HALES ENGINEERING
innovative transportation solutions

TOOELE CITY

TRANSPORTATION MASTER PLAN

FEBRUARY 19, 2021

Tooele City
Est. 1853

EXECUTIVE SUMMARY

Tooele City continues to see rapid growth with the development of the Overlake area and many other residential and commercial developments. Tooele is located in Tooele County, Utah, about 8 miles south of I-80 along SR-36. Tooele is south of Stansbury park and southeast of Grantsville, and Tooele City itself is surrounded by unincorporated Tooele County.

The purpose of this Transportation Master Plan (TMP) is to provide a supplement for the transportation element of the General Plan and to plan for the future multi-modal transportation needs of Tooele City given the current future land use plans. The following are the key findings of this transportation master plan (TMP):

Tooele Characteristics

The population in Tooele has grown rapidly in recent years, more than doubling itself since 1990 to a current population of approximately 35,300 people (2018). There are over 10,000 households in the City. The average commute time for residents is approximately 30 minutes.

Roadway Network

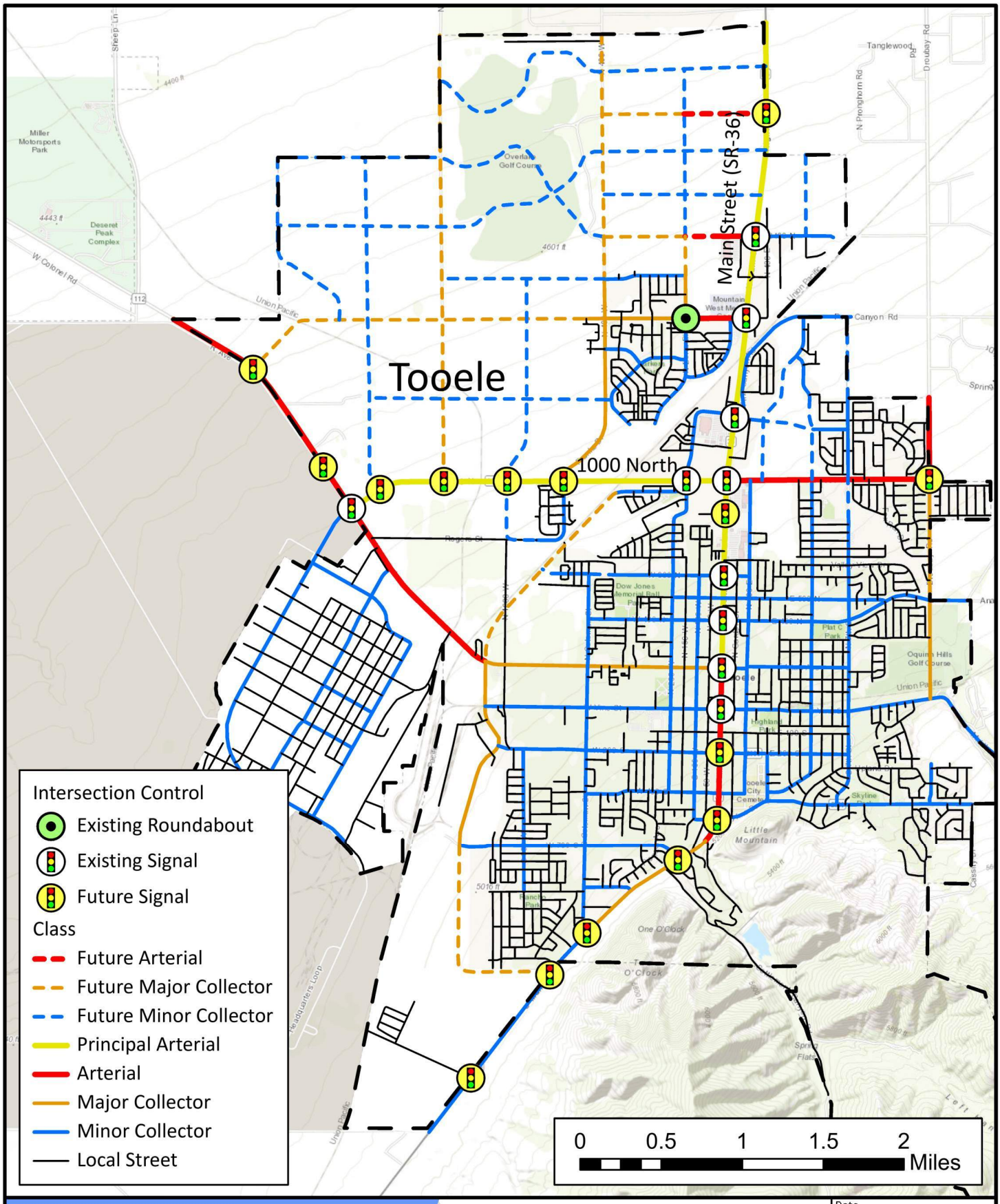
All City roadways, with the exception of 1000 North to the east of the 1000 North (SR-112) / Main Street (SR-36) intersection, are currently operating at acceptable levels of service. Some segments of SR-36 are operating poorly. UDOT is already planning additional widening on SR-36 but will need to also plan for widening on SR-112 between Main Street (SR-36) and Utah Avenue.

Future traffic volumes were estimated using development projections and proximity to regional attractions. It is anticipated that City roadways such as Utah Avenue, 1000 North, and 2000 North will operate poorly in full-build conditions. Planned and proposed projects for UDOT roadways are listed in the report. A map of the proposed future roadway network in 2040 conditions is shown in Figure ES-1 and typical cross sections are shown in Figures 3 through 7.

Alternative Modes

The existing transit system includes one bus route and three flex bus routes. Future transit projects are currently being studied.

The City has existing bike lanes on Vine Street, 1000 North, and 100 East Future recommendations for bike routes include continuing the bike facilities on Vine Street and 100 East and constructing new facilities on 400 West and Droubay Road, as well as a trail along the west edge of the City.



Tooele City
Est. 1853

TRANSPORTATION MASTER PLAN

Future Functional Classification

N

Date 1/6/2021

Project UT19-1595

Figure ES-1

ACKNOWLEDGEMENTS

Tooele City

Steve Evans, *Public Works Director*
Paul Hansen, *City Engineer*
Jim Bolser, *Community Development Director*
Andrew Aagard, *City Planner/Zoning Administrator*

Tooele Mayor & City Council

Debbie Winn, *Mayor*
Justin Brady, *City Council*
Melodi Gochis, *City Council*
Tony Graf, *City Council*
Ed Hansen, *City Council*
Maresa Manzione, *City Council*

Tooele Planning Commission

Tyson Hamilton
Chris Sloan
Matt Robinson
Melanie Hammer
Shauna Bevan
Nathan Thomas
Dave McCall
Paul Smith
Weston Jensen

Consultant Team – Hales Engineering (See Appendix C)

Ryan Hales, PE, PTOE, AICP
Josh Gibbons, EIT
Joseph Browning, EIT

TABLE OF CONTENTS

Acknowledgements iii

I. Introduction 1

A. Overview 1

II. Tooele Characteristics 3

A. Purpose 3
B. Land Use 3
C. Demographics 3

III. Roadway Network 5

A. Purpose 5
B. Functional Classification 5
C. Level of Service Analysis 8
D. Existing Conditions 11
E. Future Conditions 18
F. Truck Routes 27

IV. Alternative Modes of Transportation 30

A. Purpose 30
B. Public Transit 30
C. Active Transportation 30

V. Safety 35

A. Purpose 35
B. Safety Hotspots 35
C. Traffic Calming 36
D. Access Management 42

VI. Conclusion 45

A. Overview 45
B. Next Steps 45

APPENDIX A: Traffic Volume Data Collection 46

APPENDIX B: LOS and Queueing Results 47

APPENDIX C: Hales Engineering 48

LIST OF TABLES

Table 1: Roadway Classifications 6
Table 2: Level of Service Descriptions 8
Table 3: Roadway Capacities 10
Table 4: Intersection LOS Criteria 11
Table 5: Existing Evening Peak Hour Intersection Level of Service 17
Table 6: Recommended Improvement Projects 24
Table 7: Access Management Spacing Recommendations 43

LIST OF FIGURES

Figure 1: Vicinity map 2
Figure 2: Tooele mode split 4
Figure 3: Principal arterial cross-section 6
Figure 4: Arterial cross-section 6
Figure 5: Major collector cross-section 7
Figure 6: Minor collector cross-section 7
Figure 7: Local street cross-section 7
Figure 8: Visual representation of LOS 9
Figure 9: Existing roadway network 12
Figure 10: Existing ADT and LOS 14
Figure 11: Existing (2020) evening peak hour traffic volumes 15
Figure 12: Existing (2020) evening peak hour intersection LOS 19
Figure 13: Future land use map 20
Figure 14: Future no-build LOS 23
Figure 15: Future projects 25
Figure 16: Future roadway network 26
Figure 17: Future full-build LOS 28
Figure 18: Truck routes 29
Figure 19: Public transit route map 32

Figure 20: Bike routes 33
Figure 21: Bike treatments 34
Figure 22: Driver feedback sign 36
Figure 23: Lane striping 37
Figure 24: Speed legend 38
Figure 25: Traffic circle 38
Figure 26: Chicane 39
Figure 27: Lateral shift 40
Figure 28: Bulb-out 40
Figure 29: Choker 41
Figure 30: Raised pedestrian crossing 42
Figure 31: Offset diagram 44

I. INTRODUCTION

A. OVERVIEW

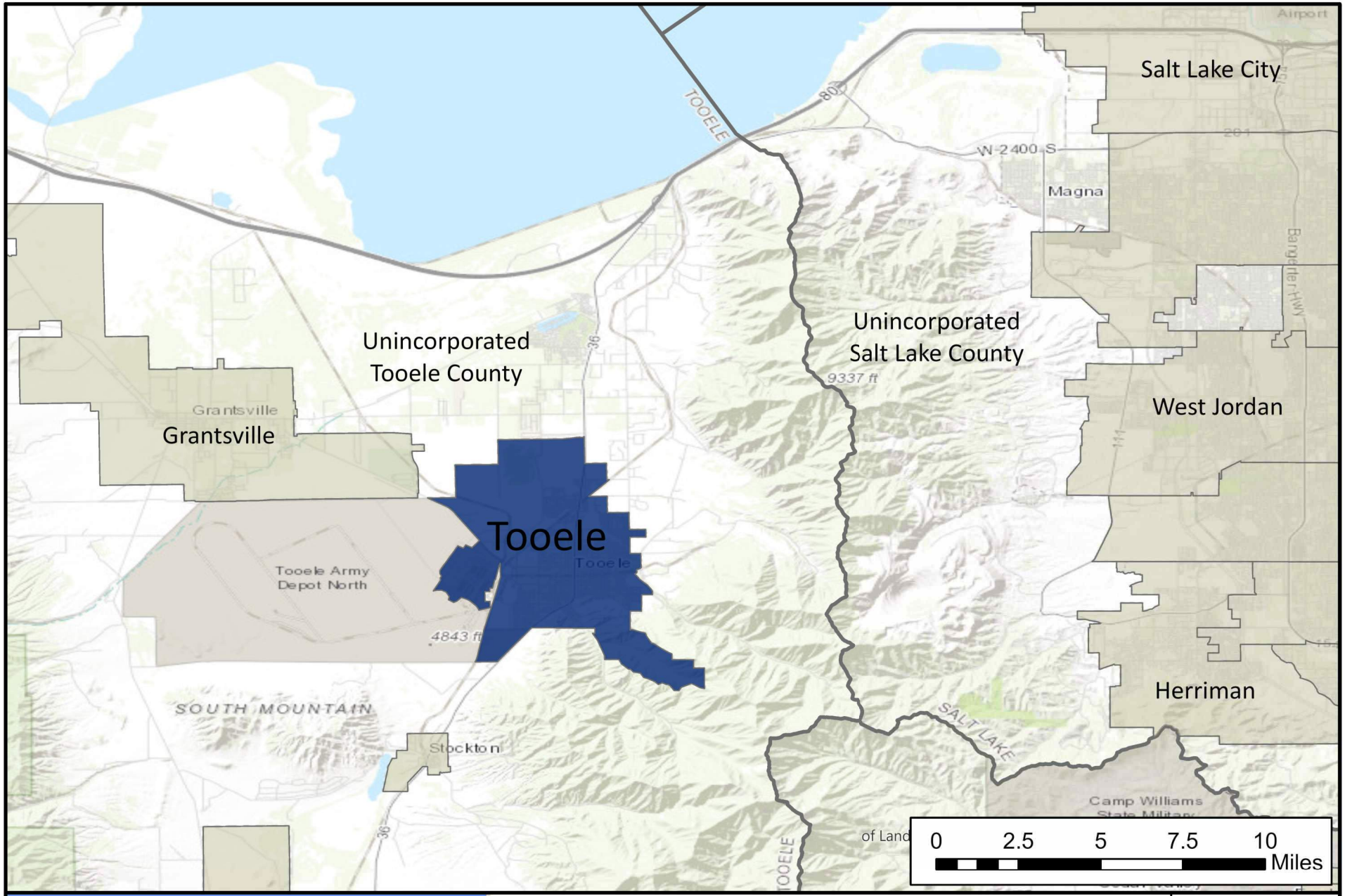
Since being incorporated as a town in 1853, Tooele City has experienced rapid growth, particularly in recent years, growing into a city with a population of nearly 35,000 people. With this growth comes many challenges and opportunities to provide safe and efficient transportation for the citizens of Tooele.

The City continues to see rapid growth with the development of the Overlake area and many other residential and commercial developments. With a high number of residents traveling in and out of the City to commute to work during peak hours, there are existing challenges with transportation in the City. The purpose of this Transportation Master Plan (TMP) is to plan for the multi-modal transportation needs of Tooele City, accounting for the projected future growth.

Tooele is located in Tooele County, Utah, about 8 miles south of I-80. Tooele is located near Stansbury Park to the north and Grantsville to the northwest. Surrounding the rest of Tooele is unincorporated Tooele County. A vicinity map of Tooele City is shown in Figure 1.

The Tooele City TMP is being updated with the most current land use plans. Because of large and often unpredictable growth in the City, it is necessary to update this TMP periodically. The most recent TMP was completed in November 2010. This TMP is an update to the previous plan and is included within the updated Tooele City General Plan as the transportation element of that plan.

Key to planning for Tooele's transportation needs is an understanding of the city's goals and policies related to transportation. The other portions of the General Plan include future land use and development plans and goals in the City and how those will be achieved. This TMP provides details regarding the City's transportation needs, including future demand and improvements, to meet the goals outlined by the City. The TMP expands the vision for the General Plan into actionable mobility-related goals and objectives to guide Tooele's near- and long-term transportation investments.



Tooele City
Est. 1853

TRANSPORTATION MASTER PLAN

Vicinity Map

N

Date 8/11/2020

Project UT19-1595

Figure 1

II. TOOELE CHARACTERISTICS

A. PURPOSE

The purpose of this section is to discuss the existing and future planned land use and demographics of Tooele City. The land use and demographics characteristics were considered in developing future transportation demand projections and determining future transportation needs in the City.

B. LAND USE

This section discusses plans for existing and future land use in Tooele City. Land use is a good predictor of transportation trends and demand. Therefore, it is important to identify existing and future land use when planning for transportation needs. There are several parcels on the outside edges of the City that are anticipated to experience development in the near future, especially north of 1000 North (SR-112). Other areas that already have some developed land will experience in-fill development projects that will increase the density of land uses.

1. Existing

Most of Tooele City currently consists of residential uses with nearly 11,000 current households in the City. Existing commercial and office developments are primarily located along the SR-36 corridor. There are also several industrial establishments, which are located on the west side of the City near the Army Depot. Other land uses that are currently located in the City are K-12 public schools, City and County buildings, religious buildings, and medical care facilities.

2. Future

In preparation to complete this TMP, Tooele City staff summarized the projects and land that are anticipated to develop in the next twenty years and beyond to help determine future transportation demand in the City.

C. DEMOGRAPHICS

This section discusses the demographics of Tooele City and provides helpful information about how people live, work, and play. These characteristics have a direct impact on the transportation needs of the City. The existing demographics data come primarily from U.S. Census data, including the American Community Survey results.

1. Population

The population in Tooele City has grown rapidly in recent years, more than doubling from 1990 to the present. According to the U.S. Census the population in 2010 was 30,167. It is estimated that the population in 2021 is approximately 37,000. The median age of the population is approximately 31 years, and approximately 31 percent of the population is 18 years or younger.

Population:
37,000

2. Households

Similar growth has occurred for the number of households in Tooele. According to the U.S. Census, the number of households in Tooele was 7,459 in the year 2000. The estimate for households was approximately 10,096 in 2010 and 10,731 in 2018. Therefore, it is estimated that there are approximately 3.1 persons per household.

Approximately 75 percent of homes are single-family detached units, and the rest are apartments, condos, townhomes, mobile homes, etc. Approximately 29 percent of the homes have been built since the year 2000. Related to transportation demand, approximately 96 percent of households have at least one vehicle available for use, and approximately one-third of households have at least three vehicles.

Households (2018):
10,731

3. Employment & Journey to Work

As of 2018, over 24,000 Tooele residents were employed, and the median household income was $68,000. Unlike population, the employment opportunities within the City have not seen significant growth until the last few years. Tooele has seen an increase in regional retail developments along Main Street (SR-36) between 1000 North and 2000 North. Approximately 40% of residents work outside of Tooele County.

Data were collected from the U.S. Census American Community Survey results for Tooele to determine the mode split in the City. The recent mode split in the City based on survey results from 2014 to 2018 is shown in Figure 2.

Avg. Commute:
28.6 min.

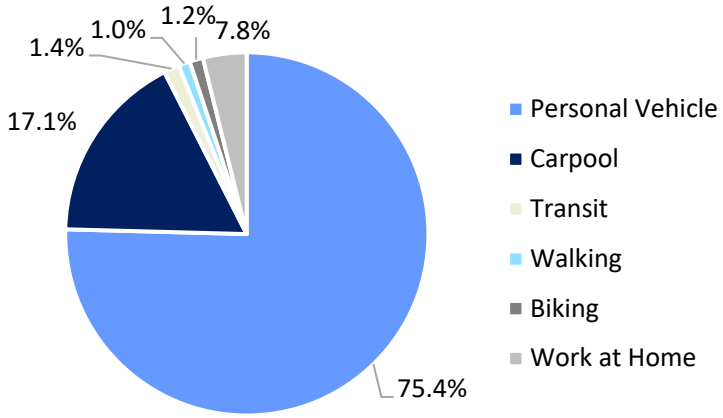


Figure 2: Tooele mode split

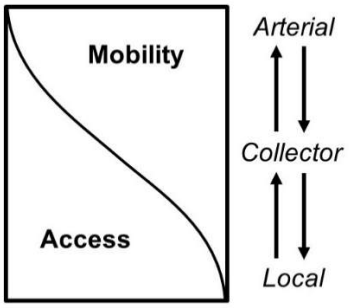
As shown, approximately three-fourths of workers drive alone in a personal vehicle to work. Approximately 17 percent carpool and 1.4 percent ride transit. It is anticipated that as transit, pedestrian, and bicycle facilities improve in the city the percentage of personal vehicle usage for commuting will decrease. Approximately 30 percent of workers leave between 7:00 and 9:00 a.m. to travel to work. The average commute time to work for Tooele residents is 28.6 minutes.

III. ROADWAY NETWORK

A. PURPOSE

The purpose of this chapter is to discuss the characteristics and needs of the existing and future roadway networks. Recommendations for future improvements are discussed as well, based on the future projections. The analysis methodologies and models that were used are also discussed.

B. FUNCTIONAL CLASSIFICATION



Roads are categorized into a hierarchal system and given a functional classification based on right-of-way (ROW) width. The higher a street classification, the more mobility it provides with limited access. Lower street classifications have less mobility, but more access. The four classifications defined in the Tooele City code are arterials, major collectors, minor collectors, and local streets.

The following are the four typical street classifications for Tooele City roadways:

- Arterial – Arterials are designed to have greater mobility and connect traffic between population centers and regional attractions. Because of their increased mobility, arterials typically have higher speeds and a high degree of access control, with the exception of some historical sections. Arterials have a ROW of 106 feet.
- Major Collector – Major collector roads are designed to connect with and augment the arterial system and provide access control. Generally, these streets are intended to carry traffic for shorter distances than arterials and have lower speeds. Major collectors have a ROW of 84 feet.
- Minor Collector – A minor collector road is designed to carry low-speed traffic and provides greater access than major collectors. Minor collector roads are also designed for greater mobility than local streets as they are generally wider and as a result have less side friction with on-street parking. Minor collectors have a ROW of 66 feet.
- Local Street – Local streets are designed for accessibility and have less mobility than any other functional classification. The primary purpose of these is to provide access to surrounding properties and carry low-speed traffic. Some local streets may be designed to discourage through-traffic in neighborhoods. Local streets have a ROW of 60 feet.

A summary of the Tooele roadway classifications is shown in Table 1. Typical cross-sections were designed for each of the Tooele street classifications primarily based on the existing City cross-section standards. These are shown in Figures 3 through 7. These cross-sections do not necessarily match existing roadway cross-sections but are recommended cross-sections for new and improved roadways in the future. Bike treatments are not included in these concepts and may require additional ROW and/or pavement. The colors shown in Table 1 correspond to colors shown in both the cross-section figures and the roadway network figures shown later in the document. The Principal Arterial classification is being introduced based on future roadway improvement recommendations and has a seven-lane cross-section to accommodate higher demands.

Table 1: Roadway Classifications

Mobility

Access

Tooele Roadway Classifications	
Classification	**Characteristics**
Principal Arterial	ROW: 112 feet 7 lanes
Arterial	ROW: 106 feet 5 Lanes
Major Collector	ROW: 84 feet 3 Lanes
Minor Collector	ROW: 66 feet 2 Lanes
Local Street	ROW: 60 feet 2 Lanes

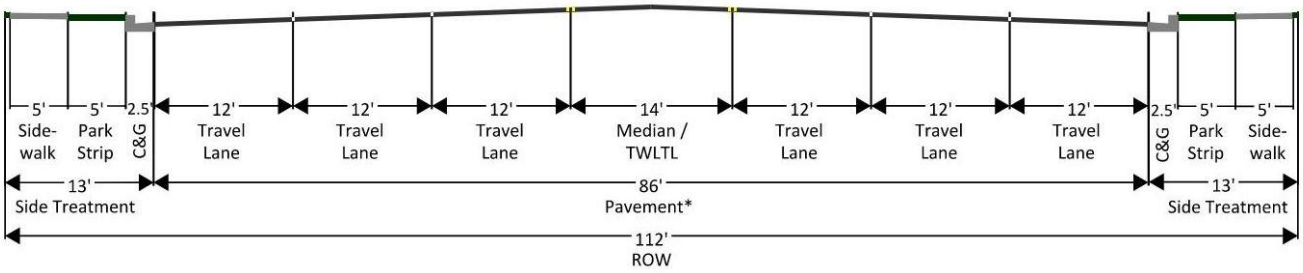


Figure 3: Principal arterial cross-section

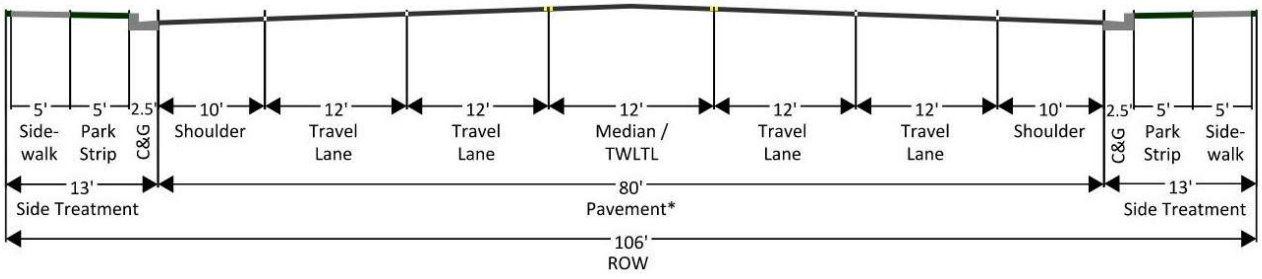


Figure 4: Arterial cross-section

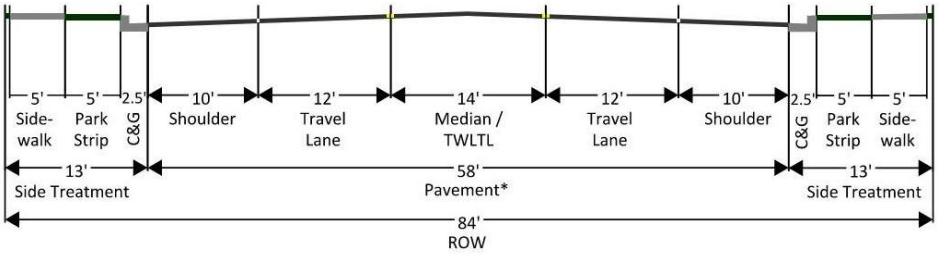


Figure 5: Major collector cross-section

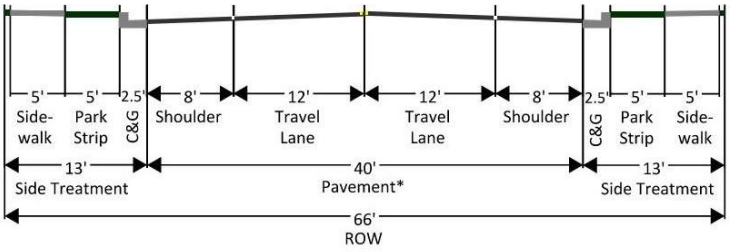


Figure 6: Minor collector cross-section

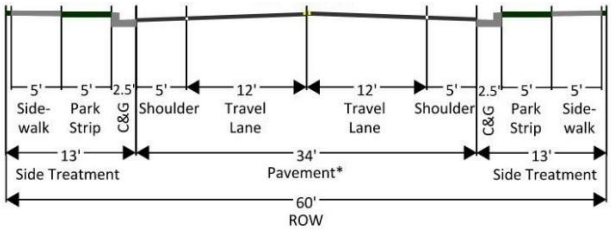


Figure 7: Local street cross-section

C. LEVEL OF SERVICE ANALYSIS

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. Calculating a planning-level LOS for a roadway segment is completed based on volume-to-capacity (v/c) ratios. The volume is the average daily traffic (ADT) for the given roadway segment and the capacity is based on factors such as lane count and traffic signal spacing.

Table 2 provides a brief description of each LOS letter designation and the accompanying range of v/c ratios. A visual representation of the various levels of service is shown in Figure 8.

Table 2: Level of Service Descriptions

Level of Service	Description of Traffic Conditions	Volume / Capacity Ratio
A	Extremely favorable progression and a very low level of control (intersection) delay. Individual users are virtually unaffected by others in the traffic stream.	≤ 0.30
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	> 0.30 - 0.50
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.	> 0.50 - 0.75
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeable more constrained.	> 0.75 - 0.85
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	> 0.85 - 1.00
F	Unacceptable progression with forced or breakdown operating conditions.	> 1.00

Source: Highway Capacity Manual (HCM) 6th edition (Transportation Research Board, 2016).

For the purposes of this TMP, a minimum overall performance for each of the study roadways and intersections was set at LOS D. A LOS D threshold is consistent with "state-of-the-practice" traffic engineering principles. Improvements are recommended when a roadway or intersection LOS is E or F.

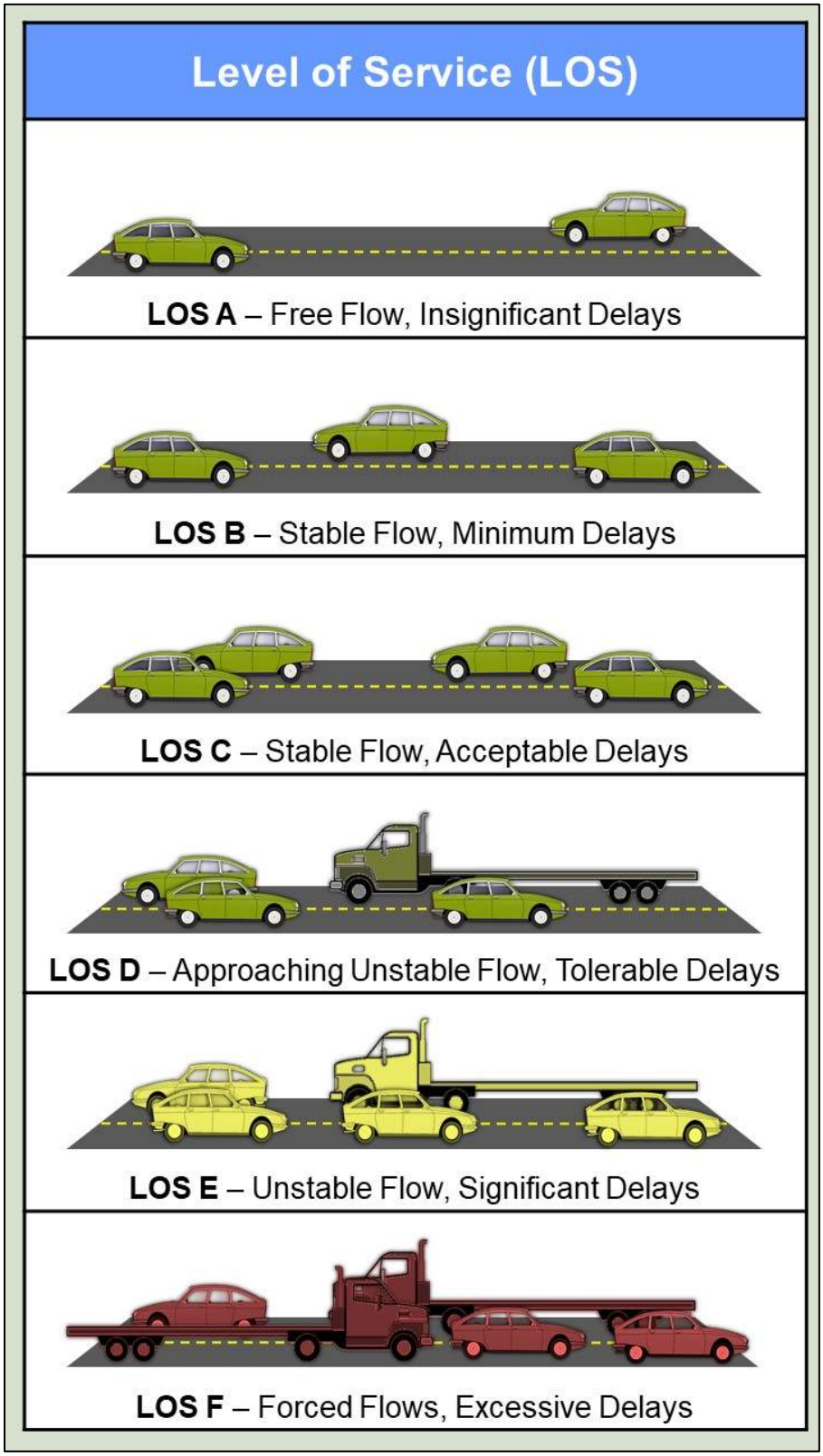


Figure 8: Visual representation of LOS

1. Roadway Capacities

The capacities for each roadway type were identified using Transportation Research Board (TRB) *Highway Capacity Manual,* 6th Edition, 2016 methodologies and based on common practice in Utah. Key factors that influence the capacity of a roadway include the number of travel lanes, presence of a two-way left-turn lane (TWLTL) or turn pockets, level of access management, and signal spacing. The assumed LOS E/F capacity thresholds for Tooele City roadways are shown in Table 3, reported as vehicles per day (vpd).

Table 3: Roadway Capacities

Roadway Capacities		
Functional Classification	**Number of Lanes**	**Capacity (vpd)**
Minor Collector Local Street	2	12,400
Major Collector	3	17,800
Arterial	5	38,000
Principal Arterial	7	58,000

2. Intersection LOS

Intersection LOS looks at individual intersections and provides a microscopic view of a roadway network. LOS at intersections can be broken down into directions and respective movements (left-turns, through movements, or right-turns). A detailed look at intersections should occur as frequently as necessary since they are a source of bottlenecks. The Highway Capacity Manual has divided intersections into two types, signalized and un-signalized. The methodology to calculate the delay per vehicle at an intersection is outlined in the *Highway Capacity Manual* (HCM), 6th Edition, 2016 and the subsequent delay criteria and corresponding LOS. A LOS D for intersection delay has been determined to be the acceptable limit for Tooele City. The delay thresholds for each LOS for both signalized and unsignalized intersections can be found in Table 4.

The levels of service for signalized, all-way stop-controlled (AWSC), and roundabout intersections are calculated as a weighted average of all movements. The LOS for a two-way stop-controlled (TWSC) intersection is equal to the LOS of the worst movement. Failing LOS conditions are typically experienced during the peak hours (morning and/or evening). It is not uncommon for a side street or access on busy arterials to experience LOS worse than D during the peak hours due to high traffic volumes on the major roadway. Vehicles generally learn to re-route to signalized intersections in these cases.

Table 4: Intersection LOS Criteria

LOS	LOS Delay Criteria (sec. / vehicle)	
	Signalized Intersections	TWSC, AWSC, & Roundabout Intersections
A	≤ 10	≤ 10
B	> 10 - 20	> 10 - 15
C	> 20 - 35	> 15 - 25
D	> 35 - 55	> 25 - 35
E	> 55 - 80	> 35 - 50
F	> 80	> 50
Source: *Highway Capacity Manual*, 6th Edition, 2016		

D. EXISTING CONDITIONS

This section discusses the existing roadway and intersection conditions in Tooele. The current LOS for each of the major roadways and intersections in Tooele were analyzed. It is important to analyze the existing conditions as this serves as a baseline with which future conditions and alternatives can be compared.

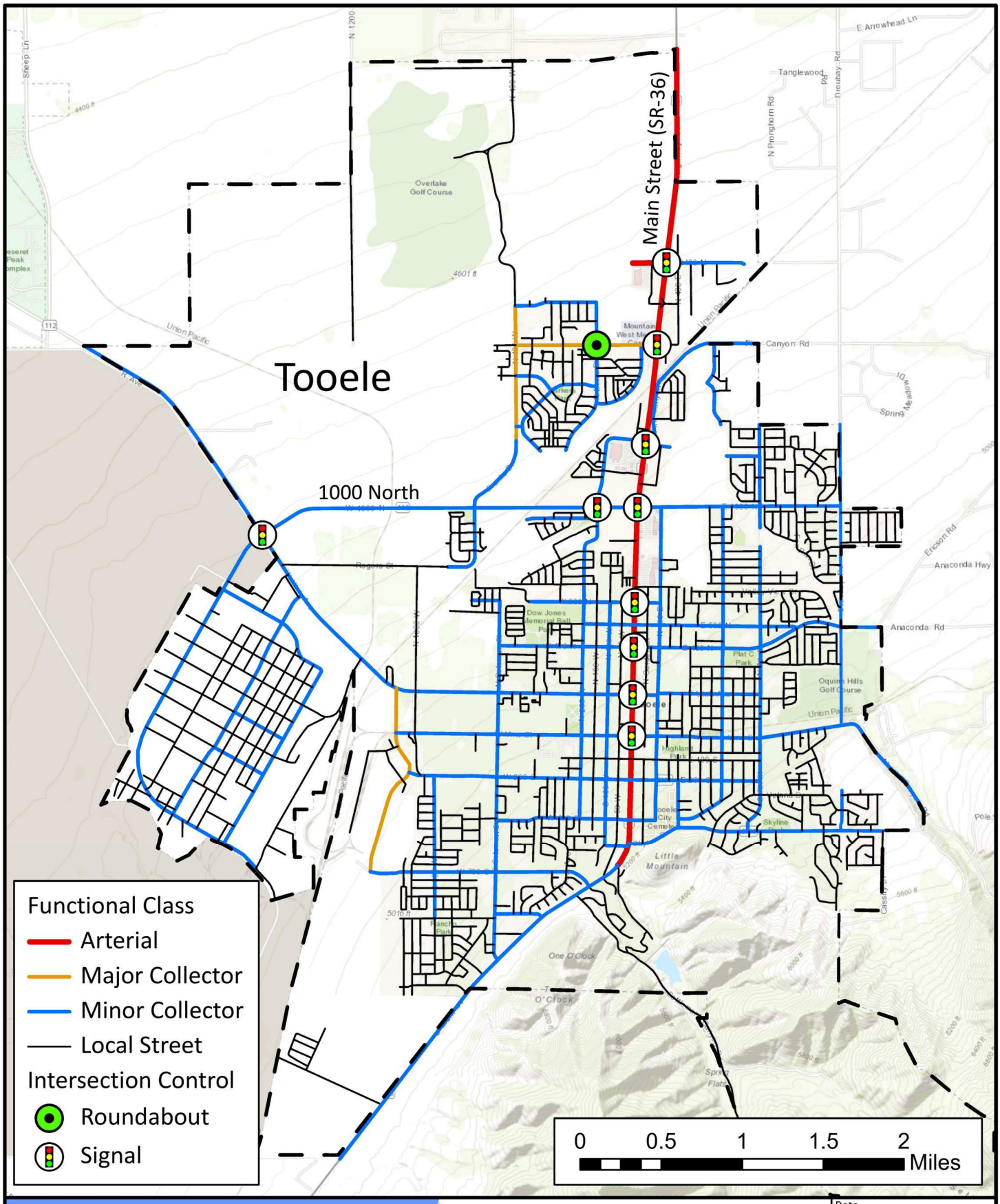
1. Existing Roadway Network

Major roadways in Tooele have been designed on a grid system as is the pattern along much of the Wasatch Front as well. Many north-south roads are located approximately every 400 or 800 feet. Spacing of major east-west roads varies between approximately 650 feet and 800 feet.

State Route 36 (SR-36) is the City's primary north-south highway through town. Other major north-south roadways include Coleman Street, 200 West, 100 West, 100 East, Broadway Avenue, 7th Street, and Droubay Road. 1000 North is the City's primary east-west roadway, which is designated as State Route 112 (SR-112) west of SR-36. Other major east-west routes include 700 South, 200 South, Vine Street, Utah Avenue, 200 North, 400 North, 2000 North, and 2400 North.

Local roadways in Tooele are a mixture of grid systems in some areas and unconnected roads with cul-de-sacs in other areas. Discontinuous local road systems can lead to unnecessary congestion and delay on collector and arterial roads, as vehicles are forced to take those routes even for short trips. Therefore, it is recommended that the grid system be followed as much as possible as areas develop.

The functional classifications discussed previously were assigned to the roadways in Tooele based on existing number of lanes. The existing roadway network map that shows the functional classifications is shown in Figure 9. Most roadways in Tooele City are maintained by the City. Main Street (SR-36) and 1000 North (SR-112) are state roadways and maintained by the Utah Department of Transportation (UDOT).



Tooele City
Est. 1853

TRANSPORTATION MASTER PLAN

Existing Roadway Network

N

Date 1/6/2021

Project UT19-1595

Figure 9

2. Existing Volumes and LOS

Roadways

In order to accurately identify existing conditions on the roadway network in Tooele City, the consultant team gathered traffic data. Existing traffic volumes were obtained from various sources, including the following:

- UDOT - Many of the traffic volume values on State roads and other federal aid roads were obtained from UDOT's *Traffic on Utah Highways* database. These ADT values were 2017 volumes.
- Consultant Team Data – Where UDOT data were not available, the consultant team used data collected for this and previous projects in the area. These data were collected in the form of two-way roadway counts or turning movement counts at intersections and are included in Appendix A.

The volumes from these sources were compiled to have a comprehensive volume map of all major roadways. LOS values were assigned to each roadway segment based on the volume and the LOS criteria for roadways that was described previously. The existing traffic volumes are reported as ADT in vpd along with the LOS of each roadway segment in Figure 10.

As shown, many of the major roadways are currently operating at an acceptable LOS (D or better). Roadways that currently lack adequate capacity include Main Street (SR-36) between 600 North and 1400 North, and 1000 North between Main Street (SR-36) and Broadway Avenue.

Intersections

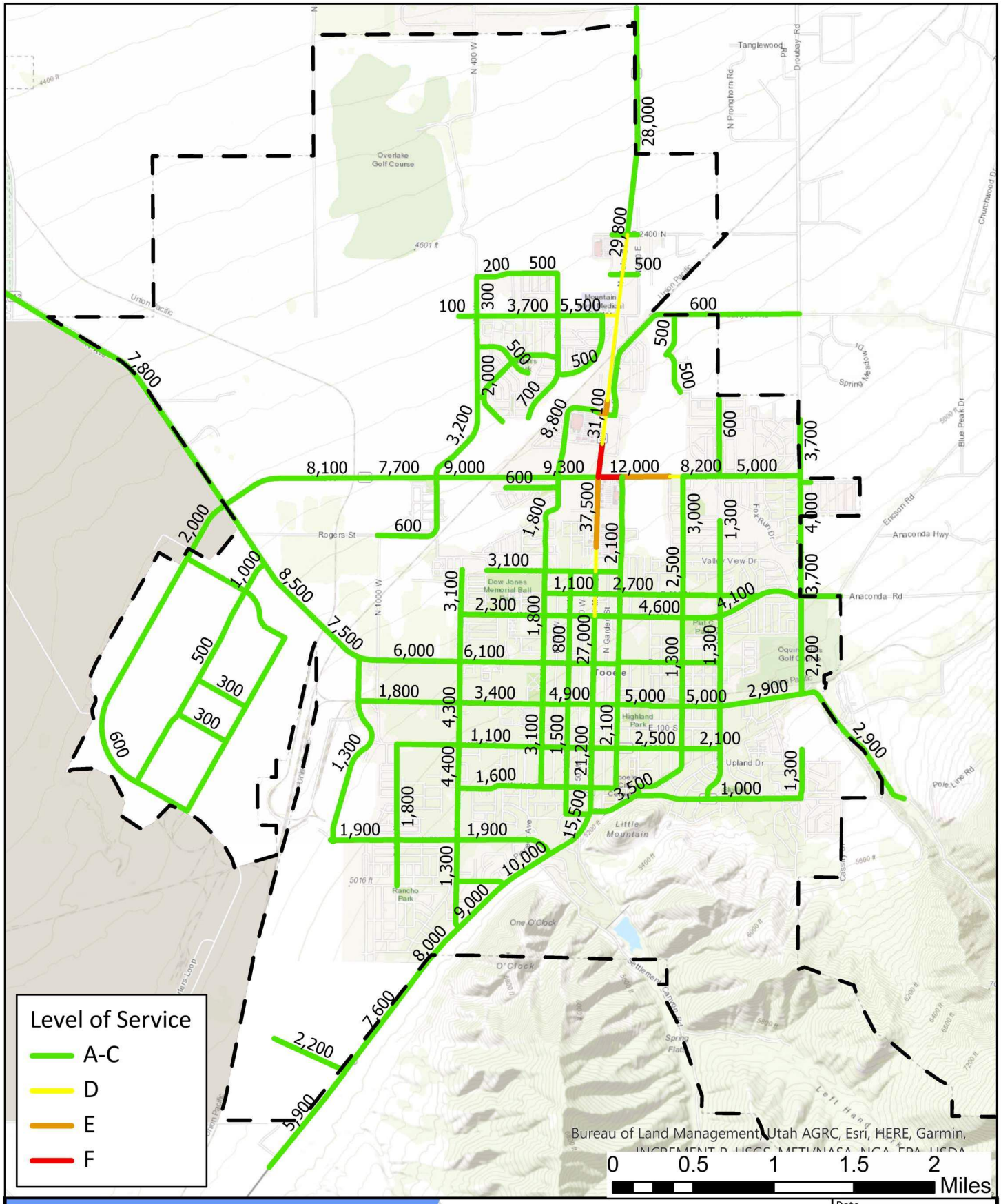
Evening peak hour turning movement count data were collected for several major intersections within the City. Hales Engineering completed evening peak hour turning movement counts between 4:00 and 6:00 p.m. at the following intersections on Wednesday, January 15, 2020 and Thursday, January 16, 2020:

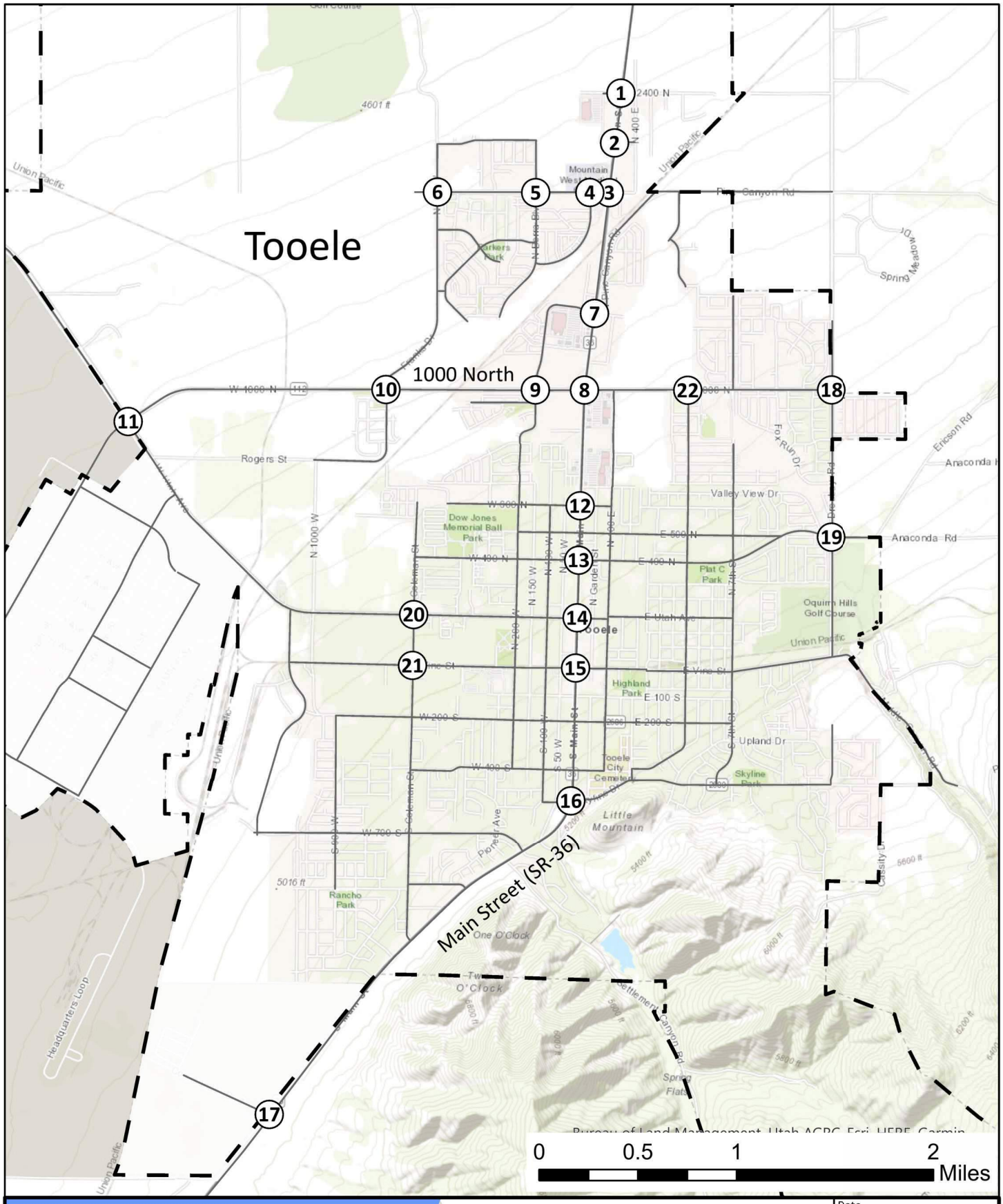
- 2000 North / Main Street (SR-36)
- 1000 North (SR-112) / Main Street (SR-36)
- Broadway Avenue / 1000 North
- 1000 North / Droubay Road
- 970 North / Droubay Road
- Droubay Road / Smelter Road
- Coleman Street / Utah Avenue
- Coleman Street / Vine Street

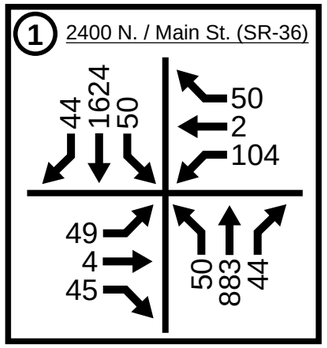
Volume data at the following intersections were collected from previous traffic studies or from UDOT's Signal Performance Metrics website:

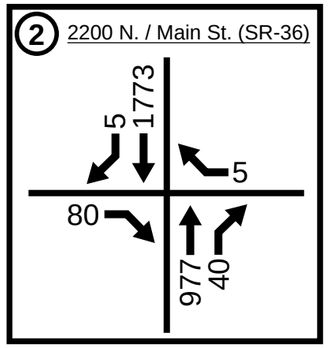
- 2400 North / Main Street (SR-36)
- 2200 North / Main Street (SR-36)
- Aaron Drive / 2000 North
- Berra Boulevard / 2000 North
- 400 West / 2000 North
- 1280 North / Main Street (SR-36)
- 200 West / 1000 North (SR-112)
- 600 West / 1000 North (SR-112)
- Industrial Loop Road / Utah Avenue
- 600 North / Main Street (SR-36)
- 400 North / Main Street (SR-36)
- Utah Avenue / Main Street (SR-36)
- Vine Street / Main Street (SR-36)
- Skyline Drive & 520 South / Main Street (SR-36)
- Commander Boulevard / Main Street (SR-36)

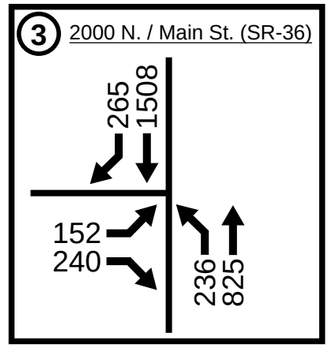
The existing evening peak hour volumes at these major intersections are shown in Figure 11.

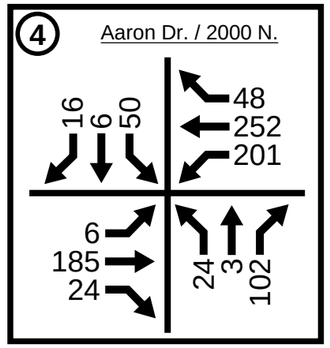

Level of Service
A-C
D
E
F
Bureau of Land Management, Utah AGRC, Esri, HERE, Garmin,
0 0.5 1 1.5 2
Miles
N
Tooele City
Est. 1853
TRANSPORTATION MASTER PLAN
Existing ADT and LOS
Date
1/6/2021
Project
UT19-1595
Figure 10

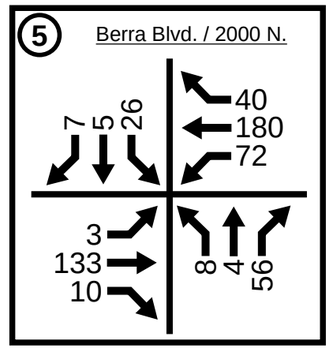

Tooele
1000 North
Main Street (SR-36)
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
2400 N
N 400 E
Union Pacific
Mountain West Middle School
Parkers Park
Canyon Rd
Spring Meadow Dr
Franklin Dr
W 1000 N
112
Rogers St
W 600 N
Dow Jones Memorial Ball Park
N 1000 W
N 150 W
N 50 W
N 100 E
N Garden St
E 500 N
E 400 N
Plat C Park
Valley View Dr
Fox Run Dr
Ericson Rd
Anaconda Rd
W 400 N
E Utah Ave
Oquirrh Hills Golf Course
E Vine St
Highland Park
E 100 S
W 200 S
E 200 S
S 100 W
S 50 W
S Main St
Upland Dr
Tooele City Cemetery
Skyline Park
W 400 S
W 700 S
Little Mountain
Pioneer Ave
5016 ft
Rancho Park
One O'Clock
Two O'Clock
Settlement Canyon Rd
Spring Flat
Headquarters Loop
5200 ft
5400 ft
5600 ft
5800 ft
6000 ft
0
0.5
1
2
Miles
N
TRANSPORTATION MASTER PLAN
Existing (2020) Evening Peak Hour Traffic Volumes
Date
1/6/2021
Project
UT19-1595
Figure 11

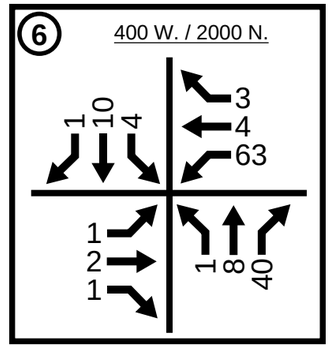


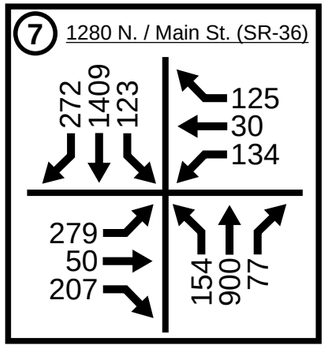


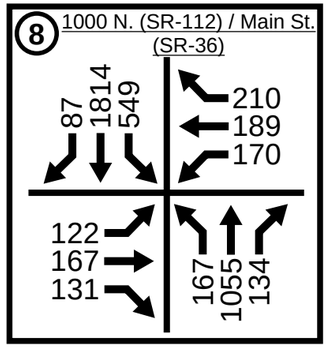


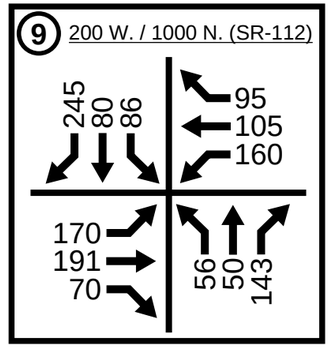


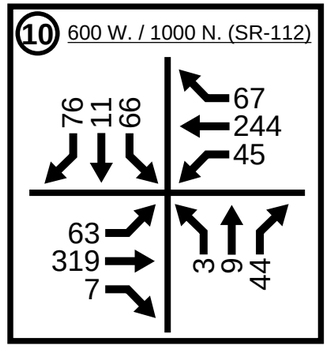


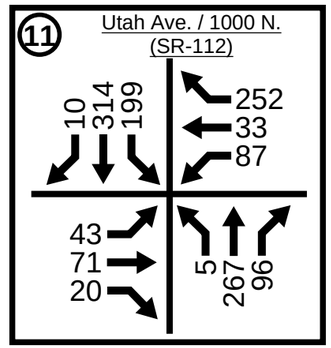


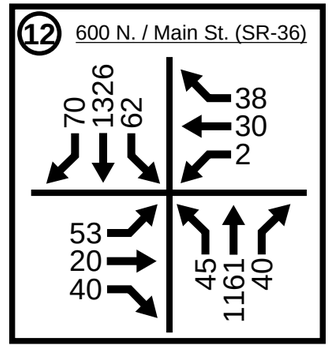


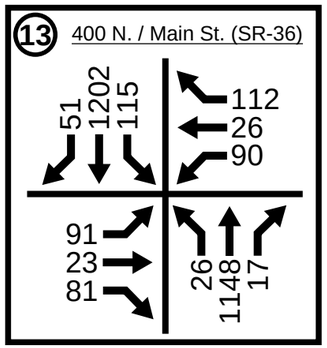


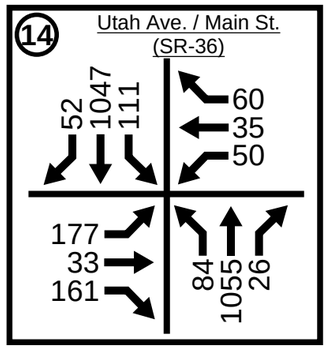


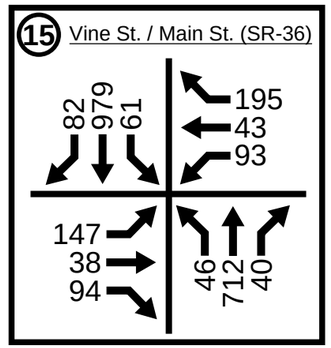


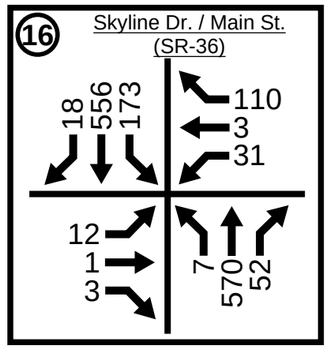


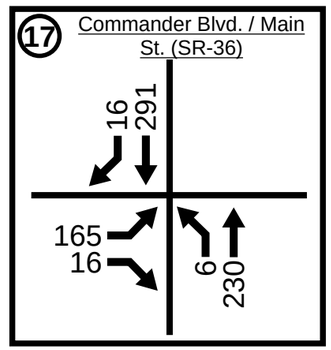


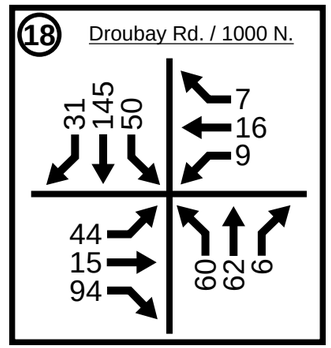


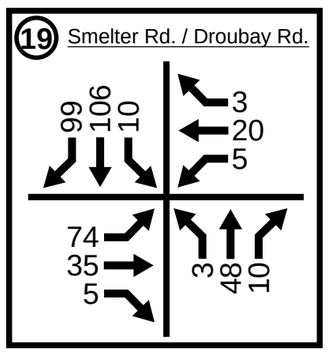


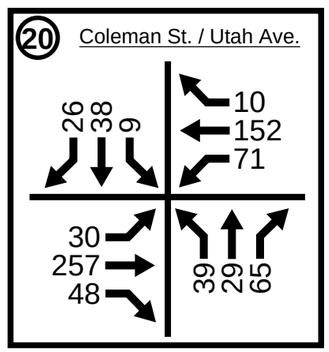


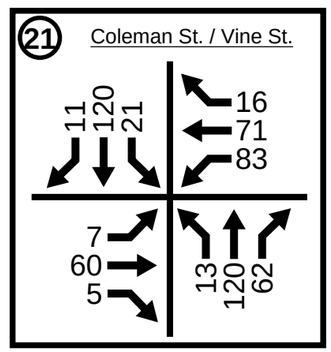


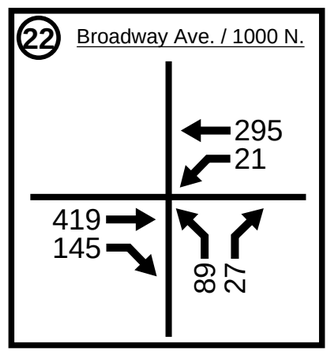












Tooele City Est. 1853

TRANSPORTATION MASTER PLAN

Intersection Volumes

N

DATE 08/11/2020

PROJECT UT19-1595

Figure 11

An intersection LOS analysis was completed for all major intersections in the City. This analysis was completed for the evening peak hour using Synchro / SimTraffic traffic modeling and simulation software, which follow HCM methodology. The evening peak hour LOS was computed for each study intersection. Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. LOS results are provided in Table 5 and visually in Figure 12. LOS and queueing reports are shown in Appendix B.

Most of the intersections in Tooele City are currently operating at acceptable levels of service during the evening peak hour. However, the 1000 North / Main Street (SR-36) intersection is currently operating at LOS E, and the Skyline Drive / Main Street (SR-36) intersection is operating at LOS F.

Table 5: Existing Evening Peak Hour Intersection Level of Service

Intersection		Level of Service		
Description	**Control**	**Movement[1]**	**Aver. Delay (Sec/Veh)**	**LOS[2]**
2400 North / Main Street (SR-36)	Signal	-	10.0	A
2200 North / Main Street (SR-36)	EB/WB Stop	EBR	23.6	c
2000 North / Main Street (SR-36)	Signal	-	14.5	B
Aaron Drive / 2000 North	NB/SB Stop	NBT	14.1	b
Berra Boulevard / 2000 North	Roundabout	-	4.1	A
400 West / 2000 North	EB/WB Stop	EBT	5.6	a
1280 North / Main Street (SR-36)	Signal	-	23.2	C
1000 North (SR-112) / Main Street (SR-36)	Signal	-	71.0	E
200 West / 1000 North (SR-112)	Signal	-	13.7	B
600 West / 1000 North (SR-112)		SBT	12.5	b
Industrial Loop Road / Utah Avenue	Signal	-	11.7	B
600 North / Main Street (SR-36)	Signal	-	8.8	A
400 North / Main Street (SR-36)	Signal	-	13.0	B
Utah Avenue / Main Street (SR-36)	Signal	-	16.3	B
Vine Street / Main Street (SR-36)	Signal	-	12.7	B
Skyline Drive & 520 South / Main Street (SR-36)	EB/WB Stop	WBL	>50	f
Commander Boulevard / Main Street (SR-36)	EB/WB Stop	EBL	9.3	a
Broadway Avenue / 1000 North	NB Stop	NBL	12.3	b
1000 North / Droubay Road	EB Stop	EBL	9.0	a
970 North / Droubay Road	WB Stop	WBL	6.1	a
Droubay Road / Smelter Road	NB/SB Stop	NBL	7.1	a
Coleman Street / Utah Avenue	NB/SB Stop	NBL	11.5	b
Coleman Street / Vine Street	NB/SB Stop	NBT	7.9	a

1. Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.
2. Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for non-AWSC unsignalized intersections.

Source: Hales Engineering, July 2020

It is recommended that the westbound approach of the Skyline Drive & 520 South / Main Street (SR-36) intersection be restriped to accommodate a separate 100-foot right-turn pocket. Additionally, the alignment of Skyline Drive or 520 South will likely need to be changed to match the street across the intersection to prepare for a future signal at some point.

It is also recommended that dual left-turn lanes be constructed on the southbound approach of the 1000 North (SR-112) / Main Street (SR-36) intersection. This will require two receiving lanes on the east leg of the intersection that merge farther down the road. A separate 200-foot right-turn pocket should also be constructed on the eastbound approach. With these mitigations, it is anticipated that the 1000 North (SR-112) / Main Street (SR-36) intersection will operate at an acceptable LOS in existing conditions.

An intersect LOS analysis was only performed for existing conditions, due to some of the unpredictability of turning movement counts in the future. The intersections in the City should be evaluated as time goes on to determine needed improvements.

E. FUTURE CONDITIONS

Future ADT roadway volumes were projected based on the anticipated development in the City. This was done based on future land use plans discussed in Chapter II as well as trip generation, distribution, and assignment. These tasks were completed to determine roadway ADT volumes, which were then translated to turning movement counts.

1. Land Use

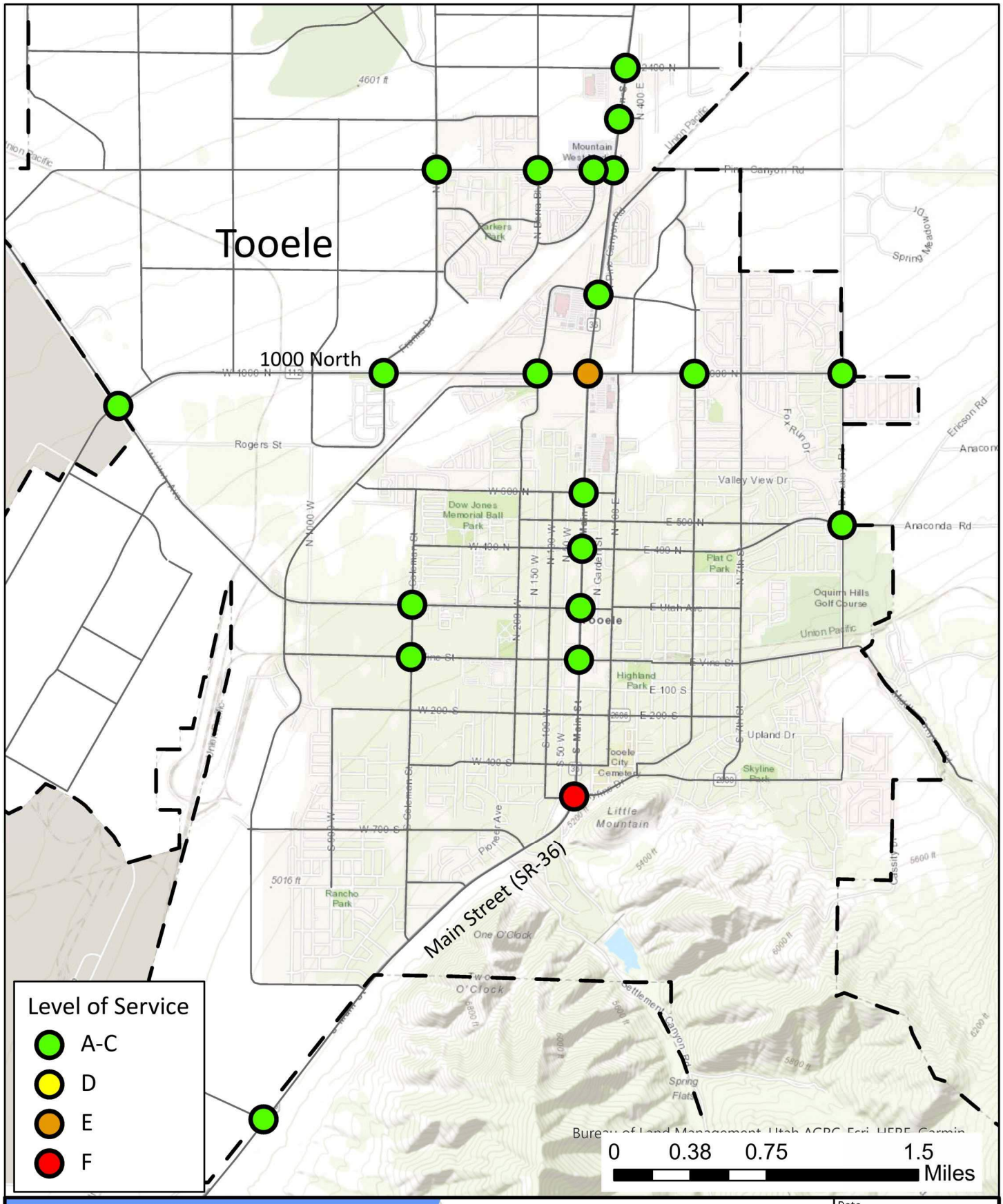
It is anticipated that Tooele City will experience rapid growth in the next several years. Because future traffic estimates are dependent upon development projections, Tooele City provided potential development locations, types, and densities that would contribute to a full-build scenario. Since 2000, Tooele City has experienced an average growth of approximately 3.7 percent per year. If this growth rate holds, Tooele City will likely reach full-build conditions around the year 2040.

It is estimated that approximately 12,000 new dwelling units consisting of single-family housing, townhomes, and apartments will be constructed. It was also estimated that 3.5 million square feet of commercial space will be constructed, as well as 1.4 million square feet of industrial space. The new high school was also factored into the analysis. While not factored into the analysis, the extent to which Tooele City will be able to fully develop will depend on water resource availability. A map showing the assumed future land uses is shown in Figure 13.

2. Traffic Volumes

Trip Generation

Based on the proposed future land use conditions, trip generation for future conditions was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE), *Trip Generation*, 10th Edition, 2017.



Tooele City Est. 1853

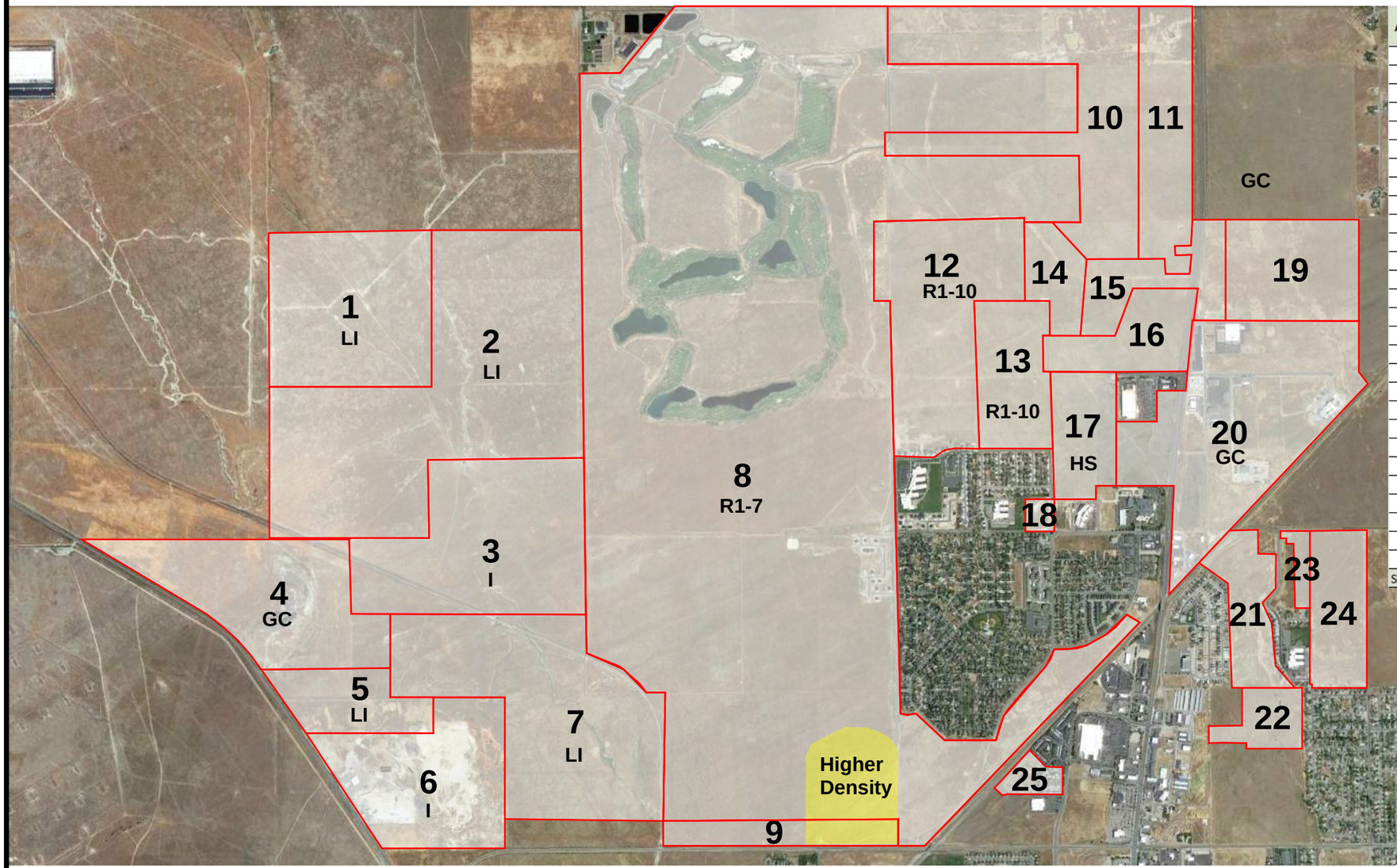
TRANSPORTATION MASTER PLAN

Existing (2020) Evening Peak Hour Intersection LOS

Date 1/6/2021

Project UT19-1595

Figure 12



Area	Land Use Type	Area	Density	Dwelling	1,000 ft²	Other
		Acres		Units	GFA/GLA	
1	Light Industrial (LI)	163	10		1630	
2	Light Industrial (LI)	380	10		3800	
3	Industrial (I)	196	13.6		2665.6	
4	General Commercial (GC)	154	8.7		1339.8	
5	Light Industrial (LI)	54	10		540	
6	Industrial (I)	136			1855	
7	Light Industrial (LI)	244			3057	
8	Residential (R1-7)	1774		4320		
9	Neighborhood Commercial (NC)	39			528	
10	Residential (R1-7)	200	5	1000		
11	General Commercial (GC)	89	8.7		774.3	
12	Residential (R1-10)	162	3.5	567		
13	Residential (R1-10)	69	3.5	242		
14	Residential (R1-10)	34	3.5	119		
15	General Commercial (GC)	53	8.7		450	
16	General Commercial (GC)	55	8.7		371	
17	High School	51				1500 Students
18	Residential (MR-8)	6	8	48		
19	Residential (MR-8)	87	8	696		
20	General Commercial (GC)	227	10		650	
20	Light Industrial (LI)	227	10		950	
21	Residential (MR-16)	48	16	768		
22	Residential (R1-8)	27	4	108		
23	Residential	9	3.67	33		
24	Residential	58	5.17	300		
25	Residential	12	16.58	199		
26	Residential	20	3.15	63		
27	Residential	10	2.30	23		

Source: Hales Engineering, July 2020

Tooele City
Est. 1853

TRANSPORTATION MASTER PLAN

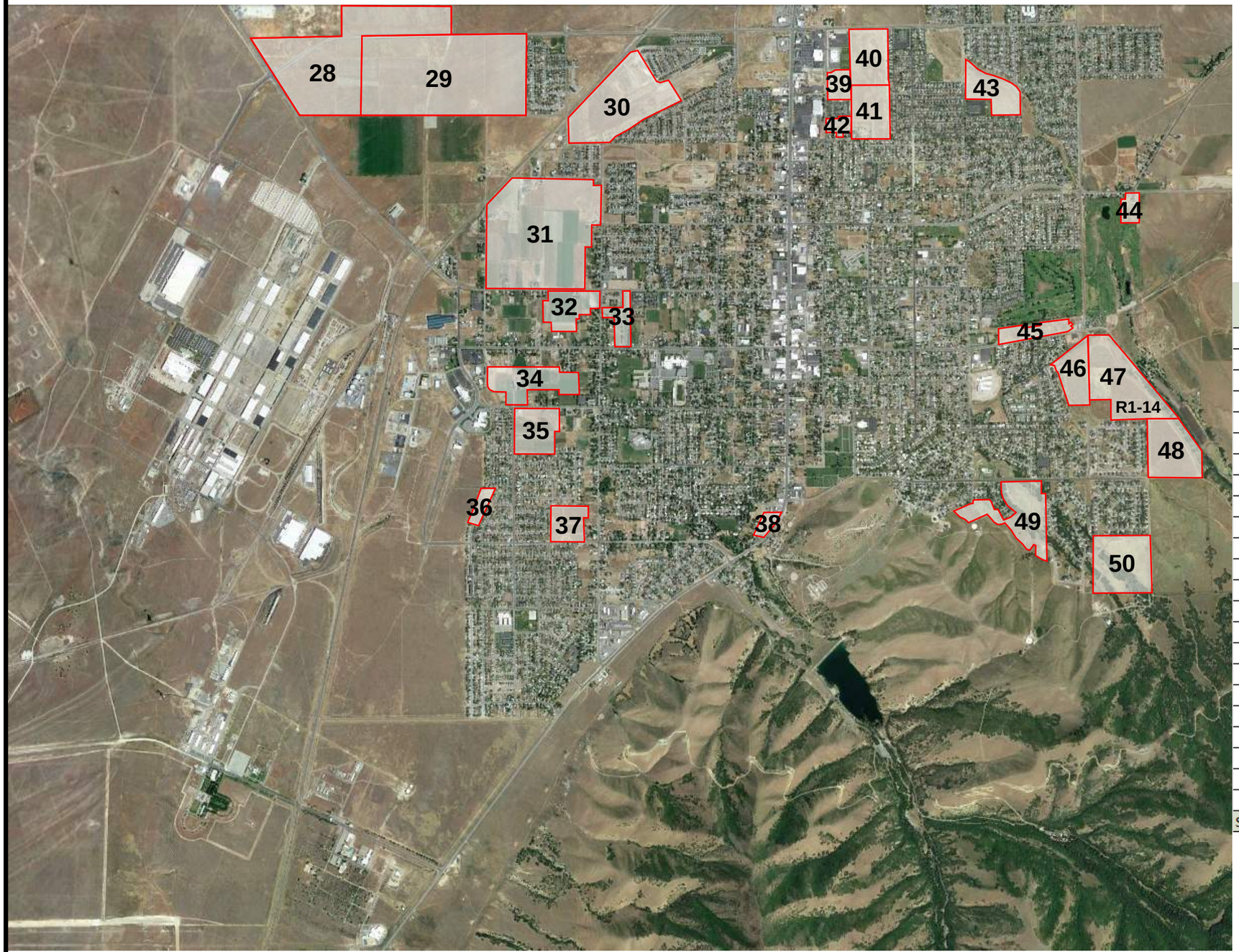
Future Land Use Map

N

DATE 08/11/2020

PROJECT UT19-1595

Figure 13



Area	Land Use Type	Area	Density	Dwelling	1,000 ft²
		Acres		Units	GFA/GLA
28	General Commercial (GC) / Industrial (I)	125			1455
29	Residential (MR-8)	166	8	1328	
30	Residential	68	4.15	282	
31	Residential	142	2.64	375	
32	Residential	22	2.59	57	
33	Residential	11	3.18	35	
34	Residential	30	3.17	95	
35	Residential	24	2.50	60	
36	Residential	6	14.00	84	
37	Residential	15	4.07	61	
38	Resdiential (MR-16)	4	16	64	
39	Residential	8	16.50	132	
40	Residential	27	5.04	136	
41	Residential	26	4.23	110	
42	Residential	5	8.80	44	
43	Residential	22	3.95	87	
44	Residential	6	2.17	13	
45	Residential	12	5.17	62	
46	Residential	21	1.43	30	
47	Residential (R1-14)	53	2.5	140	
48	Residential	35	1.89	66	
49	Residential	40	2.70	108	
50	Residential	42	2.12	89	

Source: Hales Engineering, July 2020

Tooele City
Est. 1853

TRANSPORTATION MASTER PLAN

Future Land Use Map

N

DATE 08/11/2020

PROJECT UT19-1595

Figure 13

Trip Distribution and Assignment

Development traffic is assigned to the roadway network based on the proximity of the developments 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.

Because Tooele City is shifting from its current status as a primarily residential community to one with a mix of commercial and residential land uses, it is likely that a full-build condition will see most of the trips being internal to Tooele City. For a full-build scenario, it was assumed that approximately 15% of trips would be external, with the rest leaving city boundaries to the north, west, and south. The resulting distribution of daily external trips is as follows:

To/From City:

- 93% North
- 2% South
- 5% West

These trip distribution assumptions were used to assign the daily generated traffic along the roadways in Tooele City to create trip assignment for a fully developed condition.

3. No-Build LOS

LOS was analyzed for a scenario in which new roads had been constructed to support full development, but existing roads had not been widened (no-build condition). The exception to this is SR-36, which is planned to be widened to a 7-lane cross-section north of 1000 North (SR-112). According to the Unified Plan, this widening is a Phase 3 project and is scheduled to be completed between 2041 and 2050. All new roads, with the exception of Tooele Boulevard, were assumed to have a 2-lane cross-section. The no-build roadway LOS for future conditions is shown in Figure 14.

4. Roadway Improvements

As Tooele continues to develop, new roads will be constructed to connect developments to arterial streets. Additionally, improvements for future conditions were recommended for roadways that are anticipated to operate at a poor LOS. New roads and recommended improvements on city roadways are listed in Table 6 and shown in Figure 15. The future roadway network with signal locations and roadway functional classification is shown in Figure 16. Future signal locations were assigned based on the current corridor agreements with UDOT and based on the proposed roadway network.

Because Mid Valley Highway is not feasible given current land use, it is more likely that Tooele Boulevard will extend from its current terminus at 700 South to connect with SR-36 just north of the army depot.

SR-36 has plans to be widened to a 4- or 5-lane cross section from Skyline Drive to Stockton. This project is also unfunded, and it was not included in the analysis as projected volumes do not warrant widening at this time.

SR-112 is planned to be widened to a 5-lane cross-section from where it meets Utah Avenue to Grantsville. This project is also currently unfunded but was included in the analysis.

The widening to 5 lanes on 1000 North from Main Street (SR-36) to Droubay road will likely need a variance from the established arterial cross-section due to narrow pavement widths along this segment

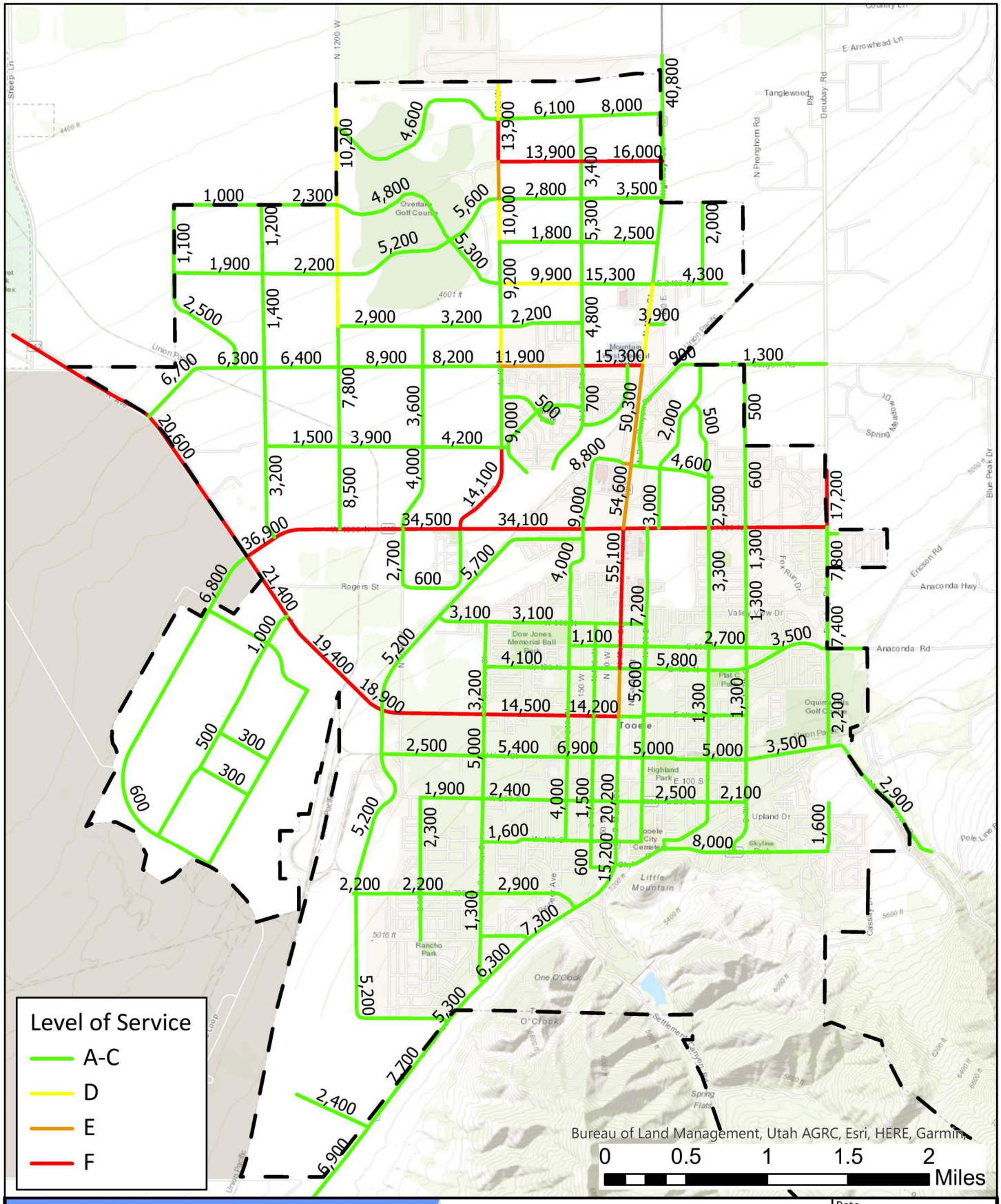
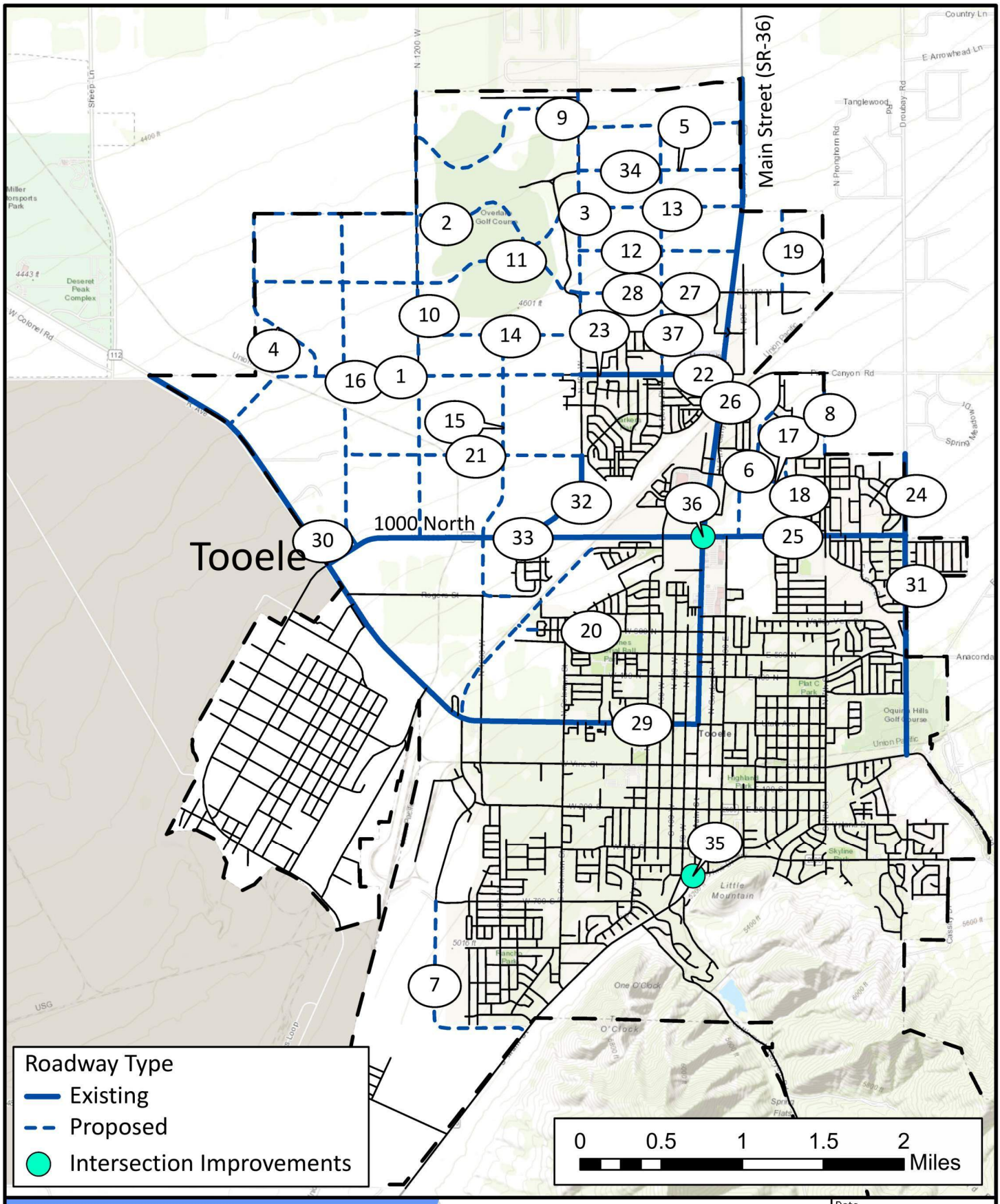
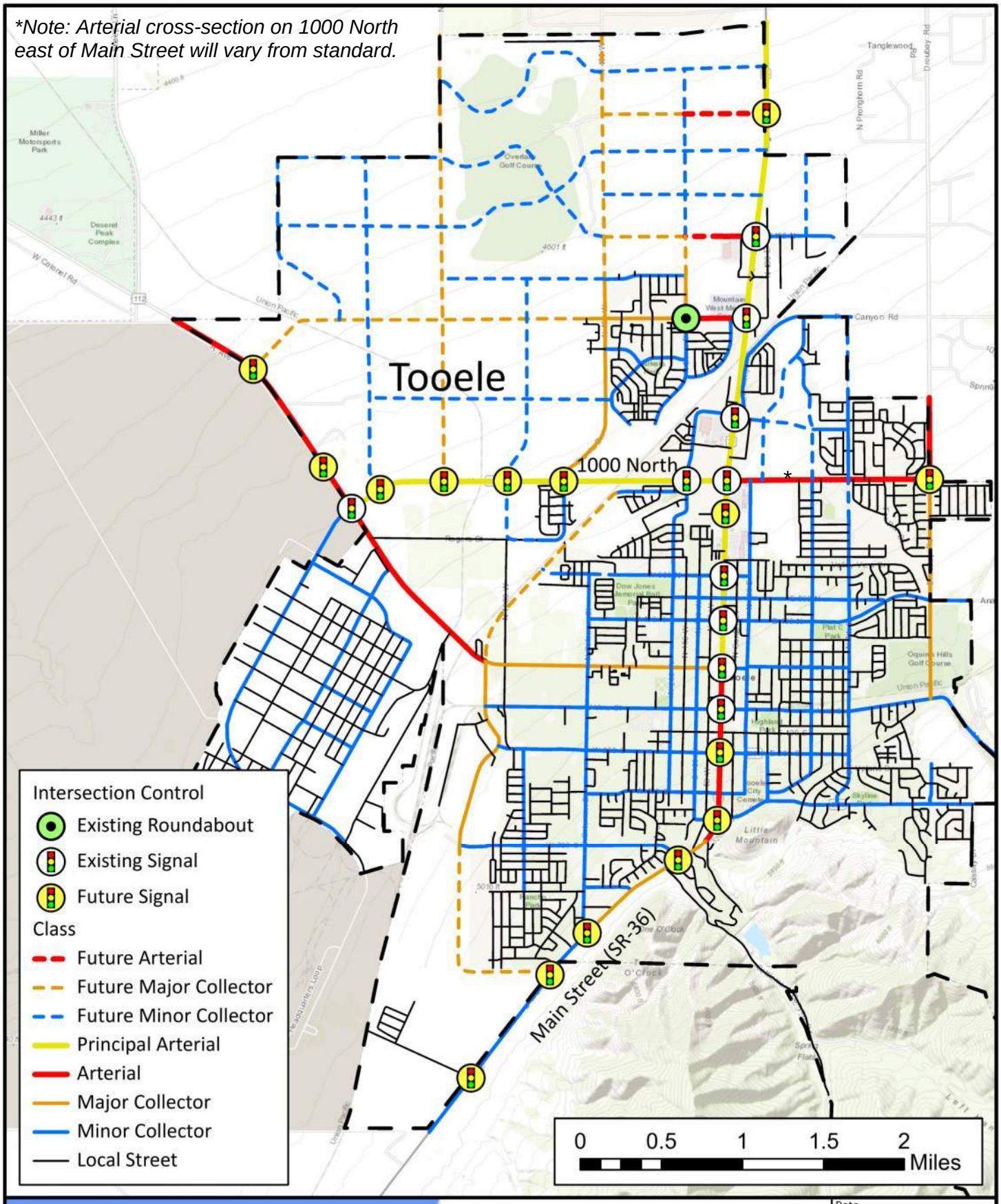

Level of Service
A-C
D
E
F
Bureau of Land Management, Utah AGRC, Esri, HERE, Garmin
0 0.5 1 1.5 2
Miles
N
Tooele City
Est. 1853
TRANSPORTATION MASTER PLAN
Future No-Build LOS
Date
1/6/2021
Project
UT19-1595
Figure 14

Table 6: Recommended Improvement Projects

#	Location	Type	Description	Jurisdiction
1	2000 North: 475 West to SR-112	New Road	Build 3-lane road	City
2	2600 North: 2400 North to 1500 West	New Road	Build 2-lane road	City
3	400 West: 2200 North to 3400 North	New Road	Build 3-lane road	City
4	1500 West: 2000 North to 2600 North	New Road	Build 2-lane road	City
5	3000 North: Main Street (SR-36) to 200 West	New Road	Build 5-lane road	City
6	Copper Canyon Road: Broadway Avenue to 1000 North	New Road	Build 2-lane road	City
7	Tooele Blvd: 400 West to Utah Avenue; 700 South to SR-36	New Road	Build 3-lane road	City
8	520 East: 1400 North to Pine Canyon Road	New Road	Build 2-lane road	City
9	3200 North: Main Street (SR-36) to 1200 West	New Road	Build 2-lane road	City
10	1200 West: 1000 North (SR-112) to 3400 North	New Road	Build 3-lane road	City
11	2800 North: Main Street (SR-36) to 1500 West	New Road	Build 2-lane road	City
12	2600 North: Main Street (SR-36) to 400 West	New Road	Build 2-lane road	City
13	200 West: 2200 North to 3200 North	New Road	Build 2-lane road	City
14	2200 North: 400 West to 1200 West	New Road	Build 2-lane road	City
15	800 West: Rogers Street to 2200 North	New Road	Build 2-lane road	City
16	1300 West: 1000 North to 2600 North	New Road	Build 2-lane road	City
17	1280 North: Existing Terminus to 1310 North	New Road	Build 2-lane road	City
18	Broadway Avenue: 1000 North to 1520 North	New Road	Build 2-lane road	City
19	670 East: 2400 North to 2800 North	New Road	Build 2-lane road	City
20	600 North: 450 West to Coleman St.; Kay Ln. to Tooele Blvd	New Road	Build 2-lane road	City
21	1500 North: 400 West to 1300 West	New Road	Build 2-lane road	City
22	2000 North: Main Street (SR-36) to 200 West	Widening	Widen to 5 lanes	City
23	2000 North: 200 West to 400 West	Widening	Widen to 3 lanes	City
24	Droubay Road: 1000 North to North City Limits	Widening	Widen to 5 lanes	City
25	1000 North: Main Street (SR-36) to 690 East	Widening	Widen to 5 lanes	City
26	Main Street (SR-36): Utah Avenue to North City Limits	Widening	Widen to 7 lanes	UDOT
27	2400 North: Western Terminus to 200 West	New Road	Build 5-lane road	City
28	2400 North: 200 West to 400 West	New Road	Build 3-lane road	City
29	Utah Avenue: Main Street (SR-36) to Tooele Boulevard	Widening	Widen to 3 lanes	City
30	Utah Avenue: Tooele Boulevard to West City Limits	Widening	Widen to 5 lanes	City
31	Droubay Road: Vine Street to 1000 North	Widening	Widen to 3 lanes	City
32	400 West: 1000 North (SR-112) to 1500 North	Widening	Widen to 3 lanes	City
33	1000 North: Main Street (SR-36) to Utah Avenue	Widening	Widen to 7 lanes	UDOT
34	3000 North: 200 West to 400 West	New Road	Build 3-lane road	City
35	Skyline Drive & 520 South / Main Street (SR-36)	Intersection	Realign to fix offset	UDOT
36	1000 North (SR-112) / Main Street (SR-36)	Intersection	Innovative intersection	UDOT
37	Berra Boulevard: 2000 North to 2400 North	New/Widen	Build 3-lane road	City


Main Street (SR-36)
1000 North
Tooele
9
5
34
3
13
2
12
19
11
28
27
10
14
23
37
4
16
1
22
26
8
15
17
21
6
18
24
32
36
30
33
25
31
20
29
35
7
Roadway Type
Existing
Proposed
Intersection Improvements
0
0.5
1
1.5
2
Miles
N
Tooele City
Est. 1853
TRANSPORTATION MASTER PLAN
Future Projects
Date
1/6/2021
Project
UT19-1595
Figure 15



Tooele City
Est. 1853

TRANSPORTATION MASTER PLAN

Future Roadway Network

Date 1/6/2021

Project UT19-1595

Figure 16

Due to development on the eastern terminus of Skyline Drive, the Skyline Drive & 520 South / Main Street (SR-36) intersection will likely need to be signalized. As a part of this, UDOT will likely require Skyline Drive to be realigned so that it matches 520 South to avoid offset intersections.

Based on projected volumes, 1000 North (SR-112) may need to be widened to a 7-lane cross-section from Main Street (SR-36) to Utah Avenue. It is recommended that UDOT acquire the necessary right-of way, but UDOT may decide to stripe it as a 5-lane road until additional lanes are warranted.

Due to heavy projected volumes at the 1000 North (SR-112) / Main Street (SR-36) intersection, a conventional intersection may not be adequate. UDOT may consider implementing an innovative intersection, such as a continuous flow intersection (CFI).

Currently, Droubay Road is 20 feet wide between Smelter Road and Vine Street. It is recommended that it be widened to a full 3-lane cross-section from Vine Street to 1000 North as Tooele County is planning an Oquirrh Expressway connection on Droubay to the north of the City. Droubay Road will likely need to be widened to 5 lanes north of 1000 North.

While the volumes on most new roads, particularly in the Overlake area, would operate with adequate capacity with a 2-lane cross-section, it is better to construct some roads as clear collectors to incentivize vehicle travel away from local streets. In the project list, roads such as 400 West, 1200 West, and 2000 North are recommended to contain three lanes. This would be especially useful if Tooele City ever decided to annex the area to the north and connect new development there to its roadway system in the Overlake area.

5. Full-Build LOS

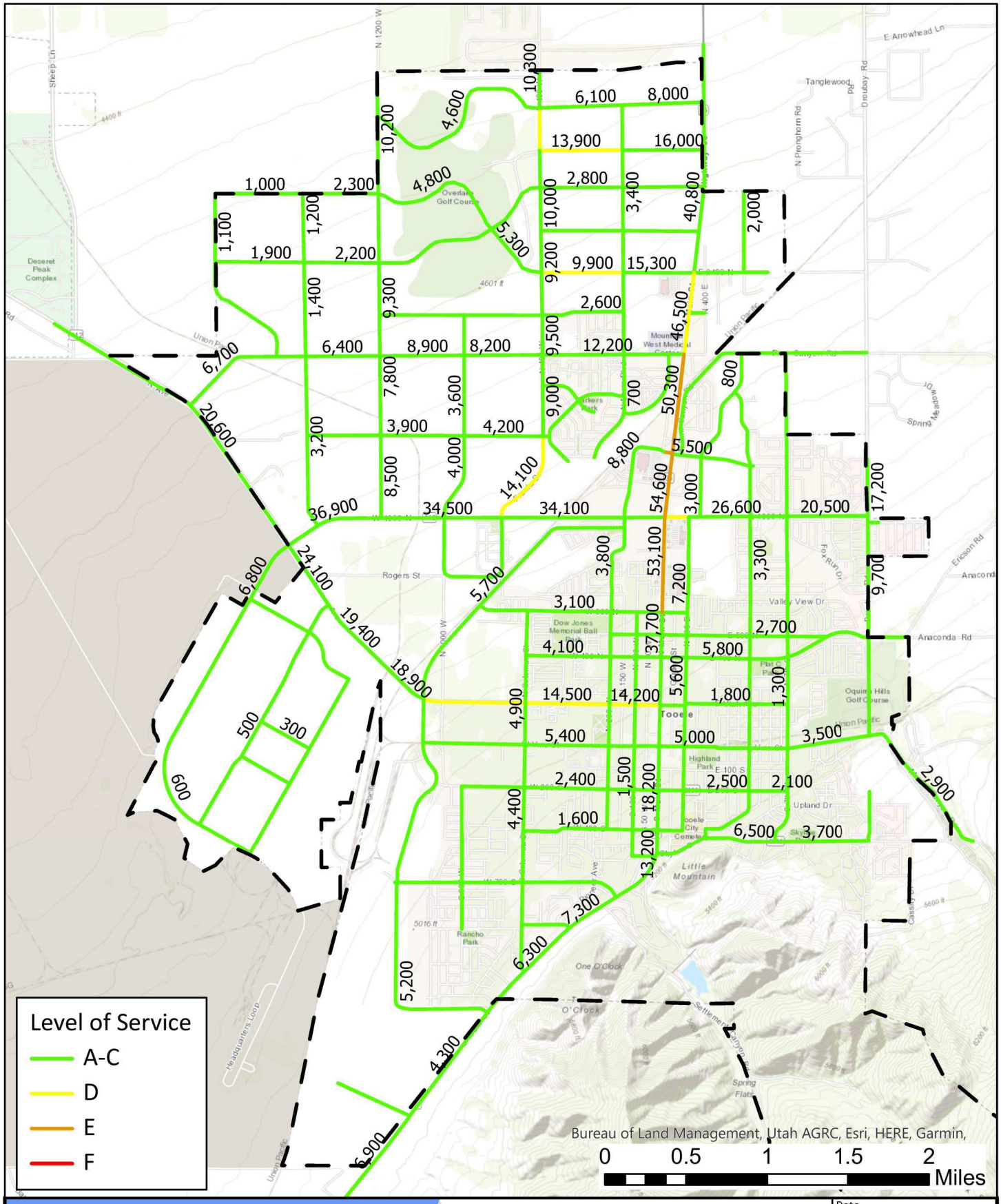
With the proposed improvements, most Tooele City roadways are anticipated to operate at LOS D or better, as shown in Figure 17. Main Street (SR-36) may not have adequate capacity to service full demand, even with seven lanes. Additional turn lanes at intersections can also increase capacity as needed. However, when streets become congested, motorists will often choose to take alternative routes. Droubay Road have additional capacity to accommodate traffic rerouting away from SR-36. As discussed, an innovative intersection such as a continuous flow intersection (CFI) may be needed in the future at the 1000 North / Main Street (SR-36) intersection.

F. Truck Routes

In order to minimize the impact of trucks on most city streets, truck routes have been designated for existing and future roadways. These truck routes are primarily located on arterial roadways, including all state-maintained arterials located in Tooele City. The Tooele City Code outlines the following public streets that are designated as truck routes:

- Main Street (SR-36)
- SR-112
- Tooele Boulevard (1100 West)
- Droubay Road
- Pine Canyon Road

These can be found in Section 10-2-7 of the City Code. Figure 18 shows designated truck routes within Tooele City. Currently, Main Street (SR-36) experiences approximately 5 percent truck traffic at Vine Street.



Tooele City Est. 1853

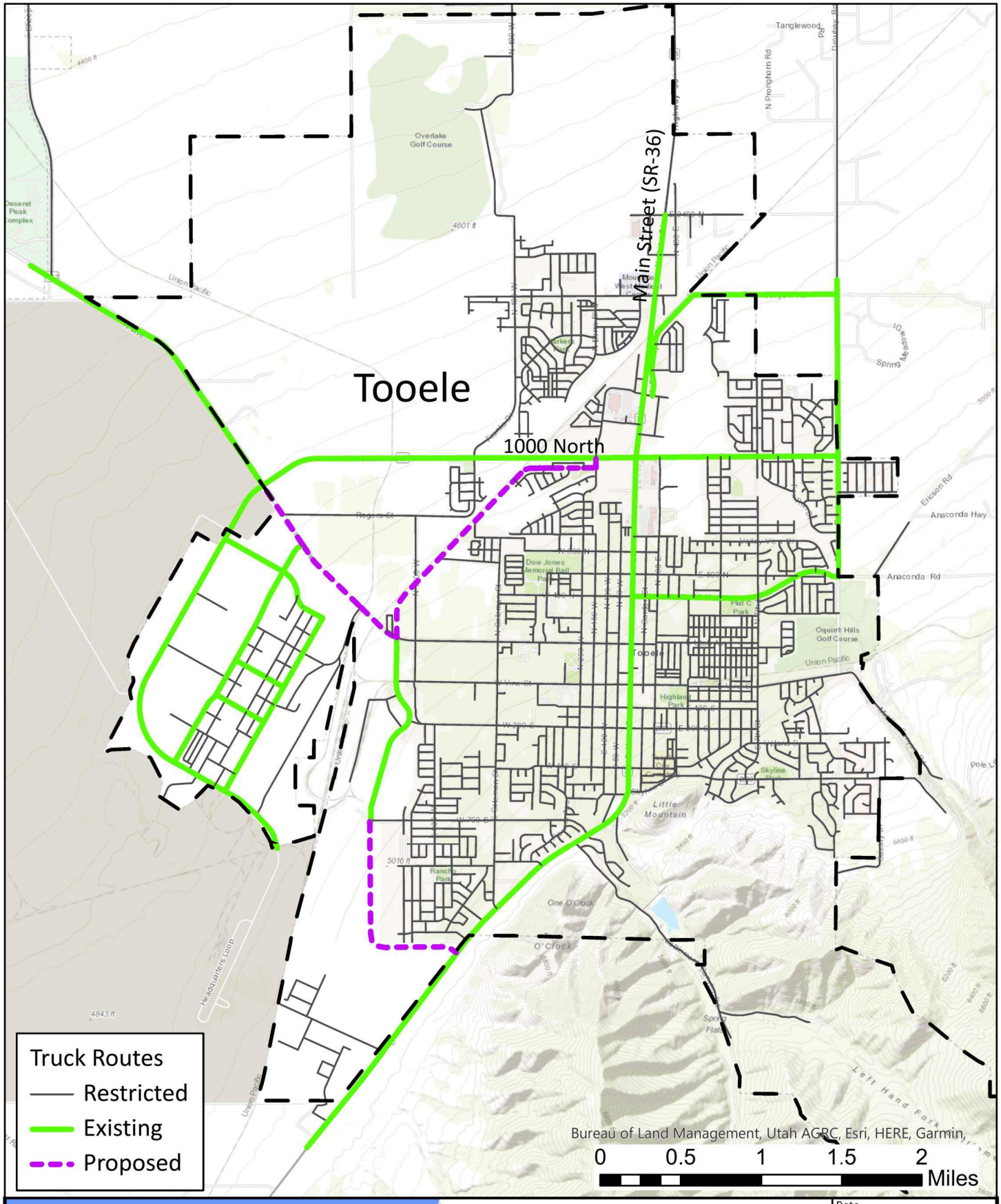
TRANSPORTATION MASTER PLAN

Future Full-Build LOS

Date 1/6/2021

Project UT19-1595

Figure 17



Tooele City Est. 1853

TRANSPORTATION MASTER PLAN

Truck Routes

N

Date 1/6/2021

Project UT19-1595

Figure 18

IV. ALTERNATIVE MODES OF TRANSPORTATION

A. PURPOSE

A transportation system is composed of more than roadways. It also includes provisions for other modes of transportation including public transit, cycling, and walking. The purpose of this section is to discuss these modes and how Tooele City can improve the infrastructure that facilitates these modes.

B. PUBLIC TRANSIT

Public transportation in Tooele City is served by the Utah Transit Authority (UTA). Currently, public transportation within city limits includes bus and flex shuttle service. Figure 19 shows the existing transit routes in Tooele.

The following and existing transit facilities in Tooele City:

- Bus – There is one existing UTA bus route that services Tooele City, which is Route 451. Route 451 has five buses leaving Tooele to Salt Lake City from 5:00 to 7:00 a.m. and five buses leaving Salt Lake City to Tooele from 3:45 to 5:45 p.m. All buses have approximately 30 minutes of headway.
- Flex Shuttle – There are three existing UTA flex shuttle routes that service Tooele City: Routes F400, F402, and F453. These routes provide comprehensive service to the City of Tooele and Route F453 provides service to and from Salt Lake City. The shuttles follow the assigned route but also change course to pick up riders. These routes vary in headway from 30 minutes to one hour.

Future transit projects could include increasing express service to and from Salt Lake City, potentially during off-peak hours. Internal routes could be added to Tooele City as residential and commercial development continues to increase. Tooele City should also work with UTA to extend transit routes to the industrial depot area.

C. ACTIVE TRANSPORTATION

Providing safe and convenient bicycle and pedestrian facilities in Tooele City is critical to promoting active and multi-modal transportation. If citizens have easy access to these facilities, use of the bicycle and pedestrian modes of travel will increase. The City has a few existing routes to facilitate these modes. However, there are also some improvements that could be made to improve the system.

This section is a supplement to the parks and recreation element of the General Plan. The following are the classifications of bike facilities that are found or planned for in Tooele City:

- Multi-Use Trail – A separate path designed for non-motorized traffic such as bicycles or pedestrians. Other names for these facilities include “bike paths” or “shared-use paths.”
- Bike Lane – A facility that includes striped lanes meant for bicycle use within the paved roadway.
- Shared Roadway – Facilities designated by signs, striping, and/or directional markers where bicycles share the roadway with motorized traffic.

Tooele City currently has a small network of these bike facilities. Recently, shared roadways were marked along Vine Street between 50 East and 50 West and along 100 East between 700 North and 1000 North. Bike lanes exist along 1000 North between 100 East and Droubay Road. There is a partially-paved trail that starts on Utah Avenue at the west end of the city winds its way up, crossing underneath 1000 North (SR-112) and ends on Sheep Lane. According to the Tooele County Active Transportation Implementation Plan (November 2018), this is part of the priority active transport corridor.

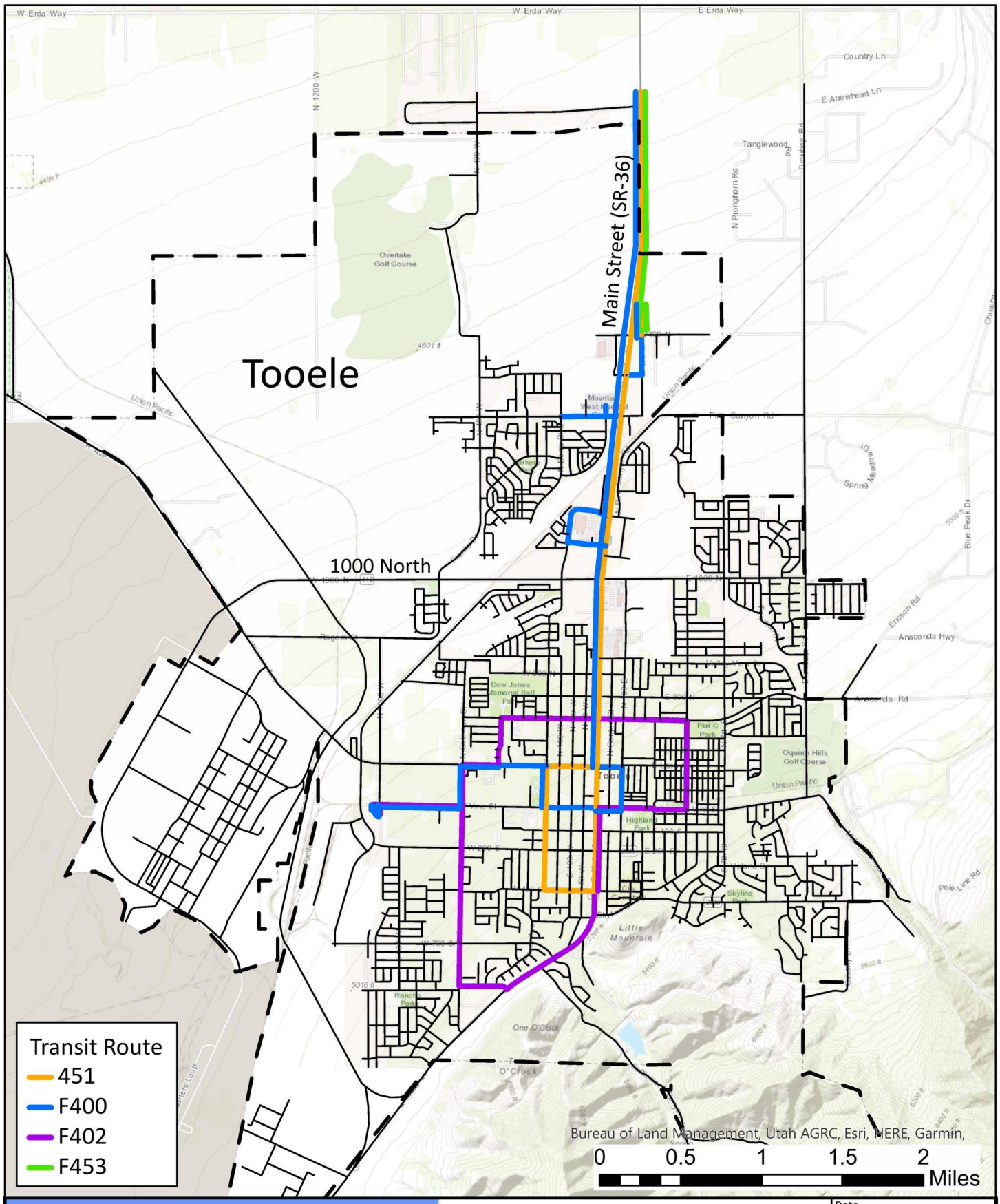
Future bike facilities were identified based primarily on the Tooele County Active Transportation Implementation Plan and UTA's First Mile/Last Mile web map application. Existing and proposed bike facilities are shown in Figure 20. The purpose of the proposed facilities is to connect existing facilities and to plan for facilities in developing areas.

Concepts of typical bike lane and shared roadway treatment cross-sections for the City's use were designed based on the National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide and the Utah Manual on Uniform Traffic Control Devices (MUTCD). These concepts are shown in Figure 21. Concepts have been provided for the following proposed treatments:

1. Shared Roadway – This treatment includes a sharrow in the vehicle travel lane for shared use.
2. Conventional Bike Lane – This treatment is a dedicated bike lane adjacent to vehicle traffic.
3. Buffered Bike Lane – This treatment is a bike lane separated by a small buffer from vehicles. This treatment would be ideal for 1000 North.

The location of parks is important when considering bike and pedestrian facilities and this was considered when proposing future facilities. Several parks currently exist in Tooele City, scattered in a variety of places. The Tooele City Parks Map can be found at the following website:

https://tooelecity.org/wp-content/uploads/2014/03/CITY-PARKS-Feb2019.pdf



Tooele City
Est. 1853

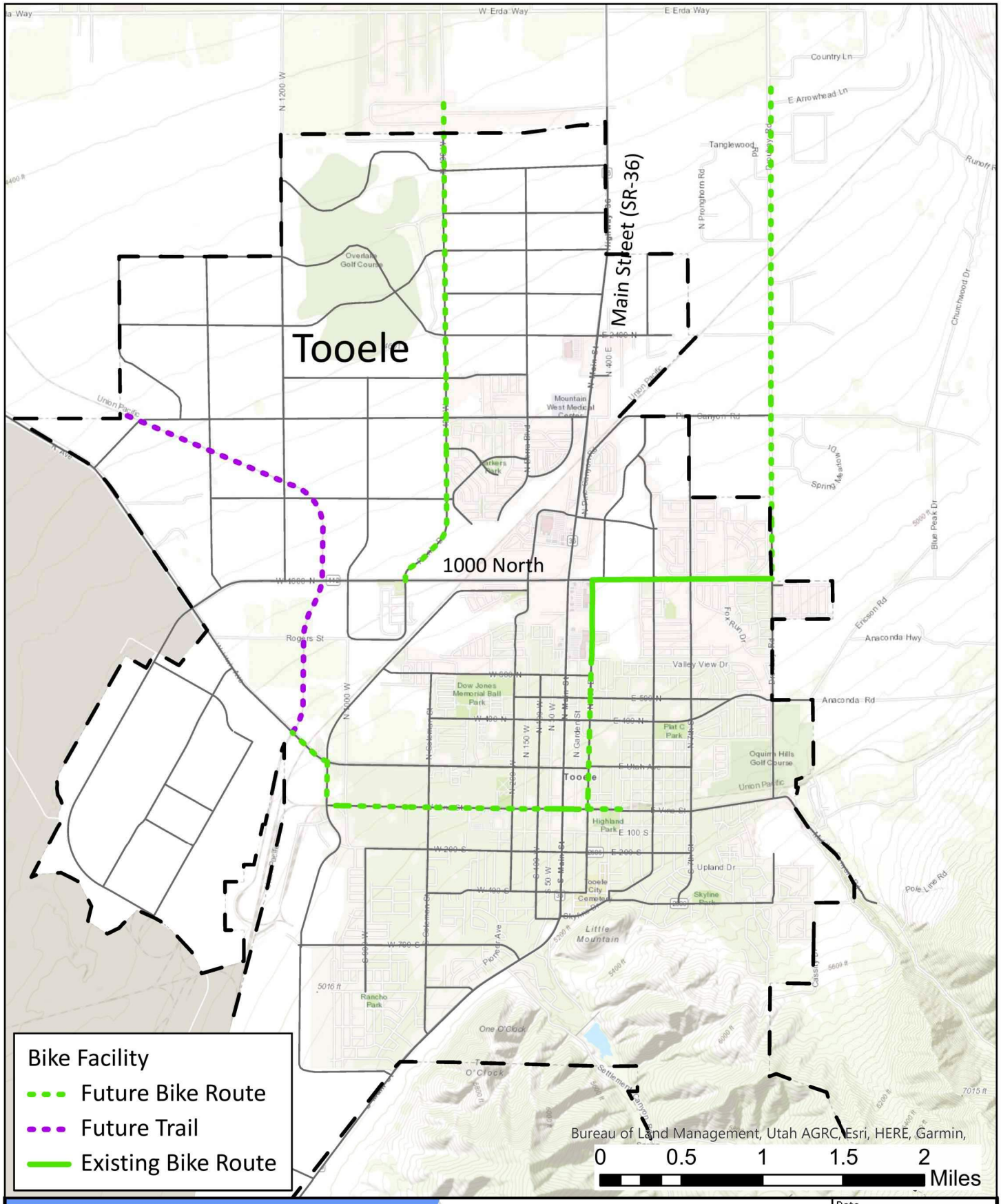
TRANSPORTATION MASTER PLAN

Public Transit Route Map

Date 1/6/2021

Project UT19-1595

Figure 19



Tooele City Est. 1853

TRANSPORTATION MASTER PLAN

Bike Routes

N

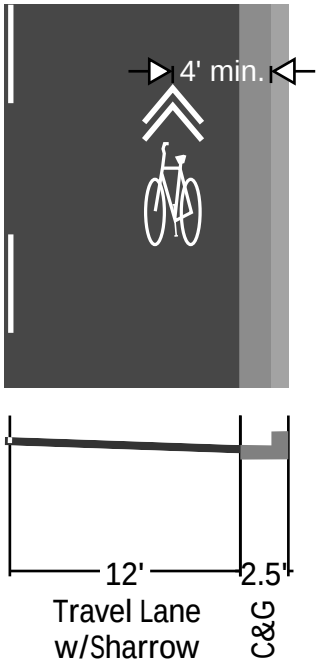
Date 1/6/2021

Project UT19-1595

Figure 20

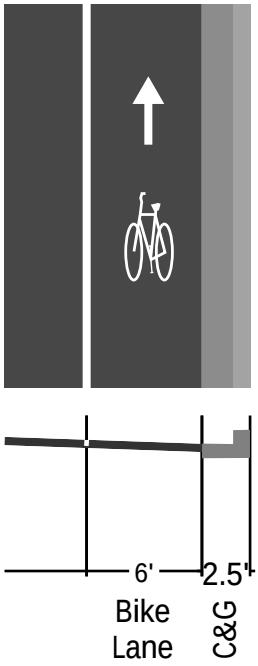
1 Shared Roadway

- Sharrow only to be used in travel lane, not in bike lane or shoulder
- Minimum placement of 4 feet from curb, or 11 feet with street parking
- Sharrow marking should be centered in lane if speed limit is 25 mph or less
- Not preferred on high-speed, high-volume roadways
- Frequent, visible marking is essential: every 50 - 250 feet
- See MUTCD Figure 9C-9 and NACTO Urban Bikeway Design Guide



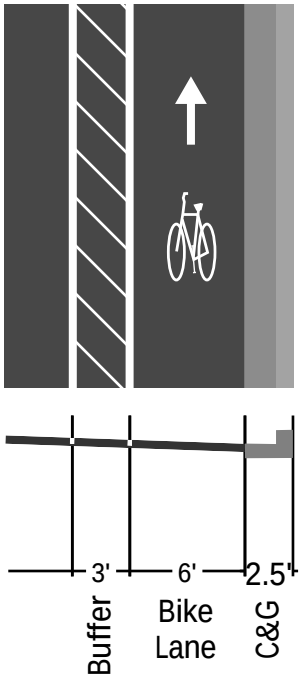
2 Conventional Bike Lane

- Minimum width of 4 feet; preferred width of 6 feet
- If bike lane is adjacent to a parking lane, the width should be at least 5 feet
- A bike lane adjacent to a physical barrier must be 2 feet wider than otherwise
- Stripe separating bike lane and vehicle lane should be 6 to 8 inches wide
- Stripe separating bike lane and parking lane should be 4 inches wide
- See MUTCD Figure 9C-3 and NACTO Urban Bikeway Design Guide



3 Buffered Bike Lane

- Bike lane separated from vehicle lane by striped buffer
- Minimum lane width of 4 feet; preferred width of 6 feet
- Minimum buffer width of 18 inches
- If buffer is 3 feet wide or greater, diagonal hatching is required (4-inch stripe at 30-45 degrees)
- If a parking lane is provided along bike lane, an additional buffer may be placed between the bike lane and the parking lane
- See MUTCD Figure 9C-3 and NACTO Urban Bikeway Design Guide



V. SAFETY

A. PURPOSE

The purpose of this chapter is to analyze the safety of the existing road network in Tooele City and to recommend improvements. A few intersections have been identified by the City as areas of concern, which will be discussed in this chapter. In addition, potential traffic calming measures and access management strategies are presented.

B. SAFETY HOTSPOTS

This section addresses safety concerns at existing intersections in Tooele City. Factors including crash history, sight distance, and intersection offset were examined to determine if any mitigations are needed to improve safety. Crash data are protected under 23 USC 409.

- 100 East / 400 North
    - After examining the crash history from 2010 through 2019, it was determined that the number of crashes was at least twice what it was at comparable intersections on 100 East at Vine Street and 1000 North. Angle collisions comprised approximately 70 percent of crashes at this location and one severe crash occurred in which a vehicle occupant suffered a serious injury. 15 percent of crashes occurred in instances in which a driver disregarded the stop signs. Tooele City could consider a hierarchical approach in which increasing measures are implemented, including installing oversized stop signs, striping stop bars and double yellow lines, painting "STOP" on the northbound and southbound approaches, and installing a flashing stop sign. If these measures fail and crash rates remain high, Tooele City may consider installing an all-way stop if volume warrants meet.
- Skyline Drive / Main Street (SR-36)
    - The Skyline Drive / Main Street (SR-36) is offset approximately 100 feet north of the 520 South / Main Street (SR-36) intersection. Intersection offsets are divided into negative offsets and positive offsets. Negative offsets occur where side streets are misaligned in such a way as to generate conflict zones for left-turn movements from major streets. In these cases, opposing left-turning vehicles must occupy or cross the same space while completing their maneuvers. The Skyline Drive / Main Street (SR-36) intersection is at a positive offset, which, while the same left-turn conflicts do not apply, is not desirable. A future signal is planned at this location, and when it is installed, UDOT may require Skyline Drive or 520 South to be realigned to match the opposite street.
- 400 South / Main Street (SR-36)
    - This intersection was identified as a concern due to limits on vertical sight distance. Main Street (SR-36) continues at a 5 percent grade up to a crest vertical curve approximately 500 feet south of the intersection. According to the American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets*, the intersection sight

distance (ISD) for a vehicle turning left from a stop should be 445 feet for a design speed of 40 mph. Therefore, the 400 South / Main Street (SR-36) intersection meets this standard.

- Broadway Avenue / 1000 North
    - While the number of crashes at this intersection is not unusual (a total of 22 from 2010 to 2019), 60 percent of them were front-to-rear collisions. About half of the front-to-rear crashes involved distracted driving.

C. TRAFFIC CALMING

Traffic calming can involve measures to influence behavior or reduce the speed of vehicles on a given road or intersection. These can take the form of physical or non-physical measures, and a few examples are outlined below:

- Speed Enforcement
    - Targeted speed enforcement by local law enforcement agencies can have a significant impact on the prevailing speed in certain locations. Enforcement efforts can be targeted at specific locations at certain times of the day to encourage drivers to comply with the posted speed limit.
- Driver Feedback Signs
    - Driver feedback signs, as shown in Figure 22, can help drivers be more aware of their speed in relation to the posted speed limit. Driver feedback signs can be permanently mounted, temporary installations, or mounted on a trailer. In each case the current speed of the approaching vehicles is detected and shown on a digital display, along with the posted speed limit on a static display.

Figure 22: Driver feedback sign

- Lane Striping
    - Lane striping not only delineates the lane of travel but can also create a narrow feel on the roadway without narrowing the paved surface, as shown in Figure 23. The narrow feel can

encourage some drivers to reduce speeds. Lane striping can also be used to create bicycle lanes, parking spaces, or delineate other uses.

Figure 23: Lane striping

- Signage
  - The placement of signage such as speed limit signs or signs dictating various restrictions can be used for traffic calming purposes. Restriction type signs can include signs prohibiting trucks, turning movements, through movements, or others.
- Speed Legends
  - Speed legends consist of letters and numbers painted on the roadway surface, usually in conjunction with roadside mounted signs, indicating the posted speed limit. For an example, see Figure 24.

Figure 24: Speed legend

- Traffic Circles
  - Traffic circles are raised islands, usually circular in shape, that are constructed in the center of an intersection. The presence of these features requires that vehicles slow down to navigate around the traffic circle. For an example, see Figure 25.

Figure 25: Traffic circle

- Roundabouts
  - A roundabout is like a traffic circle in that it features a circular center island. However, roundabouts are generally much larger and have raised islands on the approaches to divert traffic in the direction of the travel in the roundabout. Vehicles approaching a roundabout yield

to traffic already in the roundabout. Due to the large footprint required to construct a roundabout, this traffic calming measure is generally unfeasible in established neighborhoods.

- Chicanes
  - Chicanes are short curb extensions or "edge islands" that alternate from one side of the road to the other on a roadway segment, as shown in Figure 26. These features required vehicles to "zig zag" slightly as they travel on the roadway, resulting in reduced speeds.

Figure 26: Chicane

- Lateral Shifts
  - Like a chicane, a lateral shift requires traffic to shift to one side, as shown in Figure 27. However, with this countermeasure the lanes only shift once, and it usually occurs near an intersection approach.

Figure 27: Lateral shift

- Bulb-outs / Neckdowns
    - Bulb-outs / neckdowns are curb extensions at intersection approaches, as shown in Figure 28. These curb extension narrows the lane at the approach, shortens the curb radius, and results in lower speeds. Bulb-outs also shorten crossing time and distances for pedestrians.

Figure 28: Bulb-out

- Chokers
    - Chokers are curb extensions that occur midblock, as opposed to bulb-outs / neckdowns which occur at intersections. Chokers create a narrowed traveled way, resulting in lower speeds. For an example, see Figure 29.

Figure 29: Choker

- Raised Pedestrian Crossings
    - A raised pedestrian crossing is similar to a speed hump, but they are intended to be wide enough to allow for a pedestrian crossing, as shown in Figure 30. Their function is to slow traffic, decrease volumes and increase visibility of pedestrians.

Figure 30: Raised pedestrian crossing

D. ACCESS MANAGEMENT

Access spacing should vary by functional classification type. As a general rule, the greater the mobility on a roadway, the lower the accessibility. Arterials and major collectors are typically designed as major routes to allow vehicles greater ease of travel with few interruptions. These roads should have limited access points so as not to disrupt flow of traffic. In contrast, local streets experience comparatively little traffic and are designed to allow access to individual properties, which should keep the speed down.

Based on recommendations from the literature and from state-of-the-practice of other municipalities and DOTs, recommendations for minimum signalized, public street, and private access spacing have been compiled and are shown in Table 7.

When possible, streets and accesses should line up with the street or access across the intersection. Offset intersections are categorized as either positive or negative, depending on the orientation. Negative offsets occur when left-turning movements off the major street conflict with each other. This is especially a safety concern where two-way left-turn lanes (TWLTL) exist as these become lanes to move left-turning vehicles out of the through lanes, and they are typically used to slow down over a distance of several feet. Negative offsets create potential for head-on collisions, as shown in Figure 31. Positive offsets are preferred over negative ones, but the ideal option is to have streets line up.

Table 7: Access Management Spacing Recommendations

Street Classification	Minimum Signal Spacing (feet)[1]	Minimum Street Spacing (feet)[1, 4]	Minimum Commercial Access Spacing (feet)[1, 4]	Minimum Residential Access Spacing (feet)[1]
Arterial	2,640	660	330[2]	n/a[3]
Major Collector	1,320	660	330	n/a[3]
Minor Collector	1,320	330	150	150
Local Street	1,320	150	150	50

Notes:

1. Measured centerline to centerline
2. Access to an arterial should only be granted when other reasonable access is not available to a collector or local street. If granted, the access should be limited to right-in/right-out only if possible.
3. Residential access should not be granted on arterials or major collectors.
4. Minimum Street Spacing refers to unsignalized intersection spacing; if a traffic signal is present, a traffic impact study should determine if the minimum street spacing should be longer.

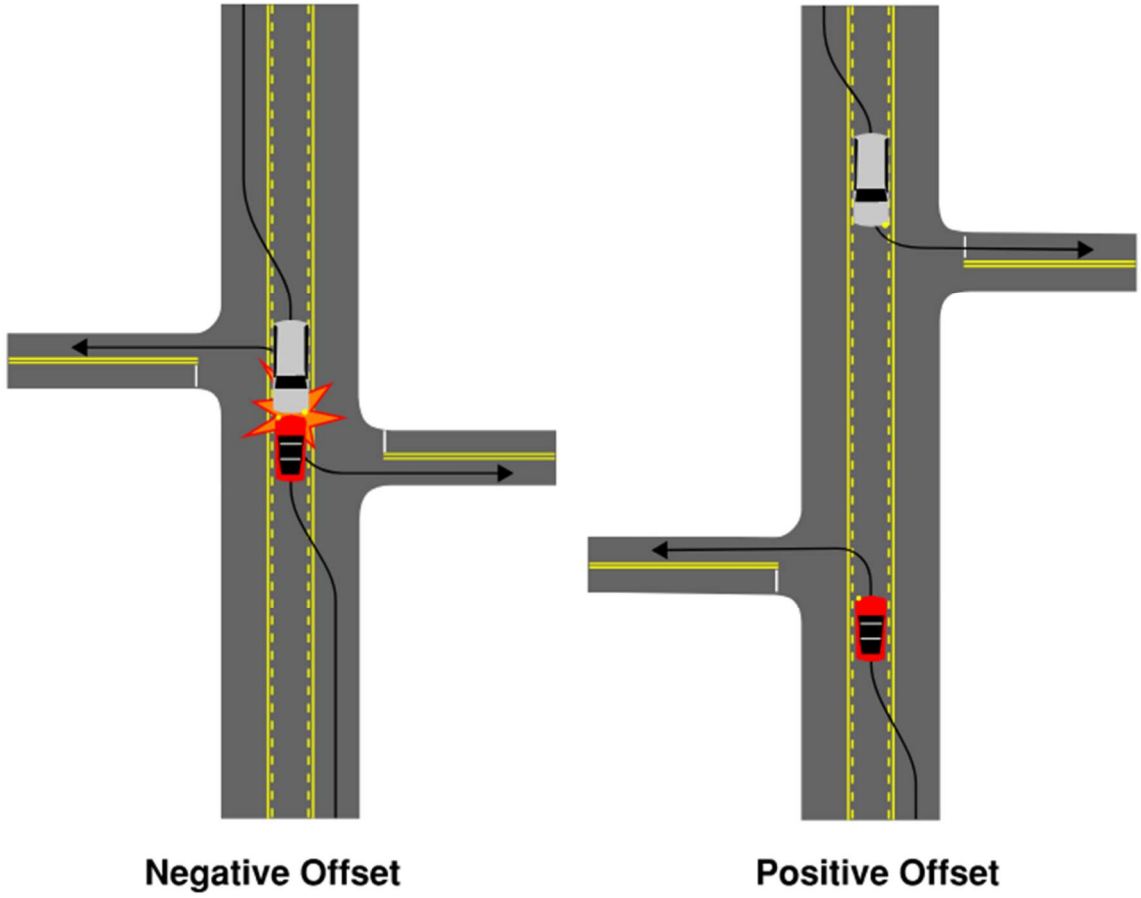


Figure 31: Offset diagram

VI. CONCLUSION

A. OVERVIEW

The purpose of this TMP for Tooele City is to plan for the future multi-modal transportation needs of Tooele City. The following tasks were completed as a part of this TMP:

- The land use and socioeconomic characteristics were reviewed and summarized.
- The functional classification of roadways was redefined.
- Data were collected to summarize the existing traffic volume conditions.
- Future volumes in full-build conditions were projected using development predictions from Tooele City and standard rates published by ITE.
- A LOS analysis was performed to identify existing and future transportation needs.
- Improvements were recommended to support future growth.
- Locations for future signals were identified.
- Truck routes on existing and future roadways were identified.
- The public transit opportunities of the City were discussed.
- Recommendations were given regarding active transportation facilities.
- Several City transportation management strategies were outlined.

B. NEXT STEPS

It is recommended that the following steps be taken to implement the proposed improvements and recommendations of this study:

- Implement this TMP and pursue funding for roadway projects as needed.
- Request that UDOT complete a left-turn study at the 1000 North (SR-112) / Main Street (SR-36) intersection to determine if southbound and other dual left-turn lanes are currently warranted.
- Require that the trip generation for all new developments be calculated to determine its impact on City roadways. With each new development that generates at least 100 peak hour trips, require that a traffic impact study be completed to analyze nearby intersections to determine needed improvements.
- Continue to communicate regularly with UDOT and UTA on current and future roadway and transit improvement needs within the City.
- Work with the State's Office of Outdoor Recreation, Bike Utah, and other agencies to apply for grant funding to increase the number of trails and active transportation/recreation options for Tooele City residents. Install bicycle and pedestrian friendly facilities (bike racks, water stations, etc) at key locations for public access.
- Plan to address the safety hotspots with traffic calming devices as outlined above in the plan
- Work with UTA to extend public transportation options, specifically service to the Industrial Depot which serves as a source of regional employment.

APPENDIX A: Traffic Volume Data Collection

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

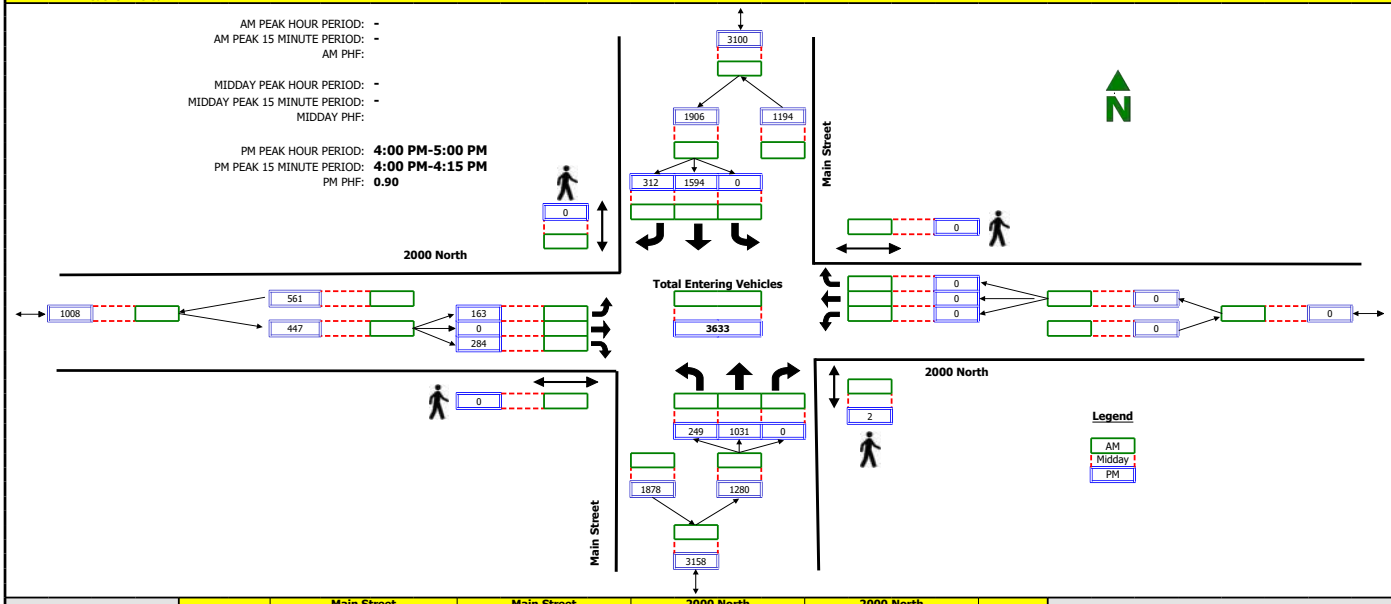
Intersection: Main Street / 2000 North
North/South: Main Street
East/West: 2000 North
Jurisdiction: Tooele
Project Title: Tooele Transportation Master Plan
Project No: UT19-1595
Weather: Clear

Date: 1-15-20, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: -
AM PEAK 15 MINUTE PERIOD: -
AM PHF:

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:00 PM-5:00 PM**
PM PEAK 15 MINUTE PERIOD: **4:00 PM-4:15 PM**
PM PHF: **0.90**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				2000 North Eastbound				2000 North Westbound				TOTAL
	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	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
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	81	296	0	0	0	442	77	0	52	0	56	0	0	0	0	0	1004
16:15 - 16:30	62	247	0	0	0	409	70	0	35	0	74	0	0	0	0	0	897
16:30 - 16:45	50	261	0	0	0	373	64	0	44	0	86	0	0	0	0	0	878
16:45 - 17:00	56	227	0	2	0	370	101	0	32	0	68	0	0	0	0	0	854
17:00 - 17:15	63	268	0	0	0	368	72	0	41	0	76	0	0	0	0	0	888
17:15 - 17:30	72	234	0	0	0	375	106	0	30	0	71	0	0	0	0	0	888
17:30 - 17:45	75	221	0	0	0	367	67	1	42	0	73	0	0	0	0	0	845
17:45 - 18:00	75	188	0	0	0	375	76	0	49	0	61	0	0	0	0	0	824

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

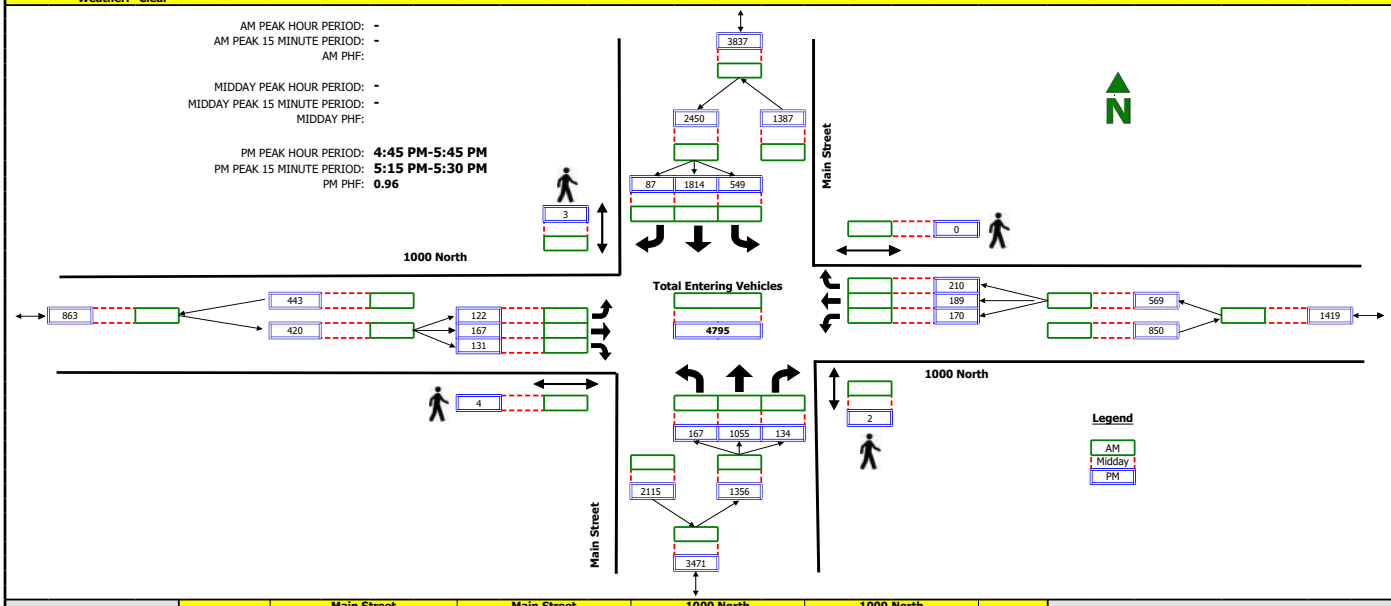
Intersection: Main Street / 1000 North
North/South: Main Street
East/West: 1000 North
Jurisdiction: Tooele
Project Title: Tooele Transportation Master Plan
Project No: UT19-1595
Weather: Clear

Date: 1-15-20, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: -
AM PEAK 15 MINUTE PERIOD: -
AM PHF:

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:45 PM-5:45 PM**
PM PEAK 15 MINUTE PERIOD: **5:15 PM-5:30 PM**
PM PHF: **0.96**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				1000 North Eastbound				1000 North Westbound				TOTAL
	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	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
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	27	208	10	1	108	375	7	2	27	38	17	0	53	40	51	1	961
16:15 - 16:30	32	270	15	4	109	434	29	2	22	46	46	5	39	38	50	0	1130
16:30 - 16:45	45	221	23	1	130	400	28	5	28	45	31	1	25	35	58	0	1069
16:45 - 17:00	39	250	35	2	165	452	19	2	37	37	40	1	46	49	48	0	1217
17:00 - 17:15	43	299	43	0	130	430	16	1	24	45	35	2	34	35	73	0	1207
17:15 - 17:30	47	259	28	0	143	507	32	0	26	43	27	1	37	54	41	0	1244
17:30 - 17:45	38	247	28	0	111	425	20	0	35	42	29	0	53	51	48	0	1127
17:45 - 18:00	57	257	27	0	149	416	32	0	33	33	27	0	44	44	51	0	1170

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

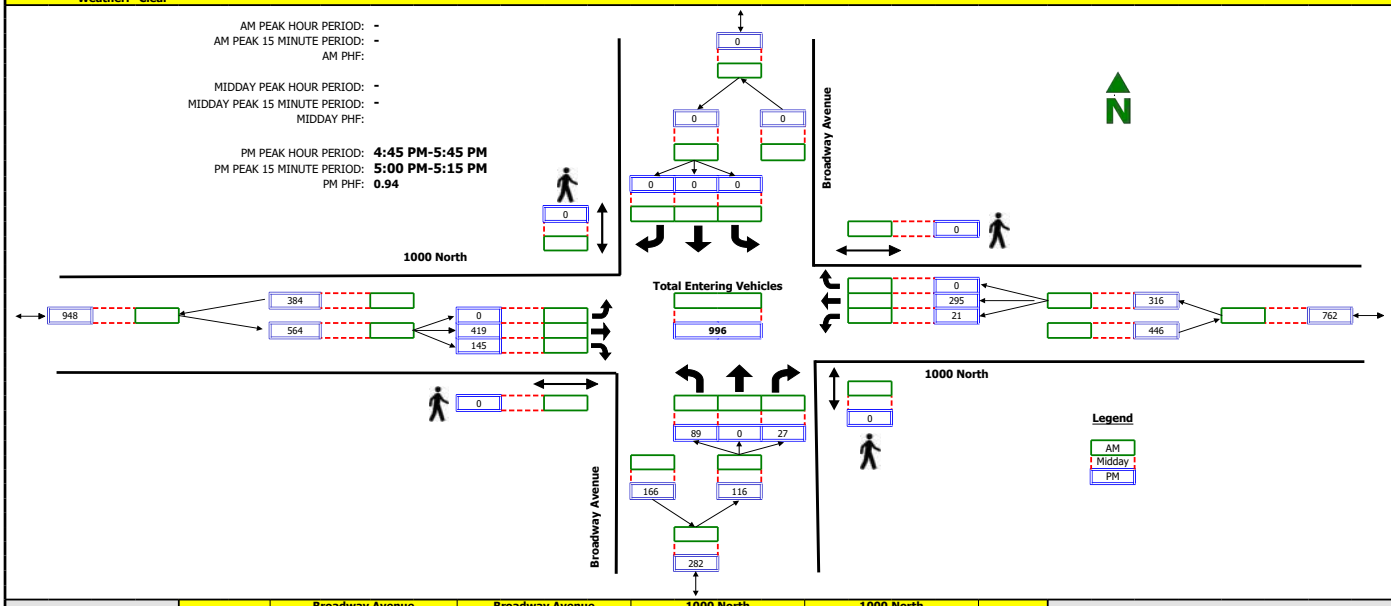
Intersection Turning Movement Summary

Intersection:	**Broadway Avenue / 1000 North**	**Date:**	**1-15-20, Wed**
North/South:	**Broadway Avenue**	**Day of Week Adjustment:**	**100.0%**
East/West:	**1000 North**	**Month of Year Adjustment:**	**100.0%**
Jurisdiction:	**Tooele**	**Adjustment Station #:**	**0**
Project Title:	**Tooele Transportation Master Plan**	**Growth Rate:**	**0.0%**
Project No:	**UT19-1595**	**Number of Years:**	**0**
Weather:	**Clear**		

AM PEAK HOUR PERIOD: -
AM PEAK 15 MINUTE PERIOD: -
AM PHF:

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:45 PM-5:45 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.94**



RAW COUNT SUMMARIES	Broadway Avenue Northbound				Broadway Avenue Southbound				1000 North Eastbound				1000 North Westbound				TOTAL
	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	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
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	33	0	2	0	0	0	1	0	0	95	43	0	10	65	0	0	249
16:15 - 16:30	17	0	5	0	0	0	0	0	0	98	31	0	6	86	0	0	243
16:30 - 16:45	21	0	3	0	0	0	0	0	0	94	27	0	3	70	0	0	218
16:45 - 17:00	17	0	11	0	0	0	0	0	0	89	44	0	6	69	0	0	236
17:00 - 17:15	25	0	9	0	0	0	0	0	0	118	31	0	5	76	0	0	264
17:15 - 17:30	24	0	5	0	0	0	0	0	0	117	30	0	6	69	0	0	251
17:30 - 17:45	23	0	2	0	0	0	0	0	0	95	40	0	4	81	0	0	245
17:45 - 18:00	22	0	4	0	0	0	0	0	0	94	41	0	2	64	0	0	227

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

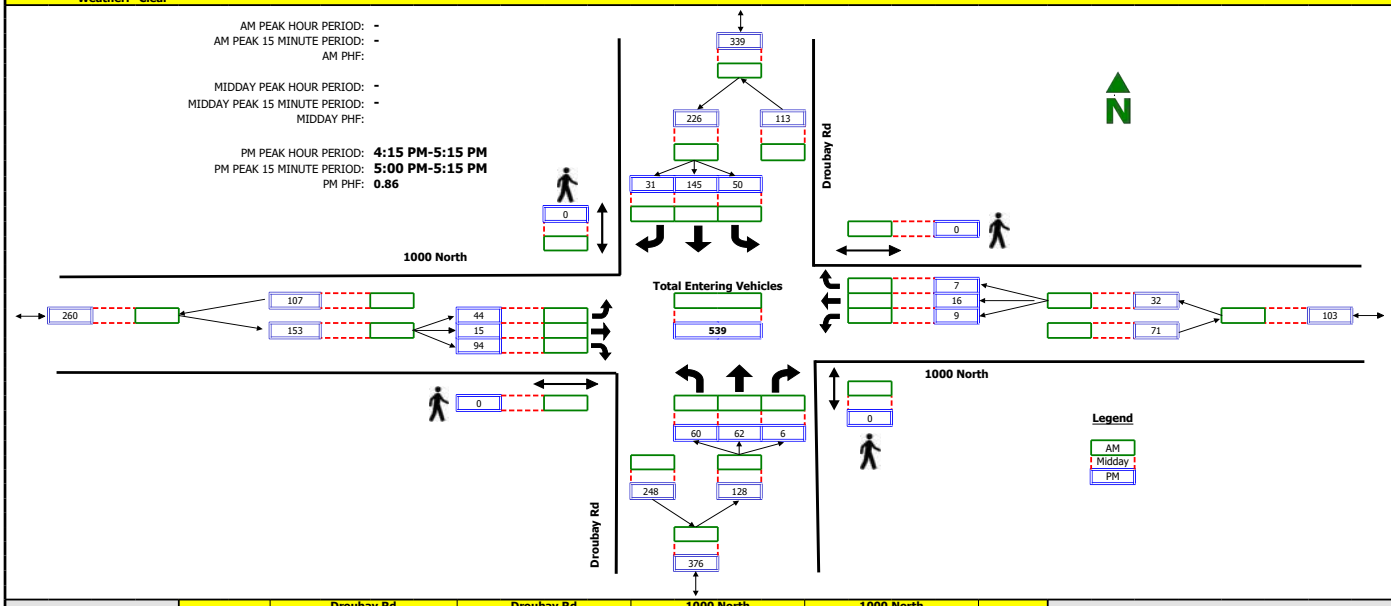
Intersection: Droubay Rd / 1000 North
North/South: Droubay Rd
East/West: 1000 North
Jurisdiction: Tooele
Project Title: Tooele Transportation Master Plan
Project No: UT19-1595
Weather: Clear

Date: 1-15-20, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: -
AM PEAK 15 MINUTE PERIOD: -
AM PHF:

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:15 PM-5:15 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.86**



RAW COUNT SUMMARIES	Droubay Rd Northbound				Droubay Rd Southbound				1000 North Eastbound				1000 North Westbound				TOTAL
	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	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
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	12	14	6	0	7	45	7	0	7	6	24	0	4	5	2	0	139
16:15 - 16:30	15	19	3	0	7	35	8	0	13	5	22	0	2	2	2	0	133
16:30 - 16:45	15	14	2	0	10	38	10	0	9	3	26	0	3	3	1	0	134
16:45 - 17:00	11	11	1	0	12	34	4	0	10	4	23	0	1	2	2	0	115
17:00 - 17:15	19	18	0	0	21	38	9	0	12	3	23	0	3	9	2	0	157
17:15 - 17:30	9	13	1	0	6	31	6	0	4	10	20	0	1	4	0	0	105
17:30 - 17:45	10	14	2	0	12	36	3	0	10	6	21	0	1	9	2	0	126
17:45 - 18:00	12	11	2	0	9	47	17	0	7	5	22	0	3	5	3	0	143

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

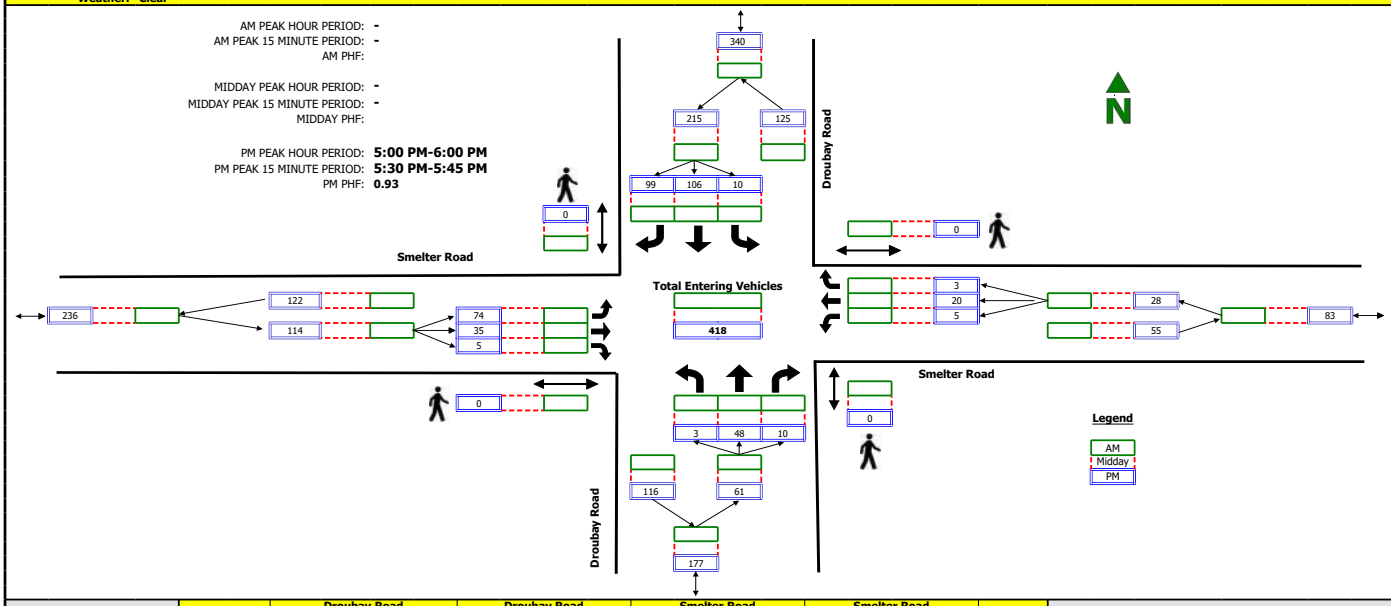
Intersection: Droubay Road / Smelter Road
North/South: Droubay Road
East/West: Smelter Road
Jurisdiction: Tooele
Project Title: Tooele Transportation Master Plan
Project No: UT19-1595
Weather: Clear

Date: 1-15-20, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: -
AM PEAK 15 MINUTE PERIOD: -
AM PHF:

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF:

PM PEAK HOUR PERIOD: **5:00 PM-6:00 PM**
PM PEAK 15 MINUTE PERIOD: **5:30 PM-5:45 PM**
PM PHF: **0.93**



RAW COUNT SUMMARIES	Droubay Road Northbound				Droubay Road Southbound				Smelter Road Eastbound				Smelter Road Westbound				TOTAL
	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	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
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	2	6	3	0	0	23	31	0	16	9	2	0	1	4	5	0	102
16:15 - 16:30	1	14	1	0	2	26	27	0	12	4	1	0	0	8	2	0	98
16:30 - 16:45	2	22	1	0	1	21	25	0	11	2	1	0	0	3	2	0	91
16:45 - 17:00	0	15	1	0	2	23	24	0	12	8	0	0	1	5	0	0	91
17:00 - 17:15	2	13	2	0	2	26	17	0	21	11	1	0	1	4	0	0	100
17:15 - 17:30	0	11	4	0	0	30	26	0	20	11	2	0	1	5	0	0	110
17:30 - 17:45	1	14	4	0	5	28	23	0	19	7	2	0	2	4	3	0	112
17:45 - 18:00	0	10	0	0	3	22	33	0	14	6	0	0	1	7	0	0	96

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

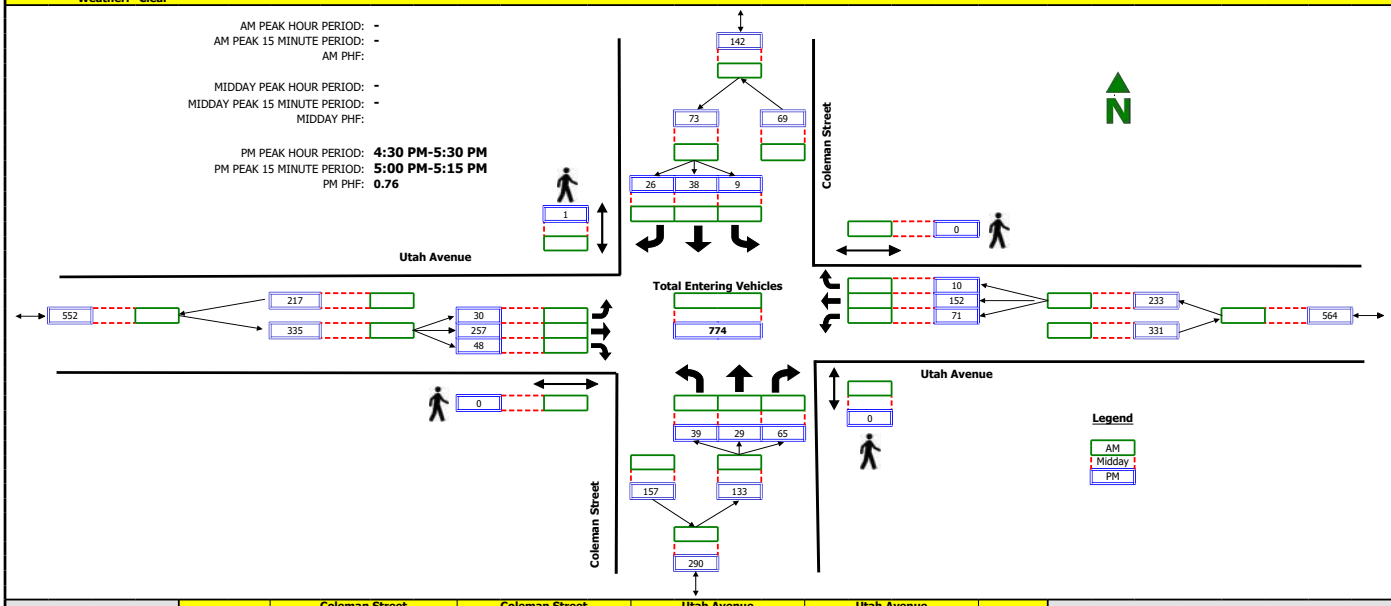
Intersection: Coleman Street / Utah Avenue
North/South: Coleman Street
East/West: Utah Avenue
Jurisdiction: Tooele
Project Title: Tooele Transportation Master Plan
Project No: UT19-1595
Weather: Clear

Date: 1-15-20, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: -
AM PEAK 15 MINUTE PERIOD: -
AM PHF:

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:30 PM-5:30 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.76**



RAW COUNT SUMMARIES	Coleman Street Northbound				Coleman Street Southbound				Utah Avenue Eastbound				Utah Avenue Westbound				TOTAL
	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	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
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	2	1	3	0	3	5	3	0	1	22	5	0	3	23	3	1	74
16:15 - 16:30	8	2	12	0	3	9	7	2	8	36	15	0	13	31	2	3	146
16:30 - 16:45	6	5	17	0	1	7	5	1	6	70	13	0	13	29	2	0	174
16:45 - 17:00	9	8	15	0	4	6	7	0	8	52	8	0	19	31	3	0	170
17:00 - 17:15	18	10	16	0	1	11	7	0	10	80	16	0	23	60	4	0	256
17:15 - 17:30	6	6	17	0	3	14	7	0	6	55	11	0	16	32	1	0	174
17:30 - 17:45	8	10	9	1	2	4	6	0	2	58	8	0	11	38	5	0	161
17:45 - 18:00	8	14	7	0	2	7	5	0	4	34	5	0	17	38	1	0	142

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

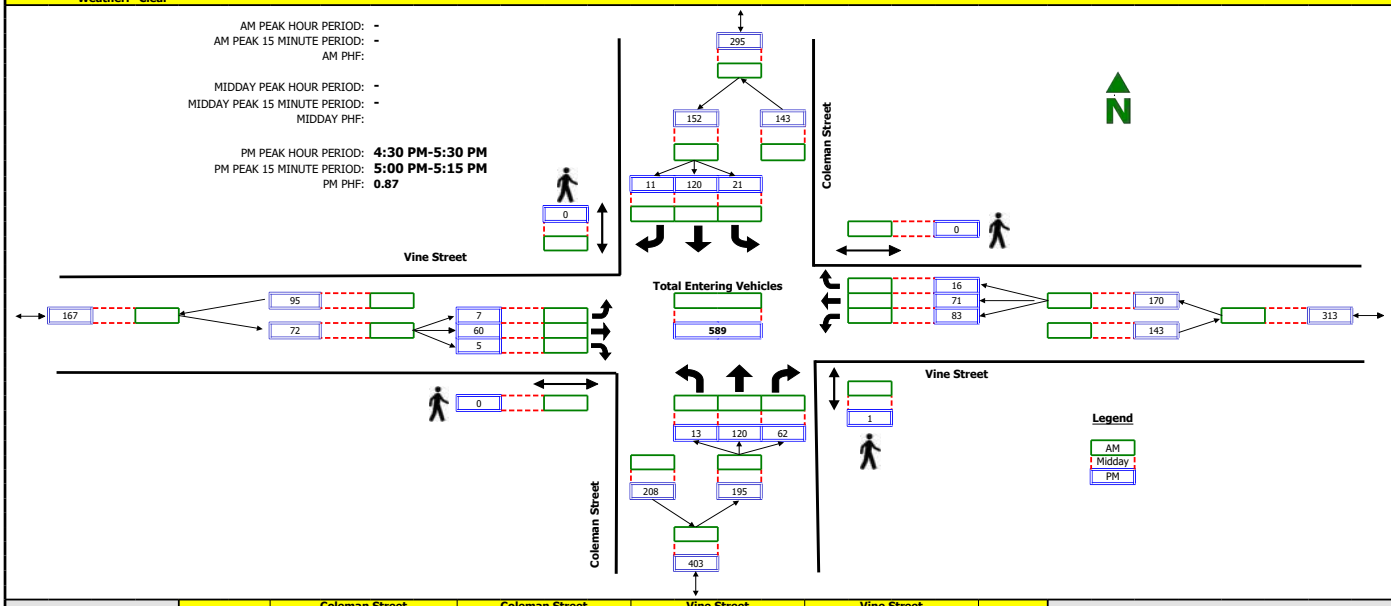
Intersection Turning Movement Summary

Intersection:	**Coleman Street / Vine Street**	**Date:**	**1-15-20, Wed**
North/South:	**Coleman Street**	**Day of Week Adjustment:**	**100.0%**
East/West:	**Vine Street**	**Month of Year Adjustment:**	**100.0%**
Jurisdiction:	**Tooele**	**Adjustment Station #:**	**0**
Project Title:	**Tooele Transportation Master Plan**	**Growth Rate:**	**0.0%**
Project No:	**UT19-1595**	**Number of Years:**	**0**
Weather:	**Clear**		

AM PEAK HOUR PERIOD: -
AM PEAK 15 MINUTE PERIOD: -
AM PHF:

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:30 PM-5:30 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.87**



RAW COUNT SUMMARIES	Coleman Street Northbound				Coleman Street Southbound				Vine Street Eastbound				Vine Street Westbound				TOTAL
	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	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
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	0	5	2	0	3	5	2	0	0	4	0	0	9	6	1	1	37
16:15 - 16:30	2	25	19	0	1	33	3	0	0	10	6	0	17	7	4	0	127
16:30 - 16:45	2	22	18	0	7	23	3	0	0	15	1	0	15	13	6	0	125
16:45 - 17:00	1	35	20	0	4	26	5	0	1	11	1	0	21	27	2	0	154
17:00 - 17:15	8	36	14	0	2	38	3	0	5	18	1	0	23	15	6	0	169
17:15 - 17:30	2	27	10	1	8	33	0	0	1	16	2	0	24	16	2	0	141
17:30 - 17:45	1	23	14	0	3	19	1	0	2	8	1	0	16	10	3	0	101
17:45 - 18:00	1	22	13	1	2	21	3	0	0	10	2	0	15	17	5	0	111

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

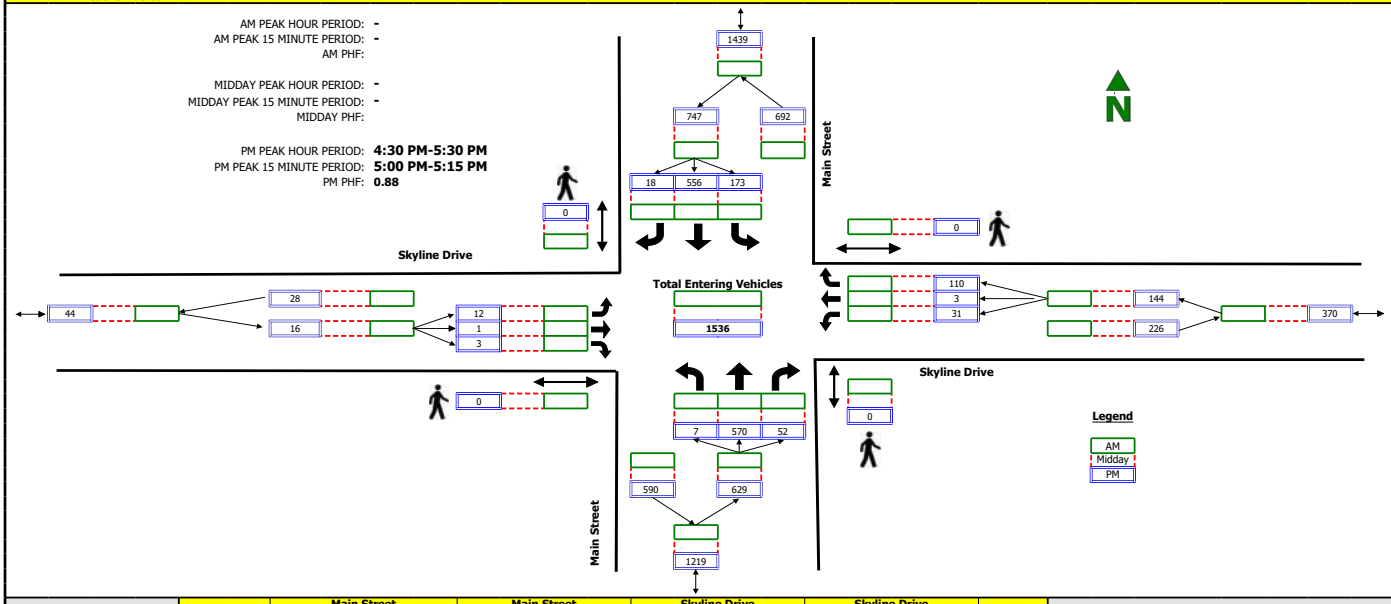
Intersection: Main Street / Skyline Drive
North/South: Main Street
East/West: Skyline Drive
Jurisdiction: Tooele
Project Title: Tooele Transportation Master Plan
Project No: UT19-1595
Weather: Clear

Date: 1-15-20, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: -
AM PEAK 15 MINUTE PERIOD: -
AM PHF:

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:30 PM-5:30 PM**
PM PEAK 15 MINUTE PERIOD: **5:00 PM-5:15 PM**
PM PHF: **0.88**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				Skyline Drive Eastbound				Skyline Drive Westbound				TOTAL
	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	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
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	4	92	8	0	37	122	6	0	1	0	3	0	7	0	12	0	292
16:15 - 16:30	2	102	14	0	27	182	5	0	4	1	0	0	12	0	7	1	356
16:30 - 16:45	2	108	7	0	31	143	7	0	7	0	2	0	8	1	24	0	340
16:45 - 17:00	4	155	18	0	36	122	3	0	2	1	1	0	7	0	32	0	381
17:00 - 17:15	1	183	18	0	58	145	4	0	1	0	0	0	3	0	21	0	434
17:15 - 17:30	0	124	9	0	48	146	4	0	2	0	0	0	13	2	33	0	381
17:30 - 17:45	1	89	9	0	41	127	2	0	3	3	0	0	8	3	26	0	312
17:45 - 18:00	2	115	11	0	41	113	2	0	2	2	2	0	7	0	20	0	317

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

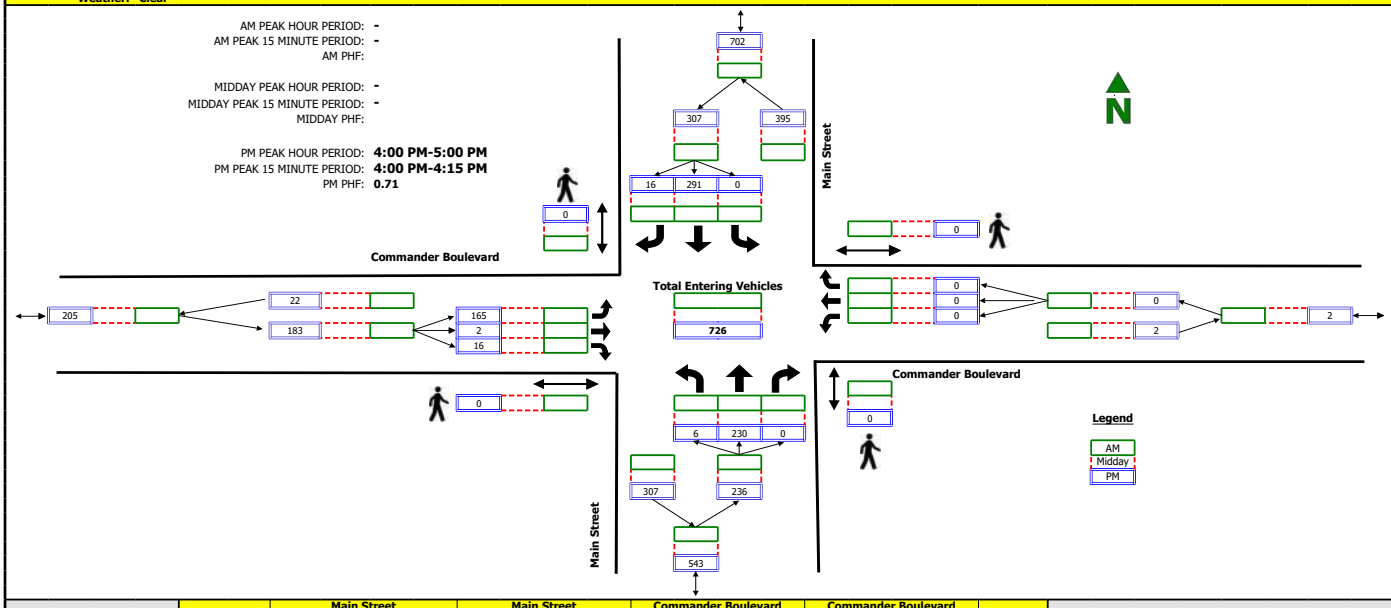
Intersection: Main Street / Commander Boulevard
North/South: Main Street
East/West: Commander Boulevard
Jurisdiction: Tooele
Project Title: Tooele Transportation Master Plan
Project No: UT19-1595
Weather: Clear

Date: 1-16-20, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: -
AM PEAK 15 MINUTE PERIOD: -
AM PHF:

MIDDAY PEAK HOUR PERIOD: -
MIDDAY PEAK 15 MINUTE PERIOD: -
MIDDAY PHF:

PM PEAK HOUR PERIOD: **4:00 PM-5:00 PM**
PM PEAK 15 MINUTE PERIOD: **4:00 PM-4:15 PM**
PM PHF: **0.71**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				Commander Boulevard Eastbound				Commander Boulevard Westbound				TOTAL
	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	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0	0	0	0	0	0
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	0	0	0	0	0	0
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	2	64	0	0	0	50	2	0	124	2	13	0	0	0	0	0	257
16:15 - 16:30	1	55	0	0	0	91	6	0	20	0	0	0	0	0	0	0	173
16:30 - 16:45	1	46	0	0	0	70	5	0	12	0	1	0	0	0	0	0	135
16:45 - 17:00	2	65	0	0	0	80	3	0	9	0	2	0	0	0	0	0	161
17:00 - 17:15	2	90	0	0	0	71	7	0	26	1	8	0	0	0	0	0	205
17:15 - 17:30	0	82	0	0	0	72	1	0	12	0	1	0	0	0	0	0	168
17:30 - 17:45	2	44	0	0	0	76	3	0	9	0	1	0	0	0	0	0	135
17:45 - 18:00	2	72	0	0	0	64	3	0	5	0	1	0	0	0	0	0	147

Tube Count Location	Direction	ADT (vpd)	Posted Speed (mph)	85th % Speed (mph)	% Trucks
1: SR-36, North of 2400 N	NB	12,802	60	75.6	22.2%
	SB	15,198	60	65.7	16.9%
	Both	28,000	60	70.2	19.3%
2: SR-36, South of Commander Blvd	NB	2,961	55	63.5	22.9%
	SB	2,987	55	69.9	33.1%
	Both	5,948	55	67.9	28.0%
3: 1000 North, East of Utah Avenue / SR-112	EB	4,014	50	59.2	18.0%
	WB	4,131	50	60.1	14.4%
	Both	8,145	50	59.6	16.2%

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

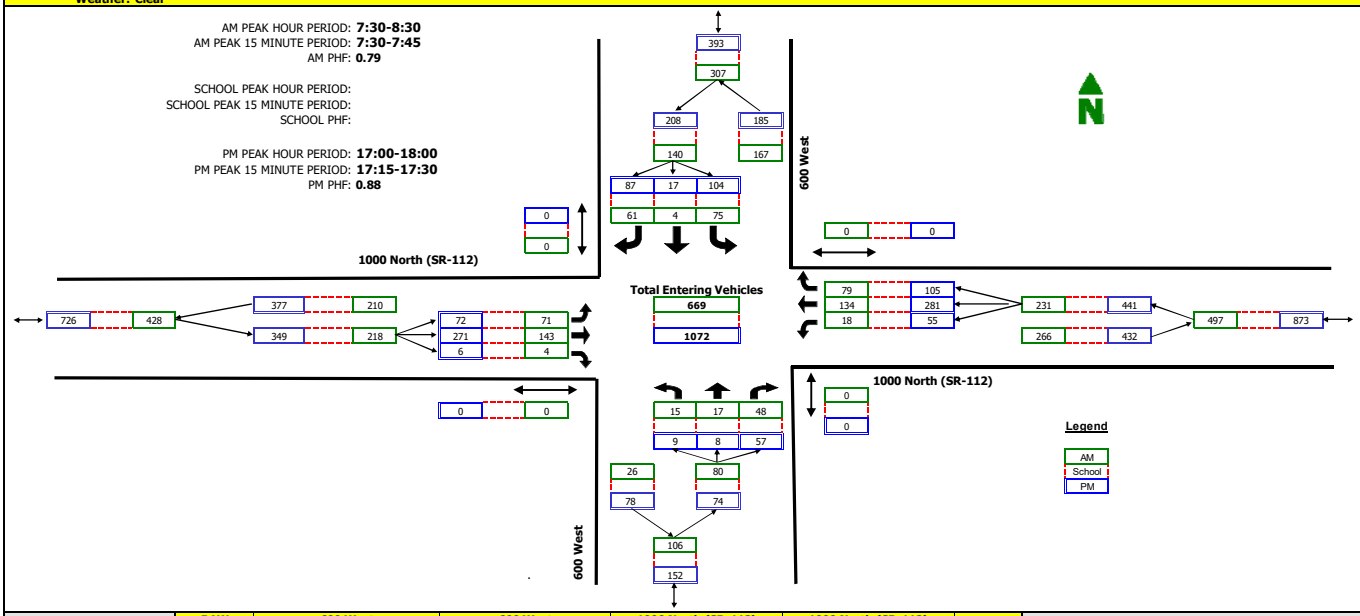
Intersection: 600 West / 1000 North (SR-112)
North/South: 600 West
East/West: 1000 North (SR-112)
Jurisdiction: Tooele
Project Title: Providence at Overlake TIS
Project No: UT18-1218
Weather: Clear

Date: 4-5-18, Thu
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #:
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:30-8:30**
AM PEAK 15 MINUTE PERIOD: **7:30-7:45**
AM PHF: **0.79**

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

PM PEAK HOUR PERIOD: **17:00-18:00**
PM PEAK 15 MINUTE PERIOD: **17:15-17:30**
PM PHF: **0.88**



RAW COUNT SUMMARIES	600 West Northbound				600 West Southbound				1000 North (SR-112) Eastbound				1000 North (SR-112) Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PEAK PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	1	5	5	0	4	0	6	0	10	27	0	0	3	24	9	0	94
7:15-7:30	0	2	9	1	11	0	9	0	8	21	1	0	4	26	8	0	99
7:30-7:45	6	11	14	0	22	0	14	0	24	44	1	0	3	43	31	0	213
7:45-8:00	1	0	12	0	24	2	21	0	23	44	1	0	3	29	30	0	190
8:00-8:15	3	4	5	0	12	1	16	0	17	31	0	0	5	38	8	0	140
8:15-8:30	5	2	17	0	17	1	10	0	7	24	2	0	7	24	10	0	126
8:30-8:45	2	4	5	0	22	0	10	0	14	38	0	0	4	21	13	0	133
8:45-9:00	7	6	13	0	17	4	16	0	10	52	0	0	5	51	12	0	193

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 PEAK PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	2	2	5	0	25	1	12	0	10	65	1	0	11	46	18	0	198
16:15-16:30	0	1	10	0	19	6	14	1	18	67	0	0	12	66	29	0	242
16:30-16:45	0	1	6	0	15	1	20	0	25	59	3	0	17	40	23	0	210
16:45-17:00	0	3	13	0	23	1	19	0	12	66	2	0	13	67	19	0	238
17:00-17:15	4	2	16	0	22	4	18	0	16	72	2	0	10	58	22	0	246
17:15-17:30	3	3	22	0	30	3	30	0	27	69	0	0	10	73	34	0	304
17:30-17:45	2	2	10	0	28	2	16	0	13	64	2	0	16	77	28	0	260
17:45-18:00	0	1	9	0	24	8	23	0	16	66	2	0	19	73	21	0	262

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

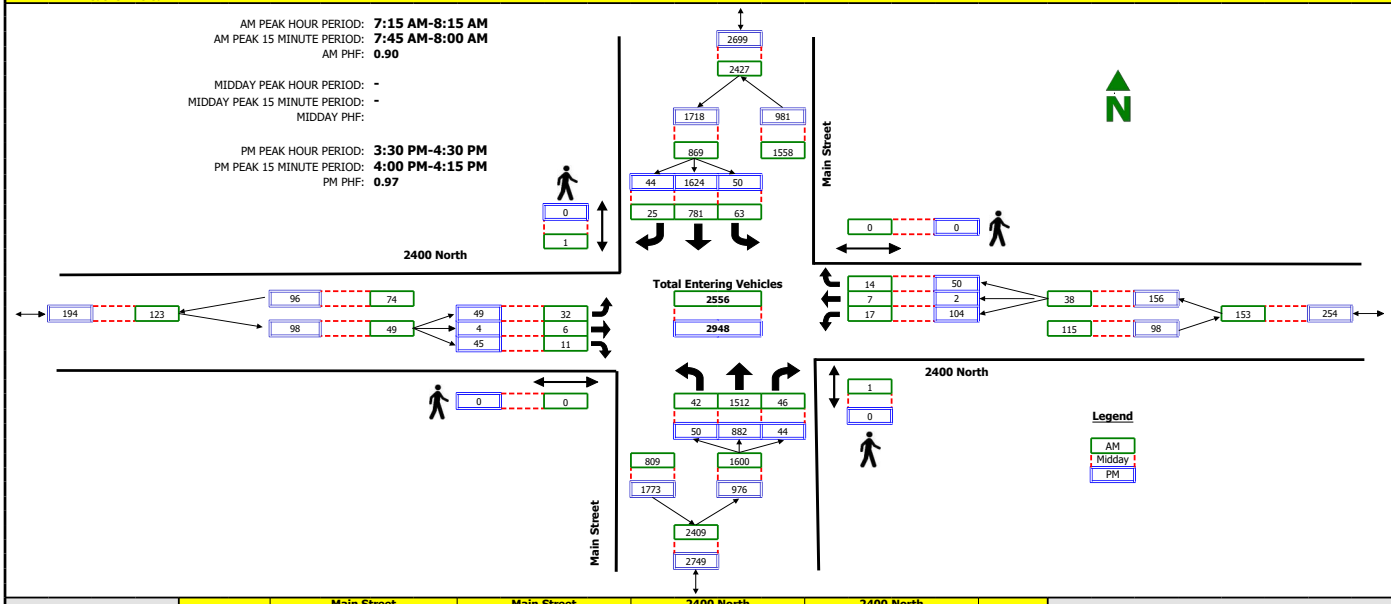
Intersection: Main Street / 2400 North
North/South: Main Street
East/West: 2400 North
Jurisdiction: Tooele
Project Title: Overlake Area TS
Project No: UT19-1410
Weather: Clear

Date: 2-20-19, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:15 AM-8:15 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.90**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **3:30 PM-4:30 PM**
PM PEAK 15 MINUTE PERIOD: **4:00 PM-4:15 PM**
PM PHF: **0.97**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				2400 North Eastbound				2400 North Westbound				TOTAL
	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**
6:30 - 6:45	7	360	19	0	0	75	6	0	2	1	0	0	8	0	5	0	483
6:45 - 7:00	6	353	16	0	17	100	6	0	6	0	7	0	5	2	5	0	523
7:00 - 7:15	3	422	6	0	15	104	1	0	2	1	1	0	6	1	2	0	564
7:15 - 7:30	7	428	9	0	4	128	6	0	4	1	2	0	1	2	6	0	598
7:30 - 7:45	11	420	13	1	19	195	4	1	9	1	0	0	6	1	2	0	681
7:45 - 8:00	16	370	16	0	21	252	6	0	13	1	2	0	6	3	3	0	709
8:00 - 8:15	8	294	8	0	19	206	9	0	6	3	7	0	4	1	3	0	568
8:15 - 8:30	13	277	5	0	16	145	11	0	14	0	3	0	7	2	4	0	497
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**
14:30 - 14:45	19	219	7	0	17	245	6	0	21	1	8	0	23	4	7	0	577
14:45 - 15:00	22	242	10	0	13	257	6	0	7	1	7	0	24	5	12	0	606
15:00 - 15:15	25	232	12	0	15	258	9	0	4	0	13	0	24	0	9	0	601
15:15 - 15:30	16	265	15	0	6	258	5	0	13	3	11	0	21	4	14	0	631
15:30 - 15:45	13	251	12	0	11	352	11	0	18	3	19	0	33	1	13	0	737
15:45 - 16:00	8	228	11	0	22	391	7	0	6	0	9	0	16	0	13	0	711
16:00 - 16:15	13	208	9	0	7	444	11	0	17	0	8	0	28	1	13	0	759
16:15 - 16:30	16	195	12	0	10	437	15	0	8	1	9	0	27	0	11	0	741

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

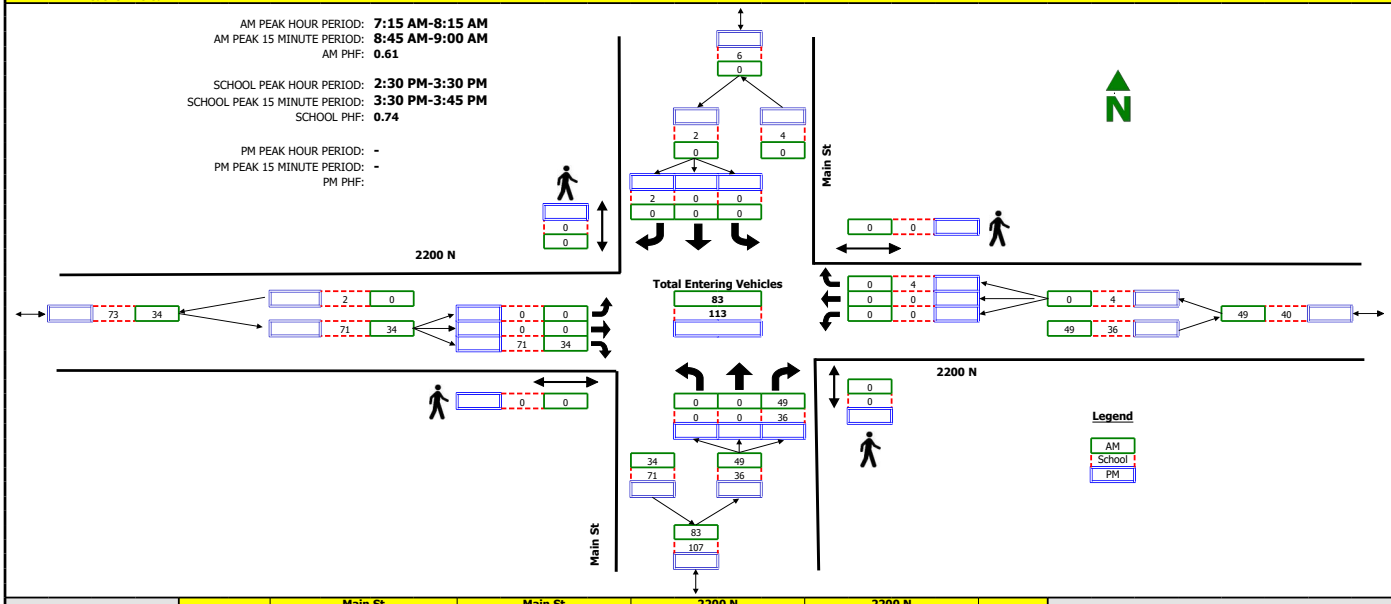
Intersection Turning Movement Summary

Intersection:	**Main St / 2200 N**	**Date:**	**8-22-19, Thu**
North/South:	**Main St**	**Day of Week Adjustment:**	**100.0%**
East/West:	**2200 N**	**Month of Year Adjustment:**	**100.0%**
Jurisdiction:	**Tooele**	**Adjustment Station #:**	**0**
Project Title:	**Tooele High School TIS**	**Growth Rate:**	**0.0%**
Project No:	**UT19-1525**	**Number of Years:**	**0**
Weather:	**Clear**		

AM PEAK HOUR PERIOD: **7:15 AM-8:15 AM**
AM PEAK 15 MINUTE PERIOD: **8:45 AM-9:00 AM**
AM PHF: **0.61**

SCHOOL PEAK HOUR PERIOD: **2:30 PM-3:30 PM**
SCHOOL PEAK 15 MINUTE PERIOD: **3:30 PM-3:45 PM**
SCHOOL PHF: **0.74**

PM PEAK HOUR PERIOD: **-**
PM PEAK 15 MINUTE PERIOD: **-**
PM PHF:



RAW COUNT SUMMARIES	Main St Northbound				Main St Southbound				2200 N Eastbound				2200 N Westbound				TOTAL
	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	15	0	0	0	0	0	0	0	4	0	0	1	0	0	20
7:15 - 7:30	0	0	4	0	0	0	0	0	0	0	7	0	0	0	0	0	11
7:30 - 7:45	0	0	16	0	0	0	0	0	0	0	6	0	0	0	0	0	22
7:45 - 8:00	0	0	19	0	0	0	0	0	0	0	8	0	0	0	0	0	27
8:00 - 8:15	0	0	10	0	0	0	0	0	0	0	13	0	0	0	0	0	23
8:15 - 8:30	0	0	12	0	0	0	0	0	0	0	11	0	0	0	0	0	23
8:30 - 8:45	0	0	22	0	0	0	0	0	0	0	9	0	0	0	0	0	31
8:45 - 9:00	0	0	26	0	0	0	0	0	0	0	8	0	0	0	0	0	34

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	12	0	0	0	0	0	0	0	14	0	0	1	0	0	27
14:15 - 14:30	0	0	15	0	0	0	0	0	0	0	14	0	0	0	1	0	30
14:30 - 14:45	0	0	9	0	0	0	2	0	0	0	15	0	0	0	2	0	28
14:45 - 15:00	0	0	10	0	0	0	0	0	0	0	21	0	0	0	1	0	32
15:00 - 15:15	0	0	7	0	0	0	0	0	0	0	15	0	0	0	1	0	23
15:15 - 15:30	0	0	10	0	0	0	0	0	0	0	20	0	0	0	0	0	30
15:30 - 15:45	0	0	19	0	0	0	0	0	0	0	19	0	0	0	0	0	38
15:45 - 16:00	0	0	11	0	0	0	0	0	0	0	19	0	0	0	0	0	30

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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

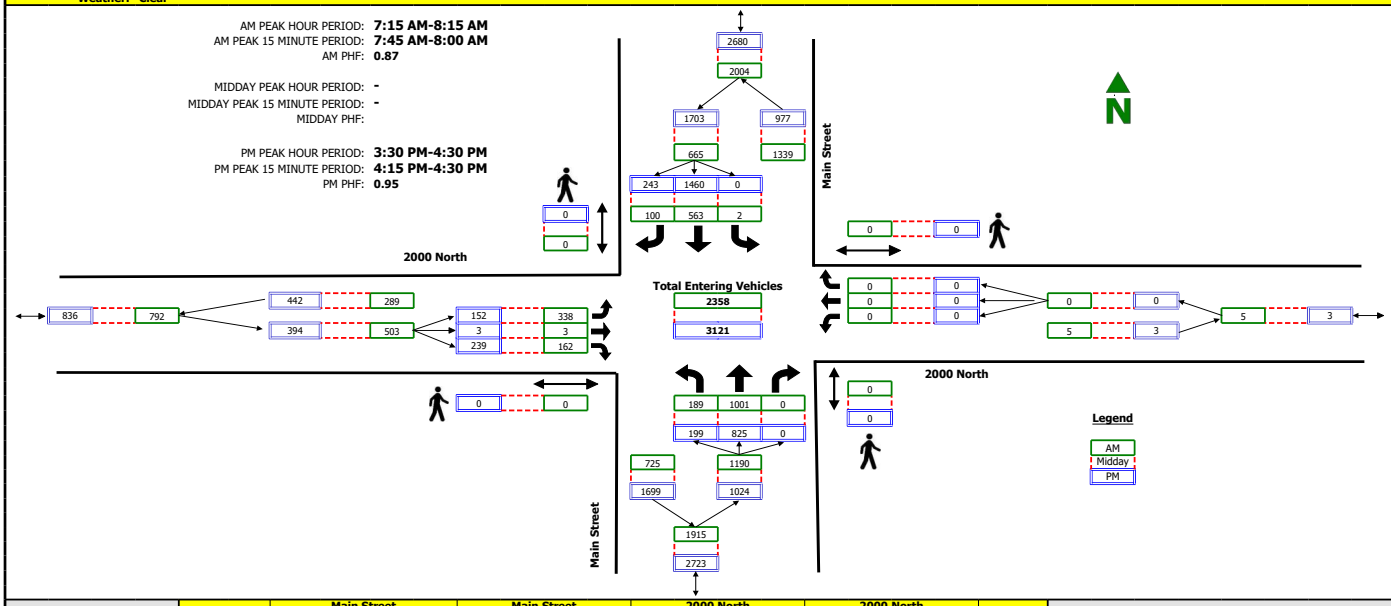
Intersection: Main Street / 2000 North
North/South: Main Street
East/West: 2000 North
Jurisdiction: Tooele
Project Title: Overlake Area TS
Project No: UT19-1410
Weather: Clear

Date: 2-20-19, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:15 AM-8:15 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.87**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **3:30 PM-4:30 PM**
PM PEAK 15 MINUTE PERIOD: **4:15 PM-4:30 PM**
PM PHF: **0.95**



RAW COUNT SUMMARIES	Main Street Northbound				Main Street Southbound				2000 North Eastbound				2000 North Westbound				TOTAL
	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**
6:30 - 6:45	20	296	0	0	0	68	9	0	48	0	16	0	0	0	0	0	457
6:45 - 7:00	31	317	0	0	0	91	12	0	64	0	25	0	0	0	0	0	540
7:00 - 7:15	35	286	0	0	0	89	12	0	64	0	17	0	0	0	0	0	503
7:15 - 7:30	48	316	0	0	0	104	14	0	108	2	14	0	0	0	0	0	606
7:30 - 7:45	46	221	0	0	0	113	24	0	86	0	35	0	0	0	0	0	525
7:45 - 8:00	43	261	0	0	0	183	34	0	91	1	64	0	0	0	0	0	677
8:00 - 8:15	52	203	0	0	2	163	28	0	53	0	49	0	0	0	0	0	550
8:15 - 8:30	31	213	0	0	0	112	12	0	53	0	30	0	0	0	0	0	451
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**
14:30 - 14:45	42	212	0	0	0	251	30	0	41	0	44	0	0	0	0	0	620
14:45 - 15:00	45	221	0	0	0	251	42	0	39	0	63	1	0	0	0	0	661
15:00 - 15:15	49	228	0	0	0	256	44	0	36	0	58	0	0	0	0	0	671
15:15 - 15:30	65	238	0	0	0	262	38	0	37	0	63	0	0	0	0	0	703
15:30 - 15:45	65	206	0	0	0	331	53	0	45	0	48	0	0	0	0	0	748
15:45 - 16:00	36	207	0	0	0	354	70	0	26	0	57	0	0	0	0	0	750
16:00 - 16:15	55	217	0	0	0	376	61	0	34	0	61	0	0	0	0	0	804
16:15 - 16:30	43	195	0	0	0	399	59	0	47	3	73	0	0	0	0	0	819

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

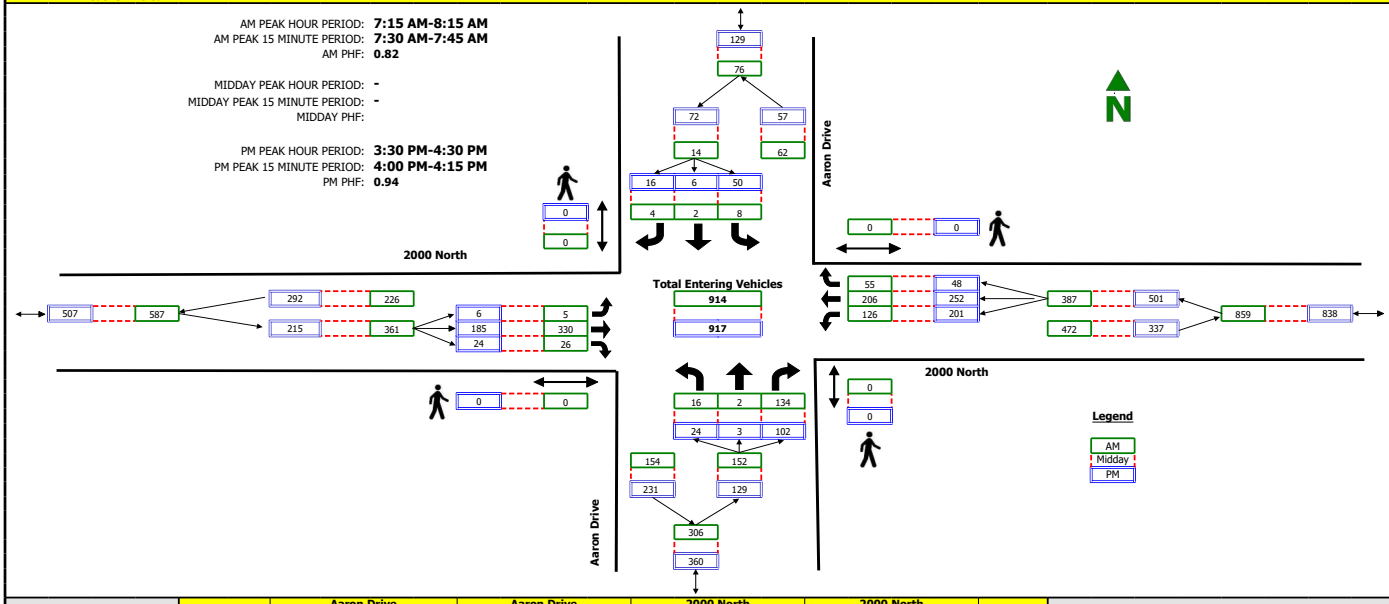
Intersection: Aaron Drive / 2000 North
North/South: Aaron Drive
East/West: 2000 North
Jurisdiction: Tooele
Project Title: Overlake Area TS
Project No: UT19-1410
Weather: Clear

Date: 2-20-19, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 100.0%
Adjustment Station #: 0
Growth Rate: 0.0%
Number of Years: 0

AM PEAK HOUR PERIOD: **7:15 AM-8:15 AM**
AM PEAK 15 MINUTE PERIOD: **7:30 AM-7:45 AM**
AM PHF: **0.82**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **3:30 PM-4:30 PM**
PM PEAK 15 MINUTE PERIOD: **4:00 PM-4:15 PM**
PM PHF: **0.94**



RAW COUNT SUMMARIES	Aaron Drive Northbound				Aaron Drive Southbound				2000 North Eastbound				2000 North Westbound				TOTAL
	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
6:30 - 6:45	1	2	21	0	2	1	1	0	0	33	4	0	15	7	8	0	95
6:45 - 7:00	0	0	31	0	4	0	2	0	0	41	4	0	33	10	10	0	135
7:00 - 7:15	1	0	32	0	3	2	1	0	0	48	5	0	29	21	7	0	149
7:15 - 7:30	2	0	35	0	1	0	0	0	0	63	6	0	28	35	4	0	174
7:30 - 7:45	2	0	40	0	2	0	1	0	1	100	12	0	25	88	9	0	280
7:45 - 8:00	4	1	30	0	3	0	1	0	4	103	4	0	29	55	20	0	254
8:00 - 8:15	8	1	29	0	2	2	2	0	0	64	4	0	44	28	22	0	206
8:15 - 8:30	3	2	20	0	2	1	0	0	1	43	4	0	31	23	8	0	138

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
14:30 - 14:45	3	0	13	1	9	2	2	2	0	41	4	1	29	34	5	0	142
14:45 - 15:00	2	0	23	2	9	0	2	0	4	59	2	0	44	40	12	0	197
15:00 - 15:15	2	1	33	0	10	1	2	0	3	48	2	0	31	45	10	0	188
15:15 - 15:30	4	0	29	0	13	0	0	0	1	48	6	0	56	51	5	0	213
15:30 - 15:45	4	2	22	0	12	1	3	0	0	50	6	0	46	64	17	0	227
15:45 - 16:00	5	0	25	0	11	1	3	0	3	37	4	0	47	61	12	0	209
16:00 - 16:15	8	0	23	0	18	2	8	0	1	41	9	0	57	65	13	0	245
16:15 - 16:30	7	1	32	0	9	2	2	0	2	57	5	0	51	62	6	0	236

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

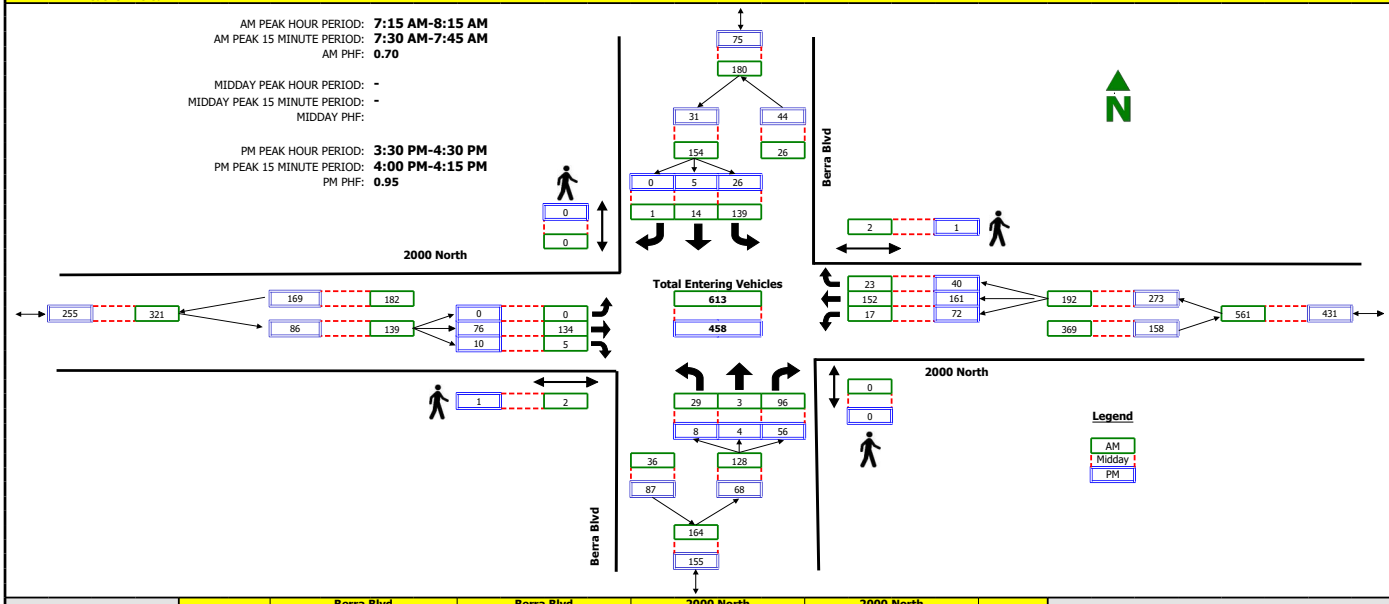
Intersection Turning Movement Summary

Intersection:	**Berra Blvd / 2000 North**	**Date:**	**2-20-19, Wed**
North/South:	**Berra Blvd**	**Day of Week Adjustment:**	**100.0%**
East/West:	**2000 North**	**Month of Year Adjustment:**	**100.0%**
Jurisdiction:	**Tooele**	**Adjustment Station #:**	**0**
Project Title:	**Overlake Area TS**	**Growth Rate:**	**0.0%**
Project No:	**UT19-1410**	**Number of Years:**	**0**
Weather:	**Clear**		

AM PEAK HOUR PERIOD: **7:15 AM-8:15 AM**
AM PEAK 15 MINUTE PERIOD: **7:30 AM-7:45 AM**
AM PHF: **0.70**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **3:30 PM-4:30 PM**
PM PEAK 15 MINUTE PERIOD: **4:00 PM-4:15 PM**
PM PHF: **0.95**



RAW COUNT SUMMARIES	Berra Blvd Northbound				Berra Blvd Southbound				2000 North Eastbound				2000 North Westbound				TOTAL
	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
6:30 - 6:45	0	0	15	0	5	0	0	0	0	15	0	0	1	6	1	1	43
6:45 - 7:00	0	0	15	0	9	0	1	0	0	26	1	0	1	7	1	0	61
7:00 - 7:15	1	0	20	0	10	0	0	0	0	24	0	0	1	9	2	1	67
7:15 - 7:30	5	2	22	0	17	1	0	0	0	30	0	2	4	20	3	0	104
7:30 - 7:45	8	0	33	0	47	7	0	0	0	36	1	0	3	71	14	1	220
7:45 - 8:00	13	0	24	0	53	6	1	0	0	42	3	0	5	42	4	0	193
8:00 - 8:15	3	1	17	0	22	0	0	0	0	26	1	0	5	19	2	1	96
8:15 - 8:30	4	0	15	0	18	1	1	0	0	13	0	0	2	13	7	0	74

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
14:30 - 14:45	1	0	15	0	8	1	1	0	0	12	0	0	9	17	5	3	69
14:45 - 15:00	3	2	13	0	11	0	0	0	0	29	0	1	8	22	8	0	96
15:00 - 15:15	3	0	15	0	8	3	0	0	0	17	0	0	15	17	9	1	87
15:15 - 15:30	2	0	19	0	9	0	0	0	0	14	1	0	12	22	12	0	91
15:30 - 15:45	1	1	12	0	8	1	0	0	0	22	0	1	22	38	6	0	111
15:45 - 16:00	3	0	10	0	6	2	0	0	0	21	5	0	17	38	11	0	113
16:00 - 16:15	2	1	18	0	8	0	0	0	0	18	3	0	19	43	8	1	120
16:15 - 16:30	2	2	16	0	4	2	0	0	0	15	2	0	14	42	15	0	114

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

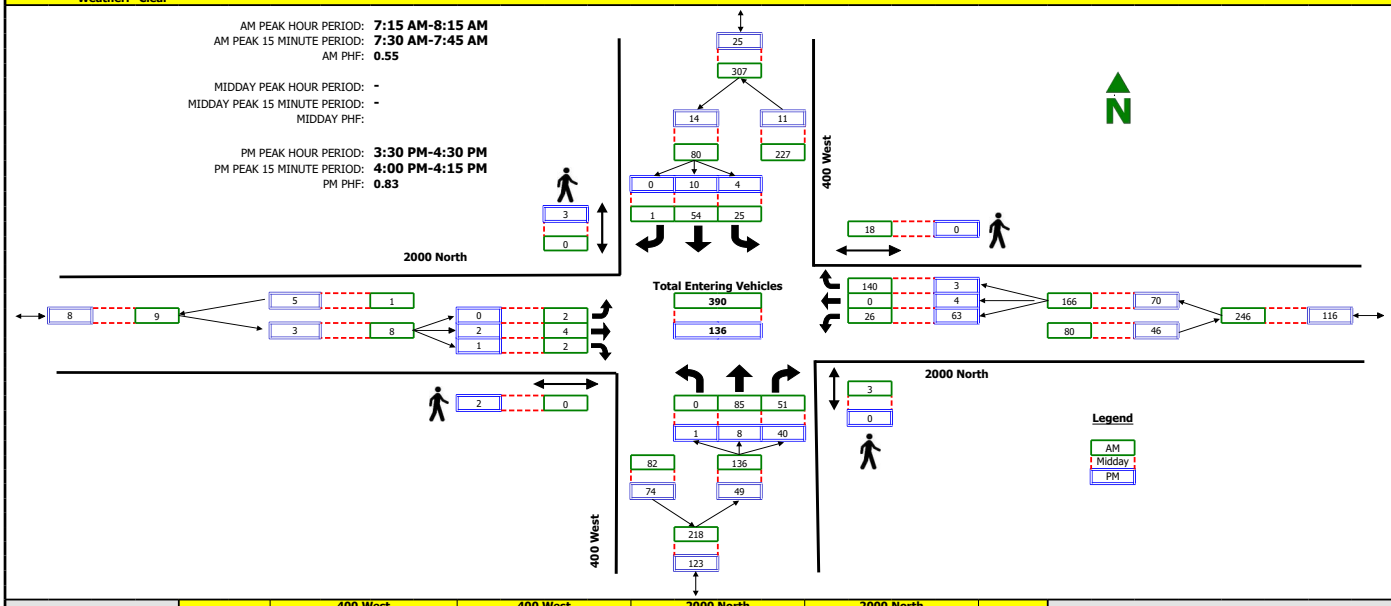
Intersection Turning Movement Summary

Intersection:	**400 West / 2000 North**	**Date:**	**2-20-19, Wed**
North/South:	**400 West**	**Day of Week Adjustment:**	**100.0%**
East/West:	**2000 North**	**Month of Year Adjustment:**	**100.0%**
Jurisdiction:	**Tooele**	**Adjustment Station #:**	**0**
Project Title:	**Overlake Area TS**	**Growth Rate:**	**0.0%**
Project No:	**UT19-1410**	**Number of Years:**	**0**
Weather:	**Clear**		

AM PEAK HOUR PERIOD: **7:15 AM-8:15 AM**
AM PEAK 15 MINUTE PERIOD: **7:30 AM-7:45 AM**
AM PHF: **0.55**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **3:30 PM-4:30 PM**
PM PEAK 15 MINUTE PERIOD: **4:00 PM-4:15 PM**
PM PHF: **0.83**



RAW COUNT SUMMARIES	400 West Northbound				400 West Southbound				2000 North Eastbound				2000 North Westbound				TOTAL
	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**
6:30 - 6:45	0	0	3	0	0	0	0	0	0	0	0	0	2	1	2	0	8
6:45 - 7:00	0	1	9	0	2	0	0	0	0	2	0	0	7	1	2	0	24
7:00 - 7:15	0	5	8	0	0	0	0	0	0	0	0	0	3	1	4	0	21
7:15 - 7:30	0	15	7	0	6	0	0	0	0	1	1	0	3	0	22	5	55
7:30 - 7:45	0	42	12	3	10	26	1	0	2	0	1	0	4	0	78	11	176
7:45 - 8:00	0	26	21	0	9	24	0	0	0	2	0	0	9	0	36	2	127
8:00 - 8:15	0	2	11	0	0	4	0	0	0	1	0	0	10	0	4	0	32
8:15 - 8:30	0	4	8	0	0	1	0	0	0	0	0	0	4	1	3	0	21
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**
14:30 - 14:45	0	4	4	0	1	3	0	0	0	1	0	0	5	0	1	1	19
14:45 - 15:00	0	1	15	0	1	4	0	0	0	1	0	0	14	0	1	1	37
15:00 - 15:15	1	2	13	1	2	6	0	0	0	0	1	0	8	0	2	2	35
15:15 - 15:30	0	6	6	0	0	6	0	0	0	0	1	0	6	0	1	0	26
15:30 - 15:45	0	3	9	0	0	2	0	0	0	1	0	0	13	2	2	0	32
15:45 - 16:00	0	0	12	0	1	3	0	0	0	0	0	0	14	0	0	0	30
16:00 - 16:15	1	1	11	0	3	2	0	2	0	1	1	2	19	1	1	0	41
16:15 - 16:30	0	4	8	0	0	3	0	1	0	0	0	0	17	1	0	0	33

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

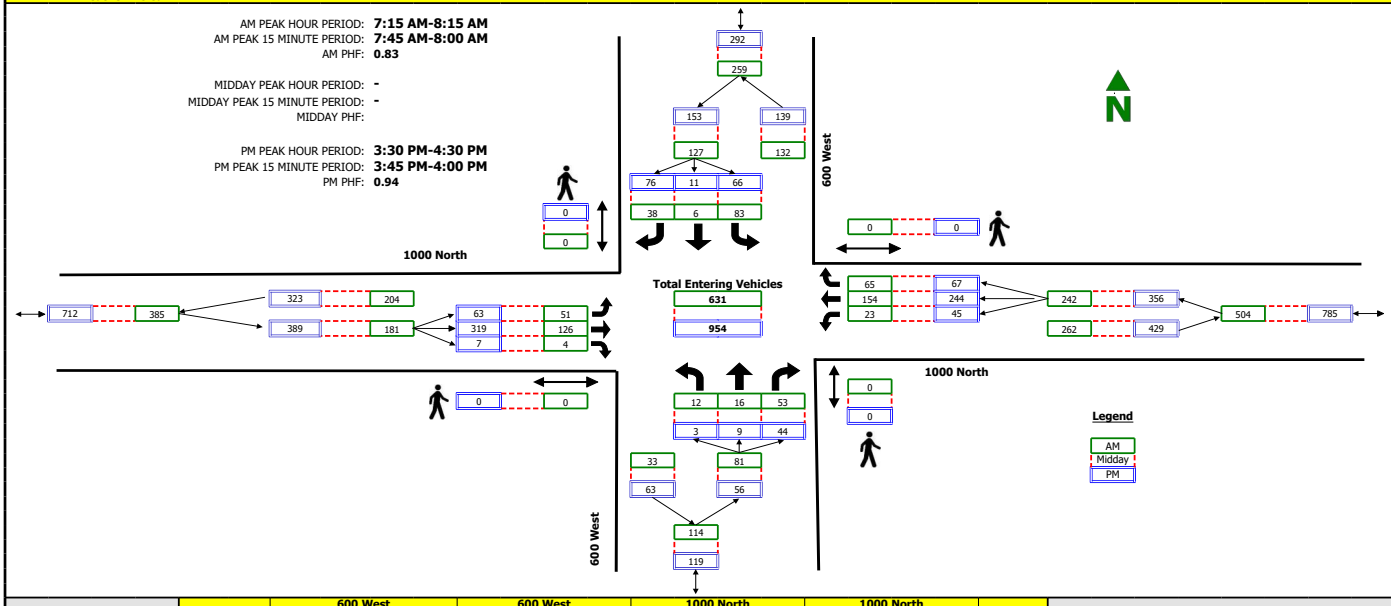
Intersection Turning Movement Summary

Intersection:	**600 West / 1000 North**	**Date:**	**2-20-19, Wed**
North/South:	**600 West**	**Day of Week Adjustment:**	**100.0%**
East/West:	**1000 North**	**Month of Year Adjustment:**	**100.0%**
Jurisdiction:	**Tooele**	**Adjustment Station #:**	**0**
Project Title:	**Overlake Area TS**	**Growth Rate:**	**0.0%**
Project No:	**UT19-1410**	**Number of Years:**	**0**
Weather:	**Clear**		

AM PEAK HOUR PERIOD: **7:15 AM-8:15 AM**
AM PEAK 15 MINUTE PERIOD: **7:45 AM-8:00 AM**
AM PHF: **0.83**

MIDDAY PEAK HOUR PERIOD: **-**
MIDDAY PEAK 15 MINUTE PERIOD: **-**
MIDDAY PHF:

PM PEAK HOUR PERIOD: **3:30 PM-4:30 PM**
PM PEAK 15 MINUTE PERIOD: **3:45 PM-4:00 PM**
PM PHF: **0.94**



RAW COUNT SUMMARIES	600 West Northbound				600 West Southbound				1000 North Eastbound				1000 North Westbound				TOTAL
	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
6:30 - 6:45	2	1	5	0	2	0	7	0	2	11	2	0	1	52	0	0	85
6:45 - 7:00	1	3	8	0	9	0	14	0	7	30	1	0	2	38	2	0	115
7:00 - 7:15	2	2	6	0	9	0	5	0	8	21	1	0	4	22	8	0	88
7:15 - 7:30	1	3	11	0	10	0	6	0	8	19	0	0	4	32	14	0	108
7:30 - 7:45	5	4	16	0	19	1	12	0	17	31	0	0	3	37	23	0	168
7:45 - 8:00	5	5	11	0	30	2	13	0	14	40	0	0	5	43	23	0	191
8:00 - 8:15	1	4	15	0	24	3	7	0	12	36	4	0	11	42	5	0	164
8:15 - 8:30	3	1	8	0	13	1	15	0	5	33	1	0	9	34	12	0	135

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
14:30 - 14:45	2	1	15	0	11	3	5	0	15	100	2	0	7	62	15	0	238
14:45 - 15:00	1	0	13	0	13	5	18	0	20	61	3	0	6	58	8	0	206
15:00 - 15:15	2	1	9	0	20	2	7	0	12	55	0	0	6	60	15	1	189
15:15 - 15:30	0	1	6	0	13	1	11	1	13	85	10	1	17	46	17	0	220
15:30 - 15:45	0	2	14	0	14	0	19	0	18	89	0	0	11	51	14	0	232
15:45 - 16:00	1	2	13	0	15	3	19	0	15	78	0	0	9	79	19	0	253
16:00 - 16:15	0	2	7	0	26	7	23	0	20	79	2	0	14	52	17	0	249
16:15 - 16:30	2	3	10	0	11	1	15	0	10	73	5	0	11	62	17	0	220

APPENDIX B: LOS and Queueing Results

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Main Street (SR-36) & 2400 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	50	51	101	30.4	*C*
	T	888	865	97	1.9	*A*
	R	44	47	106	0.6	*A*
	Subtotal	982	963	98	3.3	*A*
SB	L	50	49	98	11.2	*B*
	T	1,624	1,621	100	8.0	*A*
	R	44	44	99	1.7	*A*
	Subtotal	1,718	1,714	100	7.9	*A*
EB	L	49	49	99	70.0	*E*
	T	4	5	125	76.0	*E*
	R	45	46	102	18.4	*B*
	Subtotal	98	100	102	46.6	*D*
WB	L	104	104	100	70.4	*E*
	T	2	4	200	74.1	*E*
	R	50	51	101	2.2	*A*
	Subtotal	156	159	102	48.6	*D*
Total		2,956	2,936	99	10.0	*A*

Intersection: Main Street (SR-36) & 2200 North
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	977	959	98	0.6	*A*
	R	40	41	102	1.3	*A*
	Subtotal	1,017	1,000	98	0.6	*A*
SB	T	1,773	1,772	100	4.3	*A*
	R	5	4	80	3.6	*A*
	Subtotal	1,778	1,776	100	4.3	*A*
EB	***R***	***80***	***77***	***96***	***23.6***	***C***
	Subtotal	80	77	96	23.6	*C*
WB	R	5	5	100	1.4	*A*
	Subtotal	5	5	100	1.4	*A*
Total		2,881	2,858	99	3.5	*A*

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Main Street (SR-36) & 2000 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	236	228	97	53.8	*D*
	T	1,069	1,044	98	0.6	*A*
	Subtotal	1,305	1,272	97	10.1	*B*
SB	T	1,589	1,582	100	12.5	*B*
	R	265	268	101	3.6	*A*
	Subtotal	1,854	1,850	100	11.2	*B*
EB	L	152	142	93	59.8	*E*
	R	240	240	100	35.0	*C*
	Subtotal	392	382	97	44.2	*D*
Total		3,551	3,504	99	14.5	*B*

Intersection: Aaron Drive/Hospital Access & 2000 North
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	***L***	***24***	***24***	***101***	***13.3***	***B***
	T	3	3	100	14.1	*B*
	R	102	102	100	5.3	*A*
	Subtotal	129	129	100	7.0	*A*
SB	L	50	48	96	10.0	*A*
	T	6	6	96	9.9	*A*
	R	16	17	105	3.9	*A*
	Subtotal	72	71	99	8.5	*A*
EB	L	6	5	80	2.6	*A*
	T	186	179	96	1.1	*A*
	R	24	26	109	0.4	*A*
	Subtotal	216	210	97	1.0	*A*
WB	L	201	199	99	4.0	*A*
	T	253	248	98	1.8	*A*
	R	48	50	104	0.6	*A*
	Subtotal	502	497	99	2.6	*A*
Total		920	907	99	3.3	*A*

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Berra Boulevard & 2000 North
Type: Roundabout

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	8	9	109	2.3	*A*
	T	4	5	125	3.0	*A*
	R	56	55	99	2.3	*A*
	Subtotal	68	69	101	2.4	*A*
SB	L	26	23	89	2.6	*A*
	T	5	5	100	2.6	*A*
	R	7	7	97	2.6	*A*
	Subtotal	38	35	92	2.6	*A*
EB	L	3	2	67	3.3	*A*
	T	133	130	98	4.7	*A*
	R	10	12	117	2.7	*A*
	Subtotal	146	144	99	4.5	*A*
WB	L	72	70	97	3.5	*A*
	T	180	177	98	5.2	*A*
	R	40	40	100	3.4	*A*
	Subtotal	292	287	98	4.5	*A*
Total		545	535	98	4.1	*A*

Intersection: 400 West & 2000 North
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	1	0	0		
	T	8	9	109	0.9	*A*
	R	40	38	95	0.2	*A*
	Subtotal	49	47	96	0.3	*A*
SB	L	4	4	100	1.4	*A*
	T	10	11	107	0.1	*A*
	R	1	1	100	0.0	*A*
	Subtotal	15	16	107	0.4	*A*
EB	***L***	***1***	***0***	***0***		
	T	2	2	100	5.6	*A*
	R	1	2	200	1.9	*A*
	Subtotal	4	4	100	3.8	*A*
WB	L	63	62	99	4.5	*A*
	T	130	126	97	0.4	*A*
	R	3	3	100	1.6	*A*
	Subtotal	196	191	97	1.7	*A*
Total		264	258	98	1.5	*A*

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Main Street (SR-36) & 1280 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	154	154	100	64.0	*E*
	T	1,156	1,143	99	12.3	*B*
	R	77	68	89	12.0	*B*
	Subtotal	1,387	1,365	98	18.1	*B*
SB	L	123	116	94	20.9	*C*
	T	1,419	1,407	99	16.1	*B*
	R	272	280	103	8.0	*A*
	Subtotal	1,814	1,803	99	15.2	*B*
EB	L	279	276	99	70.0	*E*
	T	50	49	98	61.4	*E*
	R	207	214	103	34.2	*C*
	Subtotal	536	539	101	55.0	*D*
WB	L	134	133	99	50.7	*D*
	T	30	31	102	43.5	*D*
	R	125	118	94	22.1	*C*
	Subtotal	289	282	98	37.9	*D*
Total		4,026	3,989	99	23.2	*C*

Intersection: Main Street (SR-36) & 1000 North (SR-112)/1000 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	167	164	98	66.1	*E*
	T	1,055	1,046	99	47.3	*D*
	R	134	133	99	26.7	*C*
	Subtotal	1,356	1,343	99	47.6	*D*
SB	L	549	490	89	139.9	*F*
	T	1,814	1,684	93	68.5	*E*
	R	87	86	99	51.6	*D*
	Subtotal	2,450	2,260	92	83.3	*F*
EB	L	122	121	99	71.9	*E*
	T	174	174	100	112.8	*F*
	R	131	122	93	99.6	*F*
	Subtotal	427	417	98	97.1	*F*
WB	L	170	168	99	96.2	*F*
	T	189	190	101	59.5	*E*
	R	210	211	100	16.4	*B*
	Subtotal	569	569	100	54.4	*D*
Total		4,802	4,589	96	71.0	*E*

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: 200 West & 1000 North (SR-112)
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	56	56	100	33.4	*C*
	T	50	47	94	22.1	*C*
	R	143	141	99	8.5	*A*
	Subtotal	249	244	98	16.8	*B*
SB	L	86	86	100	28.3	*C*
	T	80	77	96	22.9	*C*
	R	245	241	98	11.3	*B*
	Subtotal	411	404	98	17.1	*B*
EB	L	170	173	102	15.1	*B*
	T	196	196	100	11.2	*B*
	R	70	64	91	5.2	*A*
	Subtotal	436	433	99	11.9	*B*
WB	L	160	158	99	16.8	*B*
	T	190	186	98	7.3	*A*
	R	95	96	101	6.5	*A*
	Subtotal	445	440	99	10.5	*B*
Total		1,540	1,521	99	13.7	*B*

Intersection: 600 West & 1000 North (SR-112)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	3	2	67	6.8	*A*
	T	9	8	86	10.1	*B*
	R	44	46	104	4.0	*A*
	Subtotal	56	56	100	5.0	*A*
SB	***L***	***66***	***65***	***98***	***11.9***	***B***
	T	11	13	116	12.5	*B*
	R	76	77	101	6.2	*A*
	Subtotal	153	155	101	9.1	*A*
EB	L	63	65	104	3.1	*A*
	T	336	334	99	2.2	*A*
	R	7	6	83	1.2	*A*
	Subtotal	406	405	100	2.3	*A*
WB	L	45	42	93	3.5	*A*
	T	302	298	99	3.3	*A*
	R	67	69	103	2.4	*A*
	Subtotal	414	409	99	3.2	*A*
Total		1,030	1,025	99	3.8	*A*

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Industrial Loop Road & Utah Avenue
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	5	6	114	9.5	*A*
	T	267	272	102	7.4	*A*
	R	96	96	100	2.8	*A*
	Subtotal	368	374	102	6.3	*A*
SB	L	199	199	100	15.8	*B*
	T	314	320	102	6.8	*A*
	R	10	12	120	2.2	*A*
	Subtotal	523	531	102	10.1	*A*
WB	L2	87	86	99	31.9	*C*
	L	33	32	97	29.5	*C*
	R	252	255	101	5.6	*A*
	Subtotal	372	373	100	13.7	*B*
NE	L	43	42	98	30.3	*C*
	R	71	72	101	31.0	*C*
	R2	20	17	86	5.5	*A*
	Subtotal	134	131	98	27.5	*C*
Total		1,396	1,409	101	11.7	*B*

Intersection: Main Street (SR-36) & 600 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	45	43	96	21.8	*C*
	T	1,284	1,285	100	4.9	*A*
	R	40	37	92	4.9	*A*
	Subtotal	1,369	1,365	100	5.4	*A*
SB	L	62	56	90	20.3	*C*
	T	1,983	1,841	93	8.9	*A*
	R	70	65	93	10.6	*B*
	Subtotal	2,115	1,962	93	9.3	*A*
EB	L	53	46	87	39.9	*D*
	T	20	18	91	41.9	*D*
	R	40	42	104	22.5	*C*
	Subtotal	113	106	94	33.3	*C*
WB	L	2	2	100	39.6	*D*
	T	30	26	87	40.7	*D*
	R	38	40	105	16.3	*B*
	Subtotal	70	68	97	26.3	*C*
Total		3,667	3,501	95	8.8	*A*

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Main Street (SR-36) & 400 North
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	26	26	100	16.5	*B*
	T	1,249	1,243	100	10.1	*B*
	R	17	16	96	10.3	*B*
	Subtotal	1,292	1,285	99	10.2	*B*
SB	L	115	105	91	16.3	*B*
	T	1,202	1,119	93	10.0	*A*
	R	51	49	96	8.8	*A*
	Subtotal	1,368	1,273	93	10.5	*B*
EB	L	91	90	99	40.4	*D*
	T	23	21	91	34.2	*C*
	R	81	84	104	13.6	*B*
	Subtotal	195	195	100	28.2	*C*
WB	L	90	88	98	43.6	*D*
	T	26	27	104	34.6	*C*
	R	122	124	102	17.3	*B*
	Subtotal	238	239	100	28.9	*C*
Total		3,094	2,992	97	13.0	*B*

Intersection: Main Street (SR-36) & Utah Avenue
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	84	82	97	15.6	*B*
	T	1,058	1,043	99	12.0	*B*
	R	26	28	109	5.0	*A*
	Subtotal	1,168	1,153	99	12.1	*B*
SB	L	111	108	97	17.5	*B*
	T	1,216	1,141	94	11.5	*B*
	R	52	47	91	11.3	*B*
	Subtotal	1,379	1,296	94	12.0	*B*
EB	L	177	190	107	46.7	*D*
	T	41	40	97	36.5	*D*
	R	161	163	101	21.6	*C*
	Subtotal	379	393	104	35.3	*D*
WB	L	50	52	103	40.2	*D*
	T	35	34	97	53.8	*D*
	R	60	59	99	21.3	*C*
	Subtotal	145	145	100	35.7	*D*
Total		3,071	2,987	97	16.3	*B*

HALES ENGINEERING
innovative transportation solutions

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Main Street (SR-36) & Vine Street
Type: Signalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	46	43	93	15.2	*B*
	T	725	718	99	9.3	*A*
	R	40	43	107	7.1	*A*
	Subtotal	811	804	99	9.5	*A*
SB	L	61	58	95	11.6	*B*
	T	1,116	1,058	95	7.5	*A*
	R	82	80	98	7.6	*A*
	Subtotal	1,259	1,196	95	7.7	*A*
EB	L	147	141	96	40.4	*D*
	T	38	38	99	46.9	*D*
	R	94	98	104	20.8	*C*
	Subtotal	279	277	99	34.4	*C*
WB	L	93	89	96	34.9	*C*
	T	43	42	97	44.1	*D*
	R	195	194	99	8.9	*A*
	Subtotal	331	325	98	20.6	*C*
Total		2,680	2,602	97	12.7	*B*

Intersection: Main Street (SR-36) & 520 South/Skyline Drive
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	7	6	83	7.5	*A*
	T	570	565	99	3.2	*A*
	R	52	53	101	2.9	*A*
	Subtotal	629	624	99	3.2	*A*
SB	L	173	163	94	8.4	*A*
	T	985	936	95	2.5	*A*
	R	18	16	90	3.4	*A*
	Subtotal	1,176	1,115	95	3.4	*A*
EB	L	12	12	102	38.6	*E*
	T	1	1	100	51.3	*F*
	R	3	4	133	11.7	*B*
	Subtotal	16	17	106	33.0	*D*
WB	***L***	***31***	***30***	***96***	***127.6***	***F***
	T	3	4	133	105.3	*F*
	R	110	108	98	69.0	*F*
	Subtotal	144	142	99	82.4	*F*
Total		1,965	1,898	97	9.5	*A*

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Main Street (SR-36) & Commander Boulevard
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
EB	***L***	***165***	***167***	***101***	***9.3***	***A***
	R	16	19	117	1.5	*A*
	Subtotal	181	186	103	8.5	*A*
NE	L	6	5	87	1.6	*A*
	T	230	230	100	1.4	*A*
	Subtotal	236	235	100	1.4	*A*
SW	T	574	531	92	3.3	*A*
	R	16	15	92	5.1	*A*
	Subtotal	590	546	93	3.3	*A*
Total		1,008	967	96	3.9	*A*

Intersection: Droubay Road & 1000 North
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	76	74	97	2.6	*A*
	T	69	74	107	0.7	*A*
	Subtotal	145	148	102	1.7	*A*
SB	T	195	195	100	0.9	*A*
	R	31	30	98	0.3	*A*
	Subtotal	226	225	100	0.8	*A*
EB	***L***	***44***	***42***	***95***	***9.0***	***A***
	T	292	260	89	1.5	*A*
	R	109	105	96	7.0	*A*
	Subtotal	445	407	91	3.7	*A*
Total		816	780	96	2.5	*A*

HALES ENGINEERING
innovative transportation solutions

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Droubay Road & 970 North
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	T	122	124	101	1.7	A
	R	6	7	112	1.3	A
	Subtotal	128	131	102	1.7	A
SB	L	65	67	103	2.2	A
	T	239	232	97	0.7	A
	Subtotal	304	299	98	1.0	A
WB	***L***	***9***	***10***	***108***	***6.1***	***A***
	R	23	24	103	2.9	A
	Subtotal	32	34	106	3.8	A
Total		465	464	100	1.4	A

Intersection: Droubay Road & Smelter Road
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	***L***	***3***	***2***	***67***	***7.1***	***A***
	T	48	54	112	5.4	A
	R	10	11	107	3.1	A
	Subtotal	61	67	110	5.1	A
SB	L	10	9	88	6.4	A
	T	139	135	97	6.7	A
	R	99	96	97	4.3	A
	Subtotal	248	240	97	5.7	A
EB	L	74	70	95	1.8	A
	T	35	33	94	0.5	A
	R	5	5	100	0.5	A
	Subtotal	114	108	95	1.3	A
WB	L	5	4	80	1.6	A
	T	20	21	106	0.2	A
	R	3	3	100	0.0	A
	Subtotal	28	28	100	0.4	A
Total		452	443	98	4.2	A

SimTraffic LOS Report

Project: Tooele City Transportation Master Plan
Analysis Period: *Existing (2020) Background*
Time Period: *Evening Peak Hour* **Project #:** *UT19-1595*

Intersection: Coleman Street & Utah Avenue
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	***L***	***39***	***40***	***103***	***11.5***	***B***
	T	42	42	99	8.2	*A*
	R	65	71	109	6.3	*A*
	Subtotal	146	153	105	8.2	*A*
SB	L	9	9	100	9.2	*A*
	T	38	36	95	10.6	*B*
	R	26	26	101	4.4	*A*
	Subtotal	73	71	97	8.2	*A*
EB	L	30	32	107	2.7	*A*
	T	257	267	104	0.8	*A*
	R	48	52	108	0.4	*A*
	Subtotal	335	351	105	0.9	*A*
WB	L	71	71	100	4.9	*A*
	T	152	146	96	2.1	*A*
	R	10	11	110	1.7	*A*
	Subtotal	233	228	98	3.0	*A*
Total		788	803	102	3.5	*A*

Intersection: Coleman Street & Vine Street
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	***L***	***13***	***11***	***86***	***7.3***	***A***
	T	120	127	106	7.9	*A*
	R	62	66	106	4.3	*A*
	Subtotal	195	204	105	6.7	*A*
SB	L	21	18	86	7.1	*A*
	T	128	132	103	6.5	*A*
	R	11	11	102	3.5	*A*
	Subtotal	160	161	101	6.4	*A*
EB	L	7	7	97	1.9	*A*
	T	60	63	105	0.3	*A*
	R	5	7	133	0.2	*A*
	Subtotal	72	77	107	0.4	*A*
WB	L	83	80	96	3.9	*A*
	T	78	74	95	2.4	*A*
	R	16	16	102	1.7	*A*
	Subtotal	177	170	96	3.0	*A*
Total		603	612	101	4.8	*A*

HALES ENGINEERING
innovative transportation solutions

SimTraffic LOS Report

Project: **Tooele City Transportation Master Plan**
Analysis Period: ***Existing (2020) Background***
Time Period: ***Evening Peak Hour*** **Project #:** ***UT19-1595***

Intersection: **Broadway Avenue & 1000 North**
Type: **Unsignalized**

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	***L***	***89***	***90***	***101***	***12.3***	***B***
	R	27	27	101	8.4	*A*
	Subtotal	116	117	101	11.4	*B*
EB	T	705	650	92	2.4	*A*
	R	145	137	94	1.9	*A*
	Subtotal	850	787	93	2.3	*A*
WB	L	21	20	96	5.7	*A*
	T	295	295	100	1.3	*A*
	Subtotal	316	315	100	1.6	*A*
Total		1,281	1,219	95	3.0	*A*

1: Main Street (SR-36) & 2400 North Performance by movement

Movement	EBL	EBT	EBR	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	0.2	0.1	1.4	0.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.0	0.1	0.2	2.1	0.1	0.0	0.4	0.5	0.0	0.2	3.6	0.0
Total Del/Veh (s)	70.0	76.0	18.4	70.4	74.1	2.2	30.4	1.9	0.6	11.2	8.0	1.7
Vehicles Entered	49	5	46	104	4	51	52	865	47	49	1620	44
Vehicles Exited	49	5	46	104	4	51	51	865	47	49	1621	44
Hourly Exit Rate	49	5	46	104	4	51	51	865	47	49	1621	44
Input Volume	49	4	45	104	2	50	50	888	44	50	1624	44
% of Volume	99	125	102	100	200	101	101	97	106	98	100	99

1: Main Street (SR-36) & 2400 North Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	8.2
Total Del/Veh (s)	10.0
Vehicles Entered	2936
Vehicles Exited	2936
Hourly Exit Rate	2936
Input Volume	2956
% of Volume	99

2: Main Street (SR-36) & 2200 North Performance by movement

Movement	EBR	WBR	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.0	0.2	0.0	2.1	0.0	2.8
Total Del/Veh (s)	23.6	1.4	0.6	1.3	4.3	3.6	3.5
Vehicles Entered	77	5	958	41	1772	4	2857
Vehicles Exited	77	5	959	41	1772	4	2858
Hourly Exit Rate	77	5	959	41	1772	4	2858
Input Volume	80	5	977	40	1773	5	2881
% of Volume	96	100	98	102	100	80	99

3: Main Street (SR-36) & 2000 North Performance by movement

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)	0.0	0.6	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.4	2.4	3.5	0.2	5.5	0.3	14.2
Total Del/Veh (s)	59.8	35.0	53.8	0.6	12.5	3.6	14.5
Vehicles Entered	143	238	230	1042	1581	268	3502
Vehicles Exited	142	240	228	1044	1582	268	3504
Hourly Exit Rate	142	240	228	1044	1582	268	3504
Input Volume	152	240	236	1069	1589	265	3551
% of Volume	93	100	97	98	100	101	99

4: Aaron Drive/Hospital Access & 2000 North Performance by movement

Movement	EBL	EBT	EBR	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)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	0.2	0.1	0.0	0.1	0.0	0.2	0.1	0.0	0.0
Total Del/Veh (s)	2.6	1.1	0.4	4.0	1.8	0.6	13.3	14.1	5.3	10.0	9.9	3.9
Vehicles Entered	5	179	26	199	249	50	24	3	102	48	6	17
Vehicles Exited	5	179	26	199	248	50	24	3	102	48	6	17
Hourly Exit Rate	5	179	26	199	248	50	24	3	102	48	6	17
Input Volume	6	186	24	201	253	48	24	3	102	50	6	16
% of Volume	80	96	109	99	98	104	101	100	100	96	96	105

4: Aaron Drive/Hospital Access & 2000 North Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.8
Total Del/Veh (s)	3.3
Vehicles Entered	908
Vehicles Exited	907
Hourly Exit Rate	907
Input Volume	920
% of Volume	99

5: Berra Boulevard & 2000 North Performance by movement

Movement	EBL	EBT	EBR	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)	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.2	0.0	0.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	3.3	4.7	2.7	3.5	5.2	3.4	2.3	3.0	2.3	2.6	2.6	2.6
Vehicles Entered	2	131	12	70	178	40	9	5	55	23	5	6
Vehicles Exited	2	130	12	70	177	40	9	5	55	23	5	7
Hourly Exit Rate	2	130	12	70	177	40	9	5	55	23	5	7
Input Volume	3	133	10	72	180	40	8	4	56	26	5	7
% of Volume	67	98	117	97	98	100	109	125	99	89	100	97

5: Berra Boulevard & 2000 North Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	0.6
Total Del/Veh (s)	4.1
Vehicles Entered	536
Vehicles Exited	535
Hourly Exit Rate	535
Input Volume	545
% of Volume	98

6: 400 West & 2000 North Performance by movement

Movement	EBL	EBT	EBR	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)		0.1	0.1	0.0	0.0	0.0		0.1	0.1	3.5	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)		5.6	1.9	4.5	0.4	1.6		0.9	0.2	1.4	0.1	0.0
Vehicles Entered	0	2	2	61	127	4	0	9	38	4	11	1
Vehicles Exited	0	2	2	62	126	3	0	9	38	4	11	1
Hourly Exit Rate	0	2	2	62	126	3	0	9	38	4	11	1
Input Volume	1	2	1	63	130	3	1	8	40	4	10	1
% of Volume	0	100	200	99	97	100	0	109	95	100	107	100

6: 400 West & 2000 North Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	0.1
Total Del/Veh (s)	1.5
Vehicles Entered	259
Vehicles Exited	258
Hourly Exit Rate	258
Input Volume	264
% of Volume	98

7: Main Street (SR-36) & 1280 North Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.5	3.6	3.7	0.0	0.0	0.0	0.2	0.0	0.2
Total Delay (hr)	5.5	0.9	2.1	1.9	0.4	0.7	2.8	3.9	0.2	0.7	6.4	0.6
Total Del/Veh (s)	70.0	61.4	34.2	50.7	43.5	22.1	64.0	12.3	12.0	20.9	16.1	8.0
Vehicles Entered	275	49	216	133	31	119	157	1153	68	116	1405	280
Vehicles Exited	276	49	214	133	31	118	154	1143	68	116	1407	280
Hourly Exit Rate	276	49	214	133	31	118	154	1143	68	116	1407	280
Input Volume	279	50	207	134	30	125	154	1156	77	123	1419	272
% of Volume	99	98	103	99	102	94	100	99	89	94	99	103

7: Main Street (SR-36) & 1280 North Performance by movement

Movement	All
Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.2
Total Delay (hr)	26.1
Total Del/Veh (s)	23.2
Vehicles Entered	4002
Vehicles Exited	3989
Hourly Exit Rate	3989
Input Volume	4026
% of Volume	99

8: Main Street (SR-36) & 1000 North (SR-112)/1000 North Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	8.1	28.3	1.4
Denied Del/Veh (s)	0.2	0.1	0.1	1.6	1.1	0.7	0.3	0.0	0.3	52.9	56.0	55.3
Total Delay (hr)	2.5	5.7	3.6	4.6	3.2	1.0	3.1	14.1	1.0	20.4	33.1	1.3
Total Del/Veh (s)	71.9	112.8	99.6	96.2	59.5	16.4	66.1	47.3	26.7	139.9	68.5	51.6
Vehicles Entered	122	178	125	171	189	211	168	1055	134	517	1715	88
Vehicles Exited	121	174	122	168	190	211	164	1046	133	490	1684	86
Hourly Exit Rate	121	174	122	168	190	211	164	1046	133	490	1684	86
Input Volume	122	174	131	170	189	210	167	1055	134	549	1814	87
% of Volume	99	100	93	99	101	100	98	99	99	89	93	99

8: Main Street (SR-36) & 1000 North (SR-112)/1000 North Performance by movement

Movement	All
Denied Delay (hr)	38.0
Denied Del/Veh (s)	28.4
Total Delay (hr)	93.7
Total Del/Veh (s)	71.0
Vehicles Entered	4673
Vehicles Exited	4589
Hourly Exit Rate	4589
Input Volume	4802
% of Volume	96

9: 200 West & 1000 North (SR-112) Performance by movement

Movement	EBL	EBT	EBR	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	0.1	0.0	0.1	0.2
Denied Del/Veh (s)	0.0	0.0	0.1	0.0	0.0	0.0	0.5	3.5	3.4	0.6	2.6	2.5
Total Delay (hr)	0.7	0.6	0.1	0.8	0.4	0.2	0.5	0.3	0.3	0.7	0.5	0.8
Total Del/Veh (s)	15.1	11.2	5.2	16.8	7.3	6.5	33.4	22.1	8.5	28.3	22.9	11.3
Vehicles Entered	173	196	65	159	185	97	56	46	142	86	76	241
Vehicles Exited	173	196	64	158	186	96	56	47	141	86	77	241
Hourly Exit Rate	173	196	64	158	186	96	56	47	141	86	77	241
Input Volume	170	196	70	160	190	95	56	50	143	86	80	245
% of Volume	102	100	91	99	98	101	100	94	99	100	96	98

9: 200 West & 1000 North (SR-112) Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	1.0
Total Delay (hr)	5.8
Total Del/Veh (s)	13.7
Vehicles Entered	1522
Vehicles Exited	1521
Hourly Exit Rate	1521
Input Volume	1540
% of Volume	99

10: 600 West & 1000 North (SR-112) Performance by movement

Movement	EBL	EBT	EBR	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)	0.0	0.2	0.3	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.2
Total Delay (hr)	0.1	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.1	0.2	0.0	0.1
Total Del/Veh (s)	3.1	2.2	1.2	3.5	3.3	2.4	6.8	10.1	4.0	11.9	12.5	6.2
Vehicles Entered	65	335	7	42	296	68	3	8	46	65	13	77
Vehicles Exited	65	334	6	42	298	69	2	8	46	65	13	77
Hourly Exit Rate	65	334	6	42	298	69	2	8	46	65	13	77
Input Volume	63	336	7	45	302	67	3	9	44	66	11	76
% of Volume	104	99	83	93	99	103	67	86	104	98	116	101

10: 600 West & 1000 North (SR-112) Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	1.1
Total Del/Veh (s)	3.8
Vehicles Entered	1025
Vehicles Exited	1025
Hourly Exit Rate	1025
Input Volume	1030
% of Volume	99

11: Industrial Loop Road & Utah Avenue Performance by movement

Movement	WBL2	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NER	NER2
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.6	0.1	0.6	3.4	0.4	3.0	1.6	0.6	1.6	3.3	0.3	3.3
Total Delay (hr)	0.8	0.3	0.4	0.0	0.6	0.1	0.9	0.6	0.0	0.4	0.6	0.0
Total Del/Veh (s)	31.9	29.5	5.6	9.5	7.4	2.8	15.8	6.8	2.2	30.3	31.0	5.5
Vehicles Entered	86	32	256	5	271	96	198	318	12	42	72	17
Vehicles Exited	86	32	255	6	272	96	199	320	12	42	72	17
Hourly Exit Rate	86	32	255	6	272	96	199	320	12	42	72	17
Input Volume	87	33	252	5	267	96	199	314	10	43	71	20
% of Volume	99	97	101	114	102	100	100	102	120	98	101	86

11: Industrial Loop Road & Utah Avenue Performance by movement

Movement	All
Denied Delay (hr)	0.4
Denied Del/Veh (s)	1.0
Total Delay (hr)	4.6
Total Del/Veh (s)	11.7
Vehicles Entered	1405
Vehicles Exited	1409
Hourly Exit Rate	1409
Input Volume	1396
% of Volume	101

12: Main Street (SR-36) & 600 North Performance by movement

Movement	EBL	EBT	EBR	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)	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.2	0.3	0.0	0.3	0.2	0.3	1.7	0.1	0.3	4.6	0.2
Total Del/Veh (s)	39.9	41.9	22.5	39.6	40.7	16.3	21.8	4.9	4.9	20.3	8.9	10.6
Vehicles Entered	47	18	42	2	27	40	44	1286	37	57	1852	66
Vehicles Exited	46	18	42	2	26	40	43	1285	37	56	1841	65
Hourly Exit Rate	46	18	42	2	26	40	43	1285	37	56	1841	65
Input Volume	53	20	40	2	30	38	45	1284	40	62	1983	70
% of Volume	87	91	104	100	87	105	96	100	92	90	93	93

12: Main Street (SR-36) & 600 North Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	8.7
Total Del/Veh (s)	8.8
Vehicles Entered	3518
Vehicles Exited	3501
Hourly Exit Rate	3501
Input Volume	3667
% of Volume	95

13: Main Street (SR-36) & 400 North Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.4	3.7	3.8	0.5	3.8	3.7	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.0	0.2	0.3	1.1	0.3	0.6	0.1	3.5	0.0	0.5	3.1	0.1
Total Del/Veh (s)	40.4	34.2	13.6	43.6	34.6	17.3	16.5	10.1	10.3	16.3	10.0	8.8
Vehicles Entered	90	22	84	88	27	125	25	1246	16	106	1128	49
Vehicles Exited	90	21	84	88	27	124	26	1243	16	105	1119	49
Hourly Exit Rate	90	21	84	88	27	124	26	1243	16	105	1119	49
Input Volume	91	23	81	90	26	122	26	1249	17	115	1202	51
% of Volume	99	91	104	98	104	102	100	100	96	91	93	96

13: Main Street (SR-36) & 400 North Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.4
Total Delay (hr)	11.0
Total Del/Veh (s)	13.0
Vehicles Entered	3006
Vehicles Exited	2992
Hourly Exit Rate	2992
Input Volume	3094
% of Volume	97

14: Main Street (SR-36) & Utah Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.1	0.2	0.4	3.9	3.9	0.4	0.0	0.4	0.0	0.0	0.0
Total Delay (hr)	2.6	0.4	1.0	0.6	0.5	0.4	0.4	3.5	0.0	0.5	3.7	0.1
Total Del/Veh (s)	46.7	36.5	21.6	40.2	53.8	21.3	15.6	12.0	5.0	17.5	11.5	11.3
Vehicles Entered	191	40	164	52	34	59	82	1045	28	108	1140	47
Vehicles Exited	190	40	163	52	34	59	82	1043	28	108	1141	47
Hourly Exit Rate	190	40	163	52	34	59	82	1043	28	108	1141	47
Input Volume	177	41	161	50	35	60	84	1058	26	111	1216	52
% of Volume	107	97	101	103	97	99	97	99	109	97	94	91

14: Main Street (SR-36) & Utah Avenue Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	13.7
Total Del/Veh (s)	16.3
Vehicles Entered	2990
Vehicles Exited	2987
Hourly Exit Rate	2987
Input Volume	3071
% of Volume	97

15: Main Street (SR-36) & Vine Street Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.5	0.4	0.7	3.7	3.6	0.5	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.6	0.5	0.6	0.9	0.5	0.5	0.2	1.9	0.1	0.2	2.2	0.2
Total Del/Veh (s)	40.4	46.9	20.8	34.9	44.1	8.9	15.2	9.3	7.1	11.6	7.5	7.6
Vehicles Entered	142	38	100	89	43	194	43	719	43	57	1061	80
Vehicles Exited	141	38	98	89	42	194	43	718	43	58	1058	80
Hourly Exit Rate	141	38	98	89	42	194	43	718	43	58	1058	80
Input Volume	147	38	94	93	43	195	46	725	40	61	1116	82
% of Volume	96	99	104	96	97	99	93	99	107	95	95	98

15: Main Street (SR-36) & Vine Street Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	0.4
Total Delay (hr)	9.3
Total Del/Veh (s)	12.7
Vehicles Entered	2609
Vehicles Exited	2602
Hourly Exit Rate	2602
Input Volume	2680
% of Volume	97

16: Main Street (SR-36) & 520 South/Skyline Drive Performance by movement

Movement	EBL	EBT	EBR	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)	0.1	0.1	0.1	0.2	0.1	0.2	0.5	0.2	0.6	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	1.1	0.1	2.1	0.0	0.5	0.0	0.4	0.7	0.0
Total Del/Veh (s)	38.6	51.3	11.7	127.6	105.3	69.0	7.5	3.2	2.9	8.4	2.5	3.4
Vehicles Entered	12	1	4	30	4	109	6	565	53	166	942	16
Vehicles Exited	12	1	4	30	4	108	6	565	53	163	936	16
Hourly Exit Rate	12	1	4	30	4	108	6	565	53	163	936	16
Input Volume	12	1	3	31	3	110	7	570	52	173	985	18
% of Volume	102	100	133	96	133	98	83	99	101	94	95	90

16: Main Street (SR-36) & 520 South/Skyline Drive Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	5.1
Total Del/Veh (s)	9.5
Vehicles Entered	1908
Vehicles Exited	1898
Hourly Exit Rate	1898
Input Volume	1965
% of Volume	97

17: Main Street (SR-36) & Commander Boulevard Performance by movement

Movement	EBL	EBR	NEL	NET	SWT	SWR	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	2.3	0.2	0.0	0.0	0.1
Total Delay (hr)	0.4	0.0	0.0	0.1	0.5	0.0	1.1
Total Del/Veh (s)	9.3	1.5	1.6	1.4	3.3	5.1	3.9
Vehicles Entered	167	19	5	230	540	15	976
Vehicles Exited	167	19	5	230	531	15	967
Hourly Exit Rate	167	19	5	230	531	15	967
Input Volume	165	16	6	230	574	16	1008
% of Volume	101	117	87	100	92	92	96

18: Droubay Road & 1000 North Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1
Total Delay (hr)	0.1	0.1	0.2	0.1	0.0	0.0	0.0	0.5
Total Del/Veh (s)	9.0	1.5	7.0	2.6	0.7	0.9	0.3	2.5
Vehicles Entered	42	263	107	73	74	194	30	783
Vehicles Exited	42	260	105	74	74	195	30	780
Hourly Exit Rate	42	260	105	74	74	195	30	780
Input Volume	44	292	109	76	69	195	31	816
% of Volume	95	89	96	97	107	100	98	96

19: Droubay Road & 970 North Performance by movement

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	0.2	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	6.1	2.9	1.7	1.3	2.2	0.7	1.4
Vehicles Entered	10	24	124	8	67	233	466
Vehicles Exited	10	24	124	7	67	232	464
Hourly Exit Rate	10	24	124	7	67	232	464
Input Volume	9	23	122	6	65	239	465
% of Volume	108	103	101	112	103	97	100

20: Droubay Road & Smelter Road Performance by movement

Movement	EBL	EBT	EBR	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)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.1
Total Del/Veh (s)	1.8	0.5	0.5	1.6	0.2	0.0	7.1	5.4	3.1	6.4	6.7	4.3
Vehicles Entered	69	33	5	4	21	3	2	54	11	9	137	97
Vehicles Exited	70	33	5	4	21	3	2	54	11	9	135	96
Hourly Exit Rate	70	33	5	4	21	3	2	54	11	9	135	96
Input Volume	74	35	5	5	20	3	3	48	10	10	139	99
% of Volume	95	94	100	80	106	100	67	112	107	88	97	97

20: Droubay Road & Smelter Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	0.5
Total Del/Veh (s)	4.2
Vehicles Entered	445
Vehicles Exited	443
Hourly Exit Rate	443
Input Volume	452
% of Volume	98

21: Coleman Street & Utah Avenue Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.7	3.3	3.3	0.1	0.3	0.8	0.0	0.0	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0
Total Del/Veh (s)	2.7	0.8	0.4	4.9	2.1	1.7	11.5	8.2	6.3	9.2	10.6	4.4
Vehicles Entered	32	268	52	71	147	11	40	42	71	9	36	26
Vehicles Exited	32	267	52	71	146	11	40	42	71	9	36	26
Hourly Exit Rate	32	267	52	71	146	11	40	42	71	9	36	26
Input Volume	30	257	48	71	152	10	39	42	65	9	38	26
% of Volume	107	104	108	100	96	110	103	99	109	100	95	101

21: Coleman Street & Utah Avenue Performance by movement

Movement	All
Denied Delay (hr)	0.3
Denied Del/Veh (s)	1.4
Total Delay (hr)	0.8
Total Del/Veh (s)	3.5
Vehicles Entered	805
Vehicles Exited	803
Hourly Exit Rate	803
Input Volume	788
% of Volume	102

22: Coleman Street & Vine Street Performance by movement

Movement	EBL	EBT	EBR	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)	0.1	0.1	2.8	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.3	0.1	0.0	0.2	0.0
Total Del/Veh (s)	1.9	0.3	0.2	3.9	2.4	1.7	7.3	7.9	4.3	7.1	6.5	3.5
Vehicles Entered	7	62	7	80	75	16	11	128	66	18	132	11
Vehicles Exited	7	63	7	80	74	16	11	127	66	18	132	11
Hourly Exit Rate	7	63	7	80	74	16	11	127	66	18	132	11
Input Volume	7	60	5	83	78	16	13	120	62	21	128	11
% of Volume	97	105	133	96	95	102	86	106	106	86	103	102

22: Coleman Street & Vine Street Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.1
Total Delay (hr)	0.8
Total Del/Veh (s)	4.8
Vehicles Entered	613
Vehicles Exited	612
Hourly Exit Rate	612
Input Volume	603
% of Volume	101

39: Broadway Avenue & 1000 North Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.2	0.1	0.2	0.1
Total Delay (hr)	0.4	0.1	0.0	0.1	0.3	0.1	1.0
Total Del/Veh (s)	2.4	1.9	5.7	1.3	12.3	8.4	3.0
Vehicles Entered	651	137	20	294	90	27	1219
Vehicles Exited	650	137	20	295	90	27	1219
Hourly Exit Rate	650	137	20	295	90	27	1219
Input Volume	705	145	21	295	89	27	1281
% of Volume	92	94	96	100	101	101	95

Total Zone Performance

Denied Delay (hr)	40.6
Denied Del/Veh (s)	14.0
Total Delay (hr)	220.8
Total Del/Veh (s)	73.4
Vehicles Entered	10288
Vehicles Exited	10094
Hourly Exit Rate	10094
Input Volume	66645
% of Volume	15

Intersection: 1: Main Street (SR-36) & 2400 North

Movement	EB	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	L	T	L	T	T	R	L	T	T
Maximum Queue (ft)	98	50	82	178	47	105	60	74	15	62	295	280
Average Queue (ft)	46	6	29	95	4	31	11	20	2	21	109	116
95th Queue (ft)	89	29	63	157	26	73	39	55	9	50	218	228
Link Distance (ft)		1091	1091		2348		1234	1234	1234		926	926
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	125			145		540				500		
Storage Blk Time (%)	0			3	0							0
Queuing Penalty (veh)	0			2	0							0

Intersection: 1: Main Street (SR-36) & 2400 North

Movement	SB
Directions Served	R
Maximum Queue (ft)	40
Average Queue (ft)	6
95th Queue (ft)	27
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	335
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Main Street (SR-36) & 2200 North

Movement	EB	B33	SB
Directions Served	R	T	TR
Maximum Queue (ft)	117	2	4
Average Queue (ft)	46	0	0
95th Queue (ft)	89	2	4
Link Distance (ft)	388	882	1234
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Main Street (SR-36) & 2000 North

Movement	EB	EB	EB	NB	NB	SB	SB	SB
Directions Served	L	L	R	L	L	T	T	R
Maximum Queue (ft)	182	274	270	281	149	353	372	74
Average Queue (ft)	54	94	131	149	40	160	169	30
95th Queue (ft)	121	193	226	245	103	297	322	61
Link Distance (ft)		382				882	882	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)	245		175	300	300			400
Storage Blk Time (%)	0	1	5	0			0	
Queuing Penalty (veh)	0	2	8	2			1	

Intersection: 4: Aaron Drive/Hospital Access & 2000 North

Movement	EB	EB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	LTR	L	TR
Maximum Queue (ft)	13	2	79	39	99	60	36
Average Queue (ft)	1	0	19	1	46	21	11
95th Queue (ft)	8	2	53	23	79	47	29
Link Distance (ft)		1313		382	641	155	155
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)	155		60				
Storage Blk Time (%)			0	0			
Queuing Penalty (veh)			1	0			

Intersection: 5: Berra Boulevard & 2000 North

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	47	40	51	42
Average Queue (ft)	9	4	7	6
95th Queue (ft)	34	22	31	28
Link Distance (ft)	2513	1313	1784	1277
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 6: 400 West & 2000 North

Movement	EB	WB	WB	SB
Directions Served	LTR	L	TR	L
Maximum Queue (ft)	30	58	31	6
Average Queue (ft)	3	28	6	0
95th Queue (ft)	19	52	25	4
Link Distance (ft)	658		2513	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)		80		125
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 7: Main Street (SR-36) & 1280 North

Movement	EB	EB	EB	B37	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	T	R	T	L	TR	L	T	TR	L	T	T
Maximum Queue (ft)	130	568	225	92	271	175	227	267	270	222	467	471
Average Queue (ft)	123	298	155	8	121	85	105	85	85	60	178	177
95th Queue (ft)	143	569	276	61	224	169	192	208	211	138	355	363
Link Distance (ft)		536		399	704			1957	1957		1102	1102
Upstream Blk Time (%)		3										
Queuing Penalty (veh)		0										
Storage Bay Dist (ft)	70		125			100	100			105		
Storage Blk Time (%)	61	5	5		19	7	22	3		1	20	18
Queuing Penalty (veh)	158	23	17		29	10	99	5		7	24	50

Intersection: 7: Main Street (SR-36) & 1280 North

Movement	SB
Directions Served	R
Maximum Queue (ft)	243
Average Queue (ft)	64
95th Queue (ft)	180
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	105
Storage Blk Time (%)	0
Queuing Penalty (veh)	3

Intersection: 8: Main Street (SR-36) & 1000 North (SR-112)/1000 North

Movement	EB	EB	WB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	T	R	L	T	T
Maximum Queue (ft)	401	668	278	412	185	419	592	593	240	415	1453	1449
Average Queue (ft)	156	335	167	180	75	187	370	381	139	396	953	932
95th Queue (ft)	390	652	280	338	145	394	540	555	308	479	1556	1556
Link Distance (ft)		1218		698	698		3047	3047			1957	1957
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	305		140			280			100	275		
Storage Blk Time (%)		25	33	16		1	20	47	0	56	20	38
Queuing Penalty (veh)		31	62	28		3	34	63	2	508	110	33

Intersection: 8: Main Street (SR-36) & 1000 North (SR-112)/1000 North

Movement	SB
Directions Served	R
Maximum Queue (ft)	240
Average Queue (ft)	63
95th Queue (ft)	215
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	100
Storage Blk Time (%)	0
Queuing Penalty (veh)	0

Intersection: 9: 200 West & 1000 North (SR-112)

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR	L	TR
Maximum Queue (ft)	155	153	159	164	100	131	217	195
Average Queue (ft)	63	58	69	55	42	65	61	104
95th Queue (ft)	120	118	131	122	85	114	140	182
Link Distance (ft)	3902			1218	838		1174	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		305	300			150		155
Storage Blk Time (%)				0		0	0	2
Queuing Penalty (veh)				0		0	0	2

Intersection: 10: 600 West & 1000 North (SR-112)

Movement	EB	WB	WB	NB	SB
Directions Served	L	L	TR	LTR	LTR
Maximum Queue (ft)	42	31	2	59	106
Average Queue (ft)	13	8	0	28	47
95th Queue (ft)	37	28	2	49	84
Link Distance (ft)	4712	3902		1546	646
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)			310		
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 11: Industrial Loop Road & Utah Avenue

Movement	WB	WB	WB	NB	NB	NB	SB	SB	SB	NE	NE	NE
Directions Served	<	L	R	L	T	R	L	T	R	L	R	>
Maximum Queue (ft)	135	85	111	30	134	58	217	119	34	89	133	53
Average Queue (ft)	57	23	55	3	46	15	69	44	3	31	45	10
95th Queue (ft)	110	61	86	18	105	41	150	97	18	69	98	34
Link Distance (ft)		2297			2318			3414			1465	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	225		500	130		290	550		200	150		150
Storage Blk Time (%)					0						0	
Queuing Penalty (veh)					0						0	

Intersection: 12: Main Street (SR-36) & 600 North

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	167	120	85	149	157	89	222	247
Average Queue (ft)	71	45	28	48	63	31	69	76
95th Queue (ft)	134	91	64	111	125	70	164	174
Link Distance (ft)	770	765		1398	1398		3047	3047
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			150			150		
Storage Blk Time (%)				0			1	
Queuing Penalty (veh)				0			0	

Intersection: 13: Main Street (SR-36) & 400 North

Movement	EB	EB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	TR	L	T	TR
Maximum Queue (ft)	168	139	193	171	59	288	304	144	318	342
Average Queue (ft)	72	52	76	69	17	118	134	50	122	142
95th Queue (ft)	134	102	146	127	47	234	251	102	252	274
Link Distance (ft)	768		755			1489	1489		1398	1398
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)		100		100	150			150		
Storage Blk Time (%)	5	1	6	4		4		0	3	
Queuing Penalty (veh)	5	1	9	3		1		0	4	

Intersection: 14: Main Street (SR-36) & Utah Avenue

Movement	EB	EB	WB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	TR	L	T	T	R	L	T	TR
Maximum Queue (ft)	347	268	139	137	113	276	310	120	175	317	326
Average Queue (ft)	137	100	44	52	40	120	137	12	53	126	142
95th Queue (ft)	260	193	108	103	84	223	248	62	115	261	281
Link Distance (ft)	4286		753			1259	1259			1489	1489
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)		185		100	190			100	150		
Storage Blk Time (%)	5	1	2	2		1	14		0	4	
Queuing Penalty (veh)	10	1	2	1		1	4		0	5	

Intersection: 15: Main Street (SR-36) & Vine Street

Movement	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB	SB
Directions Served	L	TR	L	T	R	L	T	TR	L	T	TR
Maximum Queue (ft)	264	195	174	136	124	66	178	189	68	152	167
Average Queue (ft)	107	76	63	37	61	24	81	87	22	54	66
95th Queue (ft)	197	148	125	88	103	54	150	158	50	119	137
Link Distance (ft)	4281		759				3451	3451		1259	1259
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)		100		100	100	150			200		
Storage Blk Time (%)	15	6	2	1	2		1			0	
Queuing Penalty (veh)	20	9	5	1	2		0			0	

Intersection: 16: Main Street (SR-36) & 520 South/Skyline Drive

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (ft)	54	356	24	5	2	101	18	10
Average Queue (ft)	16	133	3	0	0	40	1	0
95th Queue (ft)	46	324	15	4	2	79	8	5
Link Distance (ft)	623	1201		4814			3451	3451
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)			100		100	100		
Storage Blk Time (%)						0		
Queuing Penalty (veh)						0		

Intersection: 17: Main Street (SR-36) & Commander Boulevard

Movement	EB	EB	NE
Directions Served	L	R	L
Maximum Queue (ft)	128	3	22
Average Queue (ft)	56	0	1
95th Queue (ft)	102	3	11
Link Distance (ft)	1946	1946	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			500
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 18: Droubay Road & 1000 North

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (ft)	101	53
Average Queue (ft)	52	14
95th Queue (ft)	85	44
Link Distance (ft)	3797	168
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Droubay Road & 970 North

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	47	59
Average Queue (ft)	17	9
95th Queue (ft)	39	37
Link Distance (ft)	1895	168
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 20: Droubay Road & Smelter Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (ft)	34	2	61	80
Average Queue (ft)	3	0	29	46
95th Queue (ft)	21	2	50	71
Link Distance (ft)	1500	1673	1053	3657
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 21: Coleman Street & Utah Avenue

Movement	EB	EB	WB	NB	NB	SB
Directions Served	L	TR	L	L	TR	LTR
Maximum Queue (ft)	28	18	49	67	81	71
Average Queue (ft)	4	1	17	25	39	28
95th Queue (ft)	20	8	44	56	68	54
Link Distance (ft)	911		4286	1282		1033
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		110			70	
Storage Blk Time (%)				0	1	
Queuing Penalty (veh)				0	0	

Intersection: 22: Coleman Street & Vine Street

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	R	LT	R	LTR	LTR
Maximum Queue (ft)	18	2	53	4	96	68
Average Queue (ft)	1	0	9	0	45	34
95th Queue (ft)	9	2	35	4	77	57
Link Distance (ft)	1091		4281		1055	1282
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)		100		100		
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 39: Broadway Avenue & 1000 North

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (ft)	9	94	102
Average Queue (ft)	0	14	49
95th Queue (ft)	5	56	81
Link Distance (ft)	1917	3797	2171
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Zone Summary

Zone wide Queuing Penalty: 1404

SimTraffic Queueing Report

Project: Tooele City Transportation Master Plan

Analysis: Existing (2020) Background

Time Period: Evening Peak Hour

95th Percentile Queue Length (feet)

HALES ENGINEERING
innovative transportation solutions

Project #: UT19-1595

Intersection	NB							NE			SB						EB							WB							B3 3	B3 7
	L	LR	LT	LTR	R	T	TR	>	L	R	L	LT	LTR	R	T	TR	L	LR	LT	LTR	R	T	TR	<	L	LR	LT	LTR	R	T	TR	T	T
1: Main Street (SR-36) & 2400 North	73	--	--	--	9	47	--	--	--	--	50	--	--	27	223	--	89	--	--	--	63	29	--	--	157	--	--	--	--	26	--	--	--
10: 600 West & 1000 North (SR-112)	--	--	--	49	--	--	--	--	--	--	--	--	84	--	--	--	37	--	--	--	--	--	--	--	28	--	--	--	--	--	2	--	--
11: Industrial Loop Road & Utah Avenue	18	--	--	--	41	105	--	34	69	98	150	--	--	18	97	--	--	--	--	--	--	--	--	110	61	--	--	--	86	--	--	--	--
12: Main Street (SR-36) & 600 North	64	--	--	--	--	111	125	--	--	--	70	--	--	--	164	174	--	--	--	134	--	--	--	--	--	--	--	--	91	--	--	--	--
13: Main Street (SR-36) & 400 North	47	--	--	--	--	234	251	--	--	--	102	--	--	--	252	274	134	--	--	--	--	--	102	--	146	--	--	--	--	--	127	--	--
14: Main Street (SR-36) & Utah Avenue	84	--	--	--	62	236	--	--	--	--	115	--	--	--	261	281	260	--	--	--	--	--	193	--	108	--	--	--	--	--	103	--	--
15: Main Street (SR-36) & Vine Street	54	--	--	--	--	150	158	--	--	--	50	--	--	--	119	137	197	--	--	--	--	--	148	--	125	--	--	--	103	88	--	--	--
16: Main Street (SR-36) & 520 South/Skyline Drive	15	--	--	--	--	4	2	--	--	--	79	--	--	--	8	5	--	--	--	46	--	--	--	--	--	--	--	324	--	--	--	--	--
17: Main Street (SR-36) & Commander Boulevard	--	--	--	--	--	--	--	--	11	--	--	--	--	--	--	--	102	--	--	--	3	--	--	--	--	--	--	--	--	--	--	--	--
18: Droubay Road & 1000 North	--	--	44	--	--	--	--	--	--	--	--	--	--	--	--	--	--	85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
19: Droubay Road & 970 North	--	--	--	--	--	--	--	--	--	--	--	37	--	--	--	--	--	--	--	--	--	--	--	--	--	39	--	--	--	--	--	--	--
2: Main Street (SR-36) & 2200 North	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--	89	--	--	--	--	--	--	--	--	--	--	2	--
20: Droubay Road & Smelter Road	--	--	--	50	--	--	--	--	--	--	--	--	71	--	--	--	--	--	--	21	--	--	--	--	--	--	--	2	--	--	--	--	--
21: Coleman Street & Utah Avenue	56	--	--	--	--	--	68	--	--	--	--	--	54	--	--	--	20	--	--	--	--	--	8	--	44	--	--	--	--	--	--	--	--
22: Coleman Street & Vine Street	--	--	--	77	--	--	--	--	--	--	--	--	57	--	--	--	--	--	9	--	2	--	--	--	--	--	35	--	4	--	--	--	--
23: Broadway Avenue & 1000 North	--	81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5	--	--	--	56	--	--	--	--	--	--
3: Main Street (SR-36) & 2000 North	174	--	--	--	--	--	--	--	--	--	--	--	--	61	310	--	157	--	--	--	226	--	--	--	--	--	--	--	--	--	--	--	--
4: Aaron Drive/Hospital Access & 2000 North	--	--	--	79	--	--	--	--	--	--	47	--	--	--	--	29	8	--	--	--	--	--	2	--	53	--	--	--	--	23	--	--	--
5: Berra Boulevard & 2000 North	--	--	--	31	--	--	--	--	--	--	--	--	28	--	--	--	--	--	--	34	--	--	--	--	--	--	--	22	--	--	--	--	--
6: 400 West & 2000 North	--	--	--	--	--	--	--	--	--	--	4	--	--	--	--	--	--	--	--	19	--	--	--	--	52	--	--	--	--	25	--	--	--
7: Main Street (SR-36) & 1280 North	192	--	--	--	--	208	211	--	--	--	138	--	--	180	359	--	143	--	--	--	276	569	--	--	224	--	--	--	--	--	169	--	61
8: Main Street (SR-36) & 1000 North (SR-112)/1000 North	394	--	--	--	308	548	--	--	--	--	479	--	--	215	1,556	--	390	--	--	--	--	--	652	--	280	--	--	--	145	338	--	--	--
9: 200 West & 1000 North (SR-112)	85	--	--	--	--	--	114	--	--	--	140	--	--	--	--	182	120	--	--	--	--	--	118	--	131	--	--	--	--	--	122	--	--

APPENDIX C: Hales Engineering

FIRM DESCRIPTION

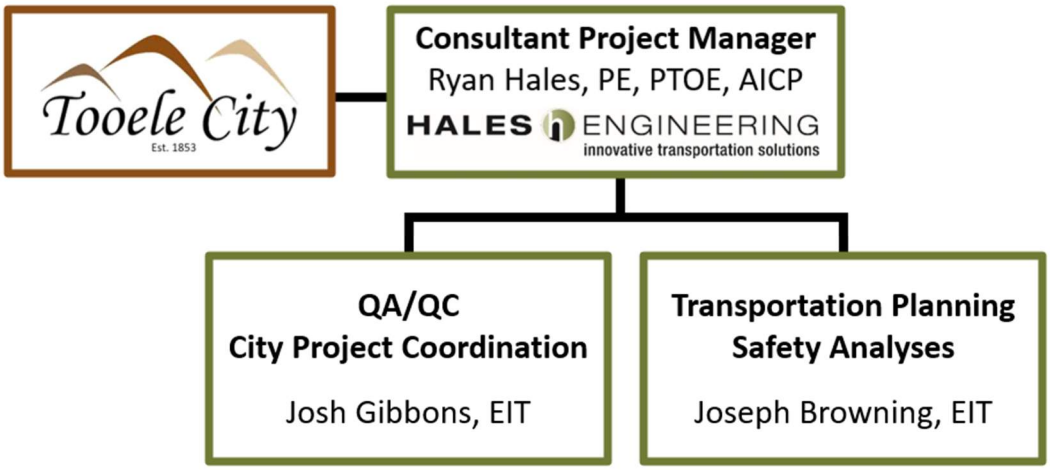
Hales Engineering specializes in providing transportation planning and traffic engineering services to clients in the public and private sectors. Importance is placed on developing creative, cost-effective, and technically sound solutions to planning and design problems associated with all modes of transportation.

Over the last 23 years the professional staff has developed a considerable reputation in the transportation planning and traffic engineering field. Our commitment to quality and personal service is evidenced in our considerable number of repeat clients. The many transportation developments planned and evaluated by our company are further testimony to the creative talent, extensive practical experience, and consensus-building ability of our staff. We are presently assisting clients throughout Utah, Idaho, and Nevada.

Typical projects range from regional multi-modal transportation plans, corridor studies and parking evaluation / studies, to traffic engineering, signal coordination, bicycle and pedestrian planning projects. Many of these projects involve multi-disciplinary teams of engineers, planners, and environmental scientists. These projects have also included extensive inter-agency coordination and public participation. Our specialty services include the following specific disciplines:

- Parking Studies
- Transportation Master Plans
- Traffic Simulation
- Signing and Striping Plans
- Circulation Studies
- Traffic Signal Timing Studies
- Intersection Capacity Analysis
- Transit Planning
- Safety Studies
- Transportation Systems Management
- Transportation Policy Analysis
- Traffic Calming
- Hospital/University Studies
- Operational Analysis
- Corridor Studies
- Neo-traditional Neighborhood Planning
- Smart Growth
- Pedestrian/Bicycle Planning

PROJECT TEAM



HALES ENGINEERING
innovative transportation solutions

Ryan Hales, PE, PTOE, AICP
Principal / Owner

CERTIFICATION

- Professional Engineer, State of Utah (295669), State of Idaho (3530)
- Professional Planner, AICP (017265)
- Professional Traffic Operations Engineer, PTOE (1249)

EDUCATION

- M.S. in Civil Engineering, Brigham Young University, Provo, Utah, 1996
- B.S. in Civil Engineering, Brigham Young University, Provo, Utah, 1996

EXPERIENCE

Transportation Planning

Project manager/engineer for numerous studies involving transportation and land use planning, transportation master plans (20), trip generation and assignment applications, transportation corridor evaluations, and area-wide travel demand forecasting.

Representative projects include:

- Lehi City Transportation Master Plan, Utah
- Bluffdale City Transportation Master Plan, Utah
- South Jordan Transportation Master Plan, Utah
- Provo City Transportation Master Plan, Utah
- American Fork City Sub-Area Transportation Plan, Utah
- Weber County Transportation Master Plan, Utah

Local Government Experience

Ryan completed a three-year appointment as a Planning Commissioner where he gained valuable first-hand knowledge of local government concerns/needs in relation to the growing multi-modal aspects of future transportation demand. Based on his experience he continues to support several cities within Utah and Idaho with on-call services for various transportation-related planning needs.

Parking Analyses

Early in his career as an engineer / planner he recognized the key role that parking analyses played in the land development arena and wanted to minimize the parking ratios and the prohibitive cost of parking garages / lots through reducing parking supply to meet the actual demand. Hales Engineering has also conducted parking analyses for many standalone townhomes and apartments within the Wasatch Front and has compiled a small library of these different studies.

AFFILIATIONS

- Institute of Transportation Engineers (ITE)
- American Society of Civil Engineers (ASCE)
- American Planning Association (APA)
- Former Lehi City Planning Commissioner

SOFTWARE

Proficient in the use of:

- Highway Capacity Software (HCS)
- Synchro / SimTraffic
- CORSIM
- VISSIM

HALES ENGINEERING
innovative transportation solutions

Josh Gibbons, EIT
Transportation Engineer

CERTIFICATION

- Engineer in Training (EIT)

EDUCATION

- M.S. in Civil Engineering, Brigham Young University, Provo, Utah, 2018
- B.S. in Civil Engineering, Brigham Young University, Provo, Utah, 2017

EXPERIENCE

Transportation Planning

Assisted with several projects involving transportation planning and travel demand forecasting. Project engineer for numerous projects including:

- South Jordan Transportation Master Plan
- Bluffdale Transportation Master Plan
- Twin Falls Transportation Master Plan
- Wasatch County Parking and Traffic Data Collection
- Nephi Sub-Area Transportation Master Plan
- BYU Campus Transportation Demand Management
- Sandy Rio Tinto Stadium Parking Management Plan

Traffic Engineering

Conducted numerous traffic studies and trip generation studies for private and public entities. Project engineer for numerous projects including:

- Salt Lake County Olympia Hills Traffic Impact Study
- Downtown Vineyard TOD Traffic Impact Study
- Salt Palace Convention Center Hotel Traffic Study
- UDOT Richfield SR-120 Signal Study
- Midvale Jordan Bluffs / View 78 Traffic Impact Studies
- Wasatch County Mayflower Traffic Study
- UDOT US-191 Intersection Upgrades in Blanding
- Murray 53rd Corporate Park Traffic Impact Study
- UDOT Traffic Studies Consultant

School Transportation Planning and Analysis

Project engineer for several traffic pedestrian planning and operations analysis projects. Representative projects include:

- Alpine School District Crosswalk Studies
- Bluffdale Rectangular Rapid Flash Beacon (RRFB) Concept Designs
- Weber State Student Housing Pedestrian Study
- BYU Pedestrian Studies

AFFILIATIONS

- Institute of Transportation Engineers (ITE)
- American Society of Civil Engineers (ASCE)

VOLUNTEER

- Former President of BYU ITE chapter.
- Led efforts in BYU ITE traffic data collection projects.

SOFTWARE

Proficient in the use of:

- Synchro / SimTraffic
- VISSIM
- Highway Capacity Software
- ArcGIS Pro
- Bluebeam Revu
- Microsoft Excel / Visual Basic
- WIX Web Development

HALES ENGINEERING
innovative transportation solutions

Joseph Browning, EIT
Transportation Engineer

CERTIFICATION

- Engineer in Training (EIT)

EDUCATION

- M.S. in Civil Engineering, Brigham Young University, Provo, Utah, 2019
- B.S. in Civil Engineering, Brigham Young University, Provo, Utah, 2017

EXPERIENCE

Traffic Engineering

Conducted numerous traffic studies and trip generation studies for private and public entities. Project engineer for numerous projects including:

- Lehi Thanksgiving Point Area Plan
- Clearfield STACK TOD Traffic Impact Study
- Farmington STACK TOD Traffic Impact Study
- Sandy La Caille Traffic Study
- Provo Sports Complex Traffic Study
- Salt Lake City Foothill Village Shopping Center Traffic Impact Study
- Lehi Innovation Pointe Traffic Impact Study
- Midway The Homestead Resort Traffic Impact Study
- Magna Maverik 8000 West SR-201 Traffic Impact Study
- Saratoga Springs The Crossing Phase III Traffic Impact Study
- Grantsville Presidents Park PUD Traffic Impact Study
- American Fork Rockwell Ranch Traffic Impact Study
- Payson 600 East & S.R. 198 Road Safety Audit Traffic Study
- UDOT Traffic Studies Consultant

AFFILIATIONS

- Institute of Transportation Engineers (ITE)

VOLUNTEER

- Former President of BYU AREMA chapter.

SOFTWARE

Proficient in the use of:

- Synchro / SimTraffic
- Highway Capacity Software
- ArcGIS Pro
- Bluebeam Revu
- Civil 3D