



Technical Memorandum

TO: Mark Luszcz and Dave Gula
DATE: December 6, 2022
FROM: Joanne Arellano
PROJECT: I-95 Cap
JMT Job No. 21-02937-205
SUBJECT: Traffic Feasibility Study
CC: Peter Haag, Kirt Rieder, Dave DuPlessis, Angie Hernandez, Mir Wahed, Angela Garland

This memorandum was developed to address a request from DelDOT to determine the traffic impacts associated with potential design options for the I-95 Cap. Specifically, DelDOT requested that JMT identify the traffic impacts associated with:

- Closing two of the bridges that cross over I-95 in the project area and redirecting the traffic to the adjacent system. The bridge closure locations would be closed to vehicular traffic but would provide signalized pedestrian crossings at the N. Jackson Street and N. Adams Street intersections.
- Reducing N. Jackson Street and N. Adams Street from two travel lanes to one travel lane.

Based on the traffic assessment it was determined that the closure of any combination of two bridges would have minimal impacts to the study area. Specifically, with traffic redistributed due to closing two bridges, the intersections within the study area would maintain acceptable levels of service (LOS). There would be impacts to corridor travel times due to longer queue lengths at some intersections which could be managed with signal timing modifications along N. Jackson Street and N. Adams Street. With signal timing adjustments, most queue lengths could clear in one signal cycle. Furthermore, the study intersections maintained acceptable LOS and had minimal impacts to travel times with the reduction of N. Jackson Street, from south of W. 6th Street to north of W. 10th Street, from two travel lanes to one travel lane.

The volume data provided was gathered in May 2022 during a stage of the I-95 Restore the Corridor Wilmington Project which has the M.L.K Jr. Boulevard ramps closed and detours traffic towards N. Adams Street to access northbound I-95. As such, the traffic volumes utilized for this analysis along N. Adams Street may be higher than typical conditions. It is recommended that new traffic volume data be collected along N. Adams Street upon completion of the I-95 Restore the Corridor Wilmington Project and traffic patterns in the area have returned to more typical, non-construction, conditions.

Based on a review of historical count data and nearby traffic patterns, it was determined that an analysis with N. Adams Street through traffic volumes reduced by 25% would emulate typical traffic volumes. With the 25% volume reduction and only one travel lane along N. Adams Street from south of W. 6th Street to W. 8th Street, the N. Adams Street corridor would operate at acceptable LOS with minimal changes to travel times. Furthermore, longer queue lengths as a result of the lane reduction could be managed with signal timing modifications along N. Adams Street as most queue lengths could clear in one signal cycle. An additional evaluation, based on the new traffic data, should be conducted to determine if the lane reduction along N. Adams Street could be extended to W. 9th Street.

The following paragraphs provide additional details regarding the methodology utilized for this traffic assessment.

Background and Volume Development

The I-95 Cap Study is determining the feasibility of capping a portion of I-95 in the area of Delaware Avenue to 6th Street, in Wilmington, to mitigate the separation created by the initial highway construction, increase interconnectivity within the city, and create more community space. As a part of this effort, the feasibility of closing two of the bridges that span over I-95 to vehicle traffic, but maintaining pedestrian access, was evaluated. The study area and direction of traffic along the one-way streets can be seen in Figure 1.

In order to perform the analysis, existing weekday traffic volumes were provided by WILMAPCO dated May 2022. The following scenarios were evaluated:

- Scenario 1
 - W. 7th Street and W. 8th street bridges closed to vehicular traffic but would provide pedestrian access via a signalized pedestrian crossing.
 - W. 7th Street traffic redistributed to continue south on N. Jackson Street, east on W. 6th street and north on N. Adams Street.
 - W. 8th Street traffic redistributed to continue north on N. Adams Street, west on W. 10th Street, and south on N. Jackson Street.
- Scenario 2
 - W. 7th Street and W. 9th Street bridges closed to vehicular traffic but would provide pedestrian access via a signalized pedestrian crossing.
 - W. 7th Street and W. 9th Street traffic redistributed to continue south on N. Jackson Street, east on W. 6th street and north on N. Adams Street.
- An additional evaluation was conducted with the reduction of N. Jackson Street and N. Adams Street from two travel lanes to one travel lane.
 - The lane reduction along N. Jackson Street was considered starting north of W. 10th Street and ending south of W. 6th Street.
 - The lane reduction along N. Adams Street was considered starting south of W. 6th Street and ending at W. 8th Street. The lane reduction was assumed to end at W. 8th Street due to the locations of the I-95 on/off ramps at the W. 9th Street and W. 10th Street intersections.
- Appendix A contains volume diagrams for the study area under the evaluated scenarios.

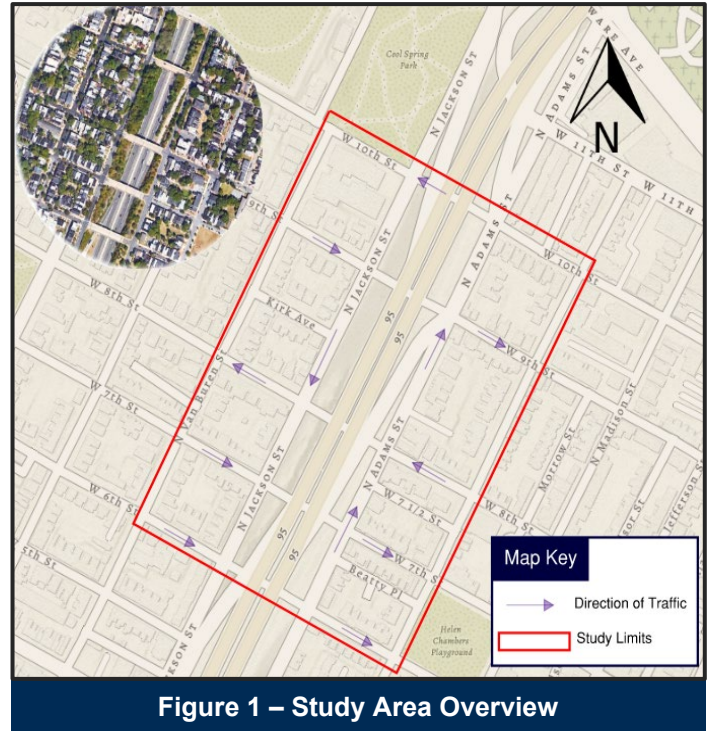


Figure 1 – Study Area Overview

It should be noted that the volume data provided was gathered during a stage of the I-95 Restore the Corridor Wilmington Project which has the M.L.K Jr. Boulevard ramps closed and detours traffic towards N. Adams Street. As such, the traffic volumes utilized for this analysis may be higher than typical conditions. Based on a review of historical count data and nearby traffic patterns, it was determined that an additional analysis with N. Adams Street traffic volumes reduced by 25% would emulate typical traffic volumes. As such, an additional scenario was conducted with N. Adams Street traffic through volumes reduced by 25%.



Capacity Analysis

Synchro 11/SimTraffic software was utilized to determine the LOS of the study intersections as well as the queue lengths and travel times along N. Adams Street and N. Jackson Street from W. 6th Street to W. 10th Street. Appendix B contains the results tables.

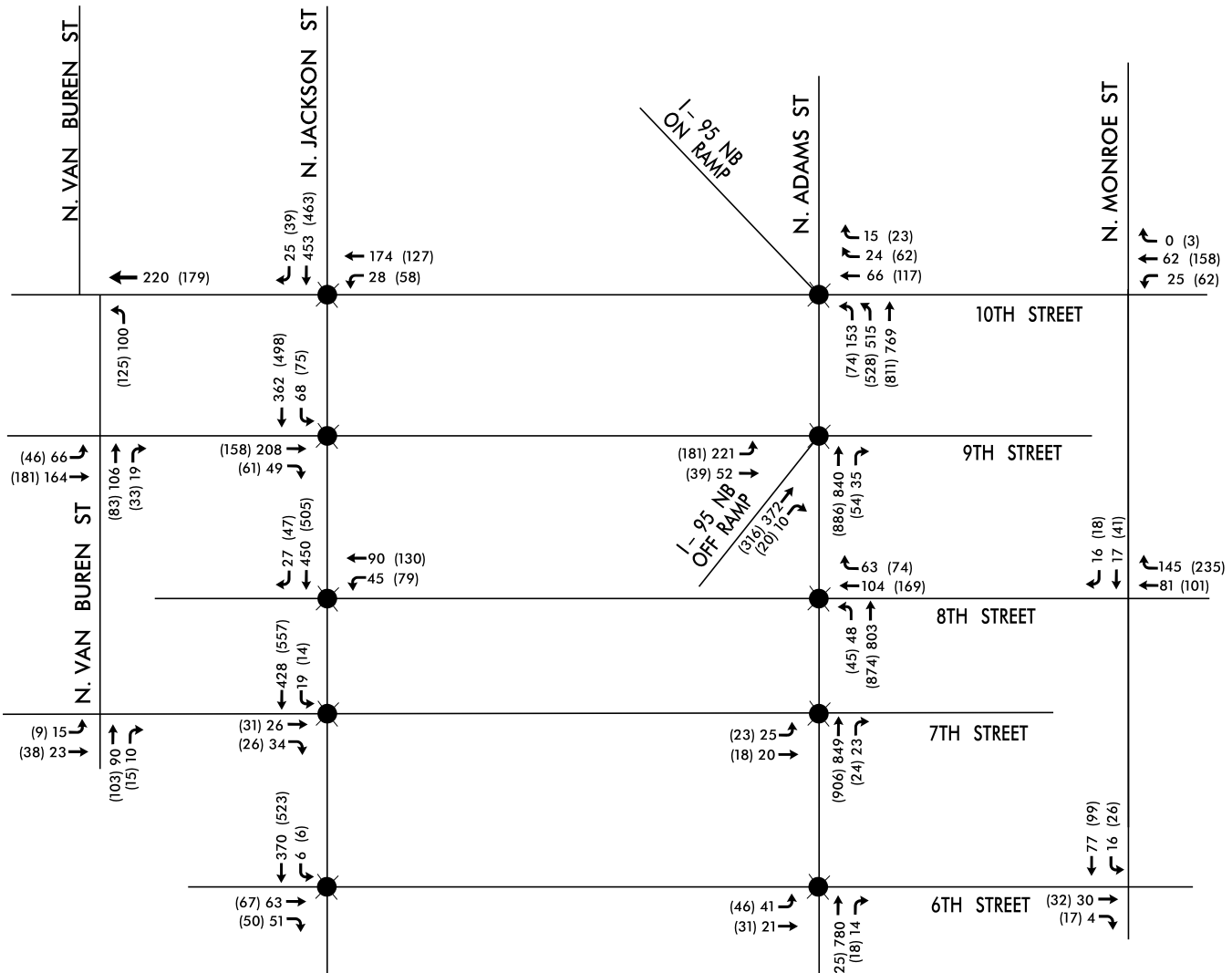
The LOS/delay results indicate that the study intersections under the scenarios with two bridge closures and a lane reduction along N. Jackson Street would operate at acceptable LOS C or better. There would be impacts to corridor travel times due to longer queue lengths at some intersections which could be managed with signal timing modifications along N. Jackson Street and N. Adams Street. With signal timing adjustments, most queue lengths could clear in one signal cycle. It should be noted that the bridge closure locations would be closed to vehicular traffic but would provide signalized pedestrian crossings at the N. Jackson Street and N. Adams Street intersections.

There would be LOS/delay deficiencies, extensive queue lengths, and increases to travel time under the scenario with the N. Adams Street lane reduction. However, with a 25% reduction of through traffic along N. Adams Street, the corridor would operate at acceptable LOS D or better, queue lengths could be managed with signal timing adjustments, and travel times increases would be minimal. To validate the impacts along N. Adams Street with a lane reduction, it is recommended that new traffic volume data be collected along N. Adams Street upon completion of the I-95 Restore the Corridor Wilmington Project and traffic patterns in the area have returned to more typical, non-construction conditions. An additional evaluation, based on the new traffic data, should be conducted to determine if the lane reduction along N. Adams Street could be extended to W. 9th Street.



APPENDIX A
Volume Diagrams

Existing Volumes Without I-95 Cap



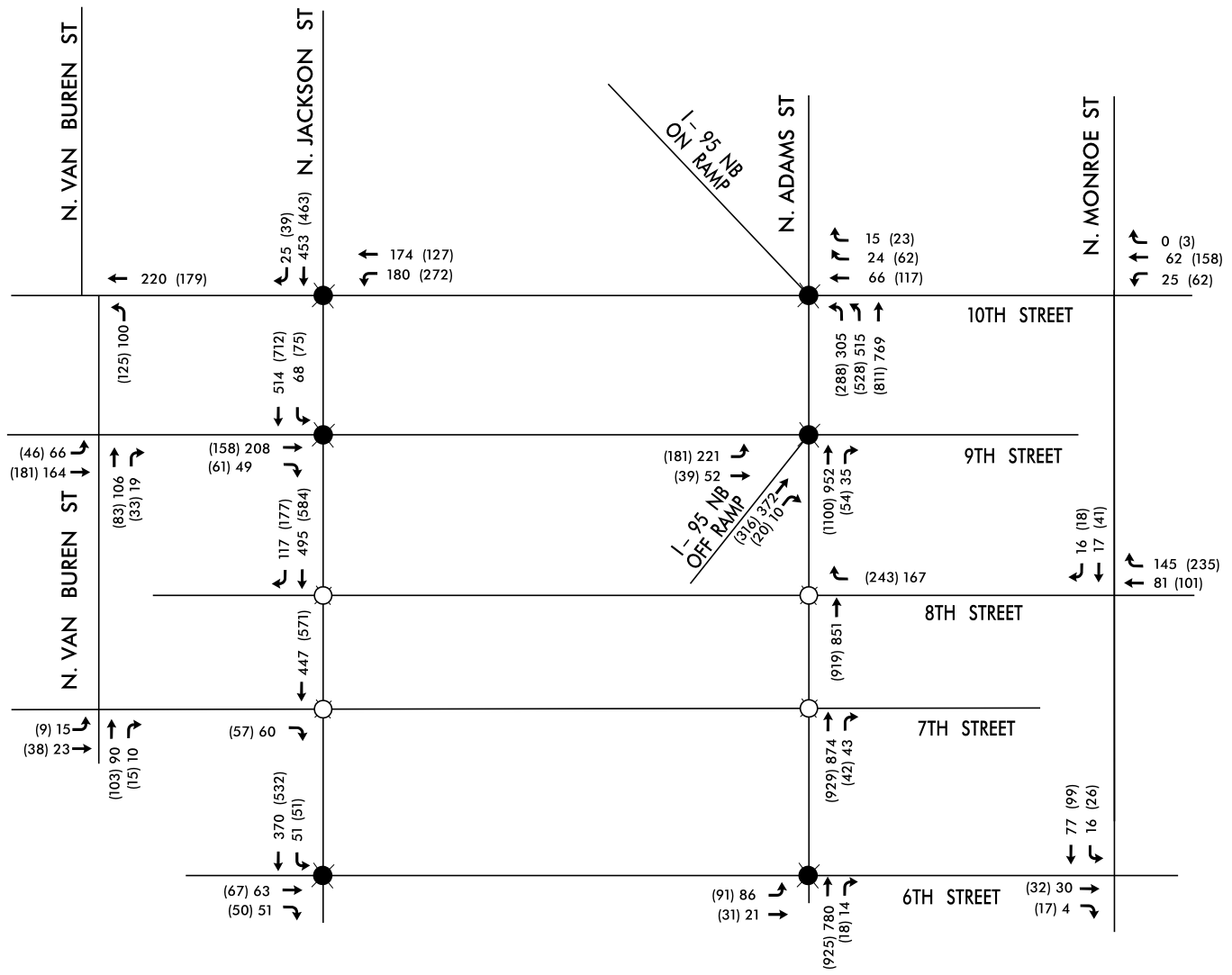
LEGEND

- XX (XX) AM (PM) PEAK HOUR TRAFFIC VOLUMES
- EXISTING ROADWAY
- SIGNALIZED INTERSECTION



I-95 CAP TRAFFIC FEASIBILITY STUDY 2022 VOLUMES – NO BUILD

Existing Volumes With I-95 Cap



NOTE: BUILD SCENARIO ASSUMES W 7TH ST & W 8TH ST BRIDGES CLOSED TO VEHICULAR TRAFFIC

LEGEND

- XX (XX) AM (PM) PEAK HOUR TRAFFIC VOLUMES
- EXISTING ROADWAY
- SIGNALIZED INTERSECTION
- BRIDGE CLOSED TO VEHICLES



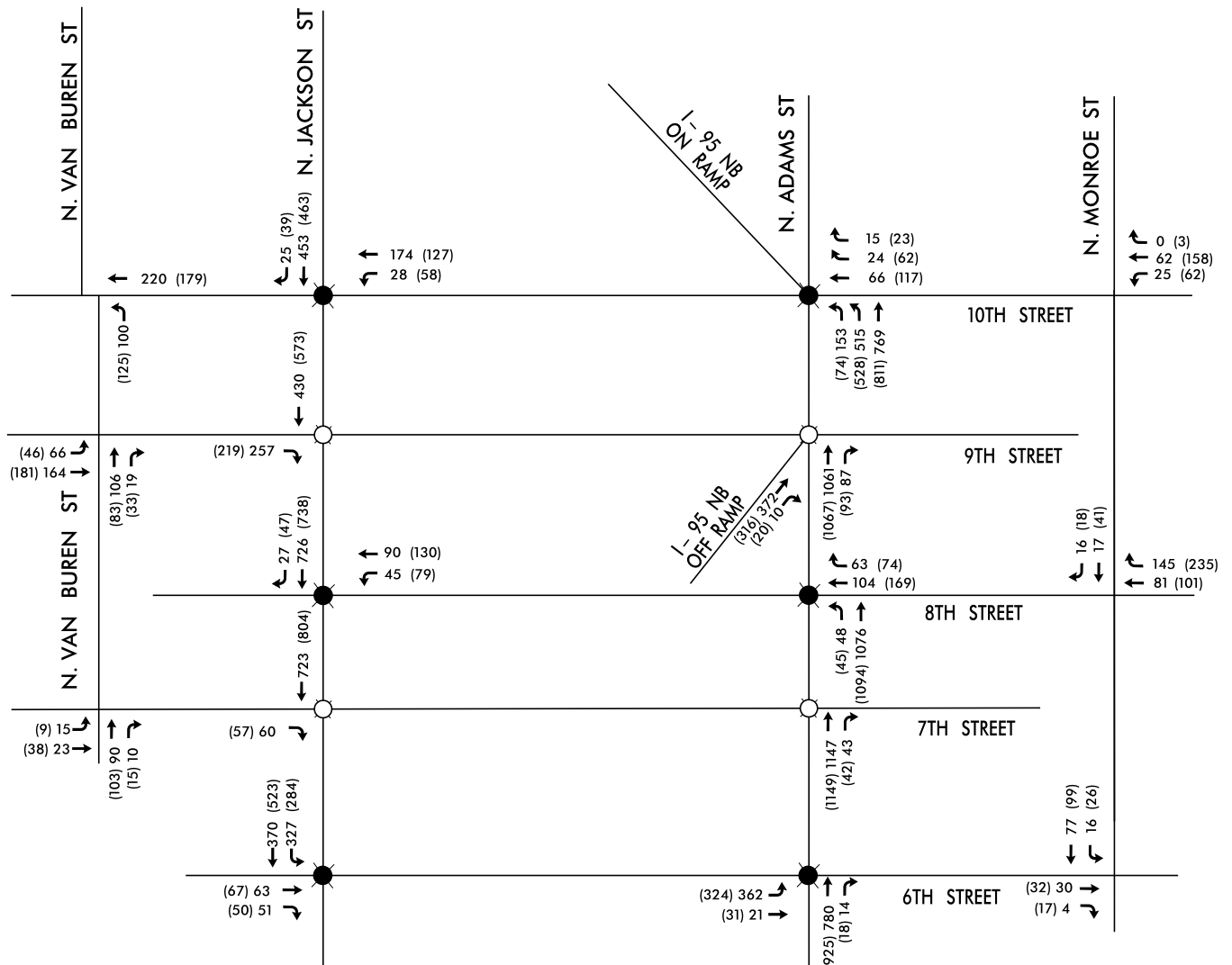
I-95 CAP TRAFFIC FEASIBILITY STUDY
2022 VOLUMES -
BUILD

N.T.S

FIGURE 2

DECEMBER 2022

Existing Volumes With I-95 Cap



NOTE: BUILD SCENARIO ASSUMES W 7TH ST & W 9TH ST BRIDGES CLOSED TO VEHICULAR TRAFFIC

LEGEND

- XX (XX) AM (PM) PEAK HOUR TRAFFIC VOLUMES
- EXISTING ROADWAY SIGNALIZED INTERSECTION
- BRIDGE CLOSED TO VEHICLES



I-95 CAP TRAFFIC FEASIBILITY STUDY
 2022 VOLUMES –
 BUILD



APPENDIX B

Synchro Analysis Results Tables

Table 1: LOS (Delay) Results - W. 7th Street & W. 8th Street Bridge Closures

Corridor	Intersection	Cycle Length (sec)	AM 2022 No Build		AM 2022 Build		AM 2022 Build - N. Jackson St. One Lane Roadway		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
			LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)
N. Jackson Street	W. 10th Street	90	B	13.7	B	16.3	B	18.7	B	18.3	B	18.3
	W. 9th Street	90	B	19.0	B	15.4	B	18.7	B	19.1	B	18.8
	W. 8th Street	90	A	6.9	A	9.3	A	5.9	A	6	A	6.0
	W. 7th Street	90	A	9.2	A	2.0	A	1.2	A	2.1	A	1.3
	W. 6th Street	90	A	6.8	A	8.2	A	5.8	A	5.9	A	5.8
N. Adams Street	W. 10th Street	90	A	9.3	B	15.2	A	7.6	A	7.7	A	8.8
	W. 9th Street	90	C	33.6	C	34.3	C	28.2	C	29.2	C	26.1
	W. 8th Street	90	A	7.4	B	10.3	A	4.1	A	7.2	A	3.5
	W. 7th Street	90	A	8.8	A	4.8	A	3.1	B	12.7	A	6.2
	W. 6th Street	90	B	12.6	B	13.5	B	13.9	C	29.8	B	18.8

Notes:

1. Build scenario assumes a Cap that would close the bridge along W. 7th Street and W. 8th Street between N. Jackson Street and N. Adams Street.
2. The build scenario assumes that there are two lanes for through movements along N. Jackson Street and N. Adams Street.
3. The build scenario with N. Adams Street as a one lane roadway assumes one lane for through movements south of W. 8th Street.

Table 2: 95th Percentile Critical Queue Results - W. 7th Street & W. 8th Street Bridge Closures

Corridor	Intersection	Lane	AM 2022 No Build		AM 2022 Build		AM 2022 Build - N. Jackson St. One Lane Roadway		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
			Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)				
N. Jackson Street	W. 10th Street	WBL	51	170	156	182	161					
		WBT	140	157	157	153	175					
		SBT	144	138	222	224	211					
	W. 9th Street	EBT	201	189	181	197	190					
		SBL	160	133	268	267	270					
	W. 8th Street	WBL	54	0	0	0	0					
		WBT	61	0	0	0	0					
		SBT	68	157	119	131	146					
	W. 7th Street	EBT	72	53	58	58	59					
		SBT	87	36	35	72	28					
W. 6th Street	EBT	106	104	105	102	110						
	SBT	58	49	66	74	71						
N. Adams Street	W. 10th Street	WBT	118	129	120	116	126					
		NBL	327	350	359	363	331					
		NBT	172	136	176	172	131					
	W. 9th Street	EBL	199	212	228	211	204					
		EBT	87	89	66	86	88					
		NBT	390	290	384	380	231					
	W. 8th Street	NBR	411	286	395	395	232					
		WBT	137	104	109	108	93					
	W. 7th Street	NBT	169	20	63	153	27					
		NBT	157	80	84	191	135					
EBL		74	73	79	79	71						
W. 6th Street	EBT	55	34	33	35	33						
	NBT	204	217	220	288	370						
I-95 Off Ramp	W. 9th Street	NBL	139	144	138	144	154					
		NBT	163	155	152	159	149					

Notes:

1. 95th Percentile Queue Length Results are from SimTraffic software and based on an average of five simulation runs.

Table 3: Travel Time Results - W. 7th Street & W. 8th Street Bridge Closures

Corridor	Intersection	AM 2022 No Build		AM 2022 Build		AM 2022 Build - N. Jackson St. One Lane Roadway		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
		Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)				
N. Jackson Street	From W. 10th Street to W. 6th Street	81.9	75.2	80.0	80.3	79.3					
N. Adams Street	From W. 6th Street to W. 10th Street	118.0	96.8	111.9	132.8	110.3					

Notes:

1. Travel time results are from SimTraffic software and based on an average of five simulation runs.

Table 4: LOS (Delay) Results - W. 7th Street & W. 8th Street Bridge Closures

Corridor	Intersection	Cycle Length (sec)	PM 2022 No Build		PM 2022 Build		PM 2022 Build - N. Jackson St. One Lane Roadway		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
			LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)
N. Jackson Street	W. 10th Street	90	B	14.8	B	18.4	C	20.4	B	19.7	B	19.6
	W. 9th Street	90	B	14.5	B	13.2	B	19.1	B	18.6	B	19.0
	W. 8th Street	90	A	8.0	C	20.6	A	4.0	A	4.1	A	4.0
	W. 7th Street	90	A	6.9	A	1.1	A	5.0	A	2.6	A	2.2
	W. 6th Street	90	A	8.7	A	9.3	A	6.1	A	6.0	A	6.2
N. Adams Street	W. 10th Street	90	B	12.4	B	12.0	B	10.7	B	10.5	B	12.7
	W. 9th Street	90	C	21.3	C	30.6	C	30.6	C	32.1	C	24.2
	W. 8th Street	90	A	8.7	B	10.3	A	7.1	B	13.7	A	8.0
	W. 7th Street	90	A	8.1	A	2.9	A	2.9	B	11.1	A	5.7
	W. 6th Street	90	B	13.0	B	13.1	B	13.4	C	31.7	B	19.7

Notes:

1. Build scenario assumes a Cap that would close the bridge along W. 7th Street and W. 8th Street between N. Jackson Street and N. Adams Street
2. The build scenario assumes that there are two lanes for through movements along N. Jackson Street and N. Adams Street.
3. The build scenario with N. Adams Street as a one lane roadway assumes one lane for through movements south of W. 8th Street.

Table 5: 95th Percentile Critical Queue Results - W. 7th Street & W. 8th Street Bridge Closures

Corridor	Intersection	Lane	PM 2022 No Build		PM 2022 Build		PM 2022 Build - N. Jackson St. One Lane Roadway		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
			Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)			
N. Jackson Street	W. 10th Street	WBL	85	243	244	261	259					
		WBT	139	129	136	114	122					
		SBT	146	127	223	206	221					
	W. 9th Street	EBT	193	173	175	189	179					
		SBL	158	154	324	343	334					
		W. 8th Street	WBL	90	0	0	0	0				
	W. 8th Street	WBT	110	0	0	0	0					
		SBT	118	277	126	143	129					
		W. 7th Street	EBT	79	54	58	59	60				
	W. 7th Street	SBT	116	23	139	62	36					
W. 6th Street		EBT	98	105	106	103	108					
SBT		81	141	89	70	69						
N. Adams Street	W. 10th Street	WBT	205	211	206	183	193					
		NBL	281	364	358	356	365					
		NBT	174	170	164	180	149					
	W. 9th Street	EBL	187	180	198	185	169					
		EBT	76	68	70	49	45					
		NBT	260	460	491	455	239					
	W. 8th Street	NBR	308	475	499	461	229					
		WBT	185	162	350	187	125					
		NBT	156	253	269	280	27					
	W. 7th Street	NBT	155	157	84	217	138					
		EBL	72	96	76	113	99					
		EBT	62	53	41	61	57					
W. 6th Street	NBT	228	251	237	249	352						
	I-95 Off Ramp	W. 9th Street	NBL	123	123	148	122	163				
	NBT		165	146	162	142	157					

Notes:

1. 95th Percentile Queue Length Results are from SimTraffic software and based on an average of five simulation runs.

Table 6: Travel Time Results - W. 7th Street & W. 8th Street Bridge Closures

Corridor	Intersection	PM 2022 No Build		PM 2022 Build		PM 2022 Build - N. Jackson St. One Lane Roadway		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
		Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)			
N. Jackson Street	From W. 10th Street to W. 6th Street	90.1	100.4	87.1	83.7	82.9					
N. Adams Street	From W. 6th Street to W. 10th Street	107.7	165.8	141.3	220.8	109.6					

Notes:

1. Travel time results are from SimTraffic software and based on an average of five simulation runs.

Table 7: LOS (Delay) Results - W. 7th Street & W. 9th Street Bridge Closures

Corridor	Intersection	Cycle Length (sec)	AM 2022 No Build		AM 2022 Build		AM 2022 Build - N. Jackson St. One Lane Roadway		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
			LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)
N. Jackson Street	W. 10th Street	90	B	13.7	B	13.7	B	16.8	B	16.5	B	16.9
	W. 9th Street	90	B	19.0	A	7.9	B	15.6	A	3.8	A	3.8
	W. 8th Street	90	A	6.9	B	10.8	B	17.5	B	15.5	B	15.5
	W. 7th Street	90	A	9.2	A	1.8	A	4.8	A	4.3	A	4.3
	W. 6th Street	90	A	6.8	B	12.4	A	8.4	A	5.9	A	5.9
N. Adams Street	W. 10th Street	90	A	9.3	B	12.3	B	12.2	A	6.3	A	7.1
	W. 9th Street	90	C	33.6	B	19.0	B	19.0	B	13.9	B	13.1
	W. 8th Street	90	A	7.4	A	4.4	A	4.4	D	52.3	B	11.0
	W. 7th Street	90	A	8.8	A	8.4	A	8.9	F	97.1	C	23.1
	W. 6th Street	90	B	12.6	C	25.2	C	25.7	E	64.0	C	28.3

- Notes:
1. Build scenario assumes a Cap that would close the bridge along W. 7th Street and W. 9th Street between N. Jackson Street and N. Adams Street.
 2. The build scenario assumes that there are two lanes for through movements along N. Jackson Street and N. Adams Street.
 3. The build scenario with N. Adams Street as a one lane roadway assumes one lane for through movements south of W. 8th Street.

Table 8: 95th Percentile Critical Queue Results - W. 7th Street & W. 9th Street Bridge Closures

Corridor	Intersection	Lane	AM 2022 No Build		AM 2022 Build		AM 2022 Build - N. Jackson St. One Lane Roadway		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways		AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
			Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)				
N. Jackson Street	W. 10th Street	WBL	51	54	49	45	56					
		WBT	140	142	138	140	140					
		SBT	144	156	410	414	215					
	W. 9th Street	EBT	201	89	140	162	130					
		SBL	160	164	308	312	70					
		WBL	54	75	83	81	80					
	W. 8th Street	WBT	61	116	119	115	122					
		SBT	68	134	342	542	212					
		EBT	72	58	104	146	72					
	W. 7th Street	SBT	87	70	181	362	104					
EBT		106	107	160	329	169						
W. 6th Street	SBT	58	150	233	344	120						
	W. 10th Street	WBT	118	117	119	128	120					
NBL		327	324	295	200	226						
NBT		172	143	115	97	85						
W. 9th Street	NBT	390	497	503	284	213						
	NBR	411	506	511	333	235						
	WBT	137	158	153	158	150						
W. 8th Street	NBT	169	317	333	169	144						
	NBT	157	218	229	250	279						
W. 6th Street	EBL	74	302	317	328	334						
	EBT	55	301	46	45	50						
	NBT	204	216	249	271	288						
I-95 Off Ramp	W. 9th Street	NBL	139	113	101	101	106					
		NBT	163	137	125	122	118					

- Notes:
1. 95th Percentile Queue Length Results are from SimTraffic software and based on an average of five simulation runs.

Table 9: Travel Time Results - W. 7th Street & W. 9th Street Bridge Closures

Corridor	Intersection	AM 2022 No Build	AM 2022 Build	AM 2022 Build - N. Jackson St. One Lane Roadway	AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways	AM 2022 Build -N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)
		Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)
N. Jackson Street	From W. 10th Street to W. 6th Street	80.9	83.6	150.4	216.4	76.7
N. Adams Street	From W. 6th Street to W. 10th Street	118.1	148.7	146.5	274.7	102.7

- Notes:
1. Travel time results are from SimTraffic software and based on an average of five simulation runs.

Table 10: LOS (Delay) Results - W. 7th Street & W. 9th Street Bridge Closures

Corridor	Intersection	Cycle Length (sec)	PM 2022 No Build		PM 2022 Build		PM 2022 Build - N. Jackson St. One Lane Roadway		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
			LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)	LOS	Delay (s/veh)
N. Jackson Street	W. 10th Street	90	B	14.8	B	13.6	B	18.1	B	14.8	B	15.1
	W. 9th Street	90	B	14.5	C	22.2	B	10.2	B	10.1	B	10.1
	W. 8th Street	90	A	8.0	C	24.3	B	14.5	B	14.1	B	14.0
	W. 7th Street	90	A	6.9	C	24.6	B	10.4	A	8.7	A	8.7
	W. 6th Street	90	A	8.7	A	8.0	A	7.7	A	8.9	A	8.9
N. Adams Street	W. 10th Street	90	B	12.4	B	12.2	A	7.9	B	11.4	B	12.0
	W. 9th Street	90	C	21.3	C	24.6	C	25.4	C	24.1	C	21.5
	W. 8th Street	90	A	8.7	A	7.6	A	7.0	D	49.5	B	11.8
	W. 7th Street	90	A	8.1	A	6.4	A	7.0	E	69.7	B	19.7
	W. 6th Street	90	B	13.0	C	23.4	C	23.2	D	45.5	D	39.7

Notes:

1. Build scenario assumes a Cap that would close the bridge along W. 7th Street and W. 9th Street between N. Jackson Street and N. Adams Street.
2. The build scenario assumes that there are two lanes for through movements along N. Jackson Street and N. Adams Street.
3. The build scenario with N. Adams Street as a one lane roadway assumes one lane for through movements south of W. 8th Street.

Table 11: 95th Percentile Critical Queue Results - W. 7th Street & W. 9th Street Bridge Closures

Corridor	Intersection	Lane	PM 2022 No Build		PM 2022 Build		PM 2022 Build - N. Jackson St. One Lane Roadway		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways		PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)	
			Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)	Queue Length (feet)		
N. Jackson Street	W. 10th Street	WBL	85	78	163	94	76					
		WBT	139	122	131	125	150					
		SBT	146	177	550	694	226					
	W. 9th Street	EBT	193	110	180	200	125					
		SBL	158	274	345	414	253					
		WBL	90	68	122	119	97					
	W. 8th Street	WBT	110	59	150	144	144					
		SBT	118	370	452	597	228					
		EBT	79	140	100	200	73					
	W. 7th Street	SBT	116	295	281	127	139					
EBT		98	208	209	352	163						
SBT		81	237	272	340	158						
N. Adams Street	W. 10th Street	WBT	205	190	201	350	207					
		NBL	281	271	258	245	258					
		NBT	174	132	136	153	143					
	W. 9th Street	NBT	260	502	489	349	175					
		NBR	308	490	490	363	214					
		WBT	185	263	256	193	174					
	W. 8th Street	NBT	156	392	402	106	59					
		NBT	155	283	302	253	274					
		EBL	72	345	356	327	325					
	W. 6th Street	EBT	62	55	54	58	53					
NBT		228	257	271	246	274						
NBL		123	150	140	140	138						
I-95 Off Ramp	W. 9th Street	NBL	123	150	140	140	138					
		NBT	165	175	181	164	158					

Notes:

1. 95th Percentile Queue Length Results are from SimTraffic software and based on an average of five simulation runs.

Table 12: Travel Time Results - W. 7th Street & W. 9th Street Bridge Closures

Corridor	Intersection	PM 2022 No Build	PM 2022 Build	PM 2022 Build - N. Jackson St. One Lane Roadway	PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways	PM 2022 Build - N. Jackson St. & N. Adams St. One Lane Roadways (25% Reduction)
		Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)	Travel Time (Seconds)
N. Jackson Street	From W. 10th Street to W. 6th Street	90.1	181.7	222.0	333.1	88.0
N. Adams Street	From W. 6th Street to W. 10th Street	107.7	184.3	210.2	226.6	105.1

Notes:

1. Travel time results are from SimTraffic software and based on an average of five simulation runs.