	167	27	417
Hourly Exit Rate	52	112	124	604	668	108	1668
Input Volume	55	125	122	591	651	117	1661
% of Volume	95	90	102	102	103	92	100

6: Highland Drive & Ashton Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	1.5	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.4	0.6	0.1	0.2	0.0	0.0	1.3
Total Del/Veh (s)	89.2	66.1	9.3	4.0	0.6	0.4	10.5
Vehicles Entered	13	32	30	150	173	32	430
Vehicles Exited	13	31	30	150	174	32	430
Hourly Exit Rate	52	124	120	600	696	128	1720
Input Volume	55	125	122	591	651	117	1661
% of Volume	95	99	98	102	107	109	104

6: Highland Drive & Ashton Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	8.9	9.3	0.0	0.0	0.0	0.0	1.0
Total Delay (hr)	0.6	1.1	0.1	0.2	0.0	0.0	2.0
Total Del/Veh (s)	138.8	106.0	10.6	4.9	0.7	0.4	15.8
Vehicles Entered	13	34	35	161	180	32	455
Vehicles Exited	12	31	36	162	180	32	453
Hourly Exit Rate	48	124	144	648	720	128	1812
Input Volume	62	140	137	661	730	130	1860
% of Volume	77	89	105	98	99	98	97

6: Highland Drive & Ashton Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	16.3	17.8	0.0	0.0	0.0	0.0	1.9
Total Delay (hr)	0.5	0.9	0.1	0.2	0.0	0.0	1.7
Total Del/Veh (s)	101.4	86.6	8.9	3.4	0.6	0.4	14.0
Vehicles Entered	16	32	31	156	167	27	429
Vehicles Exited	17	35	31	156	166	26	431
Hourly Exit Rate	68	140	124	624	664	104	1724
Input Volume	55	125	122	591	651	117	1661
% of Volume	124	112	102	106	102	89	104

6: Highland Drive & Ashton Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.3	0.0	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	6.9	7.7	0.0	0.0	0.0	0.0	0.8
Total Delay (hr)	1.8	3.0	0.3	0.7	0.1	0.0	5.9
Total Del/Veh (s)	111.2	84.7	9.3	4.0	0.6	0.4	12.2
Vehicles Entered	56	127	127	619	687	117	1733
Vehicles Exited	55	126	127	619	687	117	1731
Hourly Exit Rate	55	126	127	619	687	117	1731
Input Volume	57	129	126	608	671	120	1711
% of Volume	97	98	101	102	102	97	101

7: Highland Drive & South Access Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.6	0.6	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	21.3	11.5	1.9	1.6	6.9	0.6	2.0
Vehicles Entered	7	10	170	5	8	188	388
Vehicles Exited	7	10	172	5	8	187	389
Hourly Exit Rate	28	40	688	20	32	748	1556
Input Volume	27	37	676	26	30	746	1542
% of Volume	104	108	102	77	107	100	101

7: Highland Drive & South Access Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.5	0.6	0.0	0.0	0.2
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	16.8	10.9	2.6	2.4	5.6	0.6	2.2
Vehicles Entered	6	12	169	7	9	196	399
Vehicles Exited	5	11	169	6	9	196	396
Hourly Exit Rate	20	44	676	24	36	784	1584
Input Volume	27	37	676	26	30	746	1542
% of Volume	74	119	100	92	120	105	103

7: Highland Drive & South Access Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.7	0.7	0.0	0.0	0.3
Total Delay (hr)	0.1	0.1	0.2	0.0	0.0	0.0	0.4
Total Del/Veh (s)	26.7	17.6	4.4	3.2	9.6	0.7	3.4
Vehicles Entered	8	12	189	8	7	204	428
Vehicles Exited	7	11	186	8	7	205	424
Hourly Exit Rate	28	44	744	32	28	820	1696
Input Volume	30	41	757	29	34	835	1726
% of Volume	93	107	98	110	82	98	98

7: Highland Drive & South Access Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.7	0.5	0.0	0.0	0.3
Total Delay (hr)	0.1	0.1	0.1	0.0	0.0	0.0	0.3
Total Del/Veh (s)	31.9	20.0	2.8	2.3	7.9	0.6	2.9
Vehicles Entered	8	11	172	7	7	194	399
Vehicles Exited	8	11	175	7	7	193	401
Hourly Exit Rate	32	44	700	28	28	772	1604
Input Volume	27	37	676	26	30	746	1542
% of Volume	119	119	104	108	93	103	104

7: Highland Drive & South Access Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.6	0.6	0.0	0.0	0.3
Total Delay (hr)	0.2	0.2	0.6	0.0	0.1	0.1	1.2
Total Del/Veh (s)	25.7	15.7	3.0	2.5	7.3	0.6	2.7
Vehicles Entered	28	44	700	26	30	782	1610
Vehicles Exited	28	44	702	26	31	781	1612
Hourly Exit Rate	28	44	702	26	31	781	1612
Input Volume	28	38	696	27	31	768	1588
% of Volume	101	116	101	97	100	102	102

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Denied Delay (hr)	0.4	0.5	0.6	0.7	2.2
Denied Del/Veh (s)	0.8	0.8	1.1	1.2	1.0
Total Delay (hr)	16.3	17.7	25.0	19.6	78.5
Total Del/Veh (s)	27.7	29.5	37.8	32.3	34.4
Vehicles Entered	1929	1965	2196	1946	8035
Vehicles Exited	1931	1965	2138	2000	8036
Hourly Exit Rate	7724	7860	8552	8000	8036
Input Volume	28266	28266	31651	28266	29112
% of Volume	27	28	27	28	28

Intersection: 1: 1300 East & Wilmington Ave, Interval #1

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	41	108	228	167	154	137	136	319	301	255
Average Queue (ft)	17	58	143	110	67	62	67	234	205	174
95th Queue (ft)	47	122	239	175	150	124	137	336	323	293
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	7	19	1						
Queuing Penalty (veh)	0	6	108	2						

Intersection: 1: 1300 East & Wilmington Ave, Interval #2

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	35	100	233	174	162	130	135	337	320	280
Average Queue (ft)	11	57	137	115	79	67	74	257	240	206
95th Queue (ft)	37	105	243	190	175	136	141	367	342	311
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	9	22	1						
Queuing Penalty (veh)	0	8	129	2						

Intersection: 1: 1300 East & Wilmington Ave, Interval #3

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	46	181	274	184	177	163	150	395	373	346
Average Queue (ft)	20	80	188	133	90	88	97	299	274	239
95th Queue (ft)	56	189	314	197	186	170	166	440	405	377
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	17	32	2						
Queuing Penalty (veh)	1	16	209	3						

Intersection: 1: 1300 East & Wilmington Ave, Interval #4

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	44	106	229	184	175	140	122	364	343	299
Average Queue (ft)	12	53	134	111	81	75	77	279	247	209
95th Queue (ft)	45	114	244	192	185	144	135	398	367	328
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)				9	25	1				
Queuing Penalty (veh)				8	146	2				

Intersection: 1: 1300 East & Wilmington Ave, All Intervals

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	62	217	307	196	241	208	166	399	392	357
Average Queue (ft)	15	62	151	117	79	73	79	267	241	207
95th Queue (ft)	47	138	266	190	175	146	147	393	367	334
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)						0				
Queuing Penalty (veh)						0				
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)		0	10	25	1					
Queuing Penalty (veh)		0	10	148	2					

Intersection: 2: 1300 East & Simpson Avenue, Interval #1

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	103	33	4	52	75	47
Average Queue (ft)	64	14	1	8	15	9
95th Queue (ft)	110	41	8	50	81	53
Link Distance (ft)	516		268	344	344	344
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		50				
Storage Blk Time (%)		1				
Queuing Penalty (veh)		5				

Intersection: 2: 1300 East & Simpson Avenue, Interval #2

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	93	44	103	102	81
Average Queue (ft)	57	16	14	20	19
95th Queue (ft)	97	47	90	100	85
Link Distance (ft)	516		344	344	344
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		4			
Queuing Penalty (veh)		24			

Intersection: 2: 1300 East & Simpson Avenue, Interval #3

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	153	37	151	186	183
Average Queue (ft)	94	13	42	67	68
95th Queue (ft)	170	39	152	211	202
Link Distance (ft)	516		344	344	344
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		1			
Queuing Penalty (veh)		11			

Intersection: 2: 1300 East & Simpson Avenue, Interval #4

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	103	33	145	148	158
Average Queue (ft)	64	11	32	46	45
95th Queue (ft)	120	36	158	171	177
Link Distance (ft)	516		344	344	344
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		3			

Intersection: 2: 1300 East & Simpson Avenue, All Intervals

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	156	46	4	226	242	242
Average Queue (ft)	70	13	0	24	37	35
95th Queue (ft)	131	41	4	121	151	144
Link Distance (ft)	516		268	344	344	344
Upstream Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	
Storage Bay Dist (ft)		50				
Storage Blk Time (%)		2				
Queuing Penalty (veh)		10				

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	192	152	148	150	132	207	277	256	210	256	264	256
Average Queue (ft)	117	90	103	99	78	123	200	174	118	166	186	181
95th Queue (ft)	212	173	162	161	145	216	283	256	225	265	288	274
Link Distance (ft)	518		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)									0	1	1	
Queuing Penalty (veh)									4	5	6	
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	21	3				0	2		1			10
Queuing Penalty (veh)	42	3				1	4		3			59

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	SB
Directions Served	TR
Maximum Queue (ft)	220
Average Queue (ft)	153
95th Queue (ft)	240
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	5
Queuing Penalty (veh)	28

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	174	124	145	196	137	182	277	251	195	260	276	286
Average Queue (ft)	97	73	90	100	79	123	218	196	133	180	201	205
95th Queue (ft)	195	137	152	195	134	205	314	271	228	282	299	307
Link Distance (ft)	518		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)										1	2	2
Queuing Penalty (veh)										5	18	17
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	17	3					2		1			15
Queuing Penalty (veh)	34	3					4		2			87

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	SB
Directions Served	TR
Maximum Queue (ft)	239
Average Queue (ft)	179
95th Queue (ft)	267
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	7
Queuing Penalty (veh)	38

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	236	178	158	166	191	213	295	272	223	281	293	320
Average Queue (ft)	152	119	112	113	119	136	237	212	159	226	242	257
95th Queue (ft)	283	205	178	185	210	233	317	292	248	320	328	356
Link Distance (ft)	518		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)										6	12	12
Queuing Penalty (veh)										46	98	102
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	35	8				2	5		2			32
Queuing Penalty (veh)	79	11				11	11		9			212

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	SB
Directions Served	TR
Maximum Queue (ft)	248
Average Queue (ft)	220
95th Queue (ft)	289
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	24
Queuing Penalty (veh)	148

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	167	124	164	163	150	196	298	251	186	272	287	306
Average Queue (ft)	100	71	96	97	83	122	228	196	122	207	229	235
95th Queue (ft)	176	129	168	180	151	224	323	280	201	300	318	339
Link Distance (ft)	518		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)										2	6	6
Queuing Penalty (veh)										18	46	43
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	20	3				0	2		0			22
Queuing Penalty (veh)	40	3				0	5		1			128

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	SB
Directions Served	TR
Maximum Queue (ft)	248
Average Queue (ft)	203
95th Queue (ft)	285
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	15
Queuing Penalty (veh)	83

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	269	186	189	216	201	273	332	292	239	283	299	324
Average Queue (ft)	117	88	100	102	90	126	221	195	133	195	214	219
95th Queue (ft)	225	169	167	182	167	220	312	278	230	299	316	330
Link Distance (ft)	518		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)										2	5	5
Queuing Penalty (veh)										18	42	42
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	23	4				0	3		1			20
Queuing Penalty (veh)	49	5				3	6		4			121

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	SB
Directions Served	TR
Maximum Queue (ft)	250
Average Queue (ft)	189
95th Queue (ft)	280
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	13
Queuing Penalty (veh)	74

Intersection: 4: Highland Drive & Simpson Ave, Interval #1

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	89	105	114	102	112	114	101	138	87
Average Queue (ft)	56	62	56	61	64	66	52	70	43
95th Queue (ft)	103	118	119	116	112	124	101	147	90
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)				100			65		
Queuing Penalty (veh)							7	5	
Storage Bay Dist (ft)	60								
Storage Blk Time (%)	10	8	1	2			19	8	
Queuing Penalty (veh)	18	10	1	1					

Intersection: 4: Highland Drive & Simpson Ave, Interval #2

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	97	134	82	104	112	118	96	120	102
Average Queue (ft)	57	71	42	60	73	68	53	67	54
95th Queue (ft)	101	138	92	105	124	127	94	117	104
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	10	9	1	1			7	5	
Queuing Penalty (veh)	18	10	1	1			21	8	

Intersection: 4: Highland Drive & Simpson Ave, Interval #3

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	114	152	106	117	132	131	99	168	147
Average Queue (ft)	69	77	58	68	82	90	62	90	68
95th Queue (ft)	116	153	106	127	139	145	107	179	147
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	18	11	1	3			10	9	
Queuing Penalty (veh)	35	15	2	2			32	15	

Intersection: 4: Highland Drive & Simpson Ave, Interval #4

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	103	134	141	120	132	143	110	135	96
Average Queue (ft)	53	65	61	63	87	85	56	72	50
95th Queue (ft)	103	134	140	123	140	146	108	138	107
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	9	9	2	3			8	6	
Queuing Penalty (veh)	16	10	3	2			22	9	

Intersection: 4: Highland Drive & Simpson Ave, All Intervals

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	118	175	160	149	146	157	125	188	158
Average Queue (ft)	59	69	54	63	77	77	56	75	54
95th Queue (ft)	107	137	117	118	131	138	103	148	115
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	12	9	1	2			8	6	
Queuing Penalty (veh)	22	11	2	2			23	10	

Intersection: 5: Highland Drive & Stringham Ave, Interval #1

Movement	WB	SB	SB
Directions Served	LR	LT	T
Maximum Queue (ft)	36	39	17
Average Queue (ft)	16	7	2
95th Queue (ft)	37	41	26
Link Distance (ft)	238	251	251
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Highland Drive & Stringham Ave, Interval #2

Movement	WB	SB	SB
Directions Served	LR	LT	T
Maximum Queue (ft)	33	36	18
Average Queue (ft)	18	6	3
95th Queue (ft)	36	43	29
Link Distance (ft)	238	251	251
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Highland Drive & Stringham Ave, Interval #3

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	35	29
Average Queue (ft)	17	5
95th Queue (ft)	38	30
Link Distance (ft)	238	251
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Highland Drive & Stringham Ave, Interval #4

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	34	28
Average Queue (ft)	16	4
95th Queue (ft)	38	24
Link Distance (ft)	238	251
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 5: Highland Drive & Stringham Ave, All Intervals

Movement	WB	SB	SB
Directions Served	LR	LT	T
Maximum Queue (ft)	50	77	29
Average Queue (ft)	17	5	1
95th Queue (ft)	37	35	19
Link Distance (ft)	238	251	251
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Highland Drive & Ashton Ave, Interval #1

Movement	EB	NB	NB	SB
Directions Served	LR	LT	T	TR
Maximum Queue (ft)	201	142	76	17
Average Queue (ft)	109	84	28	3
95th Queue (ft)	251	159	86	16
Link Distance (ft)	383	146		123
Upstream Blk Time (%)	1	2		
Queuing Penalty (veh)	0	11		
Storage Bay Dist (ft)		1		
Storage Blk Time (%)		9		
Queuing Penalty (veh)		27		

Intersection: 6: Highland Drive & Ashton Ave, Interval #2

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	275	153	76	2	12
Average Queue (ft)	148	89	35	0	3
95th Queue (ft)	337	169	95	4	15
Link Distance (ft)	383	146		123	123
Upstream Blk Time (%)	5	3			
Queuing Penalty (veh)	0	21			
Storage Bay Dist (ft)		1			
Storage Blk Time (%)		12			
Queuing Penalty (veh)		36			

Intersection: 6: Highland Drive & Ashton Ave, Interval #3

Movement	EB	NB	NB	SB
Directions Served	LR	LT	T	TR
Maximum Queue (ft)	321	157	76	14
Average Queue (ft)	199	107	49	3
95th Queue (ft)	425	187	107	15
Link Distance (ft)	383	146		123
Upstream Blk Time (%)	16	4		
Queuing Penalty (veh)	0	35		
Storage Bay Dist (ft)		1		
Storage Blk Time (%)		15		
Queuing Penalty (veh)		49		

Intersection: 6: Highland Drive & Ashton Ave, Interval #4

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	285	147	68	10	16
Average Queue (ft)	187	88	36	1	3
95th Queue (ft)	407	162	96	15	17
Link Distance (ft)	383	146		123	123
Upstream Blk Time (%)	16	1			
Queuing Penalty (veh)	0	9			
Storage Bay Dist (ft)			1		
Storage Blk Time (%)		10			
Queuing Penalty (veh)		30			

Intersection: 6: Highland Drive & Ashton Ave, All Intervals

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	370	162	76	12	27
Average Queue (ft)	161	92	37	0	3
95th Queue (ft)	366	171	98	8	16
Link Distance (ft)	383	146		123	123
Upstream Blk Time (%)	10	3			
Queuing Penalty (veh)	0	19			
Storage Bay Dist (ft)			1		
Storage Blk Time (%)		12			
Queuing Penalty (veh)		36			

Intersection: 7: Highland Drive & South Access, Interval #1

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	57	63	66	32
Average Queue (ft)	28	11	20	4
95th Queue (ft)	62	63	65	40
Link Distance (ft)	480	857	146	146
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #2

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	53	129	67
Average Queue (ft)	27	32	25
95th Queue (ft)	57	132	71
Link Distance (ft)	480	857	146
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Highland Drive & South Access, Interval #3

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	78	216	81	26
Average Queue (ft)	35	48	25	4
95th Queue (ft)	69	177	78	33
Link Distance (ft)	480	857	146	146
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #4

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	86	120	67	17
Average Queue (ft)	40	24	22	2
95th Queue (ft)	97	168	69	26
Link Distance (ft)	480	857	146	146
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, All Intervals

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	96	256	102	56
Average Queue (ft)	32	29	23	3
95th Queue (ft)	74	143	71	29
Link Distance (ft)	480	857	146	146
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 370

Network wide Queuing Penalty, Interval #2: 486

Network wide Queuing Penalty, Interval #3: 1153

Network wide Queuing Penalty, Interval #4: 628

Network wide Queuing Penalty, All Intervals: 660

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Existing (2016) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Wilmington Ave
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	200	201	101	44.3	D
	T	1,819	1,813	100	4.1	A
	Subtotal	2,019	2,014	100	8.1	A
SB	T	1,836	1,833	100	18.8	B
	R	113	118	104	12.7	B
	Subtotal	1,949	1,951	100	18.4	B
EB	L	90	90	100	43.7	D
	R	394	396	100	23.0	C
	Subtotal	484	486	100	26.8	C
Total		4,452	4,451	100	14.7	B

Intersection: 1300 East & Simpson Avenue
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	12	11	90	43.5	E
	T	2,019	2,012	100	2.2	A
	Subtotal	2,031	2,023	100	2.4	A
SB	T	2,129	2,126	100	5.9	A
	R	102	107	105	4.4	A
	Subtotal	2,231	2,233	100	5.8	A
<i>EB</i>	R	150	148	99	27.8	D
	<i>Subtotal</i>	<i>150</i>	<i>148</i>	<i>99</i>	<i>27.8</i>	<i>D</i>
Total		4,412	4,404	100	5.0	A

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Existing (2016) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Stringham Ave/I-80 Exit
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	211	209	99	38.5	D
	T	1,618	1,604	99	15.9	B
	R	391	387	99	5.4	A
	Subtotal	2,220	2,200	99	16.2	B
SB	T	2,243	2,241	100	27.4	C
	R	36	34	94	19.1	B
	Subtotal	2,279	2,275	100	27.3	C
EB	L	143	138	97	64.6	E
	R	349	362	104	19.7	B
	Subtotal	492	500	102	32.1	C
WB	L	170	167	98	46.0	D
	T	131	134	102	45.1	D
	R	270	282	105	15.1	B
	Subtotal	571	583	102	30.8	C
Total		5,562	5,558	100	23.8	C

Intersection: Highland Drive & Simpson Ave
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	31	29	94	14.9	B
	T	586	580	99	6.5	A
	R	50	50	100	3.5	A
	Subtotal	667	659	99	6.6	A
SB	L	101	100	99	15.4	B
	T	640	650	102	5.9	A
	R	18	18	101	3.4	A
	Subtotal	759	768	101	7.1	A
EB	L	125	126	101	28.4	C
	T	52	51	99	26.2	C
	R	125	125	100	10.5	B
	Subtotal	302	302	100	20.6	C
WB	L	78	78	100	30.2	C
	T	36	36	100	24.9	C
	R	144	144	100	9.7	A
	Subtotal	258	258	100	18.0	B
Total		1,986	1,987	100	10.4	B

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Existing (2016) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & Stringham Ave
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	606	596	98	0.8	A
	R	37	39	105	0.4	A
	Subtotal	643	635	99	0.8	A
SB	L	77	77	100	6.4	A
	T	766	777	101	1.7	A
	Subtotal	843	854	101	2.1	A
<i>WB</i>	L	33	31	94	22.4	C
	R	61	62	102	7.6	A
	Subtotal	94	93	99	12.5	B
Total		1,581	1,582	100	2.2	A

Intersection: Highland Drive & Ashton Ave
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	126	129	103	9.5	A
	T	587	581	99	4.0	A
	Subtotal	713	710	100	5.0	A
SB	T	680	688	101	0.7	A
	R	120	120	100	0.4	A
	Subtotal	800	808	101	0.7	A
<i>EB</i>	L	57	54	95	97.6	F
	R	129	134	104	72.7	F
	Subtotal	186	188	101	79.9	F
Total		1,698	1,706	100	11.3	B

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Existing (2016) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & South Access

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	698	692	99	2.6	A
	Subtotal	698	692	99	2.6	A
SB	L	18	17	96	6.2	A
	T	791	804	102	0.4	A
<i>WB</i>	Subtotal	809	821	101	0.5	A
	L	15	14	92	20.6	C
	R	14	18	126	14.9	B
	Subtotal	29	32	110	17.4	C
Total		1,536	1,545	101	1.8	A

1: 1300 East & Wilmington Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.1	0.3	0.4
Total Delay (hr)	0.3	0.5	0.5	0.4	2.0	0.1	3.9
Total Del/Veh (s)	41.2	18.0	39.2	3.7	15.9	9.1	12.7
Vehicles Entered	21	94	46	423	447	29	1060
Vehicles Exited	24	98	49	425	430	28	1054
Hourly Exit Rate	96	392	196	1700	1720	112	4216
Input Volume	87	383	194	1766	1783	110	4323
% of Volume	110	102	101	96	96	102	98

1: 1300 East & Wilmington Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.1	0.0	0.0	0.2	0.2	0.4
Total Delay (hr)	0.2	0.6	0.6	0.5	2.0	0.1	4.0
Total Del/Veh (s)	38.2	20.4	42.0	3.5	15.2	10.7	12.5
Vehicles Entered	21	98	50	456	455	27	1107
Vehicles Exited	19	93	46	454	467	29	1108
Hourly Exit Rate	76	372	184	1816	1868	116	4432
Input Volume	87	383	194	1766	1783	110	4323
% of Volume	87	97	95	103	105	105	103

1: 1300 East & Wilmington Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.2	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	0.9	0.7	0.7	3.4	0.2	6.2
Total Del/Veh (s)	41.9	27.4	46.5	5.4	24.2	18.3	18.3
Vehicles Entered	25	105	53	480	490	34	1187
Vehicles Exited	27	108	56	479	468	32	1170
Hourly Exit Rate	108	432	224	1916	1872	128	4680
Input Volume	98	428	217	1978	1996	123	4840
% of Volume	110	101	103	97	94	104	97

1: 1300 East & Wilmington Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.2	0.2	0.4
Total Delay (hr)	0.3	0.6	0.6	0.5	2.2	0.1	4.3
Total Del/Veh (s)	46.1	21.5	43.8	3.6	16.5	10.1	13.4
Vehicles Entered	22	97	51	454	442	28	1094
Vehicles Exited	20	97	49	455	468	30	1119
Hourly Exit Rate	80	388	196	1820	1872	120	4476
Input Volume	87	383	194	1766	1783	110	4323
% of Volume	92	101	101	103	105	109	104

1: 1300 East & Wilmington Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.3	0.0	0.0	0.1	0.0	0.5
Denied Del/Veh (s)	1.1	3.2	0.0	0.0	0.2	0.2	0.4
Total Delay (hr)	1.1	2.6	2.5	2.1	9.7	0.4	18.3
Total Del/Veh (s)	43.7	23.0	44.3	4.1	18.8	12.7	14.7
Vehicles Entered	89	394	200	1812	1835	117	4447
Vehicles Exited	90	396	201	1813	1833	118	4451
Hourly Exit Rate	90	396	201	1813	1833	118	4451
Input Volume	90	394	200	1819	1836	113	4452
% of Volume	100	100	101	100	100	104	100

2: 1300 East & Simpson Avenue Performance by movement Interval #1 5:00

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.3	0.6	0.0	1.1
Total Del/Veh (s)	15.3	35.7	2.1	4.4	3.1	3.7
Vehicles Entered	32	2	476	503	24	1037
Vehicles Exited	33	2	469	505	25	1034
Hourly Exit Rate	132	8	1876	2020	100	4136
Input Volume	146	12	1960	2067	99	4284
% of Volume	90	67	96	98	101	97

2: 1300 East & Simpson Avenue Performance by movement Interval #2 5:15

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.3	0.7	0.0	1.2
Total Del/Veh (s)	19.0	36.2	2.1	4.5	3.3	3.9
Vehicles Entered	37	3	500	534	27	1101
Vehicles Exited	34	2	506	529	27	1098
Hourly Exit Rate	136	8	2024	2116	108	4392
Input Volume	146	12	1960	2067	99	4284
% of Volume	93	67	103	102	109	103

2: 1300 East & Simpson Avenue Performance by movement Interval #3 5:30

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.1	0.4	1.2	0.1	2.2
Total Del/Veh (s)	38.1	45.1	2.4	8.0	6.6	6.7
Vehicles Entered	43	3	538	548	29	1161
Vehicles Exited	42	4	532	555	29	1162
Hourly Exit Rate	168	16	2128	2220	116	4648
Input Volume	163	13	2195	2314	111	4796
% of Volume	103	123	97	96	105	97

2: 1300 East & Simpson Avenue Performance by movement Interval #4 5:45

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.0	0.3	1.0	0.0	1.6
Total Del/Veh (s)	29.9	39.5	2.1	6.4	4.2	5.3
Vehicles Entered	36	3	499	538	26	1102
Vehicles Exited	38	3	505	537	26	1109
Hourly Exit Rate	152	12	2020	2148	104	4436
Input Volume	146	12	1960	2067	99	4284
% of Volume	104	100	103	104	105	104

2: 1300 East & Simpson Avenue Performance by movement Entire Run

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.2	0.1	1.2	3.5	0.1	6.2
Total Del/Veh (s)	27.8	43.5	2.2	5.9	4.4	5.0
Vehicles Entered	147	11	2013	2123	106	4400
Vehicles Exited	148	11	2012	2126	107	4404
Hourly Exit Rate	148	11	2012	2126	107	4404
Input Volume	150	12	2019	2129	102	4412
% of Volume	99	90	100	100	105	100

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #1 5:00

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	1.2	3.6	0.1	0.2	0.3	1.8	0.4	1.7	0.0	0.0	0.6
Total Delay (hr)	0.7	0.5	0.6	0.4	0.3	0.6	1.7	0.1	3.6	0.0	8.5
Total Del/Veh (s)	60.7	18.3	43.8	43.9	14.1	37.4	15.6	5.1	24.4	18.1	22.3
Vehicles Entered	35	90	43	32	66	51	385	93	529	9	1333
Vehicles Exited	37	94	46	34	68	52	373	94	514	8	1320
Hourly Exit Rate	148	376	184	136	272	208	1492	376	2056	32	5280
Input Volume	139	339	165	127	262	205	1571	380	2178	35	5401
% of Volume	106	111	112	107	104	101	95	99	94	91	98

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #2 5:15

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	1.1	3.5	0.1	0.2	0.3	1.7	0.4	1.6	0.0	0.0	0.6
Total Delay (hr)	0.6	0.4	0.5	0.4	0.3	0.6	1.6	0.1	3.6	0.0	8.1
Total Del/Veh (s)	58.2	16.5	45.7	43.1	14.8	35.9	13.9	5.1	22.6	14.1	20.5
Vehicles Entered	33	87	37	33	69	53	394	93	554	9	1362
Vehicles Exited	31	84	34	31	68	52	404	92	568	9	1373
Hourly Exit Rate	124	336	136	124	272	208	1616	368	2272	36	5492
Input Volume	139	339	165	127	262	205	1571	380	2178	35	5401
% of Volume	89	99	82	98	104	101	103	97	104	103	102

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #3 5:30

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	1.3	3.5	0.1	0.2	0.3	1.6	0.4	1.7	0.0	0.0	0.6
Total Delay (hr)	0.7	0.6	0.6	0.4	0.4	0.6	2.2	0.2	5.4	0.1	11.2
Total Del/Veh (s)	65.5	21.2	43.2	44.7	16.6	37.1	17.5	5.5	32.2	23.9	26.1
Vehicles Entered	37	98	46	33	79	53	440	104	588	9	1487
Vehicles Exited	39	100	49	35	79	53	424	104	553	9	1445
Hourly Exit Rate	156	400	196	140	316	212	1696	416	2212	36	5780
Input Volume	155	379	185	142	293	229	1759	425	2438	39	6044
% of Volume	101	106	106	99	108	93	96	98	91	92	96

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #4 5:45

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	1.0	3.5	0.1	0.2	0.3	1.8	0.4	1.7	0.0	0.0	0.6
Total Delay (hr)	0.6	0.5	0.5	0.4	0.3	0.6	1.6	0.1	4.5	0.0	9.1
Total Del/Veh (s)	59.6	20.4	45.4	43.5	13.4	34.8	14.1	5.3	26.5	18.0	22.5
Vehicles Entered	33	86	40	35	68	52	385	96	568	7	1370
Vehicles Exited	32	84	38	33	67	52	403	98	606	8	1421
Hourly Exit Rate	128	336	152	132	268	208	1612	392	2424	32	5684
Input Volume	139	339	165	127	262	205	1571	380	2178	35	5401
% of Volume	92	99	92	104	102	101	103	103	111	91	105

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Entire Run

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.0	0.9
Denied Del/Veh (s)	1.2	3.5	0.1	0.2	0.3	1.7	0.4	1.7	0.0	0.0	0.6
Total Delay (hr)	2.5	2.0	2.2	1.7	1.2	2.3	7.1	0.6	17.1	0.2	36.9
Total Del/Veh (s)	64.6	19.7	46.0	45.1	15.1	38.5	15.9	5.4	27.4	19.1	23.8
Vehicles Entered	137	361	166	133	282	210	1604	386	2240	34	5553
Vehicles Exited	138	362	167	134	282	209	1604	387	2241	34	5558
Hourly Exit Rate	138	362	167	134	282	209	1604	387	2241	34	5558
Input Volume	143	349	170	131	270	211	1618	391	2243	36	5562
% of Volume	97	104	98	102	105	99	99	99	100	94	100

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.6	0.5	0.7	3.7	3.8	0.0	0.0	0.0	3.0	0.2	0.3
Total Delay (hr)	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.2	0.0	0.1	0.2	0.0
Total Del/Veh (s)	28.3	24.7	9.4	32.3	26.6	10.5	13.4	5.8	3.2	13.9	5.0	3.7
Vehicles Entered	29	13	31	17	10	36	7	144	13	27	155	5
Vehicles Exited	28	12	31	17	9	37	6	145	13	28	155	5
Hourly Exit Rate	112	48	124	68	36	148	24	580	52	112	620	20
Input Volume	121	50	121	76	35	140	30	569	49	98	621	17
% of Volume	93	96	102	89	103	106	80	102	106	114	100	118

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.4
Total Del/Veh (s)	9.8
Vehicles Entered	487
Vehicles Exited	486
Hourly Exit Rate	1944
Input Volume	1927
% of Volume	101

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.6	0.6	0.7	3.9	3.8	0.0	0.0	0.0	2.9	0.2	0.2
Total Delay (hr)	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.1	0.2	0.0
Total Del/Veh (s)	25.3	27.2	11.0	29.0	23.5	9.6	13.8	6.5	3.6	12.8	5.4	3.4
Vehicles Entered	30	12	30	20	8	35	6	144	12	23	160	5
Vehicles Exited	29	12	30	19	8	35	6	144	12	23	160	5
Hourly Exit Rate	116	48	120	76	32	140	24	576	48	92	640	20
Input Volume	121	50	121	76	35	140	30	569	49	98	621	17
% of Volume	96	96	99	100	91	100	80	101	98	94	103	118

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.4
Total Del/Veh (s)	9.9
Vehicles Entered	485
Vehicles Exited	483
Hourly Exit Rate	1932
Input Volume	1927
% of Volume	100

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.5	0.6	0.7	3.8	3.7	0.0	0.0	0.0	2.9	0.2	0.4
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.1	0.3	0.0
Total Del/Veh (s)	27.9	23.7	10.5	26.0	21.1	9.2	16.0	7.2	3.7	17.9	6.9	2.9
Vehicles Entered	35	15	34	22	9	39	7	148	13	27	176	6
Vehicles Exited	37	15	34	23	10	39	7	145	13	26	175	6
Hourly Exit Rate	148	60	136	92	40	156	28	580	52	104	700	24
Input Volume	136	57	136	85	39	157	34	638	54	110	696	20
% of Volume	109	105	100	108	103	99	82	91	96	95	101	120

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.7
Total Del/Veh (s)	11.0
Vehicles Entered	531
Vehicles Exited	530
Hourly Exit Rate	2120
Input Volume	2162
% of Volume	98

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.5	0.5	0.6	4.2	3.7	0.0	0.0	0.0	3.1	0.2	0.6
Total Delay (hr)	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.1	0.3	0.0
Total Del/Veh (s)	27.9	25.7	10.8	27.0	23.0	8.8	12.6	6.3	3.7	15.4	6.0	2.9
Vehicles Entered	32	12	31	19	8	33	8	144	12	22	160	2
Vehicles Exited	32	12	31	19	8	33	8	146	12	24	160	2
Hourly Exit Rate	128	48	124	76	32	132	32	584	48	96	640	8
Input Volume	121	50	121	76	35	140	30	569	49	98	621	17
% of Volume	106	96	102	100	91	94	107	103	98	98	103	47

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.4
Total Del/Veh (s)	10.2
Vehicles Entered	483
Vehicles Exited	487
Hourly Exit Rate	1948
Input Volume	1927
% of Volume	101

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	3.6	0.6	0.6	0.7	3.8	3.7	0.0	0.0	0.0	2.9	0.2	0.3
Total Delay (hr)	1.0	0.4	0.4	0.7	0.2	0.4	0.1	1.1	0.0	0.4	1.1	0.0
Total Del/Veh (s)	28.4	26.2	10.5	30.2	24.9	9.7	14.9	6.5	3.5	15.4	5.9	3.4
Vehicles Entered	126	52	125	78	36	143	29	580	50	100	651	18
Vehicles Exited	126	51	125	78	36	144	29	580	50	100	650	18
Hourly Exit Rate	126	51	125	78	36	144	29	580	50	100	650	18
Input Volume	125	52	125	78	36	144	31	586	50	101	640	18
% of Volume	101	99	100	100	100	100	94	99	100	99	102	101

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.9
Total Delay (hr)	5.8
Total Del/Veh (s)	10.4
Vehicles Entered	1988
Vehicles Exited	1987
Hourly Exit Rate	1987
Input Volume	1986
% of Volume	100

5: Highland Drive & Stringham Ave Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Del/Veh (s)	19.1	5.3	0.7	0.4	6.1	1.5	1.9
Vehicles Entered	7	15	148	10	20	184	384
Vehicles Exited	7	15	148	10	20	184	384
Hourly Exit Rate	28	60	592	40	80	736	1536
Input Volume	32	59	589	36	75	744	1535
% of Volume	88	102	101	111	107	99	100

5: Highland Drive & Stringham Ave Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.2
Total Del/Veh (s)	26.6	8.0	0.8	0.4	6.2	1.7	2.2
Vehicles Entered	7	15	148	9	19	190	388
Vehicles Exited	7	15	148	9	19	190	388
Hourly Exit Rate	28	60	592	36	76	760	1552
Input Volume	32	59	589	36	75	744	1535
% of Volume	88	102	101	100	101	102	101

5: Highland Drive & Stringham Ave Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.3
Total Del/Veh (s)	23.6	9.4	0.8	0.4	5.8	1.6	2.4
Vehicles Entered	9	18	149	9	19	212	416
Vehicles Exited	9	19	149	10	19	212	418
Hourly Exit Rate	36	76	596	40	76	848	1672
Input Volume	36	66	659	40	84	833	1718
% of Volume	100	115	90	100	90	102	97

5: Highland Drive & Stringham Ave Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Del/Veh (s)	17.9	6.4	0.8	0.4	6.9	1.7	2.1
Vehicles Entered	8	13	150	11	19	192	393
Vehicles Exited	8	13	151	11	19	190	392
Hourly Exit Rate	32	52	604	44	76	760	1568
Input Volume	32	59	589	36	75	744	1535
% of Volume	100	88	103	122	101	102	102

5: Highland Drive & Stringham Ave Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.1	0.0	0.1	0.4	1.0
Total Del/Veh (s)	22.4	7.6	0.8	0.4	6.4	1.7	2.2
Vehicles Entered	31	62	596	39	77	777	1582
Vehicles Exited	31	62	596	39	77	777	1582
Hourly Exit Rate	31	62	596	39	77	777	1582
Input Volume	33	61	606	37	77	766	1581
% of Volume	94	102	98	105	100	101	100

6: Highland Drive & Ashton Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.4	0.1	0.1	0.0	0.0	0.9
Total Del/Veh (s)	64.5	42.6	8.8	3.4	0.7	0.4	7.8
Vehicles Entered	12	32	33	145	163	28	413
Vehicles Exited	13	33	33	145	163	28	415
Hourly Exit Rate	52	132	132	580	652	112	1660
Input Volume	55	125	122	570	660	117	1649
% of Volume	95	106	108	102	99	96	101

6: Highland Drive & Ashton Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.3	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.4	0.1	0.2	0.0	0.0	0.9
Total Del/Veh (s)	61.6	40.7	9.0	4.1	0.7	0.4	7.6
Vehicles Entered	12	33	29	146	169	28	417
Vehicles Exited	12	33	29	146	169	29	418
Hourly Exit Rate	48	132	116	584	676	116	1672
Input Volume	55	125	122	570	660	117	1649
% of Volume	87	106	95	102	102	99	101

6: Highland Drive & Ashton Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	11.9	8.8	0.0	0.0	0.0	0.0	1.2
Total Delay (hr)	0.5	0.8	0.1	0.2	0.0	0.0	1.7
Total Del/Veh (s)	108.8	77.0	11.2	4.8	0.8	0.5	13.2
Vehicles Entered	15	38	33	148	187	34	455
Vehicles Exited	12	32	33	146	187	34	444
Hourly Exit Rate	48	128	132	584	748	136	1776
Input Volume	62	140	137	638	739	130	1846
% of Volume	77	91	96	92	101	105	96

6: Highland Drive & Ashton Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	24.6	27.0	0.0	0.0	0.0	0.0	2.8
Total Delay (hr)	0.5	1.1	0.1	0.1	0.0	0.0	1.9
Total Del/Veh (s)	106.9	104.3	8.8	3.5	0.7	0.4	15.8
Vehicles Entered	14	31	34	143	169	30	421
Vehicles Exited	17	36	34	144	168	29	428
Hourly Exit Rate	68	144	136	576	672	116	1712
Input Volume	55	125	122	570	660	117	1649
% of Volume	124	115	111	101	102	99	104

6: Highland Drive & Ashton Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.2	0.3	0.0	0.0	0.0	0.0	0.5
Denied Del/Veh (s)	10.0	8.9	0.0	0.0	0.0	0.0	1.0
Total Delay (hr)	1.5	2.7	0.3	0.6	0.1	0.0	5.4
Total Del/Veh (s)	97.6	72.7	9.5	4.0	0.7	0.4	11.3
Vehicles Entered	54	134	129	581	688	120	1706
Vehicles Exited	54	134	129	581	688	120	1706
Hourly Exit Rate	54	134	129	581	688	120	1706
Input Volume	57	129	126	587	680	120	1698
% of Volume	95	104	103	99	101	100	100

7: Highland Drive & South Access Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.5	0.0	0.0	0.2
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.2
Total Del/Veh (s)	27.0	18.9	2.9	4.6	0.3	2.0
Vehicles Entered	3	4	172	4	192	375
Vehicles Exited	3	4	174	4	191	376
Hourly Exit Rate	12	16	696	16	764	1504
Input Volume	15	14	678	17	768	1492
% of Volume	80	114	103	94	99	101

7: Highland Drive & South Access Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.5	0.0	0.0	0.2
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.2
Total Del/Veh (s)	17.9	8.3	2.1	8.1	0.5	1.5
Vehicles Entered	4	4	170	4	199	381
Vehicles Exited	4	4	170	4	199	381
Hourly Exit Rate	16	16	680	16	796	1524
Input Volume	15	14	678	17	768	1492
% of Volume	107	114	100	94	104	102

7: Highland Drive & South Access Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.6	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.2
Total Del/Veh (s)	18.9	19.4	3.2	7.5	0.6	2.2
Vehicles Entered	3	5	177	5	213	403
Vehicles Exited	3	5	176	5	214	403
Hourly Exit Rate	12	20	704	20	856	1612
Input Volume	16	15	759	20	860	1670
% of Volume	75	133	93	100	100	97

7: Highland Drive & South Access Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.5	0.0	0.0	0.2
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.2
Total Del/Veh (s)	19.8	15.7	1.9	4.3	0.4	1.5
Vehicles Entered	4	4	172	4	200	384
Vehicles Exited	4	4	173	4	199	384
Hourly Exit Rate	16	16	692	16	796	1536
Input Volume	15	14	678	17	768	1492
% of Volume	107	114	102	94	104	103

7: Highland Drive & South Access Performance by movement Entire Run

Movement	WBL	WBR	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.5	0.0	0.0	0.2
Total Delay (hr)	0.1	0.1	0.5	0.0	0.1	0.8
Total Del/Veh (s)	20.6	14.9	2.6	6.2	0.4	1.8
Vehicles Entered	14	18	691	17	804	1544
Vehicles Exited	14	18	692	17	804	1545
Hourly Exit Rate	14	18	692	17	804	1545
Input Volume	15	14	698	18	791	1536
% of Volume	92	126	99	96	102	101

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Denied Delay (hr)	0.5	0.5	0.7	0.8	2.4
Denied Del/Veh (s)	0.9	0.8	1.1	1.5	1.1
Total Delay (hr)	17.5	17.4	25.0	20.3	80.1
Total Del/Veh (s)	28.9	28.5	37.1	32.8	34.4
Vehicles Entered	1986	2005	2215	1985	8200
Vehicles Exited	2008	1979	2180	2048	8217
Hourly Exit Rate	8032	7916	8720	8192	8217
Input Volume	28565	28565	31981	28565	29419
% of Volume	28	28	27	29	28

Intersection: 1: 1300 East & Wilmington Ave, Interval #1

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	41	98	209	160	144	108	118	323	286	248
Average Queue (ft)	15	59	137	116	69	62	69	233	204	167
95th Queue (ft)	45	105	225	169	147	117	133	343	319	291
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)		0	7	23	1					
Queuing Penalty (veh)		0	6	134	1					

Intersection: 1: 1300 East & Wilmington Ave, Interval #2

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	39	98	254	176	173	140	130	348	332	276
Average Queue (ft)	10	52	126	108	75	71	71	250	218	178
95th Queue (ft)	34	97	222	181	173	149	139	362	338	296
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)		0	9	25	1					
Queuing Penalty (veh)		0	8	146	2					

Intersection: 1: 1300 East & Wilmington Ave, Interval #3

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	59	213	295	182	188	142	151	400	382	352
Average Queue (ft)	19	81	199	142	97	88	101	312	290	248
95th Queue (ft)	60	176	322	197	187	154	165	424	412	376
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)		0	20	36	2					
Queuing Penalty (veh)		1	19	240	4					

Intersection: 1: 1300 East & Wilmington Ave, Interval #4

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	66	106	257	177	175	127	117	356	330	264
Average Queue (ft)	19	54	139	115	74	66	78	268	238	192
95th Queue (ft)	72	115	248	191	172	137	132	377	347	297
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	0	12	30	1					
Queuing Penalty (veh)	0	0	10	174	2					

Intersection: 1: 1300 East & Wilmington Ave, All Intervals

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	87	217	313	195	245	181	162	418	397	357
Average Queue (ft)	16	61	151	120	79	72	80	266	238	196
95th Queue (ft)	55	129	265	189	171	142	146	387	366	326
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	0	12	28	1					
Queuing Penalty (veh)	0	0	11	173	2					

Intersection: 2: 1300 East & Simpson Avenue, Interval #1

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	87	25	4	3	66	97	66
Average Queue (ft)	58	10	1	0	14	23	12
95th Queue (ft)	95	32	8	7	73	98	65
Link Distance (ft)	516		268	268	344	344	344
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		0					
Queuing Penalty (veh)		0					

Intersection: 2: 1300 East & Simpson Avenue, Interval #2

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	124	39	71	85	75
Average Queue (ft)	61	9	11	18	12
95th Queue (ft)	124	33	78	92	73
Link Distance (ft)	516		344	344	344
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		2			
Queuing Penalty (veh)		10			

Intersection: 2: 1300 East & Simpson Avenue, Interval #3

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	179	38	184	220	203
Average Queue (ft)	96	15	51	71	68
95th Queue (ft)	198	41	201	242	231
Link Distance (ft)	516		344	344	344
Upstream Blk Time (%)		0	0	0	
Queuing Penalty (veh)		1	1	1	
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		3			
Queuing Penalty (veh)		18			

Intersection: 2: 1300 East & Simpson Avenue, Interval #4

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	149	36	178	170	171
Average Queue (ft)	82	10	41	45	50
95th Queue (ft)	206	36	167	161	177
Link Distance (ft)	516		344	344	344
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		1			
Queuing Penalty (veh)		7			

Intersection: 2: 1300 East & Simpson Avenue, All Intervals

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	197	43	4	3	252	258	232
Average Queue (ft)	74	11	0	0	29	39	35
95th Queue (ft)	166	36	4	3	141	160	153
Link Distance (ft)	516		268	268	344	344	344
Upstream Blk Time (%)					0	0	0
Queuing Penalty (veh)					0	0	0
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		1					
Queuing Penalty (veh)		9					

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	287	193	162	170	160	180	266	240	200	265	272	276
Average Queue (ft)	161	137	112	110	93	111	203	180	128	177	193	196
95th Queue (ft)	313	215	174	177	166	178	281	256	216	283	298	288
Link Distance (ft)	440		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)	1									1	2	1
Queuing Penalty (veh)	0									7	12	6
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	28	18				0	2		0			13
Queuing Penalty (veh)	95	26				1	3		1			77

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	SB
Directions Served	TR
Maximum Queue (ft)	238
Average Queue (ft)	168
95th Queue (ft)	256
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	8
Queuing Penalty (veh)	45

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	219	184	136	149	141	205	298	257	220	264	274	281
Average Queue (ft)	118	112	89	94	81	118	223	186	128	186	206	204
95th Queue (ft)	221	192	145	161	138	218	320	270	234	279	295	289
Link Distance (ft)	440		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)										1	2	2
Queuing Penalty (veh)										5	12	14
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	22	15				0	2		1			14
Queuing Penalty (veh)	74	21				0	5		3			80

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	SB
Directions Served	TR
Maximum Queue (ft)	239
Average Queue (ft)	175
95th Queue (ft)	255
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	9
Queuing Penalty (veh)	48

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	274	199	161	174	179	202	314	311	245	279	289	312
Average Queue (ft)	173	157	111	119	109	123	242	214	155	223	242	252
95th Queue (ft)	311	223	170	181	191	223	323	317	246	319	326	346
Link Distance (ft)	440		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)										6	11	9
Queuing Penalty (veh)										49	87	77
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	35	26				0	5		2			33
Queuing Penalty (veh)	134	40				1	11		9			211

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	SB
Directions Served	TR
Maximum Queue (ft)	250
Average Queue (ft)	216
95th Queue (ft)	287
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	25
Queuing Penalty (veh)	152

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	236	195	153	161	132	180	268	263	202	29	277	283
Average Queue (ft)	136	131	93	102	81	115	219	189	132	4	218	231
95th Queue (ft)	253	211	159	171	138	191	285	279	228	61	305	317
Link Distance (ft)	440		403	403	403		1226	1226	1226		268	268
Upstream Blk Time (%)											3	6
Queuing Penalty (veh)											19	44
Storage Bay Dist (ft)		100				250				190		
Storage Blk Time (%)	23	20				0	1			0		
Queuing Penalty (veh)	79	28				1	3			2		

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	304	250
Average Queue (ft)	242	208
95th Queue (ft)	339	284
Link Distance (ft)	268	
Upstream Blk Time (%)	6	0
Queuing Penalty (veh)	45	0
Storage Bay Dist (ft)		170
Storage Blk Time (%)	23	18
Queuing Penalty (veh)	132	95

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	351	200	186	197	208	256	334	321	255	29	283	297
Average Queue (ft)	147	134	101	106	91	117	222	192	136	1	201	218
95th Queue (ft)	281	215	165	174	162	204	306	283	233	30	302	315
Link Distance (ft)	440		403	403	403		1226	1226	1226		268	268
Upstream Blk Time (%)	0										3	5
Queuing Penalty (veh)	0										20	39
Storage Bay Dist (ft)		100				250				190		
Storage Blk Time (%)	27	20				0	3		1			
Queuing Penalty (veh)	96	29				1	6		4			

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	315	250
Average Queue (ft)	224	192
95th Queue (ft)	324	278
Link Distance (ft)	268	
Upstream Blk Time (%)	5	0
Queuing Penalty (veh)	36	0
Storage Bay Dist (ft)		170
Storage Blk Time (%)	21	15
Queuing Penalty (veh)	125	85

Intersection: 4: Highland Drive & Simpson Ave, Interval #1

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	93	134	97	116	102	117	74	119	103
Average Queue (ft)	57	72	52	67	67	71	40	74	42
95th Queue (ft)	102	142	105	123	114	121	84	139	106
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)				100			65		
Queuing Penalty (veh)							2	6	
Storage Bay Dist (ft)	60								
Storage Blk Time (%)	11	10	2	4			2	6	
Queuing Penalty (veh)	19	12	3	3			7	6	

Sugarhouse - Shopko Redevelopment TIS
Existing (2016) Plus Project

Evening Peak Hour
01/04/2017

Intersection: 4: Highland Drive & Simpson Ave, Interval #2

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	101	124	103	118	135	128	79	151	122
Average Queue (ft)	55	62	52	59	73	72	36	76	54
95th Queue (ft)	103	123	114	117	136	131	77	149	126
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	10	9	1	2			1	7	
Queuing Penalty (veh)	18	11	2	2			3	7	

Intersection: 4: Highland Drive & Simpson Ave, Interval #3

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	103	147	123	119	150	143	97	153	135
Average Queue (ft)	67	75	60	64	86	81	44	96	67
95th Queue (ft)	115	153	118	112	151	150	96	165	137
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)							65		
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	14	12	1	3			4	10	
Queuing Penalty (veh)	26	16	2	2			16	11	

Intersection: 4: Highland Drive & Simpson Ave, Interval #4

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	105	141	97	114	110	108	85	143	107
Average Queue (ft)	59	66	47	60	70	68	37	80	52
95th Queue (ft)	108	142	90	112	121	118	81	148	109
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	11	8	0	2			2	9	
Queuing Penalty (veh)	19	10	1	1			7	9	

Intersection: 4: Highland Drive & Simpson Ave, All Intervals

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	118	175	158	157	164	151	117	181	154
Average Queue (ft)	60	69	53	63	74	73	39	81	54
95th Queue (ft)	108	141	108	116	132	131	85	152	121
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	12	10	1	3			2	8	
Queuing Penalty (veh)	21	12	2	2			8	8	

Intersection: 5: Highland Drive & Stringham Ave, Interval #1

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	59	6	88	20
Average Queue (ft)	32	1	41	3
95th Queue (ft)	64	8	89	32
Link Distance (ft)	567	125	251	251
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Highland Drive & Stringham Ave, Interval #2

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	70	4	92	25
Average Queue (ft)	32	0	44	4
95th Queue (ft)	70	4	105	31
Link Distance (ft)	567	125	251	251
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Highland Drive & Stringham Ave, Interval #3

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	83	4	88	25
Average Queue (ft)	41	1	35	2
95th Queue (ft)	97	7	94	25
Link Distance (ft)	567	125	251	251
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Highland Drive & Stringham Ave, Interval #4

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	68	9	93	38
Average Queue (ft)	33	1	45	8
95th Queue (ft)	72	10	105	50
Link Distance (ft)	567	125	251	251
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Highland Drive & Stringham Ave, All Intervals

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	103	17	132	76
Average Queue (ft)	35	1	41	4
95th Queue (ft)	77	7	99	35
Link Distance (ft)	567	125	251	251
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: Highland Drive & Ashton Ave, Interval #1

Movement	EB	NB	NB	SB
Directions Served	LR	LT	T	TR
Maximum Queue (ft)	252	144	76	15
Average Queue (ft)	118	80	33	3
95th Queue (ft)	273	158	94	17
Link Distance (ft)	383	146		125
Upstream Blk Time (%)	0	3		
Queuing Penalty (veh)	0	18		
Storage Bay Dist (ft)			1	
Storage Blk Time (%)		11		
Queuing Penalty (veh)		31		

Intersection: 6: Highland Drive & Ashton Ave, Interval #2

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	209	146	76	3	14
Average Queue (ft)	106	88	40	0	2
95th Queue (ft)	251	171	102	6	16
Link Distance (ft)	383	146		125	125
Upstream Blk Time (%)	0	3			
Queuing Penalty (veh)	0	22			
Storage Bay Dist (ft)			1		
Storage Blk Time (%)		12			
Queuing Penalty (veh)		34			

Intersection: 6: Highland Drive & Ashton Ave, Interval #3

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	280	156	76	4	20
Average Queue (ft)	173	100	50	1	3
95th Queue (ft)	379	178	107	6	16
Link Distance (ft)	383	146		125	125
Upstream Blk Time (%)	12	4			
Queuing Penalty (veh)	0	32			
Storage Bay Dist (ft)			1		
Storage Blk Time (%)		14			
Queuing Penalty (veh)		45			

Intersection: 6: Highland Drive & Ashton Ave, Interval #4

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	314	150	75	2	21
Average Queue (ft)	215	84	35	0	5
95th Queue (ft)	438	164	96	5	22
Link Distance (ft)	383	146		125	125
Upstream Blk Time (%)	20	2			
Queuing Penalty (veh)	0	11			
Storage Bay Dist (ft)			1		
Storage Blk Time (%)		11			
Queuing Penalty (veh)		30			

Intersection: 6: Highland Drive & Ashton Ave, All Intervals

Movement	EB	NB	NB	SB	SB
Directions Served	LR	LT	T	T	TR
Maximum Queue (ft)	358	163	76	9	30
Average Queue (ft)	153	88	39	0	3
95th Queue (ft)	352	169	101	5	18
Link Distance (ft)	383	146		125	125
Upstream Blk Time (%)	8	3			
Queuing Penalty (veh)	0	21			
Storage Bay Dist (ft)			1		
Storage Blk Time (%)		12			
Queuing Penalty (veh)		35			

Intersection: 7: Highland Drive & South Access, Interval #1

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	34	131	44
Average Queue (ft)	16	23	11
95th Queue (ft)	43	152	40
Link Distance (ft)	390	858	146
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Highland Drive & South Access, Interval #2

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	36	82	51	8
Average Queue (ft)	17	21	15	1
95th Queue (ft)	41	90	53	16
Link Distance (ft)	390	858	146	146
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #3

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	38	118	60	7
Average Queue (ft)	19	29	18	1
95th Queue (ft)	46	125	62	15
Link Distance (ft)	390	858	146	146
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #4

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	
Maximum Queue (ft)	38	97	39	
Average Queue (ft)	18	19	10	
95th Queue (ft)	42	97	40	
Link Distance (ft)	390	858	146	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, All Intervals

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	55	204	71	14
Average Queue (ft)	17	23	14	1
95th Queue (ft)	43	119	49	11
Link Distance (ft)	390	858	146	146
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 513

Network wide Queuing Penalty, Interval #2: 528

Network wide Queuing Penalty, Interval #3: 1206

Network wide Queuing Penalty, Interval #4: 730

Network wide Queuing Penalty, All Intervals: 744

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2020) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Wilmington Ave

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	210	209	100	45.5	D
	T	1,890	1,888	100	4.6	A
	Subtotal	2,100	2,097	100	8.7	A
SB	T	1,905	1,910	100	21.8	C
	R	115	112	97	16.0	B
	Subtotal	2,020	2,022	100	21.5	C
EB	L	90	88	98	42.6	D
	R	410	411	100	25.1	C
	Subtotal	500	499	100	28.2	C
Total		4,620	4,618	100	16.5	B

Intersection: 1300 East & Simpson Avenue

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	20	21	106	44.6	E
	T	2,101	2,094	100	2.2	A
	Subtotal	2,121	2,115	100	2.6	A
SB	T	2,205	2,208	100	6.4	A
	R	110	113	102	4.5	A
	Subtotal	2,315	2,321	100	6.3	A
EB	R	135	133	99	94.6	F
	Subtotal	135	133	99	94.6	F
Total		4,571	4,569	100	7.2	A

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2020) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Stringham Ave/I-80 Exit

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	190	195	103	39.0	D
	T	1,650	1,644	100	16.2	B
	R	400	393	98	5.5	A
	Subtotal	2,240	2,232	100	16.3	B
SB	T	2,300	2,299	100	28.4	C
	R	40	41	102	21.0	C
	Subtotal	2,340	2,340	100	28.3	C
EB	L	150	152	101	76.1	E
	R	190	183	96	18.2	B
	Subtotal	340	335	99	44.5	D
WB	L	180	180	100	46.5	D
	T	120	118	98	45.7	D
	R	320	319	100	18.5	B
	Subtotal	620	617	100	31.9	C
Total		5,540	5,524	100	27.5	C

Intersection: Highland Drive & Simpson Ave

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	33	33	100	16.2	B
	T	590	585	99	7.2	A
	R	52	52	100	4.6	A
	Subtotal	675	670	99	7.4	A
SB	L	102	100	98	16.8	B
	T	663	666	100	6.5	A
	R	19	18	96	3.2	A
	Subtotal	784	784	100	7.7	A
EB	L	131	127	97	28.5	C
	T	55	53	97	25.2	C
	R	131	130	99	10.5	B
	Subtotal	317	310	98	20.4	C
WB	L	81	76	94	30.0	C
	T	38	37	97	24.8	C
	R	144	149	103	9.5	A
	Subtotal	263	262	100	17.6	B
Total		2,038	2,026	99	10.9	B

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2020) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & Stringham Ave
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	632	629	100	0.8	A
	R	36	36	100	0.5	A
	Subtotal	668	665	100	0.8	A
SB	L	72	70	97	7.2	A
	T	804	801	100	1.8	A
	Subtotal	876	871	99	2.2	A
<i>WB</i>	L	24	22	93	23.9	C
	R	43	42	97	6.2	A
	Subtotal	67	64	96	12.3	B
Total		1,610	1,600	99	2.1	A

Intersection: Highland Drive & Ashton Ave
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	132	130	99	11.8	B
	T	608	607	100	5.0	A
	Subtotal	740	737	100	6.2	A
SB	T	701	700	100	0.8	A
	R	126	122	97	0.5	A
	Subtotal	827	822	99	0.8	A
<i>EB</i>	L	60	60	100	140.1	F
	R	135	136	101	13.8	B
	Subtotal	195	196	101	52.5	F
Total		1,762	1,755	100	9.1	A

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2020) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & South Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	730	726	99	5.0	A
	R	23	22	97	4.2	A
	Subtotal	753	748	99	5.0	A
SB	L	18	14	79	7.4	A
	T	818	823	101	0.5	A
	Subtotal	836	837	100	0.6	A
WB	L	9	10	108	22.4	C
	R	9	10	108	16.5	C
	Subtotal	18	20	111	19.5	C
Total		1,608	1,605	100	2.9	A

1: 1300 East & Wilmington Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.9	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	0.7	0.7	0.6	2.5	0.1	4.8
Total Del/Veh (s)	41.1	21.7	45.1	4.9	19.1	12.9	15.3
Vehicles Entered	22	105	49	445	458	24	1103
Vehicles Exited	23	107	53	447	437	23	1090
Hourly Exit Rate	92	428	212	1788	1748	92	4360
Input Volume	87	398	204	1835	1850	112	4486
% of Volume	106	108	104	97	94	82	97

1: 1300 East & Wilmington Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.7	3.3	0.0	0.0	0.1	0.3	0.4
Total Delay (hr)	0.3	0.6	0.6	0.5	2.5	0.1	4.6
Total Del/Veh (s)	43.7	21.0	42.7	3.9	18.0	12.8	14.1
Vehicles Entered	21	96	51	468	466	28	1130
Vehicles Exited	20	95	48	466	488	29	1146
Hourly Exit Rate	80	380	192	1864	1952	116	4584
Input Volume	87	398	204	1835	1850	112	4486
% of Volume	92	95	94	102	106	104	102

1: 1300 East & Wilmington Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.2	3.2	0.0	0.0	0.2	0.2	0.4
Total Delay (hr)	0.3	1.0	0.7	0.7	3.8	0.2	6.7
Total Del/Veh (s)	34.7	29.9	46.3	5.4	25.8	19.2	19.2
Vehicles Entered	25	115	53	491	520	31	1235
Vehicles Exited	25	115	56	494	491	29	1210
Hourly Exit Rate	100	460	224	1976	1964	116	4840
Input Volume	98	446	228	2055	2071	125	5023
% of Volume	102	103	98	96	95	93	96

1: 1300 East & Wilmington Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.1	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	0.7	0.7	0.5	2.8	0.1	5.1
Total Del/Veh (s)	42.9	23.0	42.7	3.9	20.2	15.3	15.2
Vehicles Entered	20	96	55	481	466	29	1147
Vehicles Exited	20	94	52	481	493	31	1171
Hourly Exit Rate	80	376	208	1924	1972	124	4684
Input Volume	87	398	204	1835	1850	112	4486
% of Volume	92	94	102	105	107	111	104

1: 1300 East & Wilmington Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	0.1	0.0	0.5
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	1.1	2.9	2.7	2.4	11.7	0.5	21.2
Total Del/Veh (s)	42.6	25.1	45.5	4.6	21.8	16.0	16.5
Vehicles Entered	88	413	208	1886	1910	112	4617
Vehicles Exited	88	411	209	1888	1910	112	4618
Hourly Exit Rate	88	411	209	1888	1910	112	4618
Input Volume	90	410	210	1890	1905	115	4620
% of Volume	98	100	100	100	100	97	100

2: 1300 East & Simpson Avenue Performance by movement Interval #1 5:00

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.1	0.3	0.7	0.0	1.4
Total Del/Veh (s)	30.0	47.3	2.1	4.9	3.3	4.6
Vehicles Entered	34	5	501	519	26	1085
Vehicles Exited	34	5	494	526	26	1085
Hourly Exit Rate	136	20	1976	2104	104	4340
Input Volume	131	19	2040	2141	107	4438
% of Volume	104	105	97	98	97	98

2: 1300 East & Simpson Avenue Performance by movement Interval #2 5:15

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.3	0.1	0.3	0.8	0.0	1.5
Total Del/Veh (s)	30.5	37.7	2.1	5.3	3.9	4.8
Vehicles Entered	34	6	513	554	29	1136
Vehicles Exited	32	5	519	549	28	1133
Hourly Exit Rate	128	20	2076	2196	112	4532
Input Volume	131	19	2040	2141	107	4438
% of Volume	98	105	102	103	105	102

2: 1300 East & Simpson Avenue Performance by movement Interval #3 5:30

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	1.3	0.1	0.4	1.3	0.0	3.0
Total Del/Veh (s)	123.3	47.7	2.3	8.0	5.6	9.0
Vehicles Entered	34	6	550	578	29	1197
Vehicles Exited	26	6	544	581	29	1186
Hourly Exit Rate	104	24	2176	2324	116	4744
Input Volume	147	22	2283	2397	120	4969
% of Volume	71	109	95	97	97	95

2: 1300 East & Simpson Avenue Performance by movement Interval #4 5:45

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	27.0	0.0	0.0	0.0	0.0	0.8
Total Delay (hr)	1.8	0.1	0.3	1.1	0.0	3.3
Total Del/Veh (s)	140.9	37.4	2.2	6.8	5.1	9.9
Vehicles Entered	34	4	530	558	30	1156
Vehicles Exited	41	4	536	552	29	1162
Hourly Exit Rate	164	16	2144	2208	116	4648
Input Volume	131	19	2040	2141	107	4438
% of Volume	125	84	105	103	108	105

2: 1300 East & Simpson Avenue Performance by movement Entire Run

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	7.8	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	3.6	0.3	1.3	3.9	0.1	9.2
Total Del/Veh (s)	94.6	44.6	2.2	6.4	4.5	7.2
Vehicles Entered	136	21	2094	2208	113	4572
Vehicles Exited	133	21	2094	2208	113	4569
Hourly Exit Rate	133	21	2094	2208	113	4569
Input Volume	135	20	2101	2205	110	4571
% of Volume	99	106	100	100	102	100

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #1 5:00

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.8	3.8	0.1	0.2	0.3	1.8	0.4	1.7	0.0	0.0	0.5
Total Delay (hr)	0.8	0.2	0.6	0.4	0.4	0.6	1.8	0.1	4.0	0.0	9.0
Total Del/Veh (s)	64.8	15.2	45.9	43.3	17.9	37.8	16.1	5.3	26.1	17.6	23.6
Vehicles Entered	37	44	45	30	79	49	396	89	550	10	1329
Vehicles Exited	39	44	48	32	79	50	388	90	529	9	1308
Hourly Exit Rate	156	176	192	128	316	200	1552	360	2116	36	5232
Input Volume	146	184	175	117	311	184	1602	388	2233	39	5379
% of Volume	107	96	110	109	102	109	97	93	95	92	97

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #2 5:15

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.9	4.4	0.1	0.2	0.3	1.8	0.4	1.6	0.0	0.0	0.5
Total Delay (hr)	0.7	0.2	0.5	0.4	0.4	0.5	1.7	0.1	4.1	0.1	8.6
Total Del/Veh (s)	65.3	15.2	44.5	44.7	17.8	33.8	14.3	5.2	24.3	19.2	21.8
Vehicles Entered	34	44	43	30	77	46	400	98	571	10	1353
Vehicles Exited	32	45	40	28	77	44	410	97	593	11	1377
Hourly Exit Rate	128	180	160	112	308	176	1640	388	2372	44	5508
Input Volume	146	184	175	117	311	184	1602	388	2233	39	5379
% of Volume	88	98	91	96	99	96	102	100	106	113	102

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #3 5:30

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	2.1	4.8	0.1	0.3	0.4	1.7	0.4	1.7	0.0	0.0	0.6
Total Delay (hr)	0.9	0.3	0.7	0.4	0.4	0.6	2.1	0.2	5.4	0.1	11.1
Total Del/Veh (s)	66.5	17.7	44.1	43.0	18.1	40.0	17.0	5.5	32.2	23.4	26.4
Vehicles Entered	42	51	50	32	86	52	442	107	596	11	1469
Vehicles Exited	43	50	53	34	85	51	428	106	561	10	1421
Hourly Exit Rate	172	200	212	136	340	204	1712	424	2244	40	5684
Input Volume	163	207	196	130	348	207	1793	435	2501	43	6023
% of Volume	106	97	108	105	98	99	95	97	90	93	94

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #4 5:45

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	1.4	4.3	0.1	0.2	0.4	1.7	0.4	1.7	0.0	0.0	0.5
Total Delay (hr)	1.0	0.3	0.6	0.3	0.4	0.5	1.8	0.2	4.7	0.1	9.9
Total Del/Veh (s)	82.7	22.3	46.8	46.6	18.8	35.9	15.0	5.5	27.0	21.5	24.3
Vehicles Entered	39	45	44	26	79	49	404	98	582	11	1377
Vehicles Exited	38	45	40	24	78	49	418	100	616	11	1419
Hourly Exit Rate	152	180	160	96	312	196	1672	400	2464	44	5676
Input Volume	146	184	175	117	311	184	1602	388	2233	39	5379
% of Volume	104	98	91	82	100	107	104	103	110	113	106

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Entire Run

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.0	0.8
Denied Del/Veh (s)	1.3	4.4	0.1	0.2	0.3	1.8	0.4	1.7	0.0	0.0	0.5
Total Delay (hr)	3.3	0.9	2.4	1.5	1.7	2.2	7.4	0.6	18.2	0.2	38.5
Total Del/Veh (s)	76.1	18.2	46.5	45.7	18.5	39.0	16.2	5.5	28.4	21.0	24.9
Vehicles Entered	153	184	182	119	321	196	1642	393	2299	42	5531
Vehicles Exited	152	183	180	118	319	195	1644	393	2299	41	5524
Hourly Exit Rate	152	183	180	118	319	195	1644	393	2299	41	5524
Input Volume	150	190	180	120	320	190	1650	400	2300	40	5540
% of Volume	101	96	100	98	100	103	100	98	100	102	100

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.6	0.5	0.6	3.9	3.7	0.0	0.0	0.0	2.8	0.2	0.3
Total Delay (hr)	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.3	0.0	0.1	0.3	0.0
Total Del/Veh (s)	30.4	24.9	10.7	28.4	25.8	9.2	15.6	6.7	3.6	16.5	6.0	5.4
Vehicles Entered	31	15	30	17	8	37	8	141	14	24	164	4
Vehicles Exited	31	14	30	16	8	36	7	141	14	24	166	4
Hourly Exit Rate	124	56	120	64	32	144	28	564	56	96	664	16
Input Volume	127	53	127	79	37	140	32	573	50	99	644	18
% of Volume	98	106	94	81	86	103	88	98	112	97	103	89

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.8
Total Delay (hr)	1.5
Total Del/Veh (s)	10.6
Vehicles Entered	493
Vehicles Exited	491
Hourly Exit Rate	1964
Input Volume	1979
% of Volume	99

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.6	0.6	0.6	3.7	3.8	0.0	0.0	0.0	2.8	0.2	0.4
Total Delay (hr)	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.3	0.0	0.1	0.3	0.0
Total Del/Veh (s)	29.5	21.4	9.0	28.3	26.3	10.1	13.7	7.2	5.2	15.5	5.9	1.6
Vehicles Entered	30	11	32	17	10	36	8	142	10	25	158	4
Vehicles Exited	28	11	32	18	10	36	9	143	10	24	158	4
Hourly Exit Rate	112	44	128	72	40	144	36	572	40	96	632	16
Input Volume	127	53	127	79	37	140	32	573	50	99	644	18
% of Volume	88	83	101	91	108	103	112	100	80	97	98	89

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.4
Total Del/Veh (s)	10.6
Vehicles Entered	483
Vehicles Exited	483
Hourly Exit Rate	1932
Input Volume	1979
% of Volume	98

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.7	0.7	0.8	3.7	3.7	0.0	0.0	0.0	2.7	0.2	0.2
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.1	0.4	0.0
Total Del/Veh (s)	26.1	24.5	11.1	26.7	21.5	10.0	15.7	6.8	4.4	18.4	7.1	2.6
Vehicles Entered	35	13	36	21	10	41	9	160	15	28	180	5
Vehicles Exited	37	13	36	22	10	41	9	155	14	26	176	5
Hourly Exit Rate	148	52	144	88	40	164	36	620	56	104	704	20
Input Volume	142	60	142	88	41	157	36	640	57	111	721	21
% of Volume	104	87	101	100	98	104	100	97	98	94	98	95

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.7
Total Del/Veh (s)	11.0
Vehicles Entered	553
Vehicles Exited	544
Hourly Exit Rate	2176
Input Volume	2216
% of Volume	98

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.5	0.6	0.6	0.7	3.7	3.9	0.0	0.0	0.0	3.1	0.2	0.1
Total Delay (hr)	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.1	0.3	0.0
Total Del/Veh (s)	25.1	24.3	10.3	30.6	20.8	8.3	16.3	7.7	5.1	15.0	6.7	3.3
Vehicles Entered	31	15	32	21	8	35	8	144	14	24	164	5
Vehicles Exited	31	15	32	21	9	36	8	146	14	25	166	5
Hourly Exit Rate	124	60	128	84	36	144	32	584	56	100	664	20
Input Volume	127	53	127	79	37	140	32	573	50	99	644	18
% of Volume	98	113	101	106	97	103	100	102	112	101	103	111

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.5
Total Del/Veh (s)	10.7
Vehicles Entered	501
Vehicles Exited	508
Hourly Exit Rate	2032
Input Volume	1979
% of Volume	103

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	3.7	0.6	0.6	0.7	3.7	3.7	0.0	0.0	0.0	2.9	0.2	0.3
Total Delay (hr)	1.0	0.4	0.4	0.6	0.3	0.4	0.1	1.2	0.1	0.5	1.2	0.0
Total Del/Veh (s)	28.5	25.2	10.5	30.0	24.8	9.5	16.2	7.2	4.6	16.8	6.5	3.2
Vehicles Entered	127	53	130	76	37	149	33	586	52	100	665	18
Vehicles Exited	127	53	130	76	37	149	33	585	52	100	666	18
Hourly Exit Rate	127	53	130	76	37	149	33	585	52	100	666	18
Input Volume	131	55	131	81	38	144	33	590	52	102	663	19
% of Volume	97	97	99	94	97	103	100	99	100	98	100	96

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.9
Total Delay (hr)	6.1
Total Del/Veh (s)	10.9
Vehicles Entered	2026
Vehicles Exited	2026
Hourly Exit Rate	2026
Input Volume	2038
% of Volume	99

5: Highland Drive & Stringham Ave Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Del/Veh (s)	17.9	5.4	0.8	0.5	6.9	1.8	2.0
Vehicles Entered	6	10	153	9	18	194	390
Vehicles Exited	5	10	152	9	17	195	388
Hourly Exit Rate	20	40	608	36	68	780	1552
Input Volume	23	42	613	35	70	781	1564
% of Volume	87	95	99	103	97	100	99

5: Highland Drive & Stringham Ave Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Del/Veh (s)	18.6	3.6	0.8	0.4	7.1	1.7	1.8
Vehicles Entered	5	11	149	9	17	191	382
Vehicles Exited	5	11	149	9	17	191	382
Hourly Exit Rate	20	44	596	36	68	764	1528
Input Volume	23	42	613	35	70	781	1564
% of Volume	87	105	97	103	97	98	98

5: Highland Drive & Stringham Ave Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.3
Total Del/Veh (s)	25.5	8.4	0.9	0.6	7.5	2.0	2.4
Vehicles Entered	6	12	172	9	20	214	433
Vehicles Exited	6	12	171	9	20	215	433
Hourly Exit Rate	24	48	684	36	80	860	1732
Input Volume	26	47	687	39	78	873	1750
% of Volume	92	102	100	92	103	99	99

5: Highland Drive & Stringham Ave Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.2
Total Del/Veh (s)	28.3	6.8	0.8	0.5	7.1	1.7	2.1
Vehicles Entered	6	9	157	10	16	203	401
Vehicles Exited	6	9	156	10	16	200	397
Hourly Exit Rate	24	36	624	40	64	800	1588
Input Volume	23	42	613	35	70	781	1564
% of Volume	104	86	102	114	91	102	102

5: Highland Drive & Stringham Ave Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.1	0.0	0.1	0.4	0.9
Total Del/Veh (s)	23.9	6.2	0.8	0.5	7.2	1.8	2.1
Vehicles Entered	22	42	630	37	71	802	1604
Vehicles Exited	22	42	629	36	70	801	1600
Hourly Exit Rate	22	42	629	36	70	801	1600
Input Volume	24	43	632	36	72	804	1610
% of Volume	93	97	100	100	97	100	99

6: Highland Drive & Ashton Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	3.9	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.5	0.0	0.1	0.2	0.0	0.0	0.9
Total Del/Veh (s)	109.3	5.3	12.6	5.3	0.8	0.4	7.8
Vehicles Entered	16	32	34	147	172	29	430
Vehicles Exited	16	32	34	146	172	28	428
Hourly Exit Rate	64	128	136	584	688	112	1712
Input Volume	58	131	128	591	681	122	1711
% of Volume	110	98	106	99	101	92	100

6: Highland Drive & Ashton Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.5	3.9	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.3	0.0	0.1	0.2	0.0	0.0	0.6
Total Del/Veh (s)	62.1	4.4	9.9	4.0	0.7	0.4	5.1
Vehicles Entered	14	31	31	143	165	30	414
Vehicles Exited	14	31	30	143	165	30	413
Hourly Exit Rate	56	124	120	572	660	120	1652
Input Volume	58	131	128	591	681	122	1711
% of Volume	97	95	94	97	97	98	97

6: Highland Drive & Ashton Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.7	5.3	0.0	0.0	0.0	0.0	0.5
Total Delay (hr)	0.6	0.1	0.1	0.3	0.0	0.0	1.2
Total Del/Veh (s)	136.6	11.0	13.7	5.8	0.9	0.5	8.8
Vehicles Entered	15	38	32	169	187	34	475
Vehicles Exited	11	37	32	169	187	34	470
Hourly Exit Rate	44	148	128	676	748	136	1880
Input Volume	65	147	143	660	762	137	1914
% of Volume	68	101	90	102	98	99	98

6: Highland Drive & Ashton Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	9.8	13.2	0.0	0.0	0.0	0.0	1.5
Total Delay (hr)	1.1	0.3	0.1	0.2	0.0	0.0	1.7
Total Del/Veh (s)	178.7	30.1	10.6	4.5	0.8	0.5	13.9
Vehicles Entered	18	37	33	148	176	30	442
Vehicles Exited	18	37	33	148	176	30	442
Hourly Exit Rate	72	148	132	592	704	120	1768
Input Volume	58	131	128	591	681	122	1711
% of Volume	124	113	103	100	103	98	103

6: Highland Drive & Ashton Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.3	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	3.3	6.8	0.0	0.0	0.0	0.0	0.7
Total Delay (hr)	2.5	0.5	0.4	0.8	0.2	0.0	4.5
Total Del/Veh (s)	140.1	13.8	11.8	5.0	0.8	0.5	9.1
Vehicles Entered	62	139	129	607	700	122	1759
Vehicles Exited	60	136	130	607	700	122	1755
Hourly Exit Rate	60	136	130	607	700	122	1755
Input Volume	60	135	132	608	701	126	1762
% of Volume	100	101	99	100	100	97	100

7: Highland Drive & South Access Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.7	0.7	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.3
Total Del/Veh (s)	17.7	12.7	4.3	2.4	9.1	0.4	2.5
Vehicles Entered	2	3	178	5	3	200	391
Vehicles Exited	2	3	178	5	3	200	391
Hourly Exit Rate	8	12	712	20	12	800	1564
Input Volume	9	9	709	22	17	795	1561
% of Volume	89	133	100	91	71	101	100

7: Highland Drive & South Access Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.6	0.5	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	22.5	14.5	2.7	2.8	8.3	0.4	1.7
Vehicles Entered	2	2	174	6	3	194	381
Vehicles Exited	2	2	172	6	3	194	379
Hourly Exit Rate	8	8	688	24	12	776	1516
Input Volume	9	9	709	22	17	795	1561
% of Volume	89	89	97	109	71	98	97

7: Highland Drive & South Access Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.7	0.7	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.5	0.0	0.0	0.0	0.6
Total Del/Veh (s)	29.1	20.7	8.4	7.3	6.6	0.6	4.6
Vehicles Entered	3	3	198	6	5	219	434
Vehicles Exited	3	3	199	6	5	220	436
Hourly Exit Rate	12	12	796	24	20	880	1744
Input Volume	10	10	793	25	20	889	1747
% of Volume	120	120	100	96	100	99	100

7: Highland Drive & South Access Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.6	0.4	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Total Del/Veh (s)	28.4	17.7	3.7	3.9	6.0	0.5	2.2
Vehicles Entered	2	2	177	5	3	210	399
Vehicles Exited	2	2	178	5	3	210	400
Hourly Exit Rate	8	8	712	20	12	840	1600
Input Volume	9	9	709	22	17	795	1561
% of Volume	89	89	100	91	71	106	102

7: Highland Drive & South Access Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.6	0.6	0.0	0.0	0.3
Total Delay (hr)	0.1	0.0	1.0	0.0	0.0	0.1	1.3
Total Del/Veh (s)	22.4	16.5	5.0	4.2	7.4	0.5	2.9
Vehicles Entered	10	10	726	22	14	822	1604
Vehicles Exited	10	10	726	22	14	823	1605
Hourly Exit Rate	10	10	726	22	14	823	1605
Input Volume	9	9	730	23	18	818	1608
% of Volume	108	108	99	97	79	101	100

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Denied Delay (hr)	0.5	0.5	0.6	0.9	2.5
Denied Del/Veh (s)	0.9	0.9	1.0	1.6	1.1
Total Delay (hr)	19.5	18.5	26.2	23.5	87.7
Total Del/Veh (s)	32.2	30.6	38.9	37.3	37.5
Vehicles Entered	1994	1985	2237	2020	8238
Vehicles Exited	1983	1991	2174	2064	8216
Hourly Exit Rate	7932	7964	8696	8256	8216
Input Volume	29127	29127	32613	29127	29998
% of Volume	27	27	27	28	27

Intersection: 1: 1300 East & Wilmington Ave, Interval #1

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	42	115	259	180	196	168	164	375	350	318
Average Queue (ft)	16	63	168	129	88	86	94	257	239	194
95th Queue (ft)	45	133	288	197	205	176	173	386	371	330
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	14	28	1						
Queuing Penalty (veh)	0	12	173	3						

Intersection: 1: 1300 East & Wilmington Ave, Interval #2

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	58	107	238	185	186	156	129	378	357	298
Average Queue (ft)	16	60	141	109	82	79	85	286	256	211
95th Queue (ft)	63	122	251	185	183	160	146	386	359	307
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	12	25	1						
Queuing Penalty (veh)	10	150	3							

Intersection: 1: 1300 East & Wilmington Ave, Interval #3

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	54	257	322	187	205	147	157	440	413	366
Average Queue (ft)	18	104	222	135	102	96	106	337	311	266
95th Queue (ft)	73	271	344	209	201	152	170	484	457	406
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	26	33	2						
Queuing Penalty (veh)	0	25	227	6						

Intersection: 1: 1300 East & Wilmington Ave, Interval #4

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	52	152	262	183	168	147	152	408	386	333
Average Queue (ft)	14	60	144	122	74	80	89	290	271	236
95th Queue (ft)	52	141	264	204	179	156	163	416	404	346
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)		0	14	29	1					
Queuing Penalty (veh)		0	12	176	2					

Intersection: 1: 1300 East & Wilmington Ave, All Intervals

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	85	301	331	198	256	208	183	475	454	382
Average Queue (ft)	16	72	169	124	86	85	93	292	269	227
95th Queue (ft)	59	180	298	200	194	163	165	428	406	357
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)		0	16	29	2					
Queuing Penalty (veh)		0	15	182	3					

Intersection: 2: 1300 East & Simpson Avenue, Interval #1

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	135	43	3	6	88	108	112
Average Queue (ft)	79	21	0	1	19	27	22
95th Queue (ft)	151	49	6	12	90	106	114
Link Distance (ft)	516		268	268	344	344	344
Upstream Blk Time (%)					0		
Queuing Penalty (veh)					0		
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		4					
Queuing Penalty (veh)		27					

Intersection: 2: 1300 East & Simpson Avenue, Interval #2

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	128	43	118	128	123
Average Queue (ft)	71	16	19	24	26
95th Queue (ft)	130	47	111	122	124
Link Distance (ft)	516		344	344	344
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		3			
Queuing Penalty (veh)		22			

Intersection: 2: 1300 East & Simpson Avenue, Interval #3

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	309	48	9	5	169	196	185
Average Queue (ft)	159	21	1	1	47	68	64
95th Queue (ft)	400	54	19	10	197	224	208
Link Distance (ft)	516		268	268	344	344	344
Upstream Blk Time (%)	6				0	0	0
Queuing Penalty (veh)	0				0	1	0
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		5					
Queuing Penalty (veh)		37					

Intersection: 2: 1300 East & Simpson Avenue, Interval #4

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	311	41	28	158	174	168
Average Queue (ft)	216	14	2	38	59	57
95th Queue (ft)	534	43	26	165	209	204
Link Distance (ft)	516		268	344	344	344
Upstream Blk Time (%)	18				0	0
Queuing Penalty (veh)	0				0	0
Storage Bay Dist (ft)		50				
Storage Blk Time (%)		3				
Queuing Penalty (veh)		20				

Intersection: 2: 1300 East & Simpson Avenue, All Intervals

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	350	57	40	6	261	280	270
Average Queue (ft)	131	18	1	0	31	44	42
95th Queue (ft)	359	49	16	7	147	174	169
Link Distance (ft)	516		268	268	344	344	344
Upstream Blk Time (%)	6				0	0	0
Queuing Penalty (veh)	0				0	0	0
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		4					
Queuing Penalty (veh)		26					

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	238	157	173	171	187	201	294	268	308	262	269	266
Average Queue (ft)	153	90	112	107	110	117	216	189	150	193	208	206
95th Queue (ft)	300	183	173	177	194	205	306	280	384	294	302	297
Link Distance (ft)	433		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)	1								0	2	2	2
Queuing Penalty (veh)	0								0	12	18	11
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	36	3				0	3		1			19
Queuing Penalty (veh)	66	4				0	5		2			111

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	SB
Directions Served	TR
Maximum Queue (ft)	242
Average Queue (ft)	186
95th Queue (ft)	270
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	12
Queuing Penalty (veh)	67

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	233	152	170	168	151	144	289	276	211	269	275	269
Average Queue (ft)	125	75	101	97	100	93	222	201	143	197	221	218
95th Queue (ft)	255	154	173	174	180	154	299	288	238	287	303	300
Link Distance (ft)	433		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)	1									1	3	3
Queuing Penalty (veh)	0									9	23	22
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	30	3					2		1			21
Queuing Penalty (veh)	55	4					3		3			123

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	SB
Directions Served	TR
Maximum Queue (ft)	248
Average Queue (ft)	194
95th Queue (ft)	271
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	13
Queuing Penalty (veh)	75

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	265	177	168	174	188	196	298	273	228	279	291	284
Average Queue (ft)	177	110	123	112	119	119	238	208	152	228	250	246
95th Queue (ft)	323	203	182	180	207	203	311	291	238	304	320	313
Link Distance (ft)	433		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)	3									6	12	10
Queuing Penalty (veh)	0									52	103	87
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	40	3				0	4		1			34
Queuing Penalty (veh)	84	5				2	9		5			227

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	SB
Directions Served	TR
Maximum Queue (ft)	246
Average Queue (ft)	218
95th Queue (ft)	282
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	24
Queuing Penalty (veh)	153

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	298	183	166	163	197	186	284	276	189	273	288	277
Average Queue (ft)	178	112	101	91	102	111	235	206	143	220	241	238
95th Queue (ft)	365	223	167	164	185	204	302	280	223	314	320	317
Link Distance (ft)	433		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)	2									4	9	8
Queuing Penalty (veh)	0									27	68	58
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	46	4				0	3		1			28
Queuing Penalty (veh)	85	6				1	5		3			166

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	SB
Directions Served	TR
Maximum Queue (ft)	249
Average Queue (ft)	218
95th Queue (ft)	286
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	22
Queuing Penalty (veh)	121

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	352	194	197	198	255	237	320	314	342	291	300	291
Average Queue (ft)	158	97	109	102	108	110	228	201	147	210	230	227
95th Queue (ft)	316	195	176	175	192	194	306	286	287	303	316	311
Link Distance (ft)	433		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)	2								0	3	7	6
Queuing Penalty (veh)	0								0	25	53	45
Storage Bay Dist (ft)		100				250						
Storage Blk Time (%)	38	3				0	3		1			25
Queuing Penalty (veh)	72	5				1	6		3			157

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	SB
Directions Served	TR
Maximum Queue (ft)	250
Average Queue (ft)	204
95th Queue (ft)	282
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	18
Queuing Penalty (veh)	104

Intersection: 4: Highland Drive & Simpson Ave, Interval #1

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	106	139	98	106	132	119	88	149	118
Average Queue (ft)	59	74	51	61	80	72	45	89	57
95th Queue (ft)	107	144	105	104	137	128	92	162	129
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)				100			65		
Queuing Penalty (veh)							3	8	
Storage Bay Dist (ft)	60								
Storage Blk Time (%)	13	9	1	2			3	8	
Queuing Penalty (veh)	23	12	1	1			11	8	

Intersection: 4: Highland Drive & Simpson Ave, Interval #2

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	103	127	105	119	142	131	73	146	106
Average Queue (ft)	60	63	51	67	77	73	37	73	55
95th Queue (ft)	108	135	122	123	135	133	76	139	112
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	12	6	1	3			3	8	
Queuing Penalty (veh)	22	8	2	2			8	8	

Intersection: 4: Highland Drive & Simpson Ave, Interval #3

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	110	155	112	117	120	124	103	159	120
Average Queue (ft)	68	84	58	68	80	77	48	105	70
95th Queue (ft)	118	168	108	116	138	136	102	181	132
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	15	11	1	3			4	12	
Queuing Penalty (veh)	30	16	3	2			16	13	

Intersection: 4: Highland Drive & Simpson Ave, Interval #4

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	108	143	109	107	139	139	95	133	108
Average Queue (ft)	59	72	58	58	82	79	44	84	61
95th Queue (ft)	109	139	116	109	141	144	92	145	118
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	12	11	2	2			3	9	
Queuing Penalty (veh)	22	14	3	2			9	9	

Intersection: 4: Highland Drive & Simpson Ave, All Intervals

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	119	189	152	149	162	164	123	185	144
Average Queue (ft)	62	73	55	63	80	75	43	88	61
95th Queue (ft)	111	148	113	113	138	136	91	159	124
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	13	10	1	2			3	9	
Queuing Penalty (veh)	24	13	2	2			11	9	

Intersection: 5: Highland Drive & Stringham Ave, Interval #1

Movement	WB	NB	SB	SB
Directions Served	LR	T	LT	T
Maximum Queue (ft)	37	2	103	40
Average Queue (ft)	22	0	37	6
95th Queue (ft)	45	5	98	48
Link Distance (ft)	518	123	251	251
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Highland Drive & Stringham Ave, Interval #2

Movement	WB	SB	SB
Directions Served	LR	LT	T
Maximum Queue (ft)	34	99	18
Average Queue (ft)	21	39	3
95th Queue (ft)	39	96	28
Link Distance (ft)	518	251	251
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Highland Drive & Stringham Ave, Interval #3

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	65	7	104	43
Average Queue (ft)	29	1	49	6
95th Queue (ft)	61	10	115	45
Link Distance (ft)	518	123	251	251
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Highland Drive & Stringham Ave, Interval #4

Movement	WB	SB	SB
Directions Served	LR	LT	T
Maximum Queue (ft)	55	94	31
Average Queue (ft)	25	35	4
95th Queue (ft)	58	92	34
Link Distance (ft)	518	251	251
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Highland Drive & Stringham Ave, All Intervals

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	TR	LT	T
Maximum Queue (ft)	75	2	7	127	79
Average Queue (ft)	24	0	0	40	5
95th Queue (ft)	52	2	5	101	39
Link Distance (ft)	518	123	123	251	251
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Highland Drive & Ashton Ave, Interval #1

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	123	61	143	76	5	14
Average Queue (ft)	69	27	103	43	1	3
95th Queue (ft)	154	81	177	103	10	17
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)			7			
Queuing Penalty (veh)			52			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	14	0	18			
Queuing Penalty (veh)	19	0	52			

Intersection: 6: Highland Drive & Ashton Ave, Interval #2

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	89	48	135	76	2	16
Average Queue (ft)	46	22	93	41	0	3
95th Queue (ft)	101	42	164	103	5	17
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)			3			
Queuing Penalty (veh)			21			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	3		13			
Queuing Penalty (veh)	4		39			

Intersection: 6: Highland Drive & Ashton Ave, Interval #3

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	172	96	144	76	4	23
Average Queue (ft)	74	36	106	48	1	5
95th Queue (ft)	188	99	181	107	7	20
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)	2		8			
Queuing Penalty (veh)	0		68			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	21	0	19			
Queuing Penalty (veh)	31	0	64			

Intersection: 6: Highland Drive & Ashton Ave, Interval #4

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	237	127	142	76	3	21
Average Queue (ft)	158	65	95	48	0	4
95th Queue (ft)	387	189	168	106	6	21
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)	13		5			
Queuing Penalty (veh)	0		33			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	41	1	13			
Queuing Penalty (veh)	54	1	39			

Intersection: 6: Highland Drive & Ashton Ave, All Intervals

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	251	136	146	76	12	33
Average Queue (ft)	87	38	99	45	1	4
95th Queue (ft)	241	118	173	105	7	19
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)	4		6			
Queuing Penalty (veh)	0		44			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	20	0	16			
Queuing Penalty (veh)	27	0	48			

Intersection: 7: Highland Drive & South Access, Interval #1

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	18	178	50	8
Average Queue (ft)	9	63	10	1
95th Queue (ft)	25	191	44	18
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #2

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	27	115	45	12
Average Queue (ft)	10	30	11	2
95th Queue (ft)	30	139	46	19
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #3

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	27	321	51	
Average Queue (ft)	12	114	13	
95th Queue (ft)	30	341	47	
Link Distance (ft)	480	857	136	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #4

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	30	179	49	30
Average Queue (ft)	10	54	10	4
95th Queue (ft)	30	190	44	38
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, All Intervals

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	40	349	72	37
Average Queue (ft)	10	65	11	2
95th Queue (ft)	29	230	45	23
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 692

Network wide Queuing Penalty, Interval #2: 617

Network wide Queuing Penalty, Interval #3: 1265

Network wide Queuing Penalty, Interval #4: 937

Network wide Queuing Penalty, All Intervals: 878

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2020) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Wilmington Ave

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	210	210	100	45.6	D
	T	1,972	1,958	99	5.6	A
	Subtotal	2,182	2,168	99	9.5	A
SB	T	1,939	1,957	101	38.0	D
	R	115	117	102	30.6	C
	Subtotal	2,054	2,074	101	37.6	D
EB	L	90	89	99	42.5	D
	R	410	421	103	36.0	D
	Subtotal	500	510	102	37.1	D
Total		4,737	4,752	100	24.8	C

Intersection: 1300 East & Simpson Avenue

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	22	24	110	35.3	E
	T	2,183	2,172	99	2.3	A
	Subtotal	2,205	2,196	100	2.7	A
SB	T	2,236	2,258	101	13.0	B
	R	114	111	97	10.8	B
	Subtotal	2,350	2,369	101	12.9	B
EB	R	162	98	61	384.6	F
	Subtotal	162	98	60	384.6	F
Total		4,717	4,663	99	17.7	C

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2020) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Stringham Ave/I-80 Exit

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	299	299	100	86.1	F
	T	1,652	1,643	99	19.8	B
	R	400	401	100	5.6	A
	Subtotal	2,351	2,343	100	25.8	C
SB	T	2,327	2,279	98	42.0	D
	R	70	74	106	33.3	C
	Subtotal	2,397	2,353	98	41.7	D
EB	L	232	219	94	87.0	F
	R	547	538	98	62.9	E
	Subtotal	779	757	97	69.9	E
WB	L	180	183	102	48.5	D
	T	164	170	104	54.7	D
	R	320	333	104	22.2	C
	Subtotal	664	686	103	37.3	D
Total		6,191	6,139	99	43.6	D

Intersection: Highland Drive & Simpson Ave

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	33	31	94	16.4	B
	T	635	636	100	7.2	A
	R	52	54	104	4.7	A
	Subtotal	720	721	100	7.4	A
SB	L	107	107	100	18.2	B
	T	681	665	98	6.7	A
	R	19	21	112	3.4	A
	Subtotal	807	793	98	8.2	A
EB	L	131	124	95	28.0	C
	T	55	54	99	23.4	C
	R	131	138	106	9.9	A
	Subtotal	317	316	100	19.3	B
WB	L	83	85	102	31.6	C
	T	38	37	97	23.3	C
	R	153	152	99	10.0	A
	Subtotal	274	274	100	18.5	B
Total		2,117	2,104	99	11.0	B

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2020) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & Stringham Ave
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	642	646	101	0.9	A
	R	42	43	102	0.5	A
	Subtotal	684	689	101	0.9	A
SB	L	88	84	96	9.4	A
	T	807	805	100	2.2	A
	Subtotal	895	889	99	2.9	A
<i>WB</i>	L	41	40	97	28.6	D
	R	78	76	97	3.6	A
	Subtotal	119	116	97	12.2	B
Total		1,698	1,694	100	2.7	A

Intersection: Highland Drive & Ashton Ave
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	132	132	100	11.4	B
	T	625	631	101	4.8	A
	Subtotal	757	763	101	5.9	A
SB	T	723	725	100	0.9	A
	R	126	120	95	0.5	A
	Subtotal	849	845	100	0.8	A
<i>EB</i>	L	60	60	100	165.0	F
	R	135	129	96	11.1	B
	Subtotal	195	189	97	60.0	F
Total		1,800	1,797	100	9.5	A

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2020) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & South Access

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	736	742	101	4.6	A
	R	28	28	101	2.5	A
	Subtotal	764	770	101	4.5	A
SB	L	20	18	91	8.1	A
	T	838	836	100	0.5	A
	Subtotal	858	854	100	0.7	A
WB	L	18	17	96	31.5	D
	R	20	21	106	21.6	C
	Subtotal	38	38	100	26.0	D
Total		1,660	1,662	100	3.1	A

1: 1300 East & Wilmington Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	0.7	0.6	0.7	2.9	0.1	5.3
Total Del/Veh (s)	38.9	25.7	40.4	5.1	21.1	14.2	16.2
Vehicles Entered	21	94	50	462	484	27	1138
Vehicles Exited	23	98	53	464	460	25	1123
Hourly Exit Rate	92	392	212	1856	1840	100	4492
Input Volume	87	398	204	1915	1883	112	4599
% of Volume	106	98	104	97	98	89	98

1: 1300 East & Wilmington Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.2	0.7	0.6	0.6	3.0	0.1	5.3
Total Del/Veh (s)	38.2	24.8	40.3	4.6	20.8	15.9	15.7
Vehicles Entered	21	105	50	491	475	27	1169
Vehicles Exited	19	99	49	489	497	28	1181
Hourly Exit Rate	76	396	196	1956	1988	112	4724
Input Volume	87	398	204	1915	1883	112	4599
% of Volume	87	99	96	102	106	100	103

1: 1300 East & Wilmington Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.2	3.1	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	1.5	0.9	1.0	6.4	0.3	10.4
Total Del/Veh (s)	39.8	40.5	51.1	7.0	42.1	34.1	28.4
Vehicles Entered	24	122	58	506	532	32	1274
Vehicles Exited	26	120	58	502	483	30	1219
Hourly Exit Rate	104	480	232	2008	1932	120	4876
Input Volume	98	446	228	2145	2108	125	5150
% of Volume	106	108	102	94	92	96	95

1: 1300 East & Wilmington Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.3	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	1.3	0.7	0.7	8.6	0.4	12.1
Total Del/Veh (s)	46.2	43.6	43.9	5.2	57.4	47.2	34.2
Vehicles Entered	21	100	52	500	476	31	1180
Vehicles Exited	20	103	50	503	517	33	1226
Hourly Exit Rate	80	412	200	2012	2068	132	4904
Input Volume	87	398	204	1915	1883	112	4599
% of Volume	92	104	98	105	110	118	107

1: 1300 East & Wilmington Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	0.1	0.0	0.5
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	1.1	4.3	2.7	3.0	20.9	1.0	33.0
Total Del/Veh (s)	42.5	36.0	45.6	5.6	38.0	30.6	24.8
Vehicles Entered	88	422	211	1960	1967	117	4765
Vehicles Exited	89	421	210	1958	1957	117	4752
Hourly Exit Rate	89	421	210	1958	1957	117	4752
Input Volume	90	410	210	1972	1939	115	4737
% of Volume	99	103	100	99	101	102	100

2: 1300 East & Simpson Avenue Performance by movement Interval #1 5:00

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.7	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.3	0.1	0.3	1.4	0.1	3.2
Total Del/Veh (s)	113.3	31.8	2.2	9.6	7.4	10.1
Vehicles Entered	38	5	512	532	26	1113
Vehicles Exited	36	6	512	540	26	1120
Hourly Exit Rate	144	24	2048	2160	104	4480
Input Volume	157	21	2120	2171	111	4580
% of Volume	92	114	97	99	94	98

2: 1300 East & Simpson Avenue Performance by movement Interval #2 5:15

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	5.9	0.0	0.0	0.0	0.0	0.2
Total Delay (hr)	1.7	0.1	0.4	1.5	0.0	3.6
Total Del/Veh (s)	133.7	39.3	2.3	9.1	6.5	10.8
Vehicles Entered	39	6	543	570	27	1185
Vehicles Exited	34	6	542	558	26	1166
Hourly Exit Rate	136	24	2168	2232	104	4664
Input Volume	157	21	2120	2171	111	4580
% of Volume	87	114	102	103	94	102

2: 1300 East & Simpson Avenue Performance by movement Interval #3 5:30

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	1.9	0.0	0.0	0.0	0.0	1.9
Denied Del/Veh (s)	148.9	0.0	0.0	0.0	0.0	5.5
Total Delay (hr)	4.2	0.1	0.4	2.3	0.1	7.0
Total Del/Veh (s)	416.0	34.3	2.5	14.0	12.1	20.5
Vehicles Entered	26	6	564	575	29	1200
Vehicles Exited	14	6	565	582	30	1197
Hourly Exit Rate	56	24	2260	2328	120	4788
Input Volume	176	24	2373	2430	124	5127
% of Volume	32	100	95	96	97	93

2: 1300 East & Simpson Avenue Performance by movement Interval #4 5:45

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	8.6	0.0	0.0	0.0	0.0	8.6
Denied Del/Veh (s)	543.8	0.0	0.0	0.0	0.0	25.1
Total Delay (hr)	5.8	0.1	0.3	3.1	0.1	9.4
Total Del/Veh (s)	561.6	35.8	2.2	18.4	15.9	27.5
Vehicles Entered	15	6	553	590	30	1194
Vehicles Exited	14	6	553	578	29	1180
Hourly Exit Rate	56	24	2212	2312	116	4720
Input Volume	157	21	2120	2171	111	4580
% of Volume	36	114	104	106	105	103

2: 1300 East & Simpson Avenue Performance by movement Entire Run

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	10.5	0.0	0.0	0.0	0.0	10.5
Denied Del/Veh (s)	238.8	0.0	0.0	0.0	0.0	8.0
Total Delay (hr)	12.9	0.2	1.4	8.3	0.3	23.1
Total Del/Veh (s)	384.6	35.3	2.3	13.0	10.8	17.7
Vehicles Entered	117	23	2172	2266	112	4690
Vehicles Exited	98	24	2172	2258	111	4663
Hourly Exit Rate	98	24	2172	2258	111	4663
Input Volume	162	22	2183	2236	114	4717
% of Volume	61	110	99	101	97	99

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #1 5:00

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Denied Del/Veh (s)	7.4	6.7	0.1	0.3	0.3	1.8	0.4	1.7	0.0	0.0	1.2
Total Delay (hr)	1.2	1.6	0.6	0.6	0.4	1.6	2.1	0.1	6.0	0.1	14.5
Total Del/Veh (s)	72.0	41.6	45.2	50.8	18.4	67.3	18.3	5.3	38.0	27.9	33.3
Vehicles Entered	53	131	42	41	82	74	396	99	558	17	1493
Vehicles Exited	57	135	45	43	84	74	376	99	536	17	1466
Hourly Exit Rate	228	540	180	172	336	296	1504	396	2144	68	5864
Input Volume	225	531	175	159	311	290	1604	388	2260	68	6011
% of Volume	101	102	103	108	108	102	94	102	95	100	98

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #2 5:15

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.3	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
Denied Del/Veh (s)	21.4	20.6	0.1	0.3	0.3	1.7	0.4	1.6	0.0	0.0	3.0
Total Delay (hr)	1.3	1.9	0.6	0.6	0.4	1.9	2.2	0.1	6.0	0.1	15.2
Total Del/Veh (s)	78.0	48.4	48.2	52.9	19.5	81.0	18.2	5.4	35.4	25.6	33.9
Vehicles Entered	54	133	45	42	78	73	403	92	574	18	1512
Vehicles Exited	50	126	42	39	76	74	422	92	596	18	1535
Hourly Exit Rate	200	504	168	156	304	296	1688	368	2384	72	6140
Input Volume	225	531	175	159	311	290	1604	388	2260	68	6011
% of Volume	89	95	96	98	98	102	105	95	105	106	102

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #3 5:30

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	1.3	3.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	4.5
Denied Del/Veh (s)	70.1	66.8	0.2	0.3	0.4	1.7	0.5	1.7	0.0	0.0	9.8
Total Delay (hr)	1.4	3.0	0.7	0.7	0.7	1.9	2.6	0.2	7.2	0.2	18.7
Total Del/Veh (s)	77.3	68.5	47.8	54.9	27.5	76.3	20.4	5.8	44.1	37.3	39.9
Vehicles Entered	60	146	48	45	90	80	441	108	577	19	1614
Vehicles Exited	60	145	52	49	92	73	418	107	546	18	1560
Hourly Exit Rate	240	580	208	196	368	292	1672	428	2184	72	6240
Input Volume	252	595	196	178	348	325	1796	435	2529	76	6730
% of Volume	95	97	106	110	106	90	93	98	86	95	93

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #4 5:45

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	1.6	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0
Denied Del/Veh (s)	98.7	100.8	0.1	0.3	0.3	1.7	0.4	1.6	0.0	0.0	13.8
Total Delay (hr)	1.6	3.1	0.6	0.6	0.5	2.0	2.3	0.2	7.5	0.2	18.6
Total Del/Veh (s)	94.2	75.9	46.8	54.2	20.7	85.4	18.5	5.7	43.5	36.3	40.4
Vehicles Entered	52	133	46	42	83	69	404	104	571	21	1525
Vehicles Exited	51	132	44	39	81	78	427	103	602	22	1579
Hourly Exit Rate	204	528	176	156	324	312	1708	412	2408	88	6316
Input Volume	225	531	175	159	311	290	1604	388	2260	68	6011
% of Volume	91	99	101	98	104	108	106	106	107	129	105

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Entire Run

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	3.3	8.3	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.0	12.2
Denied Del/Veh (s)	53.3	53.1	0.2	0.3	0.3	1.7	0.4	1.7	0.0	0.0	7.1
Total Delay (hr)	5.5	9.7	2.5	2.6	2.1	7.3	9.1	0.6	26.8	0.7	66.9
Total Del/Veh (s)	87.0	62.9	48.5	54.7	22.2	86.1	19.8	5.6	42.0	33.3	38.8
Vehicles Entered	219	543	182	170	333	297	1645	402	2280	75	6146
Vehicles Exited	219	538	183	170	333	299	1643	401	2279	74	6139
Hourly Exit Rate	219	538	183	170	333	299	1643	401	2279	74	6139
Input Volume	232	547	180	164	320	299	1652	400	2327	70	6191
% of Volume	94	98	102	104	104	100	99	100	98	106	99

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.7	0.6	0.7	3.7	3.7	0.0	0.0	0.0	2.9	0.2	0.4
Total Delay (hr)	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.1	0.3	0.0
Total Del/Veh (s)	27.8	25.7	10.4	31.2	20.4	8.5	16.8	7.1	3.8	14.9	6.2	4.2
Vehicles Entered	32	15	34	22	10	37	8	151	13	25	164	5
Vehicles Exited	30	15	34	21	9	37	9	152	14	25	165	5
Hourly Exit Rate	120	60	136	84	36	148	36	608	56	100	660	20
Input Volume	127	53	127	81	37	149	32	617	50	104	661	18
% of Volume	94	113	107	104	97	99	112	99	112	96	100	111

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.6
Total Del/Veh (s)	10.7
Vehicles Entered	516
Vehicles Exited	516
Hourly Exit Rate	2064
Input Volume	2056
% of Volume	100

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.5	0.6	0.6	3.6	3.8	0.0	0.0	0.0	2.9	0.2	0.3
Total Delay (hr)	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.1	0.3	0.0
Total Del/Veh (s)	26.7	22.5	8.6	27.2	24.7	10.5	14.6	6.7	4.6	16.9	6.5	3.6
Vehicles Entered	29	12	31	20	9	36	8	160	12	28	160	5
Vehicles Exited	29	12	31	20	8	37	8	161	12	28	160	5
Hourly Exit Rate	116	48	124	80	32	148	32	644	48	112	640	20
Input Volume	127	53	127	81	37	149	32	617	50	104	661	18
% of Volume	91	91	98	99	86	99	100	104	96	108	97	111

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.5
Total Del/Veh (s)	10.3
Vehicles Entered	510
Vehicles Exited	511
Hourly Exit Rate	2044
Input Volume	2056
% of Volume	99

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.7	0.6	0.8	3.4	3.8	0.0	0.0	0.0	2.8	0.3	0.3
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.2	0.4	0.0
Total Del/Veh (s)	25.4	21.1	10.8	28.7	24.4	11.3	13.2	7.4	5.0	19.7	7.6	2.7
Vehicles Entered	35	16	39	23	10	41	8	167	14	28	181	5
Vehicles Exited	36	17	39	23	10	42	7	164	14	28	176	5
Hourly Exit Rate	144	68	156	92	40	168	28	656	56	112	704	20
Input Volume	142	60	142	90	41	166	36	690	57	116	740	21
% of Volume	101	113	110	102	98	101	78	95	98	97	95	95

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.8
Total Del/Veh (s)	11.3
Vehicles Entered	567
Vehicles Exited	561
Hourly Exit Rate	2244
Input Volume	2301
% of Volume	98

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.6	0.5	0.6	3.7	3.8	0.0	0.0	0.0	3.1	0.2	0.2
Total Delay (hr)	0.2	0.1	0.1	0.2	0.1	0.1	0.0	0.3	0.0	0.2	0.3	0.0
Total Del/Veh (s)	29.1	20.8	8.8	33.3	21.3	9.0	16.8	7.4	5.5	19.9	6.0	3.1
Vehicles Entered	29	11	33	22	10	37	7	159	14	27	162	6
Vehicles Exited	29	10	34	22	10	36	7	159	14	27	164	6
Hourly Exit Rate	116	40	136	88	40	144	28	636	56	108	656	24
Input Volume	127	53	127	81	37	149	32	617	50	104	661	18
% of Volume	91	75	107	109	108	97	88	103	112	104	99	133

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.6
Total Del/Veh (s)	10.8
Vehicles Entered	517
Vehicles Exited	518
Hourly Exit Rate	2072
Input Volume	2056
% of Volume	101

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0
Denied Del/Veh (s)	3.7	0.6	0.6	0.7	3.7	3.8	0.0	0.0	0.0	2.9	0.2	0.3
Total Delay (hr)	1.0	0.4	0.4	0.8	0.2	0.4	0.1	1.3	0.1	0.6	1.2	0.0
Total Del/Veh (s)	28.0	23.4	9.9	31.6	23.3	10.0	16.4	7.2	4.7	18.2	6.7	3.4
Vehicles Entered	125	54	138	86	38	151	31	638	54	108	666	21
Vehicles Exited	124	54	138	85	37	152	31	636	54	107	665	21
Hourly Exit Rate	124	54	138	85	37	152	31	636	54	107	665	21
Input Volume	131	55	131	83	38	153	33	635	52	107	681	19
% of Volume	95	99	106	102	97	99	94	100	104	100	98	112

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.9
Total Delay (hr)	6.4
Total Del/Veh (s)	11.0
Vehicles Entered	2110
Vehicles Exited	2104
Hourly Exit Rate	2104
Input Volume	2117
% of Volume	99

5: Highland Drive & Stringham Ave Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.2	0.3	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	26.5	3.4	0.8	0.5	9.3	2.2	2.7
Vehicles Entered	9	17	156	10	22	198	412
Vehicles Exited	9	17	156	10	22	199	413
Hourly Exit Rate	36	68	624	40	88	796	1652
Input Volume	40	76	623	41	85	784	1649
% of Volume	90	89	100	98	104	102	100

5: Highland Drive & Stringham Ave Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.1	0.3	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.3
Total Del/Veh (s)	24.0	3.2	0.9	0.5	9.1	2.0	2.5
Vehicles Entered	10	20	160	11	19	192	412
Vehicles Exited	10	20	160	11	19	191	411
Hourly Exit Rate	40	80	640	44	76	764	1644
Input Volume	40	76	623	41	85	784	1649
% of Volume	100	105	103	107	89	97	100

5: Highland Drive & Stringham Ave Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.8	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	0.0	0.0	0.0	0.1	0.1	0.4
Total Del/Veh (s)	28.9	3.8	1.0	0.5	9.7	2.3	2.9
Vehicles Entered	11	20	170	11	23	215	450
Vehicles Exited	11	20	169	11	23	214	448
Hourly Exit Rate	44	80	676	44	92	856	1792
Input Volume	45	85	698	46	96	877	1847
% of Volume	98	94	97	96	96	98	97

5: Highland Drive & Stringham Ave Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.9	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.3
Total Del/Veh (s)	27.0	3.5	0.9	0.4	8.9	2.1	2.6
Vehicles Entered	10	18	161	11	20	201	421
Vehicles Exited	10	18	162	11	20	200	421
Hourly Exit Rate	40	72	648	44	80	800	1684
Input Volume	40	76	623	41	85	784	1649
% of Volume	100	95	104	107	94	102	102

5: Highland Drive & Stringham Ave Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.0	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.3	0.1	0.2	0.0	0.2	0.5	1.3
Total Del/Veh (s)	28.6	3.6	0.9	0.5	9.4	2.2	2.7
Vehicles Entered	40	76	647	43	84	805	1695
Vehicles Exited	40	76	646	43	84	805	1694
Hourly Exit Rate	40	76	646	43	84	805	1694
Input Volume	41	78	642	42	88	807	1698
% of Volume	97	97	101	102	96	100	100

6: Highland Drive & Ashton Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	2.1	6.1	0.0	0.0	0.0	0.0	0.5
Total Delay (hr)	0.5	0.1	0.1	0.2	0.0	0.0	1.0
Total Del/Veh (s)	115.8	10.5	11.4	4.7	0.8	0.5	7.8
Vehicles Entered	15	32	31	152	179	30	439
Vehicles Exited	14	31	30	152	179	30	436
Hourly Exit Rate	56	124	120	608	716	120	1744
Input Volume	58	131	128	607	702	122	1748
% of Volume	97	95	94	100	102	98	100

6: Highland Drive & Ashton Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	1.7	5.0	0.0	0.0	0.0	0.0	0.4
Total Delay (hr)	0.5	0.1	0.1	0.2	0.0	0.0	0.9
Total Del/Veh (s)	93.1	7.6	11.0	4.5	0.8	0.5	7.1
Vehicles Entered	16	30	33	155	174	28	436
Vehicles Exited	16	30	33	155	174	28	436
Hourly Exit Rate	64	120	132	620	696	112	1744
Input Volume	58	131	128	607	702	122	1748
% of Volume	110	92	103	102	99	92	100

6: Highland Drive & Ashton Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	3.8	0.0	0.0	0.0	0.0	0.3
Total Delay (hr)	0.9	0.1	0.1	0.3	0.1	0.0	1.5
Total Del/Veh (s)	200.8	9.5	12.1	5.4	1.0	0.7	11.0
Vehicles Entered	16	35	36	168	194	32	481
Vehicles Exited	12	34	36	168	194	32	476
Hourly Exit Rate	48	136	144	672	776	128	1904
Input Volume	65	147	143	680	785	137	1957
% of Volume	74	93	101	99	99	93	97

6: Highland Drive & Ashton Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.3	5.1	0.0	0.0	0.0	0.0	0.4
Total Delay (hr)	1.0	0.1	0.1	0.2	0.0	0.0	1.4
Total Del/Veh (s)	164.3	15.4	10.3	4.6	0.8	0.6	11.5
Vehicles Entered	16	32	32	155	179	30	444
Vehicles Exited	18	33	33	155	178	30	447
Hourly Exit Rate	72	132	132	620	712	120	1788
Input Volume	58	131	128	607	702	122	1748
% of Volume	124	101	103	102	101	98	102

6: Highland Drive & Ashton Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	1.4	5.0	0.0	0.0	0.0	0.0	0.4
Total Delay (hr)	2.9	0.4	0.4	0.8	0.2	0.0	4.7
Total Del/Veh (s)	165.0	11.1	11.4	4.8	0.9	0.5	9.5
Vehicles Entered	62	128	132	631	725	120	1798
Vehicles Exited	60	129	132	631	725	120	1797
Hourly Exit Rate	60	129	132	631	725	120	1797
Input Volume	60	135	132	625	723	126	1800
% of Volume	100	96	100	101	100	95	100

7: Highland Drive & South Access Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.6	0.7	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.3
Total Del/Veh (s)	34.2	23.0	3.9	3.8	8.4	0.5	2.6
Vehicles Entered	3	4	178	6	3	207	401
Vehicles Exited	3	4	179	6	3	206	401
Hourly Exit Rate	12	16	716	24	12	824	1604
Input Volume	17	19	715	27	19	814	1611
% of Volume	71	84	100	89	63	101	100

7: Highland Drive & South Access Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.7	0.5	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.4
Total Del/Veh (s)	33.8	20.0	4.6	1.3	9.0	0.5	3.1
Vehicles Entered	4	7	182	7	5	199	404
Vehicles Exited	4	6	182	7	5	200	404
Hourly Exit Rate	16	24	728	28	20	800	1616
Input Volume	17	19	715	27	19	814	1611
% of Volume	94	126	102	104	105	98	100

7: Highland Drive & South Access Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.7	0.9	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.0	0.5
Total Del/Veh (s)	32.2	21.1	5.5	3.7	9.2	0.7	3.6
Vehicles Entered	5	4	200	8	5	223	445
Vehicles Exited	5	5	199	8	5	223	445
Hourly Exit Rate	20	20	796	32	20	892	1780
Input Volume	20	22	800	30	22	911	1805
% of Volume	100	91	100	107	91	98	99

7: Highland Drive & South Access Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.7	0.7	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.3
Total Del/Veh (s)	27.2	19.5	4.0	1.7	6.0	0.5	2.7
Vehicles Entered	4	5	180	7	4	207	407
Vehicles Exited	5	5	182	7	5	207	411
Hourly Exit Rate	20	20	728	28	20	828	1644
Input Volume	17	19	715	27	19	814	1611
% of Volume	118	105	102	104	105	102	102

7: Highland Drive & South Access Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.7	0.7	0.0	0.0	0.3
Total Delay (hr)	0.1	0.1	1.0	0.0	0.0	0.1	1.4
Total Del/Veh (s)	31.5	21.6	4.6	2.5	8.1	0.5	3.1
Vehicles Entered	17	21	740	29	18	836	1661
Vehicles Exited	17	21	742	28	18	836	1662
Hourly Exit Rate	17	21	742	28	18	836	1662
Input Volume	18	20	736	28	20	838	1660
% of Volume	96	106	101	101	91	100	100

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Denied Delay (hr)	0.9	1.7	6.7	14.9	24.2
Denied Del/Veh (s)	1.4	2.7	9.8	23.8	9.6
Total Delay (hr)	27.7	28.7	42.0	45.4	143.9
Total Del/Veh (s)	41.1	42.6	56.2	64.8	56.1
Vehicles Entered	2190	2193	2431	2185	9004
Vehicles Exited	2193	2171	2348	2230	8945
Hourly Exit Rate	8772	8684	9392	8920	8945
Input Volume	31014	31014	34726	31014	31942
% of Volume	28	28	27	29	28

Intersection: 1: 1300 East & Wilmington Ave, Interval #1

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	43	151	265	174	182	166	152	397	364	334
Average Queue (ft)	18	82	180	126	95	87	101	282	258	223
95th Queue (ft)	50	219	298	194	180	157	165	414	380	343
Link Distance (ft)		1110			330	330	330	1179	1179	1179
Upstream Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	14	26	3						
Queuing Penalty (veh)	0	12	163	6						

Intersection: 1: 1300 East & Wilmington Ave, Interval #2

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	34	133	267	176	178	156	160	376	358	329
Average Queue (ft)	11	50	158	117	89	93	99	295	270	235
95th Queue (ft)	38	132	266	187	182	160	167	386	371	332
Link Distance (ft)		1110			330	330	330	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	15	25	2						
Queuing Penalty (veh)	0	13	159	5						

Intersection: 1: 1300 East & Wilmington Ave, Interval #3

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	143	425	349	195	245	220	188	594	564	502
Average Queue (ft)	31	162	263	145	128	130	130	434	405	362
95th Queue (ft)	108	410	372	214	263	231	191	686	640	600
Link Distance (ft)		1110			330	330	330	1179	1179	1179
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					4					
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	0	37	39	4					
Queuing Penalty (veh)	0	1	37	278	10					

Intersection: 1: 1300 East & Wilmington Ave, Interval #4

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	116	382	320	171	193	178	167	662	631	585
Average Queue (ft)	20	149	225	123	106	105	116	534	503	456
95th Queue (ft)	116	427	371	201	213	180	181	920	872	794
Link Distance (ft)		1110			330	330	330	1179	1179	1179
Upstream Blk Time (%)					0			1		
Queuing Penalty (veh)					0			0		
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)		1	33	27	3					
Queuing Penalty (veh)		4	29	174	5					

Intersection: 1: 1300 East & Wilmington Ave, All Intervals

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	183	498	350	198	285	247	191	706	683	605
Average Queue (ft)	20	111	206	128	104	104	111	386	359	319
95th Queue (ft)	86	328	345	201	214	188	179	685	645	590
Link Distance (ft)		1110			330	330	330	1179	1179	1179
Upstream Blk Time (%)					0	0		0		
Queuing Penalty (veh)					1	0		0		
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	0	25	29	3					
Queuing Penalty (veh)	0	1	23	194	7					

Intersection: 2: 1300 East & Simpson Avenue, Interval #1

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	266	43	226	224	218
Average Queue (ft)	172	19	112	120	112
95th Queue (ft)	376	48	279	282	269
Link Distance (ft)	516		330	330	330
Upstream Blk Time (%)	2		0	0	0
Queuing Penalty (veh)	0		1	1	0
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		3			
Queuing Penalty (veh)		23			

Intersection: 2: 1300 East & Simpson Avenue, Interval #2

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	293	52	4	225	238	205
Average Queue (ft)	203	18	1	94	110	98
95th Queue (ft)	462	52	8	249	271	239
Link Distance (ft)	516		268	330	330	330
Upstream Blk Time (%)	7			0	0	0
Queuing Penalty (veh)	0			1	1	1
Storage Bay Dist (ft)		50				
Storage Blk Time (%)		3				
Queuing Penalty (veh)		20				

Intersection: 2: 1300 East & Simpson Avenue, Interval #3

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	521	44	14	323	333	293
Average Queue (ft)	397	20	2	159	179	182
95th Queue (ft)	664	49	22	355	363	350
Link Distance (ft)	516		268	330	330	330
Upstream Blk Time (%)	50			1	1	1
Queuing Penalty (veh)	0			5	5	5
Storage Bay Dist (ft)		50				
Storage Blk Time (%)		4	0			
Queuing Penalty (veh)		28	0			

Intersection: 2: 1300 East & Simpson Avenue, Interval #4

Movement	EB	NB	SB	SB	SB
Directions Served	R	L	T	T	TR
Maximum Queue (ft)	529	45	318	324	323
Average Queue (ft)	523	19	226	243	247
95th Queue (ft)	538	51	391	394	379
Link Distance (ft)	516		330	330	330
Upstream Blk Time (%)	99		1	1	1
Queuing Penalty (veh)	0		8	10	10
Storage Bay Dist (ft)		50			
Storage Blk Time (%)		3			
Queuing Penalty (veh)		22			

Intersection: 2: 1300 East & Simpson Avenue, All Intervals

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	537	58	14	4	340	348	331
Average Queue (ft)	324	19	1	0	148	163	160
95th Queue (ft)	642	50	11	4	339	350	339
Link Distance (ft)	516		268	268	330	330	330
Upstream Blk Time (%)	39				0	1	0
Queuing Penalty (veh)	0				4	4	4
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		3	0				
Queuing Penalty (veh)		24	0				

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	346	405	168	199	180	298	366	322	220	288	292	286
Average Queue (ft)	247	304	104	131	114	225	243	203	142	250	262	260
95th Queue (ft)	425	482	163	202	191	340	354	305	238	323	325	309
Link Distance (ft)	450	403	403	403		1227	1227	1227	1227	268	268	268
Upstream Blk Time (%)		9								7	11	10
Queuing Penalty (veh)		0								53	83	77
Storage Bay Dist (ft)	200				250							
Storage Blk Time (%)	19	35				13	3		1			40
Queuing Penalty (veh)	102	79				70	9		2			253

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	SB
Directions Served	TR
Maximum Queue (ft)	250
Average Queue (ft)	232
95th Queue (ft)	282
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	31
Queuing Penalty (veh)	173

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	394	449	182	194	182	328	444	400	218	28	288	305
Average Queue (ft)	249	319	112	133	102	261	337	270	173	4	249	264
95th Queue (ft)	443	511	192	211	187	393	566	499	231	60	324	328
Link Distance (ft)		450	403	403	403		1227	1227	1227		268	268
Upstream Blk Time (%)			13								5	11
Queuing Penalty (veh)			0								39	83
Storage Bay Dist (ft)	200					250				190		
Storage Blk Time (%)	19	43				26	3		2			
Queuing Penalty (veh)	102	97				137	9		7			

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	295	250
Average Queue (ft)	261	234
95th Queue (ft)	320	278
Link Distance (ft)	268	
Upstream Blk Time (%)	12	0
Queuing Penalty (veh)	94	0
Storage Bay Dist (ft)	170	
Storage Blk Time (%)	41	35
Queuing Penalty (veh)	259	196

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	400	478	195	212	229	331	465	418	266	56	293	303
Average Queue (ft)	331	429	128	152	150	243	291	248	180	8	270	278
95th Queue (ft)	499	555	199	231	261	368	463	419	276	85	315	314
Link Distance (ft)		450	403	403	403		1227	1227	1227		268	268
Upstream Blk Time (%)			40								19	30
Queuing Penalty (veh)			0								162	261
Storage Bay Dist (ft)	200				250					190		
Storage Blk Time (%)	25	75				21	5			3		
Queuing Penalty (veh)	146	188				127	17			11		

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	301	250
Average Queue (ft)	282	246
95th Queue (ft)	309	265
Link Distance (ft)	268	
Upstream Blk Time (%)	27	0
Queuing Penalty (veh)	232	0
Storage Bay Dist (ft)		170
Storage Blk Time (%)	52	42
Queuing Penalty (veh)	365	266

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	380	460	166	218	200	313	477	438	300	288	301	309
Average Queue (ft)	342	418	114	134	113	262	355	299	178	276	282	285
95th Queue (ft)	507	576	185	232	217	404	638	560	307	293	305	308
Link Distance (ft)	450	403	403	403		1227	1227	1227	268	268	268	268
Upstream Blk Time (%)	51		0	0					25	37	33	
Queuing Penalty (veh)	0		0	0					196	288	254	
Storage Bay Dist (ft)	200				250							
Storage Blk Time (%)	29	72			34	4		2				53
Queuing Penalty (veh)	153	163			181	10		7				338

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	SB
Directions Served	TR
Maximum Queue (ft)	250
Average Queue (ft)	248
95th Queue (ft)	255
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	48
Queuing Penalty (veh)	269

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	400	488	216	259	266	349	629	573	330	84	303	316
Average Queue (ft)	292	368	114	138	120	248	307	255	168	3	261	271
95th Queue (ft)	483	557	186	221	220	379	527	463	270	51	322	323
Link Distance (ft)	450	403	403	403		1227	1227	1227		268	268	
Upstream Blk Time (%)	28		0	0						14	22	
Queuing Penalty (veh)	0		0	0						113	179	
Storage Bay Dist (ft)	200				250				190			
Storage Blk Time (%)	23	56			23	4		2				
Queuing Penalty (veh)	126	132			129	11		7				

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	315	250
Average Queue (ft)	272	240
95th Queue (ft)	318	277
Link Distance (ft)	268	
Upstream Blk Time (%)	20	0
Queuing Penalty (veh)	164	0
Storage Bay Dist (ft)	170	
Storage Blk Time (%)	46	39
Queuing Penalty (veh)	304	226

Intersection: 4: Highland Drive & Simpson Ave, Interval #1

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	109	158	109	97	125	137	74	139	108
Average Queue (ft)	61	79	58	57	82	79	39	75	53
95th Queue (ft)	112	160	114	102	138	144	80	145	115
Link Distance (ft)	269	419		231	231		376	376	
Upstream Blk Time (%)	0								
Queuing Penalty (veh)	0								
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	12	11	1	2			3	8	
Queuing Penalty (veh)	22	14	3	2			9	8	

Intersection: 4: Highland Drive & Simpson Ave, Interval #2

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	94	111	128	119	137	121	87	154	110
Average Queue (ft)	52	59	56	64	80	75	45	86	60
95th Queue (ft)	97	114	126	117	144	130	93	156	118
Link Distance (ft)		269	419		231	231		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	9	8	2	3			4	9	
Queuing Penalty (veh)	17	10	4	2			13	9	

Intersection: 4: Highland Drive & Simpson Ave, Interval #3

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	102	166	124	128	139	143	110	168	124
Average Queue (ft)	64	85	68	76	83	85	51	105	66
95th Queue (ft)	114	167	136	134	152	152	104	179	129
Link Distance (ft)		269	419		231	231		376	376
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	14	12	3	4			5	12	
Queuing Penalty (veh)	28	18	6	3			19	13	

Intersection: 4: Highland Drive & Simpson Ave, Interval #4

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	108	143	117	98	135	154	88	139	109
Average Queue (ft)	54	65	61	60	82	83	46	82	52
95th Queue (ft)	106	137	116	103	143	156	91	141	107
Link Distance (ft)		269	419		231	231		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	11	7	2	1			6	9	
Queuing Penalty (veh)	19	9	4	1			19	10	

Intersection: 4: Highland Drive & Simpson Ave, All Intervals

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	116	188	173	150	162	172	121	187	145
Average Queue (ft)	58	72	61	64	82	80	45	87	58
95th Queue (ft)	108	147	124	116	144	146	93	158	118
Link Distance (ft)		269	419		231	231		376	376
Upstream Blk Time (%)		0							
Queuing Penalty (veh)		0							
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	11	10	2	2			4	9	
Queuing Penalty (veh)	21	13	4	2			15	10	

Intersection: 5: Highland Drive & Stringham Ave, Interval #1

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	LT	T
Maximum Queue (ft)	48	40	2	130	48
Average Queue (ft)	22	18	0	62	13
95th Queue (ft)	54	40	4	135	76
Link Distance (ft)		521	122	231	231
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100				
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Intersection: 5: Highland Drive & Stringham Ave, Interval #2

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	LT	T
Maximum Queue (ft)	49	34	8	106	54
Average Queue (ft)	22	17	1	55	9
95th Queue (ft)	50	36	9	113	56
Link Distance (ft)		521	122	231	231
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100				
Storage Blk Time (%)	0				
Queuing Penalty (veh)	0				

Intersection: 5: Highland Drive & Stringham Ave, Interval #3

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	LT	T
Maximum Queue (ft)	46	48	4	134	73
Average Queue (ft)	24	20	1	61	18
95th Queue (ft)	48	45	6	140	86
Link Distance (ft)		521	122	231	231
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Highland Drive & Stringham Ave, Interval #4

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	LT	T
Maximum Queue (ft)	44	37	2	116	54
Average Queue (ft)	23	18	0	51	10
95th Queue (ft)	49	39	4	121	64
Link Distance (ft)		521	122	231	231
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100			
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Highland Drive & Stringham Ave, All Intervals

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	LT	T
Maximum Queue (ft)	68	61	13	159	119
Average Queue (ft)	23	18	1	57	13
95th Queue (ft)	50	40	6	128	71
Link Distance (ft)		521	122	231	231
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100			
Storage Blk Time (%)		0			
Queuing Penalty (veh)		0			

Intersection: 6: Highland Drive & Ashton Ave, Interval #1

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	132	71	142	76	2	17
Average Queue (ft)	68	31	96	46	0	3
95th Queue (ft)	188	87	169	106	5	16
Link Distance (ft)	383		136		122	122
Upstream Blk Time (%)	2		4			
Queuing Penalty (veh)	0		33			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	12	0	16			
Queuing Penalty (veh)	16	0	48			

Intersection: 6: Highland Drive & Ashton Ave, Interval #2

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	141	52	138	76	4	20
Average Queue (ft)	67	26	94	43	1	4
95th Queue (ft)	165	77	159	104	7	19
Link Distance (ft)	383		136		122	122
Upstream Blk Time (%)	1		5			
Queuing Penalty (veh)	0		35			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	12	1	15			
Queuing Penalty (veh)	16	0	45			

Intersection: 6: Highland Drive & Ashton Ave, Interval #3

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	204	129	142	76	7	27
Average Queue (ft)	111	50	107	51	1	7
95th Queue (ft)	234	152	176	109	15	26
Link Distance (ft)	383		136		122	122
Upstream Blk Time (%)	1		7			
Queuing Penalty (veh)	0		56			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	40	0	18			
Queuing Penalty (veh)	58	0	62			

Intersection: 6: Highland Drive & Ashton Ave, Interval #4

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	207	119	142	76	15
Average Queue (ft)	122	49	95	48	3
95th Queue (ft)	295	154	168	107	15
Link Distance (ft)	383		136		122
Upstream Blk Time (%)	4		4		
Queuing Penalty (veh)	0		27		
Storage Bay Dist (ft)		100		1	
Storage Blk Time (%)	42	0	15		
Queuing Penalty (veh)	56	0	45		

Intersection: 6: Highland Drive & Ashton Ave, All Intervals

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	268	174	145	76	14	30
Average Queue (ft)	92	39	98	47	0	4
95th Queue (ft)	230	123	169	107	8	19
Link Distance (ft)	383		136		122	122
Upstream Blk Time (%)	2		5			
Queuing Penalty (veh)	0		38			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	27	0	16			
Queuing Penalty (veh)	36	0	50			

Intersection: 7: Highland Drive & South Access, Interval #1

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	33	191	44	12
Average Queue (ft)	15	44	11	2
95th Queue (ft)	40	182	45	24
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #2

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	48	190	58
Average Queue (ft)	23	48	16
95th Queue (ft)	53	211	55
Link Distance (ft)	480	857	136
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Highland Drive & South Access, Interval #3

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	45	218	64	28
Average Queue (ft)	21	73	22	6
95th Queue (ft)	49	230	69	46
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)			0	0
Queuing Penalty (veh)			0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #4

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	41	184	59	10
Average Queue (ft)	21	52	14	1
95th Queue (ft)	47	200	53	20
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, All Intervals

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	59	335	81	39
Average Queue (ft)	20	54	16	2
95th Queue (ft)	48	207	56	27
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 1262

Network wide Queuing Penalty, Interval #2: 1375

Network wide Queuing Penalty, Interval #3: 2414

Network wide Queuing Penalty, Interval #4: 2312

Network wide Queuing Penalty, All Intervals: 1841

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2040) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Wilmington Ave

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	220	220	100	48.7	D
	T	2,081	2,091	100	5.5	A
	Subtotal	2,301	2,311	100	9.6	A
SB	T	2,055	2,045	100	34.2	C
	R	120	125	104	26.0	C
	Subtotal	2,175	2,170	100	33.7	C
EB	L	95	96	101	40.8	D
	R	420	415	99	31.0	C
	Subtotal	515	511	99	32.8	C
Total		4,991	4,992	100	22.5	C

Intersection: 1300 East & Simpson Avenue

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	25	24	97	40.8	E
	T	2,300	2,309	100	2.4	A
	Subtotal	2,325	2,333	100	2.8	A
SB	T	2,360	2,338	99	10.2	B
	R	115	122	106	8.0	A
	Subtotal	2,475	2,460	99	10.1	A
<i>EB</i>	R	140	105	75	290.7	F
	<i>Subtotal</i>	<i>140</i>	<i>105</i>	<i>75</i>	<i>290.7</i>	<i>F</i>
Total		4,941	4,898	99	13.8	B

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2040) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Stringham Ave/I-80 Exit

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	200	201	101	41.2	D
	T	1,700	1,712	101	18.2	B
	R	420	422	100	5.8	A
	Subtotal	2,320	2,335	101	17.9	B
SB	T	2,450	2,392	98	35.5	D
	R	50	48	96	29.9	C
	Subtotal	2,500	2,440	98	35.4	D
EB	L	165	160	97	81.7	F
	R	200	200	100	21.0	C
	Subtotal	365	360	99	48.0	D
WB	L	190	189	100	44.3	D
	T	130	126	97	44.9	D
	R	460	461	100	43.7	D
	Subtotal	780	776	99	44.0	D
Total		5,965	5,911	99	34.4	C

Intersection: Highland Drive & Simpson Ave

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	38	36	95	19.5	B
	T	678	661	98	8.5	A
	R	60	61	102	5.7	A
	Subtotal	776	758	98	8.8	A
SB	L	117	119	101	24.1	C
	T	762	762	100	8.1	A
	R	22	21	97	5.2	A
	Subtotal	901	902	100	10.1	B
EB	L	151	145	96	27.8	C
	T	63	60	96	24.2	C
	R	151	154	102	11.2	B
	Subtotal	365	359	98	20.1	B
WB	L	93	92	99	29.1	C
	T	44	46	104	25.6	C
	R	166	167	101	11.6	B
	Subtotal	303	305	101	19.0	B
Total		2,344	2,324	99	12.4	B

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2040) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & Stringham Ave

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	726	707	97	1.0	A
	R	41	39	95	0.6	A
	Subtotal	767	746	97	1.0	A
SB	L	83	80	96	9.2	A
	T	923	928	101	2.4	A
	Subtotal	1,006	1,008	100	2.9	A
<i>WB</i>	L	28	25	90	29.6	D
	R	49	50	102	9.2	A
	Subtotal	77	75	97	16.0	C
Total		1,850	1,829	99	2.7	A

Intersection: Highland Drive & Ashton Ave

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	152	153	100	16.9	C
	T	699	704	101	7.2	A
	Subtotal	851	857	101	8.9	A
SB	T	806	808	100	1.0	A
	R	145	146	101	0.6	A
	Subtotal	951	954	100	0.9	A
<i>EB</i>	L	69	44	64	623.3	F
	R	155	103	66	147.4	F
	Subtotal	224	147	66	289.8	F
Total		2,027	1,958	97	29.9	D

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2040) Background

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & South Access
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	840	844	100	16.7	C
	R	26	28	109	15.9	C
	Subtotal	866	872	101	16.7	C
SB	L	21	21	101	9.7	A
	T	941	890	95	0.6	A
	Subtotal	962	911	95	0.8	A
WB	L	10	11	107	56.6	F
	R	10	12	117	95.3	F
	Subtotal	20	23	115	76.8	F
Total		1,848	1,806	98	9.4	A

1: 1300 East & Wilmington Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.9	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	0.8	0.7	0.8	3.4	0.2	6.1
Total Del/Veh (s)	35.7	26.6	45.5	5.6	23.8	19.0	17.8
Vehicles Entered	24	105	50	493	495	30	1197
Vehicles Exited	25	109	54	493	474	29	1184
Hourly Exit Rate	100	436	216	1972	1896	116	4736
Input Volume	92	408	214	2021	1995	117	4847
% of Volume	109	107	101	98	95	99	98

1: 1300 East & Wilmington Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.9	3.2	0.0	0.0	0.2	0.3	0.3
Total Delay (hr)	0.2	0.7	0.7	0.6	3.1	0.1	5.6
Total Del/Veh (s)	40.4	24.7	44.4	4.3	21.6	15.2	15.8
Vehicles Entered	21	98	54	522	486	32	1213
Vehicles Exited	19	96	52	522	509	33	1231
Hourly Exit Rate	76	384	208	2088	2036	132	4924
Input Volume	92	408	214	2021	1995	117	4847
% of Volume	83	94	97	103	102	113	102

1: 1300 East & Wilmington Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.1	3.1	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	1.2	0.8	1.0	6.6	0.3	10.2
Total Del/Veh (s)	35.5	35.5	47.8	6.6	41.0	30.7	26.7
Vehicles Entered	26	111	57	543	562	34	1333
Vehicles Exited	28	113	60	538	508	32	1279
Hourly Exit Rate	112	452	240	2152	2032	128	5116
Input Volume	103	457	239	2261	2234	130	5424
% of Volume	109	99	100	95	91	98	94

1: 1300 East & Wilmington Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.1	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	0.9	0.8	0.8	6.5	0.3	9.7
Total Del/Veh (s)	41.3	30.8	49.3	5.3	41.1	33.2	25.9
Vehicles Entered	26	101	57	533	503	30	1250
Vehicles Exited	24	98	55	538	554	32	1301
Hourly Exit Rate	96	392	220	2152	2216	128	5204
Input Volume	92	408	214	2021	1995	117	4847
% of Volume	104	96	103	106	111	109	107

1: 1300 East & Wilmington Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	0.1	0.0	0.5
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	1.1	3.6	3.0	3.2	19.6	0.9	31.5
Total Del/Veh (s)	40.8	31.0	48.7	5.5	34.2	26.0	22.5
Vehicles Entered	97	416	219	2091	2045	125	4993
Vehicles Exited	96	415	220	2091	2045	125	4992
Hourly Exit Rate	96	415	220	2091	2045	125	4992
Input Volume	95	420	220	2081	2055	120	4991
% of Volume	101	99	100	100	100	104	100

2: 1300 East & Simpson Avenue Performance by movement Interval #1 5:00

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.9	0.1	0.3	1.2	0.0	2.6
Total Del/Veh (s)	93.7	46.0	2.2	7.5	5.2	7.8
Vehicles Entered	33	6	548	555	28	1170
Vehicles Exited	31	6	543	566	28	1174
Hourly Exit Rate	124	24	2172	2264	112	4696
Input Volume	136	24	2234	2292	112	4798
% of Volume	91	100	97	99	100	98

2: 1300 East & Simpson Avenue Performance by movement Interval #2 5:15

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	25.9	0.0	0.0	0.0	0.0	0.8
Total Delay (hr)	1.1	0.1	0.4	1.1	0.0	2.7
Total Del/Veh (s)	100.7	32.7	2.3	6.9	5.2	8.0
Vehicles Entered	36	6	572	576	29	1219
Vehicles Exited	36	6	576	567	29	1214
Hourly Exit Rate	144	24	2304	2268	116	4856
Input Volume	136	24	2234	2292	112	4798
% of Volume	106	100	103	99	104	101

2: 1300 East & Simpson Avenue Performance by movement Interval #3 5:30

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.3	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	23.5	0.0	0.0	0.0	0.0	0.7
Total Delay (hr)	2.8	0.1	0.4	2.1	0.1	5.6
Total Del/Veh (s)	267.0	42.2	2.6	12.9	9.8	15.5
Vehicles Entered	33	5	604	589	31	1262
Vehicles Exited	18	5	600	591	32	1246
Hourly Exit Rate	72	20	2400	2364	128	4984
Input Volume	152	27	2500	2566	125	5370
% of Volume	47	74	96	92	102	93

2: 1300 East & Simpson Avenue Performance by movement Interval #4 5:45

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	3.9	0.0	0.0	0.0	0.0	3.9
Denied Del/Veh (s)	338.6	0.0	0.0	0.0	0.0	10.8
Total Delay (hr)	5.3	0.1	0.4	2.2	0.1	8.1
Total Del/Veh (s)	463.0	43.7	2.4	12.7	10.5	22.3
Vehicles Entered	21	6	586	619	33	1265
Vehicles Exited	20	6	590	614	32	1262
Hourly Exit Rate	80	24	2360	2456	128	5048
Input Volume	136	24	2234	2292	112	4798
% of Volume	59	100	106	107	114	105

2: 1300 East & Simpson Avenue Performance by movement Entire Run

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	4.4	0.0	0.0	0.0	0.0	4.4
Denied Del/Veh (s)	110.2	0.0	0.0	0.0	0.0	3.2
Total Delay (hr)	10.2	0.3	1.5	6.7	0.3	18.9
Total Del/Veh (s)	290.7	40.8	2.4	10.2	8.0	13.8
Vehicles Entered	123	24	2309	2338	122	4916
Vehicles Exited	105	24	2309	2338	122	4898
Hourly Exit Rate	105	24	2309	2338	122	4898
Input Volume	140	25	2300	2360	115	4941
% of Volume	75	97	100	99	106	99

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #1 5:00

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.8	3.6	0.2	0.5	0.7	1.7	0.4	1.7	0.0	0.0	0.5
Total Delay (hr)	0.8	0.2	0.6	0.4	1.0	0.6	2.1	0.2	5.5	0.1	11.5
Total Del/Veh (s)	65.7	14.8	40.9	39.4	31.4	37.8	17.9	5.5	33.1	32.0	27.6
Vehicles Entered	41	49	45	31	114	52	413	102	585	11	1443
Vehicles Exited	42	50	48	33	114	50	397	102	559	11	1406
Hourly Exit Rate	168	200	192	132	456	200	1588	408	2236	44	5624
Input Volume	160	194	184	126	447	194	1651	408	2379	49	5792
% of Volume	105	103	104	105	102	103	96	100	94	90	97

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #2 5:15

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	0.7	3.6	1.2	1.5	2.0	1.8	0.4	1.7	0.0	0.0	0.7
Total Delay (hr)	0.8	0.2	0.6	0.4	1.2	0.6	2.0	0.2	5.0	0.1	11.1
Total Del/Veh (s)	66.1	14.4	45.8	44.6	38.7	37.5	16.1	5.7	28.9	21.0	26.0
Vehicles Entered	38	46	49	33	110	49	418	102	591	12	1448
Vehicles Exited	36	46	47	30	109	50	433	102	618	12	1483
Hourly Exit Rate	144	184	188	120	436	200	1732	408	2472	48	5932
Input Volume	160	194	184	126	447	194	1651	408	2379	49	5792
% of Volume	90	95	102	95	98	103	105	100	104	98	102

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #3 5:30

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.2	0.0	0.1	0.1	0.0	0.0	0.5
Denied Del/Veh (s)	1.5	4.1	4.2	4.7	5.7	1.7	0.5	1.6	0.0	0.0	1.2
Total Delay (hr)	1.1	0.4	0.6	0.4	1.9	0.7	2.6	0.2	6.6	0.1	14.6
Total Del/Veh (s)	80.8	24.0	41.5	42.3	51.3	40.9	19.6	6.0	39.3	32.8	32.9
Vehicles Entered	44	54	45	34	129	54	462	112	597	12	1543
Vehicles Exited	44	53	48	36	125	55	440	113	561	10	1485
Hourly Exit Rate	176	212	192	144	500	220	1760	452	2244	40	5940
Input Volume	179	217	207	141	500	217	1848	457	2663	54	6483
% of Volume	98	98	93	102	100	101	95	99	84	74	92

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #4 5:45

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.1	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.5
Denied Del/Veh (s)	3.3	7.6	4.4	5.6	5.1	1.7	0.4	1.7	0.0	0.0	1.3
Total Delay (hr)	1.1	0.4	0.6	0.4	1.5	0.5	2.0	0.2	6.5	0.1	13.3
Total Del/Veh (s)	87.7	27.8	43.4	45.7	44.4	37.5	16.1	5.6	35.2	29.1	30.1
Vehicles Entered	40	51	50	29	111	46	418	106	620	13	1484
Vehicles Exited	38	50	47	27	113	47	442	105	654	15	1538
Hourly Exit Rate	152	200	188	108	452	188	1768	420	2616	60	6152
Input Volume	160	194	184	126	447	194	1651	408	2379	49	5792
% of Volume	95	103	102	86	101	97	107	103	110	122	106

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Entire Run

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.1	0.3	0.1	0.1	0.4	0.1	0.2	0.2	0.0	0.0	1.5
Denied Del/Veh (s)	1.6	4.8	2.5	3.1	3.5	1.7	0.4	1.7	0.0	0.0	0.9
Total Delay (hr)	3.8	1.2	2.4	1.6	5.7	2.3	8.7	0.7	23.7	0.4	50.5
Total Del/Veh (s)	81.7	21.0	44.3	44.9	43.7	41.2	18.2	5.8	35.5	29.9	30.4
Vehicles Entered	162	200	189	126	464	201	1711	423	2394	48	5918
Vehicles Exited	160	200	189	126	461	201	1712	422	2392	48	5911
Hourly Exit Rate	160	200	189	126	461	201	1712	422	2392	48	5911
Input Volume	165	200	190	130	460	200	1700	420	2450	50	5965
% of Volume	97	100	100	97	100	101	101	100	98	96	99

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.7	0.8	0.6	3.9	3.7	0.0	0.0	0.0	2.9	0.3	0.4
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.1	0.0	0.4	0.0	0.2	0.4	0.0
Total Del/Veh (s)	26.9	21.3	9.7	29.1	23.6	10.5	16.6	8.0	6.1	17.5	7.7	5.9
Vehicles Entered	38	17	36	24	11	41	8	156	15	30	186	4
Vehicles Exited	37	16	36	24	11	40	8	158	15	30	189	4
Hourly Exit Rate	148	64	144	96	44	160	32	632	60	120	756	16
Input Volume	147	61	147	90	43	161	37	658	58	114	740	21
% of Volume	101	105	98	107	102	99	86	96	103	105	102	76

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.9
Total Del/Veh (s)	11.6
Vehicles Entered	566
Vehicles Exited	568
Hourly Exit Rate	2272
Input Volume	2277
% of Volume	100

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.8	0.6	0.8	3.5	3.6	0.0	0.0	0.0	2.9	0.3	0.3
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.1	0.0	0.4	0.0	0.2	0.4	0.0
Total Del/Veh (s)	27.2	24.5	11.3	31.4	27.9	10.8	17.6	8.1	4.1	20.5	7.1	4.6
Vehicles Entered	33	13	40	22	12	40	8	159	14	29	184	5
Vehicles Exited	33	13	39	21	11	40	9	160	13	30	184	5
Hourly Exit Rate	132	52	156	84	44	160	36	640	52	120	736	20
Input Volume	147	61	147	90	43	161	37	658	58	114	740	21
% of Volume	90	85	106	93	102	99	97	97	90	105	99	95

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	1.9
Total Del/Veh (s)	11.8
Vehicles Entered	559
Vehicles Exited	558
Hourly Exit Rate	2232
Input Volume	2277
% of Volume	98

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.7	0.8	1.0	3.5	3.6	0.0	0.0	0.0	2.8	0.3	0.3
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.2	0.1	0.4	0.0	0.2	0.5	0.0
Total Del/Veh (s)	25.7	23.3	12.3	29.7	22.4	13.5	23.9	9.3	6.9	27.8	9.2	6.0
Vehicles Entered	37	18	41	24	13	47	8	170	17	31	203	6
Vehicles Exited	39	19	42	25	13	47	8	168	17	31	200	6
Hourly Exit Rate	156	76	168	100	52	188	32	672	68	124	800	24
Input Volume	164	68	164	101	48	180	41	736	65	127	828	24
% of Volume	95	112	102	99	108	104	78	91	105	98	97	100

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.9
Total Delay (hr)	2.3
Total Del/Veh (s)	13.4
Vehicles Entered	615
Vehicles Exited	615
Hourly Exit Rate	2460
Input Volume	2546
% of Volume	97

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.6	0.7	0.6	3.6	3.8	0.0	0.0	0.0	2.8	0.2	0.5
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.4	0.0	0.2	0.4	0.0
Total Del/Veh (s)	28.5	23.4	10.0	23.7	24.5	10.9	18.4	8.1	5.1	28.4	7.8	5.3
Vehicles Entered	36	13	37	24	10	40	10	176	16	28	189	5
Vehicles Exited	36	13	37	23	10	40	10	175	16	28	189	5
Hourly Exit Rate	144	52	148	92	40	160	40	700	64	112	756	20
Input Volume	147	61	147	90	43	161	37	658	58	114	740	21
% of Volume	98	85	101	102	93	99	108	106	110	98	102	95

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.8
Total Delay (hr)	2.0
Total Del/Veh (s)	11.9
Vehicles Entered	584
Vehicles Exited	582
Hourly Exit Rate	2328
Input Volume	2277
% of Volume	102

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.0
Denied Del/Veh (s)	3.6	0.7	0.7	0.8	3.6	3.7	0.0	0.0	0.0	2.8	0.3	0.3
Total Delay (hr)	1.1	0.4	0.5	0.8	0.3	0.5	0.2	1.6	0.1	0.8	1.7	0.0
Total Del/Veh (s)	27.8	24.2	11.2	29.1	25.6	11.6	19.5	8.5	5.7	24.1	8.1	5.2
Vehicles Entered	144	60	155	92	46	168	36	662	61	119	763	20
Vehicles Exited	145	60	154	92	46	167	36	661	61	119	762	21
Hourly Exit Rate	145	60	154	92	46	167	36	661	61	119	762	21
Input Volume	151	63	151	93	44	166	38	678	60	117	762	22
% of Volume	96	96	102	99	104	101	95	98	102	101	100	97

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.6
Denied Del/Veh (s)	0.9
Total Delay (hr)	8.0
Total Del/Veh (s)	12.4
Vehicles Entered	2326
Vehicles Exited	2324
Hourly Exit Rate	2324
Input Volume	2344
% of Volume	99

5: Highland Drive & Stringham Ave Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.3
Total Del/Veh (s)	25.5	9.5	1.0	0.6	8.0	2.1	2.5
Vehicles Entered	6	13	166	10	21	228	444
Vehicles Exited	6	13	166	10	21	228	444
Hourly Exit Rate	24	52	664	40	84	912	1776
Input Volume	27	48	705	40	81	896	1797
% of Volume	89	108	94	100	104	102	99

5: Highland Drive & Stringham Ave Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.3
Total Del/Veh (s)	30.3	8.4	1.0	0.5	8.3	2.1	2.4
Vehicles Entered	6	11	170	11	18	225	441
Vehicles Exited	6	11	170	11	19	227	444
Hourly Exit Rate	24	44	680	44	76	908	1776
Input Volume	27	48	705	40	81	896	1797
% of Volume	89	92	96	110	94	101	99

5: Highland Drive & Stringham Ave Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.1	0.0	0.1	0.2	0.4
Total Del/Veh (s)	30.6	11.6	1.1	0.5	10.1	2.7	3.1
Vehicles Entered	8	14	182	9	23	244	480
Vehicles Exited	8	14	182	9	23	243	479
Hourly Exit Rate	32	56	728	36	92	972	1916
Input Volume	30	53	789	45	90	1003	2010
% of Volume	107	106	92	80	102	97	95

5: Highland Drive & Stringham Ave Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.0	0.1	0.2	0.3
Total Del/Veh (s)	26.6	6.4	0.9	0.5	10.1	2.6	2.6
Vehicles Entered	5	13	189	10	18	231	466
Vehicles Exited	5	13	189	10	18	230	465
Hourly Exit Rate	20	52	756	40	72	920	1860
Input Volume	27	48	705	40	81	896	1797
% of Volume	74	108	107	100	89	103	104

5: Highland Drive & Stringham Ave Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.1	0.2	0.0	0.2	0.6	1.4
Total Del/Veh (s)	29.6	9.2	1.0	0.6	9.2	2.4	2.7
Vehicles Entered	25	51	707	39	80	928	1830
Vehicles Exited	25	50	707	39	80	928	1829
Hourly Exit Rate	25	50	707	39	80	928	1829
Input Volume	28	49	726	41	83	923	1850
% of Volume	90	102	97	95	96	101	99

6: Highland Drive & Ashton Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.3	1.2	0.0	0.0	0.0	0.0	1.5
Denied Del/Veh (s)	72.5	112.4	0.0	0.1	0.0	0.0	11.0
Total Delay (hr)	1.7	0.6	0.2	0.3	0.0	0.0	2.8
Total Del/Veh (s)	327.7	67.3	14.9	6.5	0.8	0.6	20.7
Vehicles Entered	13	30	36	165	198	36	478
Vehicles Exited	11	28	36	165	198	36	474
Hourly Exit Rate	44	112	144	660	792	144	1896
Input Volume	67	151	148	679	783	141	1969
% of Volume	66	74	97	97	101	102	96

6: Highland Drive & Ashton Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	1.0	2.8	0.0	0.0	0.0	0.0	3.8
Denied Del/Veh (s)	186.3	227.1	0.0	0.0	0.0	0.0	26.7
Total Delay (hr)	2.1	1.0	0.2	0.3	0.1	0.0	3.7
Total Del/Veh (s)	361.3	98.6	17.0	7.1	0.9	0.6	26.0
Vehicles Entered	14	31	39	171	197	36	488
Vehicles Exited	12	31	40	170	197	36	486
Hourly Exit Rate	48	124	160	680	788	144	1944
Input Volume	67	151	148	679	783	141	1969
% of Volume	72	82	108	100	101	102	99

6: Highland Drive & Ashton Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	2.9	5.9	0.0	0.0	0.0	0.0	8.8
Denied Del/Veh (s)	381.4	381.8	0.0	0.0	0.0	0.0	56.4
Total Delay (hr)	2.8	1.4	0.2	0.5	0.1	0.0	5.1
Total Del/Veh (s)	538.9	235.2	19.7	9.0	1.1	0.7	34.8
Vehicles Entered	9	18	42	185	214	38	506
Vehicles Exited	6	16	42	184	214	38	500
Hourly Exit Rate	24	64	168	736	856	152	2000
Input Volume	75	168	165	759	876	158	2201
% of Volume	32	38	102	97	98	96	91

6: Highland Drive & Ashton Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	4.6	10.9	0.0	0.0	0.0	0.0	15.5
Denied Del/Veh (s)	519.1	527.9	0.0	0.0	0.0	0.0	99.6
Total Delay (hr)	2.8	1.6	0.1	0.3	0.1	0.0	4.9
Total Del/Veh (s)	393.5	156.9	14.0	5.6	1.0	0.6	33.9
Vehicles Entered	13	30	35	183	199	36	496
Vehicles Exited	15	29	36	184	199	36	499
Hourly Exit Rate	60	116	144	736	796	144	1996
Input Volume	67	151	148	679	783	141	1969
% of Volume	90	77	97	108	102	102	101

6: Highland Drive & Ashton Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	8.8	20.8	0.0	0.0	0.0	0.0	29.5
Denied Del/Veh (s)	463.8	488.3	0.0	0.0	0.0	0.0	52.3
Total Delay (hr)	9.5	4.5	0.7	1.4	0.2	0.0	16.4
Total Del/Veh (s)	623.3	147.4	16.9	7.2	1.0	0.6	29.9
Vehicles Entered	49	109	152	704	808	146	1968
Vehicles Exited	44	103	153	704	808	146	1958
Hourly Exit Rate	44	103	153	704	808	146	1958
Input Volume	69	155	152	699	806	145	2027
% of Volume	64	66	100	101	100	101	97

7: Highland Drive & South Access Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.7	0.9	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.5	0.0	0.0	0.0	0.6
Total Del/Veh (s)	37.9	39.0	7.9	7.9	8.7	0.6	4.7
Vehicles Entered	2	3	200	8	6	221	440
Vehicles Exited	2	2	198	8	6	220	436
Hourly Exit Rate	8	8	792	32	24	880	1744
Input Volume	10	10	816	25	20	914	1795
% of Volume	80	80	97	128	120	96	97

7: Highland Drive & South Access Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.9	0.8	0.0	0.0	0.4
Total Delay (hr)	0.0	0.1	0.7	0.0	0.0	0.0	0.9
Total Del/Veh (s)	34.7	57.0	12.0	9.9	9.8	0.7	6.9
Vehicles Entered	3	3	209	7	6	222	450
Vehicles Exited	3	4	207	6	6	223	449
Hourly Exit Rate	12	16	828	24	24	892	1796
Input Volume	10	10	816	25	20	914	1795
% of Volume	120	160	101	96	120	98	100

7: Highland Drive & South Access Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.2	0.0	0.0	0.0	0.2
Denied Del/Veh (s)	0.1	0.1	3.8	3.4	0.0	0.0	1.9
Total Delay (hr)	0.1	0.2	2.0	0.1	0.0	0.0	2.4
Total Del/Veh (s)	70.0	153.2	30.5	29.4	10.0	0.7	17.6
Vehicles Entered	3	4	229	8	5	226	475
Vehicles Exited	2	3	224	8	5	226	468
Hourly Exit Rate	8	12	896	32	20	904	1872
Input Volume	11	11	913	28	23	1023	2009
% of Volume	73	109	98	114	87	88	93

7: Highland Drive & South Access Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	1.1	2.1	0.0	0.0	0.5
Total Delay (hr)	0.1	0.1	0.7	0.0	0.0	0.0	0.9
Total Del/Veh (s)	65.1	62.1	12.2	12.7	7.0	0.5	7.2
Vehicles Entered	3	2	206	5	5	222	443
Vehicles Exited	3	3	215	6	5	222	454
Hourly Exit Rate	12	12	860	24	20	888	1816
Input Volume	10	10	816	25	20	914	1795
% of Volume	120	120	105	96	100	97	101

7: Highland Drive & South Access Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.4	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	0.1	0.1	1.7	1.9	0.0	0.0	0.8
Total Delay (hr)	0.2	0.3	3.9	0.1	0.1	0.2	4.8
Total Del/Veh (s)	56.6	95.3	16.7	15.9	9.7	0.6	9.4
Vehicles Entered	11	12	844	27	21	891	1806
Vehicles Exited	11	12	844	28	21	890	1806
Hourly Exit Rate	11	12	844	28	21	890	1806
Input Volume	10	10	840	26	21	941	1848
% of Volume	107	117	100	109	101	95	98

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Denied Delay (hr)	2.0	4.6	10.1	20.2	36.9
Denied Del/Veh (s)	3.3	7.5	14.7	31.9	14.7
Total Delay (hr)	27.3	27.7	42.3	41.0	138.3
Total Del/Veh (s)	40.5	41.2	57.3	58.2	54.0
Vehicles Entered	2196	2180	2414	2191	8980
Vehicles Exited	2187	2181	2311	2261	8941
Hourly Exit Rate	8748	8724	9244	9044	8941
Input Volume	32065	32065	35879	32065	33018
% of Volume	27	27	26	28	27

Intersection: 1: 1300 East & Wilmington Ave, Interval #1

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	43	148	279	180	197	178	160	400	388	360
Average Queue (ft)	18	71	202	129	97	104	110	314	291	250
95th Queue (ft)	45	190	324	191	209	184	168	445	424	391
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)			21	31	2					
Queuing Penalty (veh)		19	209	4						

Intersection: 1: 1300 East & Wilmington Ave, Interval #2

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	43	135	270	185	173	149	154	402	405	338
Average Queue (ft)	12	52	154	125	82	88	104	307	287	242
95th Queue (ft)	40	125	263	207	172	156	168	438	433	371
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)		0	14	31	1					
Queuing Penalty (veh)		0	13	210	3					

Intersection: 1: 1300 East & Wilmington Ave, Interval #3

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	87	353	327	186	234	191	180	625	590	540
Average Queue (ft)	22	130	240	141	124	114	124	442	419	375
95th Queue (ft)	89	328	358	210	251	198	186	671	644	591
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	0	29	39	5					
Queuing Penalty (veh)	0	2	30	293	11					

Intersection: 1: 1300 East & Wilmington Ave, Interval #4

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	89	220	296	191	222	168	166	620	609	575
Average Queue (ft)	22	90	189	135	116	105	122	477	450	404
95th Queue (ft)	102	232	317	218	237	173	180	739	704	657
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)		1	22	35	2					
Queuing Penalty (veh)		3	20	235	4					

Intersection: 1: 1300 East & Wilmington Ave, All Intervals

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	127	360	344	196	264	227	190	677	662	617
Average Queue (ft)	19	86	196	133	105	103	115	385	362	318
95th Queue (ft)	75	234	326	208	221	180	177	618	592	544
Link Distance (ft)		1110			344	344	344	1179	1179	1179
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	0	22	34	2					
Queuing Penalty (veh)	0	1	21	237	6					

Intersection: 2: 1300 East & Simpson Avenue, Interval #1

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	236	50	9	186	204	182
Average Queue (ft)	133	21	1	47	67	62
95th Queue (ft)	311	53	20	194	225	198
Link Distance (ft)	516		268	344	344	344
Upstream Blk Time (%)	0			0		
Queuing Penalty (veh)	0			0		
Storage Bay Dist (ft)		50				
Storage Blk Time (%)		6				
Queuing Penalty (veh)		43				

Intersection: 2: 1300 East & Simpson Avenue, Interval #2

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	234	45	9	5	123	151	143
Average Queue (ft)	157	19	1	1	35	51	50
95th Queue (ft)	398	50	18	11	149	166	154
Link Distance (ft)	516		268	268	344	344	344
Upstream Blk Time (%)	10						
Queuing Penalty (veh)	0						
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		4					
Queuing Penalty (veh)		28					

Intersection: 2: 1300 East & Simpson Avenue, Interval #3

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	468	38	8	277	299	281
Average Queue (ft)	288	15	1	104	132	133
95th Queue (ft)	585	43	18	285	316	309
Link Distance (ft)	516		268	344	344	344
Upstream Blk Time (%)	22			0	0	0
Queuing Penalty (veh)	0			2	3	2
Storage Bay Dist (ft)		50				
Storage Blk Time (%)		3				
Queuing Penalty (veh)		23				

Intersection: 2: 1300 East & Simpson Avenue, Interval #4

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	534	50	9	6	273	276	278
Average Queue (ft)	502	18	1	1	103	142	151
95th Queue (ft)	626	51	20	12	284	305	309
Link Distance (ft)	516		268	268	344	344	344
Upstream Blk Time (%)	81				0	0	0
Queuing Penalty (veh)	0				2	1	1
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		5					
Queuing Penalty (veh)		36					

Intersection: 2: 1300 East & Simpson Avenue, All Intervals

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	537	59	28	11	301	324	322
Average Queue (ft)	270	18	1	0	72	98	99
95th Queue (ft)	597	50	19	8	239	268	262
Link Distance (ft)	516		268	268	344	344	344
Upstream Blk Time (%)	28				0	0	0
Queuing Penalty (veh)	0				1	1	1
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		4					
Queuing Penalty (veh)		32					

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	242	172	161	183	327	210	306	285	231	29	281	287
Average Queue (ft)	172	100	105	104	203	121	237	206	152	4	233	252
95th Queue (ft)	296	199	167	190	361	217	323	296	247	61	312	317
Link Distance (ft)	433		403	403	403		1226	1226	1226		268	268
Upstream Blk Time (%)	0				1	2					5	12
Queuing Penalty (veh)	0				0	0					42	95
Storage Bay Dist (ft)		100				250				190		
Storage Blk Time (%)	40	4				0	4		2			
Queuing Penalty (veh)	77	6				0	8		7			

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	290	250
Average Queue (ft)	250	224
95th Queue (ft)	317	283
Link Distance (ft)	268	
Upstream Blk Time (%)	9	0
Queuing Penalty (veh)	76	0
Storage Bay Dist (ft)		170
Storage Blk Time (%)	36	26
Queuing Penalty (veh)	228	155

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	216	164	197	219	294	224	309	270	226	277	294	294
Average Queue (ft)	137	82	116	130	206	133	254	226	162	230	252	255
95th Queue (ft)	231	171	207	289	394	244	331	288	265	301	325	321
Link Distance (ft)	433		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)			0	1	7					4	9	8
Queuing Penalty (veh)			0	0	0					35	71	63
Storage Bay Dist (ft)	100				250							
Storage Blk Time (%)	36	2				0	5		1			33
Queuing Penalty (veh)	69	3				0	9		6			213

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	SB
Directions Served	TR
Maximum Queue (ft)	250
Average Queue (ft)	224
95th Queue (ft)	280
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	25
Queuing Penalty (veh)	149

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	309	191	163	285	405	247	334	329	251	28	284	299
Average Queue (ft)	207	127	108	155	301	139	263	239	181	4	258	272
95th Queue (ft)	394	229	172	343	461	248	347	333	279	59	308	318
Link Distance (ft)	433		403	403			1226	1226	1226		268	268
Upstream Blk Time (%)	3			4	14						19	29
Queuing Penalty (veh)	0			0	0						174	259
Storage Bay Dist (ft)		100				250				190		
Storage Blk Time (%)	51	8				0	8		3			
Queuing Penalty (veh)	110	14				0	18		15			

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	306	250
Average Queue (ft)	273	242
95th Queue (ft)	314	268
Link Distance (ft)	268	
Upstream Blk Time (%)	22	0
Queuing Penalty (veh)	203	0
Storage Bay Dist (ft)		170
Storage Blk Time (%)	46	36
Queuing Penalty (veh)	328	236

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	T	T	T
Maximum Queue (ft)	313	177	171	230	323	160	311	278	232	285	296	299
Average Queue (ft)	189	108	107	135	225	106	258	223	169	267	277	279
95th Queue (ft)	397	215	175	331	428	177	324	297	260	299	298	303
Link Distance (ft)	433		403	403	403		1226	1226	1226	268	268	268
Upstream Blk Time (%)	5			2	13					19	28	25
Queuing Penalty (veh)	0			0	0					150	229	200
Storage Bay Dist (ft)	100				250							
Storage Blk Time (%)	47	7				5			1			45
Queuing Penalty (veh)	91	12				9			5			292

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	SB
Directions Served	TR
Maximum Queue (ft)	250
Average Queue (ft)	245
95th Queue (ft)	264
Link Distance (ft)	
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	170
Storage Blk Time (%)	39
Queuing Penalty (veh)	232

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	361	200	214	329	428	293	355	338	264	57	292	307
Average Queue (ft)	177	104	109	131	234	125	253	223	166	2	247	263
95th Queue (ft)	342	207	181	297	424	225	333	307	264	42	313	321
Link Distance (ft)	433		403	403			1226	1226	1226		268	268
Upstream Blk Time (%)	2		0	2	9						12	19
Queuing Penalty (veh)	0		0	0	0						100	163
Storage Bay Dist (ft)		100				250				190		
Storage Blk Time (%)	43	5				0	5		2			
Queuing Penalty (veh)	87	8				0	11		8			

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	312	250
Average Queue (ft)	265	234
95th Queue (ft)	321	281
Link Distance (ft)	268	
Upstream Blk Time (%)	16	0
Queuing Penalty (veh)	136	0
Storage Bay Dist (ft)		170
Storage Blk Time (%)	40	31
Queuing Penalty (veh)	265	193

Intersection: 4: Highland Drive & Simpson Ave, Interval #1

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	107	151	125	136	144	148	100	186	160
Average Queue (ft)	66	87	68	80	89	91	48	106	78
95th Queue (ft)	115	164	146	143	152	157	97	184	162
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)		0					65		
Queuing Penalty (veh)		0					5	14	
Storage Bay Dist (ft)	60			100					
Storage Blk Time (%)	14	10	1	3			17	16	
Queuing Penalty (veh)	29	15	3	3					

Intersection: 4: Highland Drive & Simpson Ave, Interval #2

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	108	160	128	136	152	156	108	177	128
Average Queue (ft)	61	82	64	75	86	94	51	103	68
95th Queue (ft)	114	171	136	137	158	161	106	188	131
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	13	13	3	4			6	11	
Queuing Penalty (veh)	27	19	6	4			23	13	

Intersection: 4: Highland Drive & Simpson Ave, Interval #3

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	113	166	175	150	162	175	114	217	179
Average Queue (ft)	72	95	79	86	99	106	62	130	94
95th Queue (ft)	126	175	175	157	177	185	121	233	190
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)					0	0		0	
Queuing Penalty (veh)					0	0		0	
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	17	15	4	6			11	15	
Queuing Penalty (veh)	40	25	9	6			46	19	

Intersection: 4: Highland Drive & Simpson Ave, Interval #4

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	102	131	97	123	151	162	117	183	144
Average Queue (ft)	62	76	54	72	91	97	62	103	79
95th Queue (ft)	110	140	106	135	159	169	120	184	148
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	17	10	1	4			11	12	
Queuing Penalty (veh)	34	15	2	4			39	13	

Intersection: 4: Highland Drive & Simpson Ave, All Intervals

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	119	194	191	176	184	203	129	252	207
Average Queue (ft)	65	85	66	78	91	97	56	111	80
95th Queue (ft)	117	164	144	144	162	169	112	200	160
Link Distance (ft)		269	419		251	251		376	376
Upstream Blk Time (%)		0			0	0		0	
Queuing Penalty (veh)		0			0	0		0	
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	15	12	2	4			8	13	
Queuing Penalty (veh)	33	18	5	4			31	15	

Intersection: 5: Highland Drive & Stringham Ave, Interval #1

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	TR	LT	T
Maximum Queue (ft)	66	2	7	119	75
Average Queue (ft)	32	0	1	50	15
95th Queue (ft)	71	5	9	120	74
Link Distance (ft)	518	123	123	251	251
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 5: Highland Drive & Stringham Ave, Interval #2

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	54	2	114	47
Average Queue (ft)	28	0	51	10
95th Queue (ft)	60	5	120	62
Link Distance (ft)	518	123	251	251
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Highland Drive & Stringham Ave, Interval #3

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	77	6	134	96
Average Queue (ft)	36	1	60	23
95th Queue (ft)	80	9	142	109
Link Distance (ft)	518	123	251	251
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Highland Drive & Stringham Ave, Interval #4

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	62	2	142	98
Average Queue (ft)	28	0	64	19
95th Queue (ft)	62	4	149	96
Link Distance (ft)	518	123	251	251
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Highland Drive & Stringham Ave, All Intervals

Movement	WB	NB	NB	SB	SB
Directions Served	LR	T	TR	LT	T
Maximum Queue (ft)	94	2	16	176	152
Average Queue (ft)	31	0	1	56	17
95th Queue (ft)	69	2	7	134	87
Link Distance (ft)	518	123	123	251	251
Upstream Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 6: Highland Drive & Ashton Ave, Interval #1

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	280	156	143	76	2	27
Average Queue (ft)	217	75	117	58	0	8
95th Queue (ft)	449	214	175	110	5	28
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)	31		9			
Queuing Penalty (veh)	0		75			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	67	1	22			
Queuing Penalty (veh)	101	0	76			

Intersection: 6: Highland Drive & Ashton Ave, Interval #2

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	355	185	150	76	7	30
Average Queue (ft)	281	90	124	65	1	10
95th Queue (ft)	498	242	177	108	10	34
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)	45		13			
Queuing Penalty (veh)	0		111			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	85	5	25			
Queuing Penalty (veh)	129	3	86			

Intersection: 6: Highland Drive & Ashton Ave, Interval #3

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	410	200	147	76	7	21
Average Queue (ft)	378	72	129	69	1	5
95th Queue (ft)	466	226	177	104	7	23
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)	87		20			
Queuing Penalty (veh)	0		184			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	99	2	33			
Queuing Penalty (veh)	165	2	126			

Intersection: 6: Highland Drive & Ashton Ave, Interval #4

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	418	200	143	76	12	26
Average Queue (ft)	398	125	108	53	2	5
95th Queue (ft)	419	279	180	110	15	23
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)	98		8			
Queuing Penalty (veh)	0		69			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	100	7	19			
Queuing Penalty (veh)	150	5	66			

Intersection: 6: Highland Drive & Ashton Ave, All Intervals

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	425	200	152	76	20	41
Average Queue (ft)	319	91	120	61	1	7
95th Queue (ft)	524	244	179	110	10	27
Link Distance (ft)	383		136		123	123
Upstream Blk Time (%)	65		13			
Queuing Penalty (veh)	0		110			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	88	4	25			
Queuing Penalty (veh)	136	2	88			

Intersection: 7: Highland Drive & South Access, Interval #1

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	33	302	70
Average Queue (ft)	14	98	22
95th Queue (ft)	50	319	69
Link Distance (ft)	480	857	136
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Highland Drive & South Access, Interval #2

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	41	380	65	13
Average Queue (ft)	18	152	19	2
95th Queue (ft)	48	430	68	20
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #3

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	58	645	70	16
Average Queue (ft)	27	354	16	2
95th Queue (ft)	68	820	61	24
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)		5		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #4

Movement	WB	NB	SB
Directions Served	LR	TR	LT
Maximum Queue (ft)	43	394	41
Average Queue (ft)	17	154	12
95th Queue (ft)	54	479	46
Link Distance (ft)	480	857	136
Upstream Blk Time (%)		1	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: Highland Drive & South Access, All Intervals

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	70	672	88	21
Average Queue (ft)	19	189	17	1
95th Queue (ft)	56	561	62	15
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)		2		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 1303

Network wide Queuing Penalty, Interval #2: 1293

Network wide Queuing Penalty, Interval #3: 2346

Network wide Queuing Penalty, Interval #4: 1919

Network wide Queuing Penalty, All Intervals: 1715

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2040) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Wilmington Ave

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	220	211	96	43.6	D
	T	2,162	2,128	98	6.3	A
	Subtotal	2,382	2,339	98	9.7	A
SB	T	2,089	2,006	96	82.2	F
	R	120	117	97	74.4	E
	Subtotal	2,209	2,123	96	81.8	F
EB	L	95	92	97	43.6	D
	R	420	418	99	39.3	D
	Subtotal	515	510	99	40.1	D
Total			5,106	4,972	97	44.3
						D

Intersection: 1300 East & Simpson Avenue

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	27	24	90	33.6	D
	T	2,383	2,338	98	2.3	A
	Subtotal	2,410	2,362	98	2.6	A
SB	T	2,392	2,304	96	18.1	C
	R	119	112	94	14.6	B
	Subtotal	2,511	2,416	96	17.9	C
EB	R	167	57	34	871.7	F
	Subtotal	167	57	34	871.7	F
Total			5,088	4,835	95	24.7
						C

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2040) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: 1300 East & Stringham Ave/I-80 Exit

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	309	304	98	135.3	F
	T	1,702	1,686	99	25.3	C
	R	420	418	99	6.2	A
	Subtotal	2,431	2,408	99	35.9	D
SB	T	2,478	2,281	92	46.6	D
	R	80	77	96	38.9	D
	Subtotal	2,558	2,358	92	46.3	D
EB	L	247	227	92	98.8	F
	R	557	539	97	66.2	E
	Subtotal	804	766	95	75.9	E
WB	L	190	187	99	53.9	D
	T	174	170	98	62.8	E
	R	460	448	97	63.6	E
	Subtotal	824	805	98	61.2	E
Total		6,618	6,337	96	54.8	D

Intersection: Highland Drive & Simpson Ave

Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	38	36	95	20.8	C
	T	724	711	98	9.4	A
	R	60	56	94	6.0	A
	Subtotal	822	803	98	9.7	A
SB	L	122	123	101	26.8	C
	T	780	767	98	8.6	A
	R	22	21	97	3.8	A
	Subtotal	924	911	99	10.9	B
EB	L	151	151	100	27.3	C
	T	63	67	107	24.3	C
	R	151	157	104	12.1	B
	Subtotal	365	375	103	20.4	C
WB	L	95	97	102	29.8	C
	T	44	44	99	22.9	C
	R	175	180	103	11.3	B
	Subtotal	314	321	102	18.5	B
Total		2,424	2,410	99	13.0	B

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2040) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & Stringham Ave

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	738	723	98	1.1	A
	R	47	46	97	0.6	A
	Subtotal	785	769	98	1.1	A
SB	L	99	95	96	12.2	B
	T	927	926	100	2.9	A
	Subtotal	1,026	1,021	100	3.8	A
<i>WB</i>	L	45	41	91	52.9	F
	R	84	81	96	4.6	A
	Subtotal	129	122	95	20.8	C
Total		1,940	1,912	99	3.8	A

Intersection: Highland Drive & Ashton Ave

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	152	146	96	16.4	C
	T	715	728	102	7.3	A
	Subtotal	867	874	101	8.8	A
SB	T	827	822	99	1.1	A
	R	145	145	100	0.7	A
	Subtotal	972	967	99	1.0	A
<i>EB</i>	L	69	41	59	547.4	F
	R	155	114	73	98.8	F
	Subtotal	224	155	69	217.5	F
Total		2,064	1,996	97	24.4	C

SimTraffic LOS Report

Project: Sugarhouse - Shopko Redevelopment TIS

Analysis Period: Future (2040) Plus Project

Time Period: Evening Peak Hour

Project #: UT16-965

Intersection: Highland Drive & South Access

Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	846	850	101	16.2	C
	R	31	31	100	14.0	B
	Subtotal	877	881	100	16.1	C
SB	L	23	21	92	10.1	B
	T	960	915	95	0.7	A
	Subtotal	983	936	95	0.9	A
WB	L	19	20	107	72.0	F
	R	21	22	106	69.9	F
	Subtotal	40	42	105	70.9	F
Total		1,899	1,859	98	9.8	A

1: 1300 East & Wilmington Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.1	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	0.8	0.6	0.9	3.6	0.2	6.4
Total Del/Veh (s)	39.8	27.7	42.2	6.1	25.1	19.7	18.4
Vehicles Entered	23	102	50	505	494	29	1203
Vehicles Exited	24	105	54	506	470	27	1186
Hourly Exit Rate	96	420	216	2024	1880	108	4744
Input Volume	92	408	214	2099	2028	117	4958
% of Volume	104	103	101	96	93	92	96

1: 1300 East & Wilmington Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	0.2	0.3	0.4
Total Delay (hr)	0.3	1.0	0.6	0.9	6.7	0.3	9.8
Total Del/Veh (s)	41.7	33.6	41.9	5.6	43.2	29.9	26.4
Vehicles Entered	22	103	51	546	518	30	1270
Vehicles Exited	20	97	48	545	523	30	1263
Hourly Exit Rate	80	388	192	2180	2092	120	5052
Input Volume	92	408	214	2099	2028	117	4958
% of Volume	87	95	90	104	103	103	102

1: 1300 East & Wilmington Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	0.4	0.0	0.5
Denied Del/Veh (s)	1.1	3.2	0.0	0.0	2.3	2.3	1.3
Total Delay (hr)	0.3	1.5	0.7	1.2	15.2	0.8	19.6
Total Del/Veh (s)	37.7	43.4	43.3	7.7	90.9	82.0	50.6
Vehicles Entered	25	112	53	546	562	34	1332
Vehicles Exited	25	117	56	543	488	28	1257
Hourly Exit Rate	100	468	224	2172	1952	112	5028
Input Volume	103	457	239	2350	2271	130	5550
% of Volume	97	102	94	92	86	86	91

1: 1300 East & Wilmington Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.1	0.0	0.0	1.6	0.1	1.8
Denied Del/Veh (s)	1.0	3.3	0.0	0.0	11.5	11.5	5.3
Total Delay (hr)	0.3	1.4	0.6	0.9	22.5	1.3	26.9
Total Del/Veh (s)	46.7	44.1	41.0	5.7	130.3	126.3	69.8
Vehicles Entered	23	105	55	529	508	28	1248
Vehicles Exited	22	99	53	534	526	31	1265
Hourly Exit Rate	88	396	212	2136	2104	124	5060
Input Volume	92	408	214	2099	2028	117	4958
% of Volume	96	97	99	102	104	106	102

1: 1300 East & Wilmington Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.4	0.0	0.0	2.1	0.1	2.6
Denied Del/Veh (s)	1.0	3.2	0.0	0.0	3.5	3.4	1.8
Total Delay (hr)	1.1	4.7	2.6	3.8	48.0	2.5	62.7
Total Del/Veh (s)	43.6	39.3	43.6	6.3	82.2	74.4	44.3
Vehicles Entered	92	422	210	2126	2082	122	5054
Vehicles Exited	92	418	211	2128	2006	117	4972
Hourly Exit Rate	92	418	211	2128	2006	117	4972
Input Volume	95	420	220	2162	2089	120	5106
% of Volume	97	99	96	98	96	97	97

2: 1300 East & Simpson Avenue Performance by movement Interval #1 5:00

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.9	0.0	0.0	0.0	0.0	0.9
Denied Del/Veh (s)	82.5	0.0	0.0	0.0	0.0	2.9
Total Delay (hr)	3.4	0.1	0.3	1.9	0.1	5.8
Total Del/Veh (s)	283.0	35.1	2.2	12.2	8.9	17.3
Vehicles Entered	32	6	553	548	27	1166
Vehicles Exited	28	6	555	561	28	1178
Hourly Exit Rate	112	24	2220	2244	112	4712
Input Volume	162	26	2314	2322	116	4940
% of Volume	69	92	96	97	97	95

2: 1300 East & Simpson Avenue Performance by movement Interval #2 5:15

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	4.5	0.0	0.0	0.0	0.0	4.5
Denied Del/Veh (s)	335.8	0.0	0.0	0.0	0.0	12.7
Total Delay (hr)	4.5	0.1	0.4	2.9	0.1	8.0
Total Del/Veh (s)	467.1	30.8	2.4	17.7	14.1	22.8
Vehicles Entered	20	7	599	591	29	1246
Vehicles Exited	14	7	598	572	28	1219
Hourly Exit Rate	56	28	2392	2288	112	4876
Input Volume	162	26	2314	2322	116	4940
% of Volume	35	108	103	99	97	99

2: 1300 East & Simpson Avenue Performance by movement Interval #3 5:30

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	11.1	0.0	0.0	0.0	0.0	11.1
Denied Del/Veh (s)	539.8	0.0	0.0	0.0	0.1	31.1
Total Delay (hr)	5.7	0.1	0.4	3.2	0.1	9.5
Total Del/Veh (s)	644.4	32.9	2.5	19.2	15.3	27.0
Vehicles Entered	10	6	600	578	27	1221
Vehicles Exited	8	6	600	591	27	1232
Hourly Exit Rate	32	24	2400	2364	108	4928
Input Volume	182	29	2590	2600	129	5530
% of Volume	18	83	93	91	84	89

2: 1300 East & Simpson Avenue Performance by movement Interval #4 5:45

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	20.4	0.0	0.0	0.0	0.0	20.4
Denied Del/Veh (s)	705.7	0.0	0.0	0.0	0.0	55.6
Total Delay (hr)	6.0	0.1	0.4	3.6	0.2	10.2
Total Del/Veh (s)	692.5	35.9	2.3	21.4	19.3	28.9
Vehicles Entered	7	6	584	595	30	1222
Vehicles Exited	7	6	585	580	29	1207
Hourly Exit Rate	28	24	2340	2320	116	4828
Input Volume	162	26	2314	2322	116	4940
% of Volume	17	92	101	100	100	98

2: 1300 East & Simpson Avenue Performance by movement Entire Run

Movement	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	36.9	0.0	0.0	0.0	0.0	36.9
Denied Del/Veh (s)	795.5	0.0	0.0	0.0	0.0	26.8
Total Delay (hr)	19.6	0.2	1.5	11.7	0.5	33.5
Total Del/Veh (s)	871.7	33.6	2.3	18.1	14.6	24.7
Vehicles Entered	70	25	2336	2312	112	4855
Vehicles Exited	57	24	2338	2304	112	4835
Hourly Exit Rate	57	24	2338	2304	112	4835
Input Volume	167	27	2383	2392	119	5088
% of Volume	34	90	98	96	94	95

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #1 5:00

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.2	0.3	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.7
Denied Del/Veh (s)	10.3	8.0	1.7	1.5	1.7	1.7	0.4	1.6	0.0	0.0	1.6
Total Delay (hr)	1.2	1.5	0.6	0.7	1.5	2.1	2.3	0.2	6.7	0.2	17.0
Total Del/Veh (s)	66.7	37.6	47.2	55.8	45.2	88.4	20.1	5.4	41.2	30.2	37.4
Vehicles Entered	58	133	44	39	110	78	404	101	568	20	1555
Vehicles Exited	62	138	47	42	114	72	382	100	541	20	1518
Hourly Exit Rate	248	552	188	168	456	288	1528	400	2164	80	6072
Input Volume	240	541	184	169	447	300	1653	408	2406	78	6426
% of Volume	103	102	102	99	102	96	92	98	90	103	94

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #2 5:15

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.3	0.6	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.1
Denied Del/Veh (s)	17.5	16.5	1.1	1.0	1.5	1.8	0.5	1.6	0.0	0.0	2.6
Total Delay (hr)	1.5	2.2	0.7	0.7	1.3	2.6	2.6	0.2	7.5	0.2	19.5
Total Del/Veh (s)	92.8	56.0	50.4	54.9	40.4	104.2	20.3	5.7	44.2	37.8	41.3
Vehicles Entered	57	135	48	42	112	75	429	105	567	19	1589
Vehicles Exited	51	127	45	39	108	78	448	104	593	20	1613
Hourly Exit Rate	204	508	180	156	432	312	1792	416	2372	80	6452
Input Volume	240	541	184	169	447	300	1653	408	2406	78	6426
% of Volume	85	94	98	92	97	104	108	102	99	103	100

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #3 5:30

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	1.4	3.5	0.2	0.2	0.4	0.1	0.1	0.1	0.0	0.0	5.9
Denied Del/Veh (s)	74.3	74.2	13.6	11.7	11.9	2.3	1.1	2.1	0.0	0.0	12.4
Total Delay (hr)	1.9	3.1	0.8	0.9	2.5	3.0	3.3	0.2	7.7	0.2	23.7
Total Del/Veh (s)	97.3	70.1	54.6	64.7	70.5	114.3	25.6	6.5	46.7	40.8	48.7
Vehicles Entered	60	143	50	47	119	85	453	111	579	19	1666
Vehicles Exited	61	142	53	49	116	72	428	110	548	18	1597
Hourly Exit Rate	244	568	212	196	464	288	1712	440	2192	72	6388
Input Volume	268	605	207	189	500	336	1850	457	2693	87	7192
% of Volume	91	94	102	104	93	86	93	96	81	83	89

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Interval #4 5:45

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	2.2	5.4	0.5	0.5	1.4	0.2	1.1	0.4	0.0	0.0	11.7
Denied Del/Veh (s)	125.2	124.1	37.8	38.3	43.2	10.2	9.4	12.0	0.0	0.0	26.1
Total Delay (hr)	1.8	3.5	0.7	0.8	2.9	4.4	3.7	0.2	7.8	0.2	26.1
Total Del/Veh (s)	107.0	82.9	55.6	66.2	85.3	156.6	30.2	6.4	45.9	39.4	54.8
Vehicles Entered	54	135	47	43	112	76	404	103	568	19	1561
Vehicles Exited	53	132	43	41	109	81	427	103	599	19	1607
Hourly Exit Rate	212	528	172	164	436	324	1708	412	2396	76	6428
Input Volume	240	541	184	169	447	300	1653	408	2406	78	6426
% of Volume	88	98	93	97	98	108	103	101	100	97	100

3: 1300 East & Stringham Ave/I-80 Exit Performance by movement Entire Run

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	4.1	9.8	0.7	0.7	1.9	0.3	1.3	0.5	0.0	0.0	19.4
Denied Del/Veh (s)	62.1	62.1	14.1	13.8	15.2	4.0	2.8	4.3	0.0	0.0	10.9
Total Delay (hr)	6.5	10.3	2.9	3.1	8.1	12.1	12.0	0.7	29.7	0.8	86.2
Total Del/Veh (s)	98.8	66.2	53.9	62.8	63.6	135.3	25.3	6.2	46.6	38.9	48.2
Vehicles Entered	228	546	189	172	452	314	1691	419	2282	77	6370
Vehicles Exited	227	539	187	170	448	304	1686	418	2281	77	6337
Hourly Exit Rate	227	539	187	170	448	304	1686	418	2281	77	6337
Input Volume	247	557	190	174	460	309	1702	420	2478	80	6618
% of Volume	92	97	99	98	97	98	99	99	92	96	96

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.7	0.6	0.8	3.8	3.6	0.0	0.0	0.0	2.9	0.3	0.4
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.2	0.1	0.5	0.0	0.2	0.4	0.0
Total Del/Veh (s)	27.5	24.9	13.2	31.3	25.2	12.0	19.7	9.1	5.9	24.1	8.1	3.2
Vehicles Entered	36	17	35	22	12	47	10	177	14	28	183	5
Vehicles Exited	35	17	36	22	12	46	9	180	15	28	186	5
Hourly Exit Rate	140	68	144	88	48	184	36	720	60	112	744	20
Input Volume	147	61	147	92	43	170	37	703	58	118	757	21
% of Volume	95	111	98	96	112	108	97	102	103	95	98	95

4: Highland Drive & Simpson Ave Performance by movement Interval #1 5:00

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	2.1
Total Del/Veh (s)	12.7
Vehicles Entered	586
Vehicles Exited	591
Hourly Exit Rate	2364
Input Volume	2354
% of Volume	100

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.6	0.7	0.8	3.4	3.7	0.0	0.0	0.0	2.8	0.3	0.5
Total Delay (hr)	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.0	0.2	0.4	0.0
Total Del/Veh (s)	25.2	25.9	12.0	26.6	20.7	10.0	21.6	8.7	6.1	24.3	8.3	2.5
Vehicles Entered	37	15	39	20	12	42	10	174	13	30	186	5
Vehicles Exited	36	14	38	19	11	41	10	176	13	31	186	6
Hourly Exit Rate	144	56	152	76	44	164	40	704	52	124	744	24
Input Volume	147	61	147	92	43	170	37	703	58	118	757	21
% of Volume	98	92	103	83	102	96	108	100	90	105	98	114

4: Highland Drive & Simpson Ave Performance by movement Interval #2 5:15

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	2.0
Total Del/Veh (s)	12.2
Vehicles Entered	583
Vehicles Exited	581
Hourly Exit Rate	2324
Input Volume	2354
% of Volume	99

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.5	0.8	0.9	0.7	3.9	3.6	0.0	0.0	0.0	2.8	0.3	0.3
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.2	0.1	0.5	0.0	0.3	0.5	0.0
Total Del/Veh (s)	25.0	19.5	11.2	28.2	19.9	11.8	20.3	10.6	6.0	31.6	9.4	3.9
Vehicles Entered	42	19	44	28	11	47	9	181	16	36	208	6
Vehicles Exited	44	20	44	30	12	49	8	177	15	35	203	6
Hourly Exit Rate	176	80	176	120	48	196	32	708	60	140	812	24
Input Volume	164	68	164	103	48	190	41	786	65	133	848	24
% of Volume	107	118	107	117	100	103	78	90	92	105	96	100

4: Highland Drive & Simpson Ave Performance by movement Interval #3 5:30

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.9
Total Delay (hr)	2.5
Total Del/Veh (s)	13.8
Vehicles Entered	647
Vehicles Exited	643
Hourly Exit Rate	2572
Input Volume	2634
% of Volume	98

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	EBL	EBT	EBC	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.6	0.6	0.7	0.8	3.8	3.7	0.0	0.0	0.0	2.9	0.3	0.4
Total Delay (hr)	0.3	0.1	0.1	0.2	0.1	0.1	0.0	0.5	0.0	0.2	0.4	0.0
Total Del/Veh (s)	27.8	23.7	11.7	30.4	21.8	10.0	18.9	8.9	5.7	23.3	7.8	5.1
Vehicles Entered	36	16	39	26	9	44	8	178	13	29	190	5
Vehicles Exited	36	16	39	26	10	44	8	179	13	29	192	5
Hourly Exit Rate	144	64	156	104	40	176	32	716	52	116	768	20
Input Volume	147	61	147	92	43	170	37	703	58	118	757	21
% of Volume	98	105	106	113	93	104	86	102	90	98	101	95

4: Highland Drive & Simpson Ave Performance by movement Interval #4 5:45

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.9
Total Delay (hr)	2.1
Total Del/Veh (s)	12.3
Vehicles Entered	593
Vehicles Exited	597
Hourly Exit Rate	2388
Input Volume	2354
% of Volume	101

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.0
Denied Del/Veh (s)	3.6	0.7	0.7	0.7	3.6	3.7	0.0	0.0	0.0	2.8	0.3	0.4
Total Delay (hr)	1.2	0.5	0.5	0.8	0.3	0.6	0.2	1.9	0.1	0.9	1.8	0.0
Total Del/Veh (s)	27.3	24.3	12.1	29.8	22.9	11.3	20.8	9.4	6.0	26.8	8.6	3.8
Vehicles Entered	151	67	158	96	45	180	36	711	57	123	767	21
Vehicles Exited	151	67	157	97	44	180	36	711	56	123	767	21
Hourly Exit Rate	151	67	157	97	44	180	36	711	56	123	767	21
Input Volume	151	63	151	95	44	175	38	724	60	122	780	22
% of Volume	100	107	104	102	99	103	95	98	94	101	98	97

4: Highland Drive & Simpson Ave Performance by movement Entire Run

Movement	All
Denied Delay (hr)	0.6
Denied Del/Veh (s)	0.9
Total Delay (hr)	8.8
Total Del/Veh (s)	13.0
Vehicles Entered	2412
Vehicles Exited	2410
Hourly Exit Rate	2410
Input Volume	2424
% of Volume	99

5: Highland Drive & Stringham Ave Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.1	0.3	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	0.0	0.1	0.0	0.1	0.2	0.5
Total Del/Veh (s)	40.7	3.7	1.1	0.5	13.9	2.9	3.6
Vehicles Entered	10	21	180	11	22	222	466
Vehicles Exited	10	21	180	12	21	223	467
Hourly Exit Rate	40	84	720	48	84	892	1868
Input Volume	44	82	716	46	96	900	1884
% of Volume	91	102	101	104	88	99	99

5: Highland Drive & Stringham Ave Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.9	0.2	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.2	0.0	0.1	0.0	0.1	0.2	0.5
Total Del/Veh (s)	52.6	6.8	1.1	0.6	11.7	3.0	4.0
Vehicles Entered	10	19	178	14	23	220	464
Vehicles Exited	10	19	178	14	24	221	466
Hourly Exit Rate	40	76	712	56	96	884	1864
Input Volume	44	82	716	46	96	900	1884
% of Volume	91	93	99	122	100	98	99

5: Highland Drive & Stringham Ave Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.7	0.3	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.1	0.0	0.1	0.0	0.1	0.2	0.5
Total Del/Veh (s)	37.8	4.0	1.1	0.5	10.7	3.0	3.4
Vehicles Entered	10	21	186	10	25	252	504
Vehicles Exited	10	21	185	10	24	252	502
Hourly Exit Rate	40	84	740	40	96	1008	2008
Input Volume	49	91	802	51	108	1008	2109
% of Volume	82	92	92	78	89	100	95

5: Highland Drive & Stringham Ave Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	3.9	0.3	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.2	0.0	0.1	0.0	0.1	0.2	0.6
Total Del/Veh (s)	63.7	3.7	1.0	0.6	11.8	2.8	4.1
Vehicles Entered	11	20	180	11	26	232	480
Vehicles Exited	11	20	180	11	26	230	478
Hourly Exit Rate	44	80	720	44	104	920	1912
Input Volume	44	82	716	46	96	900	1884
% of Volume	100	98	101	96	108	102	101

5: Highland Drive & Stringham Ave Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	4.0	0.3	0.0	0.0	0.0	0.0	0.1
Total Delay (hr)	0.6	0.1	0.2	0.0	0.3	0.8	2.0
Total Del/Veh (s)	52.9	4.6	1.1	0.6	12.2	2.9	3.8
Vehicles Entered	40	81	724	46	95	926	1912
Vehicles Exited	41	81	723	46	95	926	1912
Hourly Exit Rate	41	81	723	46	95	926	1912
Input Volume	45	84	738	47	99	927	1940
% of Volume	91	96	98	97	96	100	99

6: Highland Drive & Ashton Ave Performance by movement Interval #1 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.2	0.5	0.0	0.0	0.0	0.0	0.6
Denied Del/Veh (s)	37.0	45.4	0.1	0.0	0.0	0.0	4.6
Total Delay (hr)	1.2	0.3	0.1	0.3	0.1	0.0	2.0
Total Del/Veh (s)	232.1	33.6	14.4	6.8	1.1	0.7	14.6
Vehicles Entered	14	35	36	177	196	37	495
Vehicles Exited	14	34	36	177	195	37	493
Hourly Exit Rate	56	136	144	708	780	148	1972
Input Volume	67	151	148	694	803	141	2004
% of Volume	84	90	97	102	97	105	98

6: Highland Drive & Ashton Ave Performance by movement Interval #2 5:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.4	1.0	0.0	0.0	0.0	0.0	1.4
Denied Del/Veh (s)	93.0	86.9	0.0	0.0	0.0	0.0	10.2
Total Delay (hr)	1.5	0.5	0.1	0.3	0.1	0.0	2.5
Total Del/Veh (s)	276.0	49.6	14.6	6.6	1.1	0.5	17.9
Vehicles Entered	14	36	35	180	197	34	496
Vehicles Exited	12	35	35	180	198	34	494
Hourly Exit Rate	48	140	140	720	792	136	1976
Input Volume	67	151	148	694	803	141	2004
% of Volume	72	93	95	104	99	96	99

6: Highland Drive & Ashton Ave Performance by movement Interval #3 5:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	1.3	3.3	0.0	0.0	0.0	0.0	4.6
Denied Del/Veh (s)	232.1	227.9	0.0	0.0	0.0	0.0	29.3
Total Delay (hr)	2.4	1.1	0.2	0.5	0.1	0.0	4.2
Total Del/Veh (s)	517.1	131.1	18.3	8.5	1.2	0.8	28.2
Vehicles Entered	10	26	40	190	222	39	527
Vehicles Exited	5	24	40	191	222	39	521
Hourly Exit Rate	20	96	160	764	888	156	2084
Input Volume	75	168	165	779	899	158	2244
% of Volume	27	57	97	98	99	99	93

6: Highland Drive & Ashton Ave Performance by movement Interval #4 5:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	3.2	8.4	0.0	0.0	0.0	0.0	11.6
Denied Del/Veh (s)	483.5	504.2	0.0	0.1	0.0	0.0	77.5
Total Delay (hr)	2.8	1.4	0.2	0.4	0.1	0.0	4.8
Total Del/Veh (s)	488.2	180.7	16.8	7.1	1.0	0.7	34.1
Vehicles Entered	9	23	34	181	207	34	488
Vehicles Exited	10	21	35	180	208	34	488
Hourly Exit Rate	40	84	140	720	832	136	1952
Input Volume	67	151	148	694	803	141	2004
% of Volume	60	56	95	104	104	96	97

6: Highland Drive & Ashton Ave Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	5.1	13.2	0.0	0.0	0.0	0.0	18.3
Denied Del/Veh (s)	290.3	302.4	0.0	0.0	0.0	0.0	31.9
Total Delay (hr)	7.9	3.3	0.7	1.5	0.3	0.0	13.7
Total Del/Veh (s)	547.4	98.8	16.4	7.3	1.1	0.7	24.4
Vehicles Entered	48	120	146	728	822	145	2009
Vehicles Exited	41	114	146	728	822	145	1996
Hourly Exit Rate	41	114	146	728	822	145	1996
Input Volume	69	155	152	715	827	145	2064
% of Volume	59	73	96	102	99	100	97

7: Highland Drive & South Access Performance by movement Interval #1 5:00

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.2	1.2	1.2	0.0	0.0	0.6
Total Delay (hr)	0.1	0.1	0.8	0.0	0.0	0.1	1.1
Total Del/Veh (s)	65.6	61.7	13.6	12.2	11.2	0.8	8.5
Vehicles Entered	5	5	203	7	6	222	448
Vehicles Exited	5	5	207	7	6	222	452
Hourly Exit Rate	20	20	828	28	24	888	1808
Input Volume	18	20	821	30	22	932	1843
% of Volume	111	100	101	93	109	95	98

7: Highland Drive & South Access Performance by movement Interval #2 5:15

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.8	0.7	0.0	0.0	0.4
Total Delay (hr)	0.1	0.1	0.6	0.0	0.0	0.1	0.8
Total Del/Veh (s)	51.3	48.0	9.5	7.7	11.6	0.9	6.2
Vehicles Entered	5	6	213	8	6	227	465
Vehicles Exited	4	6	210	8	6	227	461
Hourly Exit Rate	16	24	840	32	24	908	1844
Input Volume	18	20	821	30	22	932	1843
% of Volume	89	120	102	107	109	97	100

7: Highland Drive & South Access Performance by movement Interval #3 5:30

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.1	1.3	1.4	0.0	0.0	0.6
Total Delay (hr)	0.2	0.2	1.6	0.0	0.0	0.0	2.1
Total Del/Veh (s)	100.3	85.9	24.6	21.8	9.6	0.7	14.6
Vehicles Entered	6	6	230	8	4	242	496
Vehicles Exited	6	6	224	8	4	242	490
Hourly Exit Rate	24	24	896	32	16	968	1960
Input Volume	21	23	920	34	25	1043	2066
% of Volume	114	104	97	94	64	93	95

7: Highland Drive & South Access Performance by movement Interval #4 5:45

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	1.3	1.8	0.0	0.0	0.6
Total Delay (hr)	0.1	0.1	0.9	0.0	0.0	0.0	1.1
Total Del/Veh (s)	65.2	58.0	14.1	14.2	9.2	0.5	8.7
Vehicles Entered	5	5	206	8	4	224	452
Vehicles Exited	5	6	209	9	4	224	457
Hourly Exit Rate	20	24	836	36	16	896	1828
Input Volume	18	20	821	30	22	932	1843
% of Volume	111	120	102	120	73	96	99

7: Highland Drive & South Access Performance by movement Entire Run

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.3	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	0.1	0.1	1.1	1.3	0.0	0.0	0.5
Total Delay (hr)	0.4	0.4	3.9	0.1	0.1	0.2	5.1
Total Del/Veh (s)	72.0	69.9	16.2	14.0	10.1	0.7	9.8
Vehicles Entered	20	22	852	31	21	915	1861
Vehicles Exited	20	22	850	31	21	915	1859
Hourly Exit Rate	20	22	850	31	21	915	1859
Input Volume	19	21	846	31	23	960	1899
% of Volume	107	106	101	100	92	95	98

Total Network Performance By Interval

Interval Start	5:00	5:15	5:30	5:45	All
Denied Delay (hr)	2.6	7.4	22.3	45.8	78.1
Denied Del/Veh (s)	4.0	10.9	29.6	65.0	28.6
Total Delay (hr)	36.6	45.0	64.1	73.7	219.4
Total Del/Veh (s)	50.2	60.6	79.1	95.3	79.6
Vehicles Entered	2332	2393	2570	2326	9624
Vehicles Exited	2338	2327	2462	2343	9480
Hourly Exit Rate	9352	9308	9848	9372	9480
Input Volume	33947	33947	38001	33947	34960
% of Volume	28	27	26	28	27

Intersection: 1: 1300 East & Wilmington Ave, Interval #1

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	73	224	294	186	206	185	172	421	396	358
Average Queue (ft)	19	87	202	126	97	106	113	315	290	244
95th Queue (ft)	78	212	312	191	197	194	185	466	448	392
Link Distance (ft)		1110			332	332	332	1179	1179	1179
Upstream Blk Time (%)					0	0				
Queuing Penalty (veh)					0	0				
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	1	18	29	4					
Queuing Penalty (veh)	0	4	17	204	8					

Intersection: 1: 1300 East & Wilmington Ave, Interval #2

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	37	205	299	178	192	198	172	555	521	486
Average Queue (ft)	13	83	202	110	109	114	131	431	404	369
95th Queue (ft)	40	244	329	182	201	191	188	709	672	630
Link Distance (ft)		1110			332	332	332	1179	1179	1179
Upstream Blk Time (%)					0					
Queuing Penalty (veh)					0					
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	26	25	4						
Queuing Penalty (veh)	0	24	177	9						

Intersection: 1: 1300 East & Wilmington Ave, Interval #3

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	107	393	345	183	202	211	209	978	958	939
Average Queue (ft)	29	187	271	131	115	131	142	770	743	691
95th Queue (ft)	112	442	390	194	201	203	206	1230	1203	1175
Link Distance (ft)		1110			332	332	332	1179	1179	1179
Upstream Blk Time (%)							8	7	7	
Queuing Penalty (veh)							0	0	0	
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	1	39	31	8						
Queuing Penalty (veh)	4	40	245	20						

Intersection: 1: 1300 East & Wilmington Ave, Interval #4

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	93	347	334	179	215	179	175	1132	1104	1070
Average Queue (ft)	24	152	237	121	110	122	133	1023	1003	981
95th Queue (ft)	94	404	373	197	216	196	188	1363	1359	1358
Link Distance (ft)		1110			332	332	332	1179	1179	1179
Upstream Blk Time (%)								26	27	29
Queuing Penalty (veh)								0	0	0
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	35	27	4						
Queuing Penalty (veh)	2	32	189	8						

Intersection: 1: 1300 East & Wilmington Ave, All Intervals

Movement	EB	EB	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	168	435	350	197	271	250	213	1135	1107	1072
Average Queue (ft)	21	127	228	122	108	118	130	635	610	571
95th Queue (ft)	85	346	360	192	205	198	195	1200	1180	1155
Link Distance (ft)		1110			332	332	332	1179	1179	1179
Upstream Blk Time (%)					0	0		9	9	9
Queuing Penalty (veh)					0	0		0	0	0
Storage Bay Dist (ft)	150		150	100						
Storage Blk Time (%)	0	1	30	28	5					
Queuing Penalty (veh)	0	2	28	204	11					

Intersection: 2: 1300 East & Simpson Avenue, Interval #1

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	426	48	10	6	272	290	279
Average Queue (ft)	339	19	1	1	127	155	156
95th Queue (ft)	660	50	16	9	314	349	333
Link Distance (ft)	515		268	268	332	332	332
Upstream Blk Time (%)	42				0	1	0
Queuing Penalty (veh)	0				3	4	3
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		5	0				
Queuing Penalty (veh)		39	0				

Intersection: 2: 1300 East & Simpson Avenue, Interval #2

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	474	46	10	333	333	326
Average Queue (ft)	427	18	1	219	235	234
95th Queue (ft)	691	51	21	398	400	387
Link Distance (ft)	515		268	332	332	332
Upstream Blk Time (%)	68			1	1	1
Queuing Penalty (veh)	0			7	8	10
Storage Bay Dist (ft)		50				
Storage Blk Time (%)		4				
Queuing Penalty (veh)		28				

Intersection: 2: 1300 East & Simpson Avenue, Interval #3

Movement	EB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	TR
Maximum Queue (ft)	530	49	4	4	329	341	338
Average Queue (ft)	513	19	1	1	224	254	257
95th Queue (ft)	577	50	9	10	399	395	395
Link Distance (ft)	515		268	268	332	332	332
Upstream Blk Time (%)	90				1	1	1
Queuing Penalty (veh)	0				7	10	11
Storage Bay Dist (ft)		50					
Storage Blk Time (%)		3					
Queuing Penalty (veh)		27					

Intersection: 2: 1300 East & Simpson Avenue, Interval #4

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	TR
Maximum Queue (ft)	530	49	8	341	345	347
Average Queue (ft)	521	18	1	250	280	287
95th Queue (ft)	536	48	18	382	392	389
Link Distance (ft)	515		268	332	332	332
Upstream Blk Time (%)	100			1	2	2
Queuing Penalty (veh)	0			10	17	18
Storage Bay Dist (ft)		50				
Storage Blk Time (%)		2				
Queuing Penalty (veh)		19				

Intersection: 2: 1300 East & Simpson Avenue, All Intervals

Movement	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	R	L	T	T	T	T	T	TR
Maximum Queue (ft)	532	66	29	10	4	352	366	355
Average Queue (ft)	450	18	1	0	0	205	231	233
95th Queue (ft)	693	50	16	6	5	391	405	399
Link Distance (ft)	515		268	268	268	332	332	332
Upstream Blk Time (%)	75					1	1	1
Queuing Penalty (veh)	0					7	10	11
Storage Bay Dist (ft)		50						
Storage Blk Time (%)		4	0					
Queuing Penalty (veh)		28	0					

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	343	387	184	226	364	340	464	390	244	28	289	296
Average Queue (ft)	238	287	117	141	249	258	306	249	165	4	260	268
95th Queue (ft)	391	450	196	263	424	394	506	450	255	60	320	317
Link Distance (ft)		439	403	403	403		1225	1225	1225		268	268
Upstream Blk Time (%)		8		0	5						13	20
Queuing Penalty (veh)		0		0	0						111	164
Storage Bay Dist (ft)	200				250					190		
Storage Blk Time (%)	16	31				30	4		2			
Queuing Penalty (veh)	86	75				164	11		8			

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #1

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	288	250
Average Queue (ft)	266	238
95th Queue (ft)	311	279
Link Distance (ft)	268	
Upstream Blk Time (%)	17	0
Queuing Penalty (veh)	143	0
Storage Bay Dist (ft)		170
Storage Blk Time (%)	45	36
Queuing Penalty (veh)	309	215

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	372	442	189	246	310	343	550	514	278	29	290	299
Average Queue (ft)	284	350	116	137	211	301	410	356	186	4	273	279
95th Queue (ft)	482	557	198	252	378	407	717	638	307	61	300	305
Link Distance (ft)		439	403	403	403		1225	1225	1225		268	268
Upstream Blk Time (%)		22		0	3						22	35
Queuing Penalty (veh)		0		0	0						184	290
Storage Bay Dist (ft)	200				250					190		
Storage Blk Time (%)	25	54				43	5			2		
Queuing Penalty (veh)	134	129				235	16			9		

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #2

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	300	250
Average Queue (ft)	280	247
95th Queue (ft)	301	256
Link Distance (ft)	268	
Upstream Blk Time (%)	30	0
Queuing Penalty (veh)	247	0
Storage Bay Dist (ft)	170	
Storage Blk Time (%)	54	48
Queuing Penalty (veh)	369	288

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	400	479	230	352	418	335	643	616	440	86	288	299
Average Queue (ft)	365	427	148	253	325	280	457	411	238	12	273	281
95th Queue (ft)	479	554	277	462	497	422	918	880	587	108	300	299
Link Distance (ft)		439	403	403	403		1225	1225	1225		268	268
Upstream Blk Time (%)		52	0	10	32		5	1	0		30	42
Queuing Penalty (veh)		0	0	0	0		0	0	0		278	391
Storage Bay Dist (ft)	200					250				190		
Storage Blk Time (%)	36	72				47	7			5		
Queuing Penalty (veh)	220	193				287	23			24		

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #3

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	308	250
Average Queue (ft)	283	248
95th Queue (ft)	306	258
Link Distance (ft)	268	
Upstream Blk Time (%)	34	0
Queuing Penalty (veh)	311	0
Storage Bay Dist (ft)	170	
Storage Blk Time (%)	54	48
Queuing Penalty (veh)	412	320

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	400	476	218	350	389	341	863	829	595	58	286	301
Average Queue (ft)	381	441	121	301	332	324	675	618	330	12	277	283
95th Queue (ft)	493	556	261	527	551	415	1230	1196	811	108	289	300
Link Distance (ft)		439	403	403	403		1225	1225	1225		268	268
Upstream Blk Time (%)		64	1	17	56		10	4	0		32	44
Queuing Penalty (veh)		0	0	0	0		0	0	0		268	363
Storage Bay Dist (ft)	200					250				190		
Storage Blk Time (%)	35	83				68	3			4		
Queuing Penalty (veh)	190	198				376	8			14		

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, Interval #4

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	300	250
Average Queue (ft)	284	248
95th Queue (ft)	306	255
Link Distance (ft)	268	
Upstream Blk Time (%)	38	0
Queuing Penalty (veh)	313	0
Storage Bay Dist (ft)	170	
Storage Blk Time (%)	56	50
Queuing Penalty (veh)	377	301

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	NB	SB	SB
Directions Served	L	R	L	LT	R	L	T	T	T	R	T	T
Maximum Queue (ft)	400	485	303	386	438	350	915	873	613	172	298	311
Average Queue (ft)	317	376	125	208	279	291	462	409	230	8	271	278
95th Queue (ft)	494	564	238	419	482	418	923	875	554	87	309	310
Link Distance (ft)			439	403	403			1225	1225	1225		268
Upstream Blk Time (%)		37	0	7	24		4	1	0		25	35
Queuing Penalty (veh)		0	0	0	0		0	0	0		210	302
Storage Bay Dist (ft)	200					250				190		
Storage Blk Time (%)	28	60				47	5			3		
Queuing Penalty (veh)	157	149				266	15			14		

Intersection: 3: 1300 East & Stringham Ave/I-80 Exit, All Intervals

Movement	SB	SB
Directions Served	T	TR
Maximum Queue (ft)	316	250
Average Queue (ft)	278	245
95th Queue (ft)	310	268
Link Distance (ft)	268	
Upstream Blk Time (%)	30	0
Queuing Penalty (veh)	254	0
Storage Bay Dist (ft)	170	
Storage Blk Time (%)	52	45
Queuing Penalty (veh)	367	281

Intersection: 4: Highland Drive & Simpson Ave, Interval #1

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	102	176	126	135	178	184	112	174	138
Average Queue (ft)	66	98	68	83	106	110	60	110	75
95th Queue (ft)	111	200	136	147	182	193	118	189	156
Link Distance (ft)		269	419		240	240		376	376
Upstream Blk Time (%)		0				0			
Queuing Penalty (veh)		0				0			
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	15	12	3	7			9	13	
Queuing Penalty (veh)	32	18	7	6			34	16	

Intersection: 4: Highland Drive & Simpson Ave, Interval #2

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	115	171	110	114	170	179	99	189	138
Average Queue (ft)	67	90	47	68	97	98	54	110	71
95th Queue (ft)	126	183	97	116	176	182	107	203	158
Link Distance (ft)		269	419		240	240		376	376
Upstream Blk Time (%)		0			0	0		1	0
Queuing Penalty (veh)		0			0	0		0	0
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	13	14	1	3			7	13	
Queuing Penalty (veh)	26	20	3	2			27	16	

Intersection: 4: Highland Drive & Simpson Ave, Interval #3

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	112	189	141	137	190	182	117	190	159
Average Queue (ft)	73	101	79	81	119	128	74	129	102
95th Queue (ft)	126	186	153	142	212	204	134	200	178
Link Distance (ft)		269	419		240	240		376	376
Upstream Blk Time (%)		0			0	0			
Queuing Penalty (veh)		0			0	0			
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	18	13	4	5			19	17	
Queuing Penalty (veh)	43	21	9	6			79	23	

Intersection: 4: Highland Drive & Simpson Ave, Interval #4

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	106	165	134	124	169	170	106	178	144
Average Queue (ft)	63	87	70	73	101	104	55	103	74
95th Queue (ft)	112	171	135	133	177	175	106	186	145
Link Distance (ft)		269	419		240	240		376	376
Upstream Blk Time (%)		0			0				
Queuing Penalty (veh)		0			0				
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	16	14	5	3			7	13	
Queuing Penalty (veh)	33	20	11	2			27	15	

Intersection: 4: Highland Drive & Simpson Ave, All Intervals

Movement	EB	EB	WB	WB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	LT	TR	L	T	TR
Maximum Queue (ft)	119	235	165	156	214	213	127	233	201
Average Queue (ft)	67	94	66	76	106	110	61	113	81
95th Queue (ft)	119	186	134	136	188	191	118	197	162
Link Distance (ft)		269	419		240	240		376	376
Upstream Blk Time (%)		0			0	0		0	0
Queuing Penalty (veh)		0			0	0		0	0
Storage Bay Dist (ft)	60			100			65		
Storage Blk Time (%)	16	13	3	4			10	14	
Queuing Penalty (veh)	33	20	7	4			42	17	

Intersection: 5: Highland Drive & Stringham Ave, Interval #1

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	LT	T
Maximum Queue (ft)	60	49	18	156	126
Average Queue (ft)	28	21	3	79	23
95th Queue (ft)	65	49	18	170	104
Link Distance (ft)		517	122	240	240
Upstream Blk Time (%)				0	
Queuing Penalty (veh)				0	
Storage Bay Dist (ft)	100				
Storage Blk Time (%)	1	0			
Queuing Penalty (veh)	0	0			

Intersection: 5: Highland Drive & Stringham Ave, Interval #2

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	TR	LT	T
Maximum Queue (ft)	68	56	2	12	153	112
Average Queue (ft)	32	24	0	2	77	21
95th Queue (ft)	76	60	5	12	157	102
Link Distance (ft)		517	122	122	240	240
Upstream Blk Time (%)					0	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)	100					
Storage Blk Time (%)	1	1				
Queuing Penalty (veh)	1	0				

Intersection: 5: Highland Drive & Stringham Ave, Interval #3

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	TR	LT	T
Maximum Queue (ft)	51	43	6	5	149	100
Average Queue (ft)	25	19	1	1	78	30
95th Queue (ft)	54	41	9	8	157	113
Link Distance (ft)		517	122	122	240	240
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100				
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 5: Highland Drive & Stringham Ave, Interval #4

Movement	WB	WB	NB	SB	SB
Directions Served	L	R	TR	LT	T
Maximum Queue (ft)	82	45	11	149	120
Average Queue (ft)	37	20	2	79	27
95th Queue (ft)	99	51	13	161	110
Link Distance (ft)		517	122	240	240
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		100			
Storage Blk Time (%)		3			
Queuing Penalty (veh)		3			

Intersection: 5: Highland Drive & Stringham Ave, All Intervals

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	TR	LT	T
Maximum Queue (ft)	94	75	8	30	189	163
Average Queue (ft)	30	21	0	2	78	25
95th Queue (ft)	76	51	5	13	161	108
Link Distance (ft)		517	122	122	240	240
Upstream Blk Time (%)					0	
Queuing Penalty (veh)					0	
Storage Bay Dist (ft)		100				
Storage Blk Time (%)		1	0			
Queuing Penalty (veh)		1	0			

Intersection: 6: Highland Drive & Ashton Ave, Interval #1

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	201	106	143	76	12	37
Average Queue (ft)	151	48	124	60	2	9
95th Queue (ft)	365	153	173	110	21	39
Link Distance (ft)	383		136		122	122
Upstream Blk Time (%)	17		11			
Queuing Penalty (veh)	0		93			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	41	1	23			
Queuing Penalty (veh)	62	1	78			

Intersection: 6: Highland Drive & Ashton Ave, Interval #2

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	247	128	143	76	10	22
Average Queue (ft)	189	71	121	58	2	6
95th Queue (ft)	413	196	179	109	14	22
Link Distance (ft)	383		136		122	122
Upstream Blk Time (%)	25		12			
Queuing Penalty (veh)	0		98			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	54	1	22			
Queuing Penalty (veh)	81	1	77			

Intersection: 6: Highland Drive & Ashton Ave, Interval #3

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	385	151	147	76	8	37
Average Queue (ft)	312	67	133	67	1	9
95th Queue (ft)	503	205	170	107	10	36
Link Distance (ft)	383		136		122	122
Upstream Blk Time (%)	60		18			
Queuing Penalty (veh)	0		172			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	91	3	31			
Queuing Penalty (veh)	153	2	120			

Intersection: 6: Highland Drive & Ashton Ave, Interval #4

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	405	200	148	76	7	22
Average Queue (ft)	384	109	120	55	1	5
95th Queue (ft)	455	269	185	109	12	23
Link Distance (ft)	383		136		122	122
Upstream Blk Time (%)	86		14			
Queuing Penalty (veh)	0		114			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	100	4	25			
Queuing Penalty (veh)	151	2	86			

Intersection: 6: Highland Drive & Ashton Ave, All Intervals

Movement	EB	EB	NB	NB	SB	SB
Directions Served	L	R	LT	T	T	TR
Maximum Queue (ft)	412	200	152	76	27	54
Average Queue (ft)	259	74	125	60	1	7
95th Queue (ft)	500	212	178	109	15	31
Link Distance (ft)	383		136		122	122
Upstream Blk Time (%)	47		14			
Queuing Penalty (veh)	0		119			
Storage Bay Dist (ft)		100		1		
Storage Blk Time (%)	72	2	25			
Queuing Penalty (veh)	112	2	91			

Intersection: 7: Highland Drive & South Access, Interval #1

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	66	412	75	35
Average Queue (ft)	31	170	24	6
95th Queue (ft)	91	538	80	45
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)		1	0	
Queuing Penalty (veh)		0	1	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #2

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	72	326	73	53
Average Queue (ft)	30	144	22	6
95th Queue (ft)	89	361	73	49
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #3

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	96	580	63	11
Average Queue (ft)	47	308	16	3
95th Queue (ft)	118	755	61	29
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)		3		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, Interval #4

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	69	516	44	17
Average Queue (ft)	33	177	13	4
95th Queue (ft)	83	512	52	32
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)		2		
Queuing Penalty (veh)		0		
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 7: Highland Drive & South Access, All Intervals

Movement	WB	NB	SB	SB
Directions Served	LR	TR	LT	T
Maximum Queue (ft)	120	749	101	83
Average Queue (ft)	35	200	19	5
95th Queue (ft)	97	566	67	39
Link Distance (ft)	480	857	136	136
Upstream Blk Time (%)		1	0	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 1919

Network wide Queuing Penalty, Interval #2: 2519

Network wide Queuing Penalty, Interval #3: 3451

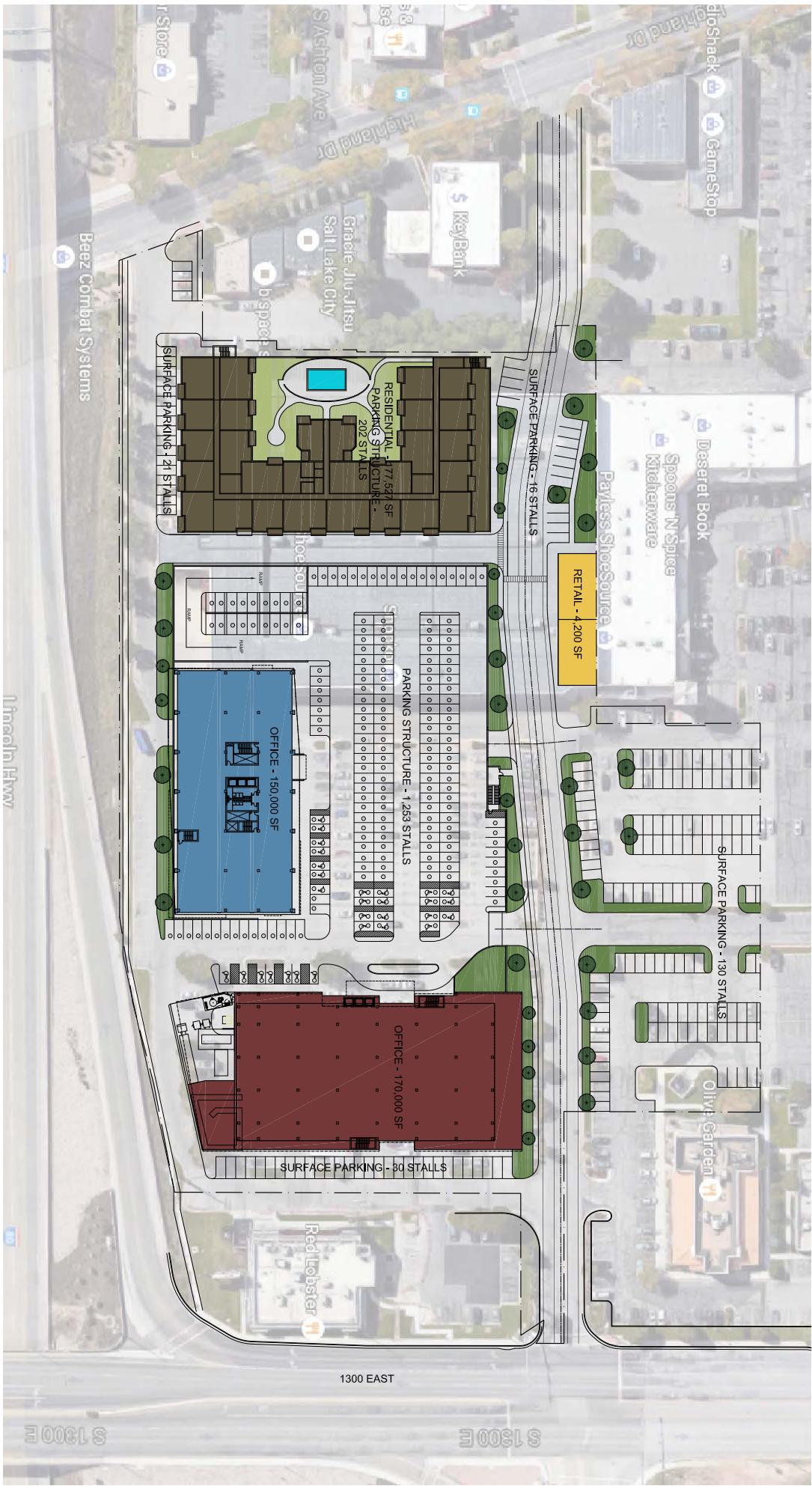
Network wide Queuing Penalty, Interval #4: 3169

Network wide Queuing Penalty, All Intervals: 2764



APPENDIX C

Site Plan



APPENDIX D

95th Percentile Queue Length Reports

Intersection	Time Period	EB				NB				SB				WB				
		L	LR	R	TR	L	LT	T	TR	L	LT	T	TR	L	LR	LT	R	TR
1300 East & Simpson Avenue	Existing (2016) Background	--	--	131	--	41	--	4	--	--	--	136	144	--	--	--	--	--
1300 East & Stringham Ave/I-80 Exit	Existing (2016) Background	225	--	169	--	220	--	273	--	--	--	315	280	167	--	182	167	--
1300 East & Wilmington Ave	Existing (2016) Background	93	--	266	--	190	--	156	--	--	--	380	334	--	--	--	--	--
Highland Drive & Ashton Ave	Existing (2016) Background	--	366	--	--	--	171	98	--	--	--	8	16	--	--	--	--	--
Highland Drive & Simpson Ave	Existing (2016) Background	107	--	--	137	--	131	--	138	103	--	148	115	117	--	--	--	118
Highland Drive & South Access	Existing (2016) Background	--	--	--	--	--	--	--	143	--	71	29	--	--	74	--	--	--
Highland Drive & Stringham Ave	Existing (2016) Background	--	--	--	--	--	--	--	--	--	35	19	--	--	37	--	--	--

SimTraffic Queueing Report

Project: Sugarhouse - Shopko Redevelopment TIS

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet)

HALES  **ENGINEERING**
innovative transportation solutions

Project #: UT16-965

Intersection	Time Period	EB				NB				SB				WB					
		L	LR	R	TR	L	LT	R	T	TR	L	LT	T	TR	L	LR	LT	R	TR
1300 East & Simpson Avenue	Existing (2016) Plus Project	--	--	166	--	36	--	--	4	--	--	--	151	153	--	--	--	--	--
1300 East & Stringham Ave/I-80 Exit	Existing (2016) Plus Project	281	--	215	--	204	--	30	274	--	--	--	314	278	165	--	174	162	--
1300 East & Wilmington Ave	Existing (2016) Plus Project	92	--	265	--	189	--	--	153	--	--	--	377	326	--	--	--	--	--
Highland Drive & Ashton Ave	Existing (2016) Plus Project	--	352	--	--	--	169	--	101	--	--	--	5	18	--	--	--	--	--
Highland Drive & Simpson Ave	Existing (2016) Plus Project	108	--	--	141	--	132	--	--	131	85	--	152	121	108	--	--	--	116
Highland Drive & South Access	Existing (2016) Plus Project	--	--	--	--	--	--	--	--	119	--	49	11	--	--	43	--	--	--
Highland Drive & Stringham Ave	Existing (2016) Plus Project	--	--	--	--	--	--	--	--	7	--	99	35	--	--	77	--	--	--

SimTraffic Queueing Report

Project: Sugarhouse - Shopko Redevelopment TIS

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet)

Project #: UT16-965

Intersection	Time Period	EB			NB			SB			WB						
		L	R	TR	L	LT	T	TR	L	LT	T	TR	L	LR	LT	R	TR
1300 East & Simpson Avenue	Future (2020) Background	--	359	--	49	--	12	--	--	--	161	169	--	--	--	--	--
1300 East & Stringham Ave/I-80 Exit	Future (2020) Background	316	195	--	194	--	293	--	--	--	310	282	176	--	175	192	--
1300 East & Wilmington Ave	Future (2020) Background	120	298	--	200	--	174	--	--	--	417	357	--	--	--	--	--
Highland Drive & Ashton Ave	Future (2020) Background	241	118	--	--	173	105	--	--	--	7	19	--	--	--	--	--
Highland Drive & Simpson Ave	Future (2020) Background	111	--	148	--	138	--	136	91	--	159	124	113	--	--	--	113
Highland Drive & South Access	Future (2020) Background	--	--	--	--	--	230	--	--	45	23	--	--	29	--	--	--
Highland Drive & Stringham Ave	Future (2020) Background	--	--	--	--	--	2	5	--	101	39	--	--	52	--	--	--

SimTraffic Queueing Report

Project: Sugarhouse - Shopko Redevelopment TIS

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet)
HALES  **ENGINEERING**
 innovative transportation solutions

Project #: UT16-965

Intersection	Time Period	EB			NB					SB				WB				
		L	R	TR	L	LT	R	T	TR	L	LT	T	TR	L	LR	LT	R	TR
1300 East & Simpson Avenue	Future (2020) Plus Project	--	642	--	50	--	--	8	--	--	--	345	339	--	--	--	--	--
1300 East & Stringham Ave/I-80 Exit	Future (2020) Plus Project	483	557	--	379	--	51	420	--	--	--	321	277	186	--	221	220	--
1300 East & Wilmington Ave	Future (2020) Plus Project	207	345	--	201	--	--	194	--	--	--	665	590	--	--	--	--	--
Highland Drive & Ashton Ave	Future (2020) Plus Project	230	123	--	--	169	--	107	--	--	--	8	19	--	--	--	--	--
Highland Drive & Simpson Ave	Future (2020) Plus Project	108	--	147	--	144	--	--	146	93	--	158	118	124	--	--	--	116
Highland Drive & South Access	Future (2020) Plus Project	--	--	--	--	--	--	207	--	56	27	--	--	48	--	--	--	--
Highland Drive & Stringham Ave	Future (2020) Plus Project	--	--	--	--	--	--	--	6	--	128	71	--	50	--	--	40	--

SimTraffic Queueing Report

Project: Sugarhouse - Shopko Redevelopment TIS

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet)
HALES  **ENGINEERING**
 innovative transportation solutions

Project #: UT16-965

Intersection	Time Period	EB			NB				SB				WB					
		L	R	TR	L	LT	R	T	TR	L	LT	T	TR	L	LR	LT	R	TR
1300 East & Simpson Avenue	Future (2040) Background	--	597	--	50	--	--	14	--	--	--	254	262	--	--	--	--	--
1300 East & Stringham Ave/I-80 Exit	Future (2040) Background	342	207	--	225	--	42	301	--	--	--	318	281	181	--	297	424	--
1300 East & Wilmington Ave	Future (2040) Background	155	326	--	208	--	--	193	--	--	--	605	544	--	--	--	--	--
Highland Drive & Ashton Ave	Future (2040) Background	524	244	--	--	179	--	110	--	--	--	10	27	--	--	--	--	--
Highland Drive & Simpson Ave	Future (2040) Background	117	--	164	--	162	--	--	169	112	--	200	160	144	--	--	--	144
Highland Drive & South Access	Future (2040) Background	--	--	--	--	--	--	561	--	62	15	--	--	56	--	--	--	--
Highland Drive & Stringham Ave	Future (2040) Background	--	--	--	--	--	--	2	7	--	134	87	--	--	69	--	--	--

SimTraffic Queueing Report

Project: Sugarhouse - Shopko Redevelopment TIS

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet)
HALES  **ENGINEERING**
 Innovative transportation solutions

Project #: UT16-965

Intersection	Time Period	EB			NB					SB				WB				
		L	R	TR	L	LT	R	T	TR	L	LT	T	TR	L	LR	LT	R	TR
1300 East & Simpson Avenue	Future (2040) Plus Project	--	693	--	50	--	--	9	--	--	--	398	399	--	--	--	--	--
1300 East & Stringham Ave/I-80 Exit	Future (2040) Plus Project	494	564	--	418	--	87	784	--	--	--	310	268	238	--	419	482	--
1300 East & Wilmington Ave	Future (2040) Plus Project	216	360	--	192	--	--	199	--	--	--	1,190	1,155	--	--	--	--	--
Highland Drive & Ashton Ave	Future (2040) Plus Project	500	212	--	--	178	--	109	--	--	--	15	31	--	--	--	--	--
Highland Drive & Simpson Ave	Future (2040) Plus Project	119	--	186	--	188	--	--	191	118	--	197	162	134	--	--	--	136
Highland Drive & South Access	Future (2040) Plus Project	--	--	--	--	--	--	--	566	--	67	39	--	--	97	--	--	--
Highland Drive & Stringham Ave	Future (2040) Plus Project	--	--	--	--	--	--	5	13	--	161	108	--	76	--	--	51	--

APPENDIX E

Mixed-Use Internal Capture Report

NCHRP 8-51 Internal Trip Capture Estimation Tool					
Project Name:	Shopko Redevelopment		Organization:	Hales Engineering	
Project Location:	Sugarhouse		Performed By:	Josh Gibbons	
Scenario Description:	Residential / Office Mixed Use		Date:	1/4/2017	
Analysis Year:	2016		Checked By:		
Analysis Period:	PM Street Peak Hour		Date:		

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)						
Land Use	Development Data (For Information Only)			Estimated Vehicle-Trips		
	ITE LUCs ¹	Quantity	Units	Total	Entering	Exiting
Office	710 / 720	320	1,000 Sq. Ft.	724	175	549
Retail				0		
Restaurant				0		
Cinema/Entertainment				0		
Residential	220	140	Dwelling Units	96	62	34
Hotel				0		
All Other Land Uses ²				0		
Total				820	237	583

Table 2-P: Mode Split and Vehicle Occupancy Estimates						
Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.	% Transit	% Non-Motorized	Veh. Occ.	% Transit	% Non-Motorized
Office		5%			5%	
Retail						
Restaurant						
Cinema/Entertainment						
Residential		5%			5%	
Hotel						
All Other Land Uses ²						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office					450	
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*						
Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office	0	0	0	0	2	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary				Table 6-P: Internal Trip Capture Percentages by Land Use		
	Total	Entering	Exiting	Land Use	Entering Trips	Exiting Trips
All Person-Trips	820	237	583	Office	1%	0%
Internal Capture Percentage	1%	1%	1%	Retail	N/A	N/A
External Vehicle-Trips ³	773	222	551	Restaurant	N/A	N/A
External Transit-Trips ⁴	41	12	29	Cinema/Entertainment	N/A	N/A
External Non-Motorized Trips ⁴	0	0	0	Residential	3%	3%
				Hotel	N/A	N/A

¹Land Use Codes (LUCs) from *Trip Generation Informational Report*, published by the Institute of Transportation Engineers.

²Total estimate for all other land uses at mixed-use development site-not subject to internal trip capture computations in this estimator

³Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

⁴Person-Trips

*Indicates computation that has been rounded to the nearest whole number.