



HORROCKS

ENGINEERS



Skye Area Plan, 2nd Amendment (MICRON) TIS LEHI, UT

SEPTEMBER 27, 2022 PROJECT # UT-CV-3498-21

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Introduction

PURPOSE OF REPORT AND STUDY OBJECTIVES

The purpose of this Traffic Impact Study (TIS) is to identify the traffic impacts for the proposed development, located in Lehi, Utah. The study objectives are: (1) To define the study intersections, (2) estimate trip generation and distribution for the site before and after development, (3) analyze AM and PM peak traffic conditions with and without the project traffic in 2026 and 2050, (4) perform capacity analysis, (5) signal warrant analysis, and (6) recommend improvements to mitigate traffic impacts if necessary.

EXECUTIVE SUMMARY

Site Location and Study Area – The location for the proposed development site is on the north side of SR-92, also known as Timpanogos Highway, and approximately two miles east of I-15 (see **Figure 1**). The proposed development is located to the west and north of Micron plant in Lehi, Utah. This study will address the following intersections near the study area.

- Highland Blvd & Grant Blvd
- Highland Blvd & SR-92
- Highland Blvd & SR-92 Commuter Lane On-Ramp
- Center St/8000 West & SR-92
- SR-92 & 500 West
- 500 West & Traverse Terrace Drive
- 3900 North & Canyon Hills Rd
- Canyon Hills Rd & 4050 North
- Highland Blvd & 11800 North
- SR-92 & 1200 East

Signal Warrant Analysis

Horrocks recommends the stop-control of the following intersections to be upgraded to a signal:

- 11800 North & Highland Boulevard in 2026
- 500 West & Traverse Terrace Drive in 2050

Signal warrant analysis was performed at this intersection. This analysis can be found in the APPENDIX.

Development Description:

The proposed development will have 2,424 residential housing units consisting of townhomes, single-family homes, and estates. The site also has an elementary school, a middle school, two churches, and areas for mixed use development. The mixed-use development will consist of both residential and commercial space. The annexed portion will consist largely of estates.

CONCLUSIONS AND RECOMMENDATIONS

1. Existing Conditions: - All study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 29.0 sec/veh in the AM and a LOS D and a delay of 48.5 sec/veh in the PM. No recommended mitigations currently.
2. 2026 Background Conditions: - Traffic volumes were projected over five-years from 2021 to 2026 by adding a 10% growth rate to existing traffic conditions. This 10% growth rate (or 2% per year) was generated using UDOT's historic AADT counts. All study intersections perform at an acceptable LOS except for Highland Blvd & 11800 North. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 31.3 sec/veh in the AM and Highland Blvd & 11800 North with a LOS E and a delay of 39.7 sec/veh in the PM.

Recommended Mitigations:

- Highland Blvd & 11800 North
 - Upgrade intersection from stop control to signal
 - Modify westbound shared left/right to dedicated left and right.

After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 28.6 sec/veh in the AM, and a LOS D with a delay of 41.0 sec/veh in the PM. No recommended mitigations currently.

3. Project Trip Generation: - Horrocks estimates the proposed development to generate approximately 30,793 new external daily trips with 2,541 during the AM peak and 2,852 during the PM peak, respectively.
4. 2026 Background plus Project Conditions: - Horrocks added project traffic to the 2026 Background conditions to create 2026 Background plus Project Conditions. All study intersections perform at an acceptable LOS. The study intersection with the highest delay is 1200 East & SR-92 with a LOS D and a delay of 52.2 sec/veh in the AM and Center St/8000 West & SR-92 with a LOS D with a delay of 53.3 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations currently.
5. 2050 Background Conditions: - Traffic volumes were projected over thirty-years from 2021 to 2050 using the Travel Demand Model for the area. All study intersections perform at an acceptable LOS except Highland Blvd & Grant Blvd. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 32.4 sec/veh in the AM and Highland Blvd & Grant Blvd with a LOS F with a delay of 43.5 sec/veh in the PM. This scenario includes all previous mitigations.

Recommended Mitigations:

- Highland Blvd & Grant Blvd
 - Upgrade intersection from stop-control to signalized

After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 32.4 sec/veh in the AM and Highland Blvd & SR-92 with a LOS D with a delay of 46.9 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations currently.

6. 2050 Background plus Project conditions: - Horrocks added project traffic to 2050 Background conditions to create 2050 Background plus Project Conditions. All study intersections perform at an acceptable LOS except for Highland Blvd & SR-92 and 500 West & Traverse Terrace Drive. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay of 52.2 sec/veh in the AM and 500 West & Traverse Terrace Drive with a LOS E and a delay of 88.1 sec/veh in the PM. This scenario includes all previous mitigations.

Recommended Mitigations:

- 500 West & Traverse Terrace Drive
 - Upgrade intersection from stop-control to signalized
- Highland Blvd & SR-92
 - Add additional westbound left-turn lane
 - Add additional southbound left-turn lane
 - Add additional thru lane for a total of 2 lanes

With these mitigations, all intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay 36.6 sec/veh in the AM and Center St/8000 West & SR-92 with a LOS D with a delay of 50.0 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations currently.

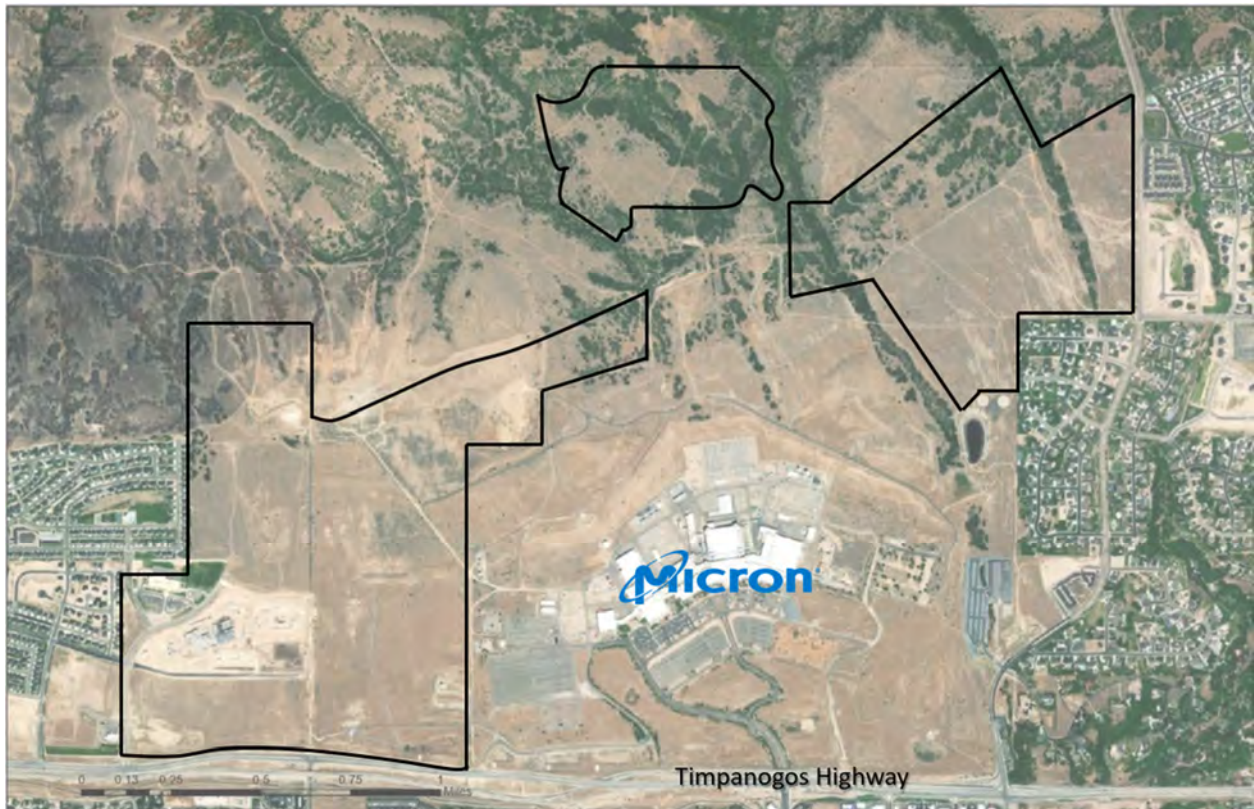
7. Safety History: - There was a total of 736 crashes on SR-2 from 2016 through 2021. The types of vehicle crashes are as follows:
- Two fatal crashes
 - 68 Suspected minor injury crashes
 - 131 Possible injury crashes
 - 535 Property damage only crashes

Proposed Development

SITE LOCATION

Figure 1 shows the location for the development surrounding Micron in Lehi, Utah. The project is located on the north side of Timpanogos Highway and approximately two miles east of I-15 in Lehi, Utah.

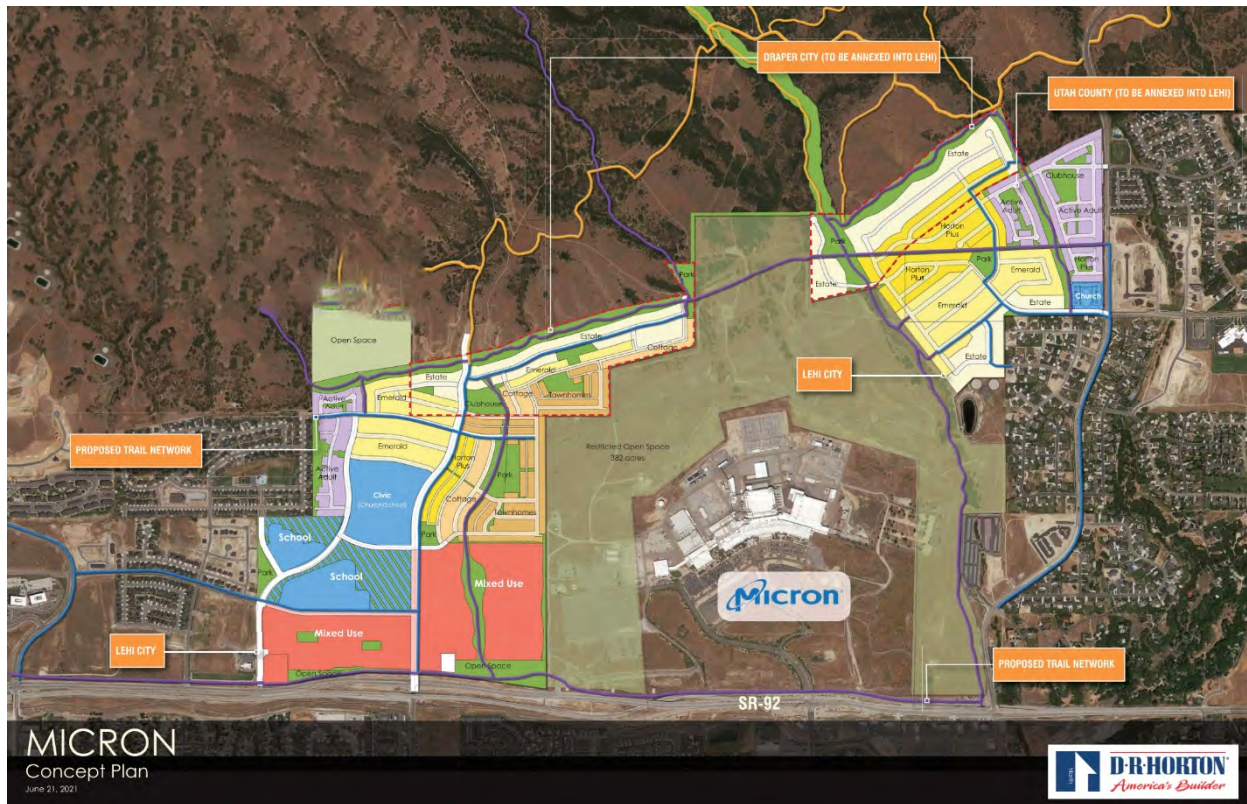
Figure 1: Project Location



SITE PLAN AND PREFERRED ACCESS

The proposed site will have three major accesses from SR-92. There are two accesses on the west side of Micron, at 500 West and Center Street. Highland Boulevard serves as an access on the east side of Micron. Figure 2 shows the site plan for the development.

Figure 2: Site Plan



Study Area

STUDY AREA

The major streets potentially impacted by the Micron development is Timpanogos Highway (S.R. 92), 500 West, and Highland Boulevard. The functional classification map, seen in **Figure 3**, shows the functional classification of roadways surrounding the project area. The speed limits listed in the description are the currently posted speed limits.

Roadway Descriptions

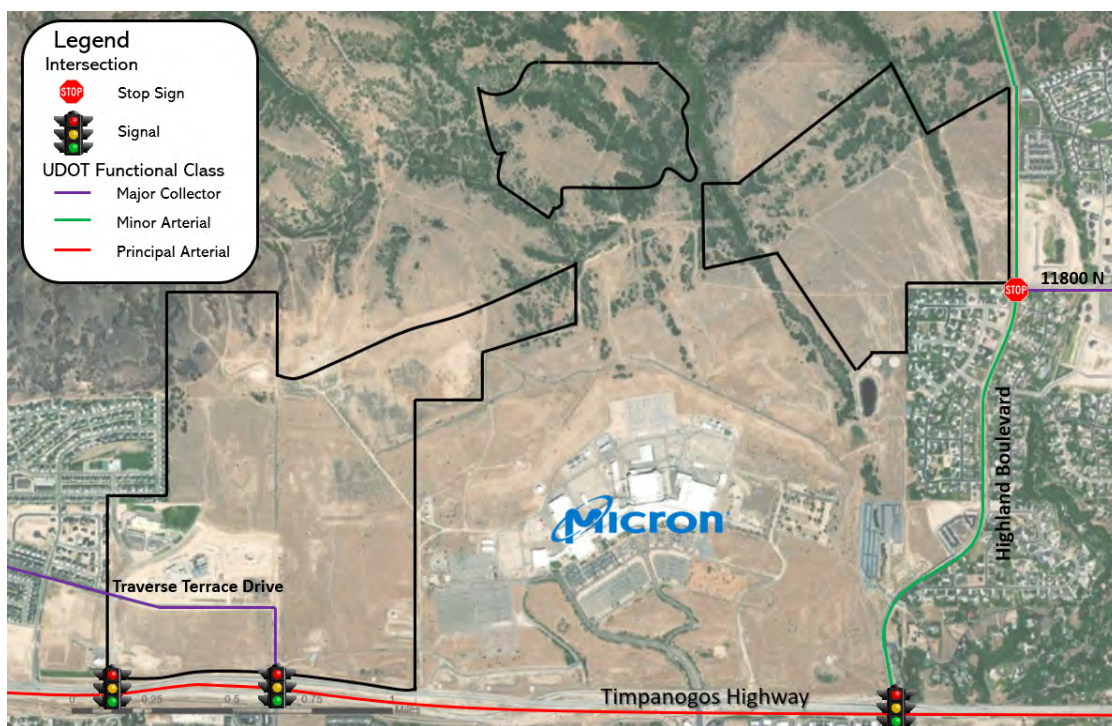
- Timpanogos Highway (S.R. 92): is a west/east running road classified as a primary arterial with a speed limit of 55 mph except for the section of the roadway east of 1000 East where the speed limit is 50 mph. This primary arterial is a four-lane roadway with two dedicated thru lanes for each direction separated by a center left turn lane. It has dedicated left and right turning lanes at intersections and is characterized by nearby one lane commuter lanes going both directions.
- Highland Boulevard: is a north/south running road classified as a minor arterial with a speed limit of 35 mph. This minor arterial is a two-lane roadway with one dedicated thru lane for each direction separated by a vegetated median. It has dedicated left turning lanes at intersections.
- 500 West: is a north/south running road classified as a collector with a speed limit of 30 mph. This collector is a four-lane roadway with two dedicated thru lanes for each direction separated by a center left turn lane.

Intersection Descriptions

- 500 West / SR-92: is a signalized High-T-intersection. The southbound lane geometry has one dedicated left-turn lane and one dedicated right-turn lane. The eastbound lane geometry has two dedicated thru lanes and one dedicated left-turn lane. The westbound lane geometry has two dedicated thru-lanes and a dedicated right-turn lane.
- 500 West / Traverse Terrace Drive: is a two-way stop-controlled intersection. The northbound and southbound lane geometries are the same with one dedicated left-turn lane, one dedicated thru lane, and a shared thru-right lane. The westbound and eastbound lane geometries are the same with one dedicated left-turn and a shared thru-right. The westbound and eastbound lanes are stop-controlled, while the northbound and southbound lanes are not.
- 500 West / Canyon Hills Road: is a T-intersection with Canyon Hills Road being stop-controlled at 500 West. The southbound lane geometry is a shared left-turn and one dedicated right-turn lane. The eastbound lane geometry has two dedicated thru lanes and one dedicated left-turn lane. The westbound lane geometry has one dedicated thru-lane and a shared thru-right.
- Canyon Hills Road / 4050 North: is a two-way stop-controlled intersection. The lane geometries of all approaches are shared left-thru-right. The eastbound and westbound lanes are stop-controlled, while the northbound and southbound lanes are not.
- Grant Boulevard / Highland Boulevard: is a T-intersection with Grant Boulevard being stop-controlled at Highland Boulevard. The northbound and westbound lane geometries are the same with a shared left-thru-right lane. The southbound lane geometry has one dedicate thru-lane and one dedicate left-turn lane.

- 11800 North / Highland Boulevard: is a T-intersection with 11800 North being stop-controlled at Highland Boulevard. The northbound and westbound lane geometries are the same with a shared left-thru-right lane. The southbound lane geometry has one dedicate thru-lane and one dedicate left-turn lane.
- Commuter Lane On-ramp / Highland Boulevard: The southbound lane geometry has two dedicated thru-lanes and one dedicated right-turn lane onto the westbound SR-92 commuter lane. The northbound lane geometry has two dedicated thru-lanes.
- Highland Boulevard / SR-92 is a signalized intersection. The southbound lane geometry has one dedicated left-turn lane, one dedicated thru lane, and a channelized right-turn lane. The northbound lane geometry has one dedicated left-turn lane, one dedicated thru lane, and one dedicated right-turn lane. The eastbound lane geometry has two dedicated left-turn lanes, three dedicated thru lanes, and one dedicated right-turn lanes. The westbound lane geometry has one dedicated left-turn lane, two dedicated thru lanes, and one dedicated right-turn lane.
- 1200 East / SR-92: is a signalized intersection. The northbound lane geometry has two dedicated left-turn lane, two dedicated thru lanes, and one dedicated right-turn lane. The southbound lane geometry has two dedicated left-turn lanes, two dedicated thru lanes, and one channelized right-turn lane. The eastbound lane geometry has two dedicated left-turn lanes, three dedicated thru lanes, and one dedicated right-turn lane. The westbound lane geometry has one dedicated left-turn lane, two dedicated thru lanes, and one dedicated right-turn lane.
- Center Street (8000 West) / SR-92: is a signalized intersection. The northbound lane geometry has two dedicated left-turn lanes and one right-turn lane. The eastbound lane geometry has two dedicated thru lanes and one right-turn lane. The westbound lane geometry has two dedicated left-turn lanes and two thru lanes.

Figure 3: UDOT Roadway Classification Map



Analysis of Existing Conditions

STUDY INTERSECTION LEVEL OF SERVICE

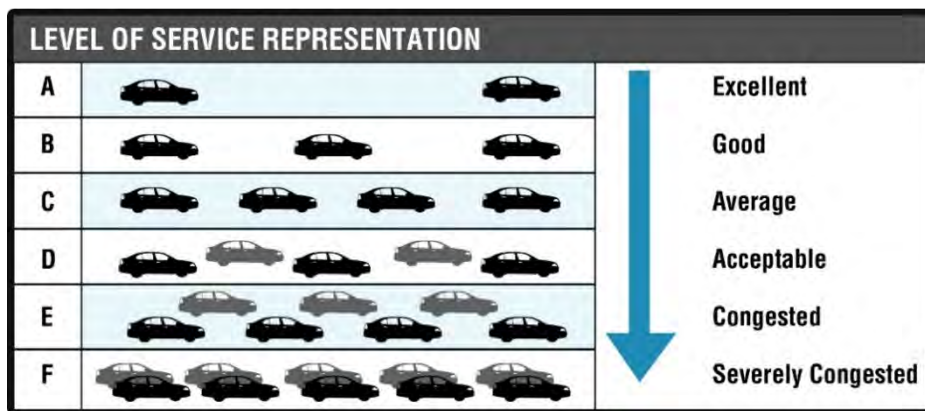
Level of Service (LOS) is a term used by the *Highway Capacity Manual (HCM)* to describe the traffic operations of an intersection, based on congestion and delay. It ranges from LOS A (almost no congestion or delays) to LOS F (traffic demand is above capacity and the intersection experiences long queues and delays). LOS C is generally considered acceptable for rural intersections, while LOS D is acceptable for urbanized intersections. LOS E is the threshold when the intersection reaches capacity. For two-way stop-controlled intersections, average intersection-wide delay and LOS are not defined by the HCM. **Table 1** summarizes LOS delay criteria for stop-controlled movements at unsignalized and signalized intersections. A visual representation of this is shown in **Figure 4**.

Table 1: Level of Service Criteria

Level of Service	Average Control Delay (sec/veh)	
	Signalized	Unsignalized
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 (HCM) 6

Figure 4: LOS example.



EXISTING INTERSECTION OPERATIONS

Horrocks performed the AM and PM peak hour traffic counts for the study intersections in May 2021 and balanced the counts where needed. **Figure 5** and **Figure 6** show the balanced turnings movements. All study intersections perform at an acceptable LOS, as shown in **Table 2**. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 29.0 sec/veh in the AM and a LOS D and a delay of 48.5 sec/veh in the PM.

Table 2: Existing Peak Hour Traffic Analysis

Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
Existing Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	11.9	B	13.3	B
2	Highland Blvd & 11800 North	16.4	C	26.9	D
3	Highland Blvd & SR-92	22.1	C	32.0	C
4	1200 East & SR-92	29.0	C	48.5	D
5	Center St/8000 West & SR-92	18.5	B	20.4	C
6	SR-92 & 500 West	18.0	B	12.9	B
7	500 West & Traverse Terrace Drive	14.7	B	10.1	B
8	3900 North & Canyon Hills Rd	10.3	B	8.6	A
9	Canyon Hills Rd & 4050 North	18.8	C	9.1	A

Source: HCM Methodologies using Synchro Software

Control delay for unsignalized intersections shown for the worst approach only per the HCM.

CRASH DATA

Horrocks received crash data for SR-92 from the Utah Department of Public Safety website. There was a total of 736 total crashes on SR-92 in a 5-year span from 2016 to 2021. The highway experienced the following types of crashes:

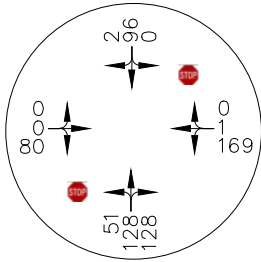
- Two fatal crashes
- 68 Suspected minor injury crashes
- 131 Possible injury crashes
- 535 No injury crashes

MITIGATIONS

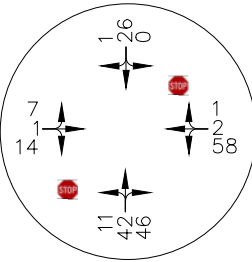
No recommended mitigation currently.



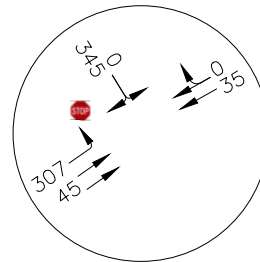
1 AM PEAK HOUR



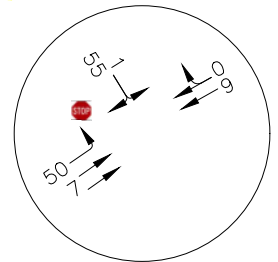
1 PM PEAK HOUR



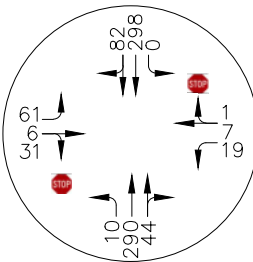
2 AM PEAK HOUR



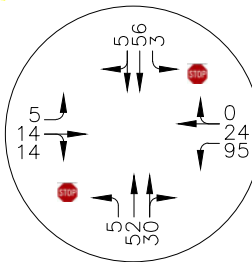
2 PM PEAK HOUR



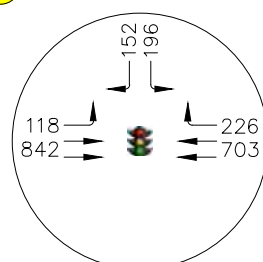
3 AM PEAK HOUR



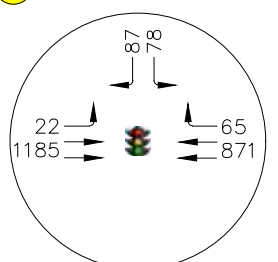
3 PM PEAK HOUR



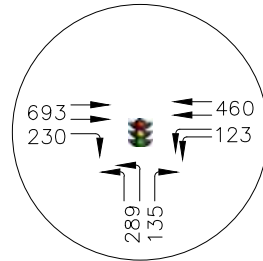
4 AM PEAK HOUR



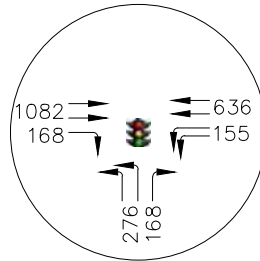
4 PM PEAK HOUR



5 AM PEAK HOUR

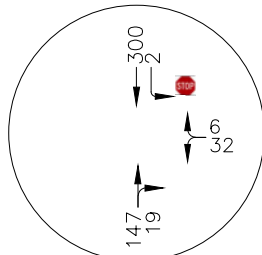


5 PM PEAK HOUR

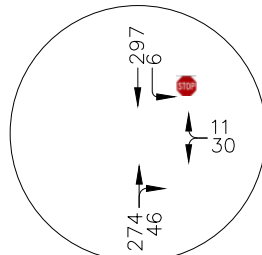




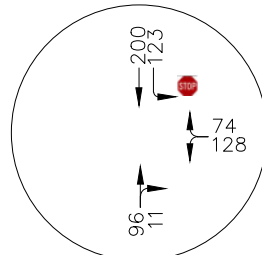
6 AM PEAK HOUR



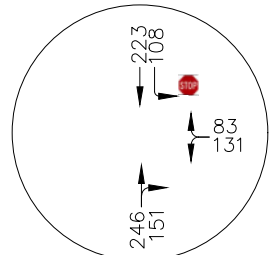
6 PM PEAK HOUR



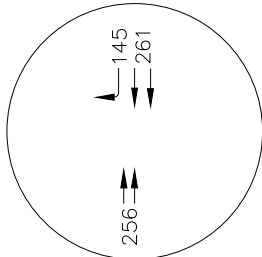
7 AM PEAK HOUR



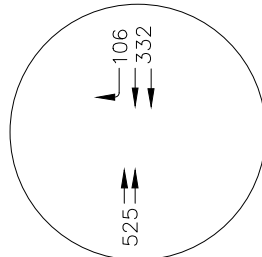
7 PM PEAK HOUR



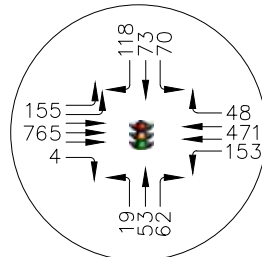
8 AM PEAK HOUR



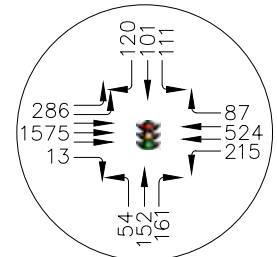
8 PM PEAK HOUR



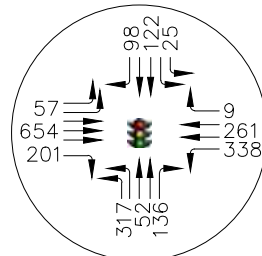
9 AM PEAK HOUR



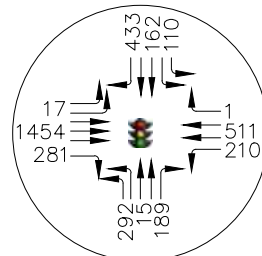
9 PM PEAK HOUR



10 AM PEAK HOUR



10 PM PEAK HOUR



Analysis of 2026 Background Conditions

GROWTH RATES

For the 2026 background condition, Horrocks obtained historical traffic data from UDOT at locations surrounding the project. Using the UDOT historical traffic data, an annual background growth factor of 2% will be used for the analysis. The APPENDIX contains the traffic data used to determine the growth.

2026 BACKGROUND CONDITIONS

Existing traffic was grown by 2% annually to create a 2026 background traffic scenario, as shown in **Figure 7** and **Figure 8**. All study intersections perform at an acceptable LOS except for Highland Blvd & 11800 North. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 31.3 sec/veh in the AM and Highland Blvd & 11800 North with a LOS E and a delay of 39.7 sec/veh in the PM, as shown in **Table 3**.

Table 3: 2026 Background Peak Hour Conditions

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from Existing	Level of Service	Average Control Delay (sec/veh)	Difference from Existing	Level of Service
2026 Background Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	12.4	+0.5	B	14.3	+1.0	C
2	Highland Blvd & 11800 North	19.3	+5.5	C	39.7	+12.8	E
3	Highland Blvd & SR-92	23.9	+1.8	C	31.5	-0.6	C
4	1200 East & SR-92	31.3	+2.3	C	41.0	-6.7	D
5	Center St/8000 West & SR-92	19.0	+0.5	B	21.2	+0.6	C
6	SR-92 & 500 West	20.8	+2.8	C	12.3	+0.6	B
7	500 West & Traverse Terrace Drive	15.9	+1.2	C	10.4	+0.3	B
8	3900 North & Canyon Hills Rd	10.6	+0.3	B	8.6	+0.0	A
9	Canyon Hills Rd & 4050 North	22.5	+3.7	C	9.2	+0.1	A

Source: HCM Methodologies using Synchro Software

Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

Highland Blvd & 11800 North

- Upgrade intersection from stop control to signal
- Modify westbound shared left/right to dedicated left and right.

With these mitigations, all intersections operate at an acceptable LOS, as shown in .

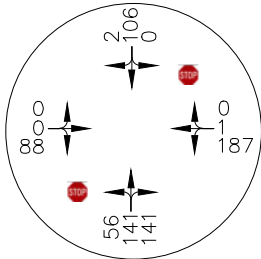
Table 4. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 28.6 sec/veh in the AM, and a LOS D with a delay of 41.0 sec/veh in the PM. Signal warrant report included in the APPENDIX. The red arrows in the figures below show the recommended mitigations.

Table 4: 2026 Background with Mitigation Peak Hour Conditions

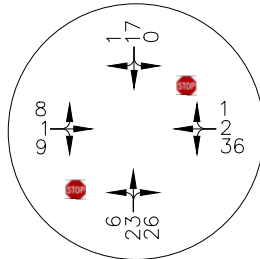
Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
2026 Background with Mitigation Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	12.4	B	14.3	B
2	Highland Blvd & 11800 North	7.3	A	7.9	A
3	Highland Blvd & SR-92	23.9	C	31.5	C
4	1200 East & SR-92	28.6	C	41.0	D
5	Center St/8000 West & SR-92	19.0	B	21.2	C
6	SR-92 & 500 West	20.8	C	12.3	B
7	500 West & Traverse Terrace Drive	15.9	C	10.4	B
8	3900 North & Canyon Hills Rd	10.6	B	8.6	A
9	Canyon Hills Rd & 4050 North	22.5	C	9.2	A



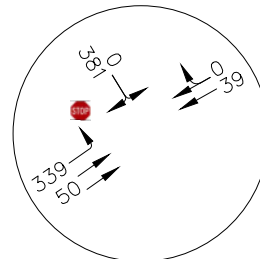
1 AM PEAK HOUR



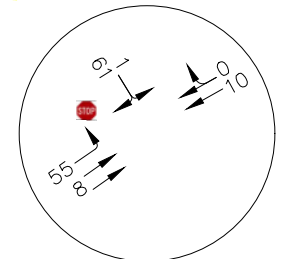
1 PM PEAK HOUR



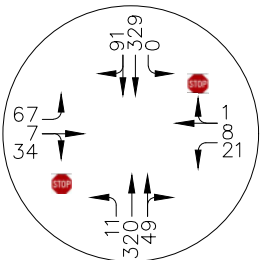
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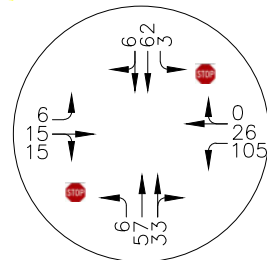
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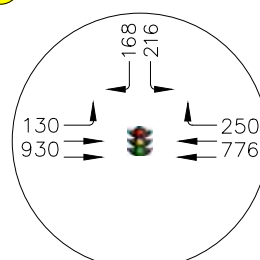
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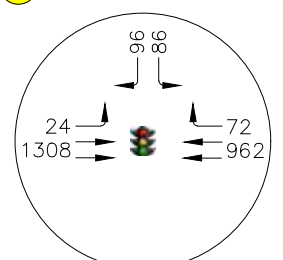
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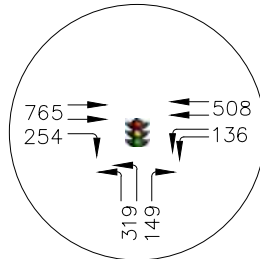
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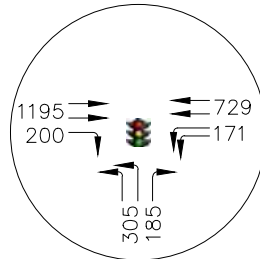
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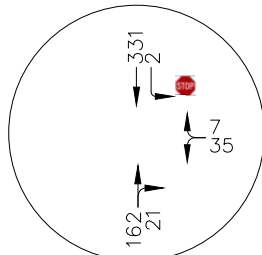


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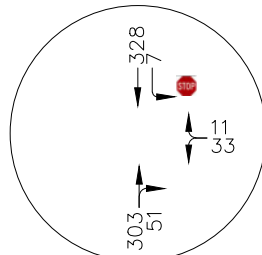




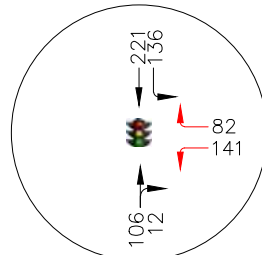
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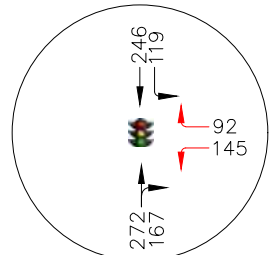
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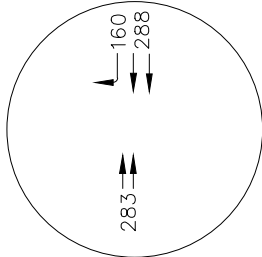
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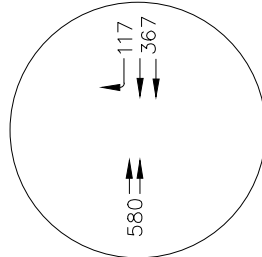
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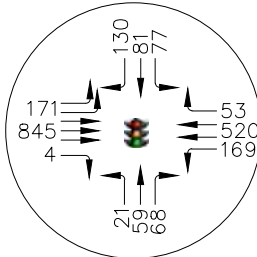
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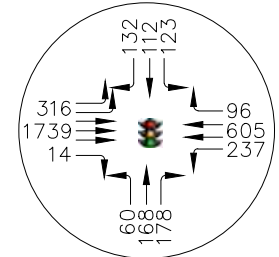
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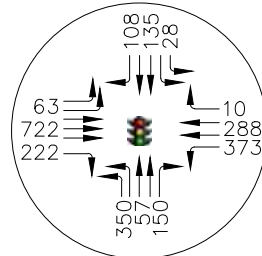
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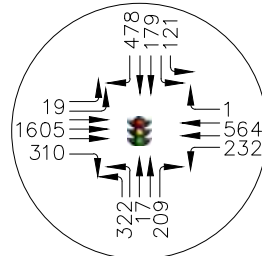
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Project Traffic Volumes

Project traffic volumes were estimated and distributed using the industry-standard trip generation literature and using existing traffic counts and engineering judgment to distribute project traffic to the existing road network.

TRIP GENERATION

The trip generation was estimated using the *ITE Trip Generation Manual 10th Edition*. The following land use from the manual was used:

- *Single-Family Detached Housing (ITE 210)* – Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision.
- *Multifamily Housing (Mid-Rise) (ITE 221)* – Mid-rise multifamily housing includes apartments, townhomes, and condominiums located within the same building with at least three other dwelling units and that have between three and 10 levels (Floors). Multifamily housing (low-rise) (Land Use 220), multifamily housing (high-rise) (Land Use 222), off-campus student apartment (Land Use 225), and mid-rise residential with 1st-floor commercial (Land Use 231) are related land uses.
- *Public Park (ITE 411)* – Public parks are owned and operated by a municipal, county, state, or federal agency. The parks surveyed vary widely as to location, type, and number of facilities, including boating or swimming facilities, beaches, hiking trails, ball fields, soccer fields, campsites, and picnic facilities. Seasonal use of the individual sites differs widely because of the varying facilities and local conditions, such as weather. For example, some of the sites are used primarily for boating or swimming; others are used for softball games. Soccer complex (Land Use 488) is a related use.
- *Elementary School (ITE 520)* – An elementary school typically serves students attending kindergarten through the fifth or sixth grade. Elementary schools are usually centrally located in residential communities to facilitate student access and have no student drivers. This land use consists of schools where bus service is usually provided to students living beyond a specified distance from the school. Both public and private elementary schools are included in this land use. Middle school/junior high school (Land Use 522), high school (Land Use 530), private school (K-8) (Land Use 534), private school (K-12) (Land Use 536), and charter elementary school (Land Use 537) are related uses.
- *Middle School/Junior High School (ITE 522)* – A middle or junior high school serves students who have completed elementary school and have not yet entered high school. Both public and private middle schools/junior high schools are included in this land use. Elementary school (Land Use 520), high school (Land Use 530), private school (K-8) (Land Use 534), private school (K-12) (Land Use 536), and charter elementary school (Land Use 537) are related uses.
- *Church (ITE 560)* – A church is a building in which public worship services are held. A church houses an assembly hall or sanctuary; it may also house meeting rooms, classrooms, and, occasionally, dining, catering, or party facilities. Synagogue (Land Use 561) and mosque (Land Use 562) are related uses.
- *Shopping Center (ITE 820)* – A shopping center is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. A shopping center's

composition is related to its market area in terms of size, location, and type of store. A shopping center also provides on-site parking facilities sufficient to serve its own parking demands. Factory outlet center (Land Use 823) is a related use.

Based on the ITE methodology, the development within the study area is estimated to generate approximately 30,793 new external daily trips, with 2,541 trips, and 2,852 trips occurring during the AM peak and PM peak hours, respectively. The land use descriptions are on the previous page and copies of the ITE Trip Generation 10th Edition land use descriptions and rates used in this project are in the APPENDIX. **Table 5** contains a summary of the calculated trip generation for the project. **Figure 9** shows the location of the development zones.

TRIP DISTRIBUTION

The estimated new trips from the proposed development were distributed onto the roadway network based on the proposed site access locations, existing turning movements, traffic patterns, and proximity to major roadways, as shown in **Figure 10**. Horrocks used the origin/destination approach for this distribution. Horrocks used the collected traffic count data to distribute project trips to and from the project area. Horrocks assumed that all trips will be made by non-transit vehicles, so modal split was not necessary.

- 35% - West on SR-92
- 15% - South on Center Street
- 15% - South on 1200 East
- 30% - East on SR-92
- 5% - North on Highland Boulevard

Table 5: ITE Trip Generation

Micron TIS												
Zone	Variable	Quantity	Daily			AM Peak Hour			PM Peak Hour			
			Total	In	Out	Total	In	Out	Total	In	Out	
Zone 1	Multifamily Housing (Mid-Rise) (ITE 221)		$T=5.45(x)-1.75$	50%	50%	0.36	26%	74%	0.44	61%	39%	
	Dwelling Units	225	1,225	612	612	81	21	60	99	60	39	
	Shopping Center (ITE 820)		37.75	37.75	50%	50%	0.94	62%	3.81	48%	52%	
	1000 Sq. Ft. GFA	50	3,752	1,876	1,876	47	29	18	325	156	169	
	Total Internal Capture						5	3		19	45	
	Total New Trips		4,977	2,488	2,488	128	45	75	424	197	163	
Zone 2	Middle School/Junior High School (ITE 522)		20.17	50%	50%	6.73	55%	45%	3.33	45%	55%	
	1000 Sq. Ft. GFA	117	2,360	1,180	1,180	787	433	354	390	175	214	
	Total Internal Capture						4		4	0	11	
		Total New Trips		2,360	1,180	1,180	787	429	351	390	165	208
	Zone 3	Single-Family Detached Housing (ITE 210)		$\ln(T)=0.92\ln(x)+2.71$	50%	50%	$T=0.71(x)+4.80$	25%	75%	$\ln(T)=0.96\ln(x)+0.20$	63%	37%
Dwelling Units		255	2,460	1,230	1,230	186	46	139	250	157	92	
Multifamily Housing (Mid-Rise) (ITE 221)			$T=5.45(x)-1.75$	50%	50%	0.36	26%	74%	0.44	61%	39%	
Dwelling Units		517	2,816	1,408	1,408	186	48	138	227	139	89	
Elementary School (ITE 520)			19.52	50%	50%	6.97	55%	45%	1.37	45%	55%	
1000 Sq. Ft. GFA		46	898	449	449	321	176	144	63	28	35	
Church (ITE 560)			6.95	50%	50%	$T=0.36(x)-0.74$	60%	40%	0.49	45%	55%	
1000 Sq. Ft. GFA		290	2,016	1,008	1,008	104	62	41	142	64	78	
Total Internal Capture							2	2		6	2	
	Total New Trips		8,189	4,095	4,095	788	326	455	682	369	287	
Zone 4	Single-Family Detached Housing (ITE 210)		$\ln(T)=0.92\ln(x)+2.71$	50%	50%	$T=0.71(x)+4.80$	25%	75%	$\ln(T)=0.96\ln(x)+0.20$	63%	37%	
	Dwelling Units	258	2,487	1,243	1,243	188	47	141	252	159	93	
	Multifamily Housing (Mid-Rise) (ITE 221)		$T=5.45(x)-1.75$	50%	50%	0.36	26%	74%	0.44	61%	39%	
	Dwelling Units	324	1,764	882	882	117	30	86	143	87	56	
	Public Park (ITE 411)		0.78	50%	50%	0.02	59%	41%	0.11	55%	45%	
	Acres	4	91	45	46	0	0	0	0	0	0	
Total Internal Capture						1	2		10	3		
	Total New Trips		4,342	2,171	2,171	305	77	225	395	231	145	
Zone 5	Multifamily Housing (Mid-Rise) (ITE 221)		$T=5.45(x)-1.75$	50%	50%	0.36	26%	74%	0.44	61%	39%	
	Dwelling Units	225	1,225	612	612	81	21	60	99	60	39	
	Shopping Center (ITE 820)		37.75	50%	50%	0.94	62%	38%	3.81	48%	52%	
	1000 Sq. Ft. GFA	50	3,752	1,876	1,876	47	29	18	325	156	169	
	Total Internal Capture						5	3		19	45	
	Total New Trips		4,977	2,488	2,488	128	45	75	424	197	163	
Zone 6	Single-Family Detached Housing (ITE 210)		$\ln(T)=0.92\ln(x)+2.71$	50%	50%	$T=0.71(x)+4.80$	25%	75%	$\ln(T)=0.96\ln(x)+0.20$	63%	37%	
	Dwelling Units	267	2,566	1,283	1,283	194	49	146	261	164	96	
	Church (ITE 560)		6.95	50%	50%	$T=0.36(x)-0.74$	60%	40%	0.49	45%	55%	
	1000 Sq. Ft. GFA	97	674	337	337	34	21	14	48	21	26	
	Public Park (ITE 411)		0.78	50%	50%	0.02	59%	41%	0.11	55%	45%	
	Acres	4	91	45	46	0	0	0	0	0	0	
Total Internal Capture						0	1		7	2		
	Total New Trips		3,332	1,666	1,666	228	69	158	309	176	120	
Zone 7	Multifamily Housing (Mid-Rise) (ITE 221)		$T=5.45(x)-1.75$	50%	50%	0.36	26%	74%	0.44	61%	39%	
	Dwelling Units	226	1,230	615	615	81	21	60	99	61	39	
	Single-Family Detached Housing (ITE 210)		$\ln(T)=0.92\ln(x)+2.71$	50%	50%	$T=0.71(x)+4.80$	25%	75%	$\ln(T)=0.96\ln(x)+0.20$	63%	37%	
	Dwelling Units	127	1,296	648	648	95	24	71	128	81	47	
	Public Park (ITE 411)		0.78	50%	50%	0.02	59%	41%	0.11	55%	45%	
	Acres	5	92	46	46	0	0	0	1	0	0	
	Total Internal Capture						0	1		5	2	
	Total New Trips		2,617	1,309	1,309	176	45	130	228	133	84	
Total Development Trips			30,793	15,396	15,397	2,541	1,034	1,469	2,852	1,468	1,169	

Figure 9: Zone Map

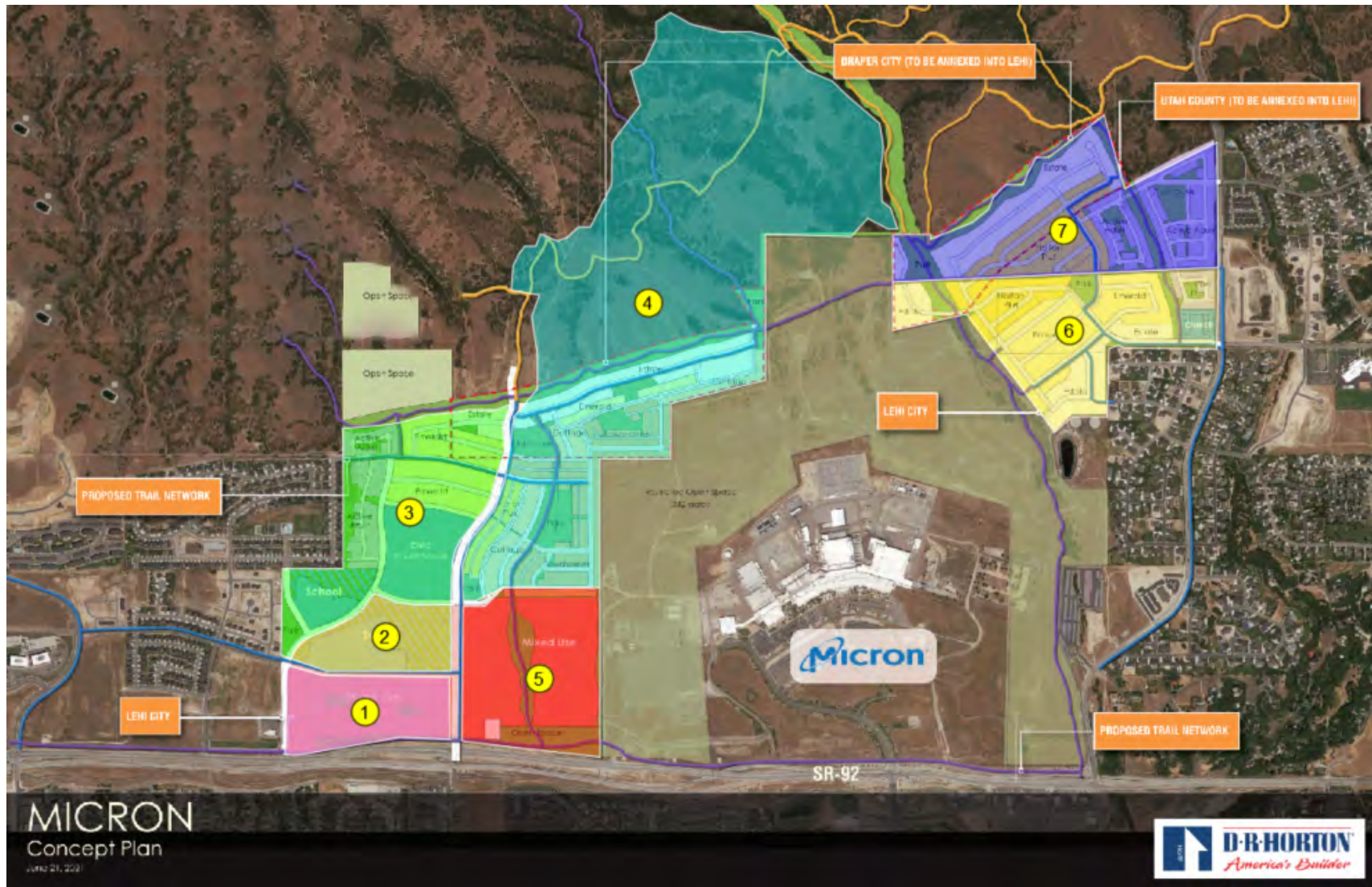
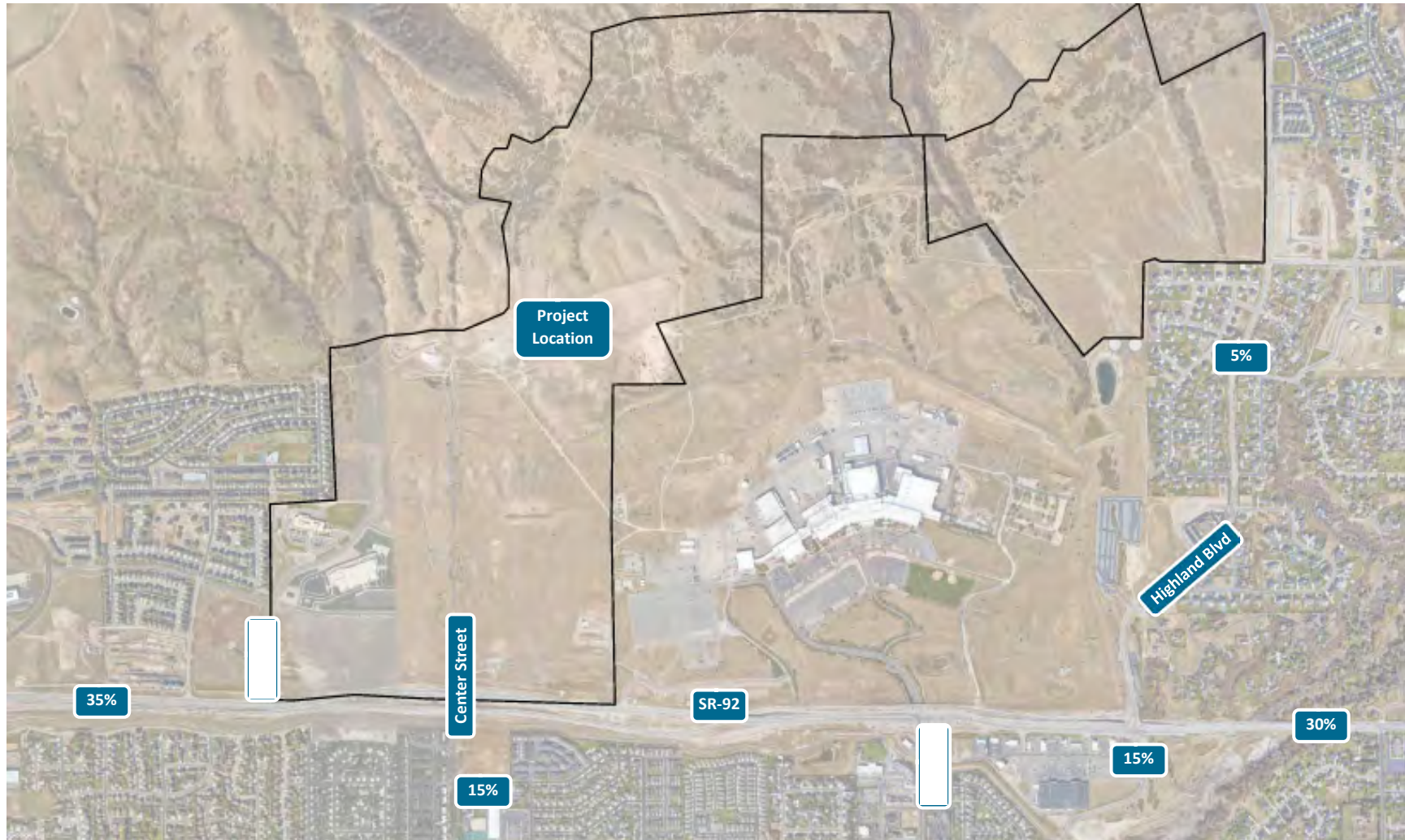


Figure 10: Trip Distribution



CENTER STREET & SR-92

The Center Street/8000 West & SR-92 intersection will have a new north leg (southbound approach) when the project is constructed. DR Horton is coordinating with UDOT in conjunction with LEI. The intersection is being constructed to handle a higher volume of traffic on all approaches in anticipation of higher future traffic volumes. This intersection will perform at an improved Level of Service than the minimum required due to these improvements done above and beyond what is required. The lane geometry for the new approach is two dedicated left-turn lanes, one dedicated thru lane, and one dedicated right-turn lane. The updated lane geometry for the existing approaches are as follows:

- Southbound Approach: Two dedicated left-turn lanes, a thru lane, and one shared thru-right lane.
- Eastbound Approach: Two dedicated left-turn and thru lanes, and one dedicated right-turn lane.
- Westbound Approach: Two dedicated left-turn and thru lanes, and one dedicated right-turn lane.
- Northbound Approach: Two dedicated left-turn lanes, a thru lane, and one shared thru-right lane.

Figure 11 shows the updated lane geometry for the intersection.

Figure 11: North Leg Geometry



Analysis of 2026 Background Plus Project Conditions

2026 BACKGROUND PLUS PROJECT CONDITIONS

Horrocks applied the project conditions from the proposed development with the annexation to the 2026 Background Conditions to create the 2026 Background plus Project conditions, as shown in **Figure 12** and **Figure 13**. Traffic generated by the project site is shown in **Figure 14** and **Figure 15**. All study intersections perform at an acceptable LOS. The study intersection with the highest delay is 1200 East & SR-92 with a LOS D and a delay of 52.2 sec/veh in the AM and Center St/8000 West & SR-92 with a LOS F with a delay of 53.5 sec/veh in the PM, as shown in **Table 6**. This scenario includes all previous mitigations.

Table 6: 2026 Background plus Project Peak Hour Conditions

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from 2026 Background	Level of Service	Average Control Delay (sec/veh)	Difference from 2026 Background	Level of Service
2026 Background plus Project Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	21.6	+9.2	C	30.7	+16.4	D
2	Highland Blvd & 11800 North	9.5	+2.2	A	13.3	+5.4	B
3	Highland Blvd & SR-92	33.6	+9.7	C	48.3	+16.8	D
4	1200 East & SR-92	52.2	+23.6	D	36.2	-4.8	D
5	Center St/8000 West & SR-92	41.7	+22.7	D	53.3	+32.1	D
6	SR-92 & 500 West	40.3	+19.5	D	27.9	+15.6	C
7	500 West & Traverse Terrace Drive	34.5	+18.6	D	17.3	+6.9	B
8	3900 North & Canyon Hills Rd	13.4	+2.8	B	9.2	+0.6	A
9	Canyon Hills Rd & 4050 North	17.1	-5.4	C	10.4	+1.2	B

Source: HCM Methodologies using Synchro Software

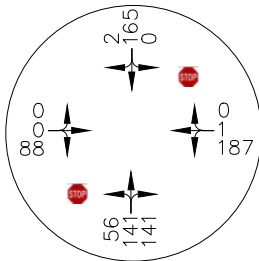
Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

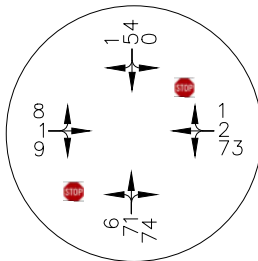
No recommended mitigation currently.



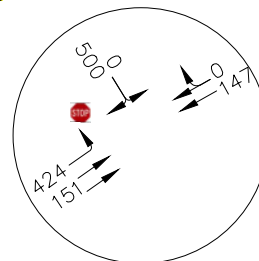
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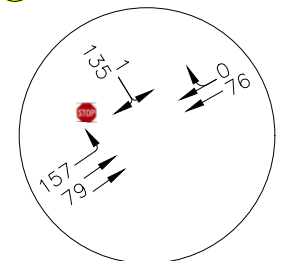
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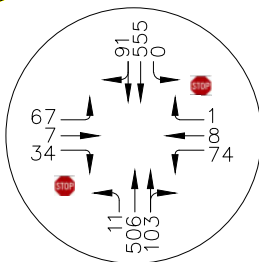
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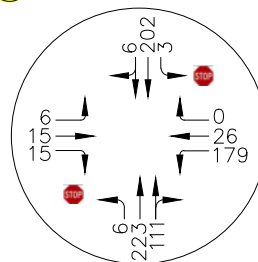
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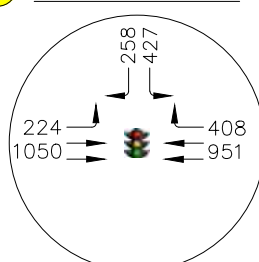
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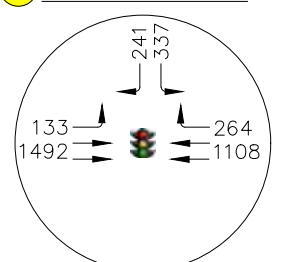
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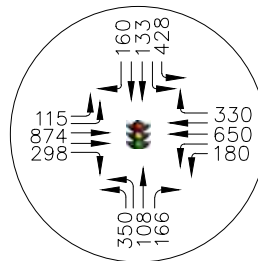
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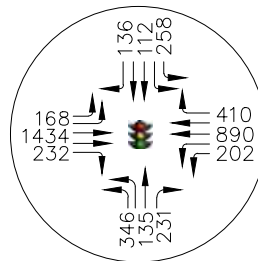
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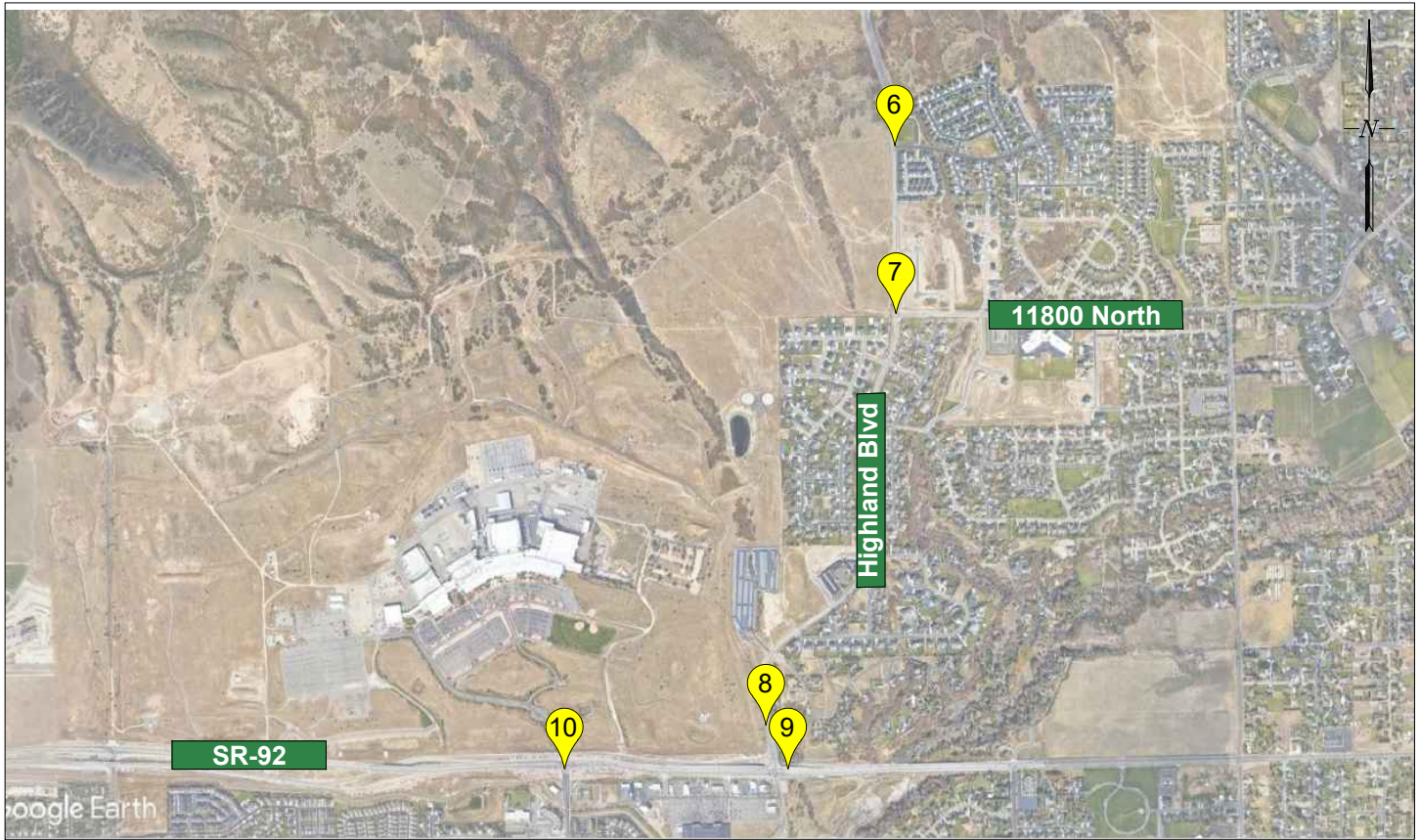


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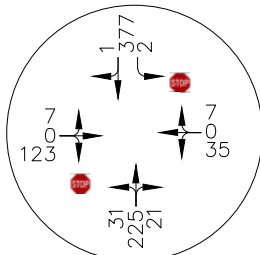


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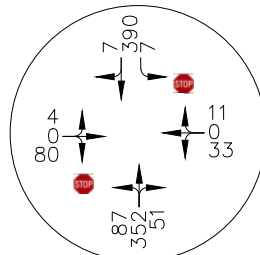




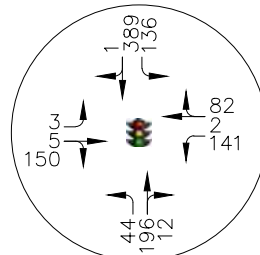
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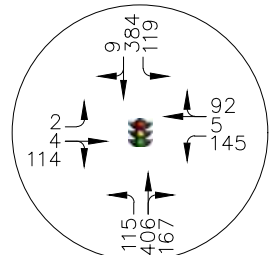
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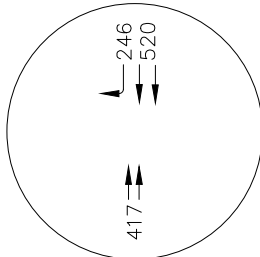
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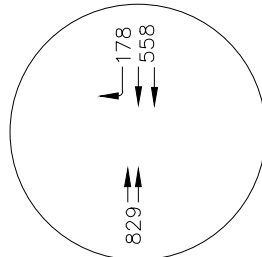
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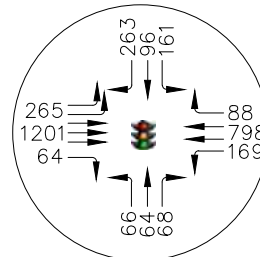
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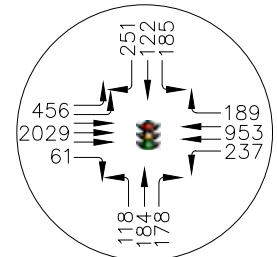
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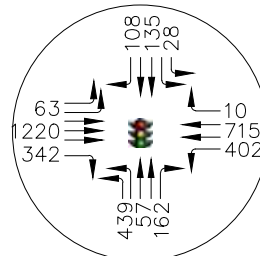
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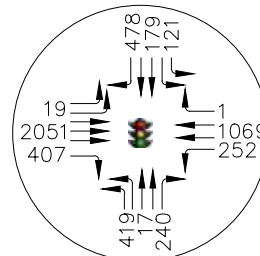
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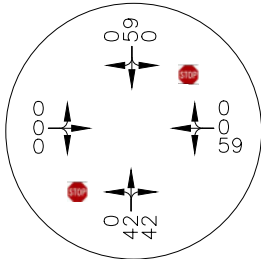


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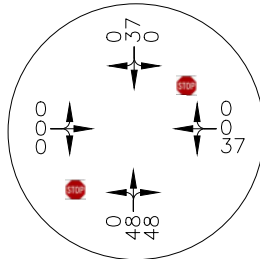




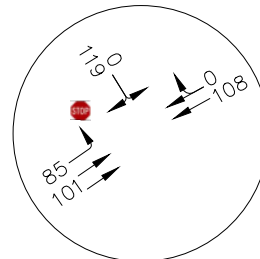
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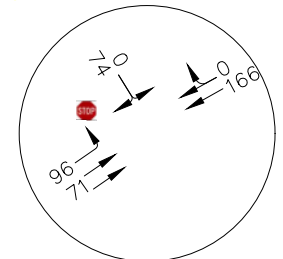
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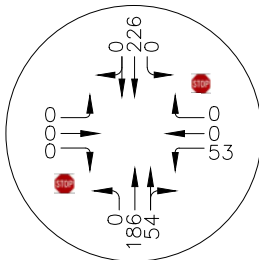
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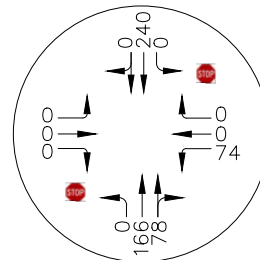
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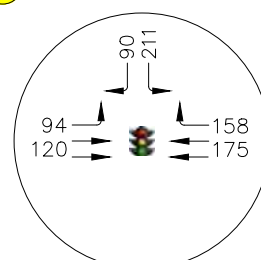
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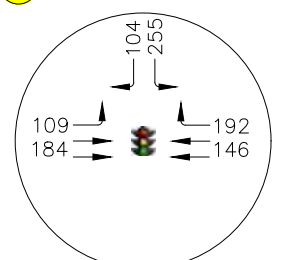
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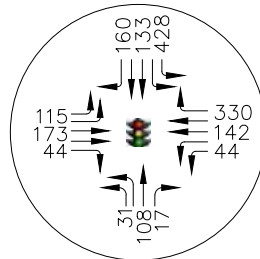
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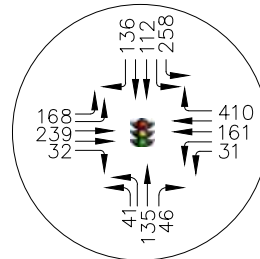
4 PM PEAK HOUR



5 AM PEAK HOUR

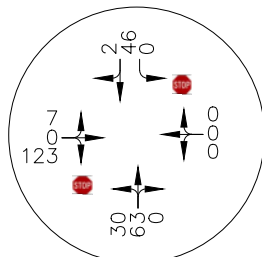


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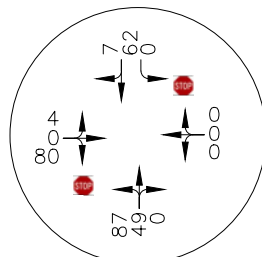




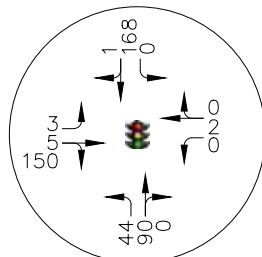
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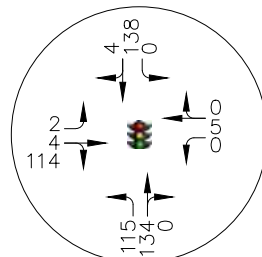
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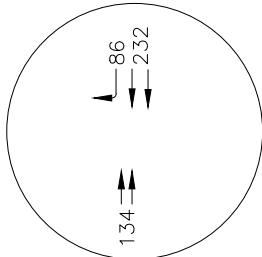
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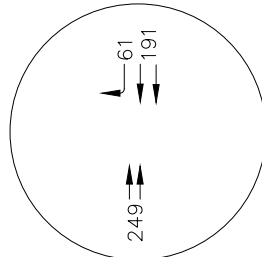
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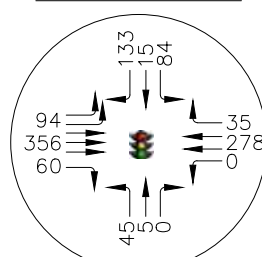
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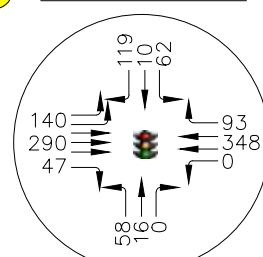
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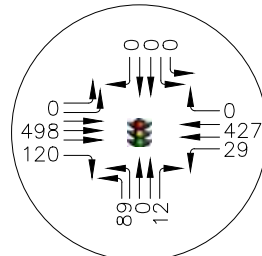
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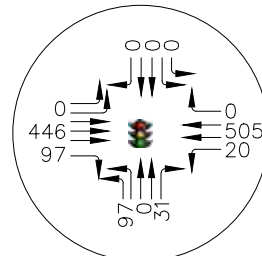
9 PM PEAK HOUR



10 AM PEAK HOUR



10 PM PEAK HOUR



Analysis of 2050 Background Conditions

2050 VOLUME PROJECTION

For the 2050 background condition, Horrocks used the Regional Travel Demand Model (TDM) for the area to obtain the 2050 volumes, as shown in **Figure 16** and **Figure 17**. The APPENDIX contains the traffic data used to determine the growth.

Regional Travel Demand Model (TDM)

MAG is the designated Metropolitan Planning Organization (MPO) for Summit, Utah, and Wasatch counties in Utah. MAG works in partnership with UDOT, Utah Transit Authority (UTA), local governments, and other stakeholders to develop long-range transportation plans for the communities within their jurisdictions. As part of its transportation planning work, MAG, in collaboration with the Wasatch Front Regional Council (WFRC), maintains a regional Travel Demand Model (TDM) for its jurisdictional area (currently version 8.3.1). References to “the model” in this report refer to the scripts and data maintained by MAG/WFRC, not to the Cube software.

The TDM is a state-of-the-practice tool that allows transportation analysts to input various land use and growth scenarios for different road and transit networks to forecast the expected traffic for each scenario. At its core, the TDM uses the common four-step modeling process, which consists of trip generation, trip distribution, mode split, and trip assignment.

Specific inputs to the TDM include socioeconomic forecasts and transportation system data. The socioeconomic data includes population, households, employment, and average household income. Household data is further classified by household size (one person to 6+ persons), number of workers (0 to 3+ persons), and income quartiles. Employment data is classified into 12 categories that include subcategories for retail, industrial, and office. Public school enrollment is classified into elementary, middle, and high school. Special trip generation tables are included for colleges, the Salt Lake City International Airport, and Lagoon. Transportation system data include both roadway and transit networks. The roadway network includes freeways, arterial routes, and collector routes. The transit network includes commuter rail, light rail, bus rapid transit, express bus routes, and many local bus routes. New to version 8 of the model is a freight component that estimates truck traffic. Bicycle and pedestrian trips are tracked internally by the model, but do not have any specific inputs.

The geographical area of the TDM is split into individual Traffic Analysis Zones (TAZs), which in turn hold the socioeconomic source data. The model uses the information in each TAZ for trip generation, trip distribution, and mode split. Trips generated by each TAZ are loaded onto the roadway network using special links called centroid connectors. The model then uses the roadway network in an iterative process to assign routes for each trip destination.

MAG TransPlan50 is the RTP using 2030, 2040, and 2050 for the timeline of Phase 1, Phase 2, and Phase 3 projects, respectively. The TDM has roadway and transit networks associated with each of these phases. This study uses these networks as the assumed base conditions depending on the year being analyzed.

INTERSECTION OPERATIONS

All study intersections perform at an acceptable LOS except Highland Blvd & Grant Blvd. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 32.4 sec/veh in the AM and Highland Blvd & Grant Blvd with a LOS F with a delay of 43.5 sec/veh in the PM, as shown in Table 7.

Table 7: 2050 Background Peak Hour Traffic Analysis

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from 2026 Background plus Mitigation	Level of Service	Average Control Delay (sec/veh)	Difference from 2026 Background plus Mitigation	Level of Service
2050 Background Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	16.0	+3.6	C	43.5	+29.2	F
2	Highland Blvd & 11800 North	8.6	+1.3	A	15.2	+7.3	B
3	Highland Blvd & SR-92	27.1	+3.2	C	46.9	+15.4	D
4	1200 East & SR-92	32.4	+3.8	C	40.1	+0.9	D
5	Center St/8000 West & SR-92	19.0	+0.0	B	30.7	+9.5	C
6	SR-92 & 500 West	12.2	-8.6	B	25.9	+13.6	C
7	500 West & Traverse Terrace Drive	10.1	-5.8	B	13.8	+3.4	D
8	3900 North & Canyon Hills Rd	8.9	-1.7	A	9.3	+0.7	A
9	Canyon Hills Rd & 4050 North	10.0	-12.5	B	10.9	+1.7	B

Source: HCM Methodologies using Synchro Software

Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

Highland Blvd & Grant Blvd

- Upgrade intersection from stop-control to signalized

Horrocks did not perform a signal warrant analysis on the intersection of Highland Blvd & Grant Blvd. Horrocks recommends this intersection’s stop-control upgrade to a signal based on the unacceptable LOS occurring in the 2050 Background conditions. A signal warrant analysis should be performed as the years draw closer to 2050.

With this mitigation all intersections operate at an acceptable LOS, as shown in **Table 8**. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 32.4 sec/veh in the AM and Highland Blvd & SR-92 with a LOS D with a delay of 46.9 sec/veh in the PM. The red arrows in figures below show the recommended mitigations.

Table 8: 2050 Background plus Mitigations Peak Hour Conditions

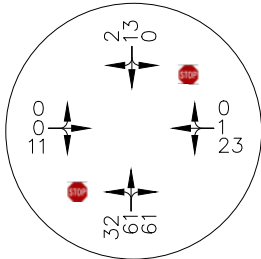
Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
2050 Background plus Mitigations Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	5.7	A	5.9	A
2	Highland Blvd & 11800 North	8.6	A	15.2	B
3	Highland Blvd & SR-92	27.1	C	46.9	D
4	1200 East & SR-92	32.4	C	40.1	D
5	Center St/8000 West & SR-92	19.0	B	30.7	C
6	SR-92 & 500 West	12.2	B	25.9	C
7	500 West & Traverse Terrace Drive	10.1	B	13.8	B
8	3900 North & Canyon Hills Rd	8.9	A	9.3	A
9	Canyon Hills Rd & 4050 North	10.0	B	10.9	B

Source: HCM Methodologies using Synchro Software

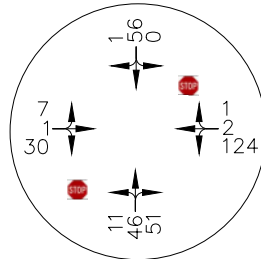
Control delay for unsignalized intersections shown for the worst approach only per the HCM.



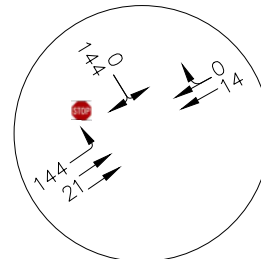
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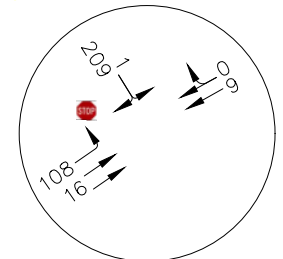
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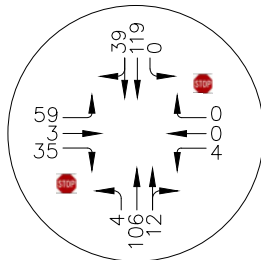
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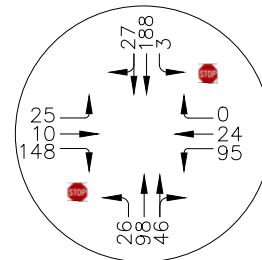
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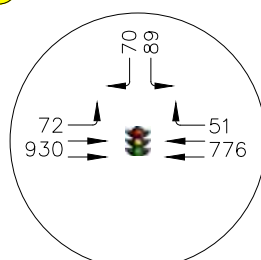
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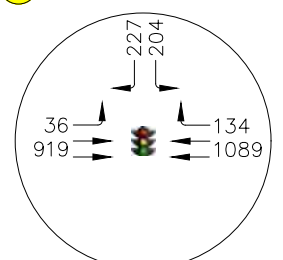
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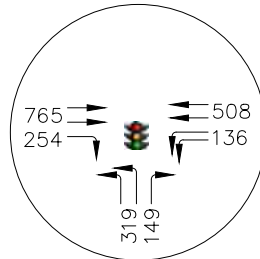
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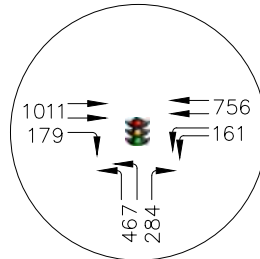
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5 AM PEAK HOUR

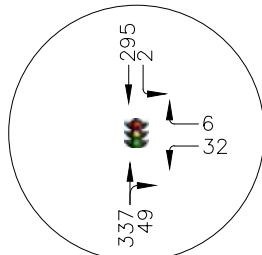


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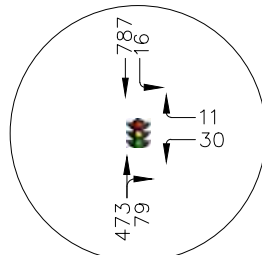




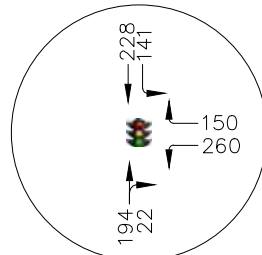
6 AM PEAK HOUR



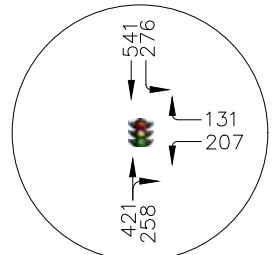
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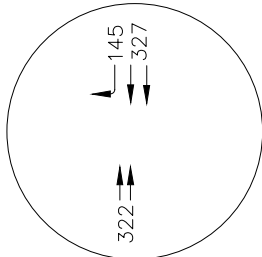
7 AM PEAK HOUR



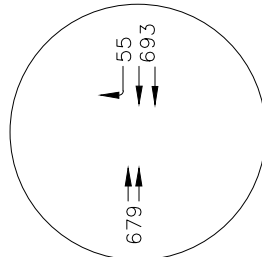
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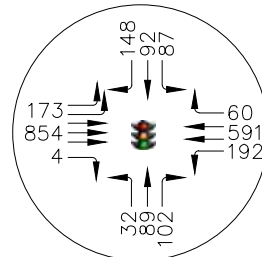
8 AM PEAK HOUR



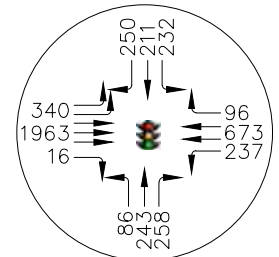
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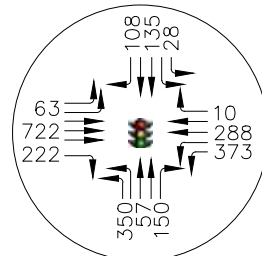
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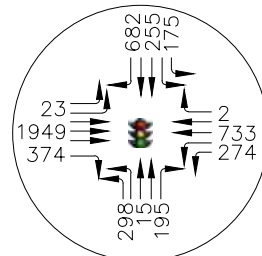
9 PM PEAK HOUR



10 AM PEAK HOUR



10 PM PEAK HOUR



Analysis of 2050 Background plus Project Conditions

INTERSECTION OPERATIONS

Horrocks applied the project conditions from the proposed development with the annexation to the 2050 Background Conditions to create the 2050 Background plus Project, as shown in **Figure 18** and **Figure 19**. All study intersections perform at an acceptable LOS except for Highland Blvd & SR-92, 500 West & Traverse Terrace Drive, and Center St/8000 West & SR-92, as shown in **Table 9**. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay of 52.2 sec/veh in the AM and 500 West & Traverse Terrace Drive with a LOS E and a delay of 88.1 sec/veh in the PM. This scenario includes all previous mitigations.

Table 9: 2050 Background plus Project Peak Hour Traffic Analysis

Intersection Number	Intersection	AM Peak Hour			PM Peak Hour		
		Average Control Delay (sec/veh)	Difference from 2050 Background Mitigation	Level of Service	Average Control Delay (sec/veh)	Difference from 2050 Background Mitigation	Level of Service
2050 Background plus Project Peak Hour Conditions							
1	Highland Blvd & Grant Blvd	21.6	+15.9	C	7.3	+0.0	A
2	Highland Blvd & 11800 North	9.5	+0.9	A	14.5	+0.7	B
3	Highland Blvd & SR-92	33.6	+6.5	C	88.1	+41.2	F
4	1200 East & SR-92	52.2	+19.8	D	39.0	+1.1	D
5	Center St/8000 West & SR-92	42.4	+23.4	D	54.1	+23.4	D
6	SR-92 & 500 West	40.3	+28.1	D	36.8	+10.9	D
7	500 West & Traverse Terrace Drive	30.5	+20.4	D	34.5	+20.7	C
8	3900 North & Canyon Hills Rd	13.4	+4.5	B	10.4	+1.1	B
9	Canyon Hills Rd & 4050 North	27.0	+17.0	D	13.7	+2.8	C

Source: HCM Methodologies using Synchro Software

Control delay for unsignalized intersections shown for the worst approach only per the HCM.

MITIGATIONS

500 West & Traverse Terrace Drive

- Upgrade intersection from stop-control to signalized

Horrocks did not perform a signal warrant analysis on the intersection of 500 West & Traverse Terrace Drive. Horrocks recommends this intersection’s stop-control upgrade to a signal based on the unacceptable LOS occurring in the 2050 Background plus Project conditions. A signal warrant analysis should be performed as the years draw closer to 2050.

Highland Blvd & SR-92

- Add additional westbound left-turn lane
- Add additional southbound left-turn lane
- Add additional northbound thru lane for a total of 2 lanes

With these mitigations, all intersections operate at an acceptable LOS, as shown in **Table 10**. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay 52.2 sec/veh in the AM and Center St/8000 West & SR-92 with a LOS D with a delay of 50.0 sec/veh in the PM. This scenario includes all previous mitigations. The red arrows in figures below show the recommended mitigations.

Table 10: 2050 Background plus Project with Mitigations Peak Hour Conditions

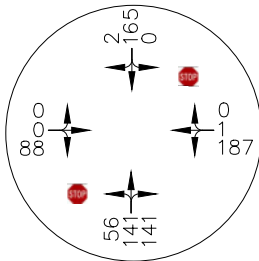
Intersection Number	Intersection	AM Peak Hour		PM Peak Hour	
		Average Control Delay (sec/veh)	Level of Service	Average Control Delay (sec/veh)	Level of Service
2050 Background plus Project with Mitigations Peak Hour Conditions					
1	Highland Blvd & Grant Blvd	21.6	C	8.8	A
2	Highland Blvd & 11800 North	9.5	A	19.8	B
3	Highland Blvd & SR-92	31.9	C	50.0	D
4	1200 East & SR-92	52.2	D	40.4	D
5	Center St/8000 West & SR-92	42.4	D	46.3	D
6	SR-92 & 500 West	40.3	D	34.0	C
7	500 West & Traverse Terrace Drive	6.7	A	8.7	A
8	3900 North & Canyon Hills Rd	13.4	B	10.4	B
9	Canyon Hills Rd & 4050 North	27.0	D	13.7	B

Source: HCM Methodologies using Synchro Software

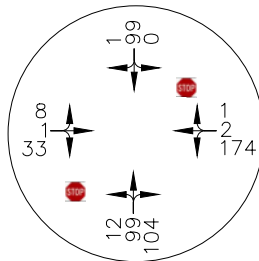
Control delay for unsignalized intersections shown for the worst approach only per the HCM.



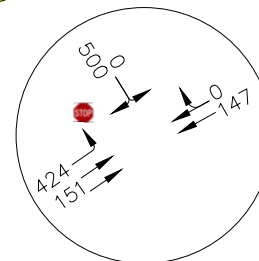
1 AM PEAK HOUR



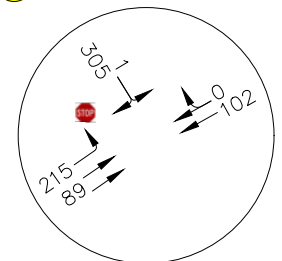
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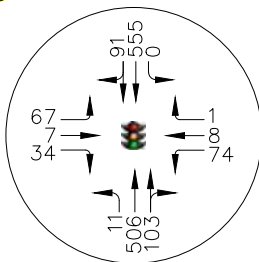
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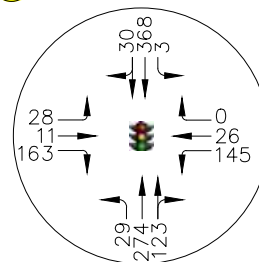
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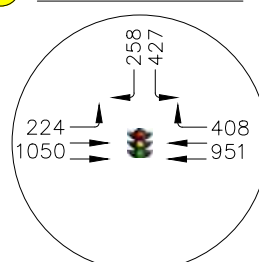
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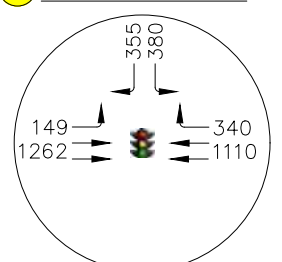
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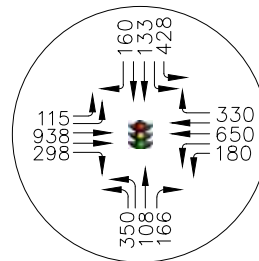
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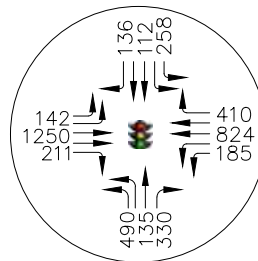
4 PM PEAK HOUR



5 AM PEAK HOUR

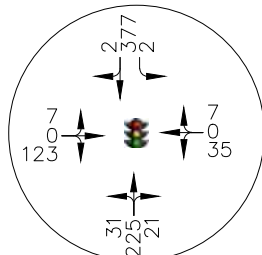


5 PM PEAK HOUR

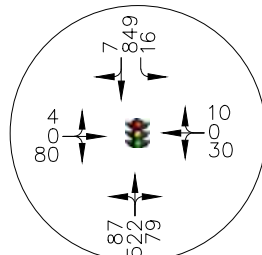




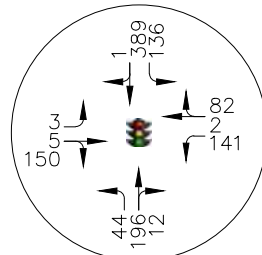
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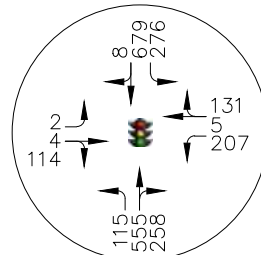
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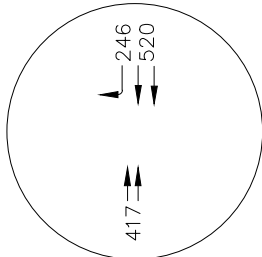
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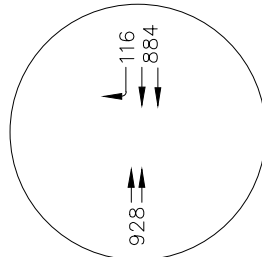
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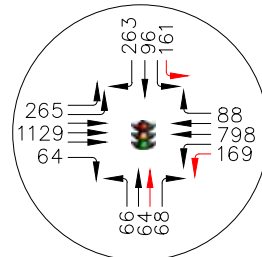
8 AM PEAK HOUR



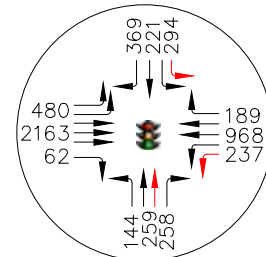
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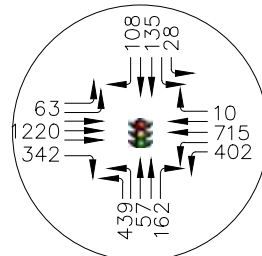
9 AM PEAK HOUR



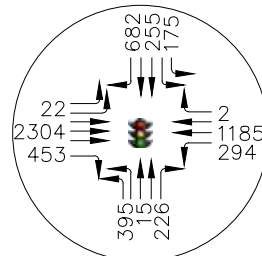
9 PM PEAK HOUR



10 AM PEAK HOUR



10 PM PEAK HOUR



CONCLUSIONS AND RECOMMENDATIONS

1. **Existing Conditions:** - All study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 29.0 sec/veh in the AM and a LOS D and a delay of 48.6 sec/veh in the PM. No recommended mitigations currently.
2. **2026 Background Conditions:** - Traffic volumes were projected over five-years from 2021 to 2026 by adding a 10% growth rate to existing traffic conditions. This 10% growth rate (or 2% per year) was generated using UDOT's historic AADT counts. All study intersections perform at an acceptable LOS except for Highland Blvd & 11800 North. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 31.3 sec/veh in the AM and Highland Blvd & 11800 North with a LOS E and a delay of 39.7 sec/veh in the PM.

Recommended Mitigations:

- Highland Blvd & 11800 North
 - Upgrade intersection from stop control to signal
 - Modify westbound shared left/right to dedicated left and right.

After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 28.6 sec/veh in the AM, and a LOS D with a delay of 41.0 sec/veh in the PM. No recommended mitigations currently.

3. **Project Trip Generation:** - Horrocks estimates the proposed development to generate approximately 30,793 new external daily trips with 2,541 during the AM peak and 2,852 during the PM peak, respectively.
4. **2026 Background plus Project Conditions:** - Horrocks added project traffic to the 2026 Background conditions to create 2026 Background plus Project Conditions. All study intersections perform at an acceptable LOS. The study intersection with the highest delay is 1200 East & SR-92 with a LOS D and a delay of 52.2 sec/veh in the AM and Center St/8000 West & SR-92 with a LOS D with a delay of 53.5 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations currently.
5. **2050 Background Conditions:** - Traffic volumes were projected over thirty-years from 2021 to 2050 using the Travel Demand Model for the area. All study intersections perform at an acceptable LOS except Highland Blvd & Grant Blvd. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 32.4 sec/veh in the AM and Highland Blvd & Grant Blvd with a LOS F with a delay of 43.5 sec/veh in the PM. This scenario includes all previous mitigations.

Recommended Mitigations:

- Highland Blvd & Grant Blvd
 - Upgrade intersection from stop-control to signalized

After mitigations, all study intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS C and a delay of 32.4 sec/veh in the AM and Highland Blvd & SR-92 with a LOS D with a delay of 44.9 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations currently.

6. 2050 Background plus Project conditions: - Horrocks added project traffic to 2050 Background conditions to create 2050 Background plus Project Conditions. All study intersections perform at an acceptable LOS except for Highland Blvd & SR-92 and 500 West & Traverse Terrace Drive. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay of 52.2 sec/veh in the AM and 500 West & Traverse Terrace Drive with a LOS E and a delay of 247.6 sec/veh in the PM. This scenario includes all previous mitigations.

Recommended Mitigations:

- 500 West & Traverse Terrace Drive
 - Upgrade intersection from stop-control to signalized
- Highland Blvd & SR-92
 - Add additional westbound left-turn lane
 - Add additional southbound left-turn lane
 - Add additional thru lane for a total of 2 lanes

With these mitigations, all intersections operate at an acceptable LOS. The study intersections with the highest delay are 1200 East & SR-92 with a LOS D and a delay 52.2 sec/veh in the AM and Center St/8000 West & SR-92 with a LOS D with a delay of 54.8 sec/veh in the PM. This scenario includes all previous mitigations. No recommended mitigations currently.

7. Safety History: - There was a total of 736 crashes on SR-2 from 2016 through 2021. The types of vehicle crashes are as follows:
- Two fatal crashes
 - 68 Suspected minor injury crashes
 - 131 Possible injury crashes
 - 535 Property damage only crashes