# Alta View Associates PO Box 65827 Salt Lake City, UT 84165

Mr. Jason Boal Urban Planner Snell & Wilmer, LLP Gateway Tower West 15 West South Temple, Suite 1200 Salt Lake City, Utah 84101-1547

RE: Proposed Project 1300 East and Sego Lily Sandy, Utah

Dear Mr. Boal,

Thank you for discussing with us your plans for the apartment project on the NE corner of 1300 E and Sego Lily. As owners of the neighboring Alta View retail center, we would welcome your project to the neighborhood. As we discussed, we have no plans to redevelop our property at this time.

We know our tenants would benefit from having an apartment project next door. Please let us know how we can help with your project and keep us informed as the project progresses.

Thank you.

Owners of Alta View Shopping Center

White Investment Co.

By: Buch Helliday

March 30, 2023

Sandy City Planning Commission 10000 S Centennial Parkway Sandy, UT 84070

RE: Conditional Use Permit Application NE corner of 1300 East Sego Lily

The purpose of this letter is to supplement the current Conditional Use Permit application that has been filed for a mixed-use project located in the Community Neighborhood (CN) zoning district. The project consists of 196 residential units, created from a mix of studio, live-work, one-bedroom and two-bedroom residential units and over 14,000 square feet of retail/office space on a 6.21-acre parcel located at the northeast corner of 1300 East and Sego Lily.

The Topography and Alternate Use Studies that were performed attempted to demonstrate that 8,000 sq. ft. of Quick Serve Restaurants along with 67,500 sq. ft. of retail could possibly be built on the site. While the study was able to demonstrate that this could "physically" be accomplished, the reality of it being accomplished from a market feasibility prospective is very different. The site has topography that make building retail buildings very difficult. The buildings would have to be built on different levels making it difficult at best for consumers to access the different retail by car or as a pedestrian. The study also demonstrated that to achieve this much retail, that a significant amount of that retail would be required to be built on a second level of the buildings. Second level retail has proven to be very unsuccessful in all but the most urban areas in large cities that are extremely dense and have population densities that are consistent with locations similar to NYC, Chicago, and Boston.

From a retail market perspective, this location is inferior to the competing retail locations in the area. 1300 East has reasonable traffic for a neighborhood center type development, however the cross street of Sego Lily is a neighborhood street has much lower traffic counts. The closest competition is located to directly to the south on the opposite side of Sego Lily. This center is anchored by a Smith's grocery store, an Ace Hardware, and many small shop space tenants. This center is well established and the turn-over of the small shop space over the years has varied in the strength of the tenants who have occupied the space. Further to the south at 10600 South

and 1300 East on the NE corner is a failed retail location where the mid box was raised and replaced by a smaller building that currently houses a few small tenants and a Beans & Brews. 8600 South and 1300 East is another example of a competing location that has lost in anchor tenant and has struggled with vacancy for years. The strongest competitive retail locations where the big box and mid box tenants are already located are on 9400 South and Highland Drive (Tenants: Smith's, a failed Shopko {now occupied by Beehive Science & Technology}, Home Depot, a failed Fresh Market) and 9400 South Quarry Bend (Tenants: Walmart Supercenter and Lowe's Home Improvement).

These are all examples of competitive locations that have large retailers, mid box retailers, but many also have a lot of vacancy. Second generation large and mid-box retail is either vacant or being replace with alternate uses like Beehive Science & Technology due to the lack of retail demand in the immediate market. Many of the competitive centers are in stronger retail locations and are having a difficult time attracting replacement tenants even at much lower rents than would be required in a new development that is financially feasible.

Even before COVID, the strength of the mid box and small shop retail had started to decline. Many tenants have consolidated their locations and or have left the market or gone out of business. Only the strongest retail locations with a good track record have been able to maintain and attract good retail tenants. Pure retail centers are, especially in well-established areas are not being built anywhere in the country, let alone this sub-market. The type of retail that is being built in established neighborhoods is in mixed-use developments that are adding additional density to the area and is accompanied by smaller retail that includes food, entertainment, and service type retail. The only other type of retail is stand-alone pads like a drug store or restaurant pads.

In my professional opinion, to drive the max amount of retail/office/service to this location, which I would recommend be 12,000 to 15,000 sq. ft., is to provide it in a mixed-use format that includes multi-family. Short of building the retail with multi-family, the retail/office/service would struggle even in the range of the 12,000 to 15,000 sq. ft. on this site.

Should you have any questions or wish to discuss anything further, please do not hesitate to reach out to me.

Sincerely

Kris Longson

President, KLD, LLC

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(801) 209-2653



# Sego Lily & 1300 East Mixed-Use

**Traffic Impact Study** 



Sandy, Utah

February 7, 2024
UT22-2107





#### **EXECUTIVE SUMMARY**

This study addresses the traffic impacts associated with the proposed Sego Lily & 1300 East Mixed-Use development located in Sandy, Utah. The Sego Lily & 1300 East Mixed-Use development is located on the northeast corner of the Sego Lily Drive / 1300 East intersection.

The purpose of this traffic impact study is to analyze traffic operations at key intersections for existing (2022) and future (2027) conditions with and without the proposed project and to recommend mitigation measures as needed. The evening peak hour level of service (LOS) results are shown in Table ES-1.

Table ES-1: Evening Peak Hour Level of Service Results

		Level of S	ervice	
Intersection	Existin	g (2022)	Future (2027)	
	BG	+P	BG	+P
Buttercup Dr / 1300 East	С	С	d	d
Sego Lily Dr / 1300 East	D	D	D	D
NW Ace Access / Sego Lily Dr	С	d	f	f
4 NE Ace Access & South Access / Sego Lily Dr	С	а	С	b
5 Eagle Cliff Way & Petunia Way / Sego Lily Dr	С	c	С	С
6 West Ace Access / 1300 East	f	f	f	f
7 24-Hr Fitness Access / 1300 East	f	f	f	f
8 West Access / 1300 East	-	С	-	d

<sup>1.</sup> Intersection LOS values represent the overall intersection average for roundabout, signalized, and all-way stop-controlled (AWSC) intersections (uppercase letter) and the worst movement for all other unsignalized intersections (lowercase letter)

Source: Hales Engineering, February 2024

<sup>2.</sup> BG = Background (without project traffic), +P = Plus Project (with project traffic)



#### **SUMMARY OF KEY FINDINGS & RECOMMENDATIONS**

# **Project Conditions**

- The development will consist of multifamily units, office space, and retail space
- The project is anticipated to generate approximately 1,978 new weekday daily trips, including 117 new trips in the morning peak hour, and 178 new trips in the evening peak hour

2022	Background	Plus Project
Assumptions	• None	South Access / Sego Lily Drive to operate as a right-in right-out     West Access / 1300 East to operate as three-quarter access with WBL restricted
Findings	<ul> <li>Poor LOS at:</li> <li>West Ace Access / 1300 East</li> <li>24-Hr Fitness Access / 1300 East</li> <li>Significant queueing at Sego Lily Dr / 1300 East in the NB, SB, and WB directions</li> </ul>	<ul> <li>Poor LOS at:         <ul> <li>West Ace Access / 1300 East</li> <li>24-Hr Fitness Access / 1300 East</li> </ul> </li> <li>Significant queueing at Sego Lily Dr / 1300 East in the NB, SB, and WB directions</li> </ul>
Mitigations	Sego Lily Dr / 1300 East: Extend southbound left-turn storage to accommodate a queue length of 400 feet	• None
2027	Background	Plus Project
Assumptions	• None	South Access / Sego Lily Drive to operate as a right-in right-out     West Access / 1300 East to operate as three-quarter access with WBL restricted
Findings	<ul> <li>Poor LOS at:</li> <li>NW Ace Access / Sego Lily Dr</li> <li>West Ace Access / 1300 East</li> <li>24-Hr Fitness Access / 1300 East</li> <li>Significant queueing at Sego Lily Dr / 1300 East in the NB, SB, and WB directions</li> </ul>	<ul> <li>Poor LOS at:         <ul> <li>NW Ace Access / Sego Lily Dr</li> <li>West Ace Access / 1300 East</li> <li>24-Hr Fitness Access / 1300 East</li> </ul> </li> <li>Significant queueing at Sego Lily Dr / 1300 East in the NB, SB, and WB directions</li> </ul>
Mitigations	<ul> <li>None         <ul> <li>If the area around Smith's redevelops at a future date, a signal could be considered to the Smith's site if warranted, which may relieve some congestion at the access points.</li> <li>The continuation of Highland Drive to 10600 South at a future date is also anticipated to relieve congestion on 1300 East and Sego Lily Drive.</li> </ul> </li> </ul>	• None



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# Sandy - Sego Lily & 1300 East Mixed-Use

Traffic Impact Study

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#### I. INTRODUCTION

#### A. Purpose

This study addresses the traffic impacts associated with the proposed Sego Lily & 1300 East Mixed-Use development located in Sandy, Utah. The proposed project is located on the northeast corner of the Sego Lily Drive / 1300 East intersection. Figure 1 shows a vicinity map of the proposed development.

The purpose of this traffic impact study is to analyze traffic operations at key intersections for existing (2022) and future (2027) conditions with and without the proposed project and to recommend mitigation measures as needed.



Figure 1: Vicinity map showing the project location in Sandy, Utah



#### B. Scope

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

- Buttercup Dr / 1300 East
- Sego Lily Dr / 1300 East
- Ace NW Access / Sego Lily Dr
- Ace NE Access & South Project Access / Sego Lily Dr
- Petunia Way / Sego Lily Dr
- Ace West Access / 1300 East
- 24-hr Fitness Access / 1300 East
- West Project Access / 1300 East
- New Gas Station Access / 1300 East

#### C. Analysis Methodology

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

The *Highway Capacity Manual* (HCM), 7<sup>th</sup> Edition, 2022 methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized, roundabout, and all-way stop-controlled (AWSC) intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections, LOS is reported based on the worst movement.

Using Synchro/SimTraffic software, which follow the HCM methodology, the 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. The detailed LOS reports are provided in Appendix B. Hales Engineering also calculated the 95<sup>th</sup> percentile queue lengths for the study intersections using SimTraffic. The detailed queue length reports are provided in Appendix D.

#### D. Level of Service Standards

For the purposes of this study, a minimum acceptable intersection performance for each of the study intersections was set at LOS D. If levels of service E or F conditions exist, an explanation and/or mitigation measures will be presented. A LOS D threshold is consistent with "state-of-the-practice" traffic engineering principles for urbanized areas.



**Table 1: Level of Service Description** 

LOS		Description of	Average Delay (seconds/vehicle)		
	LOS	Traffic Conditions	Signalized Intersections	Unsignalized Intersections	
Α		Free Flow / Insignificant Delay	≤ 10	≤ 10	
В		Stable Operations / Minimum Delays	> 10 to 20	> 10 to 15	
С		Stable Operations / Acceptable Delays	> 20 to 35	> 15 to 25	
D		Approaching Unstable Flows / Tolerable Delays	> 35 to 55	> 25 to 35	
E		Unstable Operations / Significant Delays	> 55 to 80	> 35 to 50	
F		Forced Flows / Unpredictable Flows / Excessive Delays	> 80	> 50	

Source: Hales Engineering Descriptions, based on the *Highway Capacity Manual* (HCM), 7<sup>th</sup> Edition, 2022 Methodology (Transportation Research Board)



# II. EXISTING (2022) BACKGROUND CONDITIONS

#### A. Purpose

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

#### B. Roadway System

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

<u>1300 East</u> – is a city-maintained roadway which is classified by the Sandy Transportation Master Plan (2021) as an arterial. The roadway has two travel lanes in each direction. The posted speed limit is 45 mph in the study area.

<u>Sego Lily Dr.</u> – is a city-maintained roadway which is classified by the Sandy Transportation Master Plan (2021) as a major collector. The roadway has one travel lane in each direction. The posted speed limit is 30 mph in the study area.

#### C. Crash History Analysis

Hales Engineering referenced UDOT's crash history database (AASHTOWare Safety) to determine the crash history in the study area between January 1, 2018, and December 31, 2022, since these are the last 5 full years of available crash data. The crash analysis area included all crashes within a 250-foot radius of the Sego Lily Drive / 1300 East intersection. Detailed crash data are included in Appendix F. Due to the use of crash data, this report may be protected under 23 USC 407.

Based on the crash history data, there have been a total of 60 crashes near this intersection between 2018 and 2022. Out of the 60 crashes, 1 was suspected to involve serious injuries, and 9 were suspected to involve minor injuries. In addition, 55 crashes were intersection related, 11 involved distracted driving, 4 were speed related, 2 involved drowsy driving, 1 involved a pedestrian, and 1 involved a pedalcycle.

The most common manners of collision at this intersection have been angle crashes and front to rear crashes. Based on the crash data, there have been a total of 26 angle crashes and 26 front to rear crashes.



#### D. Traffic Volumes

Weekday morning (7:00 to 9:00 a.m.), afternoon (2:00 to 4:00 p.m.), and evening (4:00 to 6:00 p.m.) peak period traffic counts were performed at the following intersections:

- Buttercup Dr / 1300 East
- Sego Lily Dr / 1300 East
- Petunia Way / Sego Lily Dr
- Ace West Access / 1300 East
- 24-hr Fitness Access / 1300 East
- NW Ace Access / Sego Lily Dr
- NE Ace Access / Sego Lily Dr

The counts were performed on Tuesday, February 1, 2022, and Thursday March 3, 2022. The morning peak hour was determined to be between 7:30 and 8:30 a.m., the afternoon peak hour was determined to be between 3:00 and 4:00 p.m., and the evening peak hour was determined to be between 4:45 and 5:45 p.m. The evening peak hour volumes were approximately 19% and 22% higher than the morning and afternoon peak hour volumes, respectively. Therefore, the evening peak hour volumes were used in the analysis to represent the worst-case conditions. Detailed count data are included in Appendix A.

Previous evening peak hour counts at Ace NW Access / Sego Lily Dr and Ace NE Access / Sego Lily Dr intersections were collected for another study on Wednesday, April 17, 2013. These older counts were found to be higher than the 2022 counts. Therefore, 2013 counts were used to be conservative since the traffic from the shopping center has remained the same since that date.

Hales Engineering did not make seasonal adjustments to the observed traffic volumes due to the lack of a nearby UDOT automatic traffic recorder.

The traffic counts were collected during the COVID-19 pandemic when traffic volumes may have been slightly reduced. According to the UDOT Automatic Traffic Signal Performance Measures (ATSPM) website, the traffic volumes on February 4, 2020 (pre-social distancing) were approximately 2% higher than those on February 1, 2022. Therefore, the data collected in 2022 were increased by 2% to represent normal conditions.

Where imbalances existed between counts at adjacent intersections, volumes were balanced by increasing volumes to remain conservative. Figure 2 shows the existing evening peak hour volumes as well as intersection geometry at the study intersections.

#### E. Level of Service Analysis

Hales Engineering determined that the 24-Hr Fitness Access / 1300 East and West Ace Access / 1300 East intersections are currently operating at poor levels of service during the evening peak hour, as shown in Table 2. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2022) conditions.



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#### F. Queuing Analysis

Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. Significant 95<sup>th</sup> percentile queue lengths during the evening peak hour are summarized as follows:

Sego Lily Dr / 1300 East:
 Northbound: 800 feet
 Southbound: 525 feet
 Westbound: 400 feet

Table 2: Existing (2022) Background Evening Peak Hour LOS

Intersection	Lev	el of Service		
Description	Control	Movement <sup>1</sup>	Aver. Delay (Sec. / Veh.)	LOS <sup>2</sup>
Buttercup Dr / 1300 East	WB Stop	WBR	24.8	С
Sego Lily Dr / 1300 East	Signal	-	42.1	D
NW Ace Access / Sego Lily Dr	NB Stop	NBL	21.0	С
NE Ace Access & South Access / Sego Lily Dr	NB Stop	NBL	19.3	С
Eagle Cliff Way & Petunia Way / Sego Lily Dr	NB/SB Stop	NBL	19.5	С
West Ace Access / 1300 East	WB Stop	WBR	>50	f
24-Hr Fitness Access / 1300 East	WB Stop	WBL	>50	f

<sup>1.</sup> Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

Source: Hales Engineering, February 2024

#### G. Mitigation Measures

It is recommended that the storage length of the southbound left-turn pocket at the Sego Lily Drive / 1300 East intersection be lengthened to accommodate a queue length of 400 feet.

No additional mitigation measures are recommended. The poor LOS at the 24-Hr Fitness Access / 1300 East intersection is due to the high north-south through volumes on 1300 East which makes it difficult for westbound vehicles to find gaps in traffic. It is anticipated that vehicles will reroute to avoid delays at this intersection during the evening peak hour. A traffic signal is not warranted at the 24-Hr Fitness Access / 1300 East intersection.

<sup>2.</sup> Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.



#### III. PROJECT CONDITIONS

#### A. Purpose

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

#### B. Project Description

The proposed Sego Lily & 1300 East Mixed-Use development is located on the northeast corner of the Sego Lily Drive / 1300 East intersection. The development will consist of a mix of multifamily residential units, tenant office space, and retail space. Included within the residential portion is leasing / amenities space that will be for the residents of the community only. A concept plan for the proposed development is provided in Appendix C. The proposed land use for the development has been identified in Table 3.

**Table 3: Project Land Uses** 

Land Use	Intensity
Multi-family Residential	197 Units
Office	4,300 sq. ft.
Retail	10,560 sq. ft.

#### C. Trip Generation

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE), *Trip Generation*, 11<sup>th</sup> Edition, 2021. Trip generation for the proposed project is included in Table 4. Hales Engineering used the ITE internal capture tool to estimate the internal capture for the site. The tool suggested that reductions of 2 trips in the morning peak hour and 32 trips in the evening peak hour were appropriate. Smaller reductions of 1 trip and 20 trips were taken, respectively, represented by reduction percentages for retail and office. Detailed printouts of the ITE tool are found in Appendix E.

The total new trip generation for the development is as follows:

•	Daily Trips:	1,978
•	Morning Peak Hour Trips:	117
•	Evening Peak Hour Trips:	178

**Table 4: Trip Generation** 

, # of		f Unit	Trip Generation				Reductions	s New Trip		os	
Land Use <sup>1</sup>	Units	Туре	Total	% In	% Out	ln	Out	Internal Capture	ln	Out	Total
Veekday Daily											
Multifamily Housing (Low-Rise) (220)	197	DU	1,340	50%	50%	670	670	0%	670	670	1,340
Small Office Building (712)	4.30	KSF	62	50%	50%	31	31	0%	31	31	62
Strip Retail Plaza, <40k (822)	10.56	KSF	576	50%	50%	288	288	0%	288	288	576
TOTAL			1,978			989	989		989	989	1,978
M Peak Hour											
Multifamily Housing (Low-Rise) (220)	197	DU	84	24%	76%	20	64	0%	20	64	84
Small Office Building (712)	4.30	KSF	8	82%	18%	7	1	15%	6	1	7
Strip Retail Plaza, <40k (822)	10.56	KSF	26	60%	40%	16	10	0%	16	10	26
TOTAL			118			43	75		42	75	117
M Peak Hour					W 7/1			ec 20			
Multifamily Housing (Low-Rise) (220)	197	DU	106	63%	37%	67	39	0%	67	39	106
Small Office Building (712)	4.30	KSF	10	34%	66%	3	7	40%	2	4	6
Strip Retail Plaza, <40k (822)	10.56	KSF	82	50%	50%	41	41	20%	33	33	66
TOTAL			198			111	87		102	76	178

#### D. Trip Distribution and Assignment

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially near the site. The resulting distribution of project generated trips during the evening peak hour is shown in Table 5.

**Table 5: Trip Distribution** 

Direction	% To/From Project
North	25%
South	60%
East	5%
West	10%

These trip distribution assumptions were used to assign the evening peak hour generated traffic at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 3.



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#### E. Access

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

#### 1300 East:

• The West Access will be located approximately 350 feet south of the Buttercup Drive / 1300 East intersection. It will access the project on the east side of 1300 East. It is anticipated that the access will be stop-controlled. In order to accommodate for turn movements to the site and reduce the need for unsafe U-turns, it was assumed that this access would be a three-quarter access, with westbound left turns being restricted. The existing median on 1300 East would need to be revised to allow a southbound left-turn deceleration lane.

#### Sego Lily Drive:

The South Access will be located across from the NE Ace Access. It will access the
project on the north side of Sego Lily Drive. It is anticipated that the access will be
stop-controlled. It is recommended that this access be a right-in right-out (RIRO)
access due to the left-turn conflicts that would exist at the access if left-turn
movements were allowed.

In addition to these vehicle accesses, a pedestrian connection to the library is being explored.

#### F. Auxiliary Lanes

Auxiliary lanes are deceleration (ingress) or acceleration (egress) turn lanes that provide for safe turning movements that have less impact on through traffic. These lanes are sometimes needed at accesses or roadway intersections if right- or left-turn volumes are high enough.

Deceleration (ingress) lanes are generally needed when there are at least 50 right-turn vehicles or 25 left-turn vehicles in an hour. These guidelines were used for the City roadways in the study area.

Based on these guidelines and the anticipated project traffic, it is recommended that southbound left-turn and northbound right-turn lanes be installed at the West Access / 1300 East intersection.



# IV. EXISTING (2022) PLUS PROJECT CONDITIONS

#### A. Purpose

The purpose of the existing (2022) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for existing background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

#### B. Traffic Volumes

Hales Engineering added the project trips discussed in Chapter III to the existing (2022) background traffic volumes to predict turning movement volumes for existing (2022) plus project conditions. Observed left turns at the North East Ace Access were rerouted to the North West Ace Access due to the RIRO restriction. Existing (2022) plus project evening peak hour turning movement volumes are shown in Figure 4.

# C. Level of Service Analysis

Hales Engineering determined that the 24-Hr Fitness Access / 1300 East and West Ace Access / 1300 East intersections are anticipated to operate at poor levels of service during the evening peak hour with project traffic added, as shown in Table 6.

#### D. Queuing Analysis

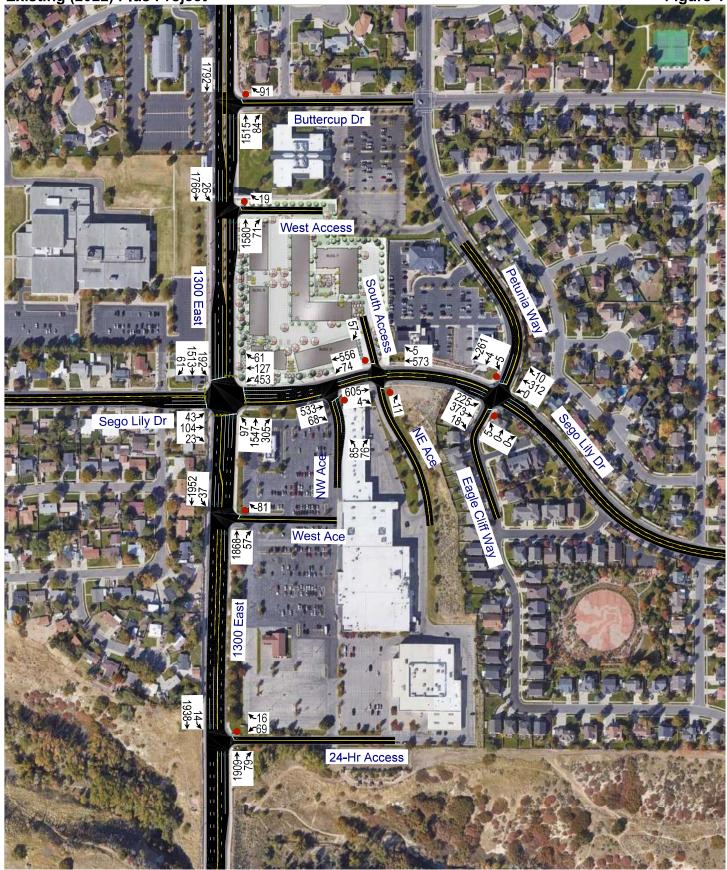
Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. Significant 95<sup>th</sup> percentile queue lengths during the evening peak hour are summarized as follows:

• Sego Lily Dr / 1300 East:

Northbound: 650 feetSouthbound: 525 feetWestbound: 300 feet

#### E. Mitigation Measures

No mitigation measures are recommended.



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Table 6: Existing (2022) Plus Project Evening Peak Hour LOS

Intersection	Lev	el of Service		
Description	Control	Movement <sup>1</sup>	Aver. Delay (Sec. / Veh.)	LOS <sup>2</sup>
Buttercup Dr / 1300 East	WB Stop	WBR	20.0	С
Sego Lily Dr / 1300 East	Signal	-	36.3	D
NW Ace Access / Sego Lily Dr	NB Stop	NBL	34.0	d
NE Ace Access / Sego Lily Dr	NB Stop	NBR	5.7	а
Petunia Way / Sego Lily Dr	NB/SB Stop	SBL	19.8	С
West Ace Access / 1300 East	WB Stop	WBR	>50	f
24-Hr Fitness Access / 1300 East	WB Stop	WBL	>50	f
West Access / 1300 East	WB Stop	SBL	22.2	С

<sup>1.</sup> Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

Source: Hales Engineering, February 2024

<sup>2.</sup> Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.



# V. FUTURE (2027) BACKGROUND CONDITIONS

#### A. Purpose

The purpose of the future (2027) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified, and potential mitigation measures recommended.

#### B. Roadway Network

According to the Wasatch Front Regional Council (WFRC) Regional Transportation Plan, there are no projects planned before 2027 in the study area. Therefore, no changes were made to the roadway network for the future (2027) analysis based on WFRC plans.

#### C. Traffic Volumes

Hales Engineering obtained future (2027) forecasted volumes from the WFRC / Mountainland Association of Governments (MAG) travel demand model. Peak period turning movement counts were estimated using National Cooperative Highway Research Program (NCHRP) 255 methodologies which utilize existing peak period turn volumes and future average weekday daily traffic (AWDT) volumes to project the future turn volumes at the major intersections. Future (2027) evening peak hour turning movement volumes are shown in Figure 5.

#### D. Level of Service Analysis

Hales Engineering determined that the NW Ace Access / Sego Lily Drive, West Ace Access / 1300 East, and 24-Hr Access / Sego Lily Drive intersections are anticipated to operate at poor levels of service during the evening peak hour in future (2027) background conditions, as shown in Table 7. These results serve as a baseline condition for the impact analysis of the proposed development for future (2027) conditions.

#### E. Queuing Analysis

Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. Significant 95<sup>th</sup> percentile queue lengths during the evening peak hour are summarized as follows:

Sego Lily Dr / 1300 East:
 Northbound: 900 feet
 Southbound: 750 feet

o Westbound: 450 feet



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



Table 7: Future (2027	) Background	Evening	Peak Hour	LOS
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Intersection		Level of Service		
Description	Control	Movement <sup>1</sup>	Aver. Delay (Sec. / Veh.)	LOS <sup>2</sup>
Buttercup Dr / 1300 East	WB Stop	WBR	26.4	d
Sego Lily Dr / 1300 East	Signal	-	48.4	D
NW Ace Access / Sego Lily Dr	NB Stop	NBL	>50	f
NE Ace Access / Sego Lily Dr	NB Stop	NBL	24.6	С
Petunia Way / Sego Lily Dr	NB/SB Stop	SBT	24.1	С
West Ace Access / 1300 East	WB Stop	WBR	>50	f
24-Hr Fitness Access / 1300 East	WB Stop	WBL	>50	f

<sup>1.</sup> Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

Source: Hales Engineering, February 2024

#### F. Mitigation Measures

Installing dual southbound left-turn lanes at the Sego Lily Drive / 1300 East intersection was considered as a potential mitigation measure to improve the queueing, however it was determined that it may not be physically feasible without widening the north and east legs of the intersection. Additionally, it is anticipated that dual southbound left-turn lanes would only slightly lower the average delay at the signal and significant northbound & southbound queueing would still be anticipated.

If the area around Smith's is redeveloped in the future, it's possible that a traffic signal would be warranted at or near the 24-Hour Fitness Access. A traffic signal at a new or existing access along 1300 East here would likely improve the poor levels of service as it would give vehicles a way to reroute from Sego Lily Drive. However, signal warrants are not met as currently projected at the 24-Hour Fitness Access. Therefore, no additional mitigation measures are recommended in the future (2027) background analysis.

In addition to a potential signal at Smith's with redevelopment, it is also recommended that Sandy City consider connecting Highland Drive to the south to 10600 South at some point in the future. It is anticipated that this connection will take a significant amount of pressure off of both Sego Lily Drive and 1300 East as both corridors are congested in existing conditions already.

<sup>2.</sup> Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.



# VI. FUTURE (2027) PLUS PROJECT CONDITIONS

#### A. Purpose

The purpose of the future (2027) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

#### B. Traffic Volumes

Hales Engineering added the project trips discussed in Chapter III to the future (2027) background traffic volumes to predict turning movement volumes for future (2027) plus project conditions. Left turns at the Northeast Ace Access were rerouted to the Northwest Ace Access due to the RIRO restriction. Future (2027) plus project evening peak hour turning movement volumes are shown in Figure 6.

# C. Level of Service Analysis

Hales Engineering determined that the NW Ace Access / Sego Lily Drive, 24-Hr Access / 1300 East, and West Ace Access / 1300 East intersections are anticipated to operate at a poor level of service in future (2027) plus project conditions, as shown in Table 8.

#### D. Queuing Analysis

Hales Engineering calculated the 95<sup>th</sup> percentile queue lengths for each of the study intersections. Significant 95<sup>th</sup> percentile queue lengths during the evening peak hour are summarized as follows:

Sego Lily Dr / 1300 East:
 Northbound: 750 feet

Southbound: 850 feetWestbound: 525 feet



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Table 8: Future (2027) Plus Project Evening Peak Hour LOS

Intersection		Level of Service		
Description	Control	Movement <sup>1</sup>	Aver. Delay (Sec. / Veh.)	LOS <sup>2</sup>
Buttercup Dr / 1300 East	WB Stop	WBR	27.8	d
Sego Lily Dr / 1300 East	Signal	-	50.6	D
NW Ace Access / Sego Lily Dr	NB Stop	NBL	>50	f
NE Ace Access / Sego Lily Dr	NB/SB Stop	SBR	10.8	b
Eagle Cliff Way & Petunia Way / Sego Lily Dr	NB/SB Stop	SBT	24.2	С
West Ace Access / 1300 East	WB Stop	WBR	>50	f
24-Hr Fitness Access / 1300 East	WB Stop	WBL	>50	f
West Access / 1300 East	Signal	SBL	27.3	d

<sup>1.</sup> Movement indicated for unsignalized intersections where delay and LOS represents worst movement. SBL = Southbound left movement, etc.

Source: Hales Engineering, February 2024

#### E. Mitigation Measures

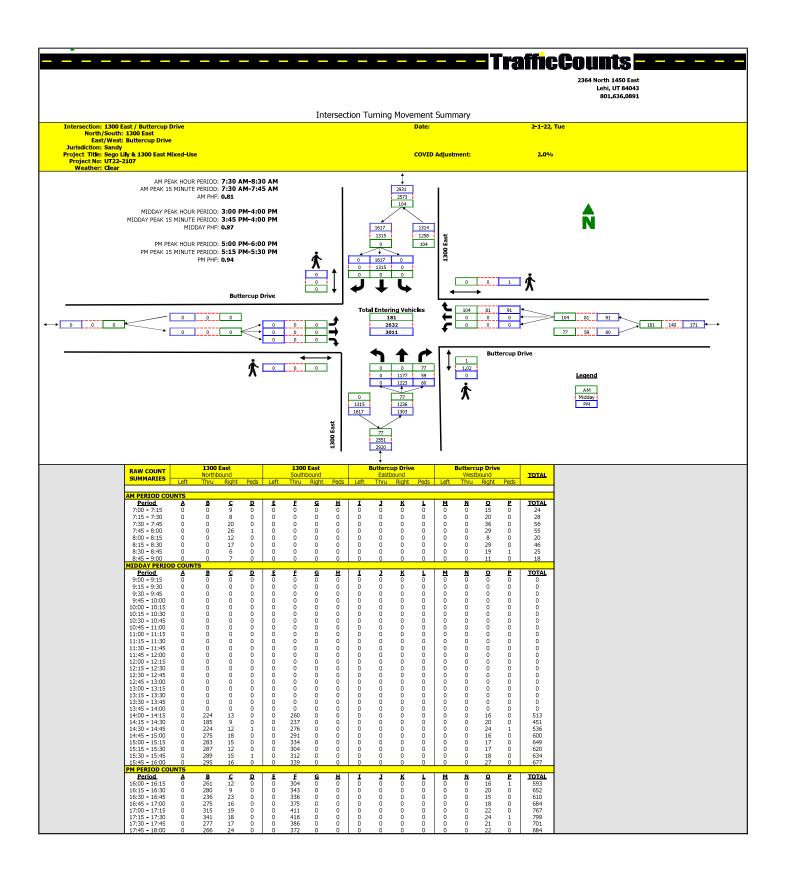
No additional mitigation measures are recommended at this time. Northbound traffic on 1300 East is anticipated to occasionally queue from Sego Lily Drive to approximately the 24-Hr Fitness Access during the evening peak hours. As mentioned in Chapter V, if a signal were to be installed at any Smith's access on 1300 East, it is anticipated that delays at the other Smith's access points would decrease as vehicles reroute to the signalized intersection.

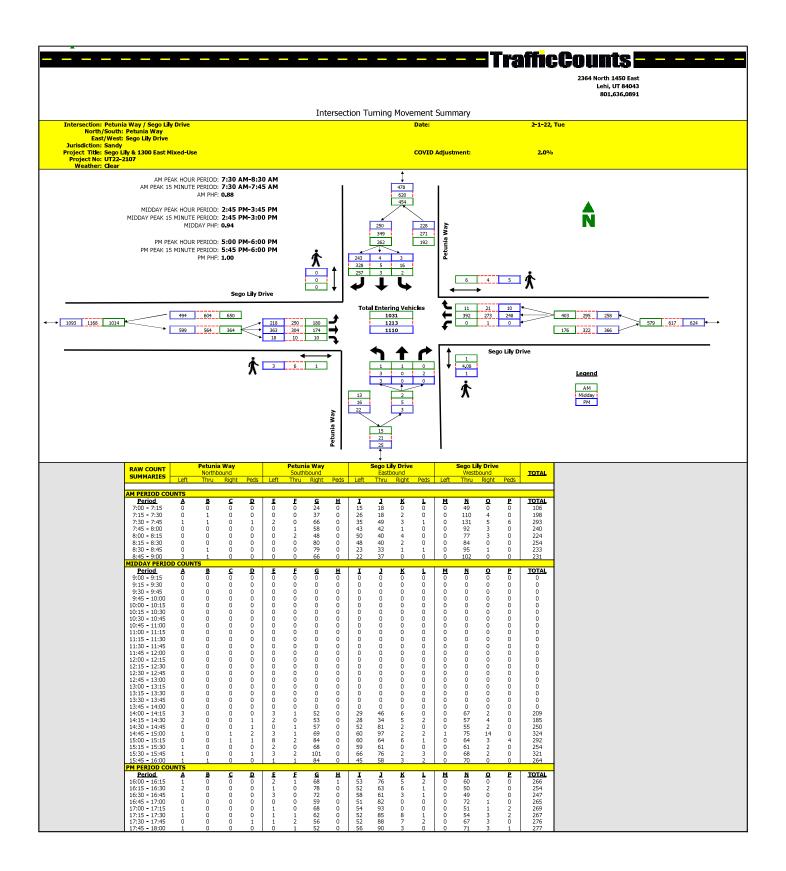
<sup>2.</sup> Uppercase LOS used for signalized, roundabout, and AWSC intersections. Lowercase LOS used for all other unsignalized intersections.

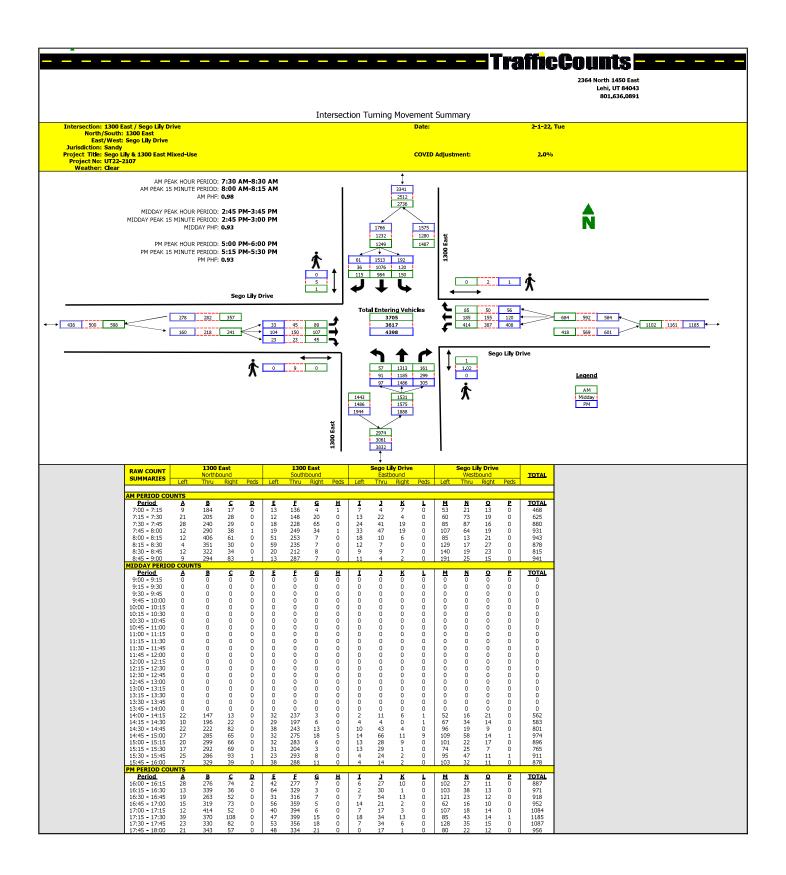


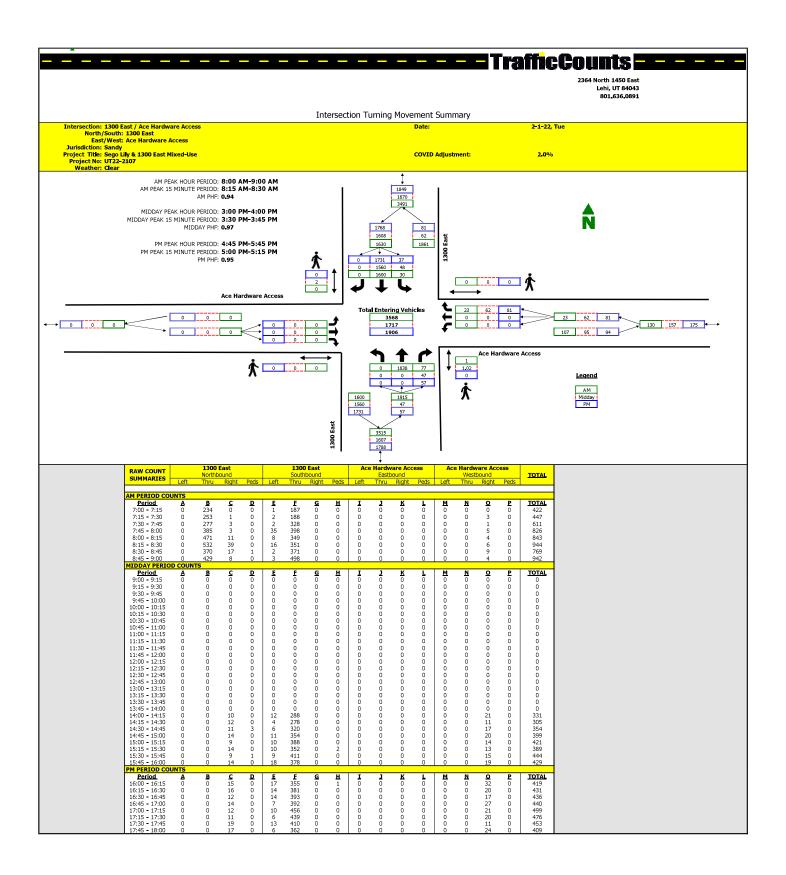
# **APPENDIX A**

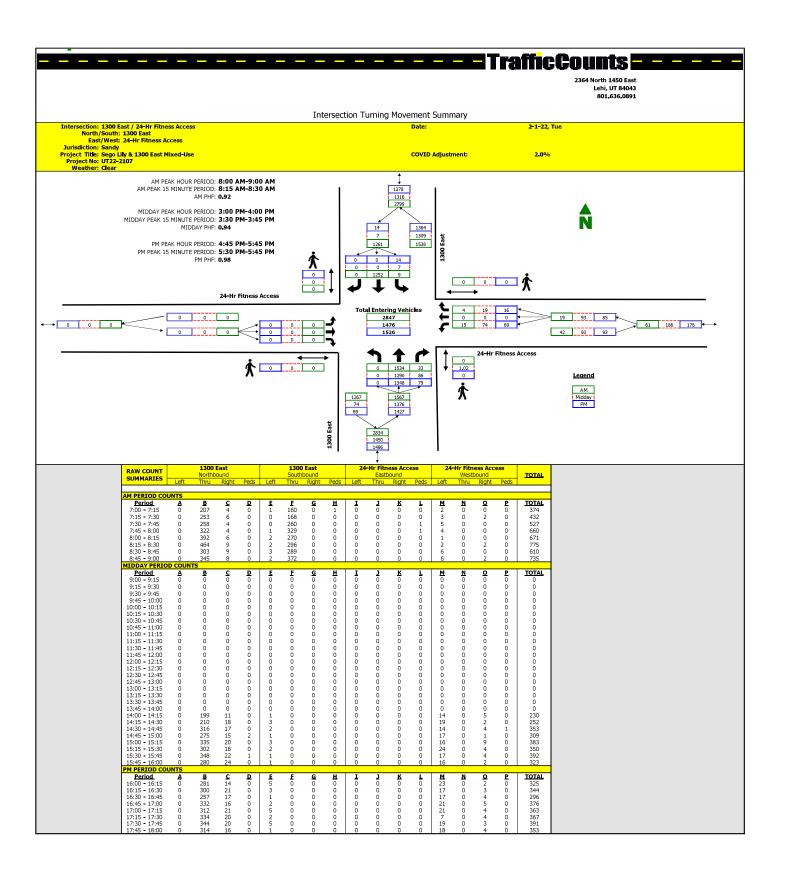
**Turning Movement Counts** 

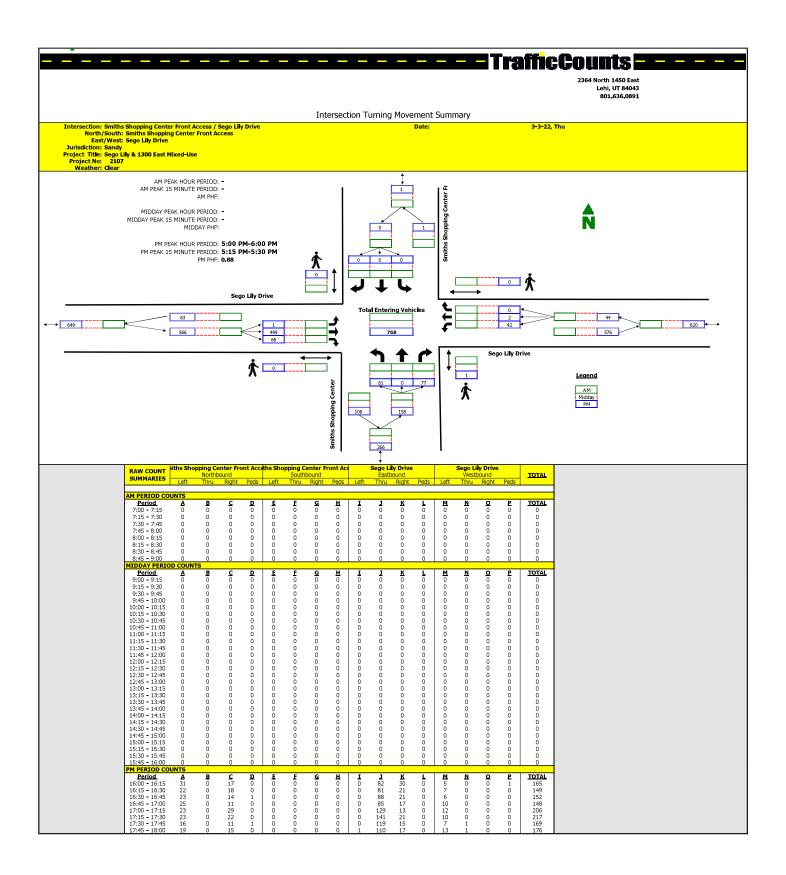


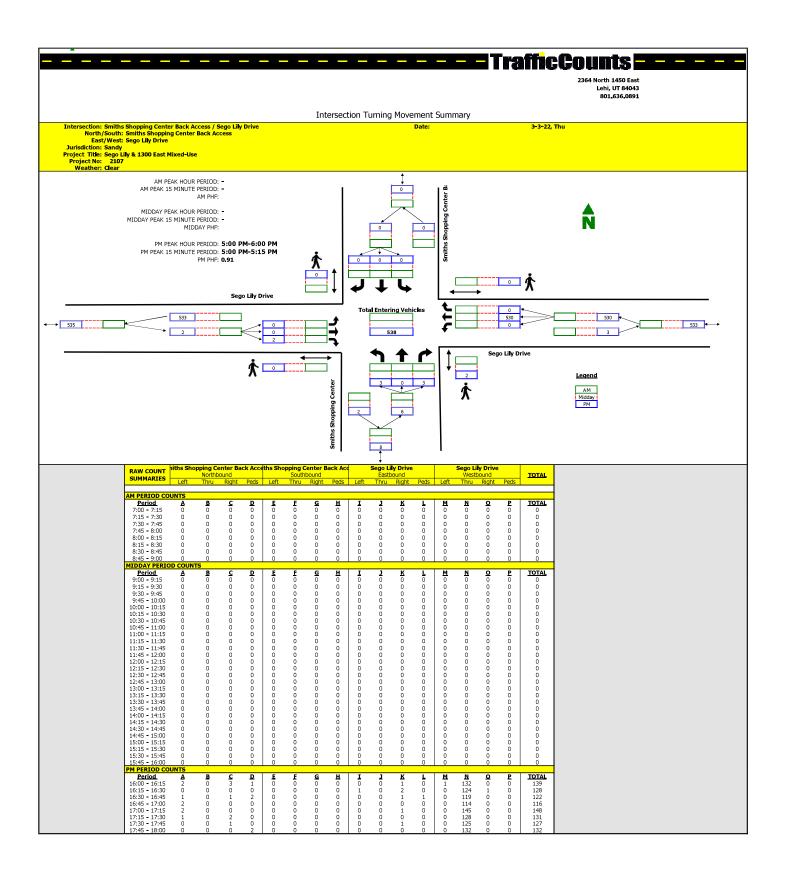


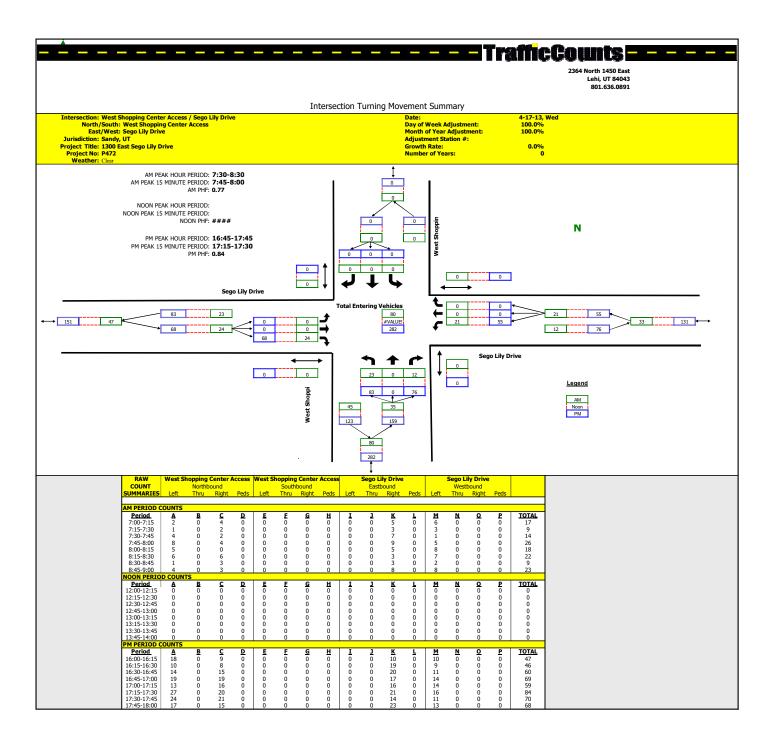


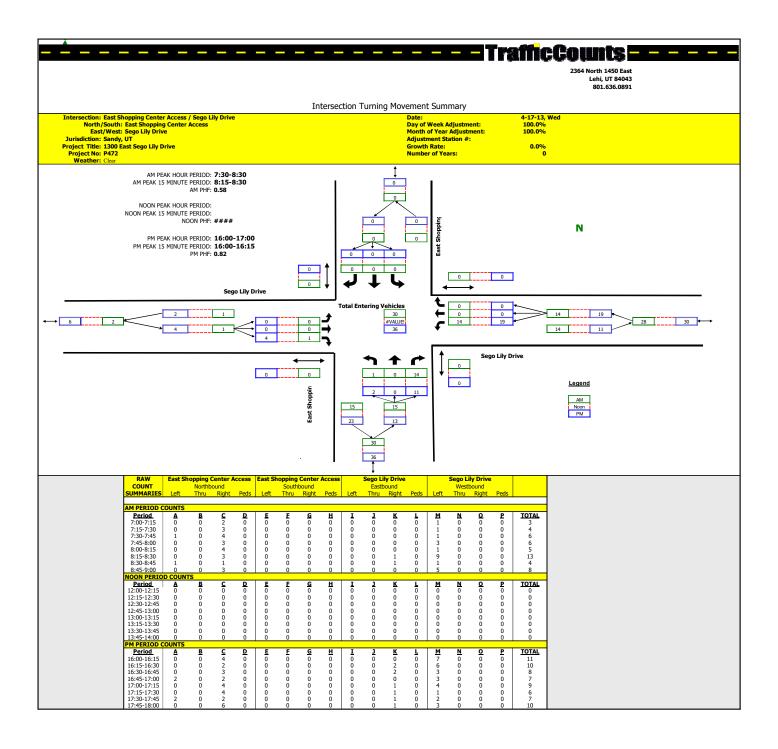














## **APPENDIX B**

**LOS Results** 



Project: Sandy Sego Lily & 1300 East Mixed-Use TIS

Analysis Period: Existing (2022) Background

Time Period: Evening Peak Hour Project #: UT22-2107

Intersection: 1300 East & Buttercup Dr

Type: Unsignalized

Annuasah	Mayramant	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,496	1,468	98	6.7	Α
NB	R	80	75	94	6.9	Α
	Subtotal	1,576	1,543	98	6.7	Α
	Т	1,766	1,769	100	1.1	Α
SB						
	Subtotal	1,766	1,769	100	1.1	Α
	R	91	88	96	24.8	С
WB						
	Subtotal	91	88	97	24.8	С
Total		3,433	3,400	99	4.2	Α

Intersection: 1300 East & Sego Lily Dr

Type: Signalized

Typo.		Oignanzoa				
Annyoooh	Mayamant	Demand	Volume	Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	97	95	98	70.2	Ε
NB	Т	1,486	1,460	98	34.3	С
IND	R	305	292	96	9.9	Α
	Subtotal	1,888	1,847	98	32.3	С
	L	192	187	98	67.7	Ε
SB	Т	1,514	1,515	100	25.9	С
Sb	R	61	62	102	8.4	Α
	Subtotal	1,767	1,764	100	29.7	С
	L	33	30	92	71.1	Ε
EB	T	104	103	99	69.0	E
LD	R	23	23	101	27.0	С
	Subtotal	160	156	98	63.2	E
·	Ĺ	408	413	101	58.6	Е
WB	T	121	122	101	46.9	D
VVD	R	56	56	100	22.0	С
	Subtotal	585	591	101	52.7	D
Total		4,400	4,358	99	42.1	D



Sandy Sego Lily & 1300 East Mixed-Use TIS Project:

Existing (2022) Background

Analysis Period: Time Period: Evening Peak Hour Project #: UT22-2107

Intersection: NW Ace & Sego Lily Dr

Unsignalized Type:

Approach	Movement	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	83	83	100	21.0	С
NB	R	76	81	107	5.1	Α
	Subtotal	159	164	103	13.1	В
	Т	534	514	96	1.9	Α
EB	R	68	70	103	1.3	Α
	Subtotal	602	584	97	1.8	Α
	L	55	51	92	7.1	Α
WB	Т	501	508	101	0.4	Α
	Subtotal	556	559	101	1.0	Α
Total		1,317	1,307	99	2.9	Α

Intersection: NE Ace & Sego Lily Dr

Ammusash	Mayramant	Demand	Volume	Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	2	1	50	19.3	С
NB	R	11	12	107	5.0	Α
	Subtotal	13	13	100	6.1	Α
	Т	606	591	98	0.5	Α
EB	R	4	4	100	0.2	Α
	Subtotal	610	595	98	0.5	Α
	L	19	18	94	4.6	Α
WB	Т	554	558	101	0.6	Α
	Subtotal	573	576	101	0.7	Α
Total		1,197	1,184	99	0.7	Α



Project: Sandy Sego Lily & 1300 East Mixed-Use TIS

Analysis Period: Existing (2022) Background

Time Period: Evening Peak Hour Project #: UT22-2107

Intersection: Eagle Cliff Way/Petunia Way & Sego Lily Dr

Type: Unsignalized

Augusaah	Mayanant	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	5	5	100	19.5	С
NB						
	Subtotal	5	5	100	19.5	С
	L	3	3	100	14.2	В
SB	Т	4	4	100	18.2	С
Sb	R	260	262	101	7.5	Α
	Subtotal	267	269	101	7.7	Α
	L	225	212	94	4.5	Α
EB	Т	374	373	100	0.5	Α
	R	18	18	99	0.4	Α
	Subtotal	617	603	98	1.9	Α
	T	308	309	100	1.2	Α
WB	R	10	9	88	0.5	Α
	Subtotal	318	318	100	1.2	Α
Total		1,207	1,195	99	3.1	Α

Intersection: 1300 East & West Ace Type: Unsignalized

Annyonah	Mayamant	Demand	Volume	Served	Delay/Ve	Veh (sec)	
Approach	Movement	Volume	Avg	%	Avg	LOS	
	Т	1,807	1,798	99	16.4	С	
NB	R	57	58	101	13.7	В	
	Subtotal	1,864	1,856	100	16.3	С	
	L	37	38	103	51.5	F	
SB	Т	1,907	1,912	100	4.4	Α	
	Subtotal	1,944	1,950	100	5.3	Α	
WB	R	81	51	63	534.3	F	
	Subtotal	81	51	63	534.3	F	
Total		3,890	3,857	99	19.6	С	



Sandy Sego Lily & 1300 East Mixed-Use TIS Project:

Analysis Period: Time Period: Existing (2022) Background Evening Peak Hour Project #: UT22-2107

Intersection: 1300 East & 24-Hr Access

Annagasah	Mayanaant	Demand	Volume	Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,848	1,844	100	2.0	Α
NB	R	79	80	101	0.7	Α
	0	4.007	4.004	400	4.0	4
	Subtotal	1,927	1,924	100	1.9	<u> </u>
	L	14	15	105	50.5	F
SB	T	1,894	1,898	100	2.4	Α
	Subtotal	1,908	1,913	100	2.8	Α
	L	69	71	103	62.9	F
WB	R	16	17	105	53.6	F
"						
	Subtotal	85	88	104	61.1	F
Total		3,920	3,925	100	3.7	Α



Project: Sandy Sego Lily & 1300 East Mixed-Use TIS

Analysis Period: Existing (2022) Plus Project

Time Period: Evening Peak Hour Project #: UT22-2107

Intersection: 1300 East & Buttercup Dr

Type: Unsignalized

Annyasah	Mayramant	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,516	1,461	96	1.1	Α
NB	R	84	78	93	0.7	Α
	Subtotal	1,600	1,539	96	1.1	Α
	T	1,792	1,787	100	1.1	Α
SB						
	Subtotal	1,792	1,787	100	1.1	Α
WB	R	91	89	98	18.2	С
	Subtotal	91	89	98	18.2	С
Total		3,483	3,415	98	1.5	Α

Intersection: 1300 East & Sego Lily Dr

Type: Signalized

A	N	Demand	Volume	Served	Delay/Ve	h (sec)
Approacn	Movement	Volume	Avg	%	Avg	LOS
	L	97	92	95	68.2	Ε
NB	Т	1,547	1,492	96	29.9	С
IND	R	305	295	97	10.3	В
	Subtotal	1,949	1,879	96	28.7	С
	L	192	193	101	81.4	F
SB	Т	1,514	1,513	100	22.6	С
Sb	R	61	59	97	6.5	Α
	Subtotal	1,767	1,765	100	28.5	С
	L	43	39	91	78.1	Ε
EB	Т	104	107	103	81.1	F
LD	R	23	25	110	27.0	С
	Subtotal	170	171	101	72.5	E
	L	453	444	98	68.0	Е
WB	Т	128	127	99	53.9	D
VVD	R	61	56	92	26.5	С
	Subtotal	642	627	98	61.4	E
Total		4,528	4,442	98	38.8	D



Sandy Sego Lily & 1300 East Mixed-Use TIS Project:

Existing (2022) Plus Project

Analysis Period: Time Period: Evening Peak Hour Project #: UT22-2107

Intersection: NW Ace & Sego Lily Dr

Unsignalized Type:

Approach	Movement	Demand	Volum	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	85	86	101	30.6	D
NB	R	76	78	103	5.8	Α
	Subtotal	161	164	102	18.8	С
	Т	534	529	99	1.9	Α
EB	R	68	68	100	1.3	Α
	Subtotal	602	597	99	1.8	Α
	L	74	72	97	7.0	Α
WB	Т	557	541	97	0.9	Α
	Subtotal	631	613	97	1.6	Α
Total		1,394	1,374	99	3.8	Α

Intersection: NE Ace/South Access & Sego Lily Dr

		Demand	Volume	Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	R	11	12	107	5.7	Α
NB						
	Subtotal	11	12	109	5.7	Α
	R	57	57	100	5.0	Α
SB						
	Subtotal	57	57	100	5.0	Α
	Т	606	602	99	0.5	Α
EB	R	4	4	100	0.2	Α
	Subtotal	610	606	99	0.5	Α
	Т	574	555	97	0.9	Α
WB	R	5	5	100	0.5	Α
	Subtotal	579	560	97	0.9	Α
Total		1,257	1,235	98	1.0	Α



Sandy Sego Lily & 1300 East Mixed-Use TIS Project:

Analysis Period:

Existing (2022) Plus Project Evening Peak Hour Time Period: Project #: UT22-2107

Eagle Cliff Way/Petunia Way & Sego Lily Dr Intersection:

Unsignalized Type:

Augusaah	Mayanant	Demand	Volum	e Served	Delay/Veh (sec)	
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	5	4	80	22.0	С
NB						
	Subtotal	5	4	80	22.0	С
	L	5	5	100	14.9	В
SB	Т	4	3	75	21.0	С
OD	R	261	252	97	7.4	Α
	Subtotal	270	260	96	7.7	Α
	L	225	223	99	4.5	Α
EB	Т	374	372	99	0.4	Α
EB	R	18	19	104	0.4	Α
	Subtotal	617	614	100	1.9	Α
	Т	312	303	97	1.1	Α
WB	R	10	12	117	0.5	Α
	Subtotal	322	315	98	1.1	Α
Total		1,214	1,193	98	3.0	Α

Intersection: 1300 East & West Ace Type: Unsignalized

Annroach	Movement	Demand	Volume Served		Delay/Veh (sec)	
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,868	1,808	97	9.5	Α
NB	R	57	58	101	6.8	Α
11.5					<b>.</b>	_
	Subtotal	1,925	1,866	97	9.4	Α
	L	37	36	97	58.9	F
SB	Т	1,952	1,944	100	4.2	Α
	Subtotal	1,989	1,980	100	5.2	Α
	R	81	70	86	318.7	F
WB						
	Subtotal	81	70	86	318.7	F
Total		3,996	3,916	98	13.4	В



Project: Sandy Sego Lily & 1300 East Mixed-Use TIS

Analysis Period: Time Period: Existing (2022) Plus Project

Evening Peak Hour Project #: UT22-2107

Intersection: 1300 East & 24-Hr Access

Unsignalized Type:

Annyonah	Mayanant	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,909	1,853	97	1.6	Α
NB	R	79	74	94	0.5	Α
	Subtotal	1,988	1,927	97	1.6	Α
	L	14	15	105	46.2	E
SB	T	1,938	1,929	100	2.3	Α
	Subtotal	1,952	1,944	100	2.6	Α
	L	69	70	102	60.9	F
WB	R	16	17	105	50.2	F
	Subtotal	85	87	102	58.8	F
Total		4,025	3,958	98	3.4	Α

Intersection: 1300 East & West Access

Unsignalized Type:

rype.		Onsignanzed				
Ammussah	Mayramant	Demand	Volume	Served	Delay/Veh (sec)	
Approach	Movement	Volume	Avg	%	Avg	LOS
	Т	1,580	1,519	96	6.0	Α
NB	R	71	69	98	4.8	Α
	Subtotal	1,651	1,588	96	5.9	Α
	L	26	24	93	21.9	С
SB	Т	1,766	1,763	100	1.9	Α
	Subtotal	1,792	1,787	100	2.2	Α
	R	19	19	99	15.6	С
WB						
	Subtotal	19	19	100	15.6	С
Total		3,462	3,394	98	4.0	Α



Project: Sandy Sego Lily & 1300 East Mixed-Use TIS

Future (2027) Background Evening Peak Hour Analysis Period:

Time Period: Project #: UT22-2107

Intersection: 1300 East & Buttercup Dr

Unsignalized Type:

Approach	Mayamant	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,555	1,524	98	6.6	Α
NB	R	85	84	99	7.0	Α
	Subtotal	1,640	1,608	98	6.6	Α
	Т	1,835	1,814	99	1.3	Α
SB						
	Subtotal	1,835	1,814	99	1.3	Α
WB	R	95	96	101	26.4	D
	Subtotal	95	96	101	26.4	D
Total		3,570	3,518	99	4.4	Α

Intersection: 1300 East & Sego Lily Dr

Signalized Type:

A	N	Demand	Volume	Served	Delay/Ve	h (sec)
Approacn	Movement	Volume	Avg	%	Avg	LOS
	L	110	105	96	61.2	Ε
NB	Т	1,546	1,513	98	32.6	С
IND	R	315	299	95	10.6	В
	Subtotal	1,971	1,917	97	30.7	С
	L	195	188	96	81.3	F
SB	Т	1,570	1,556	99	29.4	С
36	R	70	73	105	10.7	В
	Subtotal	1,835	1,817	99	34.0	С
	L	35	35	100	80.2	F
EB	Т	115	117	102	87.2	F
LD	R	25	26	105	26.1	С
	Subtotal	175	178	102	76.9	Е
	L	410	416	101	81.1	F
WB	Т	126	124	98	57.5	E
VVD	R	60	61	102	28.0	С
	Subtotal	596	601	101	70.8	E
Total		4,577	4,513	99	48.4	D



Sandy Sego Lily & 1300 East Mixed-Use TIS Project:

Analysis Period: Time Period: Future (2027) Background Evening Peak Hour

Project #: *UT22-2107* 

Intersection: NW Ace & Sego Lily Dr

Unsignalized Type:

Annroach	Movement	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	85	82	96	52.5	F
NB	R	80	79	99	9.1	Α
	Subtotal	165	161	98	31.2	D
	Т	556	532	96	2.1	Α
EB	R	70	71	102	1.3	Α
	Subtotal	626	603	96	2.0	Α
	L	55	53	96	7.0	Α
WB	Т	510	517	101	1.9	Α
	Subtotal	565	570	101	2.4	Α
Total		1,355	1,334	98	5.7	Α

Intersection: NE Ace & Sego Lily Dr

Augusach	Mayramant	Demand	Volume	Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	5	4	80	24.6	С
NB	R	15	17	111	8.7	Α
	Subtotal	20	21	105	11.7	В
	Т	631	606	96	0.6	Α
EB	R	5	6	120	0.2	Α
	Subtotal	636	612	96	0.6	Α
	L	20	19	96	4.9	Α
WB	Т	560	567	101	2.2	Α
	Subtotal	580	586	101	2.3	Α
Total		1,236	1,219	99	1.6	Α



Sandy Sego Lily & 1300 East Mixed-Use TIS Project:

Analysis Period:

Future (2027) Background Evening Peak Hour Time Period: Project #: *UT22-2107* 

Eagle Cliff Way/Petunia Way & Sego Lily Dr Intersection:

Unsignalized Type:

Annyonoh	Mayamant	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	5	5	100	19.9	С
NB NB	Т	1	1	100	11.2	В
ND	R	5	4	80	3.9	Α
	Subtotal	11	10	91	12.6	В
	L	5	5	100	20.8	С
SB	T	5	6	120	24.1	C
35	R	275	278	101	8.2	Α
	Subtotal	285	289	101	8.7	Α
	L	240	231	96	4.6	Α
∥ <sub>EB</sub>	T	386	373	97	0.5	Α
	R	20	18	91	0.4	Α
	Subtotal	646	622	96	2.0	Α
	L	5	4	80	3.6	Α
WB	Т	300	304	101	1.3	Α
'''	R	10	11	107	0.6	Α
	Subtotal	315	319	101	1.3	Α
Total		1,257	1,240	99	3.5	Α

Intersection: 1300 East & West Ace Type: Unsignalized

Annroach	Movement	Demand	Volume Served		Delay/Veh (sec)	
Approach	Movement	Volume	Avg	%	Avg	LOS
	Т	1,886	1,872	99	19.3	С
NB	R	60	55	92	15.1	С
	Subtotal	1,946	1,927	99	19.2	С
	L	40	38	95	61.8	F
SB	Т	1,966	1,959	100	4.6	Α
	Subtotal	2,006	1,997	100	5.7	Α
	R	85	46	54	652.3	F
WB	Subtotal	85	46	54	652.3	F
	Captotal	- 00	40	<del></del>	002.0	'
Total		4,036	3,970	98	22.1	С



Sandy Sego Lily & 1300 East Mixed-Use TIS Project:

Analysis Period: Time Period:

Future (2027) Background Evening Peak Hour Project #: *UT22-2107* 

Intersection: 1300 East & 24-Hr Access

Unsignalized Type:

<u>. , , po</u>		Onorginanzea				
Annuacah	Mayanaant	Demand	Volume	Served	Delay/Veh (sec)	
Approach	Movement	Volume	Avg	%	Avg	LOS
	Т	1,926	1,915	99	1.8	Α
NB	R	80	81	101	0.5	Α
	Subtotal	2,006	1,996	100	1.7	Α
	L	15	12	79	48.3	Ε
SB	Т	1,950	1,944	100	2.6	Α
	Subtotal	1,965	1,956	100	2.9	Α
	L	70	69	99	118.3	F
WB	R	20	19	96	44.2	Ε
	Subtotal	90	88	98	102.3	F
Total		4,061	4,040	99	4.6	Α



Project: Sandy Sego Lily & 1300 East Mixed-Use TIS

Future (2027) Plus Project Evening Peak Hour Analysis Period:

Time Period: Project #: UT22-2107

Intersection: 1300 East & Buttercup Dr

Unsignalized Type:

Annyonah	Mayramant	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,576	1,540	98	1.4	Α
NB	R	89	87	97	0.9	Α
	Subtotal	1,665	1,627	98	1.4	Α
	Т	1,861	1,839	99	2.9	Α
SB						
	Subtotal	1,861	1,839	99	2.9	Α
WB	R	95	92	97	27.8	D
	Subtotal	95	92	97	27.8	D
Total		3,622	3,558	98	2.6	Α

Intersection: 1300 East & Sego Lily Dr

Signalized Type:

Type.		Oignanzea				
Annyonah	Mayamant	Demand	Volume	Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	110	108	98	97.4	F
NB	T	1,607	1,570	98	24.0	С
IND	R	315	312	99	7.4	Α
	Subtotal	2,032	1,990	98	25.4	С
	L	195	183	94	170.4	F
SB	T	1,570	1,550	99	34.0	С
36	R	70	68	97	12.3	В
	Subtotal	1,835	1,801	98	47.0	D
	L	45	41	91	71.0	Ε
EB	T	115	116	101	73.2	E
	R	25	27	109	31.5	С
	Subtotal	185	184	99	66.6	E
	L	455	446	98	97.0	F
WB	T	132	131	99	53.1	D
VVD	R	65	69	107	32.2	С
	Subtotal	652	646	99	81.2	F
Total		4,704	4,621	98	50.6	D



Sandy Sego Lily & 1300 East Mixed-Use TIS Project:

Analysis Period: Time Period: Future (2027) Plus Project Evening Peak Hour

Project #: UT22-2107

Intersection: NW Ace & Sego Lily Dr

Unsignalized Type:

Annuach	Mayanant	Demand	Volume	Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	90	82	91	100.7	F
NB	R	80	82	102	13.0	В
	Subtotal	170	164	96	56.9	F
	T	556	542	98	1.9	Α
EB	R	70	68	97	1.3	Α
	Subtotal	626	610	97	1.8	Α
	L	75	80	107	6.6	Α
WB	Т	562	572	102	3.7	Α
	Subtotal	637	652	102	4.1	Α
Total		1,433	1,426	100	9.4	Α

Intersection: NE Ace/South Access & Sego Lily Dr

		Demand	Volume	Served	Delay/Ve	h (sec)
Approacn	Movement	Volume	Avg	%	Avg	LOS
	R	15	17	111	6.1	Α
NB						
	Subtotal	15	17	113	6.1	Α
	R	57	57	100	10.8	В
SB						
	Subtotal	57	57	100	10.8	В
	Т	631	617	98	0.6	Α
EB	R	5	8	160	0.3	Α
	Subtotal	636	625	98	0.6	Α
	Т	580	595	103	3.2	Α
WB	R	5	7	140	1.7	Α
	Subtotal	585	602	103	3.2	Α
Total		1,293	1,301	101	2.3	Α



Project: Sandy Sego Lily & 1300 East Mixed-Use TIS

Future (2027) Plus Project Evening Peak Hour Analysis Period:

Time Period: Project #: UT22-2107

Eagle Cliff Way/Petunia Way & Sego Lily Dr Intersection:

Unsignalized Type:

Amaranah	Mayanant	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	L	5	5	100	15.7	С
NB	Т	1	1	100	8.9	Α
ND	R	5	7	140	4.6	Α
	Subtotal	11	13	118	9.2	Α
	L	7	7	97	12.4	В
SB	T	5	4	80	24.2	C
3b	R	276	278	101	8.6	Α
	Subtotal	288	289	100	8.9	Α
	L	240	230	96	4.9	Α
∥ <sub>EB</sub>	Т	386	385	100	0.5	Α
	R	20	19	96	0.3	Α
	Subtotal	646	634	98	2.1	Α
	L	5	4	80	3.6	Α
WB	Т	304	320	105	1.3	Α
***	R	10	11	107	0.5	Α
	Subtotal	319	335	105	1.3	Α
Total		1,264	1,271	101	3.5	Α

Intersection: 1300 East & West Ace Unsignalized Type:

Annroach	Movement	Demand	Volum	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,946	1,910	98	11.8	В
NB	R	60	61	102	9.3	Α
	Subtotal	2,006	1,971	98	11.7	В
	L	40	36	90	45.1	Ε
SB	Т	2,010	1,988	99	4.8	Α
	Subtotal	2,050	2,024	99	5.5	Α
	R	85	83	98	126.4	F
WB						
	Subtotal	85	83	98	126.4	F
Total		4,141	4,078	98	11.2	В



Sandy Sego Lily & 1300 East Mixed-Use TIS Project:

Analysis Period: Time Period: Future (2027) Plus Project Evening Peak Hour

Project #: UT22-2107

Intersection: 1300 East & 24-Hr Access

Unsignalized Type:

Annyonah	Mayramant	Demand	Volume	e Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,986	1,955	98	2.0	Α
NB	R	80	80	100	0.8	Α
IND						
	Subtotal	2,066	2,035	98	2.0	Α
	L	15	14	92	41.4	E
SB	Т	1,995	1,976	99	3.5	Α
	Subtotal	2,010	1,990	99	3.8	Α
	L	70	70	100	67.8	F
WB	R	20	19	96	43.6	Е
	0 1 1 1 1	00	00	00	00.0	_
	Subtotal	90	89	99	62.6	F
Total		4,166	4,114	99	4.2	Α

Intersection: 1300 East & West Access

rype.		Ulisignanzeu				
Annyasah	Mayramant	Demand	Volume	Served	Delay/Ve	h (sec)
Approach	Movement	Volume	Avg	%	Avg	LOS
	T	1,645	1,607	98	7.0	Α
NB	R	71	69	98	5.6	Α
115						
	Subtotal	1,716	1,676	98	6.9	Α
	L	26	25	97	27.3	D
SB	Т	1,836	1,809	99	6.2	Α
	Subtotal	1,862	1,834	98	6.5	Α
	R	19	22	114	15.7	С
WB						
						_
	Subtotal	19	22	116	15.7	С
Total		3,597	3,532	98	6.7	Α



## **APPENDIX C**

Site Plan

COMMERCIAL SPACE



## **APPENDIX D**

95<sup>th</sup> Percentile Queue Length Reports

# Sim Traffic Queueing Report Project: Sandy Sego Lily & 1300 East Mixed-Use TIS Analysis: Existing (2022) Background

Time Period: Evening Peak Hour  $95^{\rm th}$  Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

Project #: UT22-2107

HALES DENGINEERING innovative transportation solutions

			NB				6)	SB			Ш	EB			WB	
Intersection	_	LR LTR	2	⊢	TR	_	~	⊢	TR	_	2		TR	LR	8	T
01: 1300 East & Buttercup Dr															100	
02: 1300 East & Sego Lily Dr	250		150	350		325	225	525		100	20	175	.7	275	75	175
03: NW Ace & Sego Lily Dr	100		20											75		
04: NE Ace & Sego Lily Dr		20											Ω	0		
05: Eagle Cliff Way/Petunia Way & Sego Lily Dr									125	75						
06: 1300 East & West Ace				400	400 450	22		20							425	
07: 1300 East & 24-Hr Access						20								150	0	

# Sim Traffic Queueing Report Project: Sandy Sego Lily & 1300 East Mixed-Use TIS Analysis: Existing (2022) Plus Project

Time Period: Evening Peak Hour  $95^{\rm th}$  Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

HALES DENGINEERING innovative transportation solutions

Project #: UT22-2107

		Z	NB			SB	В			EB	<b>~</b>			WB		
Intersection	L LTR	R	⊢	TR	_	2		TR		2	T	TR	. LR	~	_	TR
01: 1300 East & Buttercup Dr							20							100		
02: 1300 East & Sego Lily Dr	250	15	0 375		350	175	475	_	100	75 2	200	300	Q	100	175	
03: NW Ace & Sego Lily Dr	125	75										7	ıO		20	
04: NE Ace/South Access & Sego Lily Dr		22	_			75										
05: Eagle Cliff Way/Petunia Way & Sego Lily Dr							<del></del>	125 7	75							
06: 1300 East & West Ace			200	225	22		20							400		
07: 1300 East & 24-Hr Access					20								150			
08: 1300 East & West Access					50		100							50		

# SimTraffic Queueing Report Project: Sandy Sego Lily & 1300 East Mixed-Use TIS

Analysis: Future (2027) Background

Time Period: Evening Peak Hour

 $95^{\rm th}$  Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

HALES TENGINEERING innovative transportation solutions

Project #: UT22-2107

		NB			SB				EB			WB	
Intersection	L LR LTR	R R	T TR		R	TR	<del> </del>	2	⊢	TR	_	2	F
01: 1300 East & Buttercup Dr					7	22						125	
02: 1300 East & Sego Lily Dr	250	175 400	400	350	250 600	0	5	100 100	225		325	100	175
03: NW Ace & Sego Lily Dr	175	100								20	75		100
04: NE Ace & Sego Lily Dr	20										20		125
05: Eagle Cliff Way/Petunia Way & Sego Lily Dr	25					125	5 100	_					
06: 1300 East & West Ace			500 525	100	7	75						425	
07: 1300 East & 24-Hr Access				20							200 100	100	

# SimTraffic Queueing Report Project: Sandy Sego Lily & 1300 East Mixed-Use TIS

Analysis: Future (2027) Plus Project

Time Period: Evening Peak Hour  $95^{\rm th}$  Percentile Queue Length (feet) - Rounded Up to Nearest Multiple of 25 ft

HALES DENGINEERING innovative transportation solutions

Project #: UT22-2107

			NB				SB	m			ш	EB			WB	m	
Intersection	_	LTR	2	⊢	TR	_	2	-	TR	_	2	⊢	TR	_	2	⊢	TR
01: 1300 East & Buttercup Dr								175							100		
02: 1300 East & Sego Lily Dr	250		125	375		200	250	575		100	75	200		350	100 200	00	
03: NW Ace & Sego Lily Dr	250		150												•	150	
04: NE Ace/South Access & Sego Lily Dr			20				75										175
05: Eagle Cliff Way/Petunia Way & Sego Lily Dr		20							125	100							
06: 1300 East & West Ace				325	375	22									275		
07: 1300 East & 24-Hr Access						20								150	20		
08: 1300 East & West Access						75	• •	275							20		



## **APPENDIX E**

**Internal Capture Printouts** 

	NCHRP 684 Internal Trip C	ap	ture Estimation Tool	
Project Name:	Sego Lily & 1300 East		Organization:	Hales Engineering
Project Location:	Sandy		Performed By:	Josh G
Scenario Description:			Date:	2/9/2022
Analysis Year:		]	Checked By:	
Analysis Period:	AM Street Peak Hour		Date:	

	Table 1	I-A: Base Vehic	le-Trip Generation	ı Es	timates (Single-Use Sit	e Estimate)	
Land Use	Developm	ent Data ( <i>For Inf</i>	ormation Only)			Estimated Vehicle-Trips <sup>3</sup>	
Land Ose	ITE LUCs1	Quantity	Units		Total	Entering	Exiting
Office		3	1,000 SF		6	5	1
Retail		8	1,000 SF	1	20	12	8
Restaurant			1,000 SF		0		
Cinema/Entertainment					0		
Residential		204	Units	1	88	21	67
Hotel			Rooms	1	0		
All Other Land Uses <sup>2</sup>					0		
					114	38	76

Table 2-A: Mode Split and Vehicle Occupancy Estimates								
Land Use		Entering Trip	s			Exiting Trips		
Land Ose	Veh. Occ.4	% Transit	% Non-Motorized		Veh. Occ.⁴	% Transit	% Non-Motorized	
Office	1.06	0%	0%		1.06	0%	0%	
Retail	1.17	0%	0%		1.17	0%	0%	
Restaurant								
Cinema/Entertainment								
Residential	1.13	0%	0%		1.13	0%	0%	
Hotel	1.26	0%	0%		1.26	0%	0%	
All Other Land Uses <sup>2</sup>	1.15	0%	0%		1.15	0%	0%	

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)								
Origin (From)	Destination (To)							
Oligili (Floili)	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel		
Office								
Retail								
Restaurant								
Cinema/Entertainment								
Residential								
Hotel								

Table 4-A: Internal Person-Trip Origin-Destination Matrix*									
Origin (From)		Destination (To)							
Origin (From)	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel			
Office		0	0	0	0	0			
Retail	0		0	0	0	0			
Restaurant	0	0		0	0	0			
Cinema/Entertainment	0	0	0		0	0			
Residential	0	1	0	0		0			
Hotel	0	0	0	0	0				

Table 5-A: Computations Summary								
·	Total	Entering	Exiting					
All Person-Trips	129	43	86					
Internal Capture Percentage	2% 2%		1%					
External Vehicle-Trips <sup>5</sup>	112	37	75					
External Transit-Trips <sup>6</sup>	0	0	0					
External Non-Motorized Trips <sup>6</sup>	0	0	0					

Table 6-A: Internal Trip Capture Percentages by Land Use								
Land Use	Entering Trips	Exiting Trips						
Office	0%	0%						
Retail	7%	0%						
Restaurant	N/A	N/A						
Cinema/Entertainment	N/A	N/A						
Residential	0%	1%						
Hotel	N/A	N/A						

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

NCHRP 684 Internal Trip Capture Estimation Tool									
Project Name:	Sego Lily & 1300 East		Organization:	Hales Engineering					
Project Location:	Sandy		Performed By:	Josh G					
Scenario Description:			Date:	2/9/2022					
Analysis Year:			Checked By:						
Analysis Period:	PM Street Peak Hour		Date:						

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)								
Land Use	Developm	ent Data ( <i>For Int</i>	formation Only)			Estimated Vehicle-Trips <sup>3</sup>		
Land Ose	ITE LUCs1	Quantity	Units		Total	Entering	Exiting	
Office		3	1,000 SF		8	3	5	
Retail		8	1,000 SF		68	34	34	
Restaurant			1,000 SF		0			
Cinema/Entertainment					0			
Residential		204	Units		110	69	41	
Hotel			Rooms		0			
All Other Land Uses <sup>2</sup>					0			
					186	106	80	

Table 2-P: Mode Split and Vehicle Occupancy Estimates								
Land Use		Entering Tri	os		Exiting Trips			
Land Ose	Veh. Occ.4	% Transit	% Non-Motorized		Veh. Occ.4	% Transit	% Non-Motorized	
Office	1.11	0%	0%		1.11	0%	0%	
Retail	1.21	0%	0%		1.21	0%	0%	
Restaurant	1.39	0%	0%		1.39	0%	0%	
Cinema/Entertainment								
Residential	1.15	0%	0%		1.15	0%	0%	
Hotel	1.30	0%	0%		1.30	0%	0%	
All Other Land Uses <sup>2</sup>	1.15	0%	0%		1.15	0%	0%	

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)									
Origin (From)		Destination (To)							
Oligili (Floili)	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel			
Office		500			500				
Retail					500				
Restaurant									
Cinema/Entertainment									
Residential		500							
Hotel									

Table 4-P: Internal Person-Trip Origin-Destination Matrix*									
Origin (Franc)		Destination (To)							
Origin (From)	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel			
Office		1	0	0	0	0			
Retail	1		0	0	11	0			
Restaurant	0	0		0	0	0			
Cinema/Entertainment	0	0	0		0	0			
Residential	1	4	0	0		0			
Hotel	n	n	n	0	n				

Table 5-P: Computations Summary									
	Total	Entering	Exiting						
All Person-Trips	217	123	94						
Internal Capture Percentage	17%	15%	19%						
External Vehicle-Trips <sup>5</sup>	156	90	66						
External Transit-Trips <sup>6</sup>	0	0	0						
External Non-Motorized Trips <sup>6</sup>	0	0	0						

Table 6-P: Internal Trip Capture Percentages by Land Use								
Land Use Entering Trips Exiting T								
Office	67%	17%						
Retail	12%	29%						
Restaurant	N/A	N/A						
Cinema/Entertainment	N/A	N/A						
Residential	14%	11%						
Hotel	N/A	N/A						

<sup>1</sup>Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

<sup>2</sup>Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

<sup>3</sup>Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual* ).

<sup>4</sup>Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

<sup>5</sup>Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

<sup>6</sup>Person-Trips

\*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1



## **APPENDIX F**

Crash Data

## Sego Lily Drive / 1300 East

Created on November 10, 2023 Created by Luke Maeser

Data extents: January 1, 2018 to December 31, 2022



### **Applied Filters**

Shape: Circle 250 ft



UDOT Crash Summary		Crashes
Total Crashes	60	100.00%
Intersection Related	55	91.67%
Distracted Driving	11	18.33%
CMV Involved	4	6.67%
Speed Related	4	6.67%
Drowsy Driving	2	3.33%
Pedalcycle Involved	1	1.67%
Pedestrian Involved	1	1.67%
+ 5 more	1	1.67%
Crash Verified		Crashes
True	60	100.00%
False	0	0.00%
Crash Severity		Crashes
No injury/PDO	36	60.00%

Possible injury	14	23.33%
Suspected Minor Injury	9	15.00%
Suspected Serious Injury	1	1.67%
Fatal	0	0.00%
Injury Level		People
No injury	145	82.39%
Possible injury	18	10.23%
Suspected Minor Injury	12	6.82%
Suspected Serious Injury	1	0.57%
+ 2 more	0	0%
Manner of Collision		Crashes
Angle	26	43.33%
Front to Rear	26	43.33%
Not Applicable/Single Vehicle	3	5.00%
Sideswipe Opposite Direction	3	5.00%
Head On (front-to-front)	1	1.67%
Sideswipe Same Direction	1	1.67%
+ 5 more	0	0%
Crash Date Time (Year)		Crashes
2022	11	18.33%
2021	12	20.00%
2020	12	20.00%
2019	12	20.00%
2018	13	21.67%
+ 9 more	0	0%
V1 & V2 Movement & Direction (Crash Level Only)		Crashes
Straight Ahead (Northbound) & Stopped in Traffic Lane (Northbound)	7	11.67%
Turning Left (Southbound) & Straight Ahead (Northbound)	6	10.00%
Straight Ahead (Westbound) & Stopped in Traffic Lane (Westbound)	5	8.33%
Straight Ahead (Southbound) & Stopped in Traffic Lane (Southbound)	4	6.67%
Straight Ahead (Northbound) & Straight Ahead (Northbound)	3	5.00%
Straight Ahead (Northbound) & Straight Ahead (Eastbound)	2	3.33%
Straight Ahead (Northbound) & Turning Left (Westbound)	2	3.33%
Turning Left (Northbound) & Straight Ahead (Southbound)	2	3.33%
+ 992 more	25	41.74%

Roadway Surface Condition		Crashes
Dry	51	85.00%
Snow	4	6.67%
Wet	4	6.67%
lce/Frost	1	1.67%
+ 12 more	0	0%
Weather Condition		Crashes
Clear	46	76.67%
Cloudy	9	15.00%
Snowing	3	5.00%
Rain	2	3.33%
+ 8 more	0	0%
Most Harmful Event		Vehicle
Collision With Other Motor Vehicle in Transport	121	93.80%
Collision Between Motor Vehicle in Transport and Vehicle Cargo/Part or Object Set in Motion by Motor Vehicle	3	2.33%
Collision With Parked Motor Vehicle	2	1.55%
Curb	1	0.78%
Pedacycle	1	0.78%
Pedestrian	1	0.78%
+ 49 more	0	0%
Light Condition		Crashes
Daylight	45	75.00%
Dark - Lighted	11	18.33%
Dusk	2	3.33%
Dark - Not Lighted	1	1.67%
Dawn	1	1.67%
+ 4 more	0	0%
Countermeasures		Crashes
Countermeasure: Left Turn Lane	16	26.67%
Countermeasure: Left Turn Phase Change	14	23.33%
Countermeasure: Right Turn Lane	7	11.67%
Countermeasure: Active Transportation Improvement	2	3.33%
Countermeasure: Intersection Lighting	1	1.67%
+ 10 more	0	0%