

Willow Street and Castille Avenue Street Improvements

Appendix C - Traffic Study

Technical Memorandum

April 7, 2023

Project# 27430

To: Edward Company, Transportation Specialist
Lafayette Consolidated Government
Community Development & Planning Department, Planning Division

From: G. Wade Walker, PE, Hon. ASLA, Alex Morgan, EI

CC: Chad Danos, Duplantis Design Group

RE: Willow Street Lane Repurposing Study

WILLOW STREET LANE REPURPOSING STUDY

As part of the Willow Street and Castille Avenue planning effort, a concept was developed to enhance the walkability, safety, aesthetics, and economic viability of Willow Street between Cora Street and Moss Street, inclusive of the intersections with the northbound and southbound directions of Evangeline Parkway/US 167. A concept was developed through the study including input at two community stakeholder sessions that added planted medians, dedicated bicycle facilities, midblock pedestrian crossings, and street tree plantings to offer shade for pedestrians and a higher level of streetscape. On the segment between Evangeline Parkway northbound and Moss Street, the concept is proposing a lane repurposing. This concept will reduce the current four-lane undivided section to a three-lane section with a two way left turn lane and spot medians to provide space for streetscape, protected pedestrian refuges, and a separated bicycle facility. Kittelson and Associates has completed the following analyses to evaluate the change in average through travel time along the modified segment of Willow Street due to the lane repurposing.

1.0 Study Corridor

Willow Street is an east-west residential boulevard in the northern part of the City of Lafayette, Louisiana and serves as a connector from the surrounding city to commercial uses along the Evangeline Parkway. It will also serve as the first exit opportunity on I-49 south of the I-10 interchange when LADOTD converts Evangeline Thruway/US 167 to the planned grade separated interstate extension. In an effort to enhance pedestrian and bicycle safety on the Willow Street corridor as well as to provide aesthetic enhancements, a concept was developed including planted medians, midblock protected crossings, street trees, and new dedicated bicycle facilities throughout the corridor. On the segment of Willow Street east of Evangeline Thruway northbound to Moss Street only, the concept included a repurposing of two travel lanes to a two-way left turn lane and spot medians.

This memo summarizes the analysis and results of a traffic analysis to measure the impacts to average through travel time on the modified segment as a result of the lane repurposing, and to outline the safety benefits associated with such a lane repurposing. The location of the study corridor and study intersections are shown in **Figure 1**.

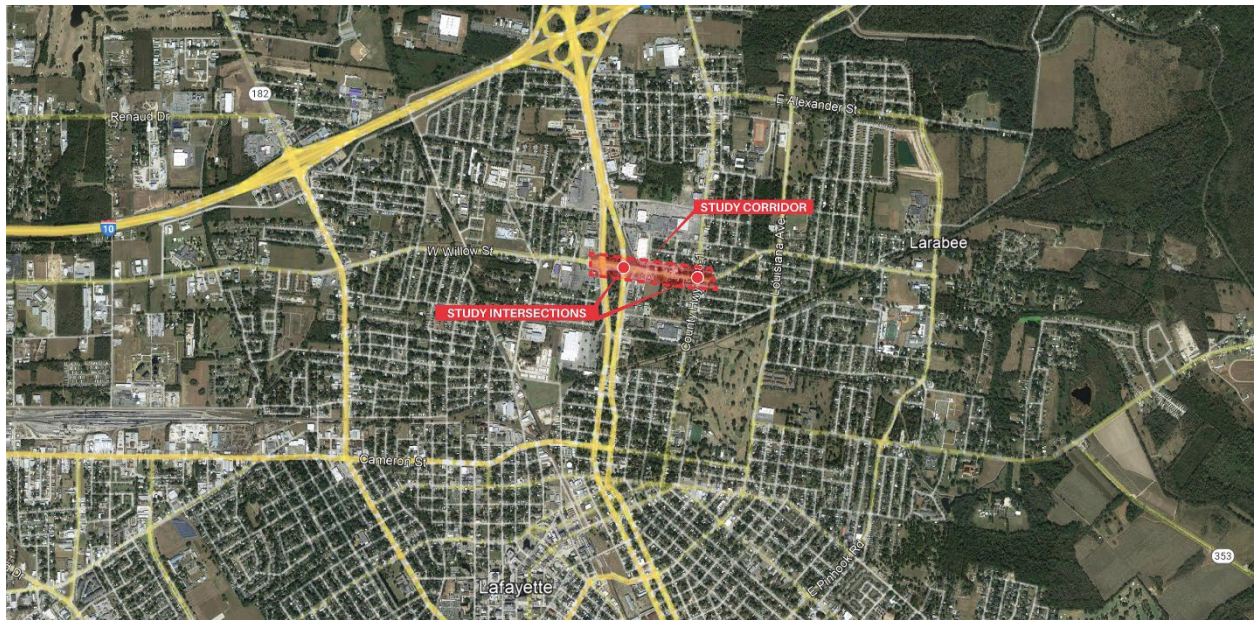


Figure 1: Study Corridor and Intersections Locations

The study corridor includes the intersection of Willow Street with Evangeline Parkway northbound lanes and Moss Street. The existing intersection lane configurations are shown in **Figure 2**.



Figure 2: Existing Lane Configuration

2.0 Traffic Volumes

Turning movement counts (TMC) were obtained by the City of Lafayette, and existing TMC data was utilized for analysis. The TMCs are attached in **Appendix A** and summarized in **Figure 3** for the AM Peak-Hour (7:15 – 8:15 AM) and the PM Peak-Hour (4:30 – 5:30 PM).

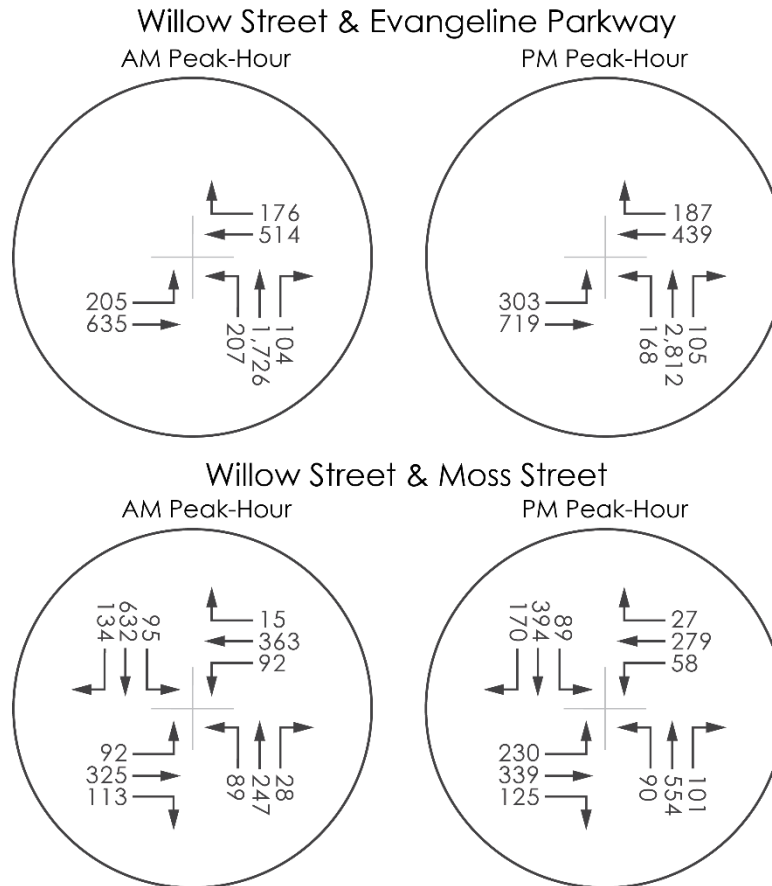


Figure 3: Turning Movement Counts

3.0 Operational Analysis

Highway Capacity Manual (HCM) methodologies were applied using the Synchro 11* traffic analysis software package to determine the difference in average through travel time along Willow Street between Willow Street & Evangeline Parkway, and Willow Street & Moss Street before and after the lane repurposing. Signal timings were obtained from the City of Lafayette. Splits were optimized for the existing and lane repurposing scenarios to ensure an even comparison of alternatives. The operational results of the lane repurposing are shown in **Table 1**. Synchro 11 reports are attached in **Appendix B**.

* *Synchro 11 is an accepted traffic operations software analysis package that analyzes intersection delay and level of service to determine operational impacts among various enhancement alternatives. It uses the Highway Capacity Manual (HCM) methodology to determine vehicle delay and level of service.*

Table 1: Operational Results

Direction	Average Travel Time (s)					
	AM Peak-Hour			PM Peak-Hour		
	Existing	After Lane Repurposing	Δ	Existing	After Lane Repurposing	Δ
Eastbound	147.1	159.0	11.9	158.6	173.4	14.8
Westbound	179.3	183.3	4.0	188.5	212.2	23.7

The increase in average through vehicle travel time ranges from 4 to 24 seconds during the peak-hour analyses. However, this slight increase in delay during the peak hour yields several safety benefits, described in Section 4.0.

4.0 Safety Benefits

By modifying the cross section of Willow Street between Moss Street and the NB Evangeline Throughway ramps to two travel lanes separated by spot/flush medians, several safety benefits can be attained. In addition to the ability to provide facilities for cyclists and planting areas, there are tangible benefits for motor vehicles, pedestrians, and cyclists.

For motor vehicles, the current four-lane undivided cross section of Willow forces the inside travel lane to become a de facto left-turn lane for vehicles trying to access businesses and destinations on the north and south sides of Willow. Unlike the section west of Evangeline Throughway, left turning vehicles must stop in the inside lane to wait on a gap to make a left turn. This causes delay for following vehicles in the inside lane and presents a tangible safety issue in rear-end and sideswipe crashes. Vehicles following another vehicle wishing to make a left-turn may crash into the rear end of the stopped vehicle if the following driver is not paying attention, or, in an effort to bypass the left turning vehicle, a following vehicle may sideswipe a vehicle occupying the outside travel lane. Research shows that when these undivided facilities are converted to a section where the left-turning vehicle can wait to turn in a dedicated left-turn lane, that motor vehicle crashes are significantly reduced (between 19 and 47% according to FHWA's **Road Diet Informational Guide**, https://safety.fhwa.dot.gov/road_diets/guidance/info_guide/). Reducing the number of moving lanes from four to three lanes reduces the conflict points that vehicles exiting left from driveways or side streets will encounter, also contributing to safety benefits. By eliminating the ability for vehicles to pass one another, vehicle speeds will be regulated which contributes to an operating speed more consistent with the posted speed limit. This will prevent high-speed vehicles moving from lane to lane to continuously overtake other vehicles, which contributes to greater severity of crashes.

For pedestrians and bicyclists, the current four-lane undivided street does not provide for dedicated bike facilities or midblock pedestrian crossings with refuge islands. Both of these characteristics were heard as desired elements during the community stakeholder meetings. The current concept plan includes a midblock crossing with median refuge to significantly reduce the distance between protected crossings from the 1,700 feet that exists today (signalized intersections at Moss Street and NB Evangeline Throughway). Several stakeholders indicated that there was a need for more and safer pedestrian crossing opportunities along Willow Street. Additionally, the lane reconfiguration allows for the provision of separated bike lanes between Moss Street and Evangeline Throughway to support safer bike travel along the corridor and to tie into the shared use paths that are proposed on Willow west of Evangeline Throughway.

5.0 Conclusions

This analysis focuses on the vehicle delay impacts and safety benefits of the proposed four to three lane repurposing on the segment of Willow Street between Moss Street and NB Evangeline Throughway. The Synchro 11/Highway Capacity Manual analysis* shows minor impacts (4 to 24 seconds) to through traffic delay in the peak travel periods and directions analyzed. It is the opinion of Kittelson & Associates that the safety benefits outweigh the travel time costs and therefore the proposed modification should be advanced in concept.

** Synchro 11 uses the industry standard evaluation metrics contained in the Highway Capacity Manual (HCM) to determine vehicle delay and level of service.*

Appendix A: Turning Movement Counts

Appendix B: Synchro 11 Results

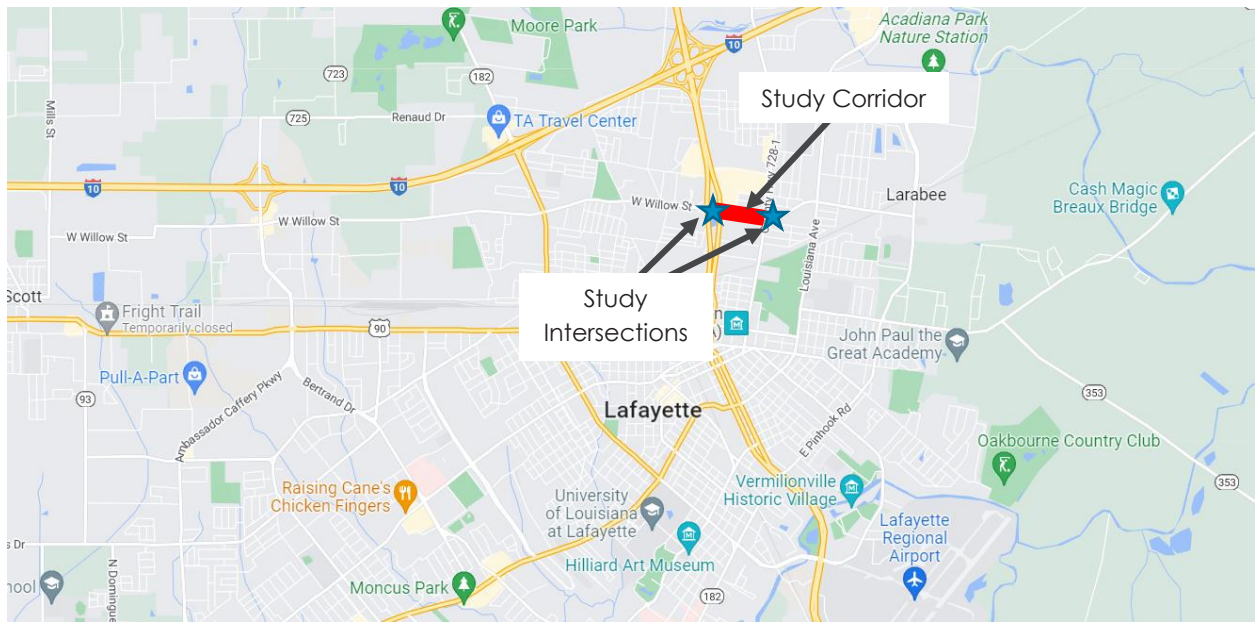


Figure 1: Study Corridor and Intersections Locations

The study corridor includes the intersection of Willow Street with Evangeline Thruway northbound lanes and Moss Street. The existing intersection lane configurations are shown in **Figure 2**.

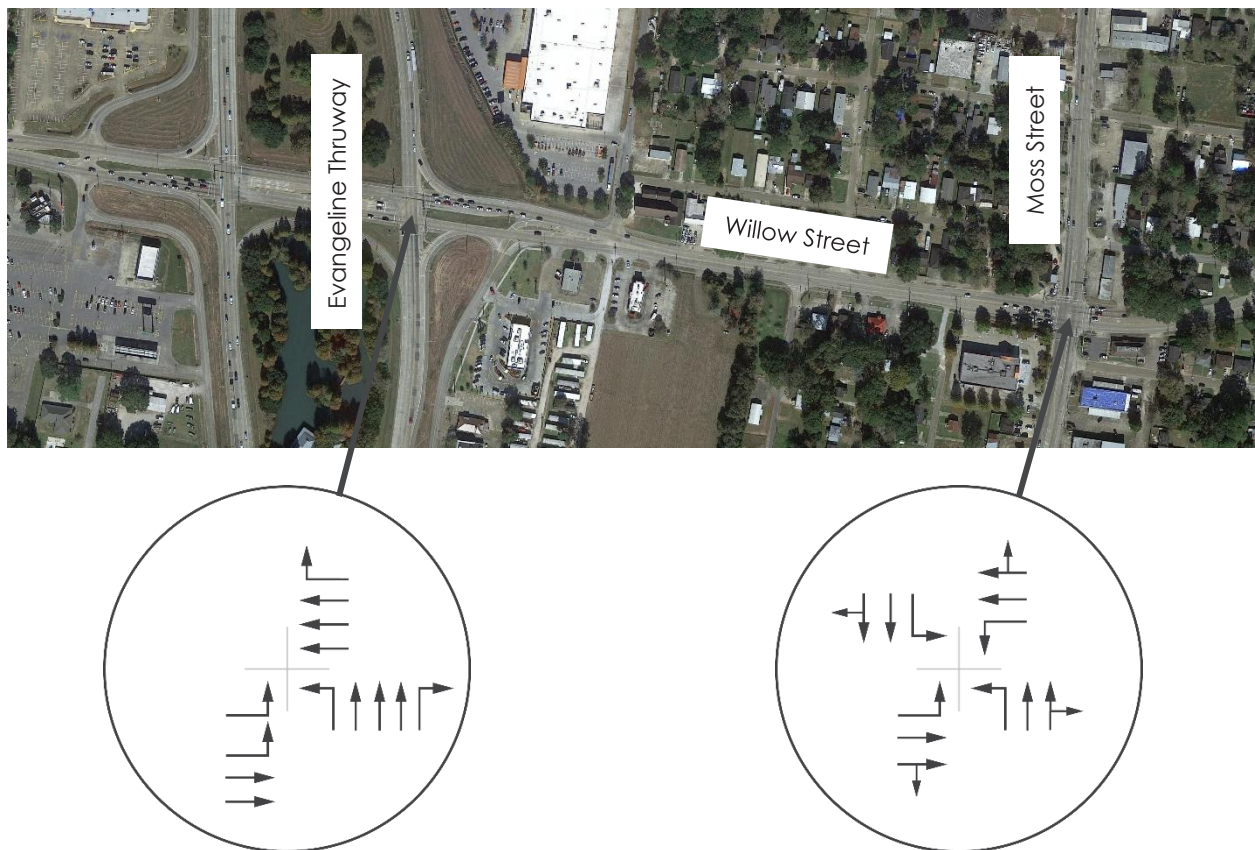


Figure 2: Existing Lane Configuration

Volume Development

Turning movement counts (TMC) were obtained by the City of Lafayette. Existing TMC data was utilized for analysis. The TMCs are attached in **Appendix A** and summarized in **Figure 3** for the AM Peak-Hour (7:15 – 8:15 AM) and the PM Peak-Hour (4:30 – 5:30 PM).

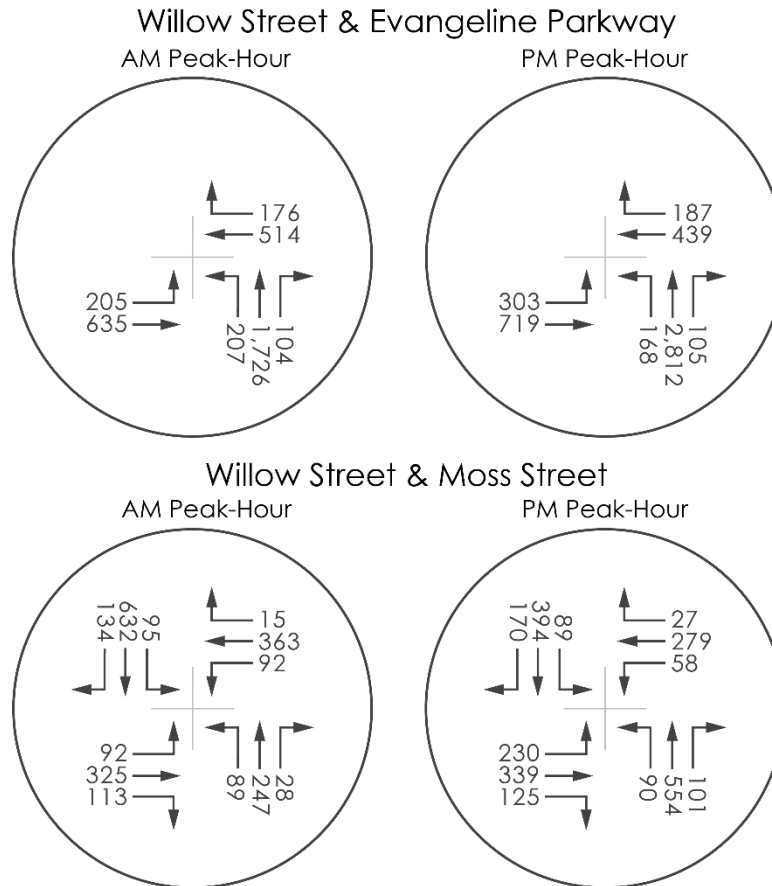


Figure 3: Turning Movement Counts

Operational Analysis

HCM methodologies were applied using Synchro 11 to determine the difference in average through travel time along Willow Street between Willow Street & Evangeline Parkway and Willow Street & Moss Street before and after the lane repurposing. Signal timings were obtained from Lafayette Consolidated Government. Splits were optimized for the existing and lane repurposing scenarios to ensure an even comparison of alternatives. The operational results of the lane repurposing are shown in **Table 1**. Synchro 11 reports are attached in **Appendix B**.

Table 1: Operational Results

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	AM Peak-Hour			PM Peak-Hour		
	Existing	After Lane Repurposing	Δ	Existing	After Lane Repurposing	Δ
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The increase in average through vehicle travel time ranges from 4 to 24 seconds during the peak-hour analyses. However, this slight increase in delay during the peak hour yields several safety benefits, described below.

Safety Benefits

By modifying the cross section of Willow Street between Moss Street and the NB Evangeline Thruway ramps to two travel lanes separated by spot/flush medians, several safety benefits can be attained. In addition to the ability to provide facilities for cyclists and planting areas for streetscape, tangible benefits for motor vehicles, pedestrians, and cyclists are possible.

For motor vehicles, the current four-lane undivided cross section of Willow forces the inside travel lane to become a de facto left-turn lane for vehicles trying to access businesses and destinations on the north and south sides of Willow. Unlike the section west of Evangeline Thruway, left turning vehicles must stop in the inside lane to wait on a gap to make a left turn. Not only does this cause delay for following vehicles in the inside lane, but it also presents a tangible safety issue that manifests itself in rear-end and sideswipe crashes. Vehicles following another vehicle wishing to make a left-turn may either crash into the rear end of the stopped vehicle if the following driver is not paying attention, or in an effort to bypass the left turning vehicle a following vehicle may sideswipe a vehicle occupying the outside travel lane. Research has shown that when these undivided facilities are converted to a section where the left-turning vehicle can wait to turn in a dedicated left-turn lane, that motor vehicle crashes are significantly reduced (between 19 and 47% according to FHWA's Road Diet Informational Guide). Additionally, reducing the number of moving lanes from four to three lanes reduces the conflict points that left turning vehicles out of driveways or side streets will encounter, also contributing to safety benefits. Finally, by eliminating the ability for vehicles to overtake one another vehicle speeds will be more regulated, contributing to an operating speed more in line with the posted speed limit and reducing the high-speed outliers who slalom from lane to lane overtaking, which can contribute to greater severity of crashes.

From a pedestrian and bicycle standpoint, the current four-lane undivided cross section does not provide the ability for dedicated bike facilities or midblock pedestrian crossings with refuge islands. Both of these characteristics were heard as desired elements during the community stakeholder meetings that were held previously on this project. The current concept plan includes a midblock crossing with median refuge within this segment to significantly reduce the distance between protected crossings from the 1,700 feet that exists today (signalized intersections at Moss Street and NB Evangeline Thruway). Several stakeholders indicated that there was a need for more and safer pedestrian crossing opportunities along Willow Street. Additionally, the lane reconfiguration allows for the provision of separated bike lanes between Moss Street and Evangeline Thruway to support safer bike travel along the corridor and to tie into the shared use paths that are proposed on Willow west of Evangeline Thruway. The streetscape elements afforded by the plan also yield a more aesthetically pleasing corridor while providing side friction with both planted medians and verges that will serve as speed management techniques to slow motor vehicles.

Conclusions

This analysis focuses on the vehicle delay impacts and safety benefits of the proposed four to three lane repurposing on the segment of Willow Street between Moss Street and NB Evangeline Thruway. The HCM analysis shows minor impacts to through traffic delay in the peak travel periods and directions analyzed, where the measured delay is in the range of 4 to 24 additional seconds for average through travel time through the segment proposed for modification. When weighing this minor impact to through traffic during the most congested times of day against the safety, aesthetic, and community desire benefits expressed during the stakeholder meetings it is our opinion that the safety benefits outweigh the travel time costs and therefore the proposed modification should be advanced in concept.

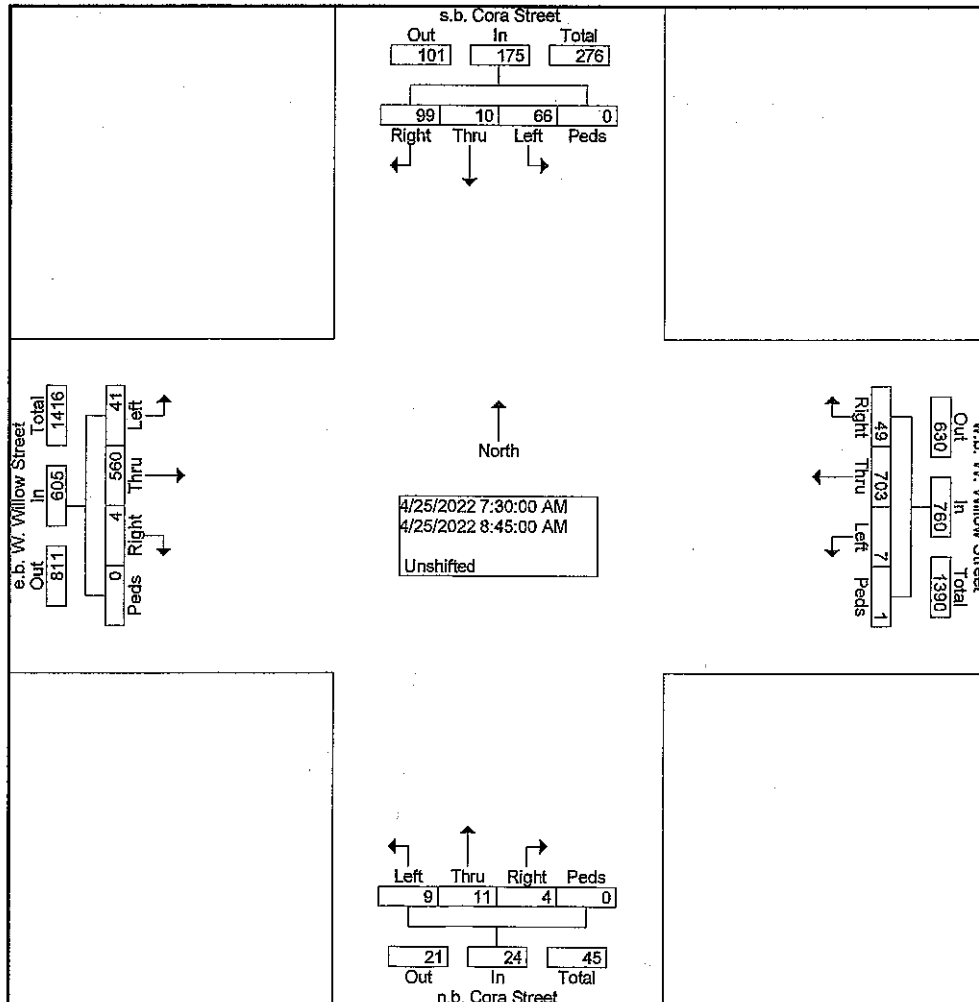
Appendix A: Turning Movement Counts

W. Willow at Cora Street
April 25, 2022
7:00am to 9:00am

File Name : untitled1
 Site Code : 00000000
 Start Date : 4/25/2022
 Page No : 1

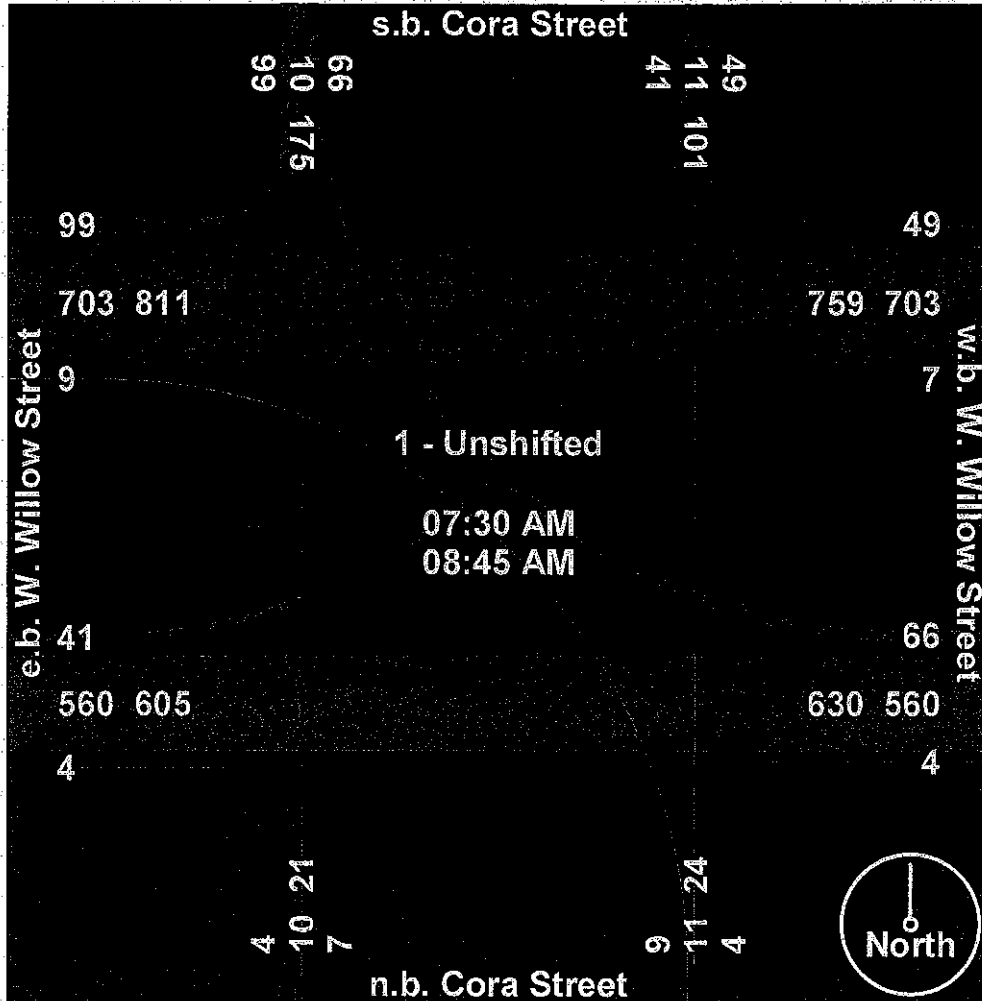
Groups Printed- Unshifted

Start Time	s.b. Cora Street Beaulieu Dr.					w.b. W. Willow Street Settlers Trace Blvd.					n.b. Cora Street Beaulieu Dr.					e.b. W. Willow Street Settlers Trace Blvd.					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:30 AM	23	2	6	0	31	15	142	1	1	159	1	7	4	0	12	1	95	10	0	106	308
07:45 AM	27	2	8	0	37	12	143	2	0	157	1	1	1	0	3	2	90	5	0	97	294
Total	50	4	14	0	68	27	285	3	1	316	2	8	5	0	15	3	185	15	0	203	602
08:00 AM	13	0	4	0	17	7	107	3	0	117	0	1	3	0	4	0	97	5	0	102	240
08:15 AM	12	4	24	0	40	7	94	0	0	101	0	0	1	0	1	1	100	12	0	113	255
08:30 AM	14	2	11	0	27	5	103	1	0	109	0	2	0	0	2	0	97	7	0	104	242
08:45 AM	10	0	13	0	23	3	114	0	0	117	2	0	0	0	2	0	81	2	0	83	225
Total	49	6	52	0	107	22	418	4	0	444	2	3	4	0	9	1	375	26	0	402	962
Grand Total	99	10	66	0	175	49	703	7	1	760	4	11	9	0	24	4	560	41	0	605	1564
Aprch %	56.6	5.7	37.7	0.0		6.4	92.5	0.9	0.1		16.7	45.8	37.5	0.0		0.7	92.6	6.8	0.0		
Total %	6.3	0.6	4.2	0.0	11.2	3.1	44.9	0.4	0.1	48.6	0.3	0.7	0.6	0.0	1.5	0.3	35.8	2.6	0.0	38.7	



W. Willow at Cora Street
 April 25, 2022
 7:00am to 9:00am

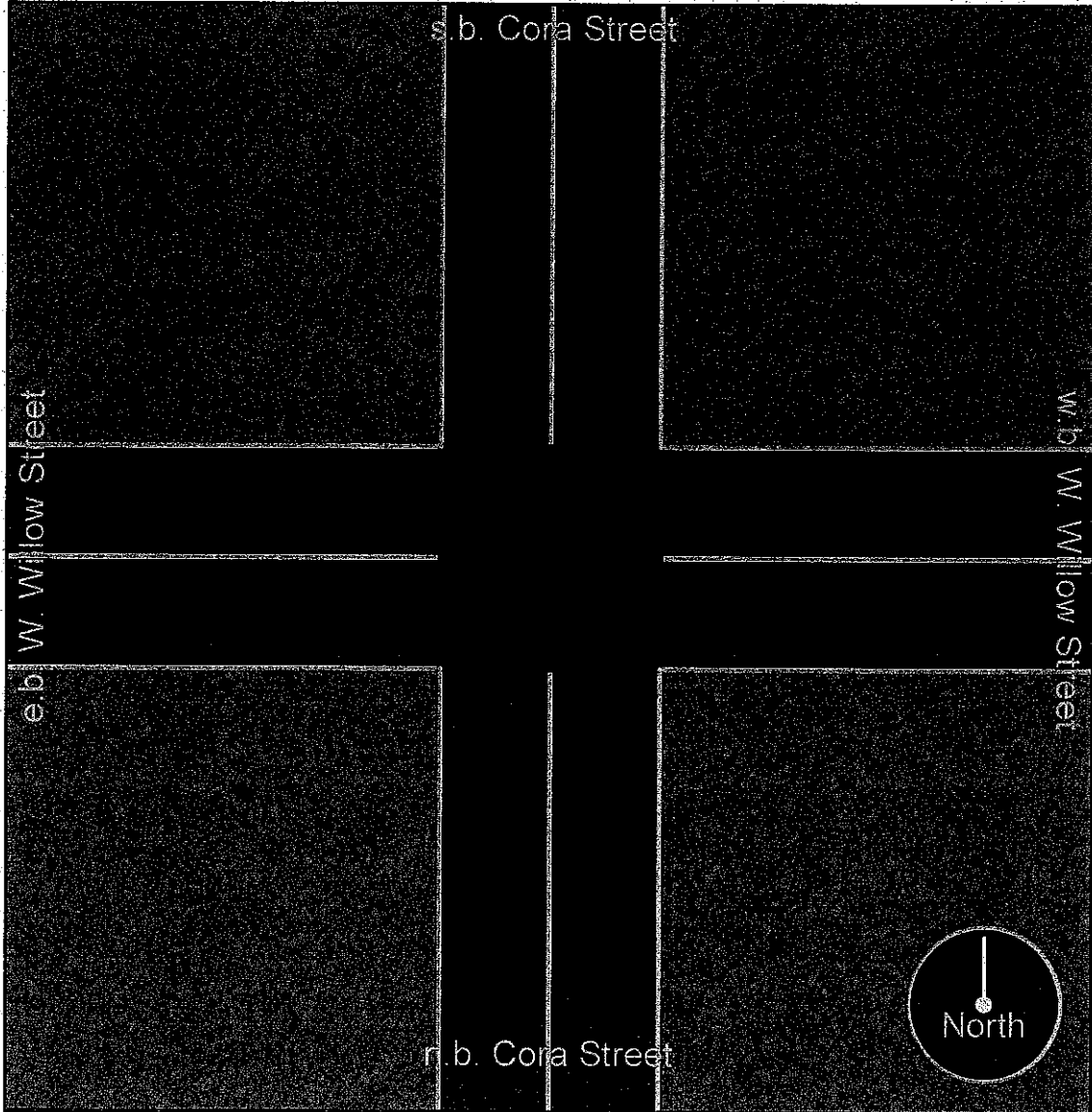
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 Site Code : 00000000
 Start Date : 4/25/2022
 Page No : 2



Start Time	s.b. Cora Street Beaulieu Dr.					w.b. W. Willow Street Settlers Trace Blvd.					n.b. Cora Street Beaulieu Dr.					e.b. W. Willow Street Settlers Trace Blvd.					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour From 07:30 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:30 AM																				
Volume	75	8	42	0	125	41	486	6	1	534	2	9	9	0	20	4	382	32	0	418	1097
Percent	60.	6.4	33.	0.0		7.7	91.	1.1	0.2		10.	45.	45.	0.0		1.0	91.	7.7	0.0		
07:30 Volume	23	2	6	0	31	15	142	1	1	159	1	7	4	0	12	1	95	10	0	106	308
Peak Factor																					0.890
High Int.	08:15 AM																				
Volume	12	4	24	0	40	15	142	1	1	159	1	7	4	0	12	1	100	12	0	113	
Peak Factor																					0.925

W. Willow at Cora Street
April 25, 2022
7:00am to 9:00am

File Name : untitled1
Site Code : 00000000
Start Date : 4/25/2022
Page No : 3

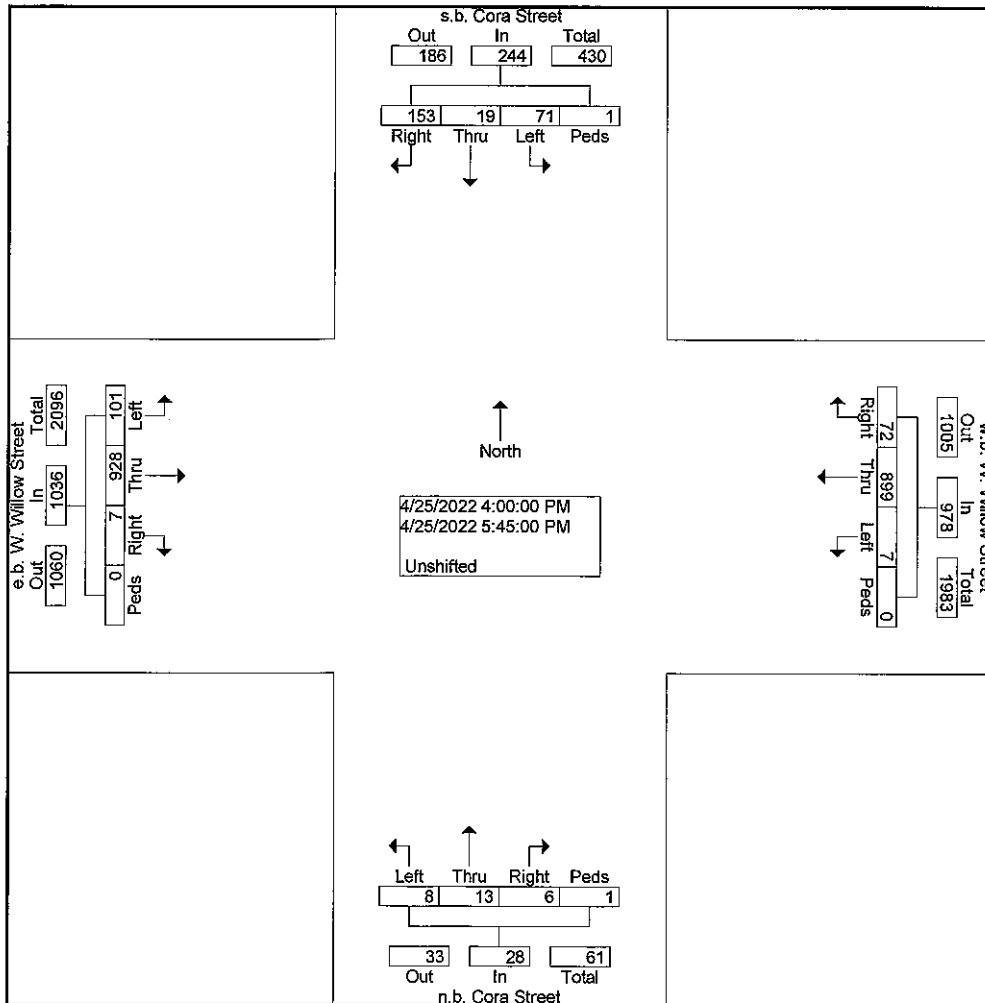


W. Willow at Cora Street
 April 25, 2022
 4:00pm to 6:00pm

File Name : untitled1
 Site Code : 00000000
 Start Date : 4/25/2022
 Page No : 1

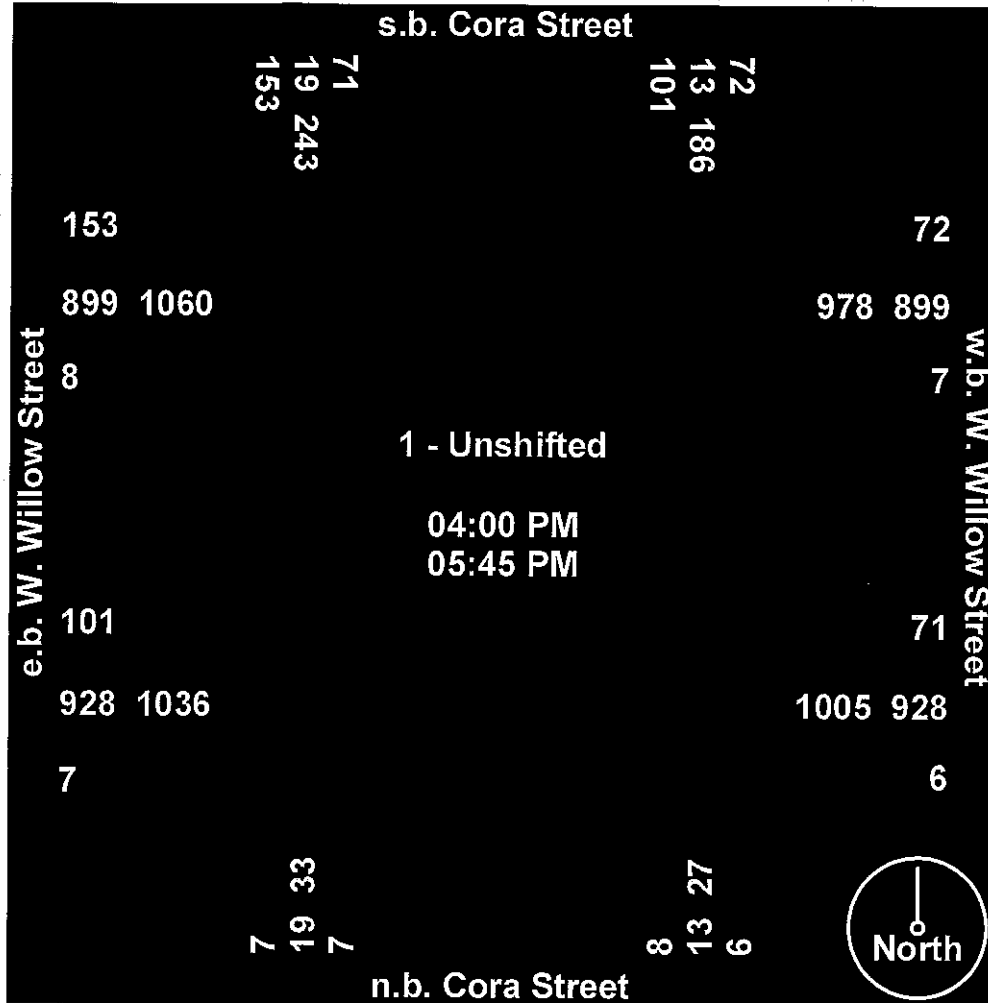
Groups Printed- Unshifted

Start Time	s.b. Cora Street Beaulieu Dr.					w.b. W. Willow Street Settlers Trace Blvd.					n.b. Cora Street Beaulieu Dr.					e.b. W. Willow Street Settlers Trace Blvd.					Int. Total
	Rig ht	Thru	Left	Peds	App. Total	Rig ht	Thru	Left	Peds	App. Total	Rig ht	Thru	Left	Peds	App. Total	Rig ht	Thru	Left	Peds	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	33	0	8	0	41	6	121	0	0	127	2	5	2	0	9	0	133	15	0	148	325
04:15 PM	19	6	10	1	36	7	122	1	0	130	0	1	0	0	1	2	139	5	0	146	313
04:30 PM	15	1	7	0	23	9	139	0	0	148	0	1	0	0	1	0	122	15	0	137	309
04:45 PM	17	3	11	0	31	8	123	2	0	133	1	2	2	0	5	0	95	16	0	111	280
Total	84	10	36	1	131	30	505	3	0	538	3	9	4	0	16	2	489	51	0	542	1227
05:00 PM	19	3	5	0	27	5	103	1	0	109	0	1	0	0	1	0	144	7	0	151	288
05:15 PM	17	0	9	0	26	13	97	1	0	111	0	0	2	1	3	2	104	12	0	118	258
05:30 PM	17	1	18	0	36	10	88	2	0	100	2	2	0	0	4	2	107	18	0	127	267
05:45 PM	16	5	3	0	24	14	106	0	0	120	1	1	2	0	4	1	84	13	0	98	246
Total	69	9	35	0	113	42	394	4	0	440	3	4	4	1	12	5	439	50	0	494	1059
Grand Total	153	19	71	1	244	72	899	7	0	978	6	13	8	1	28	7	928	101	0	1036	2286
Apprch %	62.7	7.8	29.1	0.4		7.4	91.9	0.7	0.0		21.4	46.4	28.6	3.6		0.7	89.6	9.7	0.0		
Total %	6.7	0.8	3.1	0.0	10.7	3.1	39.3	0.3	0.0	42.8	0.3	0.6	0.3	0.0	1.2	0.3	40.6	4.4	0.0	45.3	



W. Willow at Cora Street
 April 25, 2022
 4:00pm to 6:00pm

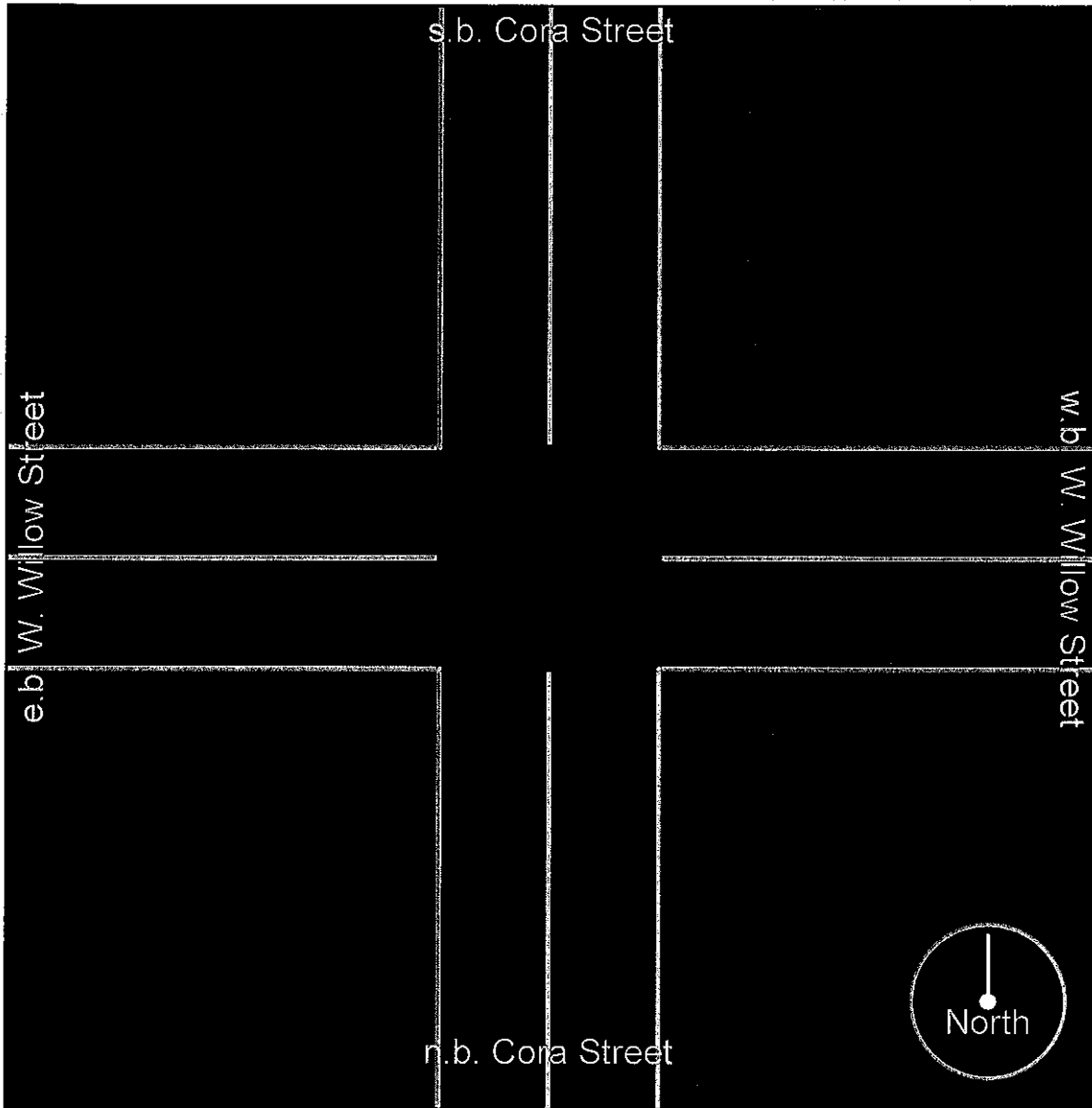
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 Site Code : 00000000
 Start Date : 4/25/2022
 Page No : 2



Start Time	s.b. Cora Street Beaullieu Dr.					w.b. W. Willow Street Settlers Trace Blvd.					n.b. Cora Street Beaullieu Dr.					e.b. W. Willow Street Settlers Trace Blvd.					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	84	10	36	1	131	30	505	3	0	538	3	9	4	0	16	2	489	51	0	542	1227
Percent	64.1	7.6	27.5	0.8		5.6	93.9	0.6	0.0		18.8	56.3	25.0	0.0		0.4	90.2	9.4	0.0		
04:00 Volume	33	0	8	0	41	6	121	0	0	127	2	5	2	0	9	0	133	15	0	148	325
Peak Factor																					0.944
High Int. Volume	04:00 PM					04:30 PM					04:00 PM					04:00 PM					
Peak Factor	33	0	8	0	41	9	139	0	0	148	2	5	2	0	9	0	133	15	0	148	0.916
					0.799					0.909					0.444						0.916

W. Willow at Cora Street
April 25, 2022
4:00pm to 6:00pm

File Name : untitled1
Site Code : 00000000
Start Date : 4/25/2022
Page No : 3

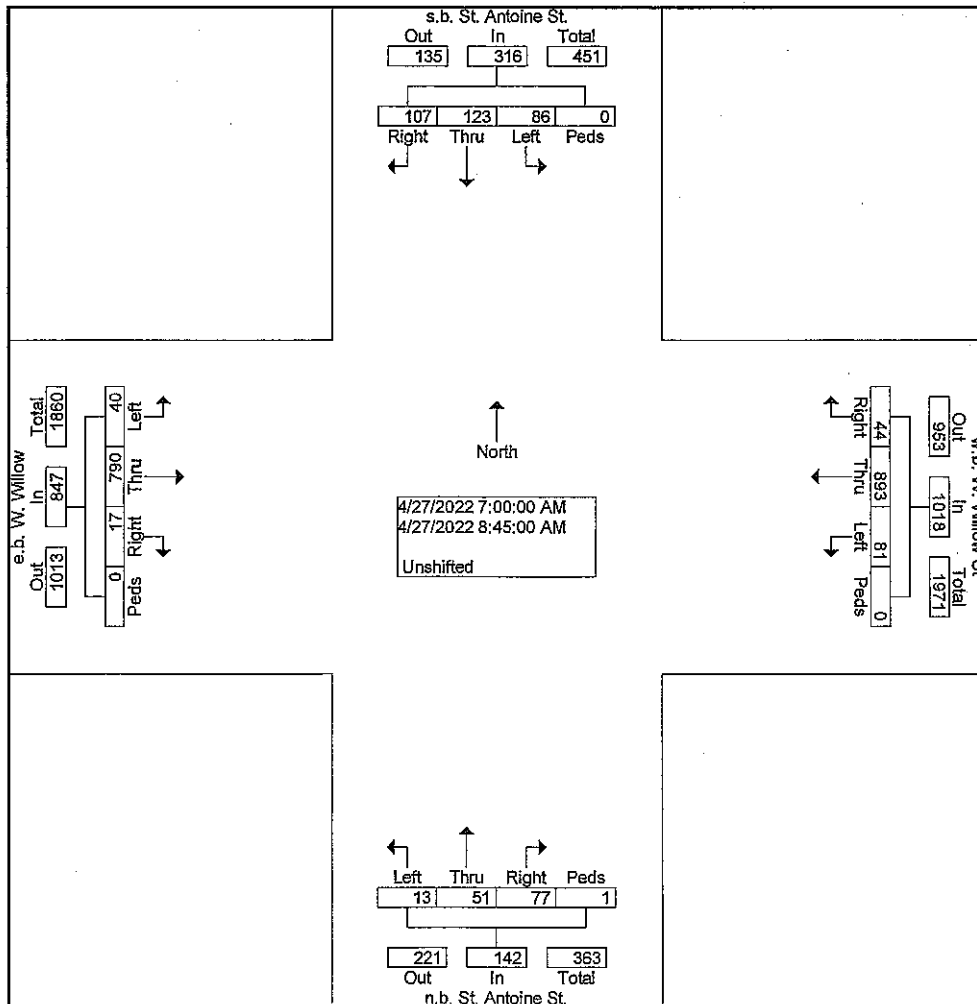


W. Willow at St. Antoine Street
 April 27, 2022
 7:00am to 9:00am

File Name : untitled1
 Site Code : 00000000
 Start Date : 4/27/2022
 Page No : 1

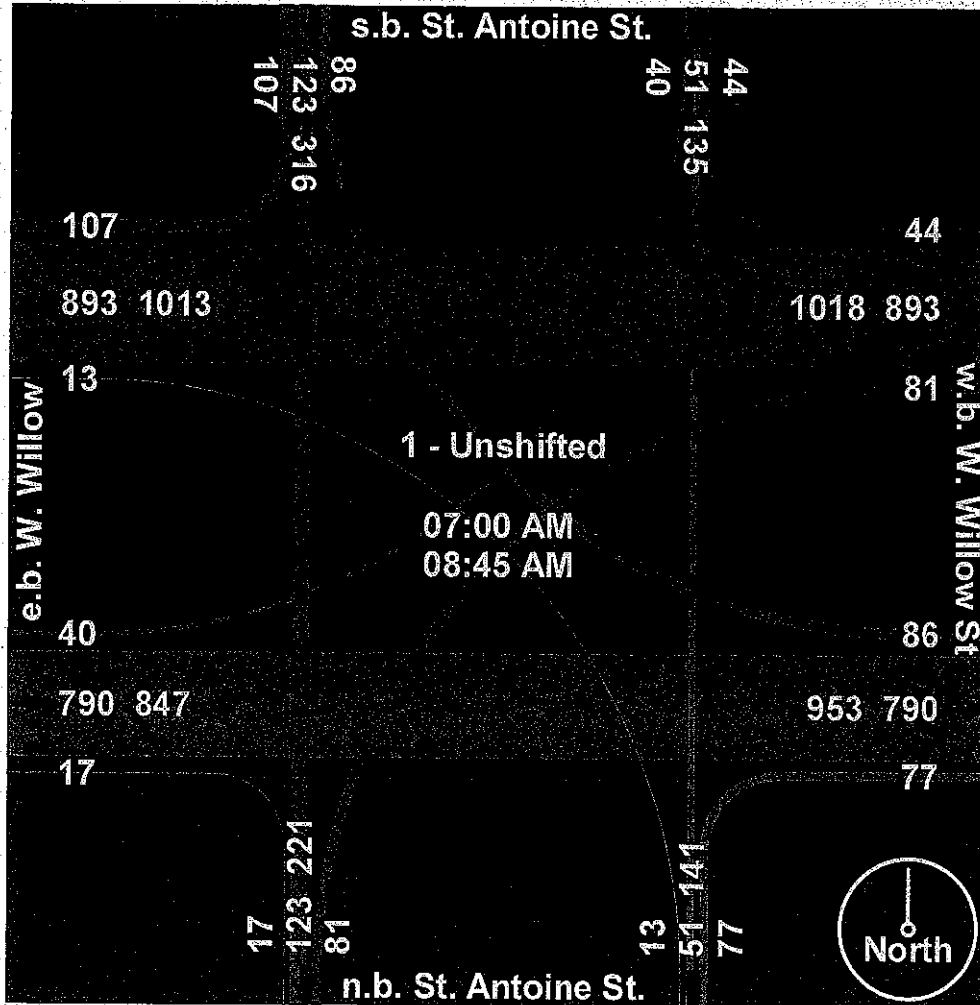
Groups Printed- Unshifted

Start Time	s.b. St. Antoine St. From North					w.b. W. Willow St From East					n.b. St. Antoine St. From South					e.b. W. Willow From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	13	9	0	0	22	5	94	5	0	104	7	4	2	0	13	1	88	1	0	90	229
07:15 AM	13	14	14	0	41	3	108	5	0	116	9	3	1	1	14	1	86	1	0	88	259
07:30 AM	10	22	16	0	48	3	129	14	0	146	9	9	4	0	22	6	90	4	0	100	316
07:45 AM	25	24	23	0	72	5	145	18	0	168	12	10	2	0	24	1	104	7	0	112	376
Total	61	69	53	0	183	16	476	42	0	534	37	26	9	1	73	9	368	13	0	390	1180
08:00 AM	12	15	8	0	35	8	111	10	0	129	11	10	1	0	22	1	107	11	0	119	305
08:15 AM	10	12	10	0	32	3	113	13	0	129	4	5	2	0	11	4	124	6	0	134	306
08:30 AM	18	20	6	0	44	8	109	12	0	129	16	4	1	0	21	1	85	6	0	92	286
08:45 AM	6	7	9	0	22	9	84	4	0	97	9	6	0	0	15	2	106	4	0	112	246
Total	46	54	33	0	133	28	417	39	0	484	40	25	4	0	69	8	422	27	0	457	1143
Grand Total	107	123	86	0	316	44	893	81	0	1018	77	51	13	1	142	17	790	40	0	847	2323
Apprch %	33.9	38.9	27.2	0.0		4.3	87.7	8.0	0.0		54.2	35.9	9.2	0.7		2.0	93.3	4.7	0.0		
Total %	4.6	5.3	3.7	0.0	13.6	1.9	38.4	3.5	0.0	43.8	3.3	2.2	0.6	0.0	6.1	0.7	34.0	1.7	0.0	36.5	



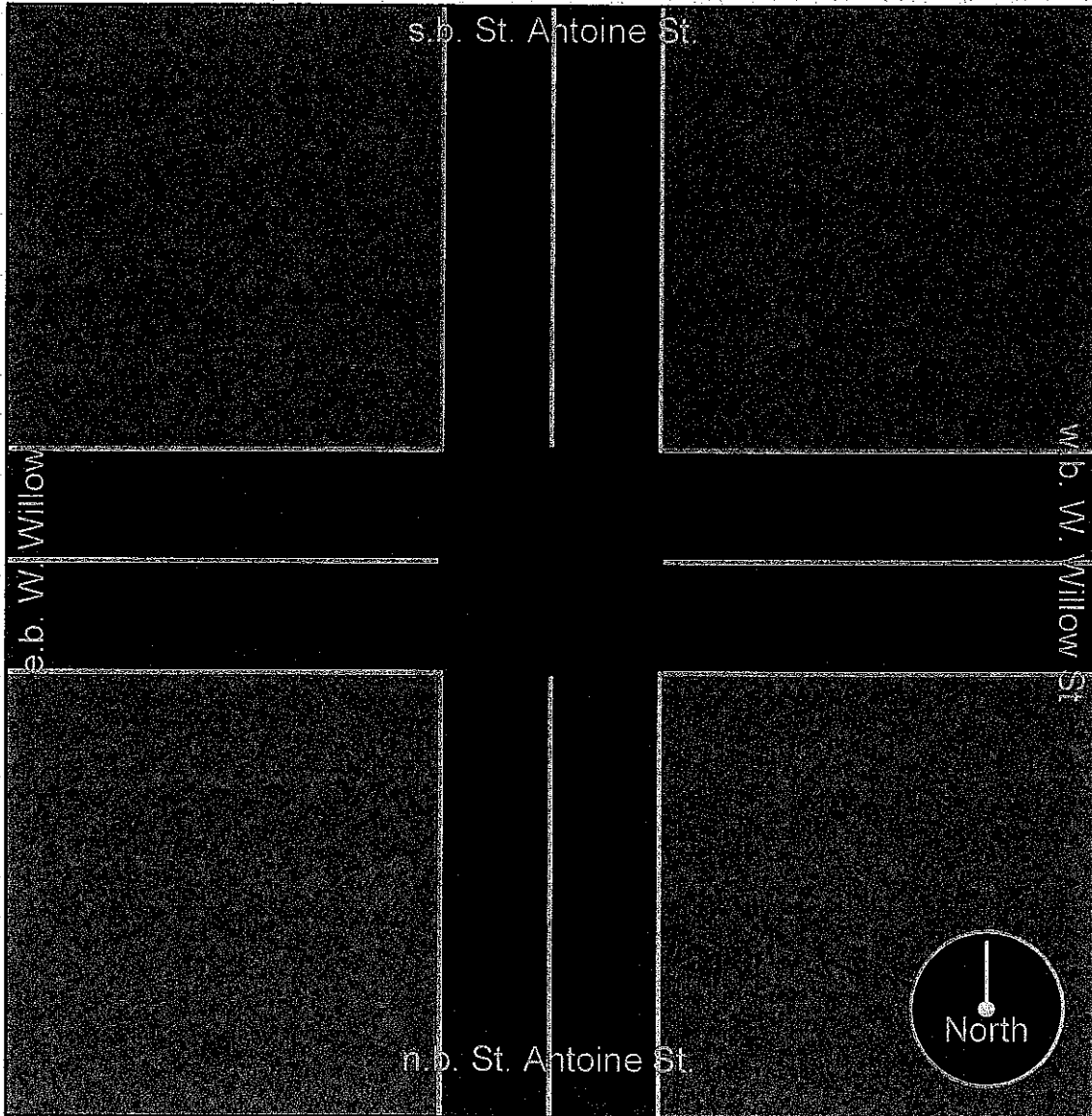
W. Willow at St. Antoine Street
April 27, 2022
7:00am to 9:00am

File Name : untitled1
Site Code : 00000000
Start Date : 4/27/2022
Page No : 2



W. Willow at St. Antoine Street
April 27, 2022
7:00am to 9:00am

File Name : untitled1
Site Code : 00000000
Start Date : 4/27/2022
Page No : 3

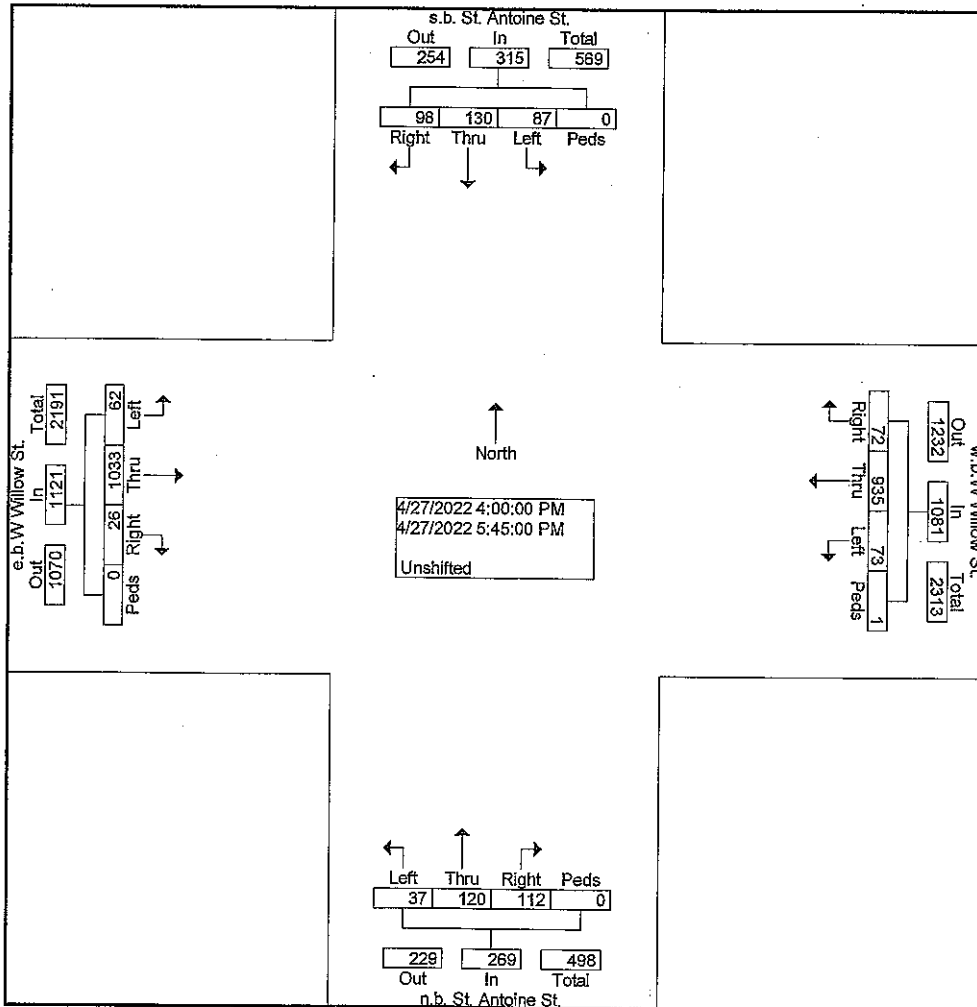


W. Willow at St. Antoine Street
 April 27, 2022
 4:00pm to 6:00pm

File Name : untitled1
 Site Code : 00000000
 Start Date : 4/27/2022
 Page No : 1

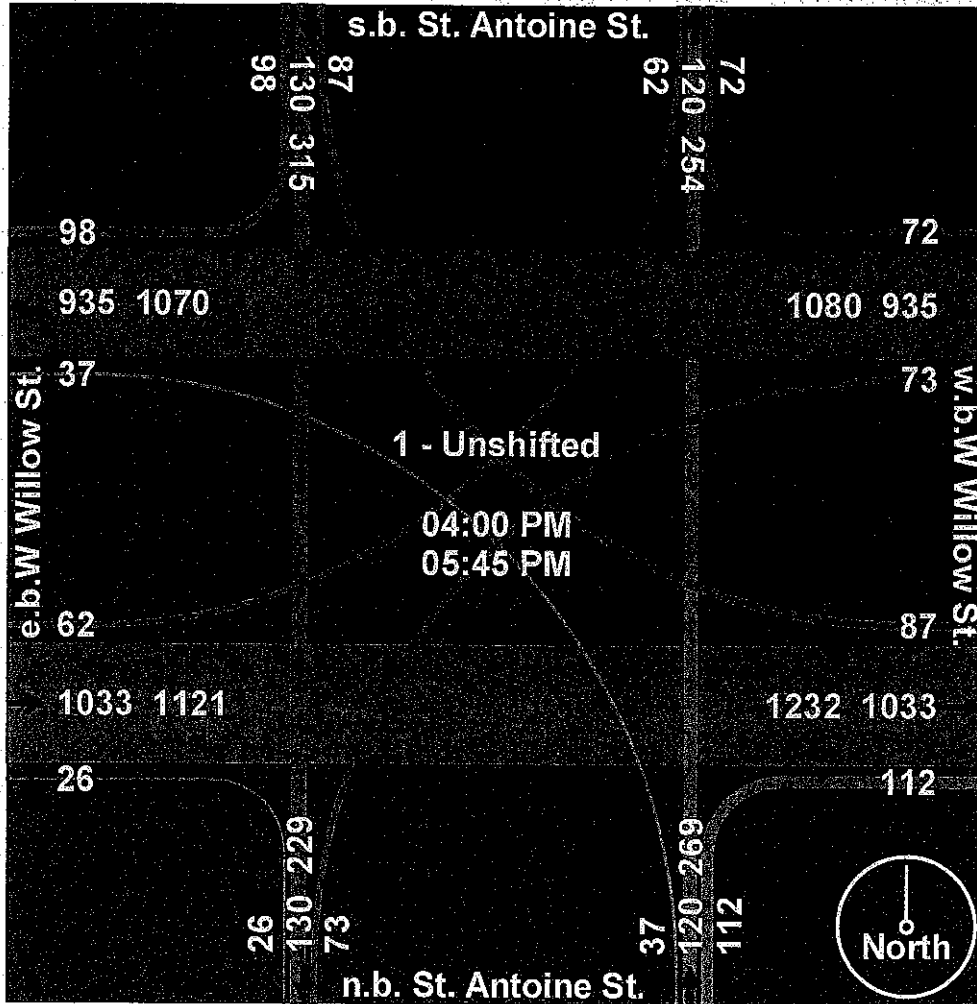
Groups Printed- Unshifted

Start Time	s.b. St. Antoine St. From North					w.b.W Willow St. From East					n.b. St. Antoine St. From South					e.b.W Willow St. From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	16	21	13	0	50	10	113	9	0	132	11	16	3	0	30	3	143	3	0	149	361
04:15 PM	17	18	12	0	47	12	149	17	0	178	18	16	4	0	38	2	149	6	0	157	420
04:30 PM	15	11	10	0	36	11	123	9	0	143	19	16	3	0	38	3	117	11	0	131	348
04:45 PM	11	14	13	0	38	8	92	9	0	109	10	14	3	0	27	3	134	5	0	142	316
Total	59	64	48	0	171	41	477	44	0	562	58	62	13	0	133	11	543	25	0	579	1445
05:00 PM	11	10	12	0	33	10	121	8	1	140	13	15	6	0	34	4	137	10	0	151	358
05:15 PM	9	15	7	0	31	5	106	5	0	116	9	17	9	0	35	6	130	9	0	145	327
05:30 PM	13	23	9	0	45	8	122	7	0	137	11	9	3	0	23	2	103	9	0	114	319
05:45 PM	6	18	11	0	35	8	109	9	0	126	21	17	6	0	44	3	120	9	0	132	337
Total	39	66	39	0	144	31	458	29	1	519	54	58	24	0	136	15	490	37	0	542	1341
Grand Total	98	130	87	0	315	72	935	73	1	1081	112	120	37	0	269	26	1033	62	0	1121	2786
Apprch %	31.1	41.3	27.6	0.0		6.7	86.5	6.8	0.1		41.6	44.6	13.8	0.0		2.3	92.1	5.5	0.0		
Total %	3.5	4.7	3.1	0.0	11.3	2.6	33.6	2.6	0.0	38.8	4.0	4.3	1.3	0.0	9.7	0.9	37.1	2.2	0.0	40.2	



W. Willow at St. Antoine Street
 April 27, 2022
 4:00pm to 6:00pm

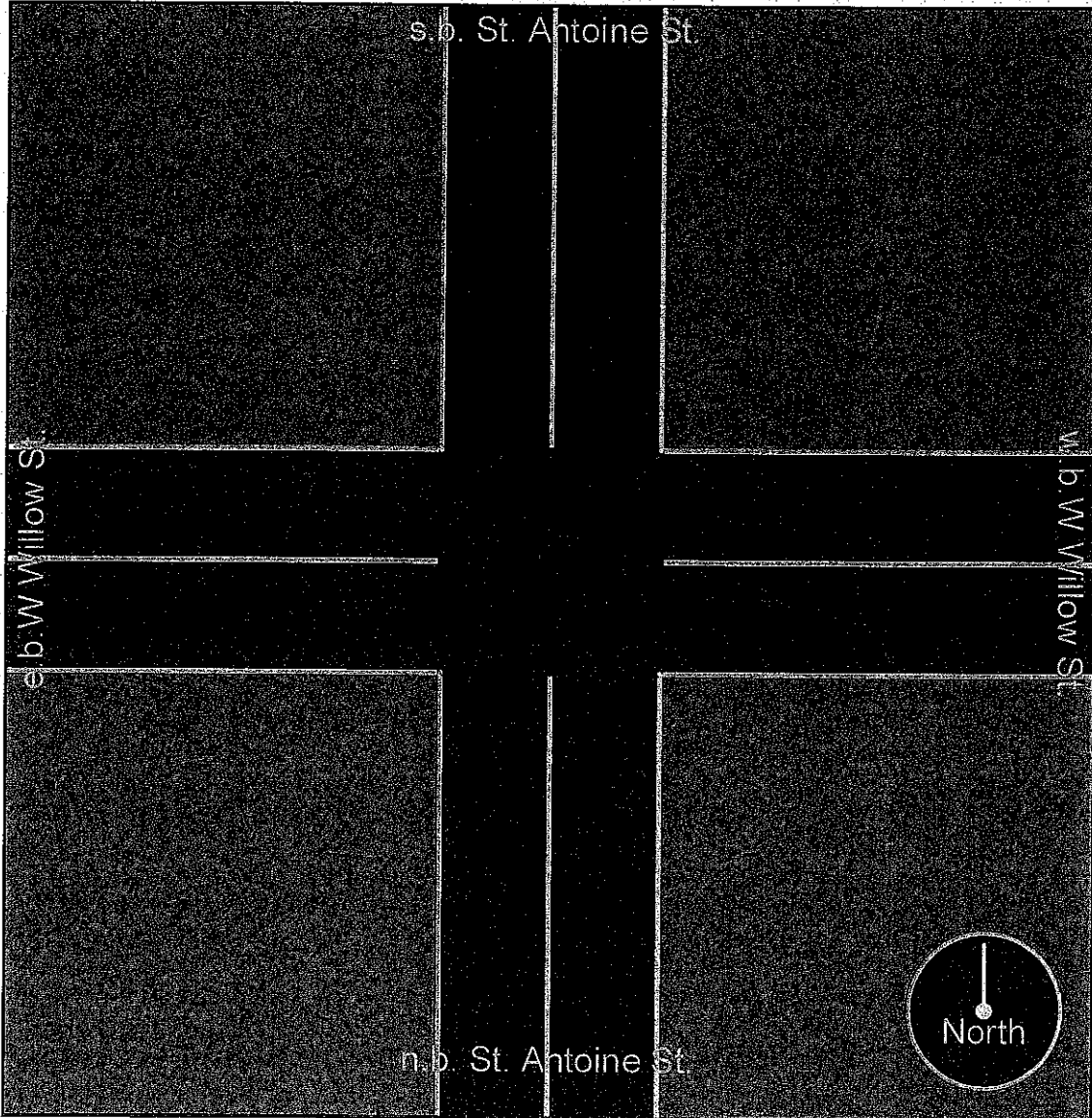
File Name : untitled1
 Site Code : 00000000
 Start Date : 4/27/2022
 Page No : 2



Start Time	s.b. St. Antoine St. From North					w.b.W Willow St. From East					n.b. St. Antoine St. From South					e.b.W Willow St. From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	59	64	48	0	171	41	477	44	0	562	58	62	13	0	133	11	543	25	0	579	1445
Percent	34.	37.	28.	0.0		7.3	84.	7.8	0.0		43.	46.	9.8	0.0		1.9	93.	4.3	0.0		
04:15 Volume Peak Factor	17	18	12	0	47	12	149	17	0	178	18	16	4	0	38	2	149	6	0	157	420
High Int. Volume Peak Factor	04:00 PM					04:15 PM					04:15 PM					04:15 PM					
	16	21	13	0	50	12	149	17	0	178	18	16	4	0	38	2	149	6	0	157	0.860
						0.85					0.78					0.87					0.92
																					2

W. Willow at St. Antoine Street
April 27, 2022
4:00pm to 6:00pm

File Name : untitled1
Site Code : 00000000
Start Date : 4/27/2022
Page No : 3

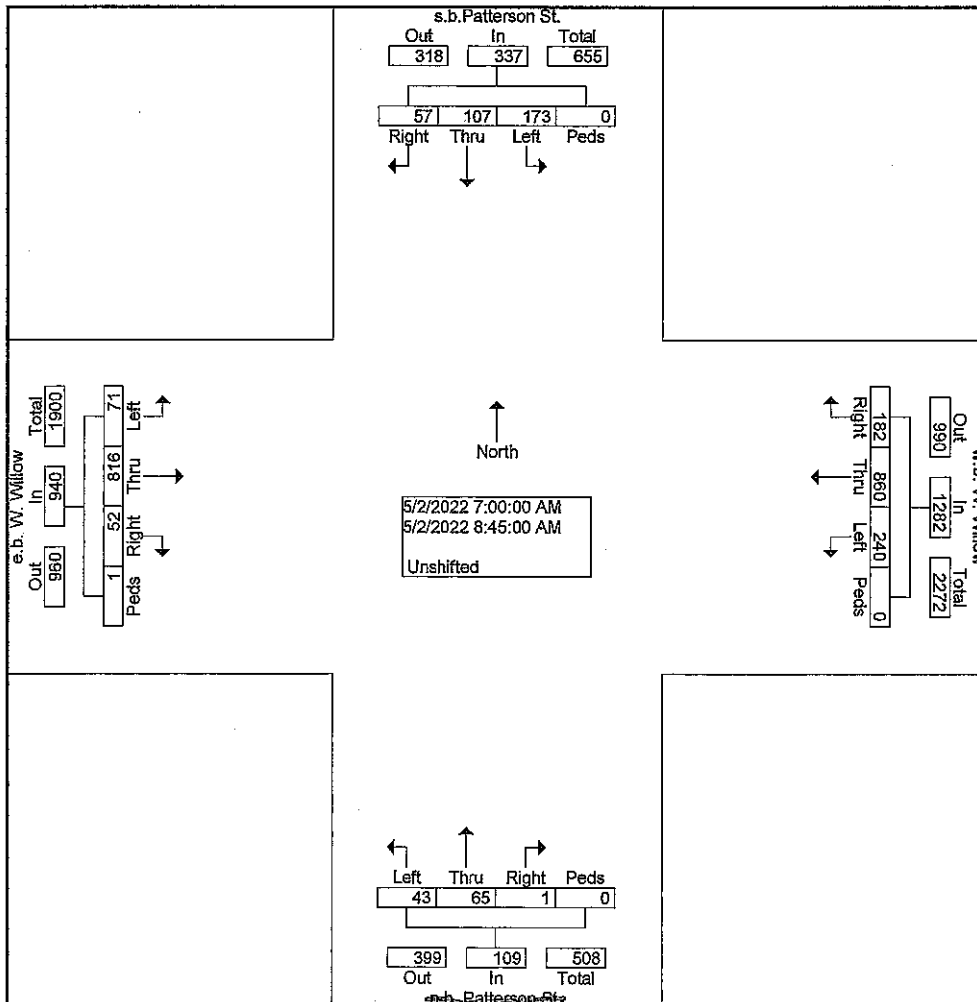


W. Willow at Patterson St.
 May 2, 2022
 7:00am to 9:00am

File Name : untitled1
 Site Code : 00000000
 Start Date : 5/2/2022
 Page No : 1

Groups Printed- Unshifted

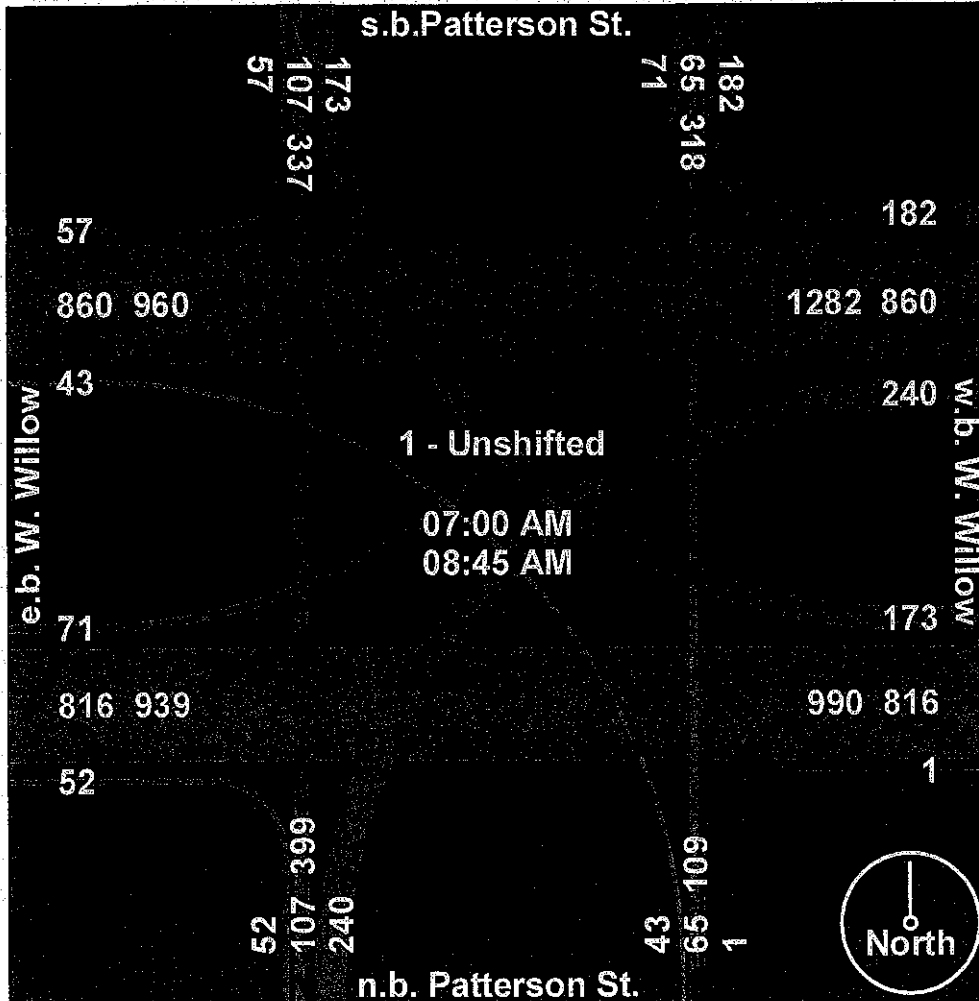
Start Time	s.b. Patterson St. From North					w.b. W. Willow From East					n.b. Patterson St. From South					e.b. W. Willow From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	5	10	19	0	34	16	88	33	0	137	0	5	1	0	6	2	88	2	0	92	269
07:15 AM	4	6	14	0	24	12	108	37	0	157	0	9	6	0	15	7	89	11	1	108	304
07:30 AM	8	24	19	0	51	28	131	46	0	205	0	14	6	0	20	12	110	8	0	130	406
07:45 AM	6	19	21	0	46	38	133	41	0	212	0	6	6	0	12	3	122	16	0	141	411
Total	23	59	73	0	155	94	460	157	0	711	0	34	19	0	53	24	409	37	1	471	1390
08:00 AM	5	10	13	0	28	23	111	30	0	164	0	9	6	0	15	7	114	14	0	135	342
08:15 AM	14	22	45	0	81	18	101	18	0	137	1	10	4	0	15	2	107	10	0	119	352
08:30 AM	7	10	21	0	38	20	104	19	0	143	0	4	5	0	9	9	99	5	0	113	303
08:45 AM	8	6	21	0	35	27	84	16	0	127	0	8	9	0	17	10	87	5	0	102	281
Total	34	48	100	0	182	88	400	83	0	571	1	31	24	0	56	28	407	34	0	469	1278
Grand Total	57	107	173	0	337	182	860	240	0	1282	1	65	43	0	109	52	816	71	1	940	2668
Apprch %	16.9	31.8	51.3	0.0		14.2	67.1	18.7	0.0		0.9	59.6	39.4	0.0		5.5	86.8	7.6	0.1		
Total %	2.1	4.0	6.5	0.0	12.6	6.8	32.2	9.0	0.0	48.1	0.0	2.4	1.6	0.0	4.1	1.9	30.6	2.7	0.0	35.2	



N. Pierce

W. Willow at Patterson St.
May 2, 2022
7:00am to 9:00am

File Name : untitled1
Site Code : 00000000
Start Date : 5/2/2022
Page No : 2



W. Willow at Patterson St.

May 2, 2022

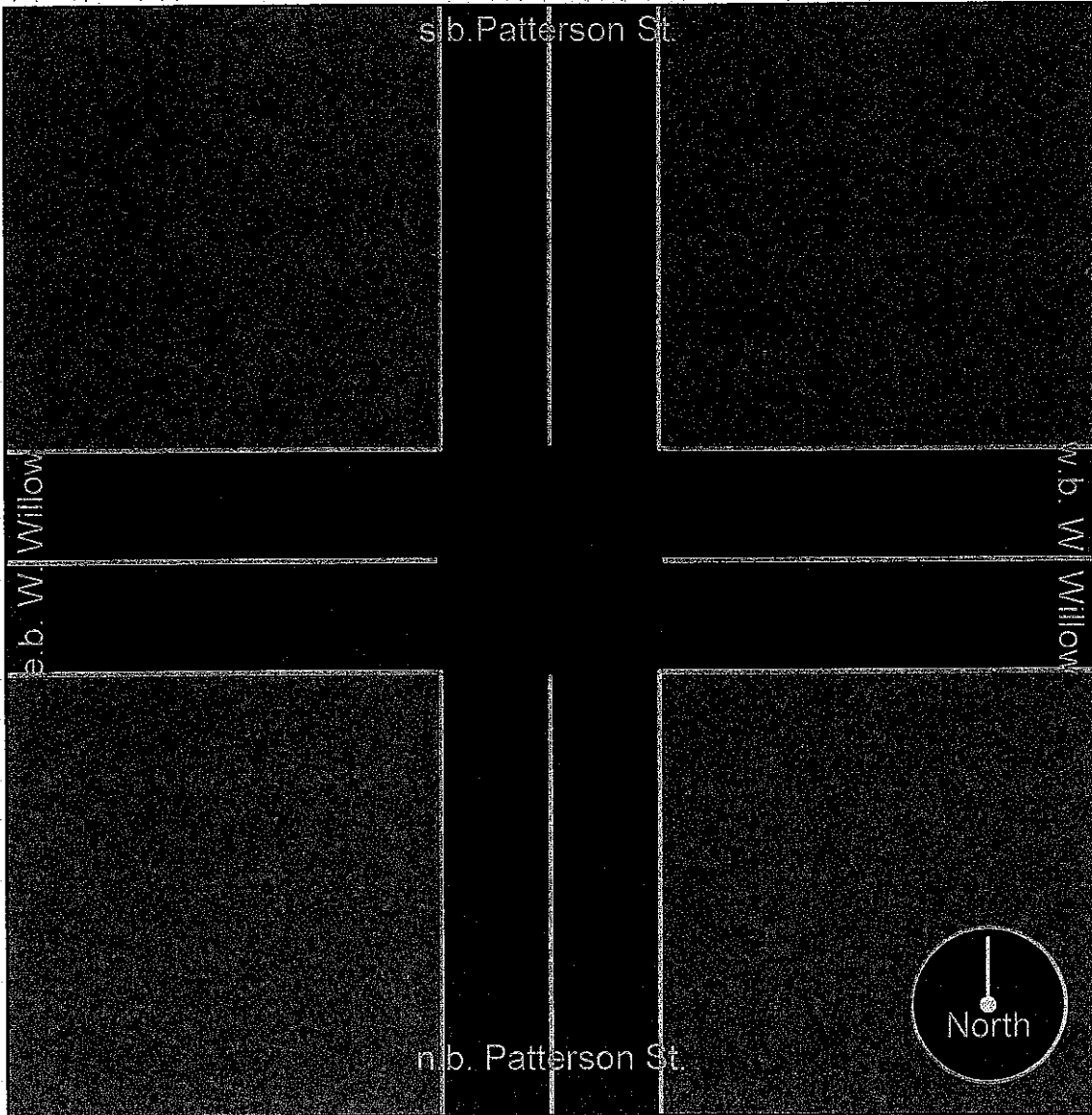
7:00am to 9:00am

File Name : untitled1

Site Code : 00000000

Start Date : 5/2/2022

Page No : 3

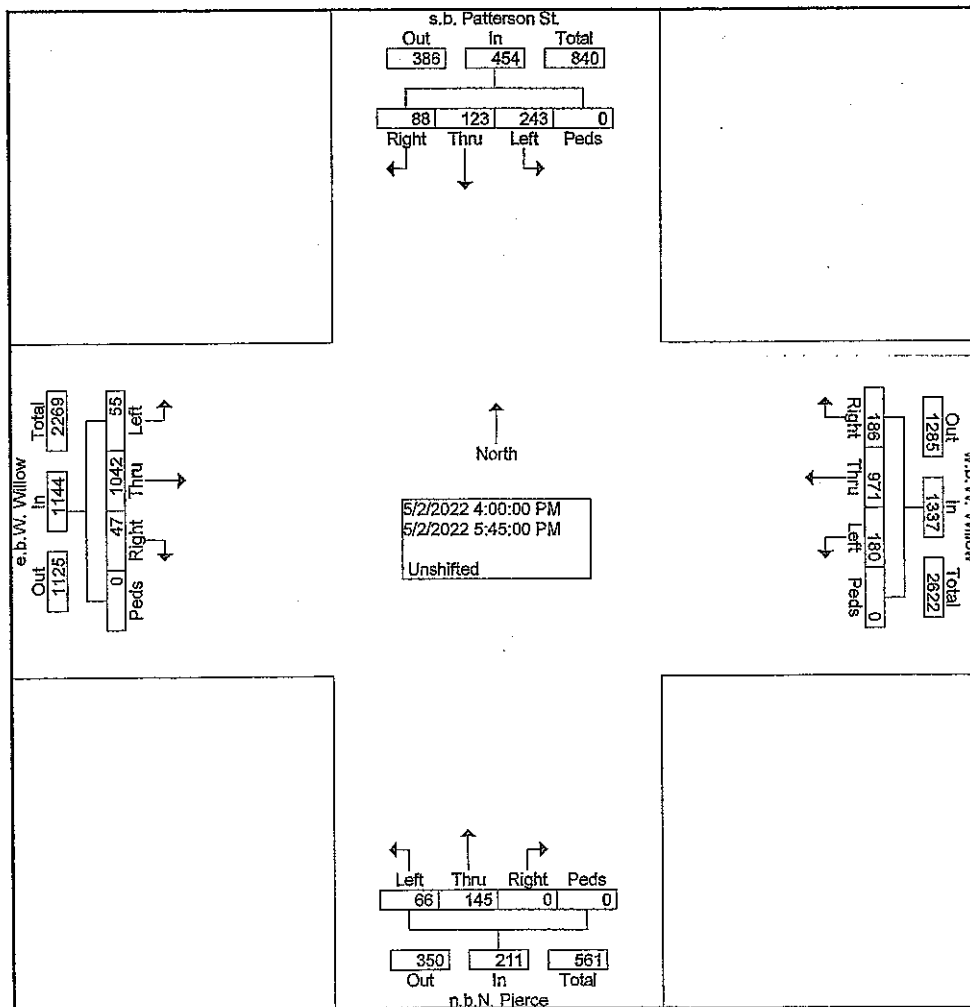


W. Willow at Patterson St.
 May 2, 2022
 4:00pm to 6:00pm

File Name : untitled1
 Site Code : 00000000
 Start Date : 5/2/2022
 Page No : 1

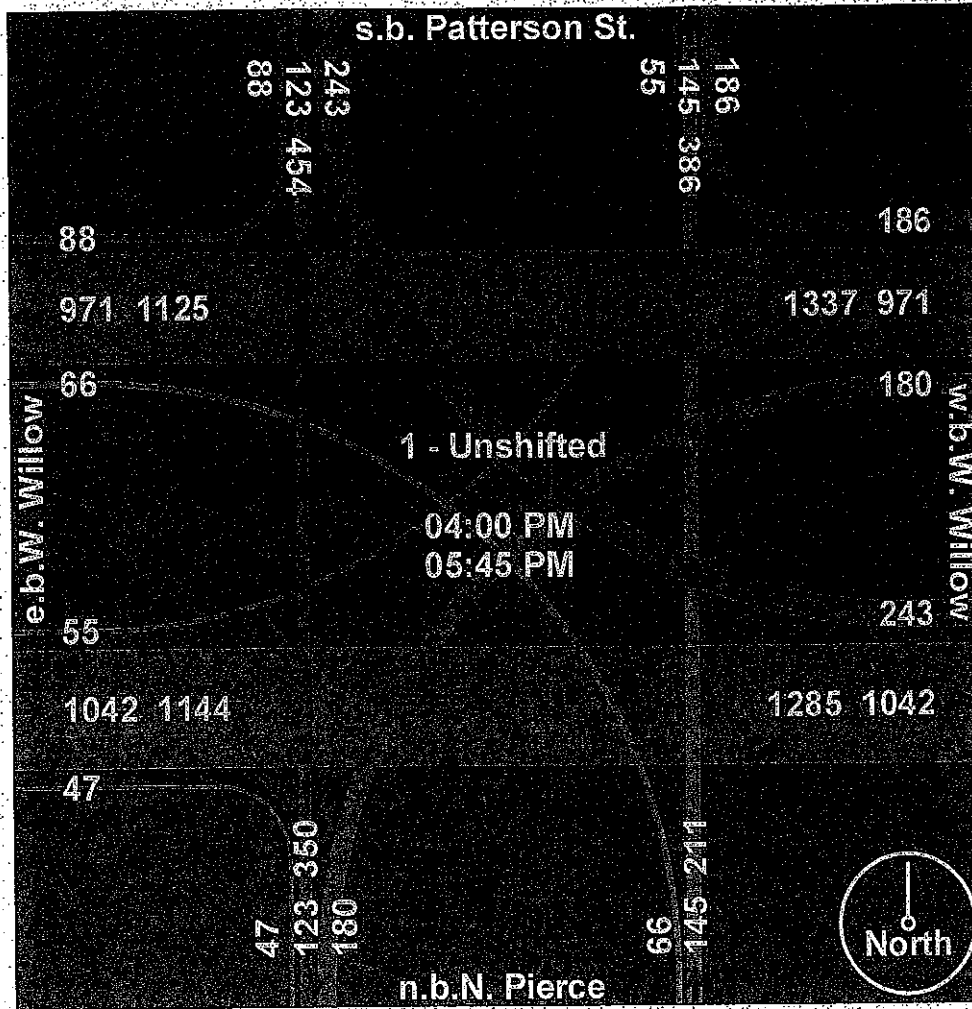
Groups Printed- Unshifted

Start Time	s.b. Patterson St From North					w.b.W. Willow From East					n.b.N. Pierce From South					e.b.W. Willow From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	8	20	38	0	66	27	127	21	0	175	0	20	6	0	26	9	147	4	0	160	427
04:15 PM	17	17	36	0	70	21	138	18	0	177	0	10	12	0	22	5	141	7	0	153	422
04:30 PM	11	13	20	0	44	24	133	27	0	184	0	18	4	0	22	5	143	9	0	157	407
04:45 PM	10	17	32	0	59	15	127	22	0	164	0	25	8	0	33	3	133	8	0	144	400
Total	46	67	126	0	239	87	525	88	0	700	0	73	30	0	103	22	564	28	0	614	1656
05:00 PM	9	19	44	0	72	26	109	32	0	167	0	18	16	0	34	6	130	6	0	142	415
05:15 PM	12	12	19	0	43	24	117	17	0	158	0	23	7	0	30	6	116	6	0	128	359
05:30 PM	10	8	25	0	43	24	106	19	0	149	0	12	8	0	20	10	111	6	0	127	339
05:45 PM	11	17	29	0	57	25	114	24	0	163	0	19	5	0	24	3	121	9	0	133	377
Total	42	56	117	0	215	99	446	92	0	637	0	72	36	0	108	25	478	27	0	530	1490
Grand Total	88	123	243	0	454	186	971	180	0	1337	0	145	66	0	211	47	1042	55	0	1144	3146
Approch %	19.4	27.1	53.5	0.0		13.9	72.6	13.5	0.0		0.0	68.7	31.3	0.0		4.1	91.1	4.8	0.0		
Total %	2.8	3.9	7.7	0.0	14.4	5.9	30.9	5.7	0.0	42.5	0.0	4.6	2.1	0.0	6.7	1.5	33.1	1.7	0.0	36.4	



W. Willow at Patterson St.
 May 2, 2022
 4:00pm to 6:00pm

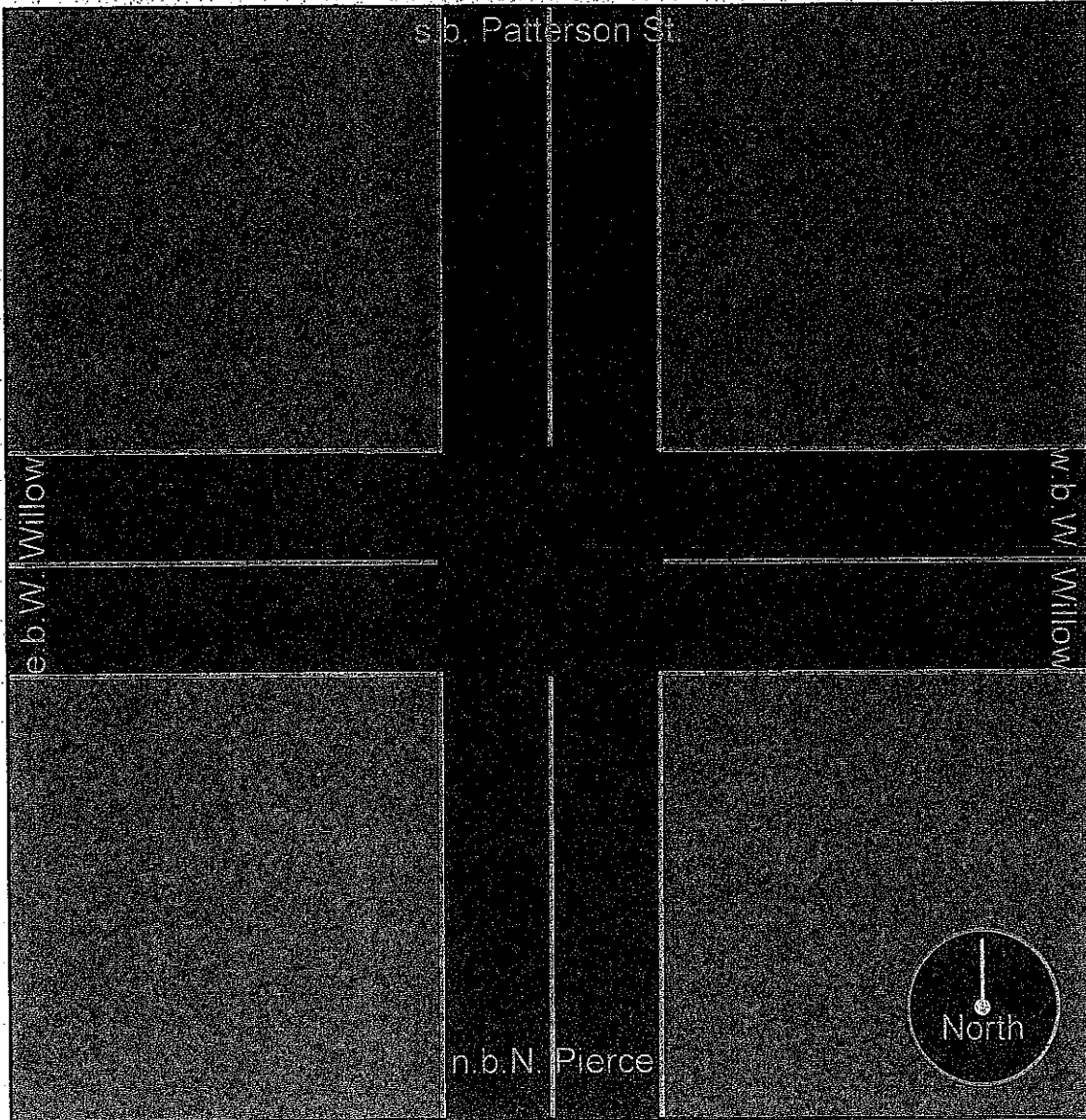
File Name : untitled1
 Site Code : 00000000
 Start Date : 5/2/2022
 Page No : 2



Start Time	s.b. Patterson St. From North					w.b.W. Willow From East					n.b.N. Pierce From South					e.b.W. Willow From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:00 PM																				
Volume	46	67	126	0	239	87	525	88	0	700	0	73	30	0	103	22	564	28	0	614	1656
Percent	19.2	28.0	52.7	0.0		12.4	75.0	12.6	0.0		0.0	70.9	29.1	0.0		3.6	91.9	4.6	0.0		
04:00 Volume Peak Factor	8	20	38	0	66	27	127	21	0	175	0	20	6	0	26	9	147	4	0	160	427
High Int. Volume Peak Factor	04:15 PM					04:30 PM					04:45 PM					04:00 PM					
	17	17	36	0	70	24	133	27	0	184	0	25	8	0	33	9	147	4	0	160	0.970
	0.854					0.951					0.780					0.959					

W. Willow at Patterson St.
May 2, 2022
4:00pm to 6:00pm

File Name : untitled1
Site Code : 00000000
Start Date : 5/2/2022
Page No : 3

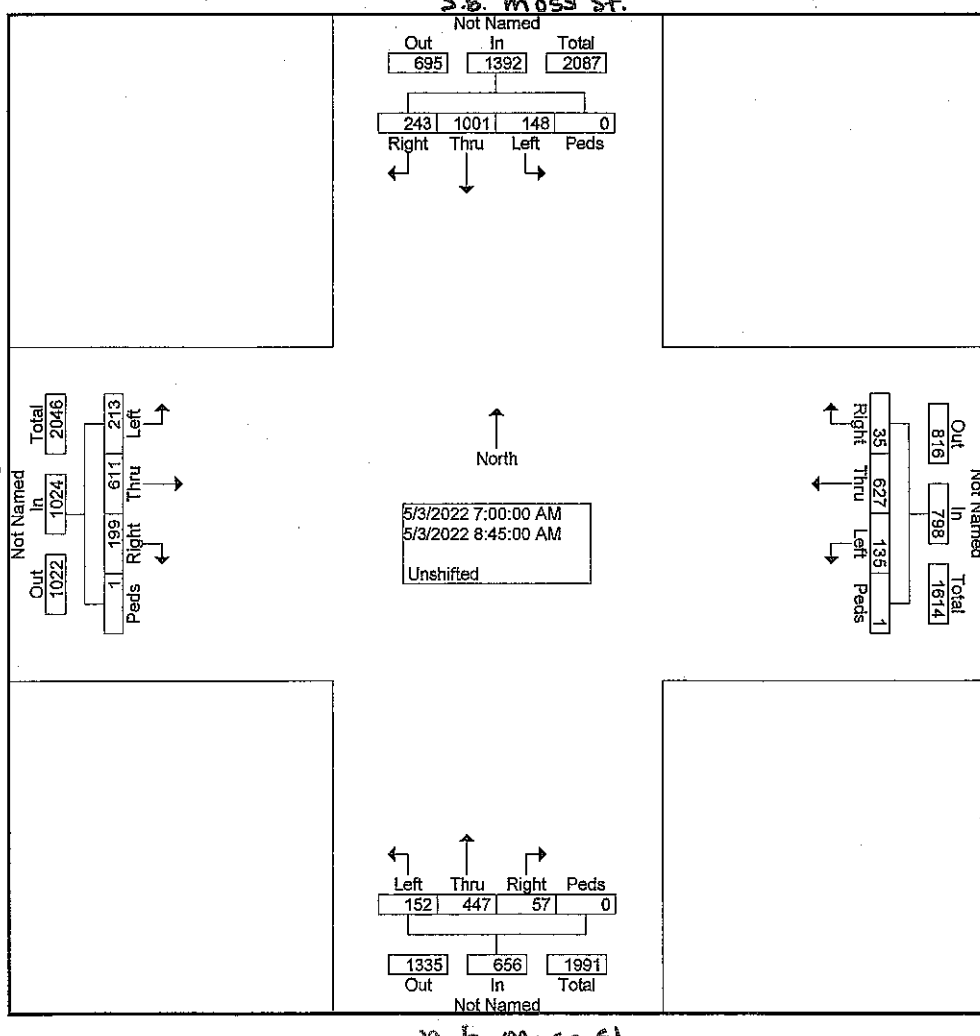


W. Willow at Moss St.
 May 3, 2022
 7:00am to 9:00am

File Name : untitled1
 Site Code : 00000000
 Start Date : 5/3/2022
 Page No : 1

Groups Printed- Unshifted

Start Time	From North					From East					From South					From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	26	96	22	0	144	6	95	12	0	113	9	36	11	0	56	14	98	17	0	129	442
07:15 AM	23	140	39	0	202	4	81	32	0	117	8	51	23	0	82	24	121	25	0	170	571
07:30 AM	36	181	17	0	234	4	109	24	0	137	11	64	24	0	99	24	52	26	0	102	572
07:45 AM	34	176	18	0	228	4	94	24	0	122	4	71	27	0	102	25	96	20	1	142	594
Total	119	593	96	0	808	18	379	92	0	489	32	222	85	0	339	87	367	88	1	543	2179
08:00 AM	41	135	21	0	197	3	79	12	0	94	5	61	15	0	81	40	56	21	0	117	489
08:15 AM	21	93	11	0	125	4	68	13	0	85	4	46	14	0	64	30	73	30	0	133	407
08:30 AM	25	113	9	0	147	5	49	11	0	65	5	62	19	0	86	19	62	29	0	110	408
08:45 AM	37	67	11	0	115	5	52	7	1	65	11	56	19	0	86	23	53	45	0	121	387
Total	124	408	52	0	584	17	248	43	1	309	25	225	67	0	317	112	244	125	0	481	1691
Grand Total	243	1001	148	0	1392	35	627	135	1	798	57	447	152	0	656	199	611	213	1	1024	3870
Aprpch %	17.5	71.9	10.6	0.0		4.4	78.6	16.9	0.1		8.7	68.1	23.2	0.0		19.4	59.7	20.8	0.1		
Total %	6.3	25.9	3.8	0.0	36.0	0.9	16.2	3.5	0.0	20.6	1.5	11.6	3.9	0.0	17.0	5.1	15.8	5.5	0.0	26.5	

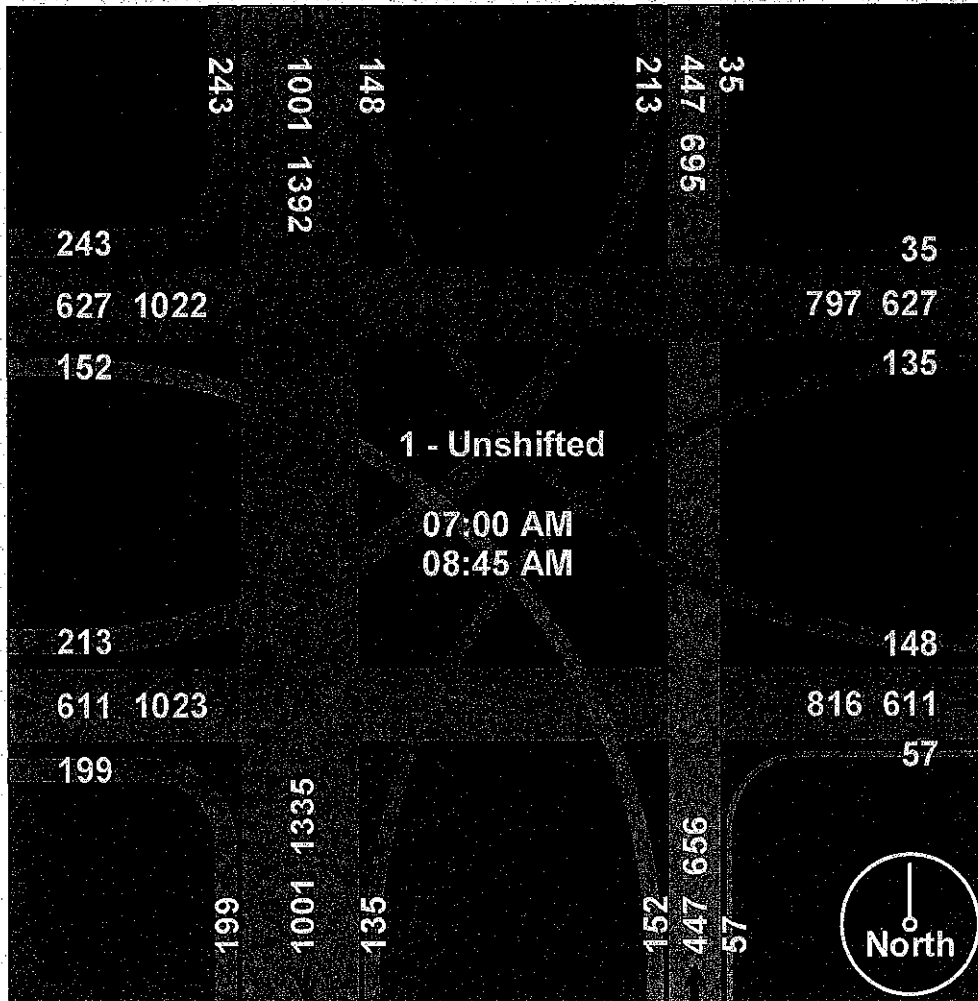


W. Willow

W. Willow

W. Willow at Moss St.
 May 3, 2022
 7:00am to 9:00am

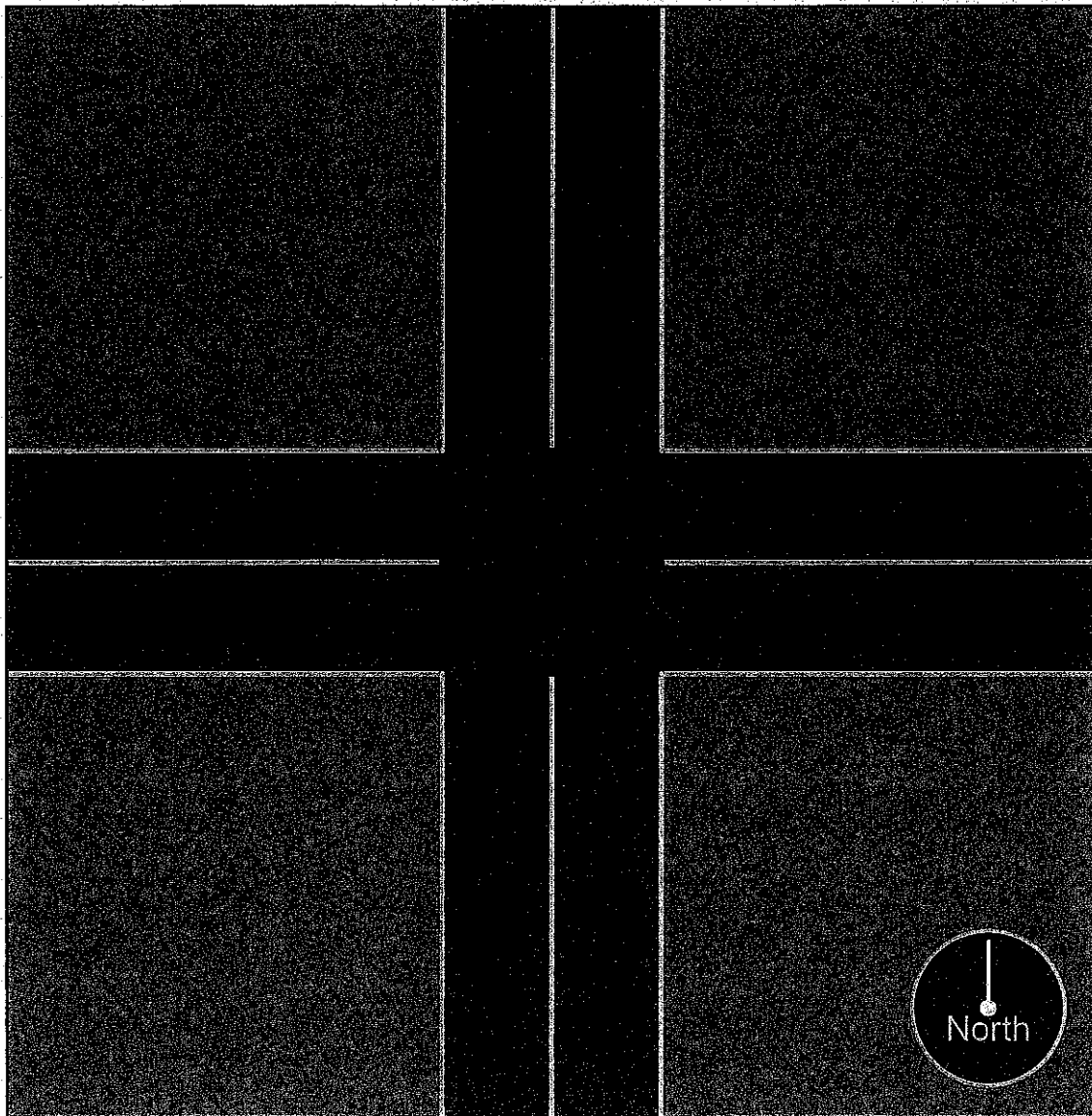
File Name : untitled1
 Site Code : 00000000
 Start Date : 5/3/2022
 Page No : 2



Start Time	From North					From East					From South					From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	134	632	95	0	861	15	363	92	0	470	28	247	89	0	364	113	325	92	1	531	2226
Percent	15.6	73.4	11.0	0.0		3.2	77.2	19.6	0.0		7.7	67.9	24.5	0.0		21.3	61.2	17.3	0.2		
07:45 Volume Peak Factor	34	176	18	0	228	4	94	24	0	122	4	71	27	0	102	25	96	20	1	142	594
High Int. Volume Peak Factor	07:30 AM					07:30 AM					07:45 AM					07:15 AM					
Volume	36	181	17	0	234	4	109	24	0	137	4	71	27	0	102	24	121	25	0	170	
Peak Factor	0.92					0.85					0.89					0.78					
	0					8					2					1					

W. Willow at Moss St.
May 3, 2022
7:00am to 9:00am

File Name : untitled1
Site Code : 00000000
Start Date : 5/3/2022
Page No : 3

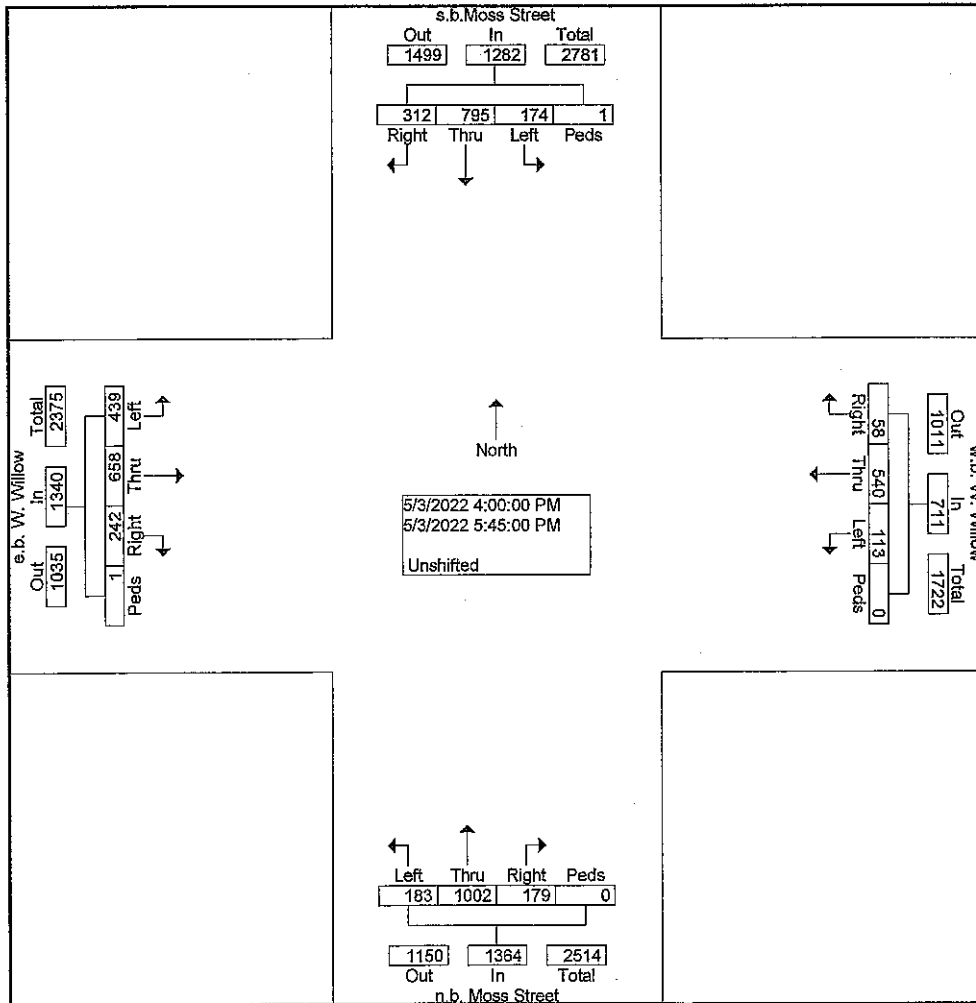


W. Willow at Moss St.
 May 3, 2022
 4:00pm to 6:00pm

File Name : untitled1
 Site Code : 00000000
 Start Date : 5/3/2022
 Page No : 1

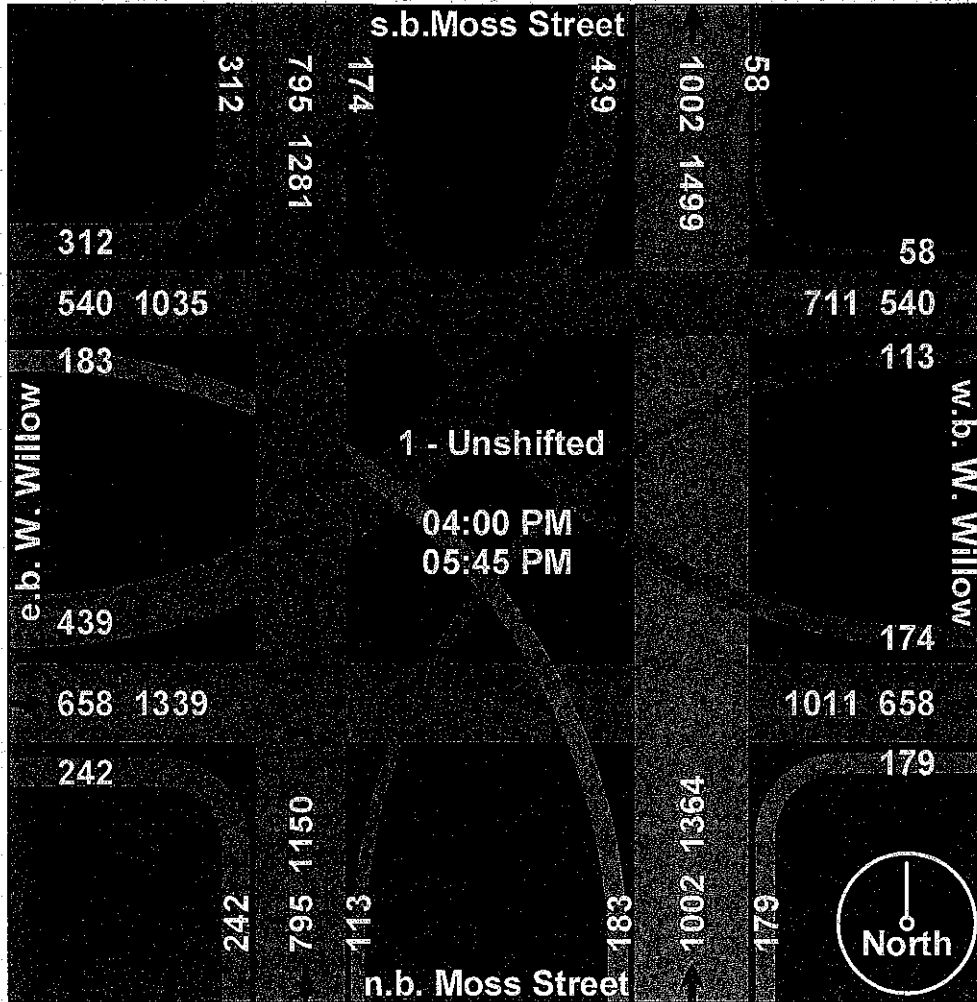
Groups Printed- Unshifted

Start Time	s.b. Moss Street From North					w.b. W. Willow From East					n.b. Moss Street From South					e.b. W. Willow From West					Int. Total
	Rig ht	Thru	Left	Peds	App. Total	Rig ht	Thru	Left	Peds	App. Total	Rig ht	Thru	Left	Peds	App. Total	Rig ht	Thru	Left	Peds	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	33	108	22	0	163	8	65	18	0	91	22	112	28	0	162	25	67	43	0	135	551
04:15 PM	29	109	19	0	157	9	74	14	0	97	21	107	24	0	152	30	89	55	0	174	580
04:30 PM	44	121	26	0	191	9	82	15	0	106	21	145	22	0	188	30	78	53	1	162	647
04:45 PM	41	91	21	0	153	4	59	12	0	75	24	120	17	0	161	32	75	71	0	178	567
Total	147	429	88	0	664	30	280	59	0	369	88	484	91	0	663	117	309	222	1	649	2345
05:00 PM	44	89	29	1	163	4	62	14	0	80	25	150	28	0	203	31	94	49	0	174	620
05:15 PM	41	93	13	0	147	10	76	17	0	103	31	139	23	0	193	32	92	57	0	181	624
05:30 PM	42	89	26	0	157	4	60	13	0	77	16	141	23	0	180	35	85	60	0	180	594
05:45 PM	38	95	18	0	151	10	62	10	0	82	19	88	18	0	125	27	78	51	0	156	514
Total	165	366	86	1	618	28	260	54	0	342	91	518	92	0	701	125	349	217	0	691	2352
Grand Total	312	795	174	1	1282	58	540	113	0	711	179	1002	183	0	1364	242	658	439	1	1340	4697
Apprch %	24.3	62.0	13.6	0.1		8.2	75.9	15.9	0.0		13.1	73.5	13.4	0.0		18.1	49.1	32.8	0.1		
Total %	6.6	16.9	3.7	0.0	27.3	1.2	11.5	2.4	0.0	15.1	3.8	21.3	3.9	0.0	29.0	5.2	14.0	9.3	0.0	28.5	



W. Willow at Moss St.
 May 3, 2022
 4:00pm to 6:00pm

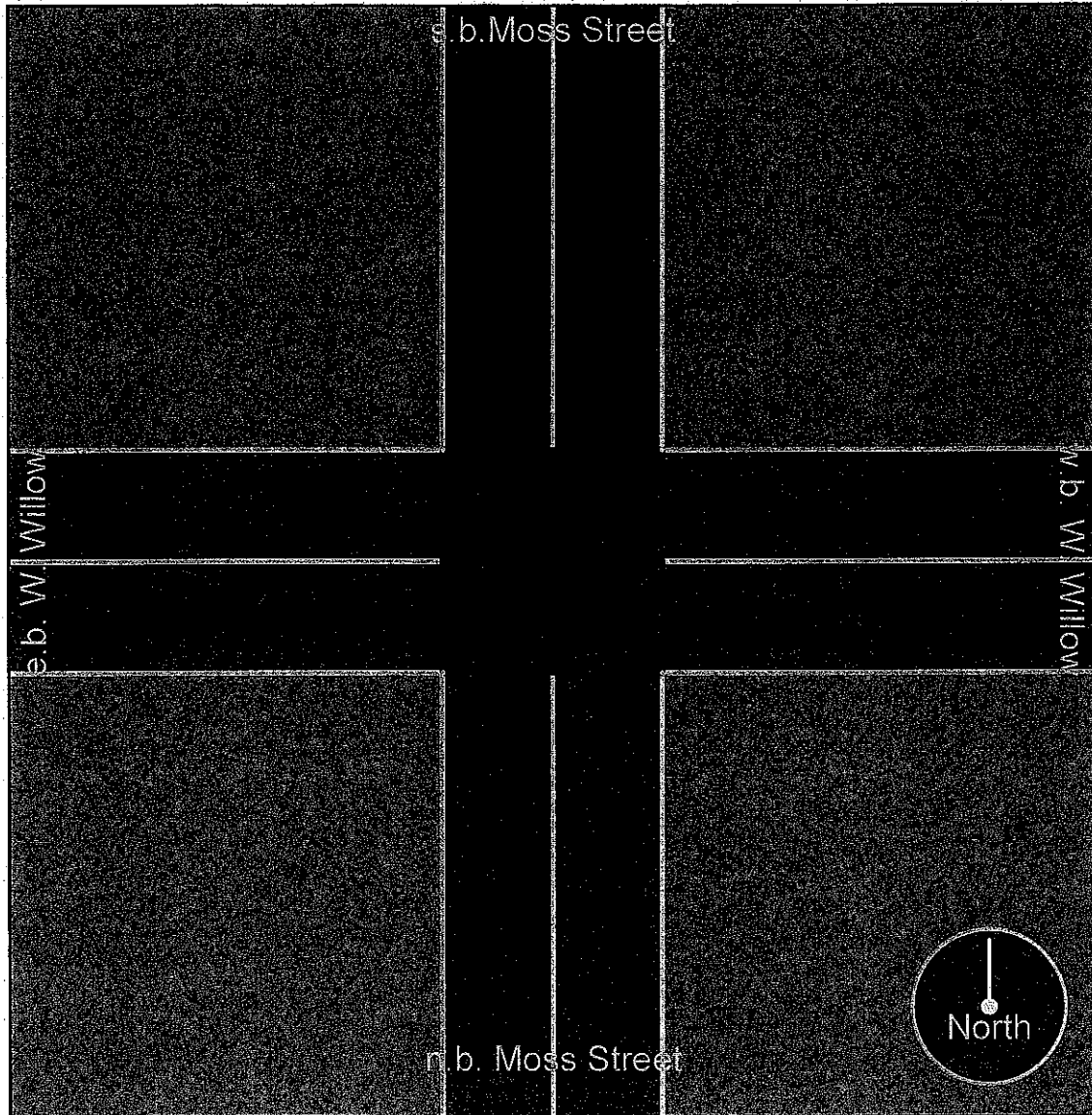
File Name : untitled1
 Site Code : 00000000
 Start Date : 5/3/2022
 Page No : 2



Start Time	s.b. Moss Street From North					w.b. W. Willow From East					n.b. Moss Street From South					e.b. W. Willow From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	170	394	89	1	654	27	279	58	0	364	101	554	90	0	745	125	339	230	1	695	2458
Percent	26.0	60.2	13.6	0.2		7.4	76.6	15.9	0.0		13.6	74.4	12.1	0.0		18.0	48.8	33.1	0.1		
04:30 Volume	44	121	26	0	191	9	82	15	0	106	21	145	22	0	188	30	78	53	1	162	647
Peak Factor																					0.950
High Int. Volume	04:30 PM					04:30 PM					05:00 PM					05:15 PM					
Volume	44	121	26	0	191	9	82	15	0	106	25	150	28	0	203	32	92	57	0	181	
Peak Factor	0.856					0.858					0.917					0.960					

W. Willow at Moss St.
May 3, 2022
4:00pm to 6:00pm

File Name : untitled1
Site Code : 00000000
Start Date : 5/3/2022
Page No : 3

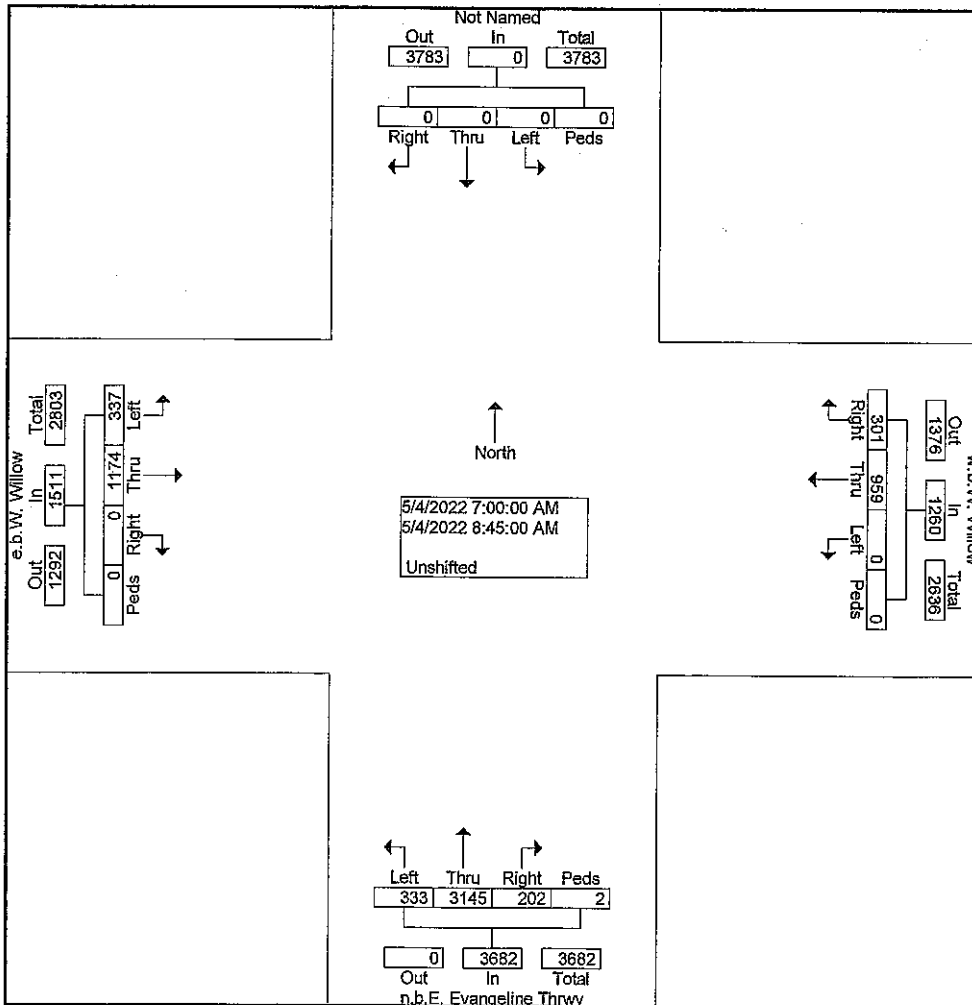


W. Willow at n.b. Evangeline Thrw
 May 4, 2022
 7:00am to 9:00am

File Name : untitled1
 Site Code : 00000000
 Start Date : 5/4/2022
 Page No : 1

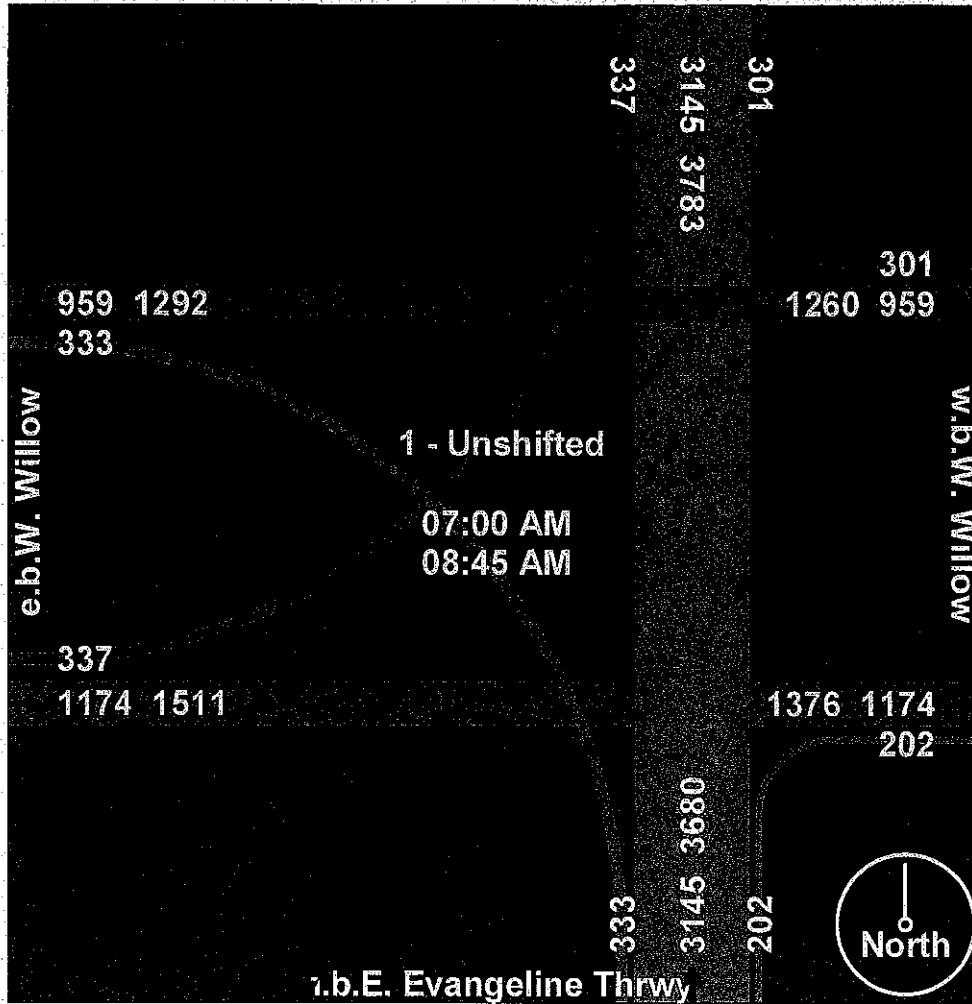
Groups Printed- Unshifted

Start Time	From North					w.b.W. Willow From East					n.b.E. Evangeline Thrw From South					e.b.W. Willow From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	0	0	0	0	0	45	122	0	0	167	26	370	23	0	419	0	162	30	0	192	778
07:15 AM	0	0	0	0	0	33	108	0	0	141	25	444	44	1	514	0	178	42	0	220	875
07:30 AM	0	0	0	0	0	60	137	0	0	197	32	432	59	0	523	0	144	54	0	198	918
07:45 AM	0	0	0	0	0	39	147	0	0	186	34	473	57	0	564	0	176	59	0	235	985
Total	0	0	0	0	0	177	514	0	0	691	117	1719	183	1	2020	0	660	185	0	845	3556
08:00 AM	0	0	0	0	0	44	122	0	0	166	13	377	47	0	437	0	137	50	0	187	790
08:15 AM	0	0	0	0	0	33	122	0	0	155	24	389	27	1	441	0	148	39	0	187	783
08:30 AM	0	0	0	0	0	15	103	0	0	118	15	360	41	0	416	0	128	25	0	153	687
08:45 AM	0	0	0	0	0	32	98	0	0	130	33	300	35	0	368	0	101	38	0	139	637
Total	0	0	0	0	0	124	445	0	0	569	85	1426	150	1	1662	0	514	152	0	666	2897
Grand Total	0	0	0	0	0	301	959	0	0	1260	202	3145	333	2	3682	0	1174	337	0	1511	6453
Apprch %	0.0	0.0	0.0	0.0		23.9	76.1	0.0	0.0		5.5	85.4	9.0	0.1		0.0	77.7	22.3	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	4.7	14.9	0.0	0.0	19.5	3.1	48.7	5.2	0.0	57.1	0.0	18.2	5.2	0.0	23.4	



W. Willow at n.b. Evangeline Thrw
 May 4, 2022
 7:00am to 9:00am

File Name : untitled1
 Site Code : 00000000
 Start Date : 5/4/2022
 Page No : 2



Start Time	From North					w.b.W. Willow From East					n.b.E. Evangeline Thrw From South					e.b.W. Willow From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Intersection	07:15 AM																				
Volume	0	0	0	0	0	176	514	0	0	690	104	1726	207	1	2038	0	635	205	0	840	3568
Percent	0.0	0.0	0.0	0.0		25.5	74.5	0.0	0.0		5.1	84.7	10.2	0.0		0.0	75.6	24.4	0.0		
07:45 Volume	0	0	0	0	0	39	147	0	0	186	34	473	57	0	564	0	176	59	0	235	985
Peak Factor																					0.906
High Int. Volume	6:45:00 AM					07:30 AM					07:45 AM					07:45 AM					
Peak Factor	0	0	0	0	0	60	137	0	0	197	34	473	57	0	564	0	176	59	0	235	0.894

W. Willow at n.b. Evangeline Thrwy

May 4, 2022

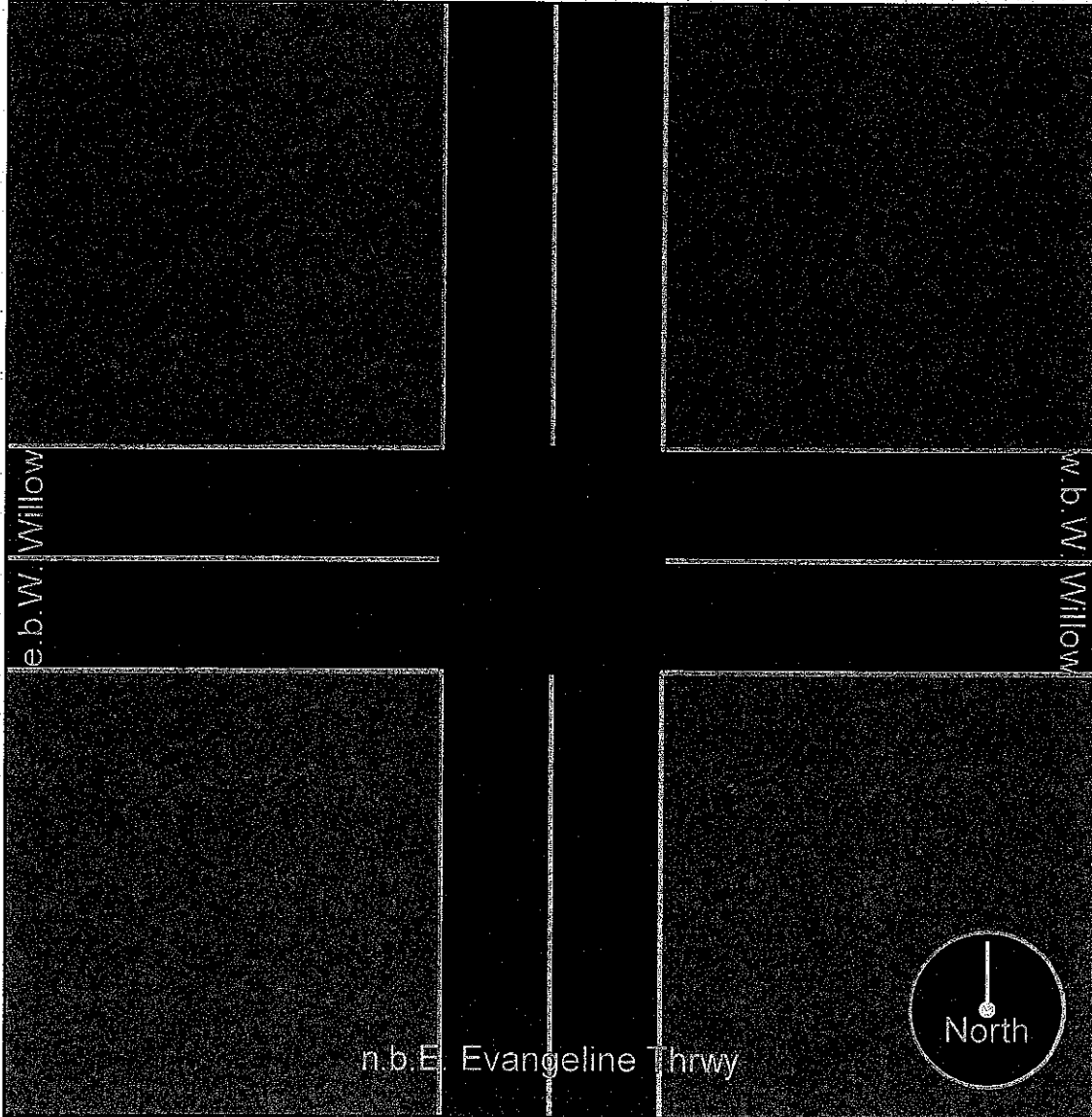
7:00am to 9:00am

File Name : untitled1

Site Code : 00000000

Start Date : 5/4/2022

Page No : 3

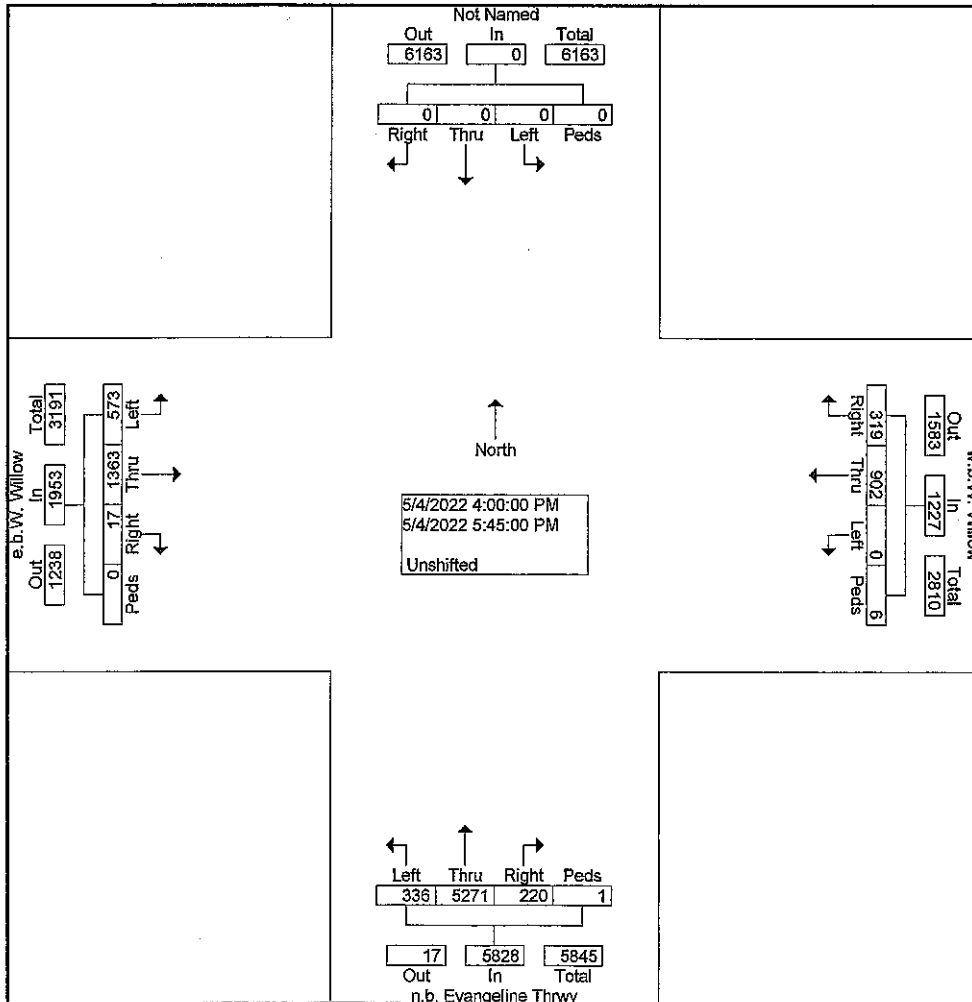


W. Willow at n.b. Evangeline Thrw
 May 4, 2022
 4:pm to 6:00pm

File Name : untitled1
 Site Code : 00000000
 Start Date : 5/4/2022
 Page No : 1

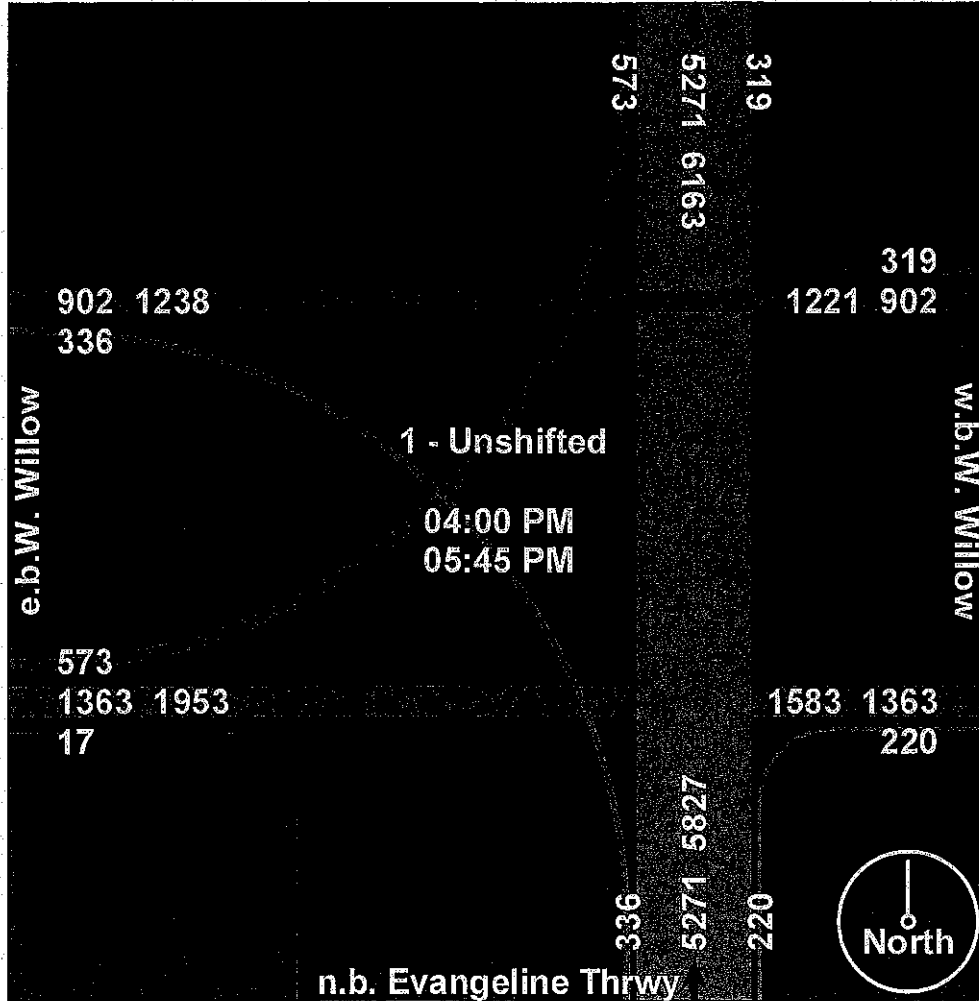
Groups Printed- Unshifted

Start Time	From North					w.b.W. Willow From East					n.b. Evangeline Thrw From South					e.b.W. Willow From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	0	0	0	0	0	39	139	0	0	178	29	557	45	0	631	17	145	66	0	228	1037
04:15 PM	0	0	0	0	0	20	98	0	1	119	32	686	44	0	762	0	179	67	0	246	1127
04:30 PM	0	0	0	0	0	47	99	0	0	146	27	686	51	0	764	0	164	68	0	232	1142
04:45 PM	0	0	0	0	0	50	121	0	0	171	17	734	52	1	804	0	175	71	0	246	1221
Total	0	0	0	0	0	156	457	0	1	614	105	2663	192	1	2961	17	663	272	0	952	4527
05:00 PM	0	0	0	0	0	44	122	0	5	171	30	667	34	0	731	0	211	80	0	291	1193
05:15 PM	0	0	0	0	0	46	97	0	0	143	31	725	31	0	787	0	169	84	0	253	1183
05:30 PM	0	0	0	0	0	34	111	0	0	145	28	668	36	0	732	0	181	67	0	248	1125
05:45 PM	0	0	0	0	0	39	115	0	0	154	26	548	43	0	617	0	139	70	0	209	980
Total	0	0	0	0	0	163	445	0	5	613	115	2608	144	0	2867	0	700	301	0	1001	4481
Grand Total	0	0	0	0	0	319	902	0	6	1227	220	5271	336	1	5828	17	1363	573	0	1953	9008
Apprch %	0.0	0.0	0.0	0.0		26.0	73.5	0.0	0.5		3.8	90.4	5.8	0.0		0.9	69.8	29.3	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	3.5	10.0	0.0	0.1	13.6	2.4	58.5	3.7	0.0	64.7	0.2	15.1	6.4	0.0	21.7	



W. Willow at n.b. Evangeline Thruway
 May 4, 2022
 4:pm to 6:00pm

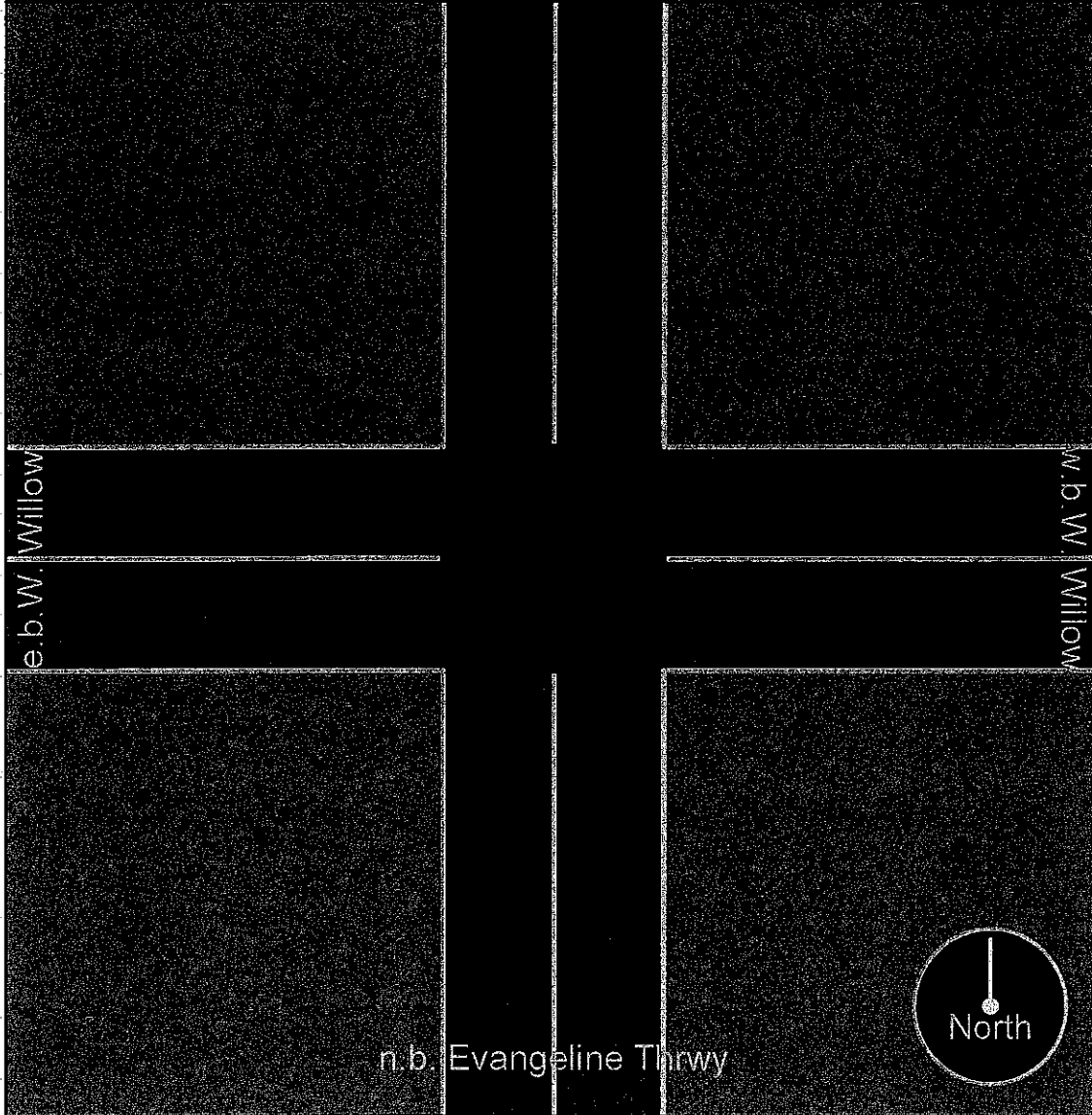
File Name : untitled1
 Site Code : 00000000
 Start Date : 5/4/2022
 Page No : 2



Start Time	From North					w.b.W. Willow From East					n.b. Evangeline Thruway From South					e.b.W. Willow From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:30 PM																				
Volume	0	0	0	0	0	187	439	0	5	631	105	281	168	1	3086	0	719	303	0	1022	4739
Percent	0.0	0.0	0.0	0.0		29.6	69.6	0.0	0.8		3.4	91.1	5.4	0.0		0.0	70.4	29.6	0.0		
04:45 Volume	0	0	0	0	0	50	121	0	0	171	17	734	52	1	804	0	175	71	0	246	1221
Peak Factor																					
High Int. Volume	3:45:00 PM					04:45 PM					04:45 PM					05:00 PM					
Peak Factor	0	0	0	0	0	50	121	0	0	171	17	734	52	1	804	0	211	80	0	291	0.878
						0.923					0.960										

W. Willow at n.b. Evangeline Thrw
May 4, 2022
4:pm to 6:00pm

File Name : untitled1
Site Code : 00000000
Start Date : 5/4/2022
Page No : 3

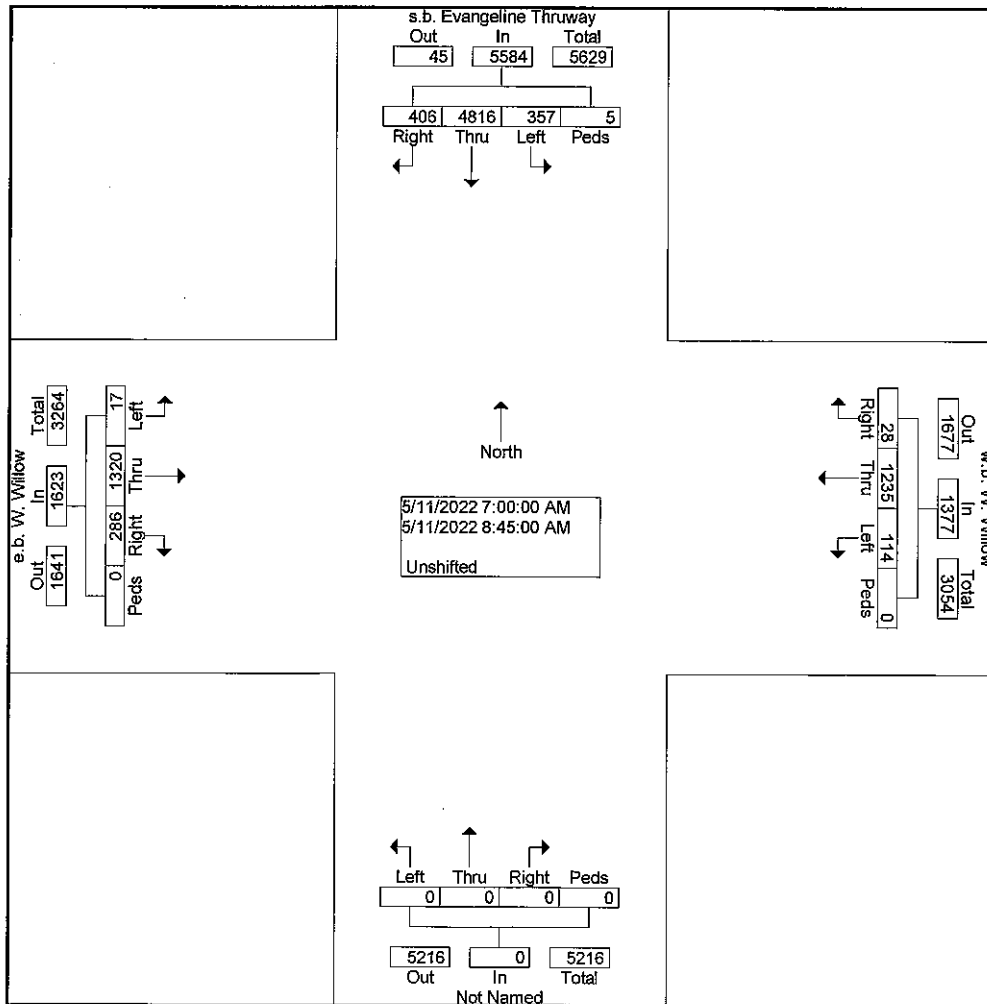


W. Willow at s.b. Evangeline Thruway
 May 11, 2022
 7:00am to 9:00am

File Name : untitled1
 Site Code : 00000000
 Start Date : 5/11/2022
 Page No : 1

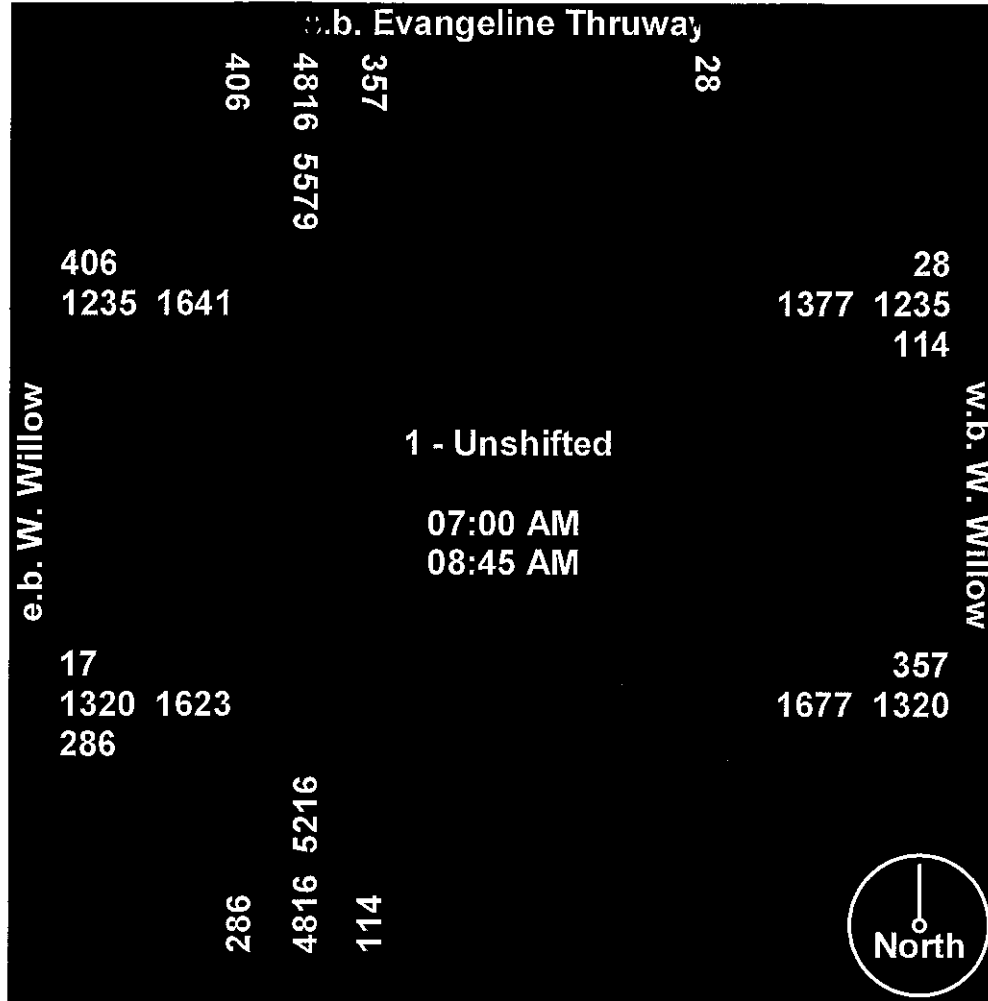
Groups Printed- Unshifted

Start Time	s.b. Evangeline Thruway From North					w.b. W. Willow From East					From South					e.b. W. Willow From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
07:00 AM	47	688	78	3	816	0	124	14	0	138	0	0	0	0	0	18	115	0	0	133	1087
07:15 AM	45	704	77	0	826	0	146	10	0	156	0	0	0	0	0	35	156	13	0	204	1186
07:30 AM	50	721	21	1	793	0	211	18	0	229	0	0	0	0	0	29	191	0	0	220	1242
07:45 AM	84	629	43	0	756	0	180	7	0	187	0	0	0	0	0	36	216	0	0	252	1195
Total	226	2742	219	4	3191	0	661	49	0	710	0	0	0	0	0	118	678	13	0	809	4710
08:00 AM	52	533	34	0	619	2	188	11	0	201	0	0	0	0	0	43	129	3	0	175	995
08:15 AM	56	547	37	1	641	26	113	21	0	160	0	0	0	0	0	46	194	0	0	240	1041
08:30 AM	38	542	42	0	622	0	126	16	0	142	0	0	0	0	0	36	158	1	0	195	959
08:45 AM	34	452	25	0	511	0	147	17	0	164	0	0	0	0	0	43	161	0	0	204	879
Total	180	2074	138	1	2393	28	574	65	0	667	0	0	0	0	0	168	642	4	0	814	3874
Grand Total	406	4816	357	5	5584	28	1235	114	0	1377	0	0	0	0	0	286	1320	17	0	1623	8584
Apprch %	7.3	86.2	6.4	0.1		2.0	89.7	8.3	0.0		0.0	0.0	0.0	0.0		17.6	81.3	1.0	0.0		
Total %	4.7	56.1	4.2	0.1	65.1	0.3	14.4	1.3	0.0	16.0	0.0	0.0	0.0	0.0		3.3	15.4	0.2	0.0	18.9	



W. Willow at s.b. Evangeline Thruway
 May 11, 2022
 7:00am to 9:00am

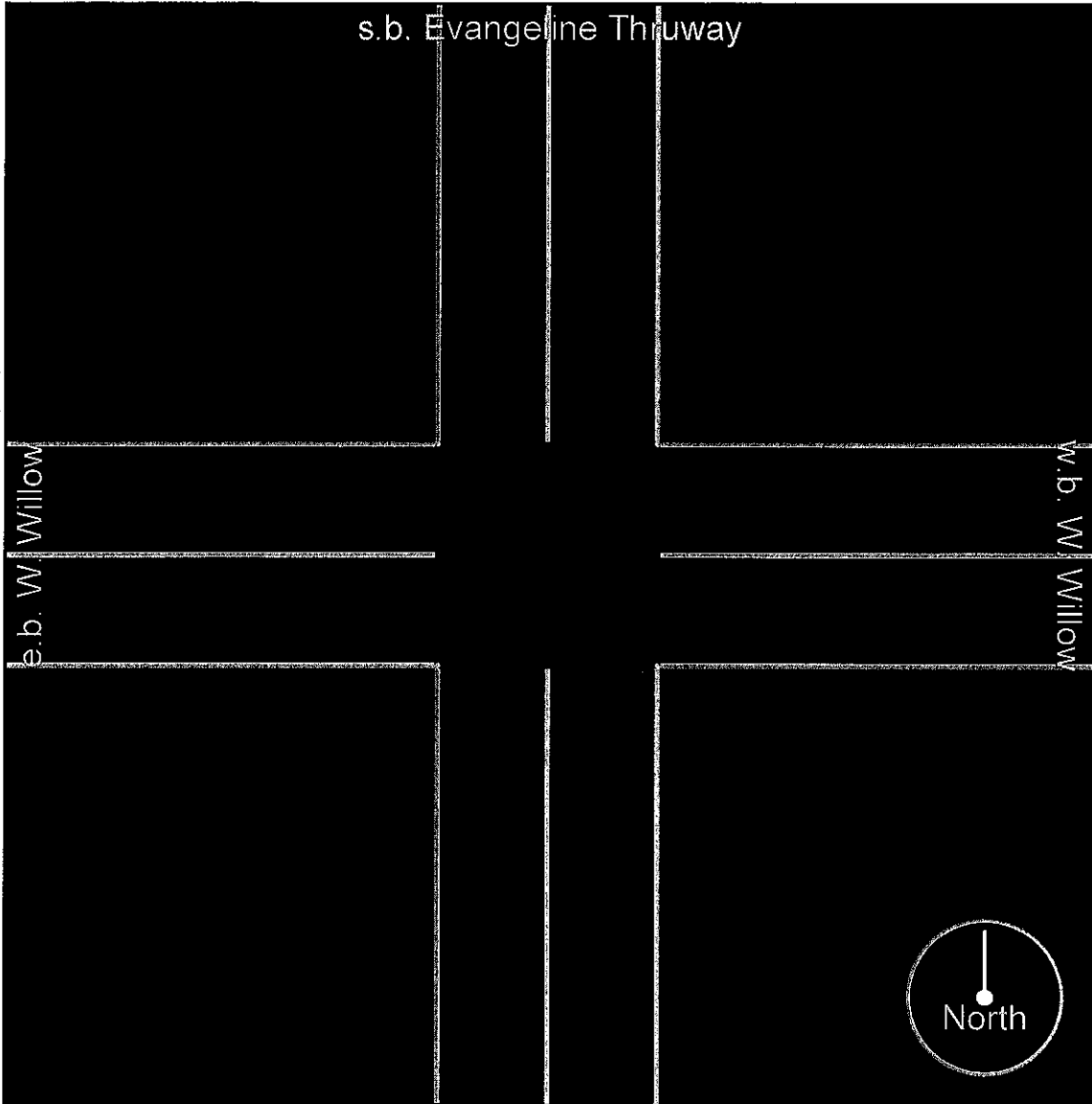
File Name : untitled1
 Site Code : 00000000
 Start Date : 5/11/2022
 Page No : 2



Start Time	s.b. Evangeline Thruway From North					w.b. W. Willow From East					From South					e.b. W. Willow From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour	From 07:00 AM to 08:45 AM - Peak 1 of 1																				
Intersection	07:00 AM																				
Volume	226	274 2	219	4	3191	0	661	49	0	710	0	0	0	0	0	118	678	13	0	809	4710
Percent	7.1	85. 9	6.9	0.1		0.0	93. 1	6.9	0.0		0.0	0.0	0.0	0.0		14. 6	83. 8	1.6	0.0		
07:30 Volume	50	721	21	1	793	0	211	18	0	229	0	0	0	0	0	29	191	0	0	220	1242
Peak Factor	0.948																				
High Int. Volume	07:15 AM					07:30 AM					6:45:00 AM					07:45 AM					
Peak Factor	45	704	77	0	826 0.96 6	0	211	18	0	229 0.77 5	0	0	0	0	0	36	216	0	0	252 0.80 3	

W. Willow at s.b. Evangeline Thruway
May 11, 2022
7:00am to 9:00am

File Name : untitled1
Site Code : 00000000
Start Date : 5/11/2022
Page No : 3

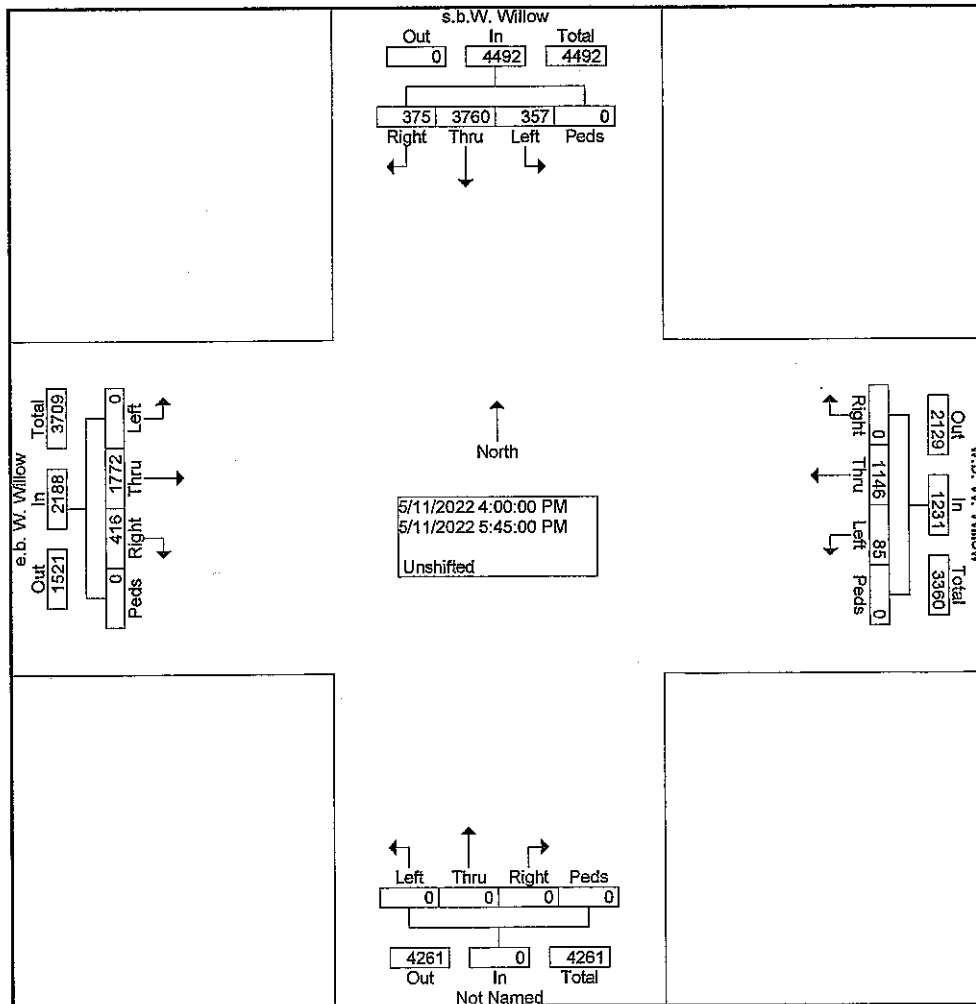


W. Willow at s.b. Evangeline Thruway
 May 11, 2022
 4:00pm to 6:00pm

File Name : untitled1
 Site Code : 00000000
 Start Date : 5/11/2022
 Page No : 1

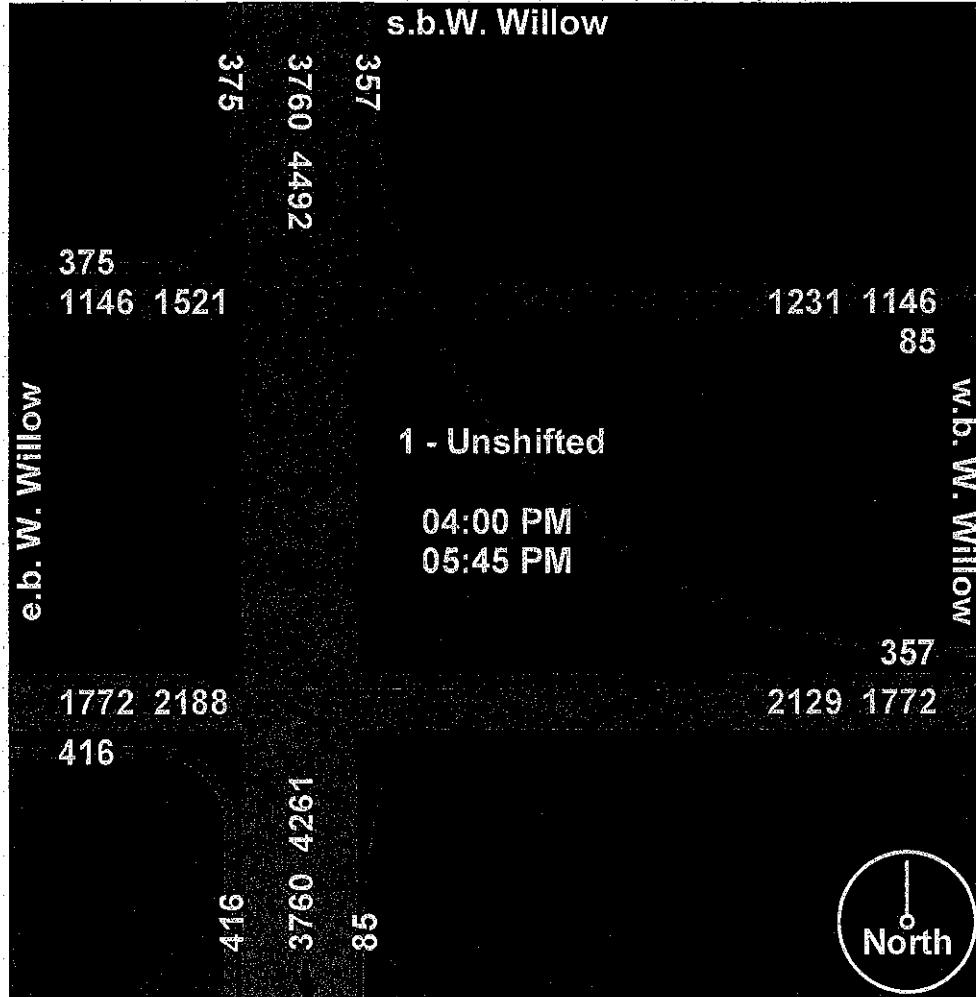
Groups Printed- Unshifted

Start Time	s.b.W. Willow From North					w.b. W. Willow From East					From South					e.b. W. Willow From West					Int. Total
	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	Rig ht	Thru	Left	Ped s	App. Total	
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	42	513	50	0	605	0	152	8	0	160	0	0	0	0	0	50	189	0	0	239	1004
04:15 PM	37	481	34	0	552	0	152	13	0	165	0	0	0	0	0	64	240	0	0	304	1021
04:30 PM	49	500	40	0	589	0	140	5	0	145	0	0	0	0	0	69	212	0	0	281	1015
04:45 PM	51	458	42	0	551	0	143	22	0	165	0	0	0	0	0	49	222	0	0	271	987
Total	179	1952	166	0	2297	0	587	48	0	635	0	0	0	0	0	232	863	0	0	1095	4027
05:00 PM	48	511	53	0	612	0	129	9	0	138	0	0	0	0	0	66	221	0	0	287	1037
05:15 PM	58	461	41	0	560	0	146	8	0	154	0	0	0	0	0	36	228	0	0	264	978
05:30 PM	43	396	60	0	499	0	135	10	0	145	0	0	0	0	0	45	232	0	0	277	921
05:45 PM	47	440	37	0	524	0	149	10	0	159	0	0	0	0	0	37	228	0	0	265	948
Total	196	1808	191	0	2195	0	559	37	0	596	0	0	0	0	0	184	909	0	0	1093	3884
Grand Total	375	3760	357	0	4492	0	1146	85	0	1231	0	0	0	0	0	416	1772	0	0	2188	7911
Apprch %	8.3	83.7	7.9	0.0		0.0	93.1	6.9	0.0		0.0	0.0	0.0	0.0		19.0	81.0	0.0	0.0		
Total %	4.7	47.5	4.5	0.0	56.8	0.0	14.5	1.1	0.0	15.6	0.0	0.0	0.0	0.0	0.0	5.3	22.4	0.0	0.0	27.7	



W. Willow at s.b. Evangeline Thwy
 May 11, 2022
 4:00pm to 6:00pm

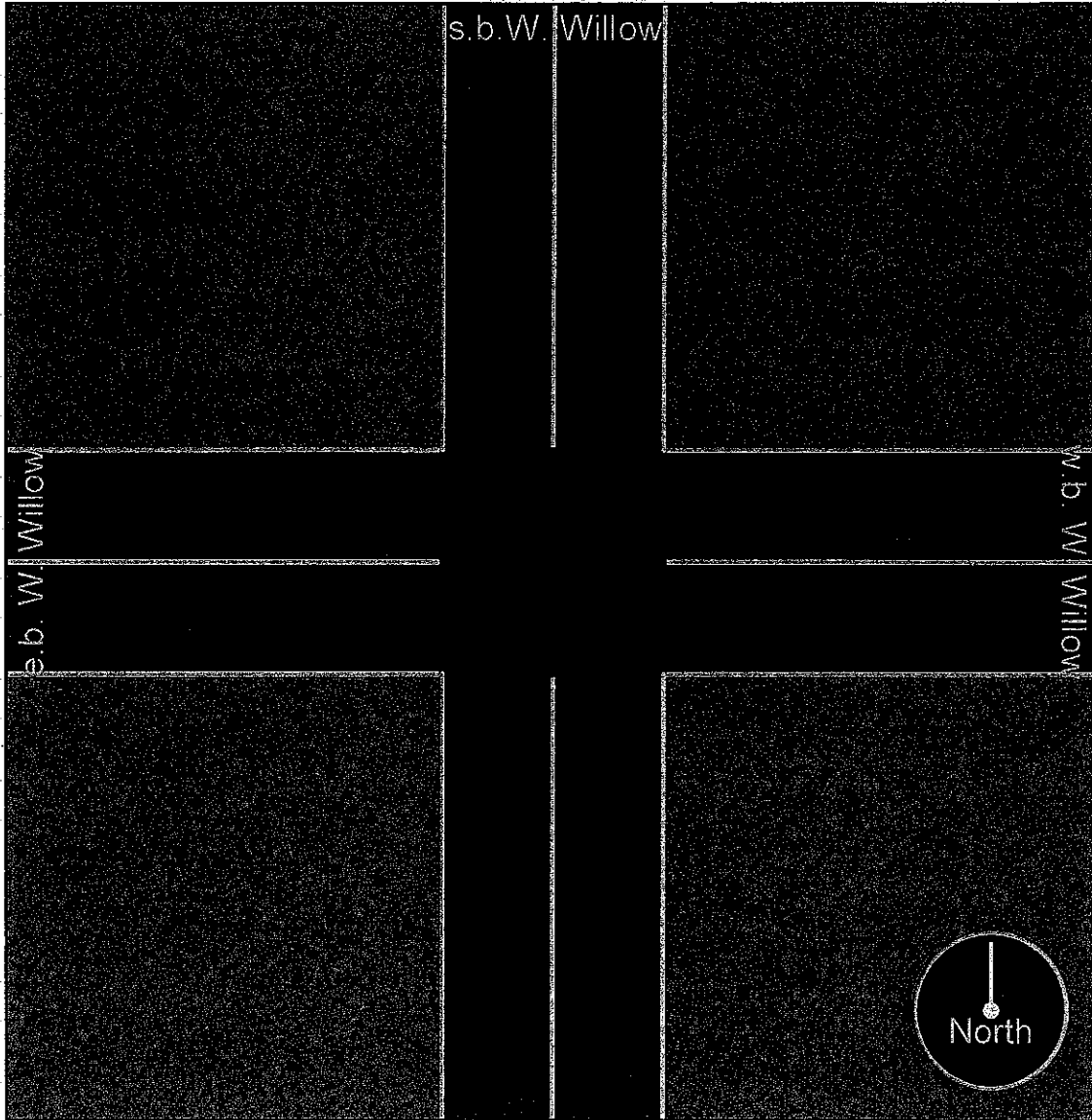
File Name : untitled1
 Site Code : 00000000
 Start Date : 5/11/2022
 Page No : 2



Start Time	s.b.W. Willow From North					w.b. W. Willow From East					From South					e.b. W. Willow From West					Int. Total
	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	Rig ht	Thr u	Left	Ped s	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:15 PM																				
Volume	185	195	169	0	2304	0	564	49	0	613	0	0	0	0	0	248	895	0	0	1143	4060
Percent	8.0	84.6	7.3	0.0		0.0	92.0	8.0	0.0		0.0	0.0	0.0	0.0		21.7	78.3	0.0	0.0		
05:00 Volume	48	511	53	0	612	0	129	9	0	138	0	0	0	0	0	66	221	0	0	287	1037
Peak Factor	0.979																				
High Int. Volume	05:00 PM					04:15 PM					3:45:00 PM					04:15 PM					
Peak Factor	48	511	53	0	612	0	152	13	0	165	0	0	0	0	0	64	240	0	0	304	0.94
																					0

W. Willow at s.b. Evangeline Thwy
May 11, 2022
4:00pm to 6:00pm

File Name : untitled1
Site Code : 00000000
Start Date : 5/11/2022
Page No : 3



Appendix B: Synchro 11 Results

Arterial Level of Service

08/17/2022

Arterial Level of Service: EB Willow St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
NE Evangeline Thruwa	III	30	13.8	53.7	67.5	0.10	5.2	F
Moss St	III	30	41.3	38.3	79.6	0.32	14.7	D
Total	III		55.1	92.0	147.1	0.42	10.4	E

Arterial Level of Service: WB Willow St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moss St	III	30	36.0	38.1	74.1	0.28	13.8	E
NE Evangeline Thruwa	III	30	41.3	63.9	105.2	0.32	11.1	E
Total	III		77.3	102.0	179.3	0.61	12.2	E

Arterial Level of Service

08/17/2022

Arterial Level of Service: EB Willow St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
NE Evangeline Thruwa	III	30	13.8	72.7	86.5	0.10	4.1	F
Moss St	III	30	41.3	30.8	72.1	0.32	16.2	D
Total	III		55.1	103.5	158.6	0.42	9.6	F

Arterial Level of Service: WB Willow St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moss St	III	30	36.0	42.2	78.2	0.28	13.1	E
NE Evangeline Thruwa	III	30	41.3	69.0	110.3	0.32	10.6	E
Total	III		77.3	111.2	188.5	0.61	11.6	E

Arterial Level of Service

08/17/2022

Arterial Level of Service: EB Willow St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
NE Evangeline Thruwa	III	30	13.8	41.4	55.2	0.10	6.4	F
Moss St	III	30	41.3	62.5	103.8	0.33	11.3	E
Total	III		55.1	103.9	159.0	0.42	9.6	F

Arterial Level of Service: WB Willow St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moss St	III	30	36.0	43.2	79.2	0.28	12.9	E
NE Evangeline Thruwa	III	30	41.3	62.8	104.1	0.33	11.2	E
Total	III		77.3	106.0	183.3	0.61	12.0	E

Arterial Level of Service

08/17/2022

Arterial Level of Service: EB Willow St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
NE Evangeline Thruwa	III	30	13.8	72.6	86.4	0.10	4.1	F
Moss St	III	30	41.3	45.7	87.0	0.33	13.5	E
Total	III		55.1	118.3	173.4	0.42	8.8	F

Arterial Level of Service: WB Willow St

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Moss St	III	30	36.0	43.5	79.5	0.28	12.8	E
NE Evangeline Thruwa	III	30	41.3	91.4	132.7	0.33	8.8	F
Total	III		77.3	134.9	212.2	0.61	10.3	E

