Buffalo Run Subdivision
2350 South & 4700 West
Traffic Impact Study

Taylor, Utah

August 2021

TRAFFIC STUDY

TRANSPORTATION ENGINEERING

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Buffalo Run Subdivision
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Traffic Impact Analysis

Taylor, Utah

Category II

August 2021

Prepared by:

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I. Introduction and Summary

This traffic impact analysis is for the proposed Buffalo Run Subdivision located on the east side of 4700 West at 2350 South in Taylor, Utah. The site is planned to include 18 single family units and is projected to generated 13 AM and 18 PM peak hour trips and 170 daily trips. The site is planning 1 access to 4700 West and secondary access to 2400 South via a connection at 4500 West and a future connection planned to the north at 4600 West.

4700 West / 2200 South currently operates with EBLTR at LOS B in the AM and LOS B in the PM peak period. This is maintained with the addition of the site. In 2027 with and without the site the intersection operates with EBLTR at LOS B in the AM and LOS C in the PM peak period. Site traffic increases the total intersection traffic by 2.1% in the AM peak period and 1.7% in the PM peak period.

4700 West / 2350 South operates with LOS B or better for all movements in 2022 and 2027.

There are no offsite improvements related to this site.

II. Proposed Project

The proposed Buffalo Run Subdivision planned to include 18 single family units and is projected to generated 13 AM and 18 PM peak hour trips and 170 daily trips. The site is located on the east side of 4700 West at 2350 South in Taylor, Utah. The site is planning 1 access to 4700 West at 2350 South and secondary access to 2400 South via a connection at 4500 West and a future connection planned to the north at 4600 West. The proposed access at 2350 South is approximately 940 feet south of 2200 South and 420 feet north of 2400 South (measured end of radius to end of radius). There are several single family driveways within 350 feet north and south of the proposed roadway. The site plan and access location and spacing is shown in Figure 1.

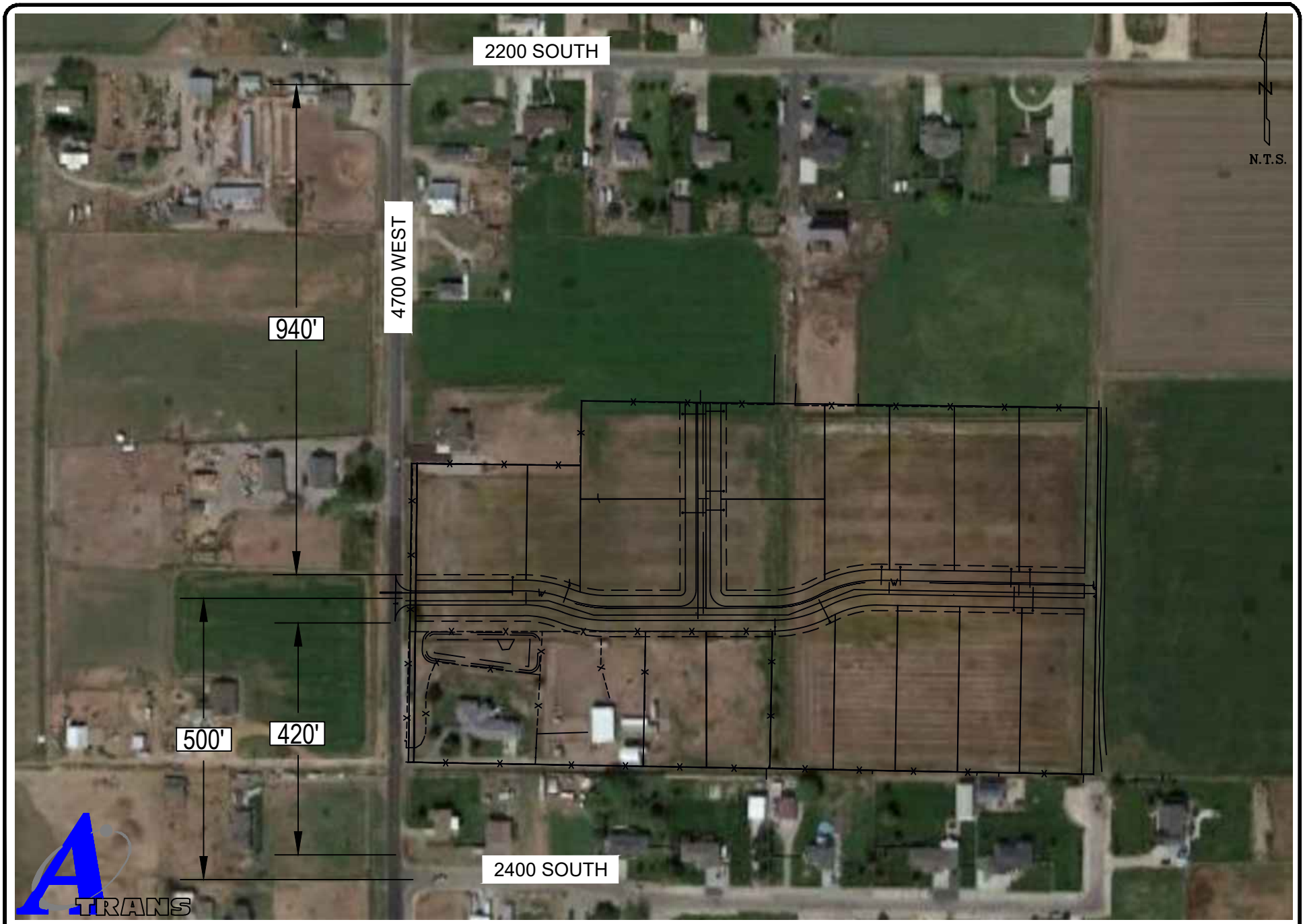

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Figure 1

Conceptual Site Plan

III. Study Area Conditions

The study area includes the following intersection.

- 2200 South / 4700 West
- 4700 West / 2350 South (Site Access)

4700 West

4700 West (SR 134) is currently a 2 lane facility with one lane in each direction. The 2019 AADT is 5,400 vehicles per day with a posted speed limit is 40 MPH. It is classified by UDOT as a Category 5 roadway.

The site location is shown in Figure 2 and the existing geometry is shown in Figure 3.

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Figure 2

Site Location

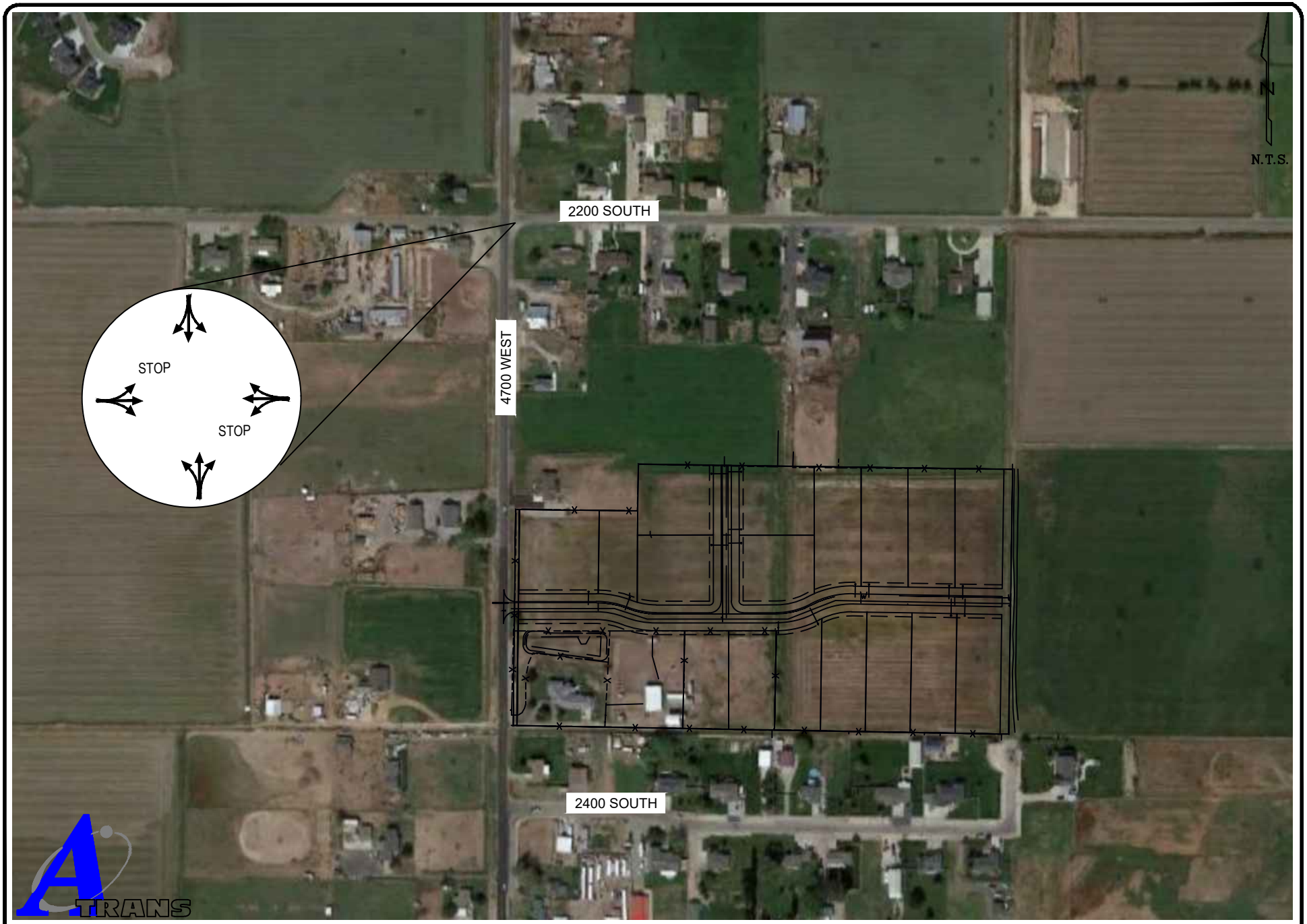

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Figure 3

Existing Geometry

IV. Analysis of Existing Condition

The existing traffic counts were performed August 12, 2021 during the AM (7:00 – 9:00 AM) and PM (4:00 – 6:00 PM) peak periods. The 2021 Existing Traffic volumes used in the study are shown in Figure 4.

The 6th Edition Highway Capacity Manual defines the Level of Service (LOS) for both signalized and unsignalized intersections as a range of average experienced delay. LOS is a qualitative rating of traveler satisfaction from A to F whereby LOS A is good and LOS F poor. Table 1 shows the LOS range by delay for unsignalized and signalized intersections and accesses.

Table 1: Intersection LOS-Delay Relationship

	Unsignalized	Signalized
Level of Service	Total Delay per Vehicle (sec)	Total Delay per Vehicle (sec)
A	≤ 10.0	≤ 10.0
B	> 10.0 and ≤ 15.0	> 10.0 and ≤ 20.0
C	> 15.0 and ≤ 25.0	> 20.0 and ≤ 35.0
D	> 25.0 and ≤ 35.0	> 35.0 and ≤ 55.0
E	> 35.0 and ≤ 50.0	> 55.0 and ≤ 80.0
F	> 50.0	> 80.0

4700 West / 2200 South currently operates with EBLTR at LOS B in the AM and LOS B in the PM peak period. Table 2 shows the Existing LOS.

Table 2: Existing Level of Service

Intersection	Delay (sec/veh)	
4700 West / 2200 South (EBLTR)	10.6	B
	13.4	B

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Figure 4

Existing Traffic

V. Projected Traffic

A. Trip Generation

Trip generation for the site was done using The Institute of Transportation Engineers (ITE) *Trip Generation* (10th Edition) handbook. The site is planned to include 18 single family units and is projected to generated 13 AM and 18 PM peak hour trips and 170 daily trips. The trip generation for the site is shown in Table 3.

Table 3: Trip Generation for Site

Land Use Type	Density	Land Use #	Trip Rate	Trips	% In	% Out	Trips In	Trips Out
AM								
Single Family	18 Units	210	0.74	13	25%	75%	7	10
PM								
Single Family	18 Units	210	0.99	18	63%	37%	11	7
Daily								
Single Family	18 Units	210	9.44	170				

B. Trip Distribution

Project site traffic was applied to the origin-destination (O-D) for the site. Origin-destination was determined from evaluating the existing traffic patterns and hourly traffic volumes on each leg of the included intersections as well as the location of retail centers and freeways relative to this site. This was used as a baseline for origin destination and engineering judgment was applied to this to determine the following OD for the site. Origin Destination is shown in Figure 5. Site trip distribution is shown in Figure 6.

- 40% to/from south on 4700 West
- 60% to/from north on 4700 West

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Figure 5

Origin Destination

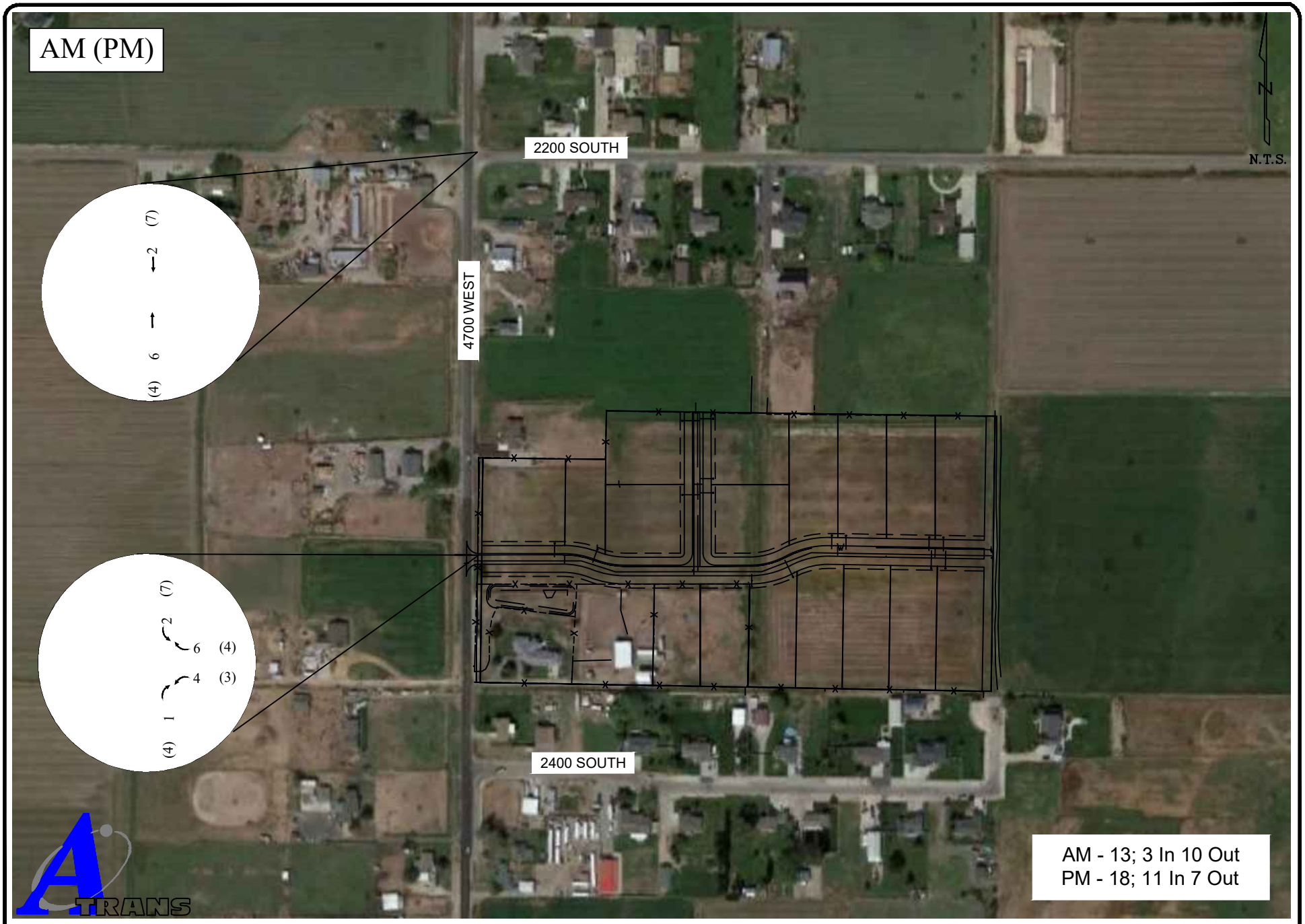

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Figure 6

Site Generated Traffic

VI. Growth

Growth in the area was determined from the 2019 Traffic Counts and 2050 projections from Wasatch Front Regional Council. The volumes utilized to determine growth in the area is shown in Table 4. Based on this data an average annual growth of 3.0% was found. The growth factor for 2027 is 1.19.

Table 4: Growth Projections

	4700 West
2019	5,400
2050	13,500
Growth	**3.0%**

Background traffic is determined by multiplying the existing traffic by the growth factor for 2027. 2027 Background Traffic is shown in Figure 7. Total traffic in the area for the future projection years is derived by adding the non-site volume forecasts to the site trip distribution. 2022 Total Traffic is shown in Figure 8. 2027 Total Traffic is shown in Figure 9.

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Figure 7

2027 Background Traffic

A-TRANS TRANSPORTATION ENGINEERING P.O. BOX 521651, SLC, UT 84152 Phone: 801-949-0348 Fax: 801-582-6252	Figure 8	2022 Total Traffic

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Figure 9

2027 Total Traffic

VII. Traffic Analysis

A. Level of Service Analysis

The intersection and access analysis evaluates the performance of each intersection and access using the measure of performance of delay and level of service (LOS). Tables 5-7 show the intersection and access analysis.

Analysis Results

- 4700 West / 2200 South currently operates with EBLTR at LOS B in the AM and LOS B in the PM peak period. This is maintained with the addition of the site. In 2027 with and without the site the intersection operates with EBLTR at LOS B in the AM and LOS C in the PM peak period. Site traffic increases the total intersection traffic by 2.1% in the AM peak period and 1.7% in the PM peak period.
- 4700 West / 2350 South operates with LOS B or better for all movements in 2022 and 2027.

Table 5: 2200 South / 4700 West Intersection Analysis

		NBLTR		EBLTR		WBLTR		SBLTR	
2021 Existing	AM	7.5	A	10.6	B	10.7	B	7.8	A
	PM	8.1	A	13.4	B	11.1	B	7.7	A
2022 Total	AM	7.5	A	10.7	B	10.8	B	7.8	A
	PM	8.2	A	13.5	B	11.2	B	7.8	A
2027 Background	AM	7.6	A	11.3	B	11.4	B	7.9	A
	PM	8.4	A	15.2	C	12.0	B	7.9	A
2027 Total	AM	7.6	A	11.3	B	11.4	B	7.9	A
	PM	8.4	A	15.4	C	11.8	B	7.9	A

Table 6: 1800 South / 3800 West Intersection Analysis

		WBLR		SBL	
2022 Total	AM	10.4	B	7.8	A
	PM	11.5	B	7.8	A
2027 Total	AM	10.8	B	7.9	A
	PM	12.4	B	7.9	A

B. Queue Analysis

Based on the projected traffic, queue storage length requirements can be evaluated to determine if sufficient storage space exists to accommodate the projected demand. The intersection and accesses included in this traffic study are analyzed for queue storage capacity utilizing the HCM analysis and are done through Synchro.

C. Access and Roadway Category

According to the UDOT, SR 134 is categorized as a Category 5 roadway. As per UDOT Administrative Rule R930-6, signal spacing is required at 2,640 feet, street spacing is required at 660 feet and access spacing is required at 350 feet or by variance. The distance between access points/intersections is measured from end of radius to end of adjacent radius. The access is located approximately 940 feet south of 2200 South and 420 feet north of 2400 South. The proposed roadway does not meet the required 660 foot spacing from 2400 South and there are several residential driveways within 350 feet of the proposed roadway, therefore the access must be approved through the variance process.

According to UDOT Administrative Rule R930-6 a Category 5 roadway requires:

- A left turn deceleration lane with taper and storage length is required for any access with a projected peak hour left ingress turning volume greater than 10 vehicles per hour. The taper length must be included in the required deceleration length.
- A right turn deceleration lane and taper length is required for any access with a projected peak hour right ingress turning volume greater than 25 vehicles per hour. The taper length must be included in the required deceleration length.
- A right turn acceleration lane and taper length is required for any access with a projected peak hour right turning volume greater than 50 vehicles per hour when the posted speed on the highway is greater than 40 mph. The taper length must be included in the required acceleration length. A right turn acceleration lane may also be required at a signalized intersection if a free-right turn is needed to maintain an appropriate level of service for the intersection.
- Right turn deceleration and acceleration lanes are generally not required on roadways with three or more travel lanes in the direction of the right turn.
- A left turn acceleration lane may be required if it will be a benefit to the safety and operation of the roadway.
- A left turn acceleration lane is generally not required where the posted speed is less than 45 mph, the intersection is signalized, or the acceleration lane would interfere with the left turn ingress movements to any other access.

The volumes projected by the site do not meet the thresholds for left or right turn deceleration lanes.

VIII. Conclusions

This analysis is for the proposed Buffalo Run Subdivision located on the east side of 4700 West at 2350 South in Taylor, Utah. The site is planned to include 18 single family units and is projected to generated 13 AM and 18 PM peak hour trips and 170 daily trips. The site is planning 1 access to 4700 West and secondary access to 2400 South via a connection at 4500 West and a future connection planned to the north at 4600 West.

The following comments are made about the site:

- 4700 West / 2200 South currently operates with EBLTR at LOS B in the AM and LOS B in the PM peak period. This is maintained with the addition of the site. In 2027 with and without the site the intersection operates with EBLTR at LOS B in the AM and LOS C in the PM peak period. Site traffic increases the total intersection traffic by 2.1% in the AM peak period and 1.7% in the PM peak period.

- 4700 West / 2350 South operates with LOS B or better for all movements in 2022 and 2027.

- There are no auxiliary lanes within the study area and none are recommended at the site access and therefore no queueing deficiencies are projected.

- The volumes projected by the site do not meet the thresholds for left or right turn deceleration lanes.

There are no offsite improvements related to this site.

APPENDICES

Appendix A	Traffic Counts and Projections
Appendix B	Without Site Intersection Analyses
Appendix C	With Site Intersection Analysis

Appendix A Traffic Counts and Projections

AM PEAK HOUR VOLUMES

Ped = 0

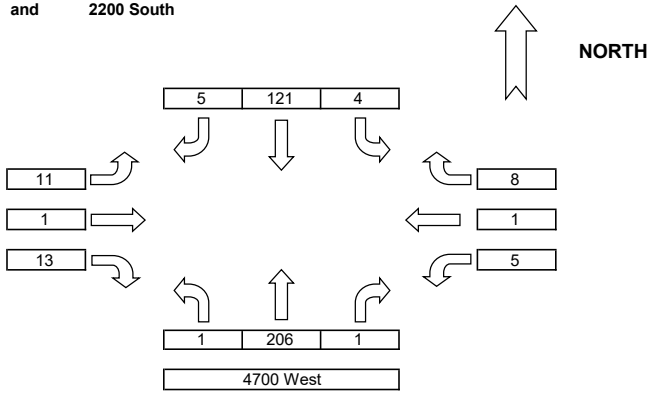
INTERSECTION: **4700 West** **and** **2200 South**

N-S STREET: **4700 West**
E-W STREET: **2200 South**

COUNT DATE: **August 12, 2021**
Day of the Week: **Thursday**
NOTES:

COUNT TIME:
FROM: **7:00 AM**
TO: **9:00 AM**

PK HR VOLUME:	377
PHF:	0.81
PEAK HOUR:	
FROM:	TO:
7:10 AM	8:10 AM



AM Traffic

COUNT DATA INPUT: Name: Leisel Name: Leisel Name: Leisel Name: Leisel

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL 5'	TOTAL 15'	PEDESTRIAN	
FROM:	TO:	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	VOLUMES	VOLUMES	E/W	N/S
7:00 AM	7:05 AM	0	15	0	2	0	3	0	10	0	1	0	0	31	80	0	0
7:05 AM	7:10 AM	1	11	1	0	0	0	0	10	0	0	0	1	24	74	0	0
7:10 AM	7:15 AM	0	10	0	0	0	0	0	15	0	0	0	0	25	75	0	0
7:15 AM	7:20 AM	0	12	1	0	0	0	1	11	0	0	0	0	25	82	0	0
7:20 AM	7:25 AM	0	10	0	2	0	0	1	10	0	1	0	1	25	82	0	0
7:25 AM	7:30 AM	0	20	0	1	0	2	0	9	0	0	0	0	32	79	0	0
7:30 AM	7:35 AM	0	9	0	2	0	1	0	10	0	2	0	1	25	76	0	0
7:35 AM	7:40 AM	0	14	0	0	0	2	0	6	0	0	0	0	22	97	0	0
7:40 AM	7:45 AM	0	16	0	2	0	0	0	9	1	0	0	1	29	107	0	0
7:45 AM	7:50 AM	0	29	0	1	1	1	2	12	0	0	0	0	46	116	0	0
7:50 AM	7:55 AM	0	20	0	1	0	0	0	7	0	1	0	3	32	105	0	0
7:55 AM	8:00 AM	0	20	0	0	0	1	0	13	4	0	0	0	38	116	0	0
8:00 AM	8:05 AM	0	19	0	0	0	3	0	10	0	1	1	1	35	96	0	0
8:05 AM	8:10 AM	1	27	0	2	0	3	0	9	0	0	0	1	43	77	0	0
8:10 AM	8:15 AM	0	9	0	1	0	0	0	7	0	1	0	0	18	55	0	0
8:15 AM	8:20 AM	0	10	0	0	0	0	0	5	1	0	0	0	16	64	0	0
8:20 AM	8:25 AM	0	10	0	0	0	0	1	8	0	2	0	0	21	74	0	0
8:25 AM	8:30 AM	0	13	1	1	0	0	0	10	1	1	0	0	27	76	0	0
8:30 AM	8:35 AM	0	8	1	1	1	2	0	13	0	0	0	0	26	69	0	0
8:35 AM	8:40 AM	2	6	0	2	0	0	0	13	0	0	0	0	23	70	0	0
8:40 AM	8:45 AM	1	6	0	0	0	0	0	12	0	1	0	0	20	71	0	0
8:45 AM	8:50 AM	1	13	0	3	0	1	0	8	1	0	0	0	27	85	0	0
8:50 AM	8:55 AM	2	13	1	1	0	2	0	4	0	1	0	0	24	58	0	0
8:55 AM	9:00 AM	1	15	0	2	0	0	1	14	0	1	0	0	34	34	0	0

PM PEAK HOUR VOLUMES

Ped = 0

INTERSECTION: **4700 West** **and** **2200 South**

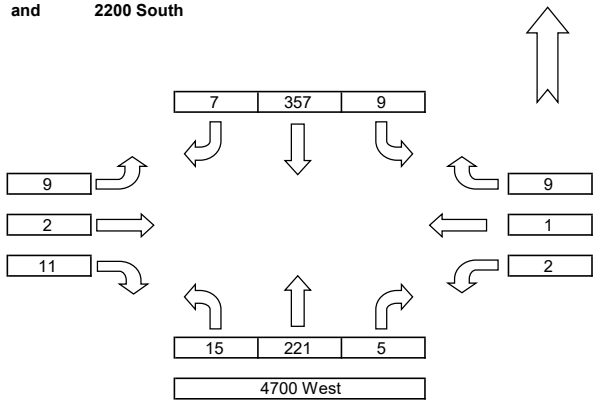
N-S STREET: **4700 West**
E-W STREET: **2200 South**

COUNT DATE: **August 12, 2021**
Day of the Week: **Thursday**
NOTES:

COUNT TIME:
FROM: **4:00 PM**
TO: **6:00 PM**

PK HR VOLUME:	648
PHF:	0.95
PEAK HOUR:	
FROM:	TO:
4:20 PM	5:20 PM

2200 South



PM Traffic

COUNT DATA INPUT: Name: Barry Name: Barry Name: Barry Name: Barry

TIME PERIOD		NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			TOTAL 5'	TOTAL 15'	PEDESTRIAN	
FROM:	TO:	NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBT	WBR	VOLUMES	VOLUMES	E/W	N/S
4:00 PM	4:05 PM	4	22	0	1	1	2	0	18	0	0	0	0	48	151	0	0
4:05 PM	4:10 PM	1	21	0	2	2	1	0	26	2	0	2	0	57	149	0	0
4:10 PM	4:15 PM	1	13	0	2	0	1	0	26	1	1	0	1	46	151	0	0
4:15 PM	4:20 PM	0	18	1	0	0	1	0	25	0	0	0	1	46	157	0	0
4:20 PM	4:25 PM	0	21	0	1	0	0	2	33	1	0	0	1	59	168	0	0
4:25 PM	4:30 PM	2	14	0	3	0	1	0	31	0	0	0	1	52	158	0	0
4:30 PM	4:35 PM	0	17	1	0	0	0	1	34	3	0	0	1	57	154	0	0
4:35 PM	4:40 PM	2	24	1	0	0	0	0	22	0	0	0	0	49	161	0	0
4:40 PM	4:45 PM	2	17	0	0	0	2	0	27	0	0	0	0	48	165	0	0
4:45 PM	4:50 PM	1	19	1	0	0	0	0	41	0	1	1	0	64	162	0	0
4:50 PM	4:55 PM	1	18	0	0	0	0	0	32	1	0	0	1	53	160	0	0
4:55 PM	5:00 PM	0	19	2	0	0	1	0	21	1	0	0	1	45	168	0	0
5:00 PM	5:05 PM	4	15	0	1	0	4	3	32	0	1	0	2	62	170	0	0
5:05 PM	5:10 PM	1	23	0	1	1	1	2	30	1	0	0	1	61	159	0	0
5:10 PM	5:15 PM	0	16	0	2	1	2	1	24	0	0	0	1	47	147	0	0
5:15 PM	5:20 PM	2	18	0	1	0	0	0	30	0	0	0	0	51	161	0	0
5:20 PM	5:25 PM	1	20	0	0	0	0	0	24	2	1	1	0	49	162	0	0
5:25 PM	5:30 PM	0	26	0	1	0	1	1	29	2	0	1	0	61	154	0	0
5:30 PM	5:35 PM	0	18	0	0	0	2	0	31	0	0	0	1	52	134	0	0
5:35 PM	5:40 PM	1	16	0	2	0	1	0	21	0	0	0	0	41	118	0	0
5:40 PM	5:45 PM	1	16	0	0	1	1	2	18	1	1	0	0	41	120	0	0
5:45 PM	5:50 PM	0	8	0	0	0	2	0	25	1	0	0	0	36	131	0	0
5:50 PM	5:55 PM	0	19	0	2	0	0	1	19	0	0	0	2	43	95	0	0
5:55 PM	6:00 PM	2	24	0	0	0	0	2	22	1	0	1	0	52	52	0	0

Long Term Growth

3.00%	Growth Factor	Years	Analysis Year
	1.03	1	2022
	1.19	6	2027
	1.75	19	2040

Straight line growth assumed between 2016 and 2040

4700 West		
2019	5,400	Traffic on Utah Highways
2050	13,500	Wasatch Front Regional Council
growth	**3.00%**	

2019	261.29	5400	
2020	261.29	5661	4.84%
2021	261.29	5923	4.62%
2022	261.29	6184	4.41%
2023	261.29	6445	4.23%
2024	261.29	6706	4.05%
2025	261.29	6968	3.90%
2026	261.29	7229	3.75%
2027	261.29	7490	3.61%
2028	261.29	7752	3.49%
2029	261.29	8013	3.37%
2030	261.29	8274	3.26%
2031	261.29	8535	3.16%
2032	261.29	8797	3.06%
2033	261.29	9058	2.97%
2034	261.29	9319	2.88%
2035	261.29	9581	2.80%
2036	261.29	9842	2.73%
2037	261.29	10103	2.65%
2038	261.29	10365	2.59%
2039	261.29	10626	2.52%
2040	261.29	10887	2.46%
2041	261.29	11148	2.40%
2042	261.29	11410	2.34%
2043	261.29	11671	2.29%
2044	261.29	11932	2.24%
2045	261.29	12194	2.19%
2046	261.29	12455	2.14%
2047	261.29	12716	2.10%
2048	261.29	12977	2.05%
2049	261.29	13239	2.01%
2050	261.29	13500	1.97%
			3.00%

TRIP GENERATION

			Trip Rate			Trips			In / Out %								New
ITE 10th Ed	Size	Land Use	AM	PM	Daily	AM	PM	Daily	AM IN	AM Out	PM IN	PM OUT	AM IN	AM Out	PM IN	PM OUT	
Single Family	18.000	210	0.74	0.99	9.44	13	18	170	25%	75%	63%	37%	3	10	11	7	
			0	0	0	0	0	0	0%	0%	0%	0%	0	0	0	0	
			0	0	0	0	0	0	0%	0%	0%	0%	0	0	0	0	
Total						**13**	**18**	**170**					**3**	**10**	**11**	**7**	

Trip Distribution

4700 West / 2200 South				1.19		
	2021	Site	2022	2027	2027	
AM	Existing	Traffic	Total	Growth	Total	
EBL	11		11	13	13	
EBT	1		1	1	1	
EBR	13		13	15	15	
WBL	5		5	6	6	
WBT	1		1	1	1	
WBR	8		8	10	10	
NBL	1		1	1	1	
NBT	206	6	212	245	251	
NBR	1		1	1	1	
SBL	4		4	5	5	
SBT	121	2	123	144	146	
SBR	5		5	6	6	
East	20			24		2.12%
West	32			38		
North	355			422		
South	347			413		

4700 West / 2350 South				1.19		
	2021	Site	2022	2027	2027	
AM	Existing	Traffic	Total	Growth	Total	
EBL			0	0	0	
EBT			0	0	0	
EBR			0	0	0	
WBL		4	4	0	4	
WBT			0	0	0	
WBR		6	6	0	6	
NBL			0	0	0	
NBT	208		208	248	248	
NBR		1	1	0	1	
SBL		2	2	0	2	
SBT	139		139	165	165	
SBR			0	0	0	
East	0			0		3.75%
West	0			0		
North	347			413		
South	347			413		

	2021	Site	2022	2027	2027	
PM	Existing	Traffic	Total	Growth	Total	
EBL	9		9	11	11	
EBT	2		2	2	2	
EBR	11		11	13	13	
WBL	2		2	2	2	
WBT	1		1	1	1	
WBR	9		9	11	11	
NBL	15		15	18	18	
NBT	221	4	225	263	267	
NBR	5		5	6	6	
SBL	9		9	11	11	
SBT	357	7	364	425	432	
SBR	7		7	8	8	
East	28			33		1.70%
West	45			54		
North	612			728		
South	611			727		

	2021	Site	2022	2027	2027	
PM	Existing	Traffic	Total	Growth	Total	
EBL			0	0	0	
EBT			0	0	0	
EBR			0	0	0	
WBL		3	3	0	3	
WBT			0	0	0	
WBR		4	4	0	4	
NBL			0	0	0	
NBT	241		241	287	287	
NBR		4	4	0	4	
SBL		7	7	0	7	
SBT	370		370	440	440	
SBR			0	0	0	
East	0			0		2.95%
West	0			0		
North	611			727		
South	611			727		

ArcGIS UDOT Access Category Identification Map Open in new Map Viewe

Details | Basemap | Share Print | Measure 2200 S 4700 W, Ogden, UT, 84401, USA

Legend
UDOT Access Category Identification
- Category 1
- Category 2
- Category 3
- Category 4
- Category 5
- Category 6
- Category 7
- Category 8
- Category 9
- Category 10

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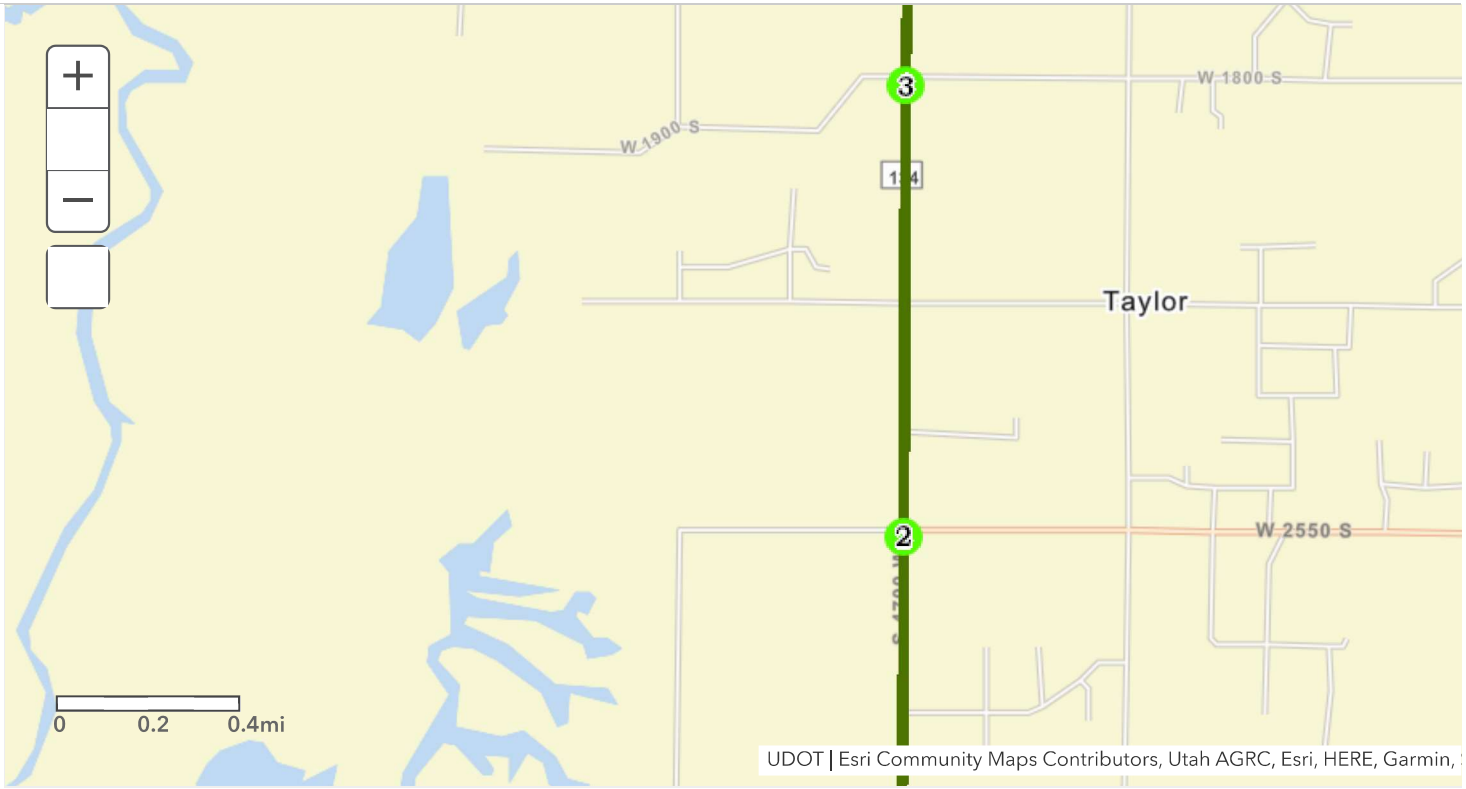

Appendix B Without Site Intersection Analyses

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	1	13	5	1	8	1	206	1	4	121	5
Future Vol, veh/h	11	1	13	5	1	8	1	206	1	4	121	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	1	16	6	1	10	1	254	1	5	149	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	424	419	152	428	422	255	155	0	0	255	0	0
Stage 1	162	162	-	257	257	-	-	-	-	-	-	-
Stage 2	262	257	-	171	165	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	540	525	894	537	523	784	1425	-	-	1310	-	-
Stage 1	840	764	-	748	695	-	-	-	-	-	-	-
Stage 2	743	695	-	831	762	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	530	522	894	525	520	784	1425	-	-	1310	-	-
Mov Cap-2 Maneuver	530	522	-	525	520	-	-	-	-	-	-	-
Stage 1	839	761	-	747	694	-	-	-	-	-	-	-
Stage 2	732	694	-	811	759	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	10.7	0	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1425	-	-	672	647	1310	-	-
HCM Lane V/C Ratio	0.001	-	-	0.046	0.027	0.004	-	-
HCM Control Delay (s)	7.5	0	-	10.6	10.7	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	2	11	2	1	9	15	221	5	9	357	7
Future Vol, veh/h	9	2	11	2	1	9	15	221	5	9	357	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	2	12	2	1	10	16	240	5	10	388	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	692	689	392	694	691	243	396	0	0	245	0	0
Stage 1	412	412	-	275	275	-	-	-	-	-	-	-
Stage 2	280	277	-	419	416	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	358	369	657	357	368	796	1163	-	-	1321	-	-
Stage 1	617	594	-	731	683	-	-	-	-	-	-	-
Stage 2	727	681	-	612	592	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	346	359	657	342	358	796	1163	-	-	1321	-	-
Mov Cap-2 Maneuver	346	359	-	342	358	-	-	-	-	-	-	-
Stage 1	607	588	-	719	672	-	-	-	-	-	-	-
Stage 2	705	670	-	593	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.4	11.1	0.5	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1163	-	-	455	602	1321	-	-
HCM Lane V/C Ratio	0.014	-	-	0.053	0.022	0.007	-	-
HCM Control Delay (s)	8.1	0	-	13.4	11.1	7.7	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	1	13	5	1	8	1	206	1	4	121	5
Future Vol, veh/h	11	1	13	5	1	8	1	206	1	4	121	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	1	19	7	1	12	1	303	1	6	178	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	506	500	182	510	503	304	185	0	0	304	0	0
Stage 1	194	194	-	306	306	-	-	-	-	-	-	-
Stage 2	312	306	-	204	197	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	477	473	861	474	471	736	1390	-	-	1257	-	-
Stage 1	808	740	-	704	662	-	-	-	-	-	-	-
Stage 2	699	662	-	798	738	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	466	470	861	460	468	736	1390	-	-	1257	-	-
Mov Cap-2 Maneuver	466	470	-	460	468	-	-	-	-	-	-	-
Stage 1	807	736	-	703	661	-	-	-	-	-	-	-
Stage 2	686	661	-	775	734	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	11.4	0	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1390	-	-	612	586	1257	-	-
HCM Lane V/C Ratio	0.001	-	-	0.06	0.035	0.005	-	-
HCM Control Delay (s)	7.6	0	-	11.3	11.4	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	9	2	11	2	1	9	15	221	5	9	357	7
Future Vol, veh/h	9	2	11	2	1	9	15	221	5	9	357	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	3	14	3	1	12	19	286	6	12	462	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	825	821	467	826	822	289	471	0	0	292	0	0
Stage 1	491	491	-	327	327	-	-	-	-	-	-	-
Stage 2	334	330	-	499	495	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	292	309	596	291	309	750	1091	-	-	1270	-	-
Stage 1	559	548	-	686	648	-	-	-	-	-	-	-
Stage 2	680	646	-	554	546	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	279	298	596	275	298	750	1091	-	-	1270	-	-
Mov Cap-2 Maneuver	279	298	-	275	298	-	-	-	-	-	-	-
Stage 1	547	541	-	672	634	-	-	-	-	-	-	-
Stage 2	654	632	-	531	539	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.2	12	0.5	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1091	-	-	383	530	1270	-	-
HCM Lane V/C Ratio	0.018	-	-	0.074	0.029	0.009	-	-
HCM Control Delay (s)	8.4	0	-	15.2	12	7.9	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

Appendix C With Site Intersection Analyses

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	11	1	13	5	1	8	1	212	1	4	123	5
Future Vol, veh/h	11	1	13	5	1	8	1	212	1	4	123	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	1	16	6	1	10	1	262	1	5	152	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	435	430	155	439	433	263	158	0	0	263	0	0
Stage 1	165	165	-	265	265	-	-	-	-	-	-	-
Stage 2	270	265	-	174	168	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	531	518	891	528	516	776	1422	-	-	1301	-	-
Stage 1	837	762	-	740	689	-	-	-	-	-	-	-
Stage 2	736	689	-	828	759	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	521	515	891	515	513	776	1422	-	-	1301	-	-
Mov Cap-2 Maneuver	521	515	-	515	513	-	-	-	-	-	-	-
Stage 1	836	759	-	739	688	-	-	-	-	-	-	-
Stage 2	725	688	-	809	756	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.7	10.8	0	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1422	-	-	664	637	1301	-	-
HCM Lane V/C Ratio	0.001	-	-	0.046	0.027	0.004	-	-
HCM Control Delay (s)	7.5	0	-	10.7	10.8	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	6	208	1	2	139
Future Vol, veh/h	4	6	208	1	2	139
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	7	257	1	2	172

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	434	258	0	0	258	0
Stage 1	258	-	-	-	-	-
Stage 2	176	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	579	781	-	-	1307	-
Stage 1	785	-	-	-	-	-
Stage 2	855	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	578	781	-	-	1307	-
Mov Cap-2 Maneuver	578	-	-	-	-	-
Stage 1	785	-	-	-	-	-
Stage 2	853	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	685	1307	-
HCM Lane V/C Ratio	-	-	0.018	0.002	-
HCM Control Delay (s)	-	-	10.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	9	2	11	2	1	9	15	225	5	9	364	7
Future Vol, veh/h	9	2	11	2	1	9	15	225	5	9	364	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	2	12	2	1	10	16	245	5	10	396	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	705	702	400	707	704	248	404	0	0	250	0	0
Stage 1	420	420	-	280	280	-	-	-	-	-	-	-
Stage 2	285	282	-	427	424	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	351	362	650	350	361	791	1155	-	-	1316	-	-
Stage 1	611	589	-	727	679	-	-	-	-	-	-	-
Stage 2	722	678	-	606	587	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	339	353	650	335	352	791	1155	-	-	1316	-	-
Mov Cap-2 Maneuver	339	353	-	335	352	-	-	-	-	-	-	-
Stage 1	601	583	-	715	668	-	-	-	-	-	-	-
Stage 2	701	667	-	587	581	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.5	11.2	0.5	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1155	-	-	448	594	1316	-	-
HCM Lane V/C Ratio	0.014	-	-	0.053	0.022	0.007	-	-
HCM Control Delay (s)	8.2	0	-	13.5	11.2	7.8	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	4	241	4	7	370
Future Vol, veh/h	3	4	241	4	7	370
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	4	262	4	8	402

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	682	264	0	0	266	0
Stage 1	264	-	-	-	-	-
Stage 2	418	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	415	775	-	-	1298	-
Stage 1	780	-	-	-	-	-
Stage 2	664	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	412	775	-	-	1298	-
Mov Cap-2 Maneuver	412	-	-	-	-	-
Stage 1	780	-	-	-	-	-
Stage 2	659	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.5	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	563	1298	-
HCM Lane V/C Ratio	-	-	0.014	0.006	-
HCM Control Delay (s)	-	-	11.5	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	13	1	15	6	1	10	1	251	1	5	146	6
Future Vol, veh/h	13	1	15	6	1	10	1	251	1	5	146	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	1	19	7	1	12	1	310	1	6	180	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	515	509	184	519	512	311	187	0	0	311	0	0
Stage 1	196	196	-	313	313	-	-	-	-	-	-	-
Stage 2	319	313	-	206	199	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	470	467	858	467	465	729	1387	-	-	1249	-	-
Stage 1	806	739	-	698	657	-	-	-	-	-	-	-
Stage 2	693	657	-	796	736	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	459	464	858	454	462	729	1387	-	-	1249	-	-
Mov Cap-2 Maneuver	459	464	-	454	462	-	-	-	-	-	-	-
Stage 1	805	735	-	697	656	-	-	-	-	-	-	-
Stage 2	679	656	-	774	732	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.3	11.4	0	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1387	-	-	605	584	1249	-	-
HCM Lane V/C Ratio	0.001	-	-	0.059	0.036	0.005	-	-
HCM Control Delay (s)	7.6	0	-	11.3	11.4	7.9	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	6	248	1	2	165
Future Vol, veh/h	4	6	248	1	2	165
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	7	306	1	2	204

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	515	307	0	0	307	0
Stage 1	307	-	-	-	-	-
Stage 2	208	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	520	733	-	-	1254	-
Stage 1	746	-	-	-	-	-
Stage 2	827	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	519	733	-	-	1254	-
Mov Cap-2 Maneuver	519	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	629	1254	-
HCM Lane V/C Ratio	-	-	0.02	0.002	-
HCM Control Delay (s)	-	-	10.8	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	11	2	13	2	1	11	18	267	6	11	432	8
Future Vol, veh/h	11	2	13	2	1	11	18	267	6	11	432	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	2	14	2	1	12	20	290	7	12	470	9

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	839	836	475	841	837	294	479	0	0	297	0	0
Stage 1	499	499	-	334	334	-	-	-	-	-	-	-
Stage 2	340	337	-	507	503	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	285	303	590	284	303	745	1083	-	-	1264	-	-
Stage 1	554	544	-	680	643	-	-	-	-	-	-	-
Stage 2	675	641	-	548	541	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	272	292	590	268	292	745	1083	-	-	1264	-	-
Mov Cap-2 Maneuver	272	292	-	268	292	-	-	-	-	-	-	-
Stage 1	542	537	-	665	629	-	-	-	-	-	-	-
Stage 2	648	627	-	526	534	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.4	11.8	0.5	0.2
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1083	-	-	375	546	1264	-	-
HCM Lane V/C Ratio	0.018	-	-	0.075	0.028	0.009	-	-
HCM Control Delay (s)	8.4	0	-	15.4	11.8	7.9	0	-
HCM Lane LOS	A	A	-	C	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	4	287	4	7	440
Future Vol, veh/h	3	4	287	4	7	440
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	4	312	4	8	478

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	808	314	0	0	316	0
Stage 1	314	-	-	-	-	-
Stage 2	494	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	350	726	-	-	1244	-
Stage 1	741	-	-	-	-	-
Stage 2	613	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	347	726	-	-	1244	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	607	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.4	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	495	1244	-
HCM Lane V/C Ratio	-	-	0.015	0.006	-
HCM Control Delay (s)	-	-	12.4	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-