

Technical Memorandum

340 South Hill Street Project Transportation Impact Study Update

Prepared for Equity Residential by IBI Group

Revised July 17, 2019



1 Introduction

IBI Group completed a Transportation Impact Study in June 2017 for the 340 South Hill Street Project, a new high-rise multi-family residential project planned in Los Angeles, California at the corner of 4th Street and Hill Street. The Transportation Impact Study was reviewed and approved by the City of Los Angeles Department of Transportation (LADOT), as noted in a letter received from the City of Los Angeles dated August 7, 2017.

Due to delays in the project construction schedule, the Project Opening Year has been shifted from 2021 to 2023. The purpose of this technical memorandum is to update the traffic analysis prepared in 2017 (the Approved Study) to reflect a Project Buildout Year of 2023. This memo is intended to be a companion to the Approved Study, and only includes updated information and analysis results.

To remain consistent with the Approved Study:

- 1. New traffic data was not collected. This analysis is based on the traffic counts used in the Approved Study.
- 2. The Cumulative Project trip data developed for the Approved Study was used in this analysis.
- 3. All of parameters included in the approved LADOT Memorandum of Understanding (MOU) prepared for the Approved Study remain valid, including study intersection locations, project trip generation and distribution, and the ambient annual growth rate to forecast ambient traffic growth.
- 4. The Project Description has not changed. The project trip volumes calculated for 428 residential units (including 22 affordable housing units), 2,980 square feet of office use and 2,630 square feet of commercial land use, have not changed.

This memo consists of the following sections:

- 1 Introduction
- 2 Project Buildout (Year 2023) Conditions
- 3 Level of Service Analysis Results
- 4 Project Access Driveways
- 5 Los Angeles Congestion Management Plan (CMP)
- 6 Alignment with Vision Zero
- 7 Mitigation Measures
- 8 Conclusion

Section 1 provides the purpose and need for this memo and a description of the contents. Section 2 presents the increase in traffic volume forecast to occur due to ambient traffic growth and cumulative projects, and the opening year traffic volumes with the project. The intersection level of service analysis results are summarized in Section 3, and the signal warrant analysis results for the project access driveways are presented in Section 4. The Los Angeles Congestion Management Plan requirements are addressed in Section 5, and the Project requirements associated with Vision Zero are discussed in Section 6. Project mitigation measures are described in Section 7, and the conclusions are presented in Section 8.

2 Project Buildout (Year 2023) Conditions

2.1 Ambient Traffic Growth

An annual ambient traffic growth rate of 1.0018% is assumed for the study area based on factors published in Appendix D of the 2010 Congestion Management Program for Los Angeles County. Between 2017 and 2023, traffic volumes are assumed to grow by 6.16%. Project Buildout (Year 2023) AM and PM peak hour volumes with ambient traffic growth only are shown in Figure 1.

2.2 Cumulative Projects

The list of related projects provided by LADOT and the City of Los Angeles Planning Department, along with the related project trip generation and distribution information, can be found in the Approved Study. No changes to the related projects list have been made as part of this update. The peak hour study intersection volumes for the Project Buildout (Year 2023) including ambient traffic growth and related project trips (the cumulative base traffic) are shown in Figure 2.

2.3 Proposed Project

The proposed project description, trip generation calculations, trip distribution, and forecast peak hour project trip volumes through each study intersection can be found in the Approved Study. The peak hour study intersection volumes for the Project Buildout (Year 2023) including cumulative base traffic and project trips are shown in Figure 3.

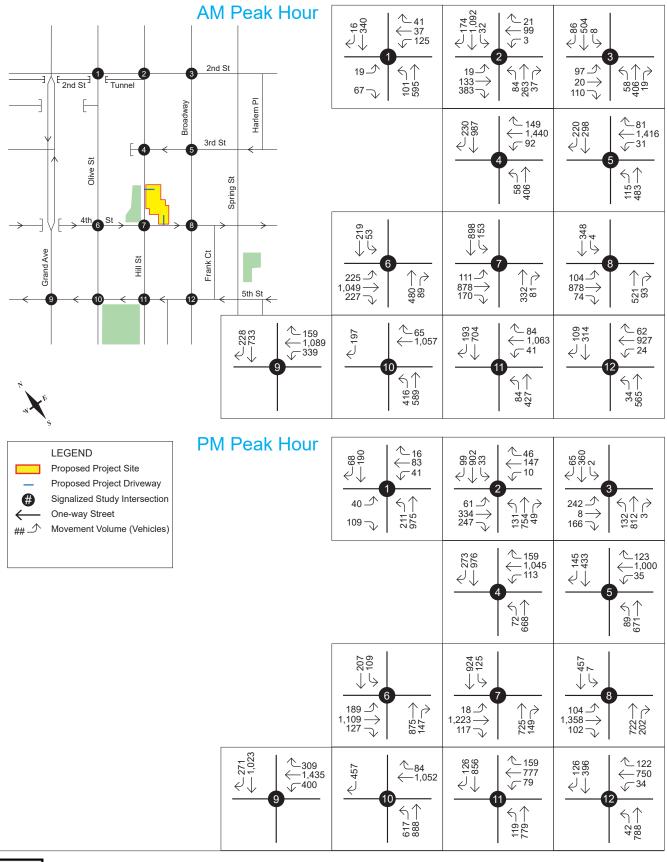


FIGURE 1 - BUILDOUT (YEAR 2023) VOLUMES - AMBIENT GROWTH

IBI

IBI GROUP June 2019

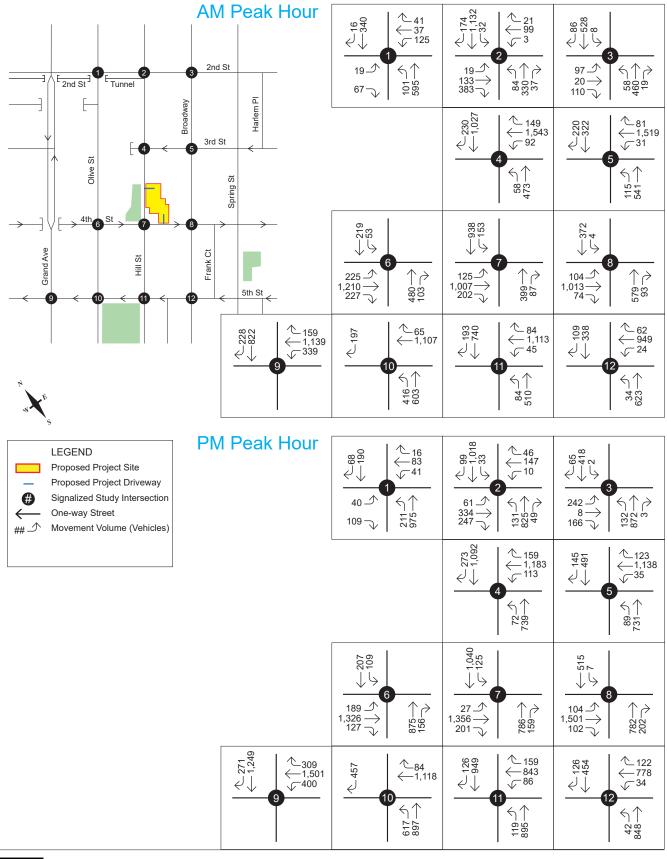


FIGURE 2 - BUILDOUT (YEAR 2023) VOLUMES - CUMULATIVE BASE

IBI

340 SOUTH HILL STREET PROJECT TRAFFIC STUDY UPDATE Equity Residential

IBI GROUP June 2019

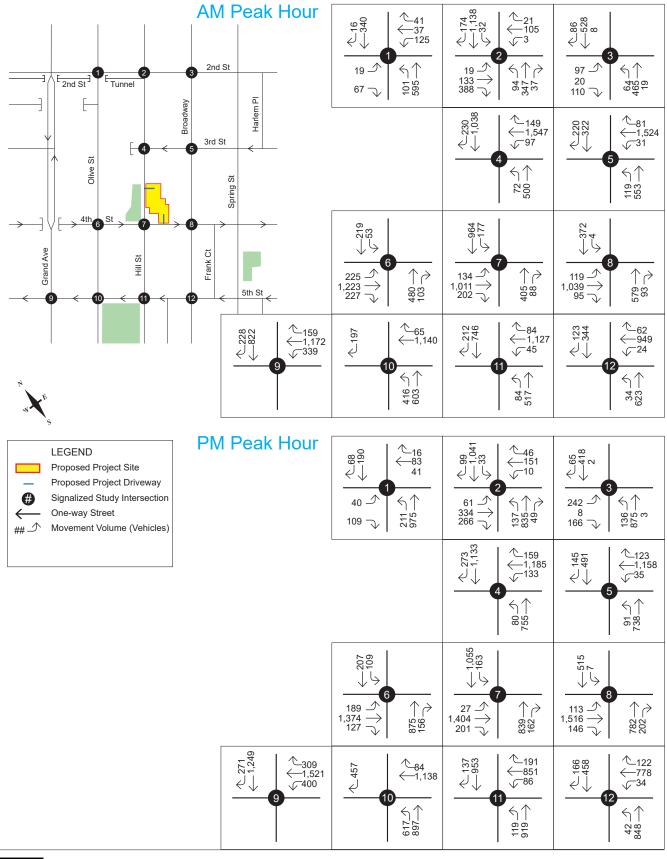


FIGURE 3 - BUILDOUT (YEAR 2023) VOLUMES - WITH PROJECT

IBI

3 Level of Service Analysis Results

The Transportation Research Board, Circular 212 Critical Movement Analysis (CMA) Planning Method was utilized to analyze traffic operating conditions at study intersections using the MS-Excel spreadsheet developed by LADOT. No modifications were made to the spreadsheet to model non-standard intersection configurations, gridlock, heavy pedestrian volumes or other special conditions.

Currently, LADOT describes the performance of the City's transportation system using Level of Service (LOS). LOS ranges from "A" to "F" with LOS "A" representing excellent, free flow conditions and LOS "F" representing jammed, forced flow conditions. The City defines the thresholds for significant impact as noted in Table 1.

Level of Service	Final V/C Ratio ¹	Project Related Increase in V/C ²
С	> 0.701 - 0.800	equal to or greater than 0.040
D	> 0.801 - 0.900	equal to or greater than 0.020
E	> 0.901 - 1.000	equal to or greater than 0.010
F	Greater than 1.000	equal to or greater than 0.010

Table 1: Significant Transportation Impact Thresholds for Development Projects

1. The "Final V/C Ratio" shall define the future V/C ratio at a study intersection considering impacts with Development Project, and ambient and related Project growth without proposed transportation impact mitigation.

2. "Project-Related Increase in V/C" shall be calculated as the change in V/C between the future V/C ratio with Project, ambient and related project growth without proposed traffic mitigation, and the future V/C ratio with ambient and related project growth without Project and proposed traffic mitigation.

The results of the intersection Level of Service analysis during the AM and PM peak hours are summarized in Tables 2 and 3, respectively. There are no significant traffic impacts associated with the project in the Existing (Year 2017) and Project Buildout (Year 2023) conditions.

	Intersection	Year Existing Condi	Traffic		ig Plus ject	Δ in V/C	Project Impact	Year 2 Cumulativ		Year 2 Plus P		Δ in V/C	Project Impact
		V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
1	2nd St & Olive St	0.209	А	0.209	А	0.000	NO	0.225	А	0.225	А	0.000	NO
2	2nd St & Hill St	0.597	А	0.606	В	0.009	NO	0.651	В	0.659	В	0.008	NO
3	2nd St & Broadway	0.385	А	0.389	А	0.004	NO	0.429	А	0.433	А	0.004	NO
4	3rd St & Hill St	0.729	С	0.743	С	0.014	NO	0.826	D	0.840	D	0.014	NO
5	3rd St & Broadway	0.503	А	0.507	А	0.004	NO	0.577	А	0.581	Α	0.004	NO
6	4th St & Olive St	0.233	А	0.235	А	0.002	NO	0.281	А	0.283	Α	0.002	NO
7	4th St & Hill St	0.394	Α	0.405	А	0.011	NO	0.465	А	0.476	Α	0.011	NO
8	4th St & Broadway	0.317	Α	0.327	А	0.010	NO	0.379	А	0.389	Α	0.010	NO
9	5th St & Grand Ave	0.263	А	0.267	А	0.004	NO	0.310	А	0.314	Α	0.004	NO
10	5th St & Olive St	0.382	А	0.388	А	0.006	NO	0.423	А	0.429	Α	0.006	NO
11	5th St & Hill St	0.538	Α	0.545	А	0.007	NO	0.604	В	0.611	В	0.007	NO
12	5th St & Broadway	0.361	А	0.365	А	0.004	NO	0.408	А	0.412	А	0.004	NO

Table 2: Level of Service Analysis Results Summary - AM Peak Hour

	Intersection	Year Existing Condi	Traffic		ig Plus ject	Δ in V/C	Project Impact	Year 20 Cumulative		Year 2 Plus P		Δ in V/C	Project Impact
		V/C	LOS	V/C	LOS			V/C	LOS	V/C	LOS		
1	2nd St & Olive St	0.216	А	0.216	А	0.000	NO	0.233	А	0.233	А	0.000	NO
2	2nd St & Hill St	0.581	А	0.592	А	0.011	NO	0.660	В	0.671	В	0.011	NO
3	2nd St & Broadway	0.454	А	0.458	А	0.004	NO	0.507	Α	0.510	А	0.003	NO
4	3rd St & Hill St	0.610	В	0.629	В	0.019	NO	0.737	С	0.757	С	0.020	NO
5	3rd St & Broadway	0.493	Α	0.499	А	0.006	NO	0.597	Α	0.603	В	0.006	NO
6	4th St & Olive St	0.356	А	0.364	А	0.008	NO	0.421	Α	0.429	Α	0.008	NO
7	4th St & Hill St	0.497	Α	0.549	А	0.052	NO	0.593	Α	0.645	В	0.052	NO
8	4th St & Broadway	0.470	Α	0.481	А	0.011	NO	0.563	Α	0.574	А	0.011	NO
9	5th St & Grand Ave	0.375	Α	0.377	А	0.002	NO	0.461	Α	0.463	Α	0.002	NO
10	5th St & Olive St	0.578	А	0.581	А	0.003	NO	0.632	В	0.636	В	0.004	NO
11	5th St & Hill St	0.517	Α	0.521	А	0.004	NO	0.607	В	0.611	В	0.004	NO
12	5th St & Broadway	0.395	А	0.397	А	0.002	NO	0.468	Α	0.476	А	0.008	NO

Table 3: Level of Service Analysis Results Summary - PM Peak Hour

4 Project Access Driveways

Vehicular access to the project site will be provided via two driveways and an existing alley. Both driveways are proposed in locations where driveways currently serve the existing surface parking lot, and it is assumed that the existing roadway striping on 4th Street and Hill Street would not need to be modified to accommodate the project. The first driveway is located on Hill Street, approximately 160 feet north of 4th Street. Vehicles entering the site from southbound Hill Street would be able to turn left into Driveway 1 via an existing two-way left turn lane. Vehicles exiting Driveway 1 would be able to turn left or right onto Hill Street.

The second driveway would be located on 4th Street, approximately 135 feet east of Hill Street and 175 feet west of Broadway. Fourth Street is a one-way street carrying eastbound traffic only, so Driveway 2 would be accessed via left turns in and left turns out only.

The project access driveways and the Project Buildout (Year 2023) peak hour driveway volumes with the project are shown in Figure 4. With peak hour volumes totaling less than 100 trips from each access driveway, the project driveways do not meet the criteria for the Manual on Uniform Traffic Control Design (MUTCD) Warrant 3, which is based on peak hour traffic volumes.

5 Los Angeles Congestion Management Plan (CMP)

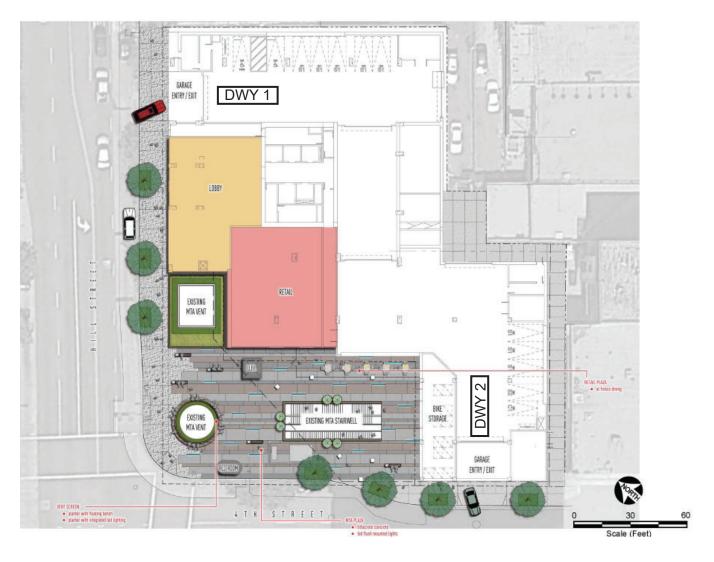
Traffic analyses for new projects in Los Angeles County are also governed by the Los Angeles County Congestion Management Program (CMP), which sets forth specific analysis criteria for roadways and intersections included in the CMP network. The CMP facilities closest to the project, the distance from the project site to those facilities, and the number of peak hour forecast trips on those facilities are summarized in Table 7.

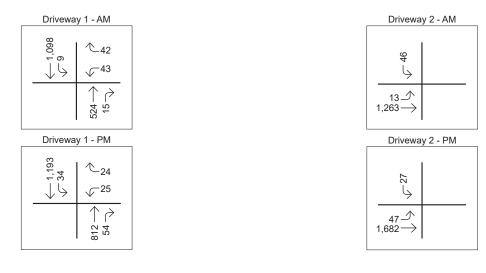
Facility Type	Facility Name	Distance From Project Site	AM Peak Hour Trips	PM Peak Hour Trips	Analysis Required
Freeway	Route 110	0.50 miles	23	30	No
Freeway	U.S. 101	0.65 miles	14	19	No
Freeway	Interstate 10	1.45 miles	7	8	No
Roadway	Wilshire Boulevard (west of Route 110)	0.65 miles	0	0	No
Roadway	Alameda Street	0.85 miles	13	17	No

Table 4 -	CMP	Facilities
-----------	-----	------------

The project does not contribute more than 50 peak hour trips to any CMP roadways and does not contribute more than 150 peak hour trips onto any CMP freeways, so a CMP analysis is not required for this project.

FIGURE 4 - BUILDOUT (YEAR 2023) VOLUMES AT ACCESS DRIVEWAYS





IBI GROUP June 2019

ІВІ

340 SOUTH HILL STREET PROJECT TRAFFIC STUDY UPDATE Equity Residential

6 Alignment with Vision Zero

Mayor Eric Garcetti's Vision Zero Los Angeles initiative commits the City to creating safer streets for its most vulnerable road users, including children, older adults, and people walking and bicycling. The City aims to eliminate all traffic-related deaths by the year 2025. To focus the implementation of safety countermeasures, LADOT conducted a citywide traffic collision analysis and identified a network of streets known as the High Injury Network (HIN), which consists of streets where high incidences of collisions involving vulnerable road users have resulted in severe injuries and deaths. The segments of Hill Street and 4th Street adjacent to the project site are not included in the High Injury Network, so roadway improvements to enhance pedestrian and bicycle safety are not specifically required for the project.

7 Mitigation Measures

In the Existing (Year 2017), the project is not forecast to create significant impacts at any of the study intersections, and no mitigation measures are required based on LADOT criteria. The intersection of Hill Street and 3rd Street (#4) is forecast to operate at LOS D during the AM peak period in the With Project condition, but the project is not expected to create a significant impact at this location. All other study intersections are forecast to operate at LOS C or better during the AM and PM peak periods, therefore no mitigation measures are required by the LACCMP.

To be conservative, the analysis for the Project Buildout (Year 2023) does not assume that all study intersections will be operating under Adaptive Traffic Control System (ATCS) in the future condition. The project is not forecast to create a significant impact at any study intersections during the AM peak and PM peak, and would only operate better under adaptive traffic control. All intersections perform at LOS D or better during both time periods with and without the project, and no mitigation measures are required by the City or the LACCMP.

8 Conclusion

The high-rise residential project proposed at 340 S. Hill Street is not expected to generate any significant impacts to traffic operations in the existing condition or in the project opening year of 2023. No mitigation measures are required based on City of Los Angeles, County of Los Angeles, State of California or Federal criteria.

IBI GROUP TECHNICAL MEMORANDUM 340 SOUTH HILL STREET PROJECT TRANSPORTATION IMPACT STUDY UPDATE APPENDIX Prepared for Equity Residential

Appendix

CMA Spreadsheets Transportation Impact Study Approval Letter

Revised July 17, 2019

CMA Spreadsheets



(Circular 212 Method)



I/S #:	North-South Street: Olive St				Yea	r of Count	: 2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	iroup	Date:	2	2019-06-20	6
1	East-West Street: 2nd St					ction Year			Pea	ak Hour:	AM		wed by:		.a Point	Project:		340 S. Hil	-
	No. of Phases			3			3				3				3				3
Op	pposed Ø'ing: N/S-1, E/W-2 or Both-3?			2			2				2				2				2
Right	t Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0 0	NB EB	0 SE 0 W		NB EB	0	SB WB	0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?	EB U	WB	1	EB	0 00	B 0 1	EB	0	WB	1	EB	0	WB	1	EB	0	WB	1
	Override Capacity			0			0				0				0				0
		EXISTIN		TION	EXIST	ING PLUS P	ROJECT	FUTUR		ON W/O PR	OJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTURE	W/ PROJE	CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	5 1.4	Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
9	ົ Left √ Left-Through	95	1 0	95	0	95	95	0	101	1	101	0	101	1 0	101	0	101	1 0	101
1 D	↑ Through	560	3	187	0	560	187	0	595	3	198	0	595	3	198	0	595	3	198
HB	through-Right		0							0				0				0	
NORTHBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N S	← Left-Through-Right		0							0				0				0	
	✓ Left-Right		0							0				0				0	
	.→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SOUTHBOUND	↓ Left-Through		0							0				0				0	
l l	↓ Through	320	1	168	0	320	168	0	340	1	178	0	340	1	178	0	340	1	178
E	✓ Through-Right ✓ Right	15	1 0	15	0	15	15	0	16	1 0	16	0	16	1 0	16	0	16	1 0	16
.no	← Left-Through-Right	15	0	10	0	15	10	0	10	0	10	0	10	0	10	0	10	0	10
S	Left-Right		0							0				0				0	
	1	10				10	10		10	0	10		10	0	10		10	0	10
	ل Left ມ Left-Through	18	2 0	10	0	18	10	0	19	2 0	10	0	19	2 0	10	0	19	2 0	10
NN N	→ Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Trough-Right		0							0				0				0	
ASI	Right	63	1	16	0	63	16	0	67	1	17	0	67	1 0	17	0	67	1	17
ш	<pre></pre>		0 0							0 0				0				0 0	
			Ŭ.	1						Ŭ				U U				Ŭ	
0	√ Left	118	0	118	0	118	118	0	125	0	125	0	125	0	125	0	125	0	125
WESTBOUND	✓ Left-Through← Through	25	1 0	74	0	2F	74	0	37	1 0	78	0	37	1 0	78	0	37	1 0	78
BOI	Through	35	1	74	U	35	74	0	31	1	18	U	31	1	78	U	37	1	78
ST	Right	39	0	0	0	39	0	0	41	0	0	0	41	0	0	0	41	0	0
NE NE	Left-Through-Right		0							0				0				0	
	⊱ Left-Right	Mart	0 h-South:	263	A/-	rth-South:	263		Ale	0 th-South:	279		Ale	0 th-South:	279		Mer	0 th-South:	279
	CRITICAL VOLUMES		n-South: st-West:	203 134		East-West:	203 134			ast-West:	142			ast-West:	142			ast-West:	142
			SUM:	397		SUM:	397			SUM:	421			SUM:	421			SUM:	421
	VOLUME/CAPACITY (V/C) RATIO:			0.279			0.279				0.295				0.295				0.295
V/	C LESS ATSAC/ATCS ADJUSTMENT:			0.209			0.209				0.225				0.225				0.225
	LEVEL OF SERVICE (LOS):			Α			Α				Α				Α				Α
	DEMARKS							-				-							

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.000 Significant impacted? NO *∆v/c* after mitigation: 0.000 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Hill St				Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	Group	Date:	2	2019-06-2	6
2	East-West Street: 2nd St				Proje	ction Year	2023		Pea	ak Hour:	AM	Revie	wed by:	Lydia L	a Point	Project:	;	340 S. Hil	I
,	No. of Phases			2			2				2				2				2
Орј	oosed Ø'ing: N/S-1, E/W-2 or Both-3?			0 0		0.00	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0	NB EB	0 SE 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?			1		0	1		Ŭ		1		Ŭ		1		Ŭ		1
	Override Capacity			0			0				0				0				0
		EXISTI	NG CONDI	TION		NG PLUS P	ROJECT				OJECT			-	OJECT			CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane Volume	Project Traffic	Total	Lane	Added	Total Volume	No. of	Lane Volume	Added Volume	Total Volume	No. of	Lane Volume	Added Volume	Total Volume	No. of	Lane
	Left	Volume 79	Lanes	Volume 79	1 ramic 10	Volume 89	Volume 89	Volume 0	volume 84	Lanes	Volume 84	volume 10	volume 94	Lanes 1	volume 94	Volume 0	volume 94	Lanes 1	Volume 94
₽	i Leπ ⊷∱ Left-Through	79	0	79	10	09	09	0	04	0	04	10	94	0	94	0	94	0	94
n n	↑ Through	248	1	142	17	265	150	67	330	1	184	17	347	1	192	0	347	1	192
Ϊ	Through-Right		1							1				1				1	
NORTHBOUND	→ Right	35	0	35	0	35	35	0	37	0	37	0	37	0	37	0	37	0	37
S S	← Left-Through-Right		0							0				0				0	
	<pre> Left-Right </pre>	I	0							0				0				0	
	└→ Left	30	1	30	0	30	30	0	32	1	32	0	32	1	32	0	32	1	32
	└→ Left-Through		0		-			-		0		-		0		-		0	
l m	↓ Through	1029	1	597	6	1035	600	40	1132	1	653	6	1138	1	656	0	1138	1	656
SOUTHBOUND	✓ Through-Right ✓ Right	164	1 0	164	0	164	164	0	174	1 0	174	0	174	1 0	174	0	174	1 0	174
	✓ Right ↓ Left-Through-Right	164	0	164	0	164	164	0	174	0	174	0	174	0	174	0	174	0	174
Š	Left-Right		0							0				0				0	
				-															
	J Left	18	0	18	0	18	18	0	19	0 1	19	0	19	0	19	0	19	0	19
N N		125	0	143	0	125	143	0	133	0	152	0	133	0	152	0	133	0	152
EASTBOUND	→ Through-Right	120	Ő	140	Ŭ	120	140	Ŭ	100	Ő	102	Ŭ	100	Ő	102	Ŭ	100	Ő	102
\ST	Right	361	1	322	5	366	322	0	383	1	341	5	388	1	341	0	388	1	341
Ш	Left-Through-Right		0							0				0				0	
	- ≺ Left-Right	I	U							0				0				U	
	✓ Left	3	0	3	0	3	3	0	3	0	3	0	3	0	3	0	3	0	3
WESTBOUND	✓ Left-Through		0							0				0				0	
no No	← Through	93	0	116	6	99	122	0	99	0	123	6	105	0	129	0	105	0	129
STB	✓ Through-Right ↓ Right	20	0	0	0	20	0	0	21	0 0	0	0	21	0 0	0	0	21	0 0	0
VE:	Left-Through-Right	20	1	U	Ŭ	20	U	U U	21	1	0	0	21	1	0	Ŭ	21	1	0
>	⊱ Left-Right		0							0				0				0	
			th-South:	676	-	rth-South:	689			th-South:	737			th-South:	750			th-South:	750
	CRITICAL VOLUMES	E	ast-West: SUM:	325 1001		East-West: SUM:	325 1014		Ea	ast-West: SUM:	344 1081		Ea	ast-West: SUM:	344 1094		E	ast-West: SUM:	344 1094
	VOLUME/CAPACITY (V/C) RATIO:		3011	0.667		30W.	0.676			30111.	0.721			30W.	0.729			3011/.	0.729
VIC	C LESS ATSAC/ATCS ADJUSTMENT:																		
v/C	LEVEL OF SERVICE (LOS):			0.597			0.606 B				0.651 B				0.659 B				0.659 B
	LEVEL OF SERVICE (LOS):			Α			D				D				Ď				B

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.008 Significant impacted? NO *∆v/c* after mitigation: 0.008 Fully mitigated? N/A



(Circular 212 Method)



Right Tums: FREE-1, NRTOR-2 or OLA37 ATSAC-4 for ATSAC-4TCS 27 Override Capacity MB- 0 0 EB- 0 NB- 0	I/S #:	North-South Street: Broadwa	ay			Yea	r of Count	: 2017	Amb	ient Grow	vth: (%):	1.0018	Condu	cted by:	IBI G	Group	Date:	2	2019-06-2	6
No. of Plasses Opposed BTINS-1EW-20 Relation 37 /r PlayInt Turms: FREE-1, NETOR 2 of U.A.37 REB-10 SB-10 EB-10 NB-10 VIIII SB-10 VIIIII NB-10 VIIIIII SB-10 VIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	3	East-West Street: 2nd St				Proje	ction Year	2023		Pea	ak Hour:	AM	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
Right Tums: FREE-1, NRTOR-2 or OLA37 ATSAC-4 for ATSAC-4TCS 27 Override Capacity MB- 0 0 EB- 0 NB- 0																				3
Hight Inflam: Ref2.1, MR1062 00 CM23 EB 0 WB- 0 EB- 0 WB- 0			NB 0	SB		NR	0 54		NR	0	\$R		NR	0	\$ R		NB	0	\$R	0 2
Under Constraint	Right	Turns: FREE-1, NRTOR-2 or OLA-3?						_												0
MOVEMENT EXISTING CUDITION EXISTING CUDITION VESTING CUDITION								1				1								1
Image: Note Hear in the second of t		Override Capacity	EVISTING		-	EVIST		v	EUTUP				FUTUE				EUTUP			U U
Volume		MOVEMENT			-					-				-	-					Lane
One of the the through regist 379 0 254 5 384 262 58 460 356 5 465 0 370 0 465 1 370 0 465 1 370 0 465 1 370 0 465 1 370 0 465 1 370 0 465 1 370 0 465 1 370 0 465 1 370 0 465 1 370 0 465 0 1 2 1 2 2 1 2 2 1 370 0 465 0 370 0 465 0 370 0 465 0 370 0 97 0 97 0 97 0 97 0 97 0 97 0 97 0 97 0 97 0 97 0 97 0 97 0 97			Volume L	Lanes						Volume	Lanes	Volume	Volume	Volume	Lanes				Lanes	Volume
Image: Second			55		55	6	61	61	0	58		58	6	64		64	0	64		64
Image: Second	N	-	379		254	5	384	262	58	460	1 C C C C C C C C C C C C C C C C C C C	356	5	465		370	0	465		370
Image: Second	Ц Ц Ц	-	010		204	Ŭ	004	202	00	400	-	000	Ŭ	400	-	010	Ŭ	400	1	0/0
Image: Second	RTI		18	0	254	0	18	262	0	19		356	0	19		370	0	19	0	370
Org	2 2																		-	
Organization isolation isolation </td <td></td> <td>Y Lett-Right</td> <td>I</td> <td>U</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td>0</td> <td></td>		Y Lett-Right	I	U							0				0				0	
J. Left-Hight 91 0 91 0 91 0 91 0 97<	Δ		8		8	0	8	8	0	8		8	0	8	-	8	0	8		8
J. Left-Hight 91 0 91 0 91 0 91 0 97<	NN	e e e e e e e e e e e e e e e e e e e	475	- 1 - E	493	0	175	193	24	528		536	0	528		536	0	528		536
J. Left-Hight 91 0 91 0 91 0 91 0 97<	1BO	-	475		403	0	475	403	24	526		556	0	520		550	0	520		550
J. Left-Hight 91 0 91 0 91 0 91 0 97<	Ē.		81		81	0	81	81	0	86	1 C C	86	0	86		86	0	86	1 A A A A A A A A A A A A A A A A A A A	86
O U O 91 0 91 0 91 0 97 10 10	so														-					
Q J Left-Through 19 0.1 100 110 0 100 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 117 0 20 0 111 111 0 100			1	U							0				U				U	
↓ Left-Right 0 0 <			91		91	0	91	91	0	97		97	0	97		97	0	97		97
↓ Left-Right 0 0 <	NI N	-	19		110	0	19	110	0	20		117	0	20		117	0	20	1 A A A A A A A A A A A A A A A A A A A	117
↓ Left-Right 0 0 <	BG B					Ŭ			Ŭ		0		Ŭ	20			Ŭ	20		
↓ Left-Right 0 0 <	AS1	7 -	104		104	0	104	104	0	110		110	0	110		110	0	110		110
Image: Constraint of the	ш			=																
T Left-Through 0 <		*	ļ į																	
Left-Right 0 <th0< th=""> 0</th0<>	Ω		0		0	0	0	0	0	0		0	0	0	-	0	0	0	-	0
Left-Right 0 <th0< th=""> 0</th0<>	NN	← Through	0		0	0	0	0	0	0		0	0	0		0	0	0	1 A A A A A A A A A A A A A A A A A A A	0
Left-Right 0 <th0< th=""> 0</th0<>	IBC	, iniougn=ragin																		
Left-Right 0 <th0< th=""> 0</th0<>	ES.		0		0	0	0	0	0	0		0	0	0		0	0	0		0
CRITICAL VOLUMES East-West: 110 East-West: 110 East-West: 117 East-West: 117 East-West: 117 SUM: 648 SUM: 654 SUM: 654 SUM: 711 SUM: 717 East-West: 117 SUM: 717 SUM: 717 <td< td=""><td>></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	>																			
SUM: 648 SUM: 654 SUM: 711 SUM: 717 SUM: 717 VOLUME/CAPACITY (V/C) RATIO: 0.455 0.455 0.459 0.499 0.503 0.503 0.503 0.433 V/C LESS ATSAC/ATCS ADJUSTMENT: 0.385 0.389 0.389 0.429 0.433 0.433 0.433																				600
VOLUME/CAPACITY (V/C) RATIO: 0.455 0.459 0.499 0.503 0.503 0.503 V/C LESS ATSAC/ATCS ADJUSTMENT: 0.385 0.389 0.429 0.433 0.433 0.433		CRITICAL VOLUMES	East			E				Ea				Ea				E		117 717
V/C LESS ATSAC/ATCS ADJUSTMENT: 0.385 0.389 0.429 0.433 0.433		VOLUME/CAPACITY (V/C) RATIO:	1																20	0.503
	V/0	C LESS ATSAC/ATCS ADJUSTMENT:																		0.433
		LEVEL OF SERVICE (LOS):			Α			Α				Α				Α				Α

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.004

Significant impacted? NO

∆v/c after mitigation: 0.004 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Hill St				Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	iroup	Date:	2	2019-06-2	6
4	East-West Street: 3rd St				Proje	ction Year	2023		Pea	ak Hour:	AM	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
	No. of Phases			2			2				2				2				2
Орр	oosed Ø'ing: N/S-1, E/W-2 or Both-3?			0 0		0.00	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0	NB EB	0 SE 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?			1		0	1		Ŭ		1		Ŭ		1		Ŭ		1
	Override Capacity			0			0				0				0				0
		EXISTI		TION		NG PLUS P	ROJECT		-	ON W/O PR	OJECT		RE CONDIT		OJECT			CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total Volume	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
┣───┲	5 1.4	Volume	Lanes	Volume 55	Traffic 14	Volume 69	Volume 69	Volume 0	volume 58	Lanes	Volume 58	Volume	Volume	Lanes 1	Volume 72	Volume	Volume	Lanes 1	Volume 72
₽	ົງ Left √ Left-Through	55	0	55	14	69	69	0	58	0	58	14	72	0	12	0	72	0	12
5	↑ Through	382	2	191	27	409	205	67	473	2	237	27	500	2	250	0	500	2	250
ЩЩ Щ	through-Right		0					_		0				0		_		0	
NORTHBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	← Left-Through-Right		0							0				0				0	
	Left-Right	I	0							0				0				0	
	└→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Z	, Left-Through	Ŭ	0	Ŭ	Ŭ	Ũ	Ŭ	Ŭ	Ū	0	Ŭ	Ŭ	0	0	Ŭ	Ŭ	Ũ	0	Ŭ
Ŋ	↓ Through	930	2	465	11	941	471	40	1027	2	514	11	1038	2	519	0	1038	2	519
뽄	← Through-Right	047	0 1	0.17	0	047	047	0	000	0 1	000	0	000	0 1	000	0	000	0 1	000
SOUTHBOUND	✓ Right ↔ Left-Through-Right	217	0	217	0	217	217	0	230	0	230	0	230	0	230	0	230	0	230
Ň	Left-Right		0							Ő				0				0 0	
				-															
	→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N N		0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
EASTBOUND	→ Through-Right	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STI	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EA	Left-Through-Right		0							0				0				0	
	- √ Left-Right	I	0							0				0				0	
1	✓ Left	87	1	87	5	92	92	0	92	1	92	5	97	1	97	0	97	1	97
2	€ Left-Through		0	0.	Ŭ			Ŭ		0		Ŭ	0.	0	0.	Ŭ	0.	0	0.
WESTBOUND	← Through	1356	2	678	4	1360	680	103	1543	2	772	4	1547	2	774	0	1547	2	774
1B	← Through-Right	140	0 1	140	0	140	140		140	0 1	140	0	140	0 1	140	0	140	0 1	140
VES	Right Left-Through-Right	140	1	140	U	140	140	0	149	0	149	U	149	1	149	0	149	1	149
5	Left-Right		0							0				0				0	
			th-South:	520	-	rth-South:	540			th-South:	572			th-South:	591			th-South:	591
	CRITICAL VOLUMES	Ea	ast-West:	678	E	ast-West:	680		E	ast-West:	772		Ea	ast-West:	774		E	ast-West:	774
	VOLUME/CAPACITY (V/C) RATIO:	}	SUM:	1198		SUM:	1220			SUM:	1344			SUM:	1365			SUM:	1365
				0.799			0.813				0.896				0.910				0.910
V/C	LESS ATSAC/ATCS ADJUSTMENT:			0.729			0.743				0.826				0.840				0.840
	LEVEL OF SERVICE (LOS):			С			С				D				D				D

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.014 Significant impacted? NO *∆v/c* after mitigation: 0.014 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Broadv	/ay			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	roup	Date:	2	2019-06-2	6
5	East-West Street: 3rd St					ction Year			Pea	ak Hour:	AM		wed by:		a Point	Project:	;	340 S. Hil	I
	No. of Phases			2			2				2				2				2
	posed Ø'ing: N/S-1, E/W-2 or Both-3?	NB 0	SB	0 0	NB	0 SI	0 3 0	NB	0	SB	0 0	NB	0	SB	0 0	NB	0	SB	0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	EB 0	зв WB	0	EB	0 SI		EB	0	зв WB	0	EB	0	зв WB	0	EB	0	зв WB	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1				1				1				1
	Override Capacity			0			0				0				0				0
	MOVEMENT	EXISTI	NG CONDI			ING PLUS P								-				CT W/ MIT	
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
) Left	108	0	108	4	112	112	0	115	0	115	4	119	0	119	0	119	0	119
	← Left-Through		1							1				1				1	
30L	∱ Through	455	1	336	12	467	346	58	541	1	386	12	553	1	396	0	553	1	396
E	Through-Right	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0
NORTHBOUND	➢ Right ↔ Left-Through-Right	V	0	U	U	U	0	U	U	0	0	U	U	0	0	U	U	0	0
z	· ↓ Left-Right		0							0				0				0	
				-														_	
9	└→ Left └→ Left-Through	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
SOUTHBOUND	↓ Through	281	1	281	0	281	281	24	322	1	322	0	322	1	322	0	322	1	322
HBC	✓ Through-Right	201	0		Ŭ	201			022	0		Ŭ	022	0		Ŭ	022	0	
E D	→ Right	207	1	207	0	207	207	0	220	1	220	0	220	1	220	0	220	1	220
so	✓→ Left-Through-Right ✓, Left-Right		0 0							0 0				0 0				0 0	
		1	U	1						0				0				0	
	Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	→ Left-Through	0	0 0	0		0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
EASTBOUND	→ Through ᄀ Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STI	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EA	Left-Through-Right		0							0				0				0	
	-	1	0							0				0				0	
	✓ Left	29	1	29	0	29	29	0	31	1	31	0	31	1	31	0	31	1	31
WESTBOUND	€ Left-Through		0							0				0				0	
SOL	← Through ← Through-Right	1334	2 1	470	5	1339	472	103	1519	2 1	533	5	1524	2 1	535	0	1524	2 1	535
STE	← Right	76	0	76	0	76	76	0	81	0	81	0	81	0	81	0	81	0	81
Ň	Left-Through-Right		0		Ŭ			Ŭ	0.	0	0.	Ŭ	0.	0	0.	Ŭ	0.	0	0.
	├─ Left-Right	<u> </u>	0							0	407			0				0	
	CRITICAL VOLUMES		th-South: ast-West:	389 470		rth-South: East-West:	393 472			th-South: ast-West:	437 533			th-South: ast-West:	441 535			th-South: ast-West:	441 535
			SUM:	859	'	SUM:	865		L	SUM:	970		Le	SUM:	976		L	SUM:	976
	VOLUME/CAPACITY (V/C) RATIO:			0.573			0.577				0.647				0.651				0.651
V/0	C LESS ATSAC/ATCS ADJUSTMENT:			0.503			0.507				0.577				0.581				0.581
	LEVEL OF SERVICE (LOS):			Α			Α				Α				Α				Α
L	DEMARKS:																		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.004

Significant impacted? NO

∆v/c after mitigation: 0.004 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Olive	St			Yea	r of Count	2017	Amb	ient Grov	wth: (%):	1.0018	Condu	cted by:	IBI G	Group	Date:	:	2019-06-2	6
6	East-West Street: 4th St				Proje	ction Year	2023		Pe	ak Hour:	AM	Revie	wed by:	Lydia L	.a Point	Project:	:	340 S. Hil	I
	No. of Phases			2			2				2				2				2
Ор	posed Ø'ing: N/S-1, E/W-2 or Both-33			0 0		0.00	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0	NB EB	0 SE 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-22		112	1			1		Ŭ		1		Ŭ		1		Ŭ		1
	Override Capacity	,		0			0				0				0				0
		EXIST	ING CONDI			ING PLUS P	ROJECT						RE CONDIT					CT W/ MIT	
	MOVEMENT	Malana	No. of Lanes	Lane Volume	Project Traffic	Total	Lane	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	▲ Left	Volume 0		0	0	Volume 0	Volume 0	Volume 0	0	0	Volume 0		volume 0	0	0 Olume	0 Orume	0		volume 0
9	↓ Left-Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INO	↑ Through	452	2	179	0	452	179	0	480	2	194	0	480	2	194	0	480	2	194
HB	Through-Right		1							1				1				1	
NORTHBOUND		84	0	84	0	84	84	14	103	0	103	0	103	0	103	0	103	0	103
2 2	← Left-Through-Right		0							0				0				0	
	≺∽ Left-Right	1	0							0				0				0	
	└→ Left	50	2	28	0	50	28	0	53	2	29	0	53	2	29	0	53	2	29
IN I	└ ` Left-Through		0							0				0				0	
301	Through	206	1	206	0	206	206	0	219	1	219	0	219	1	219	0	219	1	219
王	✓ Through-Right ✓ Right	0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
SOUTHBOUND	Left-Through-Right	U U	0	Ŭ		0	0		0	0	U	Ŭ	0	0	0	0	0	0	U
S	人 Left-Right		0							0				0				0	
	Left	040	1	040	0	040	040	0	225	1	005	0	005	1	225	0	005	1	225
₽	⊥ ⊥ Left-Through	212	0	212	0	212	212	0	225	0	225	0	225	0	225	0	225	0	225
NN	→ Through	988	4	247	13	1001	250	161	1210	4	303	13	1223	4	306	0	1223	4	306
EASTBOUND	✓ Through-Right		0							0				0				0	
ASI	Right	214	1	214	0	214	214	0	227	1	227	0	227	1	227	0	227	1	227
ш	☆ Left-Through-Right		0							0 0				0 0				0	
	↓ _511 Hight	1		1						Ŭ				Ŭ				Ŭ	
0	✓ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	✓ Left-Through	0	0	0		0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
BOI	← Through ← Through-Right	0	0	0	0	0	0	0	U	0	0	0	U	0	0	0	U	0	0
ST	t Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ME	Left-Through-Right	1	0							0				0				0	
	⊱ Left-Right	A1	0 th-South:	207	N-	when Constitute	207	ļ	M	0 th-South:	223		M	0	223		M	0	223
			ast-West:	207		rth-South: East-West:	207 250			th-South: ast-West:	303			th-South: ast-West:	306			th-South: ast-West:	223 306
			SUM:	454	L	SUM:	457			SUM:	526			SUM:	529			SUM:	529
	VOLUME/CAPACITY (V/C) RATIO			0.303			0.305				0.351				0.353				0.353
V/0	C LESS ATSAC/ATCS ADJUSTMENT			0.233			0.235				0.281				0.283				0.283
	LEVEL OF SERVICE (LOS)			Α			Α				Α				Α				Α
	BEMARKS																		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.002

Significant impacted? NO

∆v/c after mitigation: 0.002 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Hill St				Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	Group	Date:	2	2019-06-2	6
7	East-West Street: 4th St				Proje	ction Year	2023		Pea	ak Hour:	AM	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
	No. of Phases			2			2				2				2				2
Ор	posed Ø'ing: N/S-1, E/W-2 or Both-3?			0 0		0.00	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0	NB EB	0 SE 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?	20 0	112	1	20		1		Ŭ		1		Ŭ		1		Ŭ		1
	Override Capacity			0			0				0				0				0
	NOVENENT	EXISTI	NG CONDI			ING PLUS PI												CT W/ MIT	
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	້ Left	Volume 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QN	↓ Left-Through	Ŭ	0	, in the second s	Ŭ	0	· ·	Ŭ	0	0	· ·	Ŭ	Ũ	0		Ŭ	Ũ	0	· ·
no	Through	313	1	195	6	319	198	67	399	1	243	6	405	1	247	0	405	1	247
LHB	Through-Right	70	1	70		77	77		07	1	07		00	1	00	0	00	1	00
NORTHBOUND		76	0	76	1	77	77	6	87	0 0	87	1	88	0 0	88	0	88	0 0	88
ž	Y Left-Right		0							0				0				0	
				-						-									
₽		144	1	144	24	168	168	0	153	1	153	24	177	1	177	0	177	1	177
NNO	↓ Left-Through ↓ Through	846	0 2	423	26	872	436	40	938	0 2	469	26	964	0 2	482	0	964	0 2	482
1BC	 ✓ Through-Right 	040	0	420	20	072	400		500	0	400	20	504	0	402	Ŭ	504	0	402
SOUTHBOUND	لَم Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
so	✓ Left-Through-Right ↓ Left-Right		0 0							0 0				0 0				0 0	
		I I	U							0				0				0	
	Left	105	0	105	9	114	114	14	125	0	125	9	134	0	134	0	134	0	134
	→ Left-Through		1			004		400	4007	1			1011	1				1	
EASTBOUND	→ Through ᄀ Through-Right	827	2 1	273	4	831	276	129	1007	2 1	334	4	1011	2 1	337	0	1011	2 1	337
STI	Right	160	0	273	0	160	276	32	202	0	334	0	202	0	337	0	202	0	337
EA	Left-Through-Right		0							0				0				0	
	-		0							0				0				0	
	√ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	℃ Left-Through		0							0				0				0	
Sou	← Through	0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
STE	← Through-Right ↓ Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ň	Left-Through-Right	ľ	Ő	Ŭ	Ŭ	v	Ŭ	Ĭ	0	0	Ŭ	Ŭ	Ŭ	0	Ŭ	Ŭ	0	0	Ŭ
	⊱ Left-Right		0							0				0	100			0	
	CRITICAL VOLUMES		th-South: ast-West:	423 273	-	rth-South: East-West:	436 276			th-South: ast-West:	469 334			th-South: ast-West:	482 337			th-South: ast-West:	482 337
	GRITICAL VOLUMES		SUM:	696		SUM:	712		E	SUM:	803		Eč	SUM:	819		E	SUM:	819
	VOLUME/CAPACITY (V/C) RATIO:			0.464			0.475				0.535				0.546				0.546
V/0	C LESS ATSAC/ATCS ADJUSTMENT:			0.394			0.405				0.465				0.476				0.476
	LEVEL OF SERVICE (LOS):			A			Α				Α				A				A
	DEMARKS:																		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.011 Significant impacted? NO *∆v/c* after mitigation: 0.011 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Broadw	ау			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	Group	Date:	2	2019-06-2	6
8	East-West Street: 4th St				Proje	ction Year	2023		Pea	ak Hour:	AM	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
	No. of Phases			2			2				2				2				2
	posed Ø'ing: N/S-1, E/W-2 or Both-3?	NB 0	SB	0 0	NB	0 SI	0 3 0	NB	0	SB	0 0	NB	0	SB	0 0	NB	0	SB	0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	EB 0	зв WB	0	EB	0 31 0 W		EB	0	зв WB	0	EB	0	зв WB	0	EB	0	зв WB	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1				1				1				1
	Override Capacity			0			0				0				0				0
	MOVEMENT	EXISTIN	G CONDIT											-				CT W/ MIT	
	WOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	ົງ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTHBOUND	<∱ Left-Through		0							0				0				0	
30L	↑ Through	491	1	290	0	491	290	58	579	1	336	0	579	1	336	0	579	1	336
E	<pre></pre>	88	1 0	88	0	88	88	0	93	1 0	93	0	93	1 0	93	0	93	1 0	93
0 R	<pre></pre>	00	0	00	Ŭ	00	00	U	00	0	00	Ŭ	00	0	00	Ŭ	00	0	00
2	≺ Left-Right		0							0				0				0	
	1.0		0		0			0	4	0		0	4	0	4	0	4	0	
9	└→ Left ↓→ Left-Through	4	0 1	4	0	4	4	0	4	0 1	4	0	4	0 1	4	0	4	0 1	4
no	↓ Through	328	0	332	0	328	332	24	372	0	376	0	372	0	376	0	372	0	376
SOUTHBOUND	Through-Right		0							0				0				0	
5	✓ Right ✓ Left-Through-Right	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0
°S(Left-Right		0							0				0				0	
		ļ																	
	ン Left ユ→ Left-Through	98	0 1	98	15	113	113	0	104	0 1	104	15	119	0 1	119	0	119	0	119
N	→ Through	827	2	249	26	853	264	135	1013	2	298	26	1039	2	313	0	1039	2	313
EASTBOUND	✓ Through-Right		1							1				1				1	
AST	Right	70	0	249	21	91	264	0	74	0 0	298	21	95	0	313	0	95	0	313
ш	✓ Left-Through-Right ✓ Left-Right		0 0							0				0 0				0 0	
	•	<u> </u>																-	
	✓ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	✓ Left-Through← Through	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
BO	Through-Right	Ň	0	Ŭ	Ŭ	0	Ū	Ŭ	0	0	Ŭ	Ŭ	0	0	Ŭ	Ŭ	0	0	U
EST	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Σ	<pre>✓ Left-Through-Right</pre>		0							0				0				0 0	
	t contragat	North	h-South:	332	No	rth-South:	332		Nor	th-South:	376		Nor	th-South:	376		Nor	th-South:	376
	CRITICAL VOLUMES	CRITICAL VOLUMES East-West: SUM:		249	E	ast-West:	264		E	ast-West:	298		Ea	ast-West:	313		E	ast-West:	313
	SUM: VOLUME/CAPACITY (V/C) RATIO:		581		SUM:	596			SUM:	674			SUM:	689			SUM:	689	
				0.387			0.397				0.449				0.459				0.459
V/0	C LESS ATSAC/ATCS ADJUSTMENT:			0.317			0.327				0.379				0.389				0.389
	LEVEL OF SERVICE (LOS):		Α			Α				Α				Α				Α	

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.010 Significant impacted? NO *∆v/c* after mitigation: 0.010 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Grand A	ve			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	roup	Date:	2	2019-06-2	6
9	East-West Street: 5th St				Proje	ction Year	2023		Pea	ak Hour:	AM	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
	No. of Phases			2			2				2				2				2
Ор	posed Ø'ing: N/S-1, E/W-2 or Both-3?			0		0.0	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0 0	NB EB	0 SE 0 W		NB EB	0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?		WD	1	LD		1	LD	U	WD	1	LD	U	WD	1	LD	U	WD	1
	Override Capacity			0			0				0				0				0
		EXISTI	NG CONDI	TION	EXIST	ING PLUS P	ROJECT	FUTUR		ON W/O PR	OJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTURE	W/ PROJE	ECT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	5 1-4	Volume	Lanes	Volume	Traffic	Volume	Volume 0	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume 0	Lanes	Volume 0
9	ົ Left ⊷ີ Left-Through	0	0 0	0	0	0	U	0	0	0 0	0	0	0	0 0	0	0	0	0 0	U
٦.	↑ Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ΗB	through-Right		0							0				0				0	
NORTHBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N N	Left-Through-Right		0							0				0				0	
	Y Left-Right		0							0				0				0	
	Seft	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	🗠 Left-Through		0							0				0		_		0	
l 30	Through	690	3	230	0	690	230	89	822	3	274	0	822	3	274	0	822	3	274
표	✓ Through-Right ✓ Right	215	0 1	215	0	215	215	0	228	0 1	228	0	228	0 1	228	0	228	0 1	228
SOUTHBOUND	Left-Through-Right	215	0	215	0	215	215	0	220	0	220	0	220	0	220	0	220	0	220
Ō	↓ Left-Right		0							0				0				0	
				-															
Δ	ノ Left ノ Left-Through	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
NN	\rightarrow Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	→ Through-Right		0	-				-		0				0		-		0	-
₽ST	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ш	☆ Left-Through-Right Left-Right		0 0							0 0				0				0 0	
	Leu-Ngin	•	0	1						0				0				0	
	√ Left	319	1	269	0	319	276	0	339	1	296	0	339	1	302	0	339	1	302
WESTBOUND	✓ Left-Through	1000	1			4050	070	50	4400	1			4470	1		_	4470	1	
30L	← Through ← Through-Right	1026	3 1	269	33	1059	276	50	1139	3 1	296	33	1172	3 1	302	0	1172	3 1	302
STE	through-kight t→ Right	150	0	150	0	150	150	0	159	0	159	0	159	0	159	0	159	0	159
Ň	Left-Through-Right		0					-		0		-		0		-		0	
	⊱ Left-Right		0	230			000			0	07.1			0	07.			0	07.6
	CRITICAL VOLUMES	CRITICAL VOLUMES East-West: SUM:				rth-South: East-West:	230 276			th-South: ast-West:	274 296			th-South: ast-West:	274 302			th-South: ast-West:	274 302
		SUM		269 499	'	SUM:	506		L	SUM:	570		Le	SUM:	576		E	SUM:	576
	VOLUME/CAPACITY (V/C) RATIO:			0.333			0.337				0.380				0.384				0.384
V/0			0.263			0.267				0.310				0.314				0.314	
				A			A				A				A				A
							A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.004

Significant impacted? NO

∆v/c after mitigation: 0.004 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Olive S	:			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	roup	Date:	2	2019-06-2	6
10	East-West Street: 5th St					ction Year			Pea	ak Hour:	AM		wed by:		a Point	Project:	;	340 S. Hil	<u> </u>
	No. of Phases			3			3				3				3				3
Ор	posed Ø'ing: N/S-1, E/W-2 or Both-3?			1			1		0		1		0		1		0		1
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	2 0	NB EB	0 SI 0 W		NB EB	0 0	SB WB	2 0	NB EB	0 0	SB WB	2 0	NB EB	0 0	SB WB	2 0
	ATSAC-1 or ATSAC+ATCS-2?		WD	1	LD	0 00	1	LD	0	WD	1	LD	0	WD	1	LD	0	WD	1
	Override Capacity			0			0				0				0				0
		EXISTI	NG CONDI	TION	EXIST	ING PLUS P	ROJECT	FUTUR	E CONDITI	ON W/O PR	OJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTURE	W/ PROJE	CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	*	Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
₽	`) Left	392	2 0	216	0	392	216	0	416	2 0	229	0	416	2 0	229	0	416	2 0	229
NN	<∱ Left-Through ↑ Through	555	2	278	0	555	278	14	603	2	302	0	603	2	302	0	603	2	302
IBC	↑ Through-Right	000	0	270	U U	000	270	14	000	0	502	Ŭ	000	0	502	Ŭ	000	0	502
NORTHBOUND	<pre></pre>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<u> </u>	← Left-Through-Right		0							0				0				0	
-			0							0				0				0	
	└→ Left		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	∽ Leπ ∽ Left-Through	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0
Î	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HBC	✓ Through-Right		0					_		0				0				0	
SOUTHBOUND	⊷ Right	186	2	102	0	186	102	0	197	2	108	0	197	2	108	0	197	2	108
so	← Left-Through-Right		0 0							0 0				0 0				0 0	
	,, Left-Right	1	U							0				0				0	
	Ĵ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q	-≁ Left-Through		0							0				0				0	
OO	→ Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	✓ Through-Right ✓ Right	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
EAS	Left-Through-Right	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	- ≺ Left-Right		0							0				0				0	
		1		-								_					_		
Δ	✓ Left	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
WESTBOUND	✓ Left-Through← Through	996	0 3	264	33	1029	273	50	1107	3	293	33	1140	3	301	0	1140	0 3	301
BO	Through-Right	330	1	204		1023	215	00	1107	1	200	00	1140	1	001	Ŭ	1140	1	001
ST	t Right	61	0	61	0	61	61	0	65	0	65	0	65	0	65	0	65	0	65
ME	Left-Through-Right		0							0				0				0	
	├─ Left-Right	A/	0 th-South:	380	A/ -	rth-South:	380		ALC	0 th-South:	410		A1	0 th-South:	410		M.c	0 th-South:	410
	CRITICAL VOLUMES	380 264		East-West:	380 273			ast-West:	293			n-Soutn: ast-West:	301			tn-Soutn: ast-West:	301		
	SUM:		644		SUM:	653			SUM:	703			SUM:	711			SUM:	711	
	VOLUME/CAPACITY (V/C) RATIO:			0.452			0.458				0.493				0.499				0.499
V/0	C LESS ATSAC/ATCS ADJUSTMENT:		0.382			0.388				0.423				0.429				0.429	
	LEVEL OF SERVICE (LOS):			A			A				A				A				A
		A			~				A				A				~		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.006

Significant impacted? NO

∆v/c after mitigation: 0.006 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Hill St				Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	iroup	Date:		2019-06-20	6
11	East-West Street: 5th St				Proje	ction Year	2023		Pea	ak Hour:	AM	Revie	wed by:	Lydia L	.a Point	Project:	:	340 S. Hil	I
	No. of Phases			2			2				2				2				2
Орр	oosed Ø'ing: N/S-1, E/W-2 or Both-3?			0		0.00	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0	NB EB	0 SE 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?		110	1	LD==	0	1	LD=-	U	110	1		U	110	1	20	U	110	1
	Override Capacity			0			0				0				0				0
		EXISTI		TION	EXIST	NG PLUS P	ROJECT	FUTUR		ON W/O PR	ROJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTURE	E W/ PROJE	CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	5 1-4	Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes 1	Volume	Volume	Volume	Lanes	Volume
9	 ↓ Left ↓ Left-Through 	79	1 0	79	0	79	79	0	84	0	84	0	84	1	84	0	84	1 0	84
5	↑ Through	402	2	201	7	409	205	83	510	2	255	7	517	2	259	0	517	2	259
ЩЩ	through-Right		0							0				0		-		0	
NORTHBOUND	🔿 Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	← Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	└→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Z	, Left-Through	Ŭ	0	Ŭ	Ŭ	Ũ	Ŭ	Ŭ	Ũ	0	Ŭ	Ŭ	0	0	Ŭ	Ŭ	Ũ	0	Ŭ
Ŋ	↓ Through	663	2	332	6	669	335	36	740	2	370	6	746	2	373	0	746	2	373
뽄	← Through-Right	100	0	400	10	004	004		100	0	400	10	040	0	040		040	0	040
SOUTHBOUND	✓ Right ↔ Left-Through-Right	182	1 0	182	19	201	201	0	193	1 0	193	19	212	1 0	212	0	212	1 0	212
Š	人 Left-Right		0							0				0				0	
				_															
	→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N N		0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
BÖI	→ Through-Right	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EA	Left-Through-Right		0							0				0				0	
	- ≺ Left-Right	1	0							0				0				0	
1	✓ Left	39	1	39	0	39	39	4	45	1	45	0	45	1	45	0	45	1	45
9	C Left-Through		0		, j		00		.5	0	.5	Ĵ	.0	0	.5	Ĩ		0	
WESTBOUND	← Through	1001	2	501	14	1015	508	50	1113	2	557	14	1127	2	564	0	1127	2	564
TB	← Through-Right	70	0 1	70	0	70	70	0	84	0 1	0.4	0	0.4	0 1	0.4	0	0.4	0	0.4
VES	Right Left-Through-Right	79	1 0	79	0	79	79	U	84	0	84	U	84	1	84	U	84	1	84
5	Left-Right		0							0				0				0	
			th-South:	411		rth-South:	414			th-South:	454			th-South:	457			th-South:	457
	CRITICAL VOLUMES	Ea	ast-West:	501	E	ast-West:	508		E	ast-West:	557		Ea	ast-West:	564		E	ast-West:	564
	VOLUME/CAPACITY (V/C) RATIO:		SUM:	912		SUM:	922			SUM:	1011			SUM:	1021			SUM:	1021
				0.608			0.615				0.674				0.681				0.681
V/C	LESS ATSAC/ATCS ADJUSTMENT:			0.538			0.545				0.604				0.611				0.611
	LEVEL OF SERVICE (LOS):			Α			Α				В				В				В

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v*/c due to project: 0.007

Significant impacted? NO

∆v/c after mitigation: 0.007 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Bro	adway			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	roup	Date:	2	2019-06-2	6
12	East-West Street: 5th	St			Proje	ction Year	2023		Pea	ak Hour:	AM	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
,	No. of Pha			2			2				2				2				2
Орј	oosed Ø'ing: N/S-1, E/W-2 or Both			0			0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA	3? NB 0 EB 0	SB WB	0 0	NB EB	0 SI 0 W		NB EB	0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS		WD	1	LD==		1	LD	U	WD	1	LD	U	WD	1	LD	U	WD	1
	Override Capa	ity		0			0				0				0				0
		EXIST	ING CONDI	TION	EXIST	ING PLUS P	ROJECT	FUTUR		ON W/O PR	OJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTURE	W/ PROJE	ECT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	5 1-4	Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
9	ົງ Left √ Left-Through	32	0 1	32	0	32	32	0	34	0 1	34	0	34	0 1	34	0	34	0 1	34
5	↑ Through	532	1	298	0	532	298	58	623	1	346	0	623	1	346	0	623	1	346
ЩЩ Щ	hrough-Right		0							0				0		-		0	
NORTHBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	← Left-Through-Right		0							0				0				0	
	✓ Left-Right		0							0				0				0	
	└→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q I	Left-Through	Ŭ	0	Ŭ	Ŭ	0	Ŭ	Ŭ	0	0	Ŭ	Ŭ	0	0	Ŭ	Ŭ	0	0	Ŭ
D O O	Through	296	1	296	6	302	302	24	338	1	338	6	344	1	344	0	344	1	344
臣	Through-Right	100	0	400		447	447	0	100	0	400		400	0	400	0	100	0	100
SOUTHBOUND	✓ Right ✓ Left-Through-Right	103	1 0	103	14	117	117	0	109	1 0	109	14	123	1 0	123	0	123	1 0	123
Š	↓ Left-Right		0							0				0				0	
			Ī	-															
	J Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N N	 	0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
EASTBOUND	✓ Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STI	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EA	Left-Through-Right		0							0				0				0	
	- ≺ Left-Right		0							0				0				0	
1	✓ Left	23	0	23	0	23	23	0	24	0	24	0	24	0	24	0	24	0	24
Q	₩ Left-Through		1						= -	1				1				1	
WESTBOUND	← Through ↓ Through-Bight	873	1	318	0	873	318	22	949	1	345	0	949	1	345	0	949	1	345
1B	✓ Through-Right ↓ Right	50	1	318	0	50	318	0	62	1 0	345	0	60	1 0	345	0	62	1 0	345
VES	Left-Through-Right	58	0	316	0	58	318	U	02	0	343	U	62	0	343	U	02	0	345
>	⊱ Left-Right		0							0				0				0	
		CRITICAL VOLUMES East-West:		328		rth-South:	334			th-South:	372			th-South:	378			th-South:	378
	CRITICAL VOLUN	CRITICAL VOLUMES East-West: SUM:		318		East-West:	318		E	ast-West:	345		Ea	ast-West:	345		E	ast-West:	345
				SUM:	652			SUM:	717			SUM:	723			SUM:	723		
			0.431			0.435				0.478				0.482				0.482	
V/C	C LESS ATSAC/ATCS ADJUSTMENT:			0.361			0.365				0.408				0.412				0.412
<u> </u>	LEVEL OF SERVICE (LC	Α			Α				Α				Α				Α		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.004 Δ

Significant impacted? NO

∆v/c after mitigation: 0.004 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Olive St				Yea	r of Count	: 2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	iroup	Date:	2	2019-06-2	6
1	East-West Street: 2nd St				Proje	ction Year	2023		Pea	ak Hour:	PM	Revie	wed by:	Lydia L	a Point	Project:	;	340 S. Hil	I
<u>_</u>	No. of Phases			3			3				3				3				3
Орр	oosed Ø'ing: N/S-1, E/W-2 or Both-3?			2 0		0.00	2		0		2 0		0		2		0		2
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0	NB EB	0 SE 0 W		NB EB	0 0	SB WB	0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?	20	110	1	LD		1	LD	U	110	1		U	110	1	20	U	112	1
	Override Capacity			0			0				0				0				0
		EXISTI	NG CONDI	TION		ING PLUS P	ROJECT				ROJECT		RE CONDIT		OJECT			CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	N 1.44	Volume	Lanes	Volume 199	Traffic	Volume 199	Volume 199	Volume	Volume	Lanes	Volume 211	Volume	Volume	Lanes 1	Volume 211	Volume	Volume	Lanes	Volume 211
₽	ົງ Left √ Left-Through	199	1 0	199	0	199	199	0	211	0	211	0	211	0	211	0	211	1 0	211
5	1 Through	918	3	306	0	918	306	0	975	3	325	0	975	3	325	0	975	3	325
Ĕ	through-Right		0							0				0		_		0	
NORTHBOUND	→ Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	↔ Left-Through-Right		0							0				0				0	
	✓ Left-Right	I	0							0				0				0	
_ 1	└→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q.	, └→ Left-Through	Ŭ	0	Ŭ	Ŭ	0	Ŭ	Ŭ	Ũ	Ő	Ŭ	Ŭ	0	0	Ŭ	Ŭ	Ũ	0	Ũ
Ŋ	Through	179	1	122	0	179	122	0	190	1	129	0	190	1	129	0	190	1	129
SOUTHBOUND	← Through-Right		1							1				1				1	
5	✓ Right ✓ Left-Through-Right	64	0 0	64	0	64	64	0	68	0 0	68	0	68	0 0	68	0	68	0	68
°,	↓ Left-Right		0							0				0				0	
			I	-															
	→ Left	38	2	21	0	38	21	0	40	2	22	0	40	2	22	0	40	2	22
N N		0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
BOI	→ Through-Right	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND	Right	103	1	4	0	103	4	0	109	1	4	0	109	1	4	0	109	1	4
EA	Left-Through-Right		0							0				0				0	
	-⊰ Left-Right	I	0			_				0				0				0	
1	✓ Left	39	0	39	0	39	39	0	41	0	41	0	41	0	41	0	41	0	41
₽.	C Left-Through		1		Ĭ			Ĩ		1		Ĵ	••	1		Ĵ		1	
no l	← Through	78	0	66	0	78	66	0	83	0	70	0	83	0	70	0	83	0	70
WESTBOUND	Through-Right	45	1 0		_	4 5	00	_	40	1	70	~	40	1	70	0	40	1 0	70
KES	Right	15	0	66	0	15	66	0	16	0 0	70	0	16	0 0	70	0	16	0	70
5	Left-Right		0							0				0				0	
			th-South:	321	-	rth-South:	321			th-South:	340			th-South:	340			th-South:	340
	CRITICAL VOLUMES	E	ast-West:	87		East-West:	87		E	ast-West:	92		Ea	ast-West:	92		E	ast-West:	92
			SUM:	408		SUM:	408			SUM:	432			SUM:	432			SUM:	432
	VOLUME/CAPACITY (V/C) RATIO:			0.286			0.286				0.303				0.303				0.303
V/C	LESS ATSAC/ATCS ADJUSTMENT:			0.216 A			0.216				0.233				0.233				0.233
	LEVEL OF SERVICE (LOS):	LEVEL OF SERVICE (LOS):					Α				Α				Α				Α

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.000 Significant impacted? NO *∆v/c* after mitigation: 0.000 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Hill St				Yea	r of Count	t: 2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	iroup	Date:	:	2019-06-2	6
2	East-West Street: 2nd St				Proje	ction Year	2023		Pe	ak Hour:	PM	Revie	wed by:	Lydia L	a Point	Project:		340 S. Hil	I
	No. of Phases			2			2				2				2				2
Ор	posed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0 0	NB EB	0 SI 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?		WD	1	ED	0 00	D 0 1	ED	U	WD	1	ED	0	WD	1	ED	0	VVD	1
	Override Capacity			0			0				0				0				0
		EXISTI	NG CONDI	TION	EXIST	ING PLUS P	ROJECT	FUTUR	E CONDITI	ON W/O PR	OJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTURE	W/ PROJE	CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
		Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
	Left	123	1	123	6	129	129	0	131	1	131	6	137	1	137	0	137	1	137
N	← Left-Through	740	0	070	10	700	202	74	005	0	407	10	0.05	0 1	440		005	0	440
B	↑ Through ↑→ Through-Right	710	1 1	378	10	720	383	71	825	1 1	437	10	835	1	442	0	835	1 1	442
E	C Right	46	0	46	0	46	46	0	49	0	49	0	49	0	49	0	49	0	49
NORTHBOUND	←↓ Left-Through-Right	-0	0	-10	Ĭ	40	40	, s	-10	0	40	, v	-10	0	-5			0	
z	· ↓ Left-Right		0							0				0				0	
				-															
Δ	∽ Left	31	1	31	0	31	31	0	33	1	33	0	33	1	33	0	33	1	33
N	↓ Left-Through	050	0 1	470		070	400	110	4040	0 1		00	40.44	0 1			1011	0	
B	↓ Through ← Through-Right	850	1	472	23	873	483	116	1018	1	559	23	1041	1	570	0	1041	1	570
王	ل Right	93	0	93	0	93	93	0	99	0	99	0	99	0	99	0	99	0	99
SOUTHBOUND	✓→ Left-Through-Right		0		Ŭ			Ŭ	00	0	00	Ŭ	00	0		Ŭ	00	0	00
S	,, Left-Right		0							0				0				0	
	1													-					
	ン Left ユ→ Left-Through	57	0	57	0	57	57	0	61	0 1	61	0	61	0	61	0	61	0	61
N	\rightarrow Through	315	0	372	0	315	372	0	334	0	395	0	334	0	395	0	334	0	395
EASTBOUND	→ Through-Right	010	Ő	0.1	Ŭ	010	0.1	Ŭ	001	Ő		Ŭ	001	0		Ŭ	001	0	
ST	Right	233	1	172	19	252	188	0	247	1	182	19	266	1	198	0	266	1	198
БА	Left-Through-Right		0							0				0				0	
	- ≺ Left-Right		0							0				0				0	
	√ Left	9	0	9	0	9	9	0	10	0	10	0	10	0	10	0	10	0	10
Ģ	<pre>✓ Left-Through</pre>	J J	0	, v	l v	5		, v	10	0		J	10	0	.5	, v	10	0	.5
WESTBOUND	← Through	138	0	190	4	142	194	0	147	0	203	4	151	0	207	0	151	0	207
TB(Through-Right		0							0				0				0	
ES.	Right	43	0	0	0	43	0	0	46	0 1	0	0	46	0	0	0	46	0 1	0
>	Left-Through-Right		1							1				1				1 0	
	↓ Lott-tight	Nor	th-South:	595	No	rth-South:	612		Nor	th-South:	690		Nor	th-South:	707		Nor	th-South:	707
	CRITICAL VOLUMES		ast-West:	381	-	East-West:	381			ast-West:	405			ast-West:	405			ast-West:	405
		SUM:		976		SUM:	993			SUM:	1095			SUM:	1112			SUM:	1112
	VOLUME/CAPACITY (V/C) RATIO:			0.651			0.662				0.730				0.741				0.741
V/	C LESS ATSAC/ATCS ADJUSTMENT:			0.581			0.592				0.660				0.671				0.671
	LEVEL OF SERVICE (LOS):			Α			Α				В				В				В
	BEMARKS:										_	l			_				_

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.011 Significant impacted? NO *∆v/c* after mitigation: 0.011 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Broadv	ay			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	iroup	Date:	2	2019-06-2	6
3	East-West Street: 2nd St					ction Year			Pea	ak Hour:	РМ		wed by:		.a Point	Project:		340 S. Hil	-
	No. of Phases			3			3				3				3				3
Ор	posed Ø'ing: N/S-1, E/W-2 or Both-3?		60	0 2	ND	0 0	0 3 2	ND	0	0.0	0 2	ND	0	00	0	ND	0	60	0 2
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	2	NB EB	0 SI 0 W		NB EB	0	SB WB	2	NB EB	0	SB WB	2 0	NB EB	0	SB WB	2
	ATSAC-1 or ATSAC+ATCS-2?			1			1		Ŭ		1		Ŭ		1		Ŭ		1
	Override Capacity			0			0				0				0				0
	NOVEMENT	EXISTIN				ING PLUS P							RE CONDIT	-				CT W/ MIT	
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	َ Left	124	0	124	4	128	128	0	132	0	132	4	136	0	136	0	136	0	136
NORTHBOUND	← Left-Through		1			.20	.20	Ŭ		1	102			1		Ŭ		1	
Ŋ	Through	765	0	508	3	768	514	60	872	0	570	3	875	0	575	0	875	0	575
문	Through-Right		1	500	0	0	544	0	0	1	570	0	0	1		0	0	1	575
OR		3	0 0	508	0	3	514	0	3	0 0	570	0	3	0	575	0	3	0	575
ž	· ↓ Left-Right		0							0				0				0	
		. İ		1										-				-	
₽		2	0	2	0	2	2	0	2	0	2	0	2	0	2	0	2	0	2
NN	, └→ Left-Through ↓ Through	339	1 0	341	0	339	341	58	418	1 0	420	0	418	1 0	420	0	418	1 0	420
Щ Щ	← Through-Right	000	0	011	Ŭ	000	011	00	110	0	120	Ŭ	110	0	120	Ŭ	110	0	120
SOUTHBOUND	, ↓ Right	61	1	61	0	61	61	0	65	1	65	0	65	1	65	0	65	1	65
so	✓ Left-Through-Right ↓ Left-Right		0 0							0 0				0 0				0 0	
		1	U	1						0				0				0	
-	Ĵ Left	228	0	228	0	228	228	0	242	0	242	0	242	0	242	0	242	0	242
	→ Left-Through		1							1			0	1				1	
EASTBOUND	→ Through ᄀ Through-Right	8	0 0	236	0	8	236	0	8	0 0	250	0	8	0 0	250	0	8	0 0	250
STE	Right	156	1	156	0	156	156	0	166	1	166	0	166	1	166	0	166	1	166
EA	Left-Through-Right		0							0				0				0	
	- √ Left-Right	1	0							0				0				0	
	✓ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QN	✓ Left-Through		0							1				1				1	
WESTBOUND	← Through ← Through-Bight	0	0 0	0	0	0	0	0	0	0 1	0	0	0	0 1	0	0	0	0 1	0
STE	← Through-Right ↓ Right	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
ŇË	Left-Through-Right	Ň	0	Ŭ	Ŭ	0	Ŭ	Ŭ	0	0	Ŭ	Ŭ	Ŭ	0	Ŭ	Ŭ	0	0	Ŭ
<u> </u>	⊱ Left-Right		0							0				0				0	
	CRITICAL VOLUMES		h-South: st-West:	510 236		rth-South: East-West:	516 236			th-South: ast-West:	572 250			th-South: ast-West:	577 250			th-South: ast-West:	577 250
	CITICAL VOLUMES	Ea	SUM:	236 746	[^]	SUM:	752		E	SUM:	822		E	SUM:	250 827		E	SUM:	250 827
	VOLUME/CAPACITY (V/C) RATIO:			0.524			0.528				0.577				0.580				0.580
V/	C LESS ATSAC/ATCS ADJUSTMENT:			0.454			0.458				0.507				0.510				0.510
	LEVEL OF SERVICE (LOS):			A			A				A				A				A
<u> </u>																			

3

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.003

Significant impacted? NO

∆v/c after mitigation: 0.003 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Hill St				Yea	r of Count	: 2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	iroup	Date:	2	2019-06-2	6
4	East-West Street: 3rd St				Proje	ction Year	2023		Pea	ak Hour:	РМ	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
	No. of Phases			2			2				2				2				2
Орр	oosed Ø'ing: N/S-1, E/W-2 or Both-3?			0 0		0.00	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0	NB EB	0 SE 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?		110	1	LD=	0	1	20	U	110	1	20	U	110	1	20	U	112	1
	Override Capacity			0			0				0				0				0
		EXISTI	NG CONDI	TION		NG PLUS P	ROJECT				OJECT				OJECT			CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total Volume	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	5 I-#	Volume	Lanes	Volume 68	Traffic	Volume	Volume 76	Volume		Lanes	Volume 72	Volume	Volume	Lanes 1	Volume 80	Volume	Volume 80	Lanes 1	Volume 80
9	ົງ Left √ Left-Through	68	0	60	8	76	76	0	72	0	12	8	80	0	80	0	80	0	80
5	↑ Through	629	2	315	16	645	323	71	739	2	370	16	755	2	378	0	755	2	378
РЩ Н П	through-Right		0		_					0				0		_		0	
NORTHBOUND	→ Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Р Я	← Left-Through-Right		0							0				0				0	
	✓ Left-Right	I	0						_	0				0				0	
	└→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q I	, └→ Left-Through	Ŭ	0	Ŭ	Ŭ	Ū.	Ŭ	Ŭ		0	Ŭ	Ŭ	Ŭ	0	Ŭ	Ŭ	Ũ	0	Ŭ
nog	↓ Through	919	2	460	41	960	480	116	1092	2	546	41	1133	2	567	0	1133	2	567
뽄	← Through-Right	057	0	057	0	057	057	0	070	0 1	070	0	070	0 1	070	0	070	0 1	070
SOUTHBOUND	✓ Right ↔ Left-Through-Right	257	1 0	257	0	257	257	0	273	0	273	0	273	0	273	0	273	0	273
Š	Left-Right		0 0							Ő				Ő				Ő	
				-															
	J Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NI NI		0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
EASTBOUND	→ Through-Right	U	0	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STI	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EA	Left-Through-Right		0							0				0				0	
	-⊰ Left-Right	I	0							0				0				0	
1	✓ Left	106	1	106	20	126	126	0	113	1	113	20	133	1	133	0	133	1	133
Q.	C Left-Through		0				.20	Ŭ		0				0		Ŭ		0	
WESTBOUND	← Through	984	2	492	2	986	493	138	1183	2	592	2	1185	2	593	0	1185	2	593
TB	← Through-Right	150	0 1	150	0	150	150	0	150	0 1	150	0	150	0 1	150	0	150	0 1	150
VES	✓ Right Left-Through-Right	150	1	150	0	150	150	0	159	1	159	U	159	1	159	U	159	1	159
5	Left-Right		0							0				0				0	
			th-South:	528	-	rth-South:	556			th-South:	618			th-South:	647			th-South:	647
	CRITICAL VOLUMES	Ea	ast-West:	492	E	ast-West:	493		E	ast-West:	592		Ea	ast-West:	593		E	ast-West:	593
	VOLUME/CAPACITY (V/C) RATIO:	}	SUM:	1020		SUM:	1049			SUM:	1210			SUM:	1240			SUM:	1240
				0.680			0.699				0.807				0.827				0.827
V/C	LESS ATSAC/ATCS ADJUSTMENT:			0.610			0.629				0.737				0.757				0.757
	LEVEL OF SERVICE (LOS):			В			В				С				С				С

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.020

Significant impacted? NO

∆v/c after mitigation: 0.020 Fully mitigated? N/A

4



(Circular 212 Method)



I/S #:	North-South Street: Broad	way			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	roup	Date:	2	2019-06-2	6
5	East-West Street: 3rd S	:			Proje	ction Year	2023		Pea	ak Hour:	РМ	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
,	No. of Phase	-		2			2				2				2				2
Орј	posed Ø'ing: N/S-1, E/W-2 or Both-3			0		0.00	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3	NB 0 EB 0	SB WB	0 0	NB EB	0 SI 0 W		NB EB	0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2		WD	1	LD		1	LD	U	WD	1	LD	U	WD	1	LD	U	110	1
	Override Capaci	у		0			0				0				0				0
		EXIST	ING CONDI	TION	EXIST	ING PLUS P	ROJECT	FUTUR		ON W/O PR	OJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTURE	W/ PROJE	CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
 	5 1.4	Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
9	ົ Left √ Left-Through	84	0	84	2	86	86	0	89	0 1	89	2	91	0 1	91	0	91	0 1	91
5	↑ Through	632	1	400	7	639	406	60	731	1	544	7	738	1	551	0	738	1	551
ЩЩ Щ	through-Right		0							0				0		-		0	
NORTHBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	← Left-Through-Right		0							0				0				0	
	✓ Left-Right		0						_	0				0				0	
	└→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 I	Left-Through	Ŭ	0	Ŭ	Ŭ	Ŭ	Ŭ	Ŭ	Ũ	0	Ŭ	Ŭ	0	0	Ŭ	Ŭ	0	0	0
D O	↓ Through	408	1	408	0	408	408	58	491	1	491	0	491	1	491	0	491	1	491
臣	← Through-Right	107	0	407		407	407	0	445	0	4.45	0	4.45	0	445	0	445	0 1	4.45
SOUTHBOUND	✓ Right ↓ Left-Through-Right	137	1 0	137	0	137	137	0	145	1 0	145	0	145	1 0	145	0	145	1	145
Š	人 Left-Right		0							0				0				0	
			Ī	-															
	J Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N N		0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
EASTBOUND	→ Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STI	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EA	Left-Through-Right		0							0				0				0	
	- ≺ Left-Right		0							0				0				0	
1	✓ Left	33	1	33	0	33	33	0	35	1	35	0	35	1	35	0	35	1	35
Q	<pre>✓ Left-Through</pre>		0		Ŭ			Ŭ		0		Ŭ		0		Ŭ		0	
WESTBOUND	← Through ← Through-Right	942	2	353	20	962	359	138	1138	2	420	20	1158	2	427	0	1158	2	427
1B	← Through-Right ↓ Right	110	1 0	110	0	110	116	0	123	1 0	100	0	100	1 0	100	0	123	1 0	100
VES	Left-Through-Right	116	0	116	0	116	110	U	123	0	123	U	123	0	123	U	123	0	123
>	⊱ Left-Right		0							0				0				0	
			rth-South:	492		rth-South:	494			th-South:	580			th-South:	582			th-South:	582
	CRITICAL VOLUME	CRITICAL VOLUMES East-West SUM		353 845		East-West:	359 853		E	ast-West:	420 1000		Ea	ast-West:	427 1009		E	ast-West:	427
	VOLUME/CAPACITY (V/C) RATIO:					SUM:				SUM:				SUM:				SUM:	1009
1.11			0.563			0.569				0.667				0.673				0.673	
V/C	C LESS ATSAC/ATCS ADJUSTMENT:			0.493			0.499				0.597				0.603				0.603
	LEVEL OF SERVICE (LOS	Α			Α				Α				В				В		

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.006 Significant impacted? NO $\Delta v/c$ after mitigation: 0.006

Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Olive St				Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	Group	Date:	2	2019-06-2	6
6	East-West Street: 4th St					ction Year			Pea	ak Hour:	PM		wed by:		a Point	Project:		340 S. Hil	-
	No. of Phases			2			2				2				2	-			2
Ор	posed Ø'ing: N/S-1, E/W-2 or Both-3?			0			0				0				0				0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0 0	NB EB	0 SE 0 W		NB EB	0	SB WB	0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?		VVD	1	ED	0 00	 0	ED	0	WD	1	ED	0	WD	1	ED	0	VV D	1
	Override Capacity			0			0				0				0				0
		EXISTIN		TION	EXIST	ING PLUS P	ROJECT	FUTUR		ON W/O PR	OJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTURE	W/ PROJE	CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	* • • •	Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
9	ົງ Left ⊷∫ Left-Through	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
5	↑ Through	824	2	321	0	824	321	0	875	2	344	0	875	2	344	0	875	2	344
Ĕ	through-Right		1		_			_		1	• • •			1		_		1	
NORTHBOUND	→ Right	138	0	138	0	138	138	9	156	0	156	0	156	0	156	0	156	0	156
S S	Left-Through-Right		0							0				0				0	
	✓ Left-Right	I į	0							0				0				0	
	└→ Left	103	2	57	0	103	57	0	109	2	60	0	109	2	60	0	109	2	60
SOUTHBOUND	↓ Left-Through		0		-			-		0		-		0		-		0	
D D	Through	195	1	195	0	195	195	0	207	1	207	0	207	1	207	0	207	1	207
본	← Through-Right	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0	0
	✓ Right ↓ Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Š	Left-Right		0							0				0				0	
		<u> </u>		-															
	_∕ Left ⊥ Left-Through	178	1 0	178	0	178	178	0	189	1 0	189	0	189	1 0	189	0	189	1 0	189
N N	→ Through	1045	4	261	48	1093	273	217	1326	4	332	48	1374	4	344	0	1374	4	344
EASTBOUND	✓ Through-Right	1010	0	201	10	1000	2.0	2.17	1020	0	001	10	107.1	0	••••	Ŭ	1071	0	011
AST	Right	120	1	120	0	120	120	0	127	1	127	0	127	1	127	0	127	1	127
Ш	Left-Through-Right		0 0							0 0				0 0				0 0	
	- ≺ Left-Right	I	U							U				U				U	
	√ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WESTBOUND	✓ Left-Through		0							0				0				0	
30L	← Through ← Through-Right	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
STE	througn-Right ↓ Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ň.	Left-Through-Right	ľ	0	, v	Ŭ	5	0	J J	5	0	J	Ŭ	0	0	0		5	0	5
Ĺ	⊱ Left-Right		0							0				0				0	
		CRITICAL VOLUMES East-Wes		378		rth-South:	378			th-South:	404			th-South:	404			th-South:	404
	CRITICAL VOLUMES	Ea	SUM:	261 639		East-West: SUM:	273 651		E	ast-West: SUM:	332 736		Ea	st-West: SUM:	344 748		E	ast-West: SUM:	344 748
	VOLUME/CAPACITY (V/C) RATIO:	00.11.	0.426		00///.	0.434			00.11.	0.491			00.11.	0.499			00.11.	0.499	
V/0	C LESS ATSAC/ATCS ADJUSTMENT:			0.420			0.434 0.364				0.491 0.421				0.499				0.499 0.429
			0.350 A			0.304 A				0.421 A				0.429 A				0.429 A	
	()	S ATSAC/ATCS ADJUSTMENT: LEVEL OF SERVICE (LOS):					A				A				A				A

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.008 Significant impacted? NO *∆v/c* after mitigation: 0.008 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Hill St				Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	iroup	Date:	2	2019-06-20	6
7	East-West Street: 4th St				Proje	ction Year	2023		Pea	ak Hour:	РМ	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
	No. of Phases			2			2				2				2				2
Орр	oosed Ø'ing: N/S-1, E/W-2 or Both-3?			0 0		0.00	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0	NB EB	0 SE 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?			1		0	1		Ŭ		1		Ŭ		1		Ŭ		1
	Override Capacity			0			0				0				0				0
		EXISTI	NG CONDI	TION		NG PLUS P	ROJECT		E CONDITI		OJECT		RE CONDIT		OJECT			CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane Volume	Project Traffic	Total	Lane	Added	Total Volume	No. of	Lane Volume	Added	Total	No. of	Lane	Added Volume	Total Volume	No. of	Lane
	ጎ Left	Volume 0	Lanes 0	Volume 0		Volume 0	Volume 0	Volume 0	volume 0	Lanes 0	Volume 0	Volume 0	Volume 0	Lanes 0	Volume 0	Volume 0	volume 0	Lanes 0	Volume 0
₽	i Leπ ⊷∫ Left-Through	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
n n	↑ Through	683	1	412	53	736	440	61	786	1	473	53	839	1	501	0	839	1	501
μĔ	Through-Right		1							1				1				1	
NORTHBOUND	→ Right	140	0	140	3	143	143	10	159	0	159	3	162	0	162	0	162	0	162
2 2	← Left-Through-Right		0							0				0				0	
	<pre> Left-Right </pre>		0							0				0				0	
	└→ Left	118	1	118	38	156	156	0	125	1	125	38	163	1	163	0	163	1	163
SOUTHBOUND	, └→ Left-Through		0					-		0				0		-		0	
D D	↓ Through	870	2	435	15	885	443	116	1040	2	520	15	1055	2	528	0	1055	2	528
뿓	← Through-Right		0			0	0		0	0 0	0	0	0	0 0	0	0	0	0	0
5	✓ Right ↔ Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Š	Left-Right		0 0							Ő				Ő				Ő	
		ļ		-															
		17	0	17	0	17	17	9	27	0	27	0	27	0	27	0	27	0	27
N N		1152	1 2	320	48	1200	332	133	1356	1 2	396	48	1404	1	408	0	1404	1	408
EASTBOUND	→ Through-Right	1152	1	520	40	1200	552	155	1550	1	550	40	1404	1	400	0	1404	1	400
ST	Right	110	0	320	0	110	332	84	201	0	396	0	201	0	408	0	201	0	408
EA	Left-Through-Right		0							0				0				0	
	-⊰ Left-Right	I	0							0				0				0	
1	✓ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q.	C Left-Through		0			2			5	0			-	0			2	0	
WESTBOUND	← Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1B	← Through-Right ↓ Right	0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
VES	Left-Through-Right	0	0	0	U	U	0	U	U	0	0	U	U	0	0	U	U	0	0
>	Left-Right		Ő							0				0				0	
			th-South:	530	-	rth-South:	596			th-South:	598			th-South:	664			th-South:	664
	CRITICAL VOLUMES	Ea	ast-West:	320 850	^E	ast-West:	332 928		E	ast-West: SUM:	396 994		Ea	ast-West:	408 1072		E	ast-West:	408
	VOLUME/CAPACITY (V/C) RATIO:		SUM:			SUM:				SUM:				SUM:				SUM:	1072
1//0				0.567			0.619				0.663				0.715				0.715
V/C	LESS ATSAC/ATCS ADJUSTMENT:			0.497			0.549				0.593				0.645				0.645
	LEVEL OF SERVICE (LOS):			Α			Α				Α				В				В

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.052

Significant impacted? NO

∆v/c after mitigation: 0.052 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Broady	/ay			Yea	r of Count	2017	Amb	ient Grov	wth: (%):	1.0018	Condu	cted by:	IBI G	Group	Date:	2	2019-06-2	6
8	East-West Street: 4th St				Proje	ction Yea	: 2023		Pe	ak Hour:	PM	Revie	wed by:	Lydia L	.a Point	Project:	:	340 S. Hil	I
,	No. of Phases			2			2				2				2				2
Орр	oosed Ø'ing: N/S-1, E/W-2 or Both-3?			0		0.00	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0 0	NB EB	0 SI 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?		110	1	LD==		1	LD	U	WD	1	LD	U	WD	1	LD	U	WD	1
	Override Capacity			0			0				0				0				0
		EXIST	ING CONDI	TION	EXIST	ING PLUS P	ROJECT	FUTUR	E CONDITI	ON W/O PR	ROJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTUR	E W/ PROJE	ECT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	5 1-8	Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume 0
₽	ົງ Left √ Left-Through	0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
л Ло	↑ Through	680	1	435	0	680	435	60	782	1	492	0	782	1	492	0	782	1	492
ΡĔ	Through-Right		1							1				1				1	
NORTHBOUND		190	0	190	0	190	190	0	202	0	202	0	202	0	202	0	202	0	202
Я Я	Left-Through-Right		0							0				0				0	
	✓ Left-Right		0							0				0				0	
	└→ Left	7	0	7	0	7	7	0	7	0	7	0	7	0	7	0	7	0	7
SOUTHBOUND	└→ Left-Through		1			-		-	-	1		-		1			-	1	
l ou	Through	430	0	437	0	430	437	58	515	0	522	0	515	0	522	0	515	0	522
본	← Through-Right	0	0 0	0		0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
	✓ Right ↔ Left-Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Š	Left-Right		0							0				0				0	
			Ī	_															
	→ Left	98	0	98	9	107	107	0	104	0	104	9	113	0 1	113	0	113	0	113
N N		1279	2	368	15	1294	385	143	1501	1 2	427	15	1516	2	444	0	1516	2	444
EASTBOUND	→ Through-Right	1213	1	500	10	1234	505	145	1001	1	721	10	1010	1			1010	1	
\ST	Right	96	0	368	44	140	385	0	102	0	427	44	146	0	444	0	146	0	444
E	Left-Through-Right		0							0				0				0	
	-	1	0							0				0				0	
	✓ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
QN	行 Left-Through		0					-		0				0				0	
WESTBOUND	← Through ↓ Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STB	← Through-Right ↓ Right	0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
VES	Left-Through-Right	U	0	0	0	0	0	0	0	0	0	0	U	0	0	0	0	0	0
>	├ Left-Right		0							0				0				Ő	
			th-South:	442	-	rth-South:	442			th-South:	522			th-South:	522			th-South:	522
	CRITICAL VOLUMES	E	ast-West: SUM:	368 810	'	East-West: SUM:	385 827		E	ast-West: SUM:	427 949		Ea	ast-West: SUM:	444 966		E	ast-West: SUM:	444 966
	VOLUME/CAPACITY (V/C) RATIO:	1	30101:	0.540		30111:	0.551			30IVI:	0.633			30W.	0.644			30M:	0.644
VIC	LESS ATSAC/ATCS ADJUSTMENT:																		
V/C				0.470			0.481				0.563				0.574				0.574
	LEVEL OF SERVICE (LOS):			Α			Α				Α				Α				Α

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.011 Significant impacted? NO *∆v/c* after mitigation: 0.011 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Grand A	ve			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	roup	Date:	2	2019-06-2	6
9	East-West Street: 5th St				Proje	ction Year	2023		Pea	ak Hour:	РМ	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
,	No. of Phases			2			2				2				2				2
	posed Ø'ing: N/S-1, E/W-2 or Both-3?	NB 0	SB	0 0	NB	0 SI	0 3 0	NB	0	SB	0 0	NB	0	SB	0 0	NB	0	SB	0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	EB 0	зв WB	0	EB	0 31 0 W	-	EB	0	зв WB	0	EB	0	зв WB	0	EB	0	зв WB	0
	ATSAC-1 or ATSAC+ATCS-2?			1			1				1				1				1
	Override Capacity			0			0				0				0				0
	MOVEMENT	EXISTIN																CT W/ MIT	
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	ົງ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTHBOUND	<∱ Left-Through		0							0				0				0	
l m	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ξ	∱ Through-Right	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0
NOR 1	← Left-Through-Right	v	0	Ŭ	Ŭ	0	0	U	0	0	0	Ŭ	0	0	0	Ŭ	0	0	U
Z	· ↓ Left-Right		0							0				0				0	
						<u>^</u>	0			0	0			0				0	0
9	└→ Left └→ Left-Through	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
I N	↓ Through	964	3	321	0	964	321	226	1249	3	416	0	1249	3	416	0	1249	3	416
ΗB	✓ Through-Right		0							0				0				0	
SOUTHBOUND	✓ Right ✓ Left-Through-Right	255	1 0	255	0	255	255	0	271	1 0	271	0	271	1 0	271	0	271	1 0	271
S S	ربة Left-Right		0							0				0				0	
		İ.		-															
	→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NI NI		0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
EASTBOUND	→ Through-Right	v	0	v	Ŭ	0	Ŭ	U	0	0	Ŭ	Ŭ	0	0	Ŭ	Ŭ	0	0 0	Ŭ
AST	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ш	✓ Left-Through-Right ✓ Left-Right		0 0							0 0				0				0 0	
)	1	0	1						0				0				0	
	√ Left	377	1	346	0	377	350	0	400	1	380	0	400	1	384	0	400	1	384
WESTBOUND	 ✓ Left-Through ← Through 	1250	1 3	246	20	1372	250	66	1501	1 3	200	20	1501	1 3	384	0	1504	1 3	204
BO	Through-Right	1352	3 1	346	20	1372	350	66	1001	3 1	380	20	1521	3 1	304	U	1521	3 1	384
ST	t Right	291	0	291	0	291	291	0	309	0	309	0	309	0	309	0	309	0	309
Ň	Left-Through-Right		0							0				0				0 0	
┠───┛	⊱ Left-Right	Nort	0 h-South:	321	No	rth-South:	321		Nor	th-South:	416		Nor	th-South:	416		Nor	th-South:	416
	CRITICAL VOLUMES		st-West:	346		East-West:	350			ast-West:	380			ast-West:	384			ast-West:	384
		I	SUM:	667		SUM:	671			SUM:	796			SUM:	800			SUM:	800
	VOLUME/CAPACITY (V/C) RATIO:			0.445			0.447				0.531				0.533				0.533
V/C	C LESS ATSAC/ATCS ADJUSTMENT:			0.375			0.377				0.461				0.463				0.463
	LEVEL OF SERVICE (LOS):			Α			Α				Α				Α				Α

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.002 Significant impacted? NO $\Delta v/c$ after mitigation: 0.002

Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Olive	St			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	roup	Date:		2019-06-2	6
10	East-West Street: 5th St					ction Year			Pea	ak Hour:	PM		wed by:		a Point	Project:	:	340 S. Hil	 I
	No. of Phase			3			3				3				3				3
Орр	oosed Ø'ing: N/S-1, E/W-2 or Both-3'			1			1		0		1		0		1		0		1
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	2 0	NB EB	0 SI 0 W		NB EB	0 0	SB WB	2 0	NB EB	0 0	SB WB	2 0	NB EB	0 0	SB WB	2 0
	ATSAC-1 or ATSAC+ATCS-2		WD	1	LD==		1	LD	U	WD	1	LD	U	WD	1	LD	U	WD	1
	Override Capacity	,		0			0				0				0				0
		EXIST	ING CONDI	TION	EXIST	ING PLUS P	ROJECT	FUTUR		ON W/O PR	OJECT	FUTUF	RE CONDIT	ION W/ PR	OJECT	FUTURE	W/ PROJE	CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
	5 1-4	Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
9	 ↑ Left ↓ Left-Through 	581	2 0	320	0	581	320	0	617	2 0	339	0	617	2 0	339	0	617	2 0	339
5	↑ Through	836	2	418	0	836	418	9	897	2	449	0	897	2	449	0	897	2	449
Щ Щ	through-Right		0					-		0				0		-		0	
NORTHBOUND		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9	← Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
1	└→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q	↓ Left-Through	Ŭ	0 0	Ŭ	Ŭ	0	Ŭ	Ŭ	0	Ő	Ŭ	Ŭ	0	Ő	Ŭ	Ŭ	0	Ő	U
no	Through	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
H.	← Through-Right		0							0				0				0	
SOUTHBOUND	✓ Right ↔ Left-Through-Right	430	2 0	237	0	430	237	0	457	2 0	251	0	457	2 0	251	0	457	2 0	251
S	Left-Right		0							0				0				0	
I I		1		-										-				-	
	J Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EASTBOUND		0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
301	→ Through-Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STI	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EA	Left-Through-Right		0							0				0				0	
	- ≺ Left-Right		0							0				0				0	
1	√ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ð	C Left-Through		0	Ŭ	Ŭ	Ŭ	Ŭ	Ŭ	0	0	Ŭ	Ŭ	Ŭ	0	Ŭ	Ĭ	Ŭ	0	Ŭ
no	← Through	991	3	268	20	1011	273	66	1118	3	301	20	1138	3	306	0	1138	3	306
WESTBOUND	Through-Right	70	1 0	70		70	70	C	0.4	1	0.6		0.4	1	0.4		0.4	1 0	0.4
VES	Right	79	0	79	0	79	79	0	84	0 0	84	0	84	0 0	84	0	84	0	84
5	Left-Right		0							0				0				0	
			rth-South:	655		rth-South:	655			th-South:	700			th-South:	700			th-South:	700
	CRITICAL VOLUMES	E	ast-West:	268		East-West:	273		E	ast-West:	301		Ea	ast-West:	306		E	ast-West:	306
		.	SUM:	923		SUM:	928			SUM:	1001			SUM:	1006			SUM:	1006
	VOLUME/CAPACITY (V/C) RATIO			0.648			0.651				0.702				0.706				0.706
V/C	LESS ATSAC/ATCS ADJUSTMENT			0.578			0.581				0.632				0.636				0.636
	LEVEL OF SERVICE (LOS)			Α			Α				В				В				В

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.004 Significant impacted? NO *∆v/c* after mitigation: 0.004 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Hill St				Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	Group	Date:	2	2019-06-20	6
11	East-West Street: 5th St				Proje	ction Year	2023		Pea	ak Hour:	PM	Revie	wed by:	Lydia L	.a Point	Project:	;	340 S. Hil	I
	No. of Phases			2			2				2				2				2
Орр	oosed Ø'ing: N/S-1, E/W-2 or Both-3?			0		0.0	0		0		0		0		0		0		0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	NB 0 EB 0	SB WB	0	NB EB	0 SE 0 W		NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0 0	NB EB	0 0	SB WB	0
	ATSAC-1 or ATSAC+ATCS-2?		110==	1	LD=		1	LD	U	110	1	20	U	110	1	LD	U	110	1
	Override Capacity			0			0				0				0				0
		EXISTI		TION	EXIST	NG PLUS P	ROJECT	FUTUR		ON W/O PR	ROJECT	FUTUF		ION W/ PR	OJECT	FUTURE	W/ PROJE	CT W/ MIT	IGATION
	MOVEMENT		No. of	Lane	Project	Total	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane	Added	Total	No. of	Lane
—	5 1-4	Volume	Lanes	Volume	Traffic	Volume	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume	Volume	Volume	Lanes	Volume
9	ົງ Left √ Left-Through	112	1 0	112	0	112	112	0	119	0	119	0	119	1 0	119	0	119	1 0	119
5	↑ Through	734	2	367	24	758	379	116	895	2	448	24	919	2	460	0	919	2	460
Щ Щ	through-Right		0							0				0		-		0	
NORTHBOUND	→ Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	← Left-Through-Right		0							0				0				0	
	Left-Right		0							0				0				0	
	└→ Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q I	, └→ Left-Through	Ŭ	0	Ŭ	Ŭ		Ŭ	Ŭ	•	0	Ŭ	Ŭ	Ŭ	0	Ŭ	Ŭ	Ũ	0	Ŭ
	Through	806	2	403	4	810	405	93	949	2	475	4	953	2	477	0	953	2	477
뽄	← Through-Right	110	0	440		100	400		400	0	400		407	0	407	0	107	0	407
SOUTHBOUND	✓ Right ↔ Left-Through-Right	119	1 0	119	11	130	130	0	126	1 0	126	11	137	1 0	137	0	137	1 0	137
°,	人 Left-Right		0							0				0				0	
		l		-															
	J Left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
N N		0	0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
EASTBOUND	→ Through-Right	U	0	U	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STI	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EA	Left-Through-Right		0							0				0				0	
	-⊰ Left-Right		0							0				0				0	
1	✓ Left	74	1	74	0	74	74	7	86	1	86	0	86	1	86	0	86	1	86
Q.	C Left-Through		0		Ĵ			l í		0	00	Ĵ		0	00	Ĵ		0	
WESTBOUND	← Through	732	2	366	8	740	370	66	843	2	422	8	851	2	426	0	851	2	426
STB	✓ Through-Right ↓ Right	150	0 1	150	32	182	182	0	159	0 1	159	32	191	0 1	191	0	191	0 1	191
VES	Left-Through-Right	150	0	150	32	ΙŏΖ	182	U	159	0	159	32	191	0	191	U	191	0	191
>	Left-Right		0							0				0				0	
			th-South:	515	-	rth-South:	517			th-South:	594			th-South:	596			th-South:	596
	CRITICAL VOLUMES	Ea	ast-West:	366 881	E	East-West:	370 887		E	ast-West:	422 1016		Ea	ast-West:	426 1022		E	ast-West:	426
	VOLUME/CAPACITY (V/C) RATIO:		SUM:			SUM:				SUM:				SUM:				SUM:	1022
V				0.587			0.591				0.677				0.681				0.681
V/C	LESS ATSAC/ATCS ADJUSTMENT:			0.517			0.521				0.607				0.611				0.611
	LEVEL OF SERVICE (LOS):			Α			Α				В				В				В

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in v/c due to project: 0.004

Significant impacted? NO

∆v/c after mitigation: 0.004 Fully mitigated? N/A



(Circular 212 Method)



I/S #:	North-South Street: Broad	vay			Yea	r of Count	2017	Amb	ient Grov	vth: (%):	1.0018	Condu	cted by:	IBI G	roup	Date:	2	2019-06-2	6
12	East-West Street: 5th St					ction Year			Pea	ak Hour:	РМ		wed by:		a Point	Project:	:	340 S. Hil	l
,	No. of Phases			2			2				2				2				2
	posed Ø'ing: N/S-1, E/W-2 or Both-3	NB 0	SB	0 0	NB	0 SI	0 3 0	NB	0	SB	0 0	NB	0	SB	0 0	NB	0	SB	0
Right	Turns: FREE-1, NRTOR-2 or OLA-3?	EB 0	зв WB	0	EB	0 SI		EB	0	зв WB	0	EB	0	зв WB	0	EB	0	зв WB	0
	ATSAC-1 or ATSAC+ATCS-22			1			1				1				1				1
	Override Capacity			0			0				0				0				0
	MOVEMENT	EXISTI	NG CONDI			ING PLUS P							RE CONDIT	-				CT W/ MIT	
	MOVEMENT	Volume	No. of Lanes	Lane Volume	Project Traffic	Total Volume	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume	Added Volume	Volume	No. of Lanes	Lane Volume	Added Volume	Total Volume	No. of Lanes	Lane Volume
	ົງ Left	40	0	40	0	40	40	0	42	0	42	0	42	0	42	0	42	0	42
	<∱ Left-Through		1							1				1				1	
30L	Through	742	1	411	0	742	411	60	848	1	466	0	848	1	508	0	848	1	508
H	<pre></pre>	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0 0	0
NORTHBOUND	← Left-Through-Right	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
z	<pre> Left-Right </pre>		0							0				0				0	
	1.6	-		-	-		0		2	0	0		2	0			_	0	
9	└→ Left └→ Left-Through	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
SOUTHBOUND	↓ Through	373	1	373	4	377	377	58	454	1	454	4	458	1	458	0	458	1	458
HB	← Through-Right		0							0				0				0	
UT I	✓ Right ✓ Left-Through-Right	119	1	119	40	159	159	0	126	1 0	126	40	166	1 0	166	0	166	1 0	166
sc	ل Left-Right		0 0							0				0				0	
		-		-						-				-				-	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NI NI	-ᡗ→ Left-Through → Through	0	0 0	0	0	0	0	0	0	0 0	0	0	0	0 0	0	0	0	0 0	0
EASTBOUND	→ Through-Right	U	0	Ŭ		0	U	U	0	0	0	U	0	0	U	Ŭ	0	0	U
AST	Right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Б	✓ Left-Through-Right ✓ Left-Right		0 0							0 0				0				0	
		1	U							U				U				U	
	√ Left	32	0	32	0	32	32	0	34	0	34	0	34	0	34	0	34	0	34
WESTBOUND	✓ Left-Through	700	1 1	00.4	<u> </u>	700	00.4	00	770	1	244	<u> </u>	770	1	244	0	770	1 1	244
BOI	← Through ← Through-Right	706	1	284	0	706	284	28	778	1	311	0	778	1	311	0	778	1	311
ST	Right	115	0	284	0	115	284	0	122	0	311	0	122	0	311	0	122	0	311
ME	Left-Through-Right		0							0				0				0	
	├ Left-Right	Nor	0 th-South:	413	A/o	rth-South:	417		Nor	0 th-South:	496		Nor	0 th-South:	508		Nor	0 th-South:	508
	CRITICAL VOLUMES		ast-West:	284		East-West:	284			ast-West:	490 311			ast-West:	311			ast-West:	308
			SUM:	697		SUM:	701			SUM:	807			SUM:	819			SUM:	819
	VOLUME/CAPACITY (V/C) RATIO			0.465			0.467				0.538				0.546				0.546
V/C	LESS ATSAC/ATCS ADJUSTMENT			0.395			0.397				0.468				0.476				0.476
	LEVEL OF SERVICE (LOS)			Α			Α				Α				Α				Α

REMARKS:

Version: 1i Beta; 8/4/2011

PROJECT IMPACT

Change in *v*/c due to project: 0.008

Significant impacted? NO

∆v/c after mitigation: 0.008 Fully mitigated? N/A

Transportation Impact Study Approval Letter

CITY OF LOS ANGELES INTER-DEPARTMENTAL CORRESPONDENCE

340 S Hill St DOT Case No. CEN 17-44229

Date: August 7, 2017

- To: Karen Hoo, City Planner Department of City Planning
- From: Wes Pringle, Transportation Engineer Department of Transportation

Subject: TRAFFIC IMPACT STUDY FOR THE PROPOSED RESIDENTIAL MIXED-USE PROJECT LOCATED AT 340 SOUTH HILL STREET (ENV-2015-982-EIR)

DOT has reviewed the traffic analysis dated June 2017 prepared by IBI Group for the proposed residential mixed use project located at 340 South Hill Street. In order to evaluate the effects of the project's traffic on the available transportation infrastructure, the significance of the project's traffic impacts is measured in terms of change to the volume-to-capacity (V/C) ratio between the "future no project" and the "future with project" scenarios. This change in the V/C ratio is compared to DOT's established threshold standards to assess the project-related traffic impacts. Based on DOT's traffic impacts at the 12 study intersections identified for detailed analysis, as noted in **Attachment 1**. The results of the traffic analysis accounted for other known development projects in evaluating potential cumulative impacts and adequately evaluated the project's traffic impacts on the surrounding community.

DISCUSSION AND FINDINGS

A. <u>Project Description</u>

The project will be replacing an 850 square foot restaurant and a 109-space surface parking lot with a 33-story tower with 428 multi-family residential units (including 22 very-low-income housing units), a 2,980 square foot leasing office, and up to 2,630 square feet of neighborhood serving retail.

The project will provide 435 parking spaces via a two and a half level subterranean parking garage and a seven story parking podium. Vehicular access will be provided via two driveways, one full access driveway on Hill Street and one left-in left-out driveway on 4th Street, and an existing alley. The project is expected to be completed by 2021.

B. <u>Trip Generation</u>

The project is estimated to generate a net increase of 2,253 daily trips, 166 trips in the a.m. peak hour, and 208 trips in the p.m. peak hour. The trip generation estimates are based on formulas published by the Institute of Transportation Engineers (ITE) <u>Trip</u> <u>Generation</u>, 9th Edition, 2012. A copy of the trip generation table can be found in

¹ Per the DOT Traffic Study Policies and Procedures, a significant impact is identified as an increase in the Critical Movement Analysis (CMA) value, due to project related traffic, of 0.01 or more when the final ("with project") Level of Service (LOS) is LOS E or F; an increase of 0.020 or more when the final LOS is LOS D; or an increase of 0.040 or more when the final LOS is LOS C.

Attachment 2.

C. <u>Freeway Analysis</u>

The traffic study included a freeway impact analysis that was prepared in accordance with the State-mandated Congestion Management Program (CMP) administered by the Los Angeles County Metropolitan Transportation Authority (MTA). According to this analysis, the project would not result in significant traffic impacts on any of the evaluated freeway mainline segments. To comply with the Freeway Impact Analysis Agreement executed between Caltrans and DOT in October 2013, the study also included a screening analysis to determine if additional evaluation of freeway mainline and ramp segments was necessary beyond the CMP requirements. The project did not meet or exceed any of the four thresholds defined in the latest agreement, updated in December 2015. Exceeding one of the four screening criteria would require the applicant to work directly with Caltrans to prepare more detailed freeway analyses. No additional freeway analysis was required.

PROJECT REQUIREMENTS

A. <u>Construction Impacts</u>

DOT recommends that a construction work site traffic control plan be submitted to DOT for review and approval prior to the start of any construction work. The plan should show the location of any roadway or sidewalk closures, traffic detours, haul routes, hours of operation, protective devices, warning signs and access to abutting properties. DOT also recommends that all construction related traffic be restricted to off-peak hours.

B. <u>Highway Dedication And Street Widening Requirements</u>

On August 11, 2015, the City Council adopted the Mobility Plan 2035 which is the new Mobility Element of the General Plan. A key feature of the updated plan is to revise street standards in an effort to provide a more enhanced balance between traffic flow and other important street functions including transit routes and stops, pedestrian environments, bicycle routes, building design and site access, etc. Per the new Mobility Element, **South Hill Street** is designated as a Modified Avenue II, which would require a 33-foot half-width roadway and a 46.5-foot half-width right-of-way. **West 4th Street** is designated as a Modified Avenue II, which would require a 30-foot half-width right-of-way. The applicant should check with BOE's Land Development Group to determine if there are any other applicable highway dedication, street widening and/or sidewalk requirements for this project.

C. Parking Requirements

The project will provide 435 parking spaces via a two and a half level subterranean parking garage and a seven story parking podium. Vehicular access will be provided via two driveways, one full access driveway on Hill Street and one left-in left-out driveway on 4th Street, and an existing alley. The applicant should check with the Department of Building and Safety on the number of Code-required parking spaces needed for the project.

D. Driveway Access and Circulation

The proposed site plan illustrated in **Attachment 3** is acceptable to DOT; however, review of the study does not constitute approval of the driveway dimensions and internal circulation schemes. Those require separate review and approval and should be

coordinated with DOT's Citywide Planning Coordination Section (201 N. Figueroa Street, 5th Floor, Room 550, at (213-482-7024). In order to minimize potential building design changes, the applicant should contact DOT for driveway width and internal circulation requirements so that such traffic flow considerations are designed and incorporated early into the building and parking layout plans. All new driveways should be Case 2 driveways and any security gates should be a minimum 20 feet from the property line. All truck loading and unloading should take place on site with no vehicles backing into the project via the project driveways.

E. <u>Development Review Fees</u>

An ordinance adding Section 19.15 to the Los Angeles Municipal Code relative to application fees paid to DOT for permit issuance activities was adopted by the Los Angeles City Council in 2009. This ordinance identifies specific fees for traffic study review, condition clearance, and permit issuance. The applicant shall comply with any applicable fees per this ordinance.

If you have any questions, please contact Johnathan Yu of my staff at (213) 972-4993.

Attachments

J:\Letters\2017\CEN17-44229_340 S Hill St_Equity Residential MU ts ltr.docx

c: Shawn Kuk, Council District No. 14 Mehrdad Moshksar, Central District, DOT Taimour Tanavoli, Case Management Office, DOT Carl Mills, Central District, BOE Lydia La Point, IBI Group

ATTACHMENT 1 Summary of Volume to Capacity Ratios (V/C) and Level of Service (LOS)

				able J - L			-		-					
	Intersection	Year 2 Existing Condit	Traffic	Existin Proj		Project Impact	Year 2 Cumul Bas	ative	Year 2 Plus Pl		Project Impact	Year 2 Project Mitiga	with	Net Project Impact
		V/C	LOS	V/C	LOS		V/C	LOS	V/C	LOS		V/C	LOS	impact
1	2nd St & Olive St	0.209	Α	0.209	Α	NO	0.221	Α	0.221	А	NO	0.221	Α	NO
2	2nd St & Hill St	0.597	А	0.606	В	NO	0.637	В	0.646	В	NO	0.646	В	NO
3	2nd St & Broadway	0.385	Α	0.389	А	NO	0.420	Α	0.424	Α	NO	0.424	Α	NO
4	3rd St & Hill St	0.729	С	0.743	С	NO	0.809	D	0.823	D	NO	0.823	D	NO
5	3rd St & Broadway	0.503	Α	0.507	А	NO	0.564	Α	0.568	А	NO	0.568	А	NO
6	4th St & Olive St	0.233	Α	0.235	Α	NO	0.274	Α	0.277	Α	NO	0.277	Α	NO
7	4th St & Hill St	0.394	Α	0.405	Α	NO	0.455	Α	0.466	Α	NO	0.466	Α	NO
8	4th St & Broadway	0.317	Α	0.327	А	NO	0.371	Α	0.381	А	NO	0.381	Α	NO
9	5th St & Grand Ave	0.263	А	0.267	Α	NO	0.303	Α	0.307	А	NO	0.307	Α	NO
10	5th St & Olive St	0.382	А	0.388	А	NO	0.415	Α	0.421	Α	NO	0.421	Α	NO
11	5th St & Hill St	0.538	А	0.545	Α	NO	0.591	Α	0.597	А	NO	0.597	Α	NO
12	5th St & Broadway	0.361	Α	0.365	Α	NO	0.399	Α	0.403	А	NO	0.403	Α	NO

Table 5 - Level of Service Analysis Results Summary - AM Peak Hour

Table 6 - Level of Serv	vice Analysis Results	Summary - PM Peak H	our

	Intersection	Year 2 Existing Condit	Traffic	Existin Proj		Project Impact	Year 2 Cumul Bas	ative	Year : Plus P		Project Impact	Year 2 Project Mitiga	with	Net Project Impact
	1	V/C	LOS	V/C	LOS		V/C	LOS	V/C	LOS		V/C	LOS	impact
1	2nd St & Olive St	0.216	Α	0.216	Α	NO	0.228	Α	0.228	Α	NO	0.228	Α	NO
2	2nd St & Hill St	0.581	Α	0.592	Α	NO	0.645	В	0.657	В	NO	0.657	В	NO
3	2nd St & Broadway	0.454	Α	0.458	Α	NO	0.496	Α	0.499	А	NO	0.499	Α	NO
4	3rd St & Hill St	0.610	В	0.629	В	NO	0.722	С	0.742	С	NO	0.742	С	NO
5	3rd St & Broadway	0.493	Α	0.499	Α	NO	0.585	Α	0.591	А	NO	0.591	Α	NO
6	4th St & Olive St	0.356	Α	0.364	Α	NO	0.411	Α	0.419	А	NO	0.419	Α	NO
7	4th St & Hill St	0.497	Α	0.549	Α	NO	0.581	Α	0.633	В	NO	0.633	В	NO
8	4th St & Broadway	0.470	Α	0.481	Α	NO	0.551	Α	0.562	А	NO	0.562	Α	NO
9	5th St & Grand Ave	0.375	Α	0.377	Α	NO	0.452	Α	0.455	Α	NO	0.455	Α	NO
10	5th St & Olive St	0.578	Α	0.581	А	NO	0.618	В	0.622	В	NO	0.622	В	NO
11	5th St & Hill St	0.517	Α	0.521	Α	NO	0.595	Α	0.599	Α	NO	0.599	Α	NO
12	5th St & Broadway	0.395	Α	0.397	А	NO	0.459	Α	0.467	А	NO	0.467	Α	NO

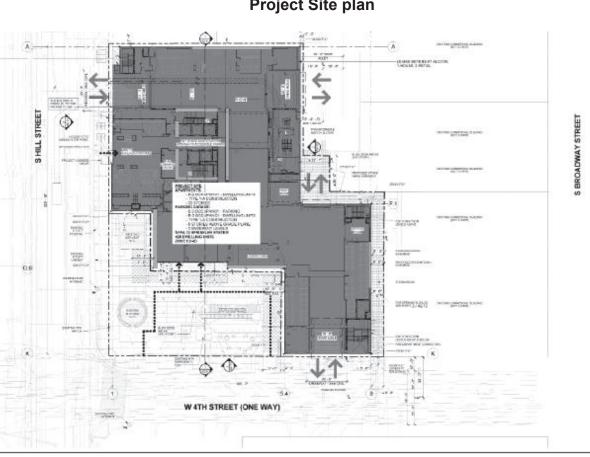
-4-

ATTACHMENT 2 Project Trip Generation Estimates

Table 4 - Net Project Generated 1	Trips With Trip Credits
-----------------------------------	-------------------------

Land Use	ITE	Otv	Units	Daily		AM			4 7 99 4 1 1 -3 96 -24	
Land Use	Code	Qty	Units	Daily	IN	OUT	Total	IN	OUT	Total
Proposed New Uses										
Apartment	220	406	DU	2,700	41	166	207	164	88	252
General Office	710	2.98	TSF	33	4	1	5	1	4	4
Quality Restaurant	931	2.63	TSF	237	1	1	2	13	7	20
Total Proposed New Trip	os (Not Inc	luding Affor	dable)	2,970	46	167	214	177	99	276
Existing Uses to be Re	moved									
Sit-Down Restaurant	932	0.85	TSF	-108	-5	-5	-10	-6	-4	-10
Pass-By Trips	932	-20%		22	1	1	2	1	1	2
Total Existing Trips to be	Remove	d		-86	-4	-4	-8	-5	-3	-8
Total New Trips Minus E (Total eligible for Transit	-		/ed	2,884	42	163	206	172	96	268
Trip Credits (Transit)										
Trans	it Credit	-25%		-721	-10	-41	-51	-43	-24	-67
Affordable Housing										
Affordable Housing	LADOT	22	DU	90	4	7	11	4	3	7
Net Project Trips				2,253	36	129	166	133	75	208

DU – dwelling units; TSF – thousand square feet Affordable housing and pass-by trip discount rate from Attachment I of the LADOT Traffic Study Policies and Procedures



ATTACHMENT 3 Project Site plan