



## Rowland Manor TRAFFIC IMPACT STUDY – REVISION 1

SWAFFORD ROAD AND GUINN ROAD  
HARDIN VALLEY, TN

CCI PROJECT NO. 01203-0004.000



### REVISION 1 (11/25/24)

This report replaces the previous version of the traffic impact study dated 09/26/24 prepared for this project in its entirety.

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## **1.0 EXECUTIVE SUMMARY**

This report provides a summary of a traffic impact study that was performed for Phase 1 of a proposed residential development to be located along Swafford Road and Guinn Road in the Hardin Valley community of Knox County. The project site is located on the east side of Swafford Road and to the south of Guinn Road. The conceptual development plan for Phase 1 of this project, Rowland Manor, proposes a single-family detached housing development with 70 units. The project is to have one primary access onto Swafford Road approximately 600 feet from the intersection with Guinn Road.

The purpose of this study was the evaluation of the traffic operational and safety impacts of the proposed residential development upon roadways in the vicinity of the site. Of particular interest is the access intersection mentioned above, as well as the intersection of Swafford Road and Guinn Road, Guinn Road and Old Solway Road, Solway Road and Old Solway Road, Guinn Road and Solway Road / Gable Run Road, and Solway Road and George Light Road. Additionally, the intersections of Solway Road and Sam Lee Road, Solway Road and Hardin Valley Road, and Sam Lee Road and Swafford Road / Steele Road were also analyzed. Appropriate intersection evaluations were conducted at these locations for existing and future conditions, both with and without traffic volumes generated from the proposed residential development to determine the anticipated impacts and to establish recommended measures to mitigate these impacts. These evaluations included intersection capacity analyses, turn lane analyses and others as appropriate.

The primary conclusion of this study is that traffic generated from Phase 1 of the proposed development will not have major negative impacts on the study intersections. Each studied intersection will see marginal increases in overall delay, mainly from the continued background growth in this area.

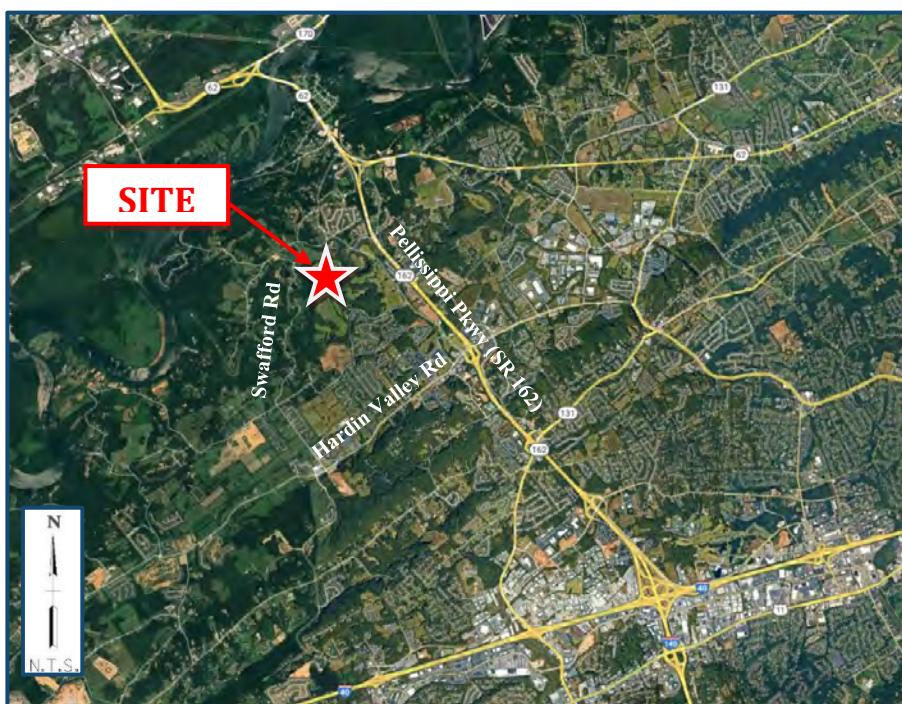
The following listing is a summary of the improvements that are recommended to be implemented with the construction of this project:

1. Install new centerline pavement markings on the Swafford Road bridge over Beaver Creek
2. Sweep the edges of the travel lanes on the Swafford Road bridge
3. Maintain intersection corner sight distances on the site driveways by ensuring that new site signage and landscaping is appropriately located.



## 2.0 INTRODUCTION & PURPOSE OF STUDY

This report provides a summary of a traffic impact study that was performed for Phase 1 of a proposed residential development to be located along Swafford Road and Guinn Road in the Hardin Valley community of Knox County. The project site is located on the east side of Swafford Road and to the south of Guinn Road. FIGURE 1 is a location map identifying the major roadways in the vicinity of the site.

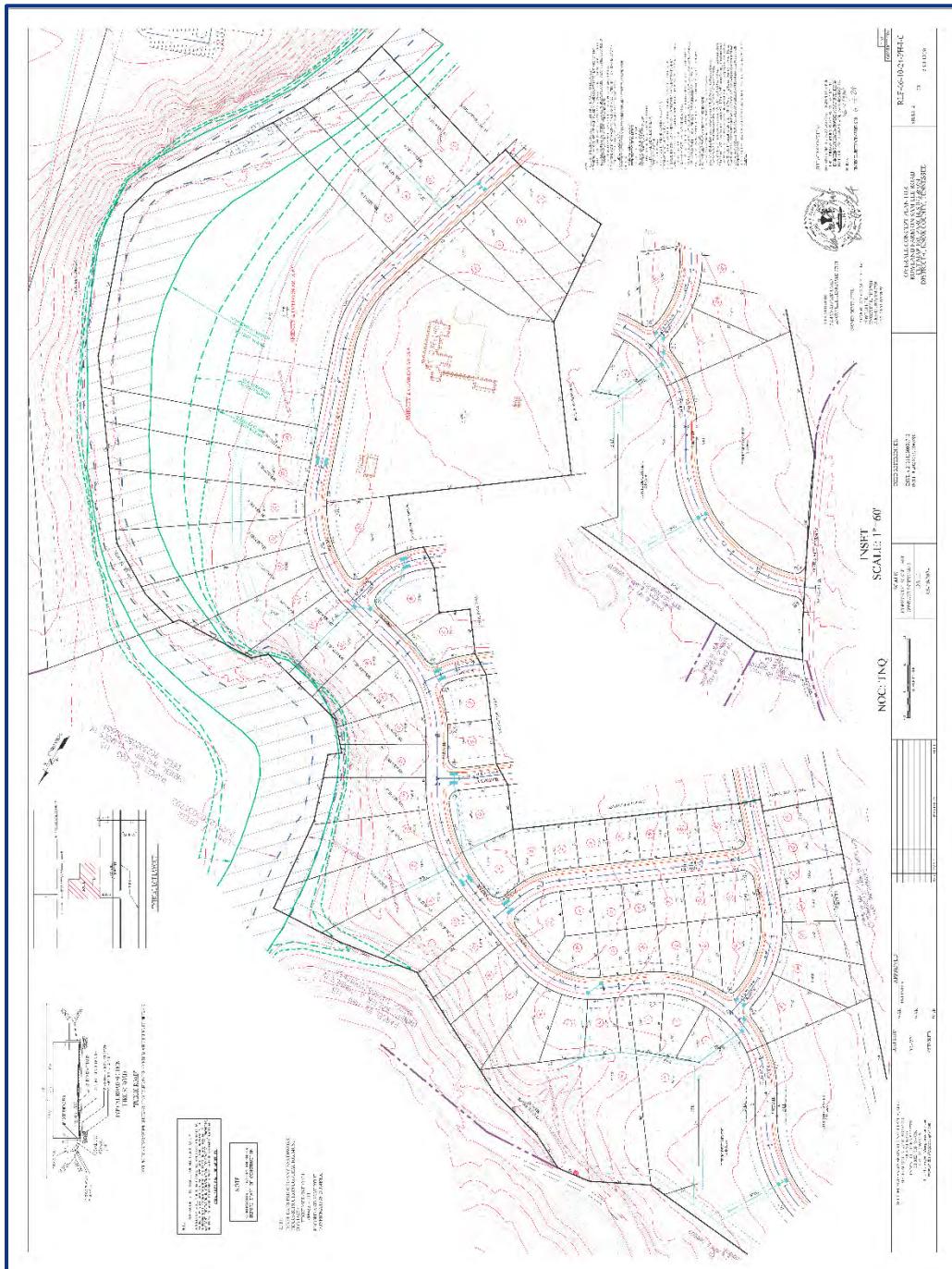


**FIGURE 1**  
**LOCATION MAP**

The conceptual development plan for Phase 1 of this project, Rowland Manor, proposes a single-family detached housing development with 70 units. The project is to have one primary access onto Swafford Road approximately 600 feet from the intersection with Guinn Road. FIGURE 2 is a Conceptual Site Plan which details the proposed Phase 1 site configuration.

The purpose of this study was the evaluation of the traffic operational and safety impacts of the proposed residential development upon roadways in the vicinity of the site. Of particular interest is the access intersection mentioned above, as well as the intersection of Swafford Road and Guinn Road, Guinn Road and Old Solway Road, Solway Road and Old Solway Road, Guinn Road and Solway Road / Gable Run Road, and Solway Road and George Light Road. Additionally, the intersections of Solway Road and Sam Lee Road, Solway Road and Hardin Valley Road, and Sam Lee Road and Swafford Road / Steele Road were also analyzed. Appropriate intersection evaluations were conducted at these locations for existing and future conditions, both with and without traffic volumes generated from the proposed residential development to determine the anticipated impacts and to establish recommended measures to mitigate these impacts. These evaluations included intersection capacity analyses, turn lane analyses and others as appropriate.

**SECTION 2**  
INTRODUCTION AND PURPOSE OF STUDY



**FIGURE 2**  
CONCEPTUAL SITE PLAN



## **3.0 EXISTING CONDITIONS**

### **EXISTING ROADWAY CONDITIONS**

According to the Knoxville-Knox County Major Road Plan, Guinn Road is classified as a Minor Collector that carries traffic to various residential and agricultural land uses. Guinn Road begins at Oak Ridge Highway and loops around to end at Solway Road. In the vicinity of the proposed development, the roadway consists of one 11-foot through travel lane in each direction, with no shoulder. The speed limit on Guinn Road is posted as 30 mph.

Swafford Road is a two-lane local street that has one through travel lane in each direction. Swafford Road stretches just over two miles from Guinn Road in the north to Sam Lee Road in the south. Swafford Road has 10-foot travel lanes and does not have a shoulder. The speed limit on Swafford Road is posted as 30 mph.

The existing intersection of Guinn Road at Old Solway Road is a three-legged stop-controlled intersection, consisting of a one-way stop on Old Solway Road. Guinn Road is considered the east-west street and Old Solway Road is considered the north-south street. Old Solway Road has one through travel lane in each direction and the lanes on Old Solway Road are 9-foot wide with no shoulder.

The existing intersection of Guinn Road at Swafford Road is a three-legged stop-controlled intersection, consisting of a one-way stop on Swafford Road. Guinn Road is considered the east-west street and Swafford Road is considered the north-south street. In the Vicinity of the intersection, Guinn Road has guard rail along the north side of the road.

The existing intersection of Solway Road at Gable Run / Guinn Road is a four-legged two-way stop control intersection. Solway Road is considered the north-south street, and Gable Run / Guinn Road is considered the east-west street. Gable Run Road is located on the east side of Solway Road and consists of one 20-foot entrance and one 20-foot exit, which are separated by a 6-foot-wide raised landscaped median. Gable Run Road also has curb on both sides of the road. The speed limit on Gable Run Road is posted as 25 mph. Solway Road has one 11-foot through travel lane in each direction with no shoulder. The speed limit on Solway Road is posted as 40 mph.

The existing intersection of Solway Road at Old Solway Road is a three-legged stop-controlled intersection, consisting of a one-way stop on Old Solway Road. Solway Road is considered the north-south street and Old Solway Road is considered the east-west street.

The existing intersection of Solway Road at George light Road is a three-legged stop-controlled intersection, consisting of a one-way stop on George Light Road. Solway Road is considered the north-south street and George Light Road is considered the east-west street. George Light Road consists of one 10-foot through lane in each direction with no shoulder and has a posted speed limit of 25 mph.

The existing intersection of Solway Road at Sam Lee Road is a three-legged stop-controlled intersection, consisting of a one-way stop on Sam Lee Road. Solway Road is considered the north-south street and Sam Lee Road is considered the east-west street. Sam Lee Road consists of one 11-foot through lane in each direction with no shoulder and has a posted speed limit of 30 mph.



The existing intersection of Swafford / Steele Road at Sam Lee Road is a four-legged stop-controlled intersection consisting of a two-way stop on Sam Lee Road. Swafford / Steele Road is considered the north-south street, and Sam Lee Road is considered the east-west street. Steele Road is located on the south side of Sam Lee Road and consists of one 10-foot through travel lane in each direction with no shoulder. The speed limit on Steele Road is posted as 30 mph. By the full build-out year of 2026 for the proposed development, this intersection will have been converted to a single-lane roundabout.

The existing intersection of Solway Road at Hardin Valley Road is a four-legged signalized intersection. Solway Road is considered the north-south street while Hardin Valley Road is considered the east-west street. The south leg of the intersection is the on and off-ramps for Pellissippi Parkway southbound and consists of a northbound left-turn lane, a northbound combined right-turn and through lane, and a northbound right-turn lane. The southbound approach consists of a combined right-turn and through lane and a designated left-turn lane. The northbound left and right-turn lanes have a storage length of approximately 250 feet. The southbound left turn lane has a storage length of approximately 100 feet. Both the east and westbound Hardin Valley Road approaches contain one exclusive left-turn lane, two through lanes, and an exclusive right-turn lane. The westbound left turn lane has a storage length of approximately 150 feet and the right-turn lane has a storage length of approximately 100 feet. The westbound left turn lane has a storage length of approximately 75 feet and the right-turn lane has a storage length of approximately 100 feet. All approaches have curb and gutter. Crosswalks are located on the north and east leg of the intersection. The speed limit on Hardin Valley Road is posted as 45 mph.

#### EXISTING SITE CONDITIONS

The disturbed area for this project is located east of Swafford Road and south of Guinn Road. The site is primarily bordered by either residential or agricultural land uses. A stronger commercial influence exists along Hardin Valley Road, further south from the proposed development.



**FIGURE 3**  
EXISTING SITE CONDITIONS



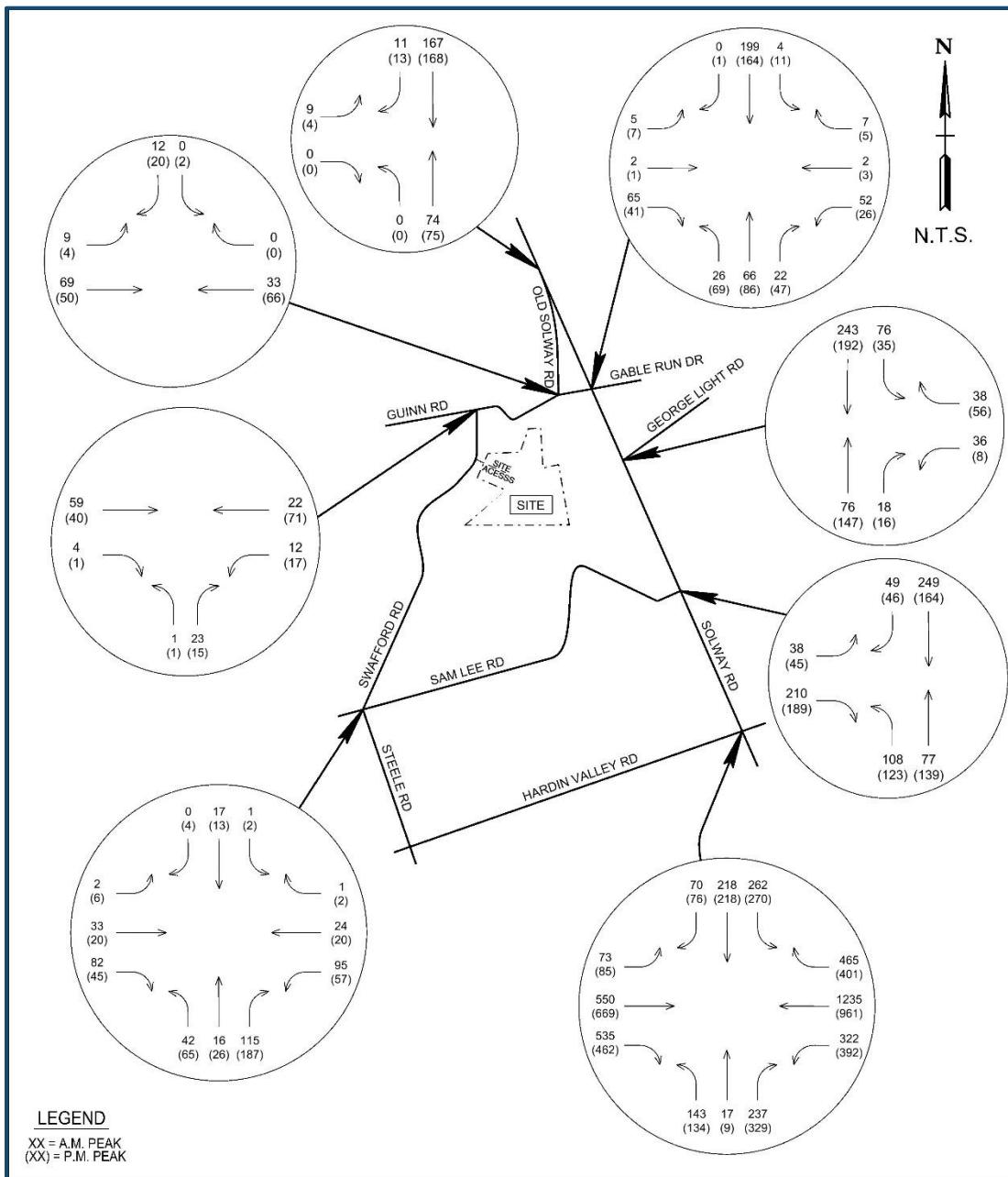
## EXISTING TRAFFIC DATA

Existing traffic data was gathered for this study. TDOT collects annual average daily traffic data (AADT) on roadways in the study area, and three count stations felt to have relevance for this study, one on Solway Road, one on Sam Lee Road, and One on Hardin Valley Road. The Knoxville Regional Transportation Planning Organization (Knox TPO) also conducts traffic counts on local roads, three of which were found to have relevance to this study, one located on Guinn Road, one located on Steele Road, and one located on Solway Road. The most currently available data from these count stations is contained in TABLE 1.

In addition to the available AADT data, intersection turning movement traffic counts were performed to determine the current AM and PM peak hour operating volumes for the intersections of Guinn Road at Old Solway Road, Guinn Road at Swafford Road, Solway Road at Gable Run / Guinn Road, Solway Road at George Light Road, Solway Road at Old Solway Road, Solway Road at Sam Lee Road, Steele Road at Swafford / Sam Lee Road, and Solway Road at Hardin Valley Road. The traffic counts were conducted during August 2024. The 2024 existing traffic data is summarized in FIGURE 4, and the raw data traffic count summary sheets are contained in APPENDIX A.

**TABLE 1**  
**ANNUAL AVERAGE DAILY TRAFFIC COUNT SUMMARY**

COUNT YEAR	TDOT COUNT STATION 47000558 SOLWAY RD	TDOT COUNT STATION 47000557 SAM LEE RD	TDOT COUNT STATION 47000084 HARDIN VALLEY RD	KNOX TPO COUNT STATION 093M356 GUINN RD	KNOX TPO COUNT STATION 093M355 STEELE RD	KNOX TPO COUNT STATION 093M022 SOLWAY RD
2023	1,698	1,864	19,435			9,550
2022	1,872	2,029	17,402	1,530	690	7,610
2021	1,861	1,906	16,495			7,320
2020	1,772	1,258	14,864			5,200
2019	1,888	1,246	16,739	1,390	510	8,780
2018			18,120			
2017			17,969			
2016			17,791		420	
2015			17,615			
2014			17,441	1,260	420	5,620
2013			15,642			6,380



**FIGURE 4**  
**EXISTING TRAFFIC VOLUMES (2024)**



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### **EXISTING CAPACITY ANALYSES / LEVELS-OF-SERVICE**

Capacity analyses employing the methods of the Highway Capacity Manual (7<sup>th</sup> Edition) were conducted for the existing study intersections. The analyses were performed with the 2024 existing traffic volumes and existing intersection traffic control, traffic signal timing, and lane configurations. Both the intersections of Guinn Road at Old Solway Road and Guinn Road at Swafford Road were found to operate at a LOS "A" during both the AM and PM peak hours with an approach delay of around 9 seconds or less. The intersection of Solway Road at Gable Run Road / Guinn Road was evaluated to operate at a LOS "B" during the AM and PM peak hours with an approach delay of 13.6 seconds or better. The intersection of Solway Road at George Light Road was found to operate at a LOS "B" during the AM peak hour with an approach delay of 11.6 seconds and a LOS "A" during the PM peak hour with an approach delay of around 10 seconds. The intersection of Solway Road at Old Solway Road was also found to operate at a LOS "B" during the AM and PM peak hours with an approach delay of approximately 10.3 seconds or less. The intersection of Solway Road at Sam Lee Road was evaluated to operate at a LOS "B" during the AM peak hour with an approach delay of around 14 seconds and a LOS "C" during the PM peak hour with an approach delay of around 15 seconds. The intersection of Steele Road at Swafford Road / Sam Lee Road was evaluated to operate at a LOS "B" during the AM peak hour with an approach delay of 12.6 seconds and a LOS "C" during the PM peak hour with an approach delay of 18.5 seconds. The intersection of Solway Road at Hardin Valley Road was found to operate at a LOS "C" during the AM peak hour with an intersection signal delay of 34.7 seconds and a LOS "D" during the PM peak hour with an intersection signal delay of around 40 seconds.



## 4.0 BACKGROUND CONDITIONS

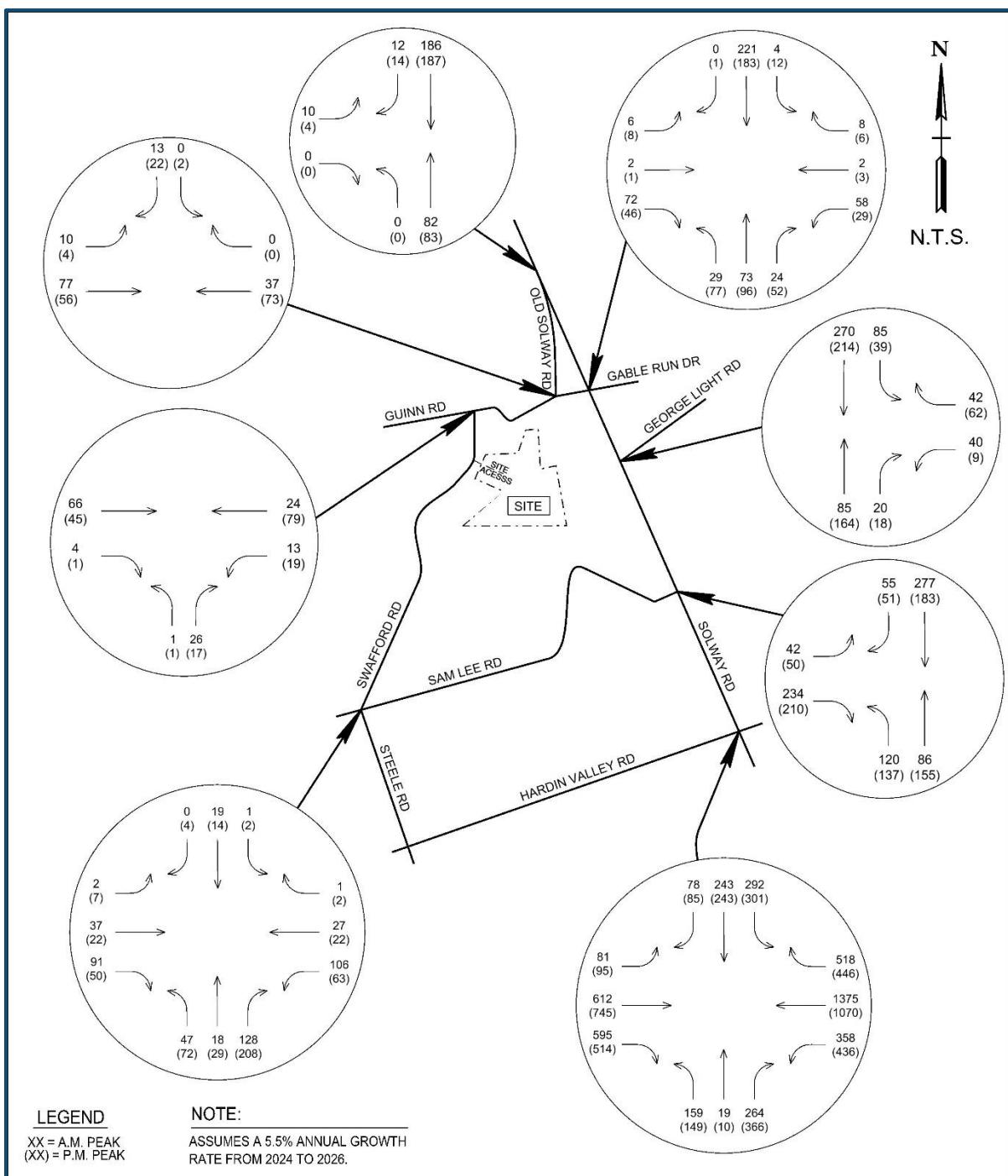
### BACKGROUND TRAFFIC GROWTH

Phase 1 of the proposed development with 70 units is anticipated to be constructed over a 2-year period; Therefore, the year 2026 was established as the appropriate analysis year for this study. In order to determine traffic volumes resulting solely from background traffic growth to year 2026, it was necessary to establish an annual growth rate for existing traffic. The AADT values previously discussed, as well as knowledge of the area, were used to determine an approximate annual growth rate. Based on the available data, a background annual growth rate of 5.5% was assumed. FIGURE 5 contains the background traffic volumes that would result from a 5.5% annual growth rate from year 2024, when the counts were conducted, to year 2026. The background traffic volumes shown in FIGURE 5 represent Year 2026 background growth conditions without traffic related to the proposed development.

### BACKGROUND CAPACITY ANALYSES / LEVELS-OF-SERVICE

Appropriate capacity analyses as described in the Existing Conditions section of this report were conducted utilizing the Year 2026 volumes shown in FIGURE 5. Under Year 2026 background conditions, without traffic related to the development, both the intersections of Guinn Road at Old Solway Road and Guinn Road at Swafford Road were found to operate at a LOS "A" during both the AM and PM peak hours with an approach delay of around 9 seconds or less. The intersection of Solway Road at Gable Run Road / Guinn Road was evaluated to still operate at a LOS "B" during the AM and PM peak hours with an approach delay of 14.6 seconds or better. The intersection of Solway Road at George Light Road was found to operate at a LOS "B" during the AM and PM peak hours with an approach delay of around 12.4 seconds or less. The intersection of Solway Road at Old Solway Road was also found to operate at a LOS "B" during the AM and PM peak hours with an approach delay of 10.5 seconds or less. The intersection of Solway Road at Sam Lee Road was evaluated to operate at a LOS "C" during the AM and PM peak hours with an approach delay of 17.7 seconds or less. The intersection of Sam Lee Road at Swafford Road / Steele Road was evaluated to operate at a LOS "B" during the AM peak hour with an approach delay of 13.2 seconds and a LOS "C" during the PM peak hour with an approach delay of 24.2 seconds. The intersection of Solway Road at Hardin Valley Road was found to operate at a LOS "D" during both the AM and PM peak hours with an intersection signal delay of 41.5 seconds in the AM and around 51 seconds in the PM.

The EVALUATIONS section of this report may be referenced for tabular summaries and discussion of these analyses, while more detailed summaries are presented on the computer printouts contained in APPENDIX C.



**FIGURE 5**  
**BACKGROUND TRAFFIC VOLUMES (2026)**



## 5.0 FUTURE CONDITIONS

### TRIP GENERATION

In order to estimate the expected traffic volumes to be generated by the proposed development, the procedures recommended by the Institute of Transportation Engineers were utilized. Trip generation rates developed by the Institute of Transportation Engineers (Trip Generation, 11th Edition) were utilized to generate the estimated trips for the proposed development. The generated traffic volumes were determined based on the data for the weekday, AM peak hour and PM peak hour. TABLE 2 provides a summary of the expected newly generated traffic. More detailed information is contained in APPENDIX B.

**TABLE 2**  
**TRIP GENERATION SUMMARY**

LAND USE	ITE CODE	NO. OF DWELLING UNITS	WEEKDAY (TRIPS/DAY)	AM PEAK HOUR (TRIPS/HR)	PM PEAK HOUR (TRIPS/HR)
Single-Family Detached Housing	210	70	727	54	71
Entering Trips			364	13	45
Exiting Trips			363	41	26

### TRIP DISTRIBUTION AND ASSIGNMENT

FIGURE 6 provides a summary of the trip distribution patterns assumed for this study. These patterns were based on the existing traffic patterns derived from the traffic counts and knowledge of the area. FIGURE 7 provides a summary of the anticipated trips associated with the Phase 1 buildout of the development as assigned to the study intersections utilizing the trip generation data from TABLE 2 and the distribution patterns shown in FIGURE 6.

Future projected traffic volumes were developed by adding the generated trips shown in FIGURE 7 to the 2026 background traffic volumes developed in the previous section. These combined year volumes reflect the existing traffic, the background traffic growth, and the newly generated traffic from Phase 1 of the proposed development. FIGURE 8 represents the 2026 combined traffic data with anticipated trips from the proposed development. The volumes shown in FIGURE 9 are the combined volumes used in the analysis of the future conditions.

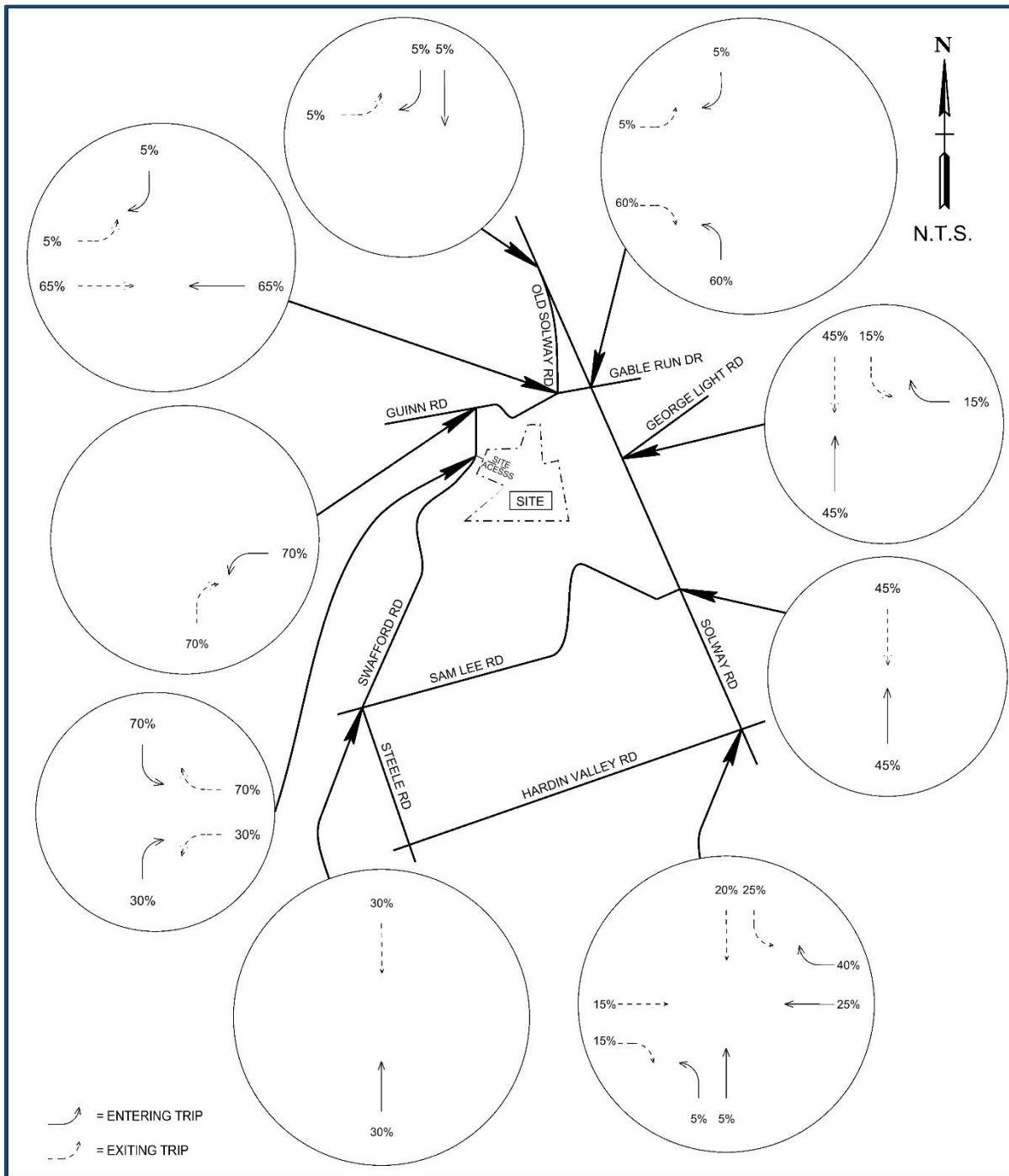


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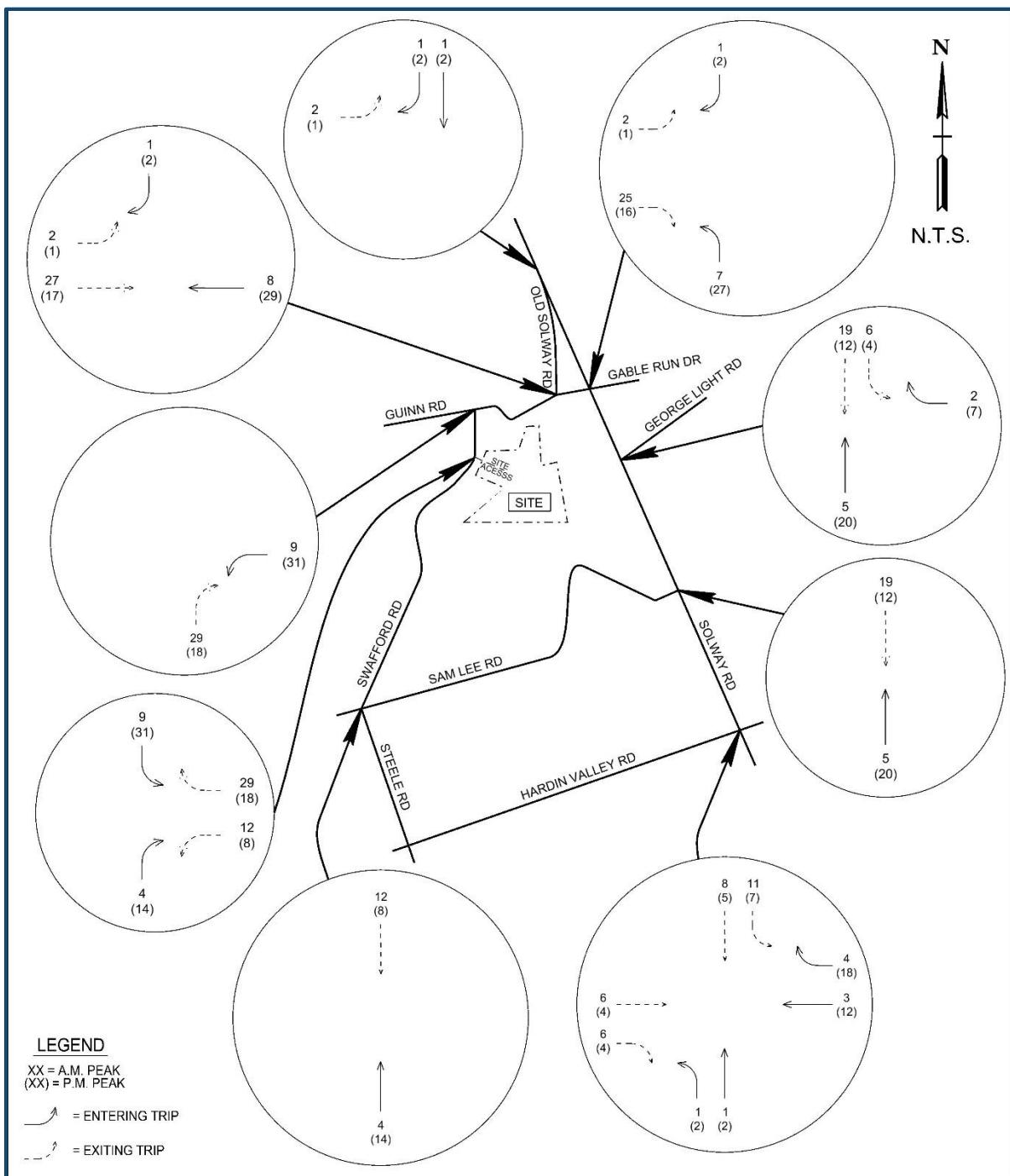
#### **FUTURE CAPACITY ANALYSES / LEVELS-OF-SERVICE**

Capacity analyses as described in the Existing Conditions section of this report were conducted for 2026, full build-out conditions utilizing the Year 2026 combined volumes shown in FIGURE 9. Under Year 2026 combined conditions, with traffic related to the development, both the intersections of Guinn Road at Old Solway Road and Guinn Road at Swafford Road were found to operate at a LOS "A" during both the AM and PM peak hours with an approach delay of around 9.1 seconds or less. The intersection of Solway Road at Gable Run Road / Guinn Road was evaluated to operate at a LOS "B" during the AM peak hour with an approach delay of around 15 seconds and a LOS "C" during the PM peak hour with an approach delay of 16.3 seconds. The intersection of Solway Road at George Light Road was found to operate at a LOS "B" during the AM and PM peak hours with an approach delay of around 13 seconds or less. The intersection of Solway Road at Old Solway Road was also found to operate at a LOS "B" during the AM and PM peak hours with an approach delay of 10.6 seconds or less. The intersection of Solway Road at Sam Lee Road was evaluated to still operate at a LOS "C" during the AM and PM peak hours with an approach delay of 18.6 seconds or less. The intersection of Sam Lee Road at Swafford Road / Steele Road was evaluated to operate at a LOS "B" during the AM peak hour with an approach delay of 13.4 seconds and a LOS "D" during the PM peak hour with an approach delay of around 30 seconds. The intersection of Solway Road at Hardin Valley Road was found to operate at a LOS "D" during both the AM and PM peak hours with an intersection signal delay of around 43 seconds in the AM and around 51.4 seconds in the PM. The intersection of Swafford Road at the proposed site access was found to operate at a LOS "A" during both the AM and PM peak hours with an approach delay of approximately 9 seconds.

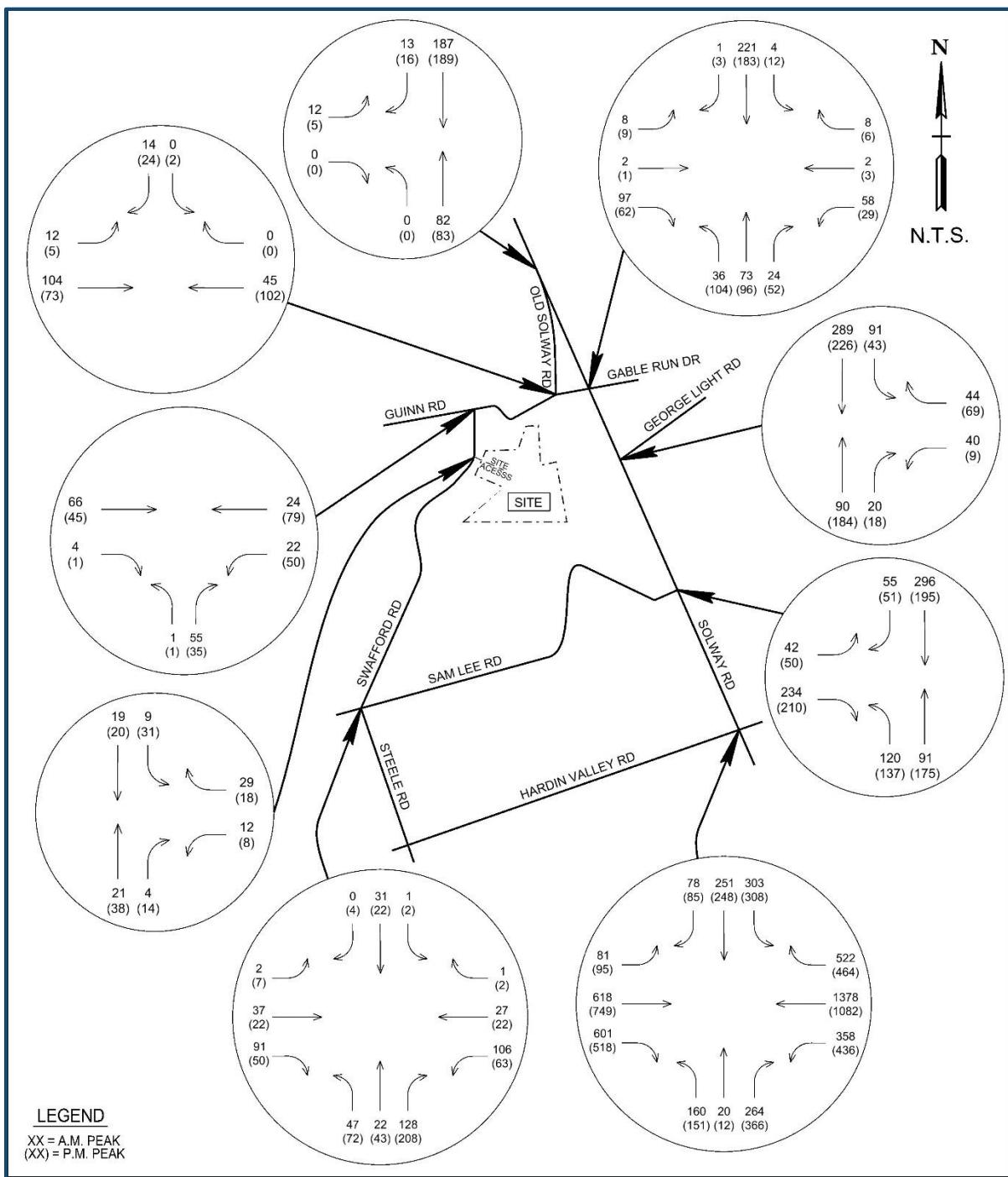
The EVALUATIONS section of this report may be referenced for tabular summaries and discussion of these analyses, while more detailed summaries are presented on the computer printouts contained in APPENDIX C.



**FIGURE 6**  
**TRIP DISTRIBUTION PATTERNS**



**FIGURE 7**  
**TRIP ASSIGNMENT**



**FIGURE 8**  
**COMBINED TRAFFIC VOLUMES (2026)**



## 6.0 EVALUATIONS

### INTERSECTION CAPACITY ANALYSES

**TABLE 3**  
**CAPACITY ANALYSIS SUMMARY**

INTERSECTION	TIME PERIOD	YEAR 2024 EXISTING (LOS/ DELAY)	YEAR 2026 BACKGROUND (LOS/DELAY)	YEAR 2026 COMBINED (LOS/DELAY)
Guinn Road at Swafford Road (SIDE STREET STOP) <sup>1</sup>	A.M. P.M.	A 8.8 A 8.7	A 8.9 A 8.7	A 9.1 A 8.8
Guinn Road at Swafford Road (ALL-WAY STOP) <sup>2</sup>	A.M. P.M.	A 7.3 A 7.4	A 7.3 A 7.5	A 7.4 A 7.7
Guinn Road at Old Solway Road (SIDE STREET STOP) <sup>1</sup>	A.M. P.M.	A 8.6 A 8.9	A 8.6 A 8.9	A 8.6 A 9.1
Solway Road at Old Solway Road (SIDE STREET STOP) <sup>1</sup>	A.M. P.M.	B 10.3 B 10.0	B 10.5 B 10.2	B 10.6 B 10.2
Solway Road at Gable Run / Guinn Road (SIDE STREET STOP) <sup>1</sup>	A.M. P.M.	B 13.0 B 13.6	B 13.9 B 14.6	B 14.9 C 16.3
Solway Road at George Light Road (SIDE STREET STOP) <sup>1</sup>	A.M. P.M.	B 11.6 A 9.8	B 12.4 B 10.1	B 13.0 B 10.3
Solway Road at Sam Lee Road (SIDE STREET STOP) <sup>1</sup>	A.M. P.M.	B 13.8 C 15.1	C 15.5 C 17.7	C 16.0 C 18.6
Solway Road at Hardin Valley Road (SIGNALIZED) <sup>3</sup>	A.M. P.M.	C 34.7 D 40.2	D 41.5 D 50.6	D 42.9 D 51.4
Sam Lee Road at Swafford / Steele Road (SIDE STREET STOP) <sup>1</sup>	A.M. P.M.	B 12.6 C 18.5	B 13.2 C 24.2	B 13.4 D 29.8
Swafford Road at Site Access (SIDE STREET STOP) <sup>1</sup>	A.M. P.M.	- -	- -	A 8.7 A 8.9

<sup>1</sup>SIDE STREET STOP CONTROL – Level-of-Service and Average Vehicular Delay (seconds) for side street approach utilizing HCM methodology.

<sup>2</sup>ALL-WAY STOP CONTROL – Level-of-Service and Average Vehicular Delay (seconds) for full intersection utilizing HCM methodology.

<sup>3</sup>SIGNALIZED CONTROL – Level-of-Service and Average Vehicular Delay (seconds) for full intersection utilizing SYNCHRO methodology. Signal timing optimized for background & combined conditions



The results summarized in TABLE 3 indicate that acceptable level-of-service “C” or better operation can be anticipated at all study intersections under the evaluated conditions, including combined conditions, with the exception of the northbound approach at Sam Lee Road at Swafford / Steele Road, where the P.M. peak is anticipated to exhibit LOS “D” operation under 2026 combined conditions, and the signalized intersection of Solway Road at Hardin Valley Road, which is anticipated to operate at a LOS “D” during both the AM and PM combined conditions. However, the proposed development is not expected to be a major contributor in approach delay.

### **SIGHT DISTANCE ASSESSMENT**

Intersection corner sight distance was reviewed for the proposed site access at Swafford Road and for the intersection of Swafford Road at Guinn Road. The posted speed limit along Swafford Road and Guinn Road in the vicinity of the proposed development is 30 mph. Based on the American Association of State Highway Transportation Officials (AASHTO) for a 30-mph roadway, 335 feet of sight distance is required to make a left turn and 290 feet of sight distance is required to make a right turn from a side street stop-controlled scenario.

For the intersection of Proposed Site Access at Swafford Road, the proposed site access location is anticipated to be located roughly 207 feet to the north from the centerline of the existing property driveway along Swafford Road. Field measurements indicate the available sight distance is around 470 feet when looking to the left and around 285 feet when looking to the right. The limited sight distance when looking right was due to built-up vegetation adjacent to the roadway. It is believed with appropriate clearing / grubbing within right-of-way, the required sight distance of 335 feet can be met and exceed.

For the intersection of Swafford Road at Guinn Road, field measurements indicate the available sight distance is around 352 feet when looking to the left and around 119 feet when looking to the right. The limited sight distance when looking to the right was due to the topography and built-up vegetation within the property in the southeast quadrant of this intersection. Advanced warning signs are present along westbound Guinn Road to warn drivers about the upcoming intersection of Swafford Road. In order to address the lack of available sight distance when looking to the right, converting this intersection to an all-way stop intersection control is recommended. The resulting intersection LOS / delay are provided in TABLE 3 and indicate acceptable operation for Existing, Background, and Combined conditions.

### **SWAFFORD ROAD BRIDGE ASSESSMENT**

For the purposes of this study, the Swafford Road bridge over Beaver Creek was reviewed from an operational standpoint. The bridge was measured to be 17.5 feet wide along the riding surface with no pavement markings. Additionally, each outside edge of the travel lanes have accumulated vegetation debris, effectively and visually “shrinking” the available travel lane width. It is recommended that Knox County restripe the double-yellow centerline across the bridge and clean out the travel lane edges.



## TURN LANE ASSESSMENT

The proposed site access at Swafford Road intersection was evaluated for left and right-turn lane warrants utilizing Knox County's turn lane volume thresholds. Combined conditions were evaluated as part of this assessment with the following results:

- Combined Traffic
  - Proposed Site Access at Swafford Road
    - Left Turn Warrant – AM Peak: Not Met / PM Peak: Not Met
    - Right Turn Warrant – AM Peak: Not Met / PM Peak: Not Met

As indicated above, the intersection of Proposed Site Access at Swafford Road does not meet left or right turn lane warrants under combined conditions. Turn lane warrant analyses worksheets are in APPENDIX D.



## **7.0 CONCLUSIONS & RECOMMENDATIONS**

The primary conclusion of this study is that traffic generated from Phase 1 of the proposed development will not have major negative impacts on the study intersections. Each studied intersection will see marginal increases in overall delay, mainly from the continued background growth in this area.

The following listing is a summary of the improvements that are recommended to be implemented with the construction of this project:

1. Install new centerline pavement markings on the Swafford Road bridge over Beaver Creek
2. Sweep the edges of the travel lanes on the Swafford Road bridge
3. Maintain intersection corner sight distances on the site driveways by ensuring that new site signage and landscaping is appropriately located.

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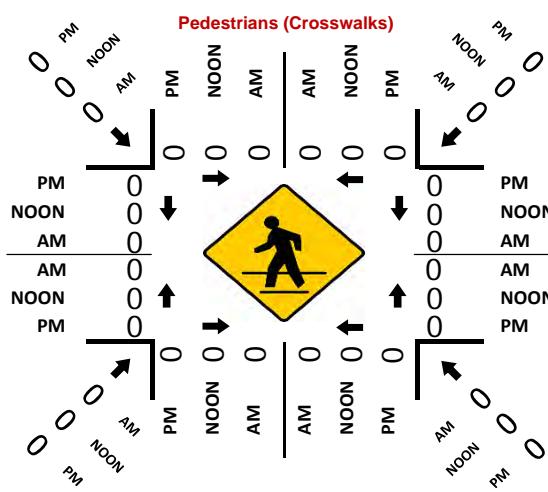
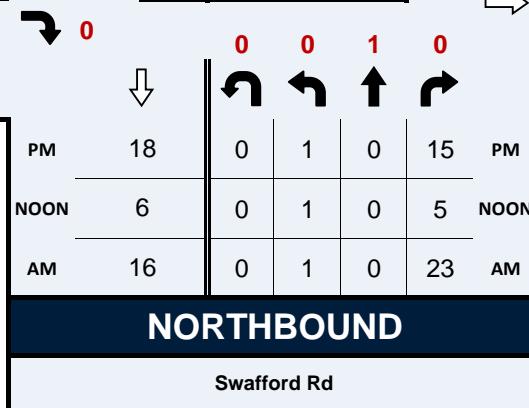
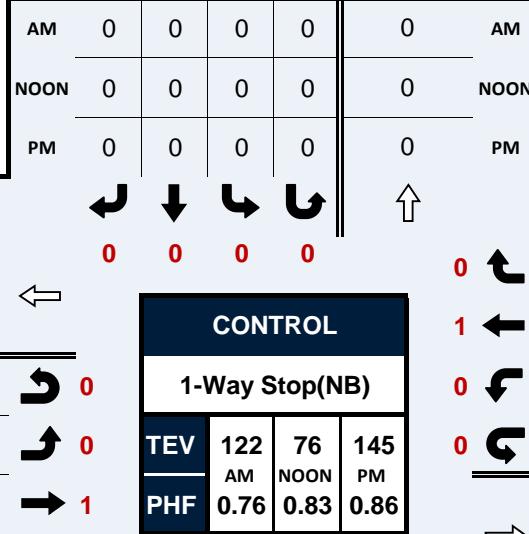
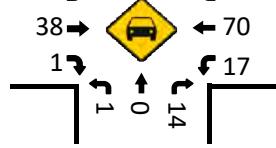
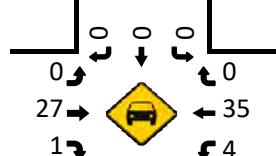
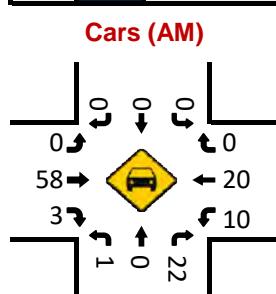
**APPENDIX A | TRAFFIC DATA**

## **Swafford Rd & Guinn Rd**

## Peak Hour Turning Movement Count

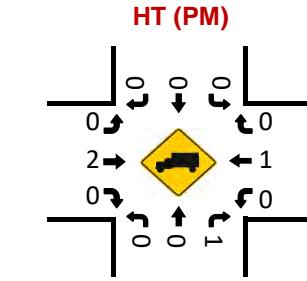
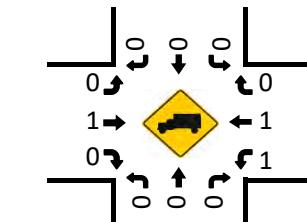
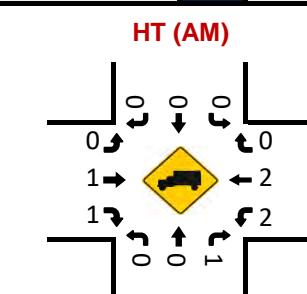
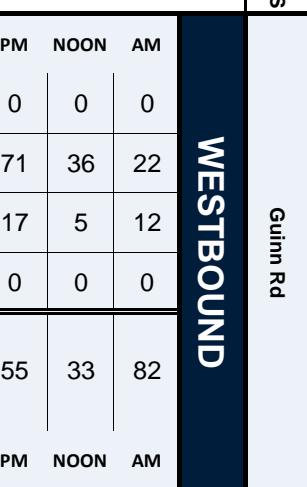
**ID:** 24-190049-001  
**City:** Knoxville

<b>PEAK HOURS</b>	07:15 AM - 08:15 AM
	12:45 PM - 01:45 PM
	04:45 PM - 05:45 PM



**Day:** Tuesday  
**Date:** 8/27/2024

7:00 AM - 10:00 AM  
10:00 AM - 02:00 PM  
2:00 PM - 07:00 PM



Groups Printed - Cars, PU, Vans - Heavy Trucks																						
Start Time	Swafford Rd Northbound					Swafford Rd Southbound					Guinn Rd Eastbound					Guinn Rd Westbound					Int. Total	
	Left	Thru	Rgt	Uturn	Peds	Left	Thru	Rgt	Uturn	Peds	Left	Thru	Rgt	Uturn	Peds	Left	Thru	Rgt	Uturn	Peds		
7:00 AM	0	0	2	0	0	2	0	0	0	0	0	14	1	0	0	15	2	0	0	0	0	19
7:15 AM	1	0	5	0	0	6	0	0	0	0	0	16	2	0	0	18	4	3	0	0	0	31
7:30 AM	0	0	7	0	0	7	0	0	0	0	0	12	0	1	0	13	2	1	0	0	0	23
7:45 AM	0	0	6	0	0	6	0	0	0	0	0	20	0	0	0	20	3	11	0	0	0	40
Total	1	0	20	0	0	21	0	0	0	0	0	62	3	1	0	66	11	15	0	0	0	113
8:00 AM	0	0	5	0	0	5	0	0	0	0	0	11	2	0	0	13	3	7	0	0	0	28
8:15 AM	0	0	5	0	0	5	0	0	0	0	0	15	0	0	0	15	2	8	0	0	0	30
8:30 AM	0	0	1	0	0	1	0	0	0	0	0	12	0	0	0	12	4	6	0	0	0	23
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	11	0	6	0	0	0	17
Total	0	0	11	0	0	11	0	0	0	0	0	48	3	0	0	51	9	27	0	0	0	98
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	11	0	4	0	0	0	15
9:15 AM	0	0	2	0	0	2	0	0	0	0	0	8	0	0	0	8	1	11	0	0	0	22
9:30 AM	0	0	1	0	0	1	0	0	0	0	0	11	0	0	0	11	0	8	0	0	0	20
9:45 AM	0	0	4	0	0	4	0	0	0	0	0	5	0	0	0	5	1	7	0	0	0	17
Total	0	0	7	0	0	7	0	0	0	0	0	35	0	0	0	35	2	30	0	0	0	74
***BREAK***																						
10:00 AM	0	0	3	0	0	3	0	0	0	0	0	9	1	0	0	10	0	4	0	0	0	17
10:15 AM	0	0	1	0	0	1	0	0	0	0	0	8	0	0	0	8	2	5	0	0	0	16
10:30 AM	0	0	2	0	0	2	0	0	0	0	0	8	0	0	0	8	3	4	0	0	0	17
10:45 AM	0	0	1	0	0	1	0	0	0	0	0	8	0	0	0	8	1	10	0	0	0	20
Total	0	0	7	0	0	7	0	0	0	0	0	33	1	0	0	34	6	23	0	0	0	70
11:00 AM	1	0	0	0	0	1	0	0	0	0	0	8	0	0	0	8	1	6	0	0	0	16
11:15 AM	0	0	3	0	0	3	0	0	0	0	0	7	0	0	0	7	3	4	0	0	0	17
11:30 AM	0	0	3	0	0	3	0	0	0	0	0	7	0	0	0	7	2	3	0	0	0	15
11:45 AM	0	0	2	0	0	2	0	0	0	0	0	3	0	0	0	3	0	8	0	0	0	13
Total	1	0	8	0	0	9	0	0	0	0	0	25	0	0	0	25	6	21	0	0	0	61
12:00 PM	0	0	2	0	0	2	0	0	0	0	0	5	0	0	0	5	1	11	0	0	0	19
12:15 PM	0	0	1	0	0	1	0	0	0	0	0	3	0	0	0	3	0	8	0	0	0	12
12:30 PM	0	0	2	0	0	2	0	0	0	0	0	10	0	0	0	10	1	10	0	0	0	23
12:45 PM	0	0	3	0	0	3	0	0	0	0	0	6	0	0	0	6	0	10	0	0	0	19
Total	0	0	8	0	0	8	0	0	0	0	0	24	0	0	0	24	2	39	0	0	0	73
1:00 PM	0	0	1	0	0	1	0	0	0	0	0	5	0	0	0	5	1	6	0	0	0	13
1:15 PM	1	0	1	0	0	2	0	0	0	0	0	6	1	0	0	7	3	9	0	0	0	21
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	11	1	11	0	0	0	23
1:45 PM	0	0	1	0	0	1	0	0	0	0	0	5	0	0	0	5	3	5	0	0	0	14
Total	1	0	3	0	0	4	0	0	0	0	0	27	1	0	0	28	8	31	0	0	0	71
***BREAK***																						
2:00 PM	0	0	5	0	0	5	0	0	0	0	0	6	0	0	0	6	1	7	0	0	0	19
2:15 PM	0	0	1	0	0	1	0	0	0	0	0	9	0	0	0	9	2	6	0	0	0	18
2:30 PM	0	0	1	0	0	1	0	0	0	0	0	6	0	0	0	6	1	10	0	0	0	11
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	3	14	0	0	0	23
Total	0	0	7	0	0	7	0	0	0	0	0	27	0	0	0	27	7	37	0	0	0	78
3:00 PM	2	0	2	0	0	4	0	0	0	0	0	7	0	0	0	7	4	10	0	0	0	25
3:15 PM	0	0	4	0	0	4	0	0	0	0	0	5	0	0	0	5	3	8	0	0	0	20
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	8	1	0	0	9	7	13	0	0	0	29
3:45 PM	2	0	10	0	0	12	0	0	0	0	0	9	0	0	0	9	3	8	0	0	0	32
Total	4	0	16	0	0	20	0	0	0	0	0	29	1	0	0	30	17	39	0	0	0	106
4:00 PM	0	0	5	0	0	5	0	0	0	0	0	7	0	0	0	7	4	15	0	0	0	31
4:15 PM	0	0	1	0	0	1	0	0	0	0	0	6	1	0	0	7	5	10	0	0	0	23
4:30 PM	0	0	3	0	0	3	0	0	0	0	0	12	0	0	0	12	3	14	0	0	0	32
4:45 PM	0	0	4	0	0	4	0	0	0	0	0	16	1	0	0	17	3	18	0	0	0	42
Total	0	0	13	0	0	13	0	0	0	0	0	41	2	0	0	43	15	57	0	0	0	128
5:00 PM	0	0	2	0	0	2	0	0	0	0	0	6	0	0	0	6	5	18	0	0	0	31
5:15 PM	1	0	5	0	0	6	0	0	0	0	0	10	0	0	0	10	4	18	0	0	0	38
5:30 PM	0	0	4	0	0	4	0	0	0	0	0	8	0	0	0	8	5	17	0	0	0	34

5:45 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	3	0	0	0	0	3	9	12	0	0	0	21	26	
Total	1	0	13	0	0	14	0	0	0	0	0	0	0	0	27	0	0	0	0	27	23	65	0	0	0	88	129
6:00 PM	0	0	2	0	0	2	0	0	0	0	0	0	0	0	10	1	0	0	0	11	4	21	0	0	0	25	38
6:15 PM	1	0	2	0	0	3	0	0	0	0	0	0	0	9	0	0	0	0	9	1	15	0	0	0	0	16	
6:30 PM	0	0	1	0	0	1	0	0	0	0	0	0	0	5	0	0	0	0	5	3	7	0	0	0	0	10	
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	0	0	0	5	2	14	0	0	0	0	16	
Total	1	0	5	0	0	6	0	0	0	0	0	0	0	0	28	2	0	0	30	10	57	0	0	0	0	67	
Grand Total	9	0	118	0	0	127	0	0	0	0	0	0	0	0	406	13	1	0	420	116	441	0	0	0	557	1104	
Apprch %	7.1	0.0	92.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	96.7	3.1	0.2	0.0	20.8	79.2	0.0	0.0	0.0	0.0	0.0		
Total %	0.8	0.0	10.7	0.0	0.0	11.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.8	1.2	0.1	0.0	38.0	10.5	39.9	0.0	0.0	0.0	50.5		
Cars, PU, Vans	8	0	114	0	0	122	0	0	0	0	0	0	0	0	396	12	1	409	108	429	0	0	0	537	1068		
% Cars, PU, Vans	88.9	0.0	96.6	0.0	0.0	96.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	97.5	92.3	100.0	97.4	93.1	97.3	0.0	0.0	0.0	96.4	96.7		
Heavy trucks	1	0	4	0	0	5	0	0	0	0	0	0	0	0	10	1	0	11	8	12	0	0	0	20	36		
%Heavy trucks	11.1	0.0	3.4	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	7.7	0.0	2.6	6.9	2.7	0.0	0.0	0.0	3.6	3.3		

Project ID: 24-190049-001  
 Location: Swafford Rd & Guinn Rd  
 City: Knoxville

## PEAK HOURS

Day: Tuesday  
 Date: 8/27/2024

AM

	Swafford Rd Northbound					Swafford Rd Southbound					Guinn Rd Eastbound					Guinn Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 10:00 AM																					
Peak Hour for Entire Intersection Begins at 07:15 AM																					
7:15 AM	1	0	5	0	6	0	0	0	0	0	0	16	2	0	18	4	3	0	0	7	31
7:30 AM	0	0	7	0	7	0	0	0	0	0	0	12	0	1	13	2	1	0	0	3	23
7:45 AM	0	0	6	0	6	0	0	0	0	0	0	20	0	0	20	3	11	0	0	14	40
8:00 AM	0	0	5	0	5	0	0	0	0	0	0	11	2	0	13	3	7	0	0	10	28
Total Volume	1	0	23	0	24	0	0	0	0	0	0	59	4	1	64	12	22	0	0	34	122
% App. Total	4.2	0.0	95.8	0.0	100	0.0	0.0	0.0	0.0	0	0.0	92.2	6.3	1.6	100	35.3	64.7	0.0	0.0	100	
PHF	0.857					0.800					0.607					0.763					
Cars, PU, Vans	1	0	22	0	23	0	0	0	0	0	0	58	3	1	62	10	20	0	0	30	115
% Cars, PU, Vans	100.0	0.0	95.7	0.0	95.8	0.0	0.0	0.0	0.0	0	0.0	98.3	75.0	100.0	96.9	83.3	90.9	0.0	0.0	88.2	94.3
Heavy trucks	0	0	1	0	1	0	0	0	0	0	0	1	1	0	2	2	2	0	0	4	7
%Heavy trucks	0.0	0.0	4.3	0.0	4.2	0.0	0.0	0.0	0.0	0	0.0	1.7	25.0	0.0	3.1	16.7	9.1	0.0	0.0	11.8	5.7

NOON

	Swafford Rd Northbound					Swafford Rd Southbound					Guinn Rd Eastbound					Guinn Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 10:00 AM - 02:00 PM																					
Peak Hour for Entire Intersection Begins at 12:45 PM																					
12:45 PM	0	0	3	0	3	0	0	0	0	0	0	6	0	0	6	0	10	0	0	10	19
1:00 PM	0	0	1	0	1	0	0	0	0	0	0	5	0	0	5	1	6	0	0	7	13
1:15 PM	1	0	1	0	2	0	0	0	0	0	0	6	1	0	7	3	9	0	0	12	21
1:30 PM	0	0	0	0	0	0	0	0	0	0	0	11	0	0	11	1	11	0	0	12	23
Total Volume	1	0	5	0	6	0	0	0	0	0	0	28	1	0	29	5	36	0	0	41	76
% App. Total	16.7	0.0	83.3	0.0	100	0.0	0.0	0.0	0.0	0	0.0	96.6	3.4	0.0	100	12.2	87.8	0.0	0.0	100	
PHF	0.500					0.659					0.854					0.826					
Cars, PU, Vans	1	0	5	0	6	0	0	0	0	0	0	27	1	0	28	4	35	0	0	39	73
% Cars, PU, Vans	100.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0	0.0	96.4	100.0	0.0	96.6	80.0	97.2	0.0	0.0	95.1	96.1
Heavy trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	0	0	2	3
%Heavy trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0	3.6	0.0	0.0	3.4	20.0	2.8	0.0	0.0	4.9	3.9

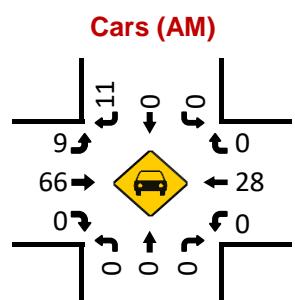
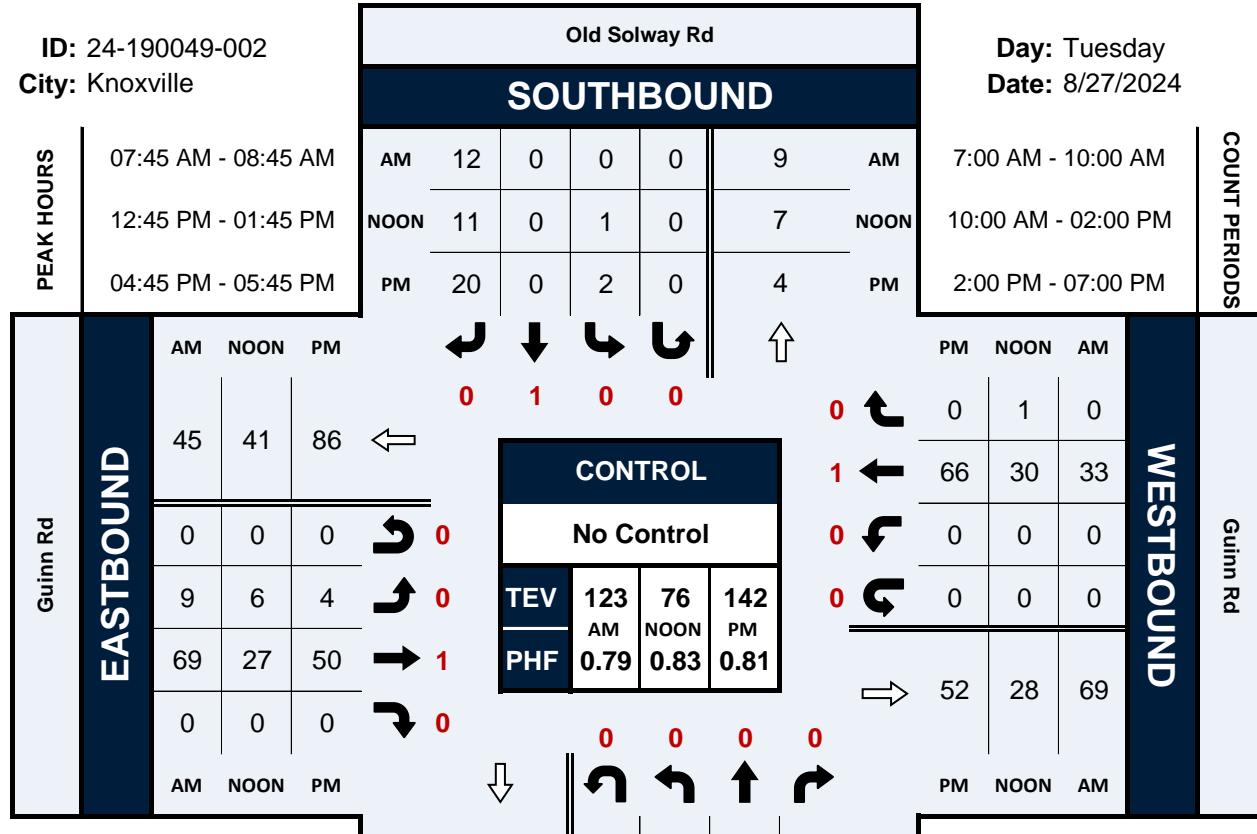
PM

	Swafford Rd Northbound					Swafford Rd Southbound					Guinn Rd Eastbound					Guinn Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 02:00 PM - 07:00 PM																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
4:45 PM	0	0	4	0	4	0	0	0	0	0	0	16	1	0	17	3	18	0	0	21	42
5:00 PM	0	0	2	0	2	0	0	0	0	0	0	6	0	0	6	5	18	0	0	23	31
5:15 PM	1	0	5	0	6	0	0	0	0	0	0	10	0	0	10	4	18	0	0	22	38
5:30 PM	0	0	4	0	4	0	0	0	0	0	0	8	0	0	8	5	17	0	0	22	34
Total Volume	1	0	15	0	16	0	0	0	0	0	0	40	1	0	41	17	71	0	0	88	145
% App. Total	6.3	0.0	93.8	0.0	100	0.0	0.0	0.0	0.0	0	0.0	97.6	2.4	0.0	100	19.3	80.7	0.0	0.0	100	
PHF	0.667					0.603					0.957					0.863					
Cars, PU, Vans	1	0	14	0	15	0	0	0	0	0	0	38	1	0	39	17	70	0	0	87	141
% Cars, PU, Vans	100.0	0.0	93.3	0.0	93.8	0.0	0.0	0.0	0.0	0	0.0	95.0	100.0	0.0	95.1	100.0	98.6	0.0	0.0	98.9	97.2
Heavy trucks	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	0	1	0	0	1	4
%Heavy trucks	0.0	0.0	6.7	0.0	6.3	0.0	0.0	0.0	0.0	0	0.0	5.0	0.0	0.0	4.9	0.0	1.4	0.0	0.0	1.1	2.8

**Old Solway Rd & Guinn Rd****Peak Hour Turning Movement Count**

ID: 24-190049-002  
City: Knoxville

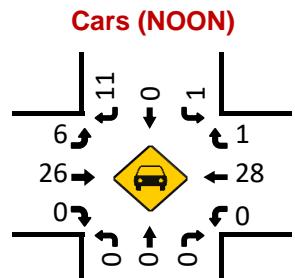
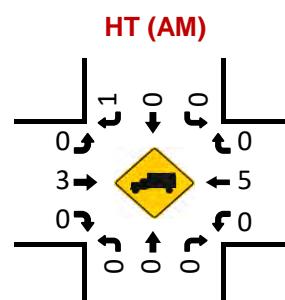
Day: Tuesday  
Date: 8/27/2024



**NORTHBOUND**

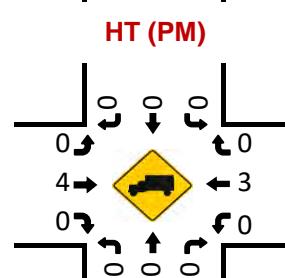
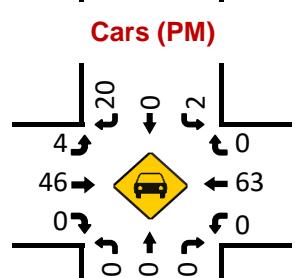
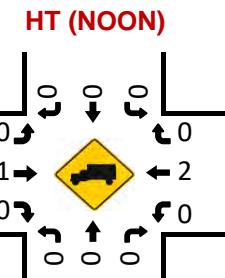
Old Solway Rd

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM



**Pedestrians (Crosswalks)**

PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM
PM	0	0	0	0	PM
NOON	0	0	0	0	NOON
AM	0	0	0	0	AM



Project ID: 24-190049-002  
 Location: Old Solway Rd & Guinn Rd  
 City: Knoxville

Day: Tuesday  
 Date: 8/27/2024

Groups Printed - Cars, PU, Vans - Heavy Trucks																					
Start Time	Old Solway Rd Northbound						Old Solway Rd Southbound						Guinn Rd Eastbound						Int. Total		
	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total			
7:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	2	15	0	0	0	17	1	19	
7:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	21	0	0	0	0	7	29	
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	1	16	0	0	0	17	0	20	
7:45 AM	0	0	0	0	0	0	0	0	6	0	0	6	1	24	0	0	0	25	0	39	
Total	0	0	0	0	0	0	0	0	9	0	0	9	4	76	0	0	0	80	0	18	
8:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	4	16	0	0	0	20	0	32	
8:15 AM	0	0	0	0	0	0	0	0	3	0	0	3	3	16	0	0	0	19	0	7	
8:30 AM	0	0	0	0	0	0	0	0	2	0	0	2	1	13	0	0	0	14	0	23	
8:45 AM	0	0	0	0	0	0	0	0	3	0	0	3	0	7	0	0	0	7	0	12	
Total	0	0	0	0	0	0	0	0	9	0	0	9	8	52	0	0	0	60	0	96	
9:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	2	10	0	0	0	12	0	16	
9:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	9	0	0	0	9	0	21	
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	12	0	20	
9:45 AM	0	0	0	0	0	0	0	0	3	0	0	3	1	8	0	0	0	9	0	17	
Total	0	0	0	0	0	0	0	0	6	0	0	6	3	39	0	0	0	42	0	74	
***BREAK***																					
10:00 AM	0	0	0	0	0	0	0	0	1	0	0	1	2	13	0	0	0	15	0	19	
10:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	0	8	0	1	0	9	0	17	
10:30 AM	0	0	0	0	0	0	0	0	3	0	0	3	2	8	0	0	0	10	0	18	
10:45 AM	0	0	0	0	0	0	0	0	3	0	0	3	2	7	0	0	0	9	0	18	
Total	0	0	0	0	0	0	0	0	9	0	0	9	6	36	0	1	0	43	0	72	
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	0	8	0	17	
11:15 AM	0	0	0	0	0	0	0	0	2	0	0	2	3	7	0	0	0	10	0	16	
11:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	10	0	0	0	10	0	16	
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	12	
Total	0	0	0	0	0	0	0	0	3	0	0	3	4	29	0	0	0	33	0	61	
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	17	
12:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	1	4	0	0	0	5	0	12	
12:30 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	12	0	0	0	12	0	23	
12:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	1	7	0	0	0	8	0	21	
Total	0	0	0	0	0	0	0	0	4	0	0	4	2	29	0	0	0	31	0	73	
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	6	0	0	0	7	0	12	
1:15 PM	0	0	0	0	0	0	0	0	7	0	0	7	3	5	0	0	0	8	0	20	
1:30 PM	0	0	0	0	0	0	0	1	0	2	0	0	3	1	9	0	0	0	10	0	23
1:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	1	7	0	0	0	8	0	17	
Total	0	0	0	0	0	0	0	1	0	11	0	0	12	6	27	0	0	0	33	0	72
***BREAK***																					
2:00 PM	0	0	0	0	0	0	0	0	2	0	0	2	2	9	0	0	0	11	0	21	
2:15 PM	0	0	0	0	0	0	0	0	2	0	0	2	2	8	0	0	0	10	0	17	
2:30 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	7	0	0	0	7	0	18	
2:45 PM	0	0	0	0	0	0	0	0	2	0	0	2	2	4	0	0	0	6	0	25	
Total	0	0	0	0	0	0	0	0	8	0	0	8	6	28	0	0	0	34	0	81	
3:00 PM	0	0	0	0	0	0	0	1	0	0	0	1	0	9	0	0	0	9	0	22	
3:15 PM	0	0	0	0	0	0	0	0	1	0	0	1	0	8	0	0	0	8	0	19	
3:30 PM	0	0	0	0	0	0	0	1	0	6	0	7	1	9	0	0	0	10	0	33	
3:45 PM	0	0	0	0	0	0	0	0	3	0	0	3	1	18	0	0	0	19	0	31	
Total	0	0	0	0	0	0	0	2	0	10	0	12	2	44	0	0	0	46	0	105	
4:00 PM	0	0	0	0	0	0	0	0	6	0	0	6	0	9	0	0	0	9	0	25	
4:15 PM	0	0	0	0	0	0	0	0	2	0	0	2	1	4	0	0	0	5	0	25	
4:30 PM	0	0	0	0	0	0	0	0	2	0	0	2	0	16	0	0	0	16	0	33	
4:45 PM	0	0	0	0	0	0	0	1	0	7	0	8	0	21	0	0	0	21	0	44	
Total	0	0	0	0	0	0	0	1	0	17	0	18	1	50	0	0	0	51	0	127	
5:00 PM	0	0	0	0	0	0	0	1	0	2	0	3	0	6	0	0	0	6	0	34	
5:15 PM	0	0	0	0	0	0	0	0	6	0	0	6	1	11	0	0	0	12	0	29	
5:30 PM	0	0	0	0	0	0	0	0	5	0	0	5	3	12	0	0	0	15	0	35	

5:45 PM	0	0	0	0	0	0	0	0	3	0	0	3	1	2	0	0	0	3	0	18	0	0	0	18	24	
Total	0	0	0	0	0	0	0	1	0	16	0	0	17	5	31	0	0	0	36	0	69	0	0	0	69	122
6:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	4	2	12	0	0	0	14	0	20	0	0	0	20	38
6:15 PM	0	0	0	0	0	0	0	0	0	4	0	0	4	2	9	0	0	0	11	0	10	0	0	0	10	25
6:30 PM	0	0	0	0	0	0	0	0	0	4	0	0	4	2	3	0	0	0	5	0	9	0	0	0	9	18
6:45 PM	0	0	0	0	0	0	0	0	0	4	0	0	4	1	3	0	0	0	4	0	11	0	0	0	11	19
Total	0	0	0	0	0	0	0	0	0	16	0	0	16	7	27	0	0	0	34	0	50	0	0	0	50	100
Grand Total	0	0	0	0	0	0	0	5	0	118	0	0	123	54	468	0	1	0	523	0	440	3	1	0	444	1090
Apprch %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	95.9	0.0	0.0	10.3	89.5	0.0	0.2	0.0	0.0	0.0	99.1	0.7	0.2	0.0	0.0	444	
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	10.8	0.0	0.0	11.3	5.0	42.9	0.0	0.1	0.0	48.0	0.0	40.4	0.3	0.1	0.0	40.7	
Cars, PU, Vans	0	0	0	0	0	0	0	5	0	115	0	120	54	455	0	1	0	510	0	419	3	1	0	423	1053	
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	97.5	0.0	97.6	100.0	97.2	0.0	100.0	0.0	97.5	0.0	95.2	100.0	100.0	95.3	96.6		
Heavy trucks	0	0	0	0	0	0	0	0	0	3	0	3	0	13	0	0	0	13	0	21	0	0	0	21	37	
%Heavy trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	2.4	0.0	2.8	0.0	0.0	0.0	2.5	0.0	4.8	0.0	0.0	0.0	4.7		
																									3.4	

Project ID: 24-190049-002  
 Location: Old Solway Rd & Guinn Rd  
 City: Knoxville

## PEAK HOURS

Day: Tuesday  
 Date: 8/27/2024

AM

Start Time	Old Solway Rd Northbound					Old Solway Rd Southbound					Guinn Rd Eastbound					Guinn Rd Westbound					Int. Total
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 10:00 AM																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
7:45 AM	0	0	0	0	0	0	0	6	0	6	1	24	0	0	25	0	8	0	0	8	39
8:00 AM	0	0	0	0	0	0	0	1	0	1	4	16	0	0	20	0	11	0	0	11	32
8:15 AM	0	0	0	0	0	0	0	3	0	3	3	16	0	0	19	0	7	0	0	7	29
8:30 AM	0	0	0	0	0	0	0	2	0	2	1	13	0	0	14	0	7	0	0	7	23
Total Volume	0	0	0	0	0	0	0	12	0	12	9	69	0	0	78	0	33	0	0	33	123
% App. Total	0.0	0.0	0.0	0.0	0	0.0	0.0	100.0	0.0	100	11.5	88.5	0.0	0.0	100	0.0	100.0	0.0	0.0	100	
PHF						0.500						0.780					0.750		0.788		
Cars, PU, Vans	0	0	0	0	0	0	0	11	0	11	9	66	0	0	75	0	28	0	0	28	114
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	0.0	0.0	91.7	0.0	91.7	100.0	95.7	0.0	0.0	96.2	0.0	84.8	0.0	0.0	84.8	92.7
Heavy trucks	0	0	0	0	0	0	0	1	0	1	0	3	0	0	3	0	5	0	0	5	9
%Heavy trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.3	0.0	8.3	0.0	4.3	0.0	0.0	3.8	0.0	15.2	0.0	0.0	15.2	7.3

NOON

Start Time	Old Solway Rd Northbound					Old Solway Rd Southbound					Guinn Rd Eastbound					Guinn Rd Westbound					Int. Total
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 10:00 AM - 02:00 PM																					
Peak Hour for Entire Intersection Begins at 12:45 PM																					
12:45 PM	0	0	0	0	0	0	0	2	0	2	1	7	0	0	8	0	11	0	0	11	21
1:00 PM	0	0	0	0	0	0	0	0	0	0	1	6	0	0	7	0	4	1	0	5	12
1:15 PM	0	0	0	0	0	0	0	7	0	7	3	5	0	0	8	0	5	0	0	5	20
1:30 PM	0	0	0	0	0	1	0	2	0	3	1	9	0	0	10	0	10	0	0	10	23
Total Volume	0	0	0	0	0	1	0	11	0	12	6	27	0	0	33	0	30	1	0	31	76
% App. Total	0.0	0.0	0.0	0.0	0	8.3	0.0	91.7	0.0	100	18.2	81.8	0.0	0.0	100	0.0	96.8	3.2	0.0	100	
PHF						0.429					0.825					0.705		0.826			
Cars, PU, Vans	0	0	0	0	0	1	0	11	0	12	6	26	0	0	32	0	28	1	0	29	73
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	100.0	100.0	96.3	0.0	0.0	97.0	0.0	93.3	100.0	0.0	93.5	96.1
Heavy trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	2	3
%Heavy trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	0.0	0.0	3.0	0.0	6.7	0.0	0.0	6.5	3.9

PM

Start Time	Old Solway Rd Northbound					Old Solway Rd Southbound					Guinn Rd Eastbound					Guinn Rd Westbound					Int. Total
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 02:00 PM - 07:00 PM																					
Peak Hour for Entire Intersection Begins at 04:45 PM																					
4:45 PM	0	0	0	0	0	1	0	7	0	8	0	21	0	0	21	0	15	0	0	15	44
5:00 PM	0	0	0	0	0	1	0	2	0	3	0	6	0	0	6	0	25	0	0	25	34
5:15 PM	0	0	0	0	0	0	0	6	0	6	1	11	0	0	12	0	11	0	0	11	29
5:30 PM	0	0	0	0	0	0	0	5	0	5	3	12	0	0	15	0	15	0	0	15	35
Total Volume	0	0	0	0	0	2	0	20	0	22	4	50	0	0	54	0	66	0	0	66	142
% App. Total	0.0	0.0	0.0	0.0	0	9.1	0.0	90.9	0.0	100	7.4	92.6	0.0	0.0	100	0.0	100.0	0.0	0.0	100	
PHF						0.688					0.643					0.660		0.807			
Cars, PU, Vans	0	0	0	0	0	2	0	20	0	22	4	46	0	0	50	0	63	0	0	63	135
% Cars, PU, Vans	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	0.0	100.0	100.0	92.0	0.0	0.0	92.6	0.0	95.5	0.0	0.0	95.5	95.1
Heavy trucks	0	0	0	0	0	0	0	0	0	0	0	4	0	3	0	0	0	3	0	7	
%Heavy trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	0.0	0.0	7.4	0.0	4.5	0.0	0.0	4.5	4.9

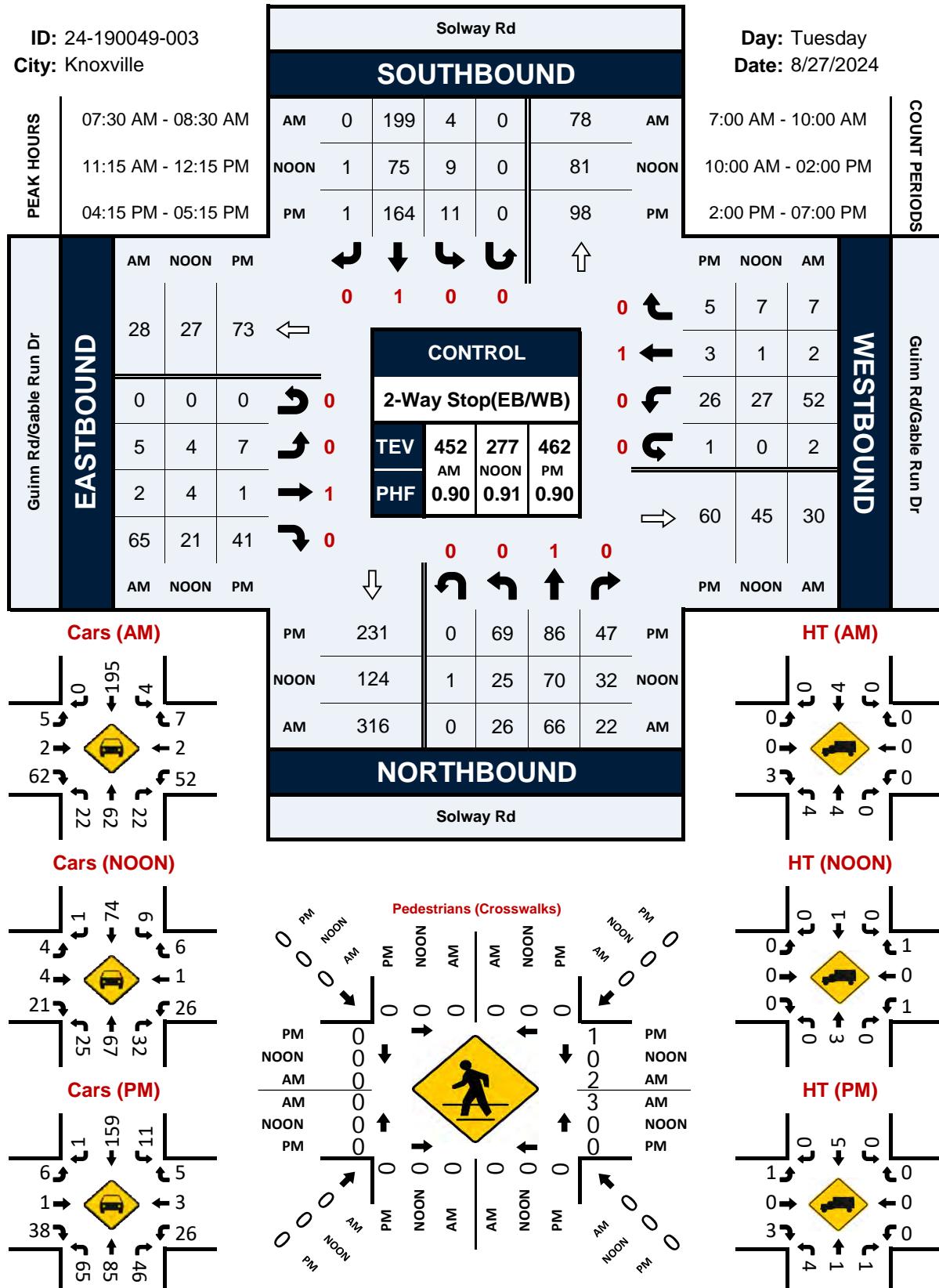
**Solway Rd & Guinn Rd/Gable Run Dr****Peak Hour Turning Movement Count**

ID: 24-190049-003

City: Knoxville

Day: Tuesday

Date: 8/27/2024



Project ID: 24-190049-003  
 Location: Solway Rd & Guinn Rd/Gable Run Dr  
 City: Knoxville

Day: Tuesday  
 Date: 8/27/2024

Groups Printed - Cars, PU, Vans - Heavy Trucks																										
Start Time	Solway Rd Northbound						Solway Rd Southbound						Guinn Rd/Gable Run Dr Eastbound						Guinn Rd/Gable Run Dr Westbound							
	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Int. Total	
7:00 AM	0	13	4	0	0	17	1	34	0	0	0	35	3	0	13	0	0	16	11	0	3	0	0	14	82	
7:15 AM	3	3	2	0	0	8	0	24	0	0	0	24	1	0	20	0	0	21	28	4	3	0	0	35	88	
7:30 AM	2	16	4	0	0	22	0	39	0	0	0	39	1	0	15	0	0	16	11	0	0	0	0	11	88	
7:45 AM	7	18	9	0	0	34	4	45	0	0	0	49	0	1	23	0	0	24	16	1	2	0	0	0	19	126
Total	12	50	19	0	0	81	5	142	0	0	0	147	5	1	71	0	0	77	66	5	8	0	0	0	79	384
8:00 AM	10	7	4	0	0	21	0	59	0	0	0	59	3	0	13	0	0	16	18	1	3	2	5	24	120	
8:15 AM	7	25	5	0	0	37	0	56	0	0	0	56	1	1	14	0	0	16	7	0	2	0	0	0	9	118
8:30 AM	6	17	6	0	0	29	1	28	0	0	0	29	0	0	13	0	0	13	11	1	2	0	0	0	14	85
8:45 AM	2	16	1	0	0	19	1	18	0	0	0	19	0	0	7	0	0	7	7	0	1	0	0	0	8	53
Total	25	65	16	0	0	106	2	161	0	0	0	163	4	1	47	0	0	52	43	2	8	2	5	55	376	
9:00 AM	3	9	6	0	0	18	0	15	0	0	0	15	0	0	9	0	0	9	9	0	0	0	0	0	9	51
9:15 AM	10	12	0	0	0	22	1	22	0	0	0	23	0	0	10	0	0	10	6	0	1	0	0	0	7	62
9:30 AM	8	15	5	0	0	28	0	40	0	0	0	40	0	0	13	0	0	13	9	0	1	0	0	0	10	91
9:45 AM	5	17	8	0	0	30	0	31	0	0	0	31	1	0	7	0	0	8	6	0	2	0	0	0	8	77
Total	26	53	19	0	0	98	1	108	0	0	0	109	1	0	39	0	0	40	30	0	4	0	0	0	34	281
***BREAK***																										
10:00 AM	3	10	7	0	0	20	0	20	0	0	0	20	1	0	11	0	0	12	4	0	4	0	0	0	8	60
10:15 AM	5	8	3	0	0	16	0	13	0	0	0	13	1	1	7	0	0	9	4	1	2	0	0	0	7	45
10:30 AM	5	9	2	0	0	16	0	13	0	0	0	13	0	1	6	0	0	7	6	0	3	0	0	0	9	45
10:45 AM	5	13	5	0	0	23	0	12	0	0	0	12	0	0	8	0	0	8	5	1	1	0	0	0	7	50
Total	18	40	17	0	0	75	0	58	0	0	0	58	2	2	32	0	0	36	19	2	10	0	0	0	31	200
11:00 AM	9	15	8	0	0	32	1	18	0	0	0	19	0	0	7	0	0	7	5	0	1	0	0	0	6	64
11:15 AM	3	17	9	1	0	30	5	15	0	0	0	20	2	1	5	0	0	8	3	1	1	0	0	0	5	63
11:30 AM	5	15	10	0	0	30	0	28	0	0	0	28	1	0	7	0	0	8	8	0	2	0	0	0	10	76
11:45 AM	7	17	4	0	0	28	2	21	0	0	0	23	1	2	6	0	0	9	8	0	2	0	0	0	10	70
Total	24	64	31	1	0	120	8	82	0	0	0	90	4	3	25	0	0	32	24	1	6	0	0	0	31	273
12:00 PM	10	21	9	0	0	40	2	11	1	0	0	14	0	1	3	0	0	4	8	0	2	0	0	0	10	68
12:15 PM	6	6	11	0	0	23	3	12	0	0	0	15	0	0	5	0	0	5	1	0	2	0	0	0	3	46
12:30 PM	10	9	7	0	0	26	2	15	0	0	0	17	0	0	11	0	0	11	11	0	2	0	0	0	13	67
12:45 PM	11	20	5	0	0	36	0	13	0	0	0	13	0	0	6	0	0	6	5	0	1	0	0	0	6	61
Total	37	56	32	0	0	125	7	51	1	0	0	59	0	1	25	0	0	26	25	0	7	0	0	0	32	242
1:00 PM	3	20	5	0	0	28	0	20	2	0	0	22	1	0	5	0	0	6	13	0	1	0	0	0	14	70
1:15 PM	5	24	5	0	0	34	1	18	0	0	0	19	1	0	4	0	0	5	5	0	0	1	0	0	6	64
1:30 PM	10	26	7	0	0	43	1	14	1	0	0	16	3	0	7	0	0	10	4	0	3	0	0	0	7	76
1:45 PM	6	14	5	0	0	25	2	17	0	0	0	19	2	1	4	0	0	7	5	0	0	0	0	0	5	56
Total	24	84	22	0	0	130	4	69	3	0	0	76	7	1	20	0	0	28	27	0	4	1	0	0	32	266
***BREAK***																										
2:00 PM	9	16	6	0	0	31	2	21	0	0	0	23	2	0	7	0	0	9	4	0	1	0	0	0	5	68
2:15 PM	5	18	10	0	0	33	1	23	0	0	0	24	0	0	8	0	0	8	5	0	0	0	0	0	5	70
2:30 PM	9	18	5	0	0	32	1	18	0	0	0	19	1	1	5	0	0	7	4	0	2	0	0	0	6	64
2:45 PM	14	26	4	0	0	44	0	24	3	0	0	27	0	0	4	0	0	4	4	0	3	2	0	0	9	84
Total	37	78	25	0	0	140	4	86	3	0	0	93	3	1	24	0	0	28	17	0	6	2	0	0	25	286
3:00 PM	11	23	3	0	0	37	1	18	0	0	0	19	1	3	5	0	0	9	5	1	2	4	1	0	12	77
3:15 PM	10	18	5	0	0	33	1	21	0	0	0	22	0	0	9	0	0	9	8	0	0	0	0	0	8	72
3:30 PM	14	15	9	0	0	38	1	31	0	0	0	32	0	0	10	0	0	10	6	2	0	0	0	0	8	88
3:45 PM	9	34	9	0	0	52	1	43	0	0	0	44	4	5	9	0	0	18	6	0	0	0	0	0	6	120
Total	44	90	26	0	0	160	4	113	0	0	0	117	5	8	33	0	0	46	25	3	2	4	1	0	34	357
4:00 PM	10	28	11	0	0	49	4	32	0	0	0	36	2	1	6	0	0	9	7	0	0	0	0	0	7	101
4:15 PM	20	21	9	0	0	50	5	46	0	0	0	51	1	0	3	0	0	4	4	0	2	1	0	0	7	112
4:30 PM	11	25	15	0	0	51	1	48	0	0	0	49	1	1	14	0	0	16	8	2	2	0	0	0	12	128
4:45 PM	15	19	8	0	0	42	3	39	0	0	0	42	2	0	20	0	0	22	6	0	0	0	0	0	6	112
Total	56	93	43	0	0	192	13	165	0	0	0	178	6	2	43	0	0	51	25	2	4	1	0	0	32	453
5:00 PM	23	21	15	0	0	59	2	31	1	0	0	34	3	0	4	0	0	7	8	1	1	0	1	0	10	110
5:15 PM	11	25	6	0	0	42	1	35	0	0	0	36	0	0	9	0	0	9	6	0	1	0	0	0	7	94
5:30 PM	14	18	16	0	0	48	2	38	1	0	0	41	2	1	11	0	0	14	6	0	0	0	0	0	6	109

5:45 PM	18	24	8	0	0	50	4	40	0	0	0	44	1	0	1	0	0	2	5	0	1	0	0	6	102	
Total	66	88	45	0	0	199	9	144	2	0	0	155	6	1	25	0	0	32	25	1	3	0	1	29	415	
6:00 PM	20	17	16	0	0	53	2	32	0	0	0	34	0	1	11	0	0	12	7	0	0	0	0	7	106	
6:15 PM	9	22	11	0	0	42	4	29	0	0	0	33	0	0	9	0	0	9	10	1	0	0	0	0	11	95
6:30 PM	9	18	8	0	0	35	2	23	0	0	0	25	0	0	3	0	0	3	8	0	1	0	0	0	9	72
6:45 PM	11	19	8	0	0	38	1	14	0	0	0	15	0	0	3	0	0	3	7	0	1	0	0	0	8	64
Total	49	76	43	0	0	168	9	98	0	0	0	107	0	1	26	0	0	27	32	1	2	0	0	35	337	
Grand Total	418	837	338	1	0	1594	66	1277	9	0	0	1352	43	22	410	0	0	475	358	17	64	10	7	449	3870	
Apprch %	26.2	52.5	21.2	0.1	0.0		4.9	94.5	0.7	0.0	0.0		9.1	4.6	86.3	0.0	0.0		79.7	3.8	14.3	2.2	1.6			
Total %	10.8	21.6	8.7	0.0	0.0	41.2	1.7	33.0	0.2	0.0	0.0	34.9	1.1	0.6	10.6	0.0	0.0	12.3	9.3	0.4	1.7	0.3	0.2	11.6		
Cars, PU, Vans	398	820	328	0		1546	66	1248	7	0		1321	40	21	401	0		462	356	17	61	10		444	3773	
% Cars, PU, Vans	95.2	98.0	97.0	0.0			97.0	100.0	97.7	77.8	0.0		97.7	93.0	95.5	97.8	0.0		97.3	99.4	100.0	95.3	100.0		98.9	97.5
Heavy trucks	20	17	10	1		48	0	29	2	0		31	3	1	9	0		13	2	0	3	0		5	97	
%Heavy trucks	4.8	2.0	3.0	100.0			3.0	0.0	2.3	22.2	0.0		2.3	7.0	4.5	2.2	0.0		2.7	0.6	0.0	4.7	0.0		1.1	2.5

Project ID: 24-190049-003  
 Location: Solway Rd & Guinn Rd/Gable Run Dr  
 City: Knoxville

## PEAK HOURS

Day: Tuesday  
 Date: 8/27/2024

AM

	Solway Rd Northbound					Solway Rd Southbound					Guinn Rd/Gable Run Dr Eastbound					Guinn Rd/Gable Run Dr Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 10:00 AM																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
7:30 AM	2	16	4	0	22	0	39	0	0	39	1	0	15	0	16	11	0	0	0	11	88
7:45 AM	7	18	9	0	34	4	45	0	0	49	0	1	23	0	24	16	1	2	0	19	126
8:00 AM	10	7	4	0	21	0	59	0	0	59	3	0	13	0	16	18	1	3	2	24	120
8:15 AM	7	25	5	0	37	0	56	0	0	56	1	1	14	0	16	7	0	2	0	9	118
Total Volume	26	66	22	0	114	4	199	0	0	203	5	2	65	0	72	52	2	7	2	63	452
% App. Total	22.8	57.9	19.3	0.0	100	2.0	98.0	0.0	0.0	100	6.9	2.8	90.3	0.0	100	82.5	3.2	11.1	3.2	100	
PHF	0.770					0.860					0.750					0.656					0.897
Cars, PU, Vans	22	62	22	0	106	4	195	0	0	199	5	2	62	0	69	52	2	7	2	63	437
% Cars, PU, Vans	84.6	93.9	100.0	0.0	93.0	100.0	98.0	0.0	0.0	98.0	100.0	100.0	95.4	0.0	95.8	100.0	100.0	100.0	100.0	100.0	96.7
Heavy trucks	4	4	0	0	8	0	4	0	0	4	0	0	3	0	3	0	0	0	0	0	15
% Heavy trucks	15.4	6.1	0.0	0.0	7.0	0.0	2.0	0.0	0.0	2.0	0.0	0.0	4.6	0.0	4.2	0.0	0.0	0.0	0.0	0.0	3.3

NOON

	Solway Rd Northbound					Solway Rd Southbound					Guinn Rd/Gable Run Dr Eastbound					Guinn Rd/Gable Run Dr Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 10:00 AM - 02:00 PM																					
Peak Hour for Entire Intersection Begins at 11:15 AM																					
11:15 AM	3	17	9	1	30	5	15	0	0	20	2	1	5	0	8	3	1	1	0	5	63
11:30 AM	5	15	10	0	30	0	28	0	0	28	1	0	7	0	8	8	0	2	0	10	76
11:45 AM	7	17	4	0	28	2	21	0	0	23	1	2	6	0	9	8	0	2	0	10	70
12:00 PM	10	21	9	0	40	2	11	1	0	14	0	1	3	0	4	8	0	2	0	10	68
Total Volume	25	70	32	1	128	9	75	1	0	85	4	4	21	0	29	27	1	7	0	35	277
% App. Total	19.5	54.7	25.0	0.8	100	10.6	88.2	1.2	0.0	100	13.8	13.8	72.4	0.0	100	77.1	2.9	20.0	0.0	100	
PHF	0.800					0.759					0.806					0.875					0.911
Cars, PU, Vans	25	67	32	0	124	9	74	1	0	84	4	4	21	0	29	26	1	6	0	33	270
% Cars, PU, Vans	100.0	95.7	100.0	0.0	96.9	100.0	98.7	100.0	0.0	98.8	100.0	100.0	100.0	0.0	100.0	96.3	100.0	85.7	0.0	94.3	97.5
Heavy trucks	0	3	0	1	4	0	1	0	0	1	0	0	0	0	0	1	0	1	0	2	7
% Heavy trucks	0.0	4.3	0.0	100.0	3.1	0.0	1.3	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	3.7	0.0	14.3	0.0	5.7	2.5

PM

	Solway Rd Northbound					Solway Rd Southbound					Guinn Rd/Gable Run Dr Eastbound					Guinn Rd/Gable Run Dr Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 02:00 PM - 07:00 PM																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
4:15 PM	20	21	9	0	50	5	46	0	0	51	1	0	3	0	4	4	0	2	1	7	112
4:30 PM	11	25	15	0	51	1	48	0	0	49	1	1	14	0	16	8	2	2	0	12	128
4:45 PM	15	19	8	0	42	3	39	0	0	42	2	0	20	0	22	6	0	0	0	6	112
5:00 PM	23	21	15	0	59	2	31	1	0	34	3	0	4	0	7	8	1	1	0	10	110
Total Volume	69	86	47	0	202	11	164	1	0	176	7	1	41	0	49	26	3	5	1	35	462
% App. Total	34.2	42.6	23.3	0.0	100	6.3	93.2	0.6	0.0	100	14.3	2.0	83.7	0.0	100	74.3	8.6	14.3	2.9	100	
PHF	0.856					0.863					0.557					0.729					0.902
Cars, PU, Vans	65	85	46	0	196	11	159	1	0	171	6	1	38	0	45	26	3	5	1	35	447
% Cars, PU, Vans	94.2	98.8	97.9	0.0	97.0	100.0	97.0	100.0	0.0	97.2	85.7	100.0	92.7	0.0	91.8	100.0	100.0	100.0	100.0	100.0	96.8
Heavy trucks	4	1	1	0	6	0	5	0	0	5	1	0	3	0	4	0	0	0	0	0	15
% Heavy trucks	5.8	1.2	2.1	0.0	3.0	0.0	3.0	0.0	0.0	2.8	14.3	0.0	7.3	0.0	8.2	0.0	0.0	0.0	0.0	0.0	3.2

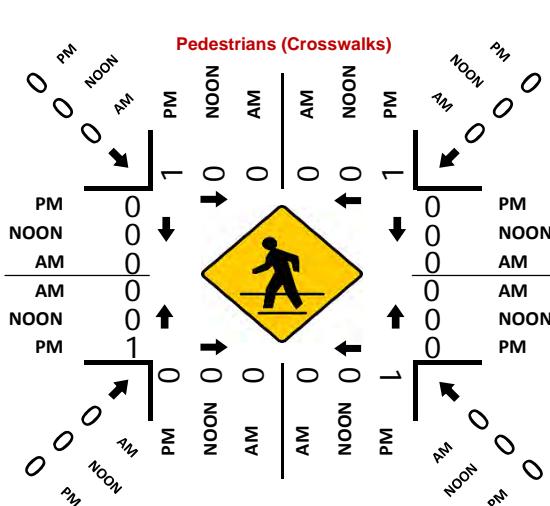
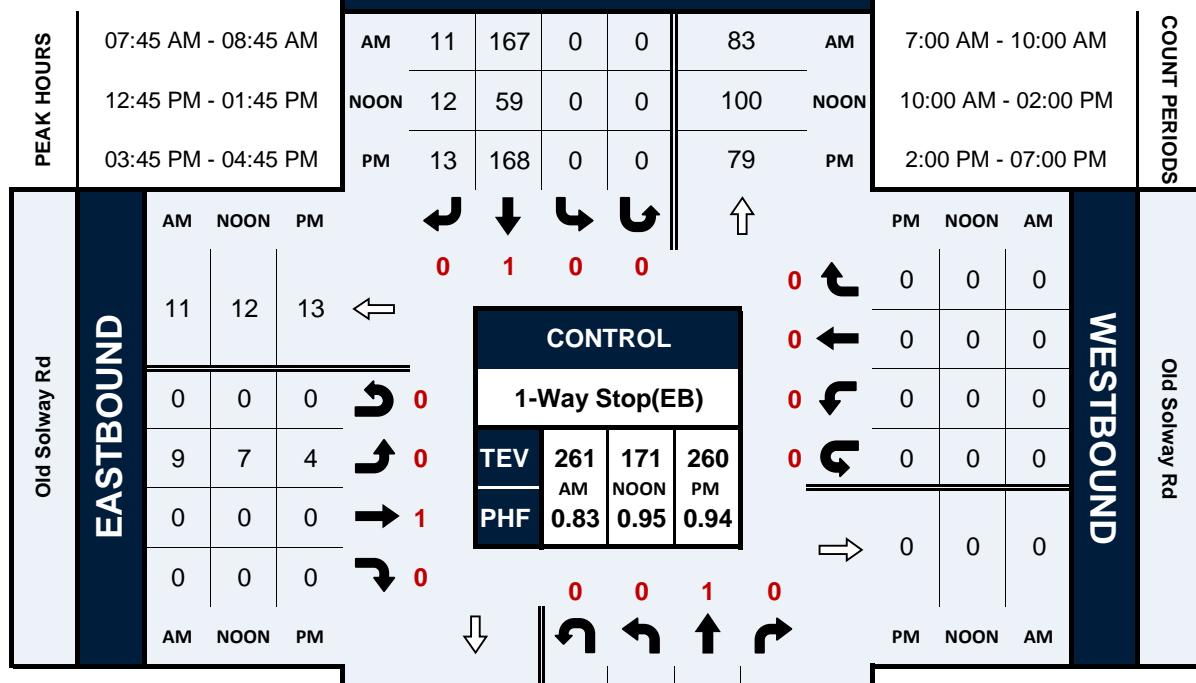
**Solway Rd & Old Solway Rd****Peak Hour Turning Movement Count**

ID: 24-190049-004

City: Knoxville

Day: Tuesday

Date: 8/27/2024



Project ID: 24-190049-004  
 Location: Solway Rd & Old Solway Rd  
 City: Knoxville

Day: Tuesday  
 Date: 8/27/2024

Groups Printed - Cars, PU, Vans - Heavy Trucks																									
Start Time	Solway Rd Northbound						Solway Rd Southbound						Old Solway Rd Eastbound					Old Solway Rd Westbound					Int. Total		
	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	
7:00 AM	0	18	0	0	0	18	0	17	0	0	0	17	1	0	0	0	0	1	0	0	0	0	0	0	36
7:15 AM	0	7	0	0	0	7	0	19	1	0	0	20	1	0	0	0	0	1	0	0	0	0	0	0	28
7:30 AM	0	13	0	0	0	13	0	26	2	0	0	28	1	0	0	0	0	1	0	0	0	0	0	0	42
7:45 AM	0	18	0	0	0	18	0	41	5	0	0	46	1	0	0	0	0	1	0	0	0	0	0	0	65
Total	0	56	0	0	0	56	0	103	8	0	0	111	4	0	0	0	0	4	0	0	0	0	0	0	171
8:00 AM	0	12	0	0	0	12	0	55	1	0	0	56	4	0	0	0	0	4	0	0	0	0	0	0	72
8:15 AM	0	23	0	0	0	23	0	50	3	0	0	53	3	0	0	0	0	3	0	0	0	0	0	0	79
8:30 AM	0	21	0	0	0	21	0	21	2	0	0	23	1	0	0	0	0	1	0	0	0	0	0	0	45
8:45 AM	0	17	0	0	0	17	0	11	3	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	31
Total	0	73	0	0	0	73	0	137	9	0	0	146	8	0	0	0	0	8	0	0	0	0	0	0	227
9:00 AM	0	8	0	0	0	8	0	13	1	0	0	14	2	0	0	0	0	2	0	0	0	0	0	0	24
9:15 AM	0	14	0	0	0	14	0	24	2	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	40
9:30 AM	0	14	0	0	0	14	0	34	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	48
9:45 AM	0	18	0	0	0	18	0	29	4	0	0	33	1	0	0	0	0	1	0	0	0	0	0	0	52
Total	0	54	0	0	0	54	0	100	7	0	0	107	3	0	0	0	0	3	0	0	0	0	0	0	164
***BREAK***																									
10:00 AM	0	11	0	0	0	11	0	18	1	0	0	19	2	0	0	0	0	2	0	0	0	0	0	0	32
10:15 AM	0	8	0	0	0	8	0	9	2	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	19
10:30 AM	0	9	0	0	0	9	0	8	3	0	0	11	2	0	0	0	0	2	0	0	0	0	0	0	22
10:45 AM	2	11	0	0	0	13	0	13	1	0	0	14	2	0	0	0	0	2	0	0	0	0	0	0	29
Total	2	39	0	0	0	41	0	48	7	0	0	55	6	0	0	0	0	6	0	0	0	0	0	0	102
11:00 AM	0	14	0	0	0	14	0	10	0	0	0	10	1	0	0	0	0	1	0	0	0	0	0	0	25
11:15 AM	1	16	0	0	0	17	0	20	1	0	0	21	3	0	0	0	0	3	0	0	0	0	0	0	41
11:30 AM	0	20	0	0	0	20	0	25	1	0	0	26	0	0	0	0	0	0	0	0	0	0	0	0	46
11:45 AM	0	13	0	0	0	13	0	23	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	36
Total	1	63	0	0	0	64	0	78	2	0	0	80	4	0	0	0	0	4	0	0	0	0	0	0	148
12:00 PM	0	21	0	0	0	21	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	32
12:15 PM	0	9	0	0	0	9	0	14	1	0	0	15	1	0	0	0	0	1	0	0	0	0	0	0	25
12:30 PM	0	10	0	0	0	10	0	14	1	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	25
12:45 PM	0	21	0	0	0	21	0	16	2	0	0	18	1	0	0	0	0	1	0	0	0	0	0	0	40
Total	0	61	0	0	0	61	0	55	4	0	0	59	2	0	0	0	0	2	0	0	0	0	0	0	122
1:00 PM	0	23	0	0	0	23	0	17	0	0	0	17	2	0	0	0	0	2	0	0	0	0	0	0	42
1:15 PM	0	20	0	0	0	20	0	14	7	0	0	21	3	0	0	0	0	3	0	0	0	0	0	0	44
1:30 PM	0	29	0	0	0	29	0	12	3	0	0	15	1	0	0	0	0	1	0	0	0	0	0	0	45
1:45 PM	0	13	0	0	0	13	0	13	2	0	0	15	1	0	0	0	0	1	0	0	0	0	0	0	29
Total	0	85	0	0	0	85	0	56	12	0	0	68	7	0	0	0	0	7	0	0	0	0	0	0	160
***BREAK***																									
2:00 PM	0	15	0	0	0	15	0	18	3	0	0	21	2	0	0	0	0	2	0	0	0	0	0	0	38
2:15 PM	0	11	0	0	0	11	0	23	2	0	0	25	2	0	0	0	0	2	0	0	0	0	0	0	38
2:30 PM	0	17	0	0	0	17	0	15	2	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	34
2:45 PM	0	23	0	0	0	23	0	27	2	0	0	29	2	0	0	0	0	2	0	0	0	0	0	0	54
Total	0	66	0	0	0	66	0	83	9	0	0	92	6	0	0	0	0	6	0	0	0	0	0	0	164
3:00 PM	0	20	0	0	0	20	0	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	32
3:15 PM	0	12	0	0	0	12	0	20	1	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	33
3:30 PM	1	11	0	0	0	12	0	24	6	0	0	30	1	0	0	0	0	1	0	0	0	0	0	0	43
3:45 PM	0	22	0	0	1	22	0	43	3	0	2	46	1	0	0	0	0	1	1	0	0	0	0	0	69
Total	1	65	0	0	1	66	0	99	10	0	2	109	2	0	0	0	1	2	0	0	0	0	0	0	177
4:00 PM	0	20	0	0	0	20	0	35	6	0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	61
4:15 PM	0	13	0	0	0	13	0	48	2	0	0	50	3	0	0	0	0	3	0	0	0	0	0	0	66
4:30 PM	0	20	0	0	0	20	0	42	2	0	0	44	0	0	0	0	0	0	0	0	0	0	0	0	64
4:45 PM	2	12	0	0	0	14	0	37	6	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	57
Total	2	65	0	0	0	67	0	162	16	0	0	178	3	0	0	0	0	3	0	0	0	0	0	0	248
5:00 PM	0	17	0	0	0	17	0	31	3	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	51
5:15 PM	0	16	0	0	0	16	0	36	6	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	58
5:30 PM	0	13	0	0	0	13	0	35	5	0	0	40	1	0	0	0	0	1	0	0	0	0	0	0	54

5:45 PM	0	22	0	0	0	22	0	38	3	0	0	41	2	0	0	0	0	2	0	0	0	0	0	0	65
Total	0	68	0	0	0	68	0	140	17	0	0	157	3	0	0	0	0	3	0	0	0	0	0	0	228
6:00 PM	0	11	0	0	0	11	0	35	4	0	0	39	1	0	0	0	0	1	0	0	0	0	0	0	51
6:15 PM	0	10	0	0	0	10	0	27	4	0	0	31	2	0	0	0	0	2	0	0	0	0	0	0	43
6:30 PM	0	15	0	0	0	15	0	23	4	0	0	27	2	0	0	0	0	2	0	0	0	0	0	0	44
6:45 PM	1	9	0	0	0	10	0	12	3	0	0	15	1	0	0	0	0	1	0	0	0	0	0	0	26
Total	1	45	0	0	0	46	0	97	15	0	0	112	6	0	0	0	0	6	0	0	0	0	0	0	164
Grand Total	7	740	0	0	3	747	0	1158	116	0	2	1274	54	0	0	0	1	54	0	0	0	0	0	0	2075
Apprch %	0.9	99.1	0.0	0.0	0.4		0.0	90.9	9.1	0.0	0.2		100.0	0.0	0.0	0.0	1.9		0.0	0.0	0.0	0.0	0.0	0.0	
Total %	0.3	35.7	0.0	0.0	0.1	36.0	0.0	55.8	5.6	0.0	0.1	61.4	2.6	0.0	0.0	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	
Cars, PU, Vans	7	717	0	0		724	0	1127	113	0		1240	54	0	0	0		54	0	0	0	0	0	0	2018
% Cars, PU, Vans	100.0	96.9	0.0	0.0		96.9	0.0	97.3	97.4	0.0		97.3	100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0	0.0	0.0	0.0	97.3
Heavy trucks	0	23	0	0		23	0	31	3	0		34	0	0	0	0		0	0	0	0	0	0	0	57
%Heavy trucks	0.0	3.1	0.0	0.0		3.1	0.0	2.7	2.6	0.0		2.7	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7

Project ID: 24-190049-004  
 Location: Solway Rd & Old Solway Rd  
 City: Knoxville

## PEAK HOURS

Day: Tuesday  
 Date: 8/27/2024

AM

	Solway Rd Northbound					Solway Rd Southbound					Old Solway Rd Eastbound					Old Solway Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 10:00 AM																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
7:45 AM	0	18	0	0	18	0	41	5	0	46	1	0	0	0	1	0	0	0	0	0	65
8:00 AM	0	12	0	0	12	0	55	1	0	56	4	0	0	0	4	0	0	0	0	0	72
8:15 AM	0	23	0	0	23	0	50	3	0	53	3	0	0	0	3	0	0	0	0	0	79
8:30 AM	0	21	0	0	21	0	21	2	0	23	1	0	0	0	1	0	0	0	0	0	45
Total Volume	0	74	0	0	74	0	167	11	0	178	9	0	0	0	9	0	0	0	0	0	261
% App. Total	0.0	100.0	0.0	0.0	100	0.0	93.8	6.2	0.0	100	100.0	0.0	0.0	0.0	100	0.0	0.0	0.0	0.0	0	0
PHF		0.804					0.795					0.563									0.829
Cars, PU, Vans	0	70	0	0	70	0	161	11	0	172	9	0	0	0	9	0	0	0	0	0	251
% Cars, PU, Vans	0.0	94.6	0.0	0.0	94.6	0.0	96.4	100.0	0.0	96.6	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	96.2
Heavy trucks	0	4	0	0	4	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	10
%Heavy trucks	0.0	5.4	0.0	0.0	5.4	0.0	3.6	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8

NOON

	Solway Rd Northbound					Solway Rd Southbound					Old Solway Rd Eastbound					Old Solway Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 10:00 AM - 12:00 PM																					
Peak Hour for Entire Intersection Begins at 12:45 PM																					
12:45 PM	0	21	0	0	21	0	16	2	0	18	1	0	0	0	1	0	0	0	0	0	40
1:00 PM	0	23	0	0	23	0	17	0	0	17	2	0	0	0	2	0	0	0	0	0	42
1:15 PM	0	20	0	0	20	0	14	7	0	21	3	0	0	0	3	0	0	0	0	0	44
1:30 PM	0	29	0	0	29	0	12	3	0	15	1	0	0	0	1	0	0	0	0	0	45
Total Volume	0	93	0	0	93	0	59	12	0	71	7	0	0	0	7	0	0	0	0	0	171
% App. Total	0.0	100.0	0.0	0.0	100	0.0	83.1	16.9	0.0	100	100.0	0.0	0.0	0.0	100	0.0	0.0	0.0	0.0	0	0
PHF		0.802					0.845					0.583									0.950
Cars, PU, Vans	0	90	0	0	90	0	56	12	0	68	7	0	0	0	7	0	0	0	0	0	165
% Cars, PU, Vans	0.0	96.8	0.0	0.0	96.8	0.0	94.9	100.0	0.0	95.8	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	96.5
Heavy trucks	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	6
%Heavy trucks	0.0	3.2	0.0	0.0	3.2	0.0	5.1	0.0	0.0	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5

PM

	Solway Rd Northbound					Solway Rd Southbound					Old Solway Rd Eastbound					Old Solway Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 02:00 PM - 07:00 PM																					
Peak Hour for Entire Intersection Begins at 03:45 PM																					
3:45 PM	0	22	0	0	22	0	43	3	0	46	1	0	0	0	1	0	0	0	0	0	69
4:00 PM	0	20	0	0	20	0	35	6	0	41	0	0	0	0	0	0	0	0	0	0	61
4:15 PM	0	13	0	0	13	0	48	2	0	50	3	0	0	0	3	0	0	0	0	0	66
4:30 PM	0	20	0	0	20	0	42	2	0	44	0	0	0	0	0	0	0	0	0	0	64
Total Volume	0	75	0	0	75	0	168	13	0	181	4	0	0	0	4	0	0	0	0	0	260
% App. Total	0.0	100.0	0.0	0.0	100	0.0	92.8	7.2	0.0	100	100.0	0.0	0.0	0.0	100	0.0	0.0	0.0	0.0	0	0
PHF		0.852					0.905					0.333									0.942
Cars, PU, Vans	0	72	0	0	72	0	163	12	0	175	4	0	0	0	4	0	0	0	0	0	251
% Cars, PU, Vans	0.0	96.0	0.0	0.0	96.0	0.0	97.0	92.3	0.0	96.7	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	96.5
Heavy trucks	0	3	0	0	3	0	5	1	0	6	0	0	0	0	0	0	0	0	0	0	9
%Heavy trucks	0.0	4.0	0.0	0.0	4.0	0.0	3.0	7.7	0.0	3.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5

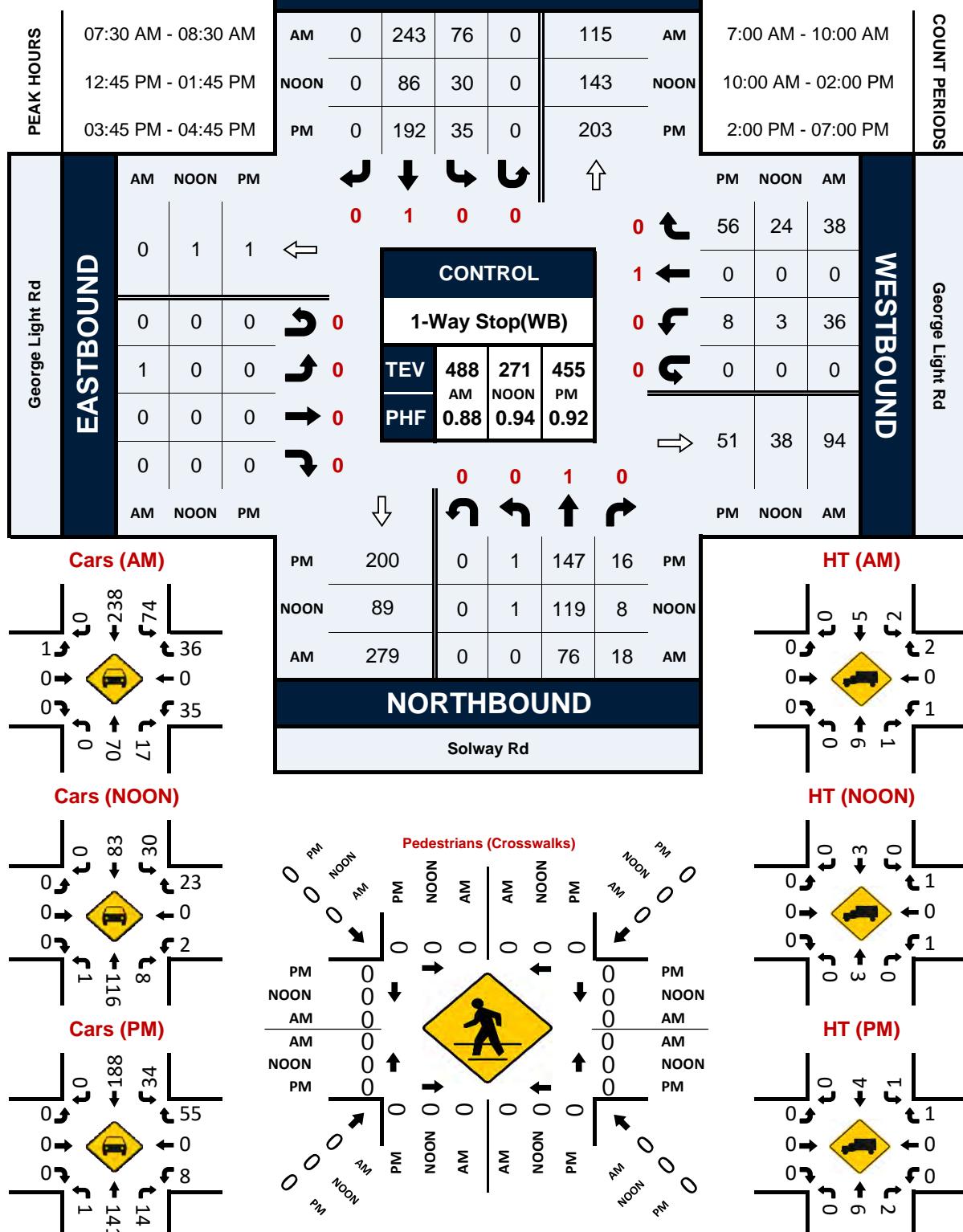
**Solway Rd & George Light Rd****Peak Hour Turning Movement Count**

ID: 24-190049-005

City: Knoxville

Day: Tuesday

Date: 8/27/2024



Groups Printed - Cars, PU, Vans - Heavy Trucks																									
Start Time	Solway Rd Northbound						Solway Rd Southbound						George Light Rd Eastbound					George Light Rd Westbound					Int. Total		
	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	
7:00 AM	0	13	2	0	0	15	18	38	0	0	0	56	0	0	0	0	0	0	3	0	4	0	0	7	78
7:15 AM	0	8	1	0	0	9	28	42	0	0	0	70	0	0	0	0	0	0	2	0	0	0	0	2	81
7:30 AM	0	16	7	0	0	23	23	43	0	0	0	66	0	0	0	0	0	0	5	0	6	0	0	11	100
7:45 AM	0	23	3	0	0	26	22	58	0	0	0	80	1	0	0	0	0	1	7	0	12	0	0	19	126
Total	0	60	13	0	0	73	91	181	0	0	0	272	1	0	0	0	0	1	17	0	22	0	0	39	385
8:00 AM	0	16	4	0	0	20	13	78	0	0	0	91	0	0	0	0	0	0	7	0	6	0	0	13	124
8:15 AM	0	21	4	0	0	25	18	64	0	0	0	82	0	0	0	0	0	0	17	0	14	0	0	31	138
8:30 AM	0	21	2	0	0	23	22	31	0	0	0	53	0	0	0	0	0	0	6	0	9	0	0	15	91
8:45 AM	0	18	2	0	0	20	10	22	0	0	0	32	0	0	0	0	0	0	1	0	2	0	0	3	55
Total	0	76	12	0	0	88	63	195	0	0	0	258	0	0	0	0	0	0	31	0	31	0	0	62	408
9:00 AM	0	9	2	0	0	11	9	26	0	0	0	35	0	0	0	0	0	0	2	0	9	0	0	11	57
9:15 AM	0	12	3	0	0	15	11	25	0	0	0	36	0	0	0	0	0	0	0	0	9	0	0	9	60
9:30 AM	0	14	5	0	0	19	16	46	0	0	0	62	0	0	0	0	0	0	1	0	13	0	0	14	95
9:45 AM	0	21	1	0	0	22	11	31	0	0	0	42	0	1	0	0	0	1	3	0	8	0	0	11	76
Total	0	56	11	0	0	67	47	128	0	0	0	175	0	1	0	0	0	1	6	0	39	0	0	45	288
<b>***BREAK***</b>																									
10:00 AM	0	14	3	0	0	17	7	28	0	0	0	35	0	0	0	0	0	0	0	0	6	0	0	6	58
10:15 AM	0	12	1	0	2	13	11	17	0	0	0	28	0	0	0	0	0	0	0	0	7	0	0	7	48
10:30 AM	0	11	3	0	0	14	13	12	0	0	0	25	0	0	0	0	0	0	3	0	4	0	0	7	46
10:45 AM	0	15	0	0	0	15	8	17	0	0	0	25	0	0	0	0	0	0	1	0	7	0	0	8	48
Total	0	52	7	0	2	59	39	74	0	0	0	113	0	0	0	0	0	0	4	0	24	0	0	28	200
11:00 AM	0	24	2	0	0	26	11	17	0	0	0	28	0	0	0	0	0	0	1	0	9	0	0	10	64
11:15 AM	0	16	1	0	0	17	5	22	0	0	0	27	0	0	0	0	0	0	1	0	12	0	0	13	57
11:30 AM	0	25	4	0	0	29	6	30	0	0	0	36	0	0	0	0	0	0	1	0	10	0	0	11	76
11:45 AM	0	16	2	0	0	18	9	30	0	0	0	39	0	0	0	0	0	0	0	0	6	0	0	6	63
Total	0	81	9	0	0	90	31	99	0	0	0	130	0	0	0	0	0	0	3	0	37	0	0	40	260
12:00 PM	0	26	0	0	0	26	6	17	0	0	0	23	0	0	0	0	0	0	2	0	14	0	0	16	65
12:15 PM	0	14	4	0	0	18	6	11	0	0	0	17	0	0	0	0	0	0	1	0	9	0	0	10	45
12:30 PM	0	16	2	0	0	18	8	29	0	0	0	37	0	0	0	0	0	0	1	0	9	0	0	10	65
12:45 PM	0	29	3	0	0	32	11	14	0	0	0	25	0	0	0	0	0	0	1	0	7	0	0	8	65
Total	0	85	9	0	0	94	31	71	0	0	0	102	0	0	0	0	0	0	5	0	39	0	0	44	240
1:00 PM	0	26	3	0	0	29	7	30	0	0	0	37	0	0	0	0	0	0	0	0	6	0	0	6	72
1:15 PM	1	29	0	0	0	30	5	23	0	0	0	28	0	0	0	0	0	0	1	0	4	0	0	5	63
1:30 PM	0	35	2	0	0	37	7	19	0	0	0	26	0	0	0	0	0	0	1	0	7	0	0	8	71
1:45 PM	0	17	2	0	0	19	6	17	0	0	0	23	0	0	0	0	0	0	2	0	10	0	0	12	54
Total	1	107	7	0	0	115	25	89	0	0	0	114	0	0	0	0	0	0	4	0	27	0	0	31	260
<b>***BREAK***</b>																									
2:00 PM	1	19	3	0	0	23	8	26	0	0	0	34	0	0	0	0	0	0	3	0	9	0	0	12	69
2:15 PM	0	21	2	0	0	23	6	30	0	1	0	37	0	0	0	0	0	0	3	0	12	0	0	15	75
2:30 PM	0	17	1	0	0	18	4	23	0	0	0	27	0	0	0	0	0	0	1	0	13	0	0	14	59
2:45 PM	0	28	4	0	0	32	3	29	0	0	0	32	0	1	0	0	0	1	1	0	17	0	0	18	83
Total	1	85	10	0	0	96	21	108	0	1	0	130	0	1	0	0	0	1	8	0	51	0	0	59	286
3:00 PM	0	29	2	0	0	31	5	20	0	0	0	25	0	0	0	0	0	0	2	0	5	0	0	7	63
3:15 PM	0	24	3	0	0	27	10	26	0	0	0	36	0	0	0	0	0	0	1	0	9	0	0	10	73
3:30 PM	0	24	1	0	0	25	10	35	0	0	0	45	0	0	0	0	0	0	2	0	9	0	0	11	81
3:45 PM	0	44	3	0	0	47	11	50	0	0	0	61	0	0	0	0	0	0	1	0	9	0	0	10	118
Total	0	121	9	0	0	130	36	131	0	0	0	167	0	0	0	0	0	0	6	0	32	0	0	38	335
4:00 PM	0	38	5	0	0	43	7	36	0	0	0	43	0	0	0	0	0	0	4	0	16	0	0	20	106
4:15 PM	1	31	4	0	0	36	8	47	0	0	0	55	0	0	0	0	0	0	2	0	15	0	0	17	108
4:30 PM	0	34	4	0	0	38	9	59	0	0	0	68	0	0	0	0	0	0	1	0	16	0	0	17	123
4:45 PM	0	28	1	0	0	29	13	55	0	0	0	68	0	0	1	0	0	1	0	0	15	0	0	15	113
Total	1	131	14	0	0	146	37	197	0	0	0	234	0	0	1	0	0	1	7	0	62	0	0	69	450
5:00 PM	0	30	5	0	0	35	9	34	0	0	0	43	0	0	0	0	0	0	3	0	27	0	0	30	108
5:15 PM	0	30	5	0	0	35	9	39	0	0	0	48	0	0	0	0	0	0	1	0	16	0	0	17	100
5:30 PM	0	30	5	1	0	36	8	52	0	0	0	60	0	1	0	0	0	1	3	0	16	0	0	19	116

5:45 PM	0	33	0	0	0	33	8	37	0	0	0	45	0	0	0	0	0	0	2	0	18	0	0	20	98
Total	0	123	15	1	0	139	34	162	0	0	0	196	0	1	0	0	0	1	9	0	77	0	0	86	422
6:00 PM	0	33	2	0	0	35	4	44	0	0	0	48	0	0	0	0	0	0	0	0	21	0	0	21	104
6:15 PM	0	26	3	0	0	29	10	40	0	0	0	50	0	0	0	0	0	0	1	0	15	0	0	16	95
6:30 PM	0	20	4	0	0	24	5	30	0	0	0	35	0	1	0	0	0	1	3	0	17	0	0	20	80
6:45 PM	0	26	3	0	0	29	0	23	0	0	0	23	0	0	0	0	0	0	0	0	11	0	0	11	63
Total	0	105	12	0	0	117	19	137	0	0	0	156	0	1	0	0	0	1	4	0	64	0	0	68	342
Grand Total	3	1082	128	1	2	1214	474	1572	0	1	0	2047	1	4	1	0	0	6	104	0	505	0	0	609	3876
Apprch %	0.2	89.1	10.5	0.1	0.2		23.2	76.8	0.0	0.0	0.0		16.7	66.7	16.7	0.0	0.0	17.1	0.0	82.9	0.0	0.0	0.0		
Total %	0.1	27.9	3.3	0.0	0.1	31.3	12.2	40.6	0.0	0.0	0.0	52.8	0.0	0.1	0.0	0.0	0.2	2.7	0.0	13.0	0.0	0.0	0.0	15.7	
Cars, PU, Vans	3	1049	118	1		1171	468	1538	0	0		2006	1	4	1	0	6	94	0	491	0		585	3768	
% Cars, PU, Vans	100.0	97.0	92.2	100.0			96.5	98.7	97.8	0.0	0.0		98.0	100.0	100.0	100.0	0.0	100.0	90.4	0.0	97.2	0.0		96.1	97.2
Heavy trucks	0	33	10	0		43	6	34	0	1		41	0	0	0	0	0	0	10	0	14	0		24	108
%Heavy trucks	0.0	3.0	7.8	0.0		3.5	1.3	2.2	0.0	100.0		2.0	0.0	0.0	0.0	0.0	0.0	9.6	0.0	2.8	0.0		3.9	2.8	

Project ID: 24-190049-005  
 Location: Solway Rd & George Light Rd  
 City: Knoxville

## PEAK HOURS

Day: Tuesday  
 Date: 8/27/2024

AM

	Solway Rd Northbound					Solway Rd Southbound					George Light Rd Eastbound					George Light Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 10:00 AM																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
7:30 AM	0	16	7	0	23	23	43	0	0	66	0	0	0	0	0	5	0	6	0	11	100
7:45 AM	0	23	3	0	26	22	58	0	0	80	1	0	0	0	1	7	0	12	0	19	126
8:00 AM	0	16	4	0	20	13	78	0	0	91	0	0	0	0	0	7	0	6	0	13	124
8:15 AM	0	21	4	0	25	18	64	0	0	82	0	0	0	0	0	17	0	14	0	31	138
Total Volume	0	76	18	0	94	76	243	0	0	319	1	0	0	0	1	36	0	38	0	74	488
% App. Total	0.0	80.9	19.1	0.0	100	23.8	76.2	0.0	0.0	100	100.0	0.0	0.0	0.0	100	48.6	0.0	51.4	0.0	100	
PHF		0.904					0.876					0.250						0.597		0.884	
Cars, PU, Vans	0	70	17	0	87	74	238	0	0	312	1	0	0	0	1	35	0	36	0	71	471
% Cars, PU, Vans	0.0	92.1	94.4	0.0	92.6	97.4	97.9	0.0	0.0	97.8	100.0	0.0	0.0	0.0	100.0	97.2	0.0	94.7	0.0	95.9	96.5
Heavy trucks	0	6	1	0	7	2	5	0	0	7	0	0	0	0	0	1	0	2	0	3	17
%Heavy trucks	0.0	7.9	5.6	0.0	7.4	2.6	2.1	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	2.8	0.0	5.3	0.0	4.1	3.5

NOON

	Solway Rd Northbound					Solway Rd Southbound					George Light Rd Eastbound					George Light Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 10:00 AM - 02:00 PM																					
Peak Hour for Entire Intersection Begins at 12:45 PM																					
12:45 PM	0	29	3	0	32	11	14	0	0	25	0	0	0	0	0	1	0	7	0	8	65
1:00 PM	0	26	3	0	29	7	30	0	0	37	0	0	0	0	0	0	0	6	0	6	72
1:15 PM	1	29	0	0	30	5	23	0	0	28	0	0	0	0	0	1	0	4	0	5	63
1:30 PM	0	35	2	0	37	7	19	0	0	26	0	0	0	0	0	1	0	7	0	8	71
Total Volume	1	119	8	0	128	30	86	0	0	116	0	0	0	0	0	3	0	24	0	27	271
% App. Total	0.8	93.0	6.3	0.0	100	25.9	74.1	0.0	0.0	100	0.0	0.0	0.0	0.0	0	11.1	0.0	88.9	0.0	100	
PHF		0.865				0.784											0.844		0.941		
Cars, PU, Vans	1	116	8	0	125	30	83	0	0	113	0	0	0	0	0	2	0	23	0	25	263
% Cars, PU, Vans	100.0	97.5	100.0	0.0	97.7	100.0	96.5	0.0	0.0	97.4	0.0	0.0	0.0	0.0	0	66.7	0.0	95.8	0.0	92.6	97.0
Heavy trucks	0	3	0	0	3	0	3	0	0	3	0	0	0	0	0	1	0	1	0	2	8
%Heavy trucks	0.0	2.5	0.0	0.0	2.3	0.0	3.5	0.0	0.0	2.6	0.0	0.0	0.0	0.0	0	33.3	0.0	4.2	0.0	7.4	3.0

PM

	Solway Rd Northbound					Solway Rd Southbound					George Light Rd Eastbound					George Light Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 02:00 PM - 07:00 PM																					
Peak Hour for Entire Intersection Begins at 03:45 PM																					
3:45 PM	0	44	3	0	47	11	50	0	0	61	0	0	0	0	0	1	0	9	0	10	118
4:00 PM	0	38	5	0	43	7	36	0	0	43	0	0	0	0	0	4	0	16	0	20	106
4:15 PM	1	31	4	0	36	8	47	0	0	55	0	0	0	0	0	2	0	15	0	17	108
4:30 PM	0	34	4	0	38	9	59	0	0	68	0	0	0	0	0	1	0	16	0	17	123
Total Volume	1	147	16	0	164	35	192	0	0	227	0	0	0	0	0	8	0	56	0	64	455
% App. Total	0.6	89.6	9.8	0.0	100	15.4	84.6	0.0	0.0	100	0.0	0.0	0.0	0.0	0	12.5	0.0	87.5	0.0	100	
PHF		0.872				0.835											0.800		0.925		
Cars, PU, Vans	1	141	14	0	156	34	188	0	0	222	0	0	0	0	0	8	0	55	0	63	441
% Cars, PU, Vans	100.0	95.9	87.5	0.0	95.1	97.1	97.9	0.0	0.0	97.8	0.0	0.0	0.0	0.0	0	100.0	0.0	98.2	0.0	98.4	96.9
Heavy trucks	0	6	2	0	8	1	4	0	0	5	0	0	0	0	0	0	0	1	0	1	14
%Heavy trucks	0.0	4.1	12.5	0.0	4.9	2.9	21	0.0	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	1.6	3.1

# Solway Rd & Sam Lee Rd

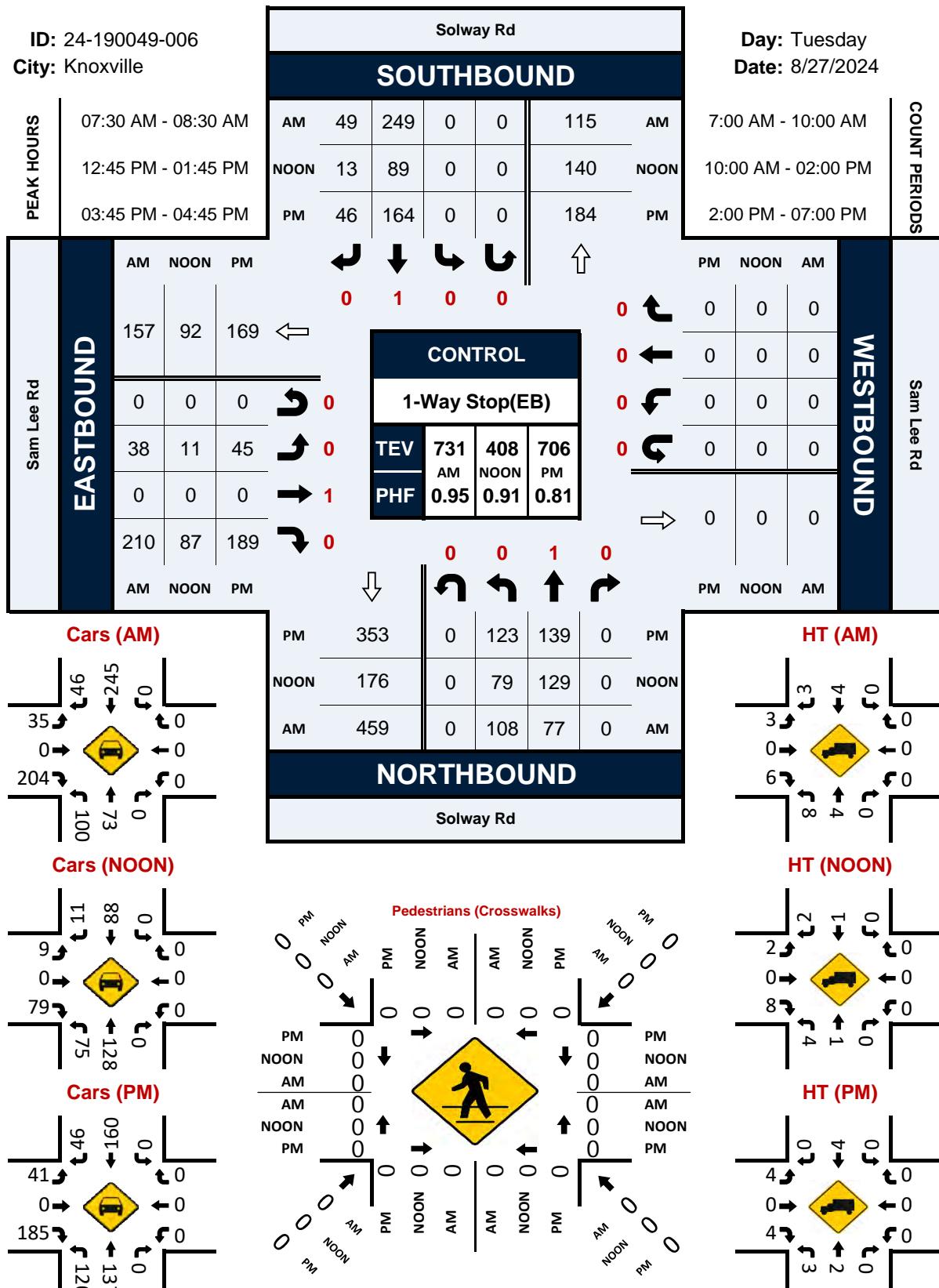
## Peak Hour Turning Movement Count

ID: 24-190049-006

City: Knoxville

Day: Tuesday

Date: 8/27/2024



Groups Printed - Cars, PU, Vans - Heavy Trucks

Start Time	Solway Rd Northbound						Solway Rd Southbound						Sam Lee Rd Eastbound						Sam Lee Rd Westbound						Int. Total
	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	
7:00 AM	15	12	0	0	0	27	0	34	6	0	0	40	5	0	50	0	0	55	0	0	0	0	0	0	122
7:15 AM	18	12	0	0	0	30	0	49	8	0	0	57	0	0	72	0	0	72	0	0	0	0	0	0	159
7:30 AM	34	17	0	0	0	51	0	47	6	0	0	53	12	0	54	0	0	66	0	0	0	0	0	0	170
7:45 AM	39	22	0	0	0	61	0	56	16	0	0	72	10	0	47	0	0	57	0	0	0	0	0	0	190
Total	106	63	0	0	0	169	0	186	36	0	0	222	27	0	223	0	0	250	0	0	0	0	0	0	641
8:00 AM	23	20	0	0	0	43	0	75	16	0	0	91	5	0	54	0	0	59	0	0	0	0	0	0	193
8:15 AM	12	18	0	0	0	30	0	71	11	0	0	82	11	0	55	0	0	66	0	0	0	0	0	0	178
8:30 AM	15	19	0	0	0	34	0	38	8	0	0	46	5	0	31	0	0	36	0	0	0	0	0	0	116
8:45 AM	10	16	0	0	0	26	0	22	2	0	0	24	8	0	25	0	0	33	0	0	0	0	0	0	83
Total	60	73	0	0	0	133	0	206	37	0	0	243	29	0	165	0	0	194	0	0	0	0	0	0	570
9:00 AM	19	7	0	0	0	26	0	21	4	0	0	25	0	0	20	0	0	20	0	0	0	0	0	0	71
9:15 AM	16	12	0	0	0	28	0	26	5	0	0	31	3	0	26	0	0	29	0	0	0	0	0	0	88
9:30 AM	11	18	0	0	0	29	0	43	1	0	0	44	3	0	28	0	0	31	0	0	0	0	0	0	104
9:45 AM	14	19	0	0	0	33	0	41	1	0	0	42	3	0	24	0	0	27	0	0	0	0	0	0	102
Total	60	56	0	0	0	116	0	131	11	0	0	142	9	0	98	0	0	107	0	0	0	0	0	0	365
<b>***BREAK***</b>																									
10:00 AM	8	18	0	0	0	26	0	20	8	0	0	28	3	0	19	0	0	22	0	0	0	0	0	0	76
10:15 AM	6	10	0	0	0	16	0	19	3	0	0	22	3	0	15	0	0	18	0	0	0	0	0	0	56
10:30 AM	9	15	0	0	0	24	0	15	1	0	0	16	2	0	11	0	0	13	0	0	0	0	0	0	53
10:45 AM	12	13	0	0	0	25	0	19	4	0	0	23	2	0	12	0	0	14	0	0	0	0	0	0	62
Total	35	56	0	0	0	91	0	73	16	0	0	89	10	0	57	0	0	67	0	0	0	0	0	0	247
11:00 AM	11	23	0	0	0	34	0	12	5	0	0	17	2	0	14	0	0	16	0	0	0	0	0	0	67
11:15 AM	12	17	0	0	0	29	0	25	3	0	0	28	4	0	13	0	0	17	0	0	0	0	0	0	74
11:30 AM	11	28	0	0	0	39	0	31	4	0	0	35	3	0	22	0	0	25	0	0	0	0	0	0	99
11:45 AM	21	22	0	0	0	43	0	29	2	0	0	31	2	0	22	0	0	24	0	0	0	0	0	0	98
Total	55	90	0	0	0	145	0	97	14	0	0	111	11	0	71	0	0	82	0	0	0	0	0	0	338
12:00 PM	19	24	0	0	0	43	0	18	1	0	0	19	1	0	17	0	0	18	0	0	0	0	0	0	80
12:15 PM	14	22	0	0	0	36	0	16	3	0	0	19	1	0	19	0	0	20	0	0	0	0	0	0	75
12:30 PM	20	18	0	0	0	38	0	22	5	0	0	27	3	0	13	0	0	16	0	0	0	0	0	0	81
12:45 PM	23	35	0	0	0	58	0	20	3	0	0	23	1	0	12	0	0	13	0	0	0	0	0	0	94
Total	76	99	0	0	0	175	0	76	12	0	0	88	6	0	61	0	0	67	0	0	0	0	0	0	330
1:00 PM	12	26	0	0	0	38	0	21	5	0	0	26	4	0	33	0	0	37	0	0	0	0	0	0	101
1:15 PM	19	30	0	0	0	49	0	26	5	0	0	31	3	0	29	0	0	32	0	0	0	0	0	0	112
1:30 PM	25	38	0	0	0	63	0	22	0	0	0	22	3	0	13	0	0	16	0	0	0	0	0	0	101
1:45 PM	23	19	0	0	0	42	0	20	3	0	0	23	3	0	21	0	0	24	0	0	0	0	0	0	89
Total	79	113	0	0	0	192	0	89	13	0	0	102	13	0	96	0	0	109	0	0	0	0	0	0	403
<b>***BREAK***</b>																									
2:00 PM	18	24	0	0	0	42	0	22	8	0	0	30	3	0	16	0	0	19	0	0	0	0	0	0	91
2:15 PM	15	19	0	0	0	34	0	26	10	0	0	36	1	0	17	0	0	18	0	0	0	0	0	0	88
2:30 PM	23	18	0	0	0	41	0	24	4	0	0	28	5	0	18	0	0	23	0	0	0	0	0	0	92
2:45 PM	34	30	0	0	0	64	0	25	9	0	0	34	5	0	23	0	0	28	0	0	0	0	0	0	126
Total	90	91	0	0	0	181	0	97	31	0	0	128	14	0	74	0	0	88	0	0	0	0	0	0	397
3:00 PM	27	31	0	0	0	58	0	20	3	0	0	23	4	0	18	0	0	22	0	0	0	0	0	0	103
3:15 PM	36	28	0	0	0	64	0	20	5	0	0	25	3	0	23	0	0	26	0	0	0	0	0	0	115
3:30 PM	29	25	0	0	0	54	0	32	9	0	0	41	4	0	32	0	0	36	0	0	0	0	0	0	131
3:45 PM	25	38	0	0	0	63	0	37	13	0	0	50	22	0	83	0	0	105	0	0	0	0	0	0	218
Total	117	122	0	0	0	239	0	109	30	0	0	139	33	0	156	0	0	189	0	0	0	0	0	0	567
4:00 PM	24	23	0	0	0	47	0	38	10	0	0	48	17	0	59	0	0	76	0	0	0	0	0	0	171
4:15 PM	41	37	0	0	0	78	0	37	12	0	0	49	5	0	21	0	0	26	0	0	0	0	0	0	153
4:30 PM	33	41	0	0	0	74	0	52	11	0	0	63	1	0	26	0	0	27	0	0	0	0	0	0	164
4:45 PM	20	30	0	0	0	50	0	57	6	0	0	63	5	0	29	0	0	34	0	0	0	0	0	0	147
Total	118	131	0	0	0	249	0	184	39	0	0	223	28	0	135	0	0	163	0	0	0	0	0	0	635
5:00 PM	23	38	0	0	0	61	0	32	10	0	0	42	6	0	10	0	0	16	0	0	0	0	0	0	119
5:15 PM	32	33	0	0	0	65	0	43	7	0	0	50	4	0	24	0	0	28	0	0	0	0	0	0	143
5:30 PM	25	38	0	0	0	63	0	56	7	0	0	63	4	0	27	0	0	31	0	0	0	0	0	0	157

5:45 PM	27	34	0	0	0	61	0	40	7	0	0	47	3	0	32	0	0	35	0	0	0	0	0	0	143
Total	107	143	0	0	0	250	0	171	31	0	0	202	17	0	93	0	0	110	0	0	0	0	0	0	562
6:00 PM	30	34	0	0	0	64	0	37	5	0	0	42	3	0	24	0	0	27	0	0	0	0	0	0	133
6:15 PM	24	23	0	0	0	47	0	41	7	0	0	48	5	0	30	0	0	35	0	0	0	0	0	0	130
6:30 PM	20	24	0	0	0	44	0	31	4	0	0	35	3	0	13	0	0	16	0	0	0	0	0	0	95
6:45 PM	20	34	0	0	0	54	0	29	3	0	0	32	2	0	9	0	0	11	0	0	0	0	0	0	97
Total	94	115	0	0	0	209	0	138	19	0	0	157	13	0	76	0	0	89	0	0	0	0	0	0	455
Grand Total	997	1152	0	0	0	2149	0	1557	289	0	0	1846	210	0	1305	0	0	1515	0	0	0	0	0	0	5510
Apprch %	46.4	53.6	0.0	0.0	0.0	0.0	0.0	84.3	15.7	0.0	0.0	0.0	13.9	0.0	86.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total %	18.1	20.9	0.0	0.0	0.0	39.0	0.0	28.3	5.2	0.0	0.0	33.5	3.8	0.0	23.7	0.0	0.0	27.5	0.0	0.0	0.0	0.0	0.0	0.0	
Cars, PU, Vans	955	1123	0	0	0	2078	0	1525	277	0	1802	196	0	1252	0	0	1448	0	0	0	0	0	0	5328	
% Cars, PU, Vans	95.8	97.5	0.0	0.0	0.0	96.7	0.0	97.9	95.8	0.0	97.6	93.3	0.0	95.9	0.0	0.0	95.6	0.0	0.0	0.0	0.0	0.0	0.0	96.7	
Heavy trucks	42	29	0	0	0	71	0	32	12	0	44	14	0	53	0	0	67	0	0	0	0	0	0	182	
%Heavy trucks	4.2	2.5	0.0	0.0	0.0	3.3	0.0	2.1	4.2	0.0	2.4	6.7	0.0	4.1	0.0	0.0	4.4	0.0	0.0	0.0	0.0	0.0	0.0	3.3	

Project ID: 24-190049-006  
 Location: Solway Rd & Sam Lee Rd  
 City: Knoxville

## PEAK HOURS

Day: Tuesday  
 Date: 8/27/2024

AM

Start Time	Solway Rd Northbound					Solway Rd Southbound					Sam Lee Rd Eastbound					Sam Lee Rd Westbound					Int. Total
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 10:00 AM																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
7:30 AM	34	17	0	0	51	0	47	6	0	53	12	0	54	0	66	0	0	0	0	0	170
7:45 AM	39	22	0	0	61	0	56	16	0	72	10	0	47	0	57	0	0	0	0	0	190
8:00 AM	23	20	0	0	43	0	75	16	0	91	5	0	54	0	59	0	0	0	0	0	193
8:15 AM	12	18	0	0	30	0	71	11	0	82	11	0	55	0	66	0	0	0	0	0	178
Total Volume	108	77	0	0	185	0	249	49	0	298	38	0	210	0	248	0	0	0	0	0	731
% App. Total	58.4	41.6	0.0	0.0	100	0.0	83.6	16.4	0.0	100	15.3	0.0	84.7	0.0	100	0.0	0.0	0.0	0.0	0.0	0
PHF	0.758					0.819					0.939					0.947					
Cars, PU, Vans	100	73	0	0	173	0	245	46	0	291	35	0	204	0	239	0	0	0	0	0	703
% Cars, PU, Vans	92.6	94.8	0.0	0.0	93.5	0.0	98.4	93.9	0.0	97.7	92.1	0.0	97.1	0.0	96.4	0.0	0.0	0.0	0.0	0.0	96.2
Heavy trucks	8	4	0	0	12	0	4	3	0	7	3	0	6	0	9	0	0	0	0	0	28
%Heavy trucks	7.4	5.2	0.0	0.0	6.5	0.0	1.6	6.1	0.0	2.3	7.9	0.0	2.9	0.0	3.6	0.0	0.0	0.0	0.0	0.0	3.8

NOON

Start Time	Solway Rd Northbound					Solway Rd Southbound					Sam Lee Rd Eastbound					Sam Lee Rd Westbound					Int. Total
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 10:00 AM - 02:00 PM																					
Peak Hour for Entire Intersection Begins at 12:45 PM																					
12:45 PM	23	35	0	0	58	0	20	3	0	23	1	0	12	0	13	0	0	0	0	0	94
1:00 PM	12	26	0	0	38	0	21	5	0	26	4	0	33	0	37	0	0	0	0	0	101
1:15 PM	19	30	0	0	49	0	26	5	0	31	3	0	29	0	32	0	0	0	0	0	112
1:30 PM	25	38	0	0	63	0	22	0	0	22	3	0	13	0	16	0	0	0	0	0	101
Total Volume	79	129	0	0	208	0	89	13	0	102	11	0	87	0	98	0	0	0	0	0	408
% App. Total	38.0	62.0	0.0	0.0	100	0.0	87.3	12.7	0.0	100	11.2	0.0	88.8	0.0	100	0.0	0.0	0.0	0.0	0.0	0
PHF	0.825					0.823					0.662					0.911					
Cars, PU, Vans	75	128	0	0	203	0	88	11	0	99	9	0	79	0	88	0	0	0	0	0	390
% Cars, PU, Vans	94.9	99.2	0.0	0.0	97.6	0.0	98.9	84.6	0.0	97.1	81.8	0.0	90.8	0.0	89.8	0.0	0.0	0.0	0.0	0.0	95.6
Heavy trucks	4	1	0	0	5	0	1	2	0	3	2	0	8	0	10	0	0	0	0	0	18
%Heavy trucks	5.1	0.8	0.0	0.0	2.4	0.0	1.1	15.4	0.0	2.9	18.2	0.0	9.2	0.0	10.2	0.0	0.0	0.0	0.0	0.0	4.4

PM

Start Time	Solway Rd Northbound					Solway Rd Southbound					Sam Lee Rd Eastbound					Sam Lee Rd Westbound					Int. Total
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 02:00 PM - 07:00 PM																					
Peak Hour for Entire Intersection Begins at 03:45 PM																					
3:45 PM	25	38	0	0	63	0	37	13	0	50	22	0	83	0	105	0	0	0	0	0	218
4:00 PM	24	23	0	0	47	0	38	10	0	48	17	0	59	0	76	0	0	0	0	0	171
4:15 PM	41	37	0	0	78	0	37	12	0	49	5	0	21	0	26	0	0	0	0	0	153
4:30 PM	33	41	0	0	74	0	52	11	0	63	1	0	26	0	27	0	0	0	0	0	164
Total Volume	123	139	0	0	262	0	164	46	0	210	45	0	189	0	234	0	0	0	0	0	706
% App. Total	46.9	53.1	0.0	0.0	100	0.0	78.1	21.9	0.0	100	19.2	0.0	80.8	0.0	100	0.0	0.0	0.0	0.0	0.0	0
PHF	0.840					0.833					0.557					0.810					
Cars, PU, Vans	120	137	0	0	257	0	160	46	0	206	41	0	185	0	226	0	0	0	0	0	689
% Cars, PU, Vans	97.6	98.6	0.0	0.0	98.1	0.0	97.6	100.0	0.0	98.1	91.1	0.0	97.9	0.0	96.6	0.0	0.0	0.0	0.0	0.0	97.6
Heavy trucks	3	2	0	0	5	0	4	0	0	4	4	0	4	0	8	0	0	0	0	0	17
%Heavy trucks	2.4	1.4	0.0	0.0	1.9	0.0	2.4	0.0	0.0	1.9	8.9	0.0	2.1	0.0	3.4	0.0	0.0	0.0	0.0	0.0	2.4

# Steele Rd/Swafford Rd & Sam Lee Rd

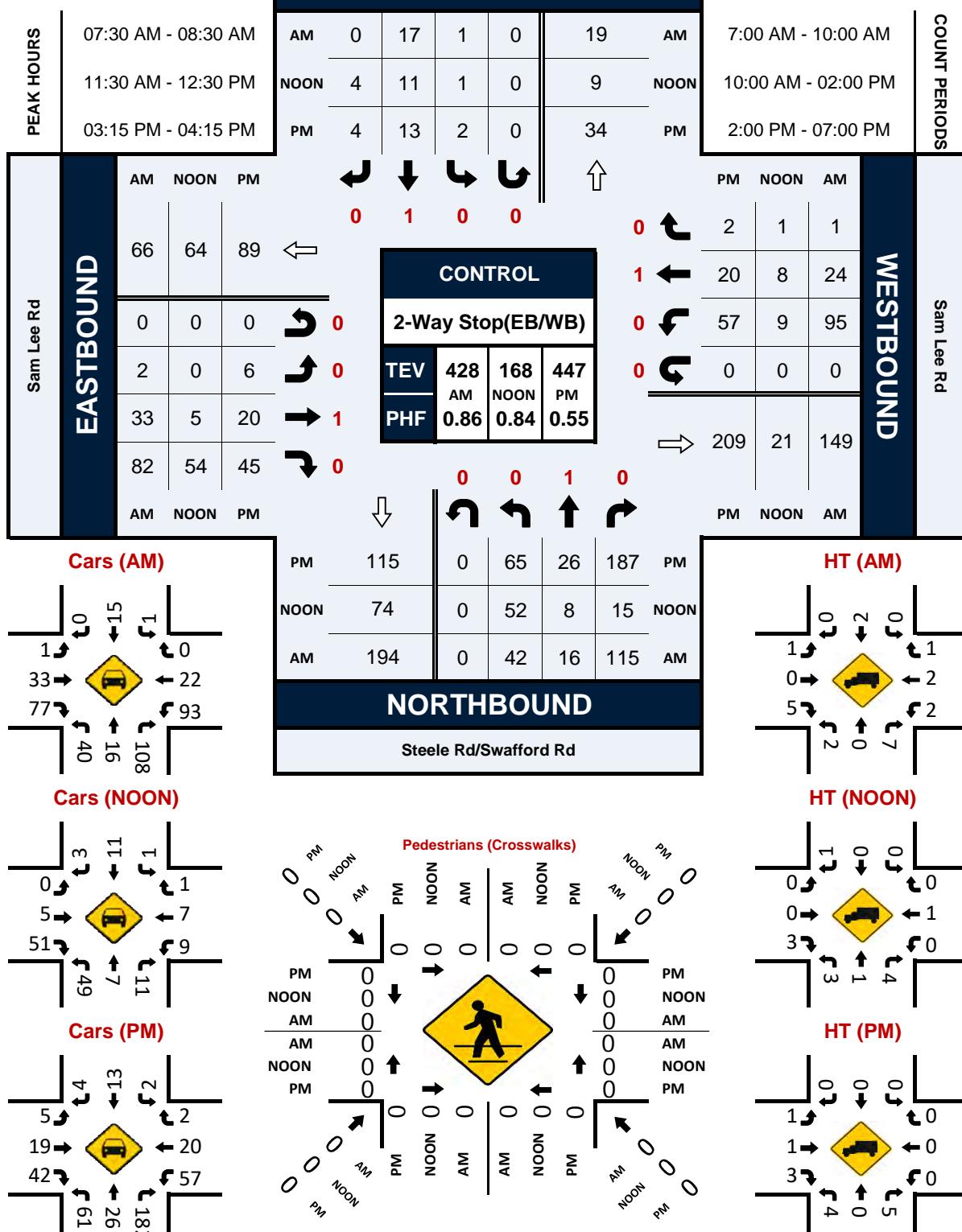
## Peak Hour Turning Movement Count

ID: 24-190049-007

City: Knoxville

Day: Tuesday

Date: 8/27/2024



Groups Printed - Cars, PU, Vans - Heavy Trucks																															
Start Time	Steele Rd/Swafford Rd Northbound						Steele Rd/Swafford Rd Southbound						Sam Lee Rd Eastbound						Sam Lee Rd Westbound						Int. Total						
	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total							
7:00 AM	7	2	7	0	0	16	0	5	0	0	0	5	0	8	24	0	0	32	6	2	0	0	0	8	61						
7:15 AM	9	2	4	0	0	15	0	7	3	0	0	10	1	8	28	0	0	37	12	2	0	0	0	14	76						
7:30 AM	6	6	24	0	0	36	0	3	0	0	0	3	1	10	19	0	0	30	21	5	0	0	0	26	95						
7:45 AM	11	3	23	0	0	37	0	4	0	0	0	4	1	2	21	0	0	24	28	11	1	0	0	40	105						
Total	33	13	58	0	0	104	0	19	3	0	0	22	3	28	92	0	0	123	67	20	1	0	0	0	88	337					
8:00 AM	11	2	34	0	0	47	1	9	0	0	0	10	0	12	21	0	0	33	31	4	0	0	0	0	35	125					
8:15 AM	14	5	34	0	0	53	0	1	0	0	0	1	0	9	21	0	0	30	15	4	0	0	0	0	19	103					
8:30 AM	5	1	5	0	0	11	0	6	2	0	0	8	0	13	10	0	0	23	4	9	0	0	0	0	13	55					
8:45 AM	14	2	2	0	0	18	0	3	1	0	0	4	0	2	13	0	0	15	2	0	0	0	0	0	2	39					
Total	44	10	75	0	0	129	1	19	3	0	0	23	0	36	65	0	0	101	52	17	0	0	0	0	69	322					
9:00 AM	13	1	2	0	0	16	0	1	0	0	0	1	0	1	11	0	0	12	6	1	0	0	0	0	7	36					
9:15 AM	5	0	3	0	0	8	0	1	0	0	0	1	0	1	14	0	0	15	3	5	0	0	0	0	8	32					
9:30 AM	12	1	2	0	0	15	0	4	0	0	0	4	0	1	10	0	0	11	1	2	0	0	0	0	3	33					
9:45 AM	11	5	3	0	0	19	0	3	0	0	0	3	2	0	5	0	0	7	1	1	0	0	0	0	2	31					
Total	41	7	10	0	0	58	0	9	0	0	0	9	2	3	40	0	0	45	11	9	0	0	0	0	20	132					
***BREAK***																															
10:00 AM	13	2	9	0	0	24	0	1	1	0	0	2	0	0	10	0	0	10	3	0	0	0	0	0	3	39					
10:15 AM	9	4	5	0	0	18	0	2	1	0	0	3	0	0	10	0	0	10	7	3	1	0	0	0	11	42					
10:30 AM	9	2	4	0	0	15	0	0	3	0	0	3	1	2	11	0	0	14	3	0	0	0	0	0	3	35					
10:45 AM	15	3	1	0	0	19	0	1	0	0	0	1	0	1	14	0	0	15	6	1	0	0	0	0	7	42					
Total	46	11	19	0	0	76	0	4	5	0	0	9	1	3	45	0	0	49	19	4	1	0	0	0	24	158					
11:00 AM	10	0	2	0	0	12	0	1	0	0	0	1	1	1	12	0	0	14	4	1	0	0	0	0	5	32					
11:15 AM	5	4	1	0	0	10	0	3	0	0	0	3	1	1	15	0	0	17	1	3	0	0	0	0	4	34					
11:30 AM	15	4	7	0	0	26	1	1	1	0	0	3	0	3	15	0	0	18	0	3	0	0	0	0	3	50					
11:45 AM	13	0	0	0	0	13	0	4	1	0	0	5	0	0	17	0	0	17	1	1	0	0	0	0	2	37					
Total	43	8	10	0	0	61	1	9	2	0	0	12	2	5	59	0	0	66	6	8	0	0	0	0	14	153					
12:00 PM	10	3	5	0	0	18	0	4	1	0	0	5	0	1	11	0	0	12	5	4	1	0	0	0	10	45					
12:15 PM	14	1	3	0	0	18	0	2	1	0	0	3	0	1	11	0	0	12	3	0	0	0	0	0	3	36					
12:30 PM	10	2	8	0	0	20	0	2	0	0	0	2	0	0	9	0	0	9	5	1	0	0	0	0	6	37					
12:45 PM	10	2	5	0	0	17	0	2	0	0	0	2	0	3	16	1	0	20	1	3	0	0	0	0	4	43					
Total	44	8	21	0	0	73	0	10	2	0	0	12	0	5	47	1	0	53	14	8	1	0	0	0	23	161					
1:00 PM	8	0	1	0	0	9	1	0	0	0	0	1	0	0	10	0	0	10	4	2	1	2	0	0	9	29					
1:15 PM	6	3	3	0	0	12	0	5	0	0	0	5	0	1	8	0	0	9	5	3	0	0	0	0	8	34					
1:30 PM	10	3	5	0	0	18	0	2	2	0	0	4	0	3	10	0	0	13	1	1	1	0	0	0	3	38					
1:45 PM	20	2	4	0	0	26	0	1	1	0	0	2	0	0	5	23	0	0	28	1	0	0	0	0	1	57					
Total	44	8	13	0	0	65	1	8	3	0	0	12	0	9	51	0	0	60	11	6	2	2	0	0	21	158					
***BREAK***																															
2:00 PM	17	7	4	0	0	28	0	2	1	0	0	3	1	2	10	0	0	13	6	4	1	0	0	0	11	55					
2:15 PM	7	0	1	0	0	8	0	3	1	0	0	4	0	3	5	0	0	8	8	4	0	0	0	0	12	32					
2:30 PM	10	5	2	0	0	17	0	3	1	0	0	4	0	6	12	0	0	18	7	4	0	0	0	0	11	50					
2:45 PM	17	2	7	1	0	27	0	2	0	0	0	2	0	4	14	0	0	18	13	3	0	0	0	0	16	63					
Total	51	14	14	1	0	80	0	10	3	0	0	13	1	15	41	0	0	57	34	15	1	0	0	0	50	200					
3:00 PM	22	7	9	0	0	38	0	3	0	0	0	3	0	7	14	0	0	21	6	4	0	0	0	0	10	72					
3:15 PM	9	3	7	0	0	19	0	4	1	0	0	5	1	3	18	0	0	22	15	7	1	0	0	0	23	69					
3:30 PM	9	7	36	0	0	52	1	5	0	0	0	6	1	7	11	0	0	19	18	3	0	0	0	0	21	98					
3:45 PM	29	14	120	0	0	163	0	3	2	0	0	5	0	4	10	0	0	14	16	7	0	0	0	0	23	205					
Total	69	31	172	0	0	272	1	15	3	0	0	19	2	21	53	0	0	76	55	21	1	0	0	0	77	444					
4:00 PM	18	2	24	0	0	44	1	1	1	0	0	3	4	6	6	0	0	16	8	3	1	0	0	0	12	75					
4:15 PM	17	7	11	0	0	35	0	1	1	0	0	2	0	2	5	0	0	7	10	5	0	0	0	0	15	59					
4:30 PM	17	5	11	0	0	33	1	3	0	0	0	4	0	2	9	0	0	11	7	6	0	0	0	0	13	61					
4:45 PM	10	4	7	0	0	21	0	4	2	0	0	6	0	1	8	0	0	9	7	2	0	0	0	0	9	45					
Total	62	18	53	0	0	133	2	9	4	0	0	15	4	11	28	0	0	43	32	16	1	0	0	0	49	240					
5:00 PM	16	3	12	0	0	31	0	2	1	0	0	3	2	3	12	0	0	17	12	3	0	0	0	0	15	66					
5:15 PM	20	6	8	0	0	34	0	4	0	0	0	4	0	0	15	0	0	15	11	1	1	0	0	0	13	66					
5:30 PM	14	5	13	0	0	32	0	7	0	0	0	7	0	1	8	0	0	9	7	7	0	0	0	0	14	62					

5:45 PM	14	5	10	0	0	29	0	5	1	0	0	6	1	4	11	0	0	16	8	0	0	0	0	8	59	
Total	64	19	43	0	0	126	0	18	2	0	0	20	3	8	46	0	0	57	38	11	1	0	0	50	253	
6:00 PM	18	6	7	1	0	32	2	3	2	0	0	7	0	2	16	0	0	18	6	7	0	0	0	13	70	
6:15 PM	20	6	11	0	0	37	0	4	0	0	0	4	0	2	15	0	0	17	5	6	1	0	0	12	70	
6:30 PM	17	2	3	0	0	22	0	1	1	0	0	2	0	1	6	0	0	7	5	5	0	0	0	10	41	
6:45 PM	16	6	6	0	0	28	0	4	1	0	0	5	0	2	15	0	0	17	2	1	0	0	0	3	53	
Total	71	20	27	1	0	119	2	12	4	0	0	18	0	7	52	0	0	59	18	19	1	0	0	38	234	
Grand Total	612	167	515	2	0	1296	8	142	34	0	0	184	18	151	619	1	0	789	357	154	10	2	0	523	2792	
Apprch %	47.2	12.9	39.7	0.2	0.0		4.3	77.2	18.5	0.0	0.0		2.3	19.1	78.5	0.1	0.0		68.3	29.4	1.9	0.4	0.0			
Total %	21.9	6.0	18.4	0.1	0.0	46.4	0.3	5.1	1.2	0.0	0.0	6.6	0.6	5.4	22.2	0.0	0.0	28.3	12.8	5.5	0.4	0.1	0.0	18.7		
Cars, PU, Vans	577	163	489	2		1231	8	137	30	0		175	16	143	582	1		742	344	146	9	2		501	2649	
% Cars, PU, Vans	94.3	97.6	95.0	100.0			95.0	100.0	96.5	88.2	0.0		95.1	88.9	94.7	94.0	100.0		94.0	96.4	94.8	90.0	100.0		95.8	94.9
Heavy trucks	35	4	26	0		65	0	5	4	0		9	2	8	37	0		47	13	8	1	0		22	143	
%Heavy trucks	5.7	2.4	5.0	0.0			5.0	0.0	3.5	11.8	0.0		4.9	11.1	5.3	6.0	0.0		6.0	3.6	5.2	10.0	0.0		4.2	5.1

Project ID: 24-190049-007

Location: Steele Rd/Swafford Rd & Sam Lee Rd  
City: Knoxville

## PEAK HOURS

Day: Tuesday  
Date: 8/27/2024

AM

	Steele Rd/Swafford Rd Northbound					Steele Rd/Swafford Rd Southbound					Sam Lee Rd Eastbound					Sam Lee Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 10:00 AM																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
7:30 AM	6	6	24	0	36	0	3	0	0	3	1	10	19	0	30	21	5	0	0	26	95
7:45 AM	11	3	23	0	37	0	4	0	0	4	1	2	21	0	24	28	11	1	0	40	105
8:00 AM	11	2	34	0	47	1	9	0	0	10	0	12	21	0	33	31	4	0	0	35	125
8:15 AM	14	5	34	0	53	0	1	0	0	1	0	9	21	0	30	15	4	0	0	19	103
Total Volume	42	16	115	0	173	1	17	0	0	18	2	33	82	0	117	95	24	1	0	120	428
% App. Total	24.3	9.2	66.5	0.0	100	5.6	94.4	0.0	0.0	100	1.7	28.2	70.1	0.0	100	79.2	20.0	0.8	0.0	100	
PHF	0.816					0.450					0.886					0.750					0.856
Cars, PU, Vans	40	16	108	0	164	1	15	0	0	16	1	33	77	0	111	93	22	0	0	115	406
% Cars, PU, Vans	95.2	100.0	93.9	0.0	94.8	100.0	88.2	0.0	0.0	88.9	50.0	100.0	93.9	0.0	94.9	97.9	91.7	0.0	0.0	95.8	94.9
Heavy trucks	2	0	7	0	9	0	2	0	0	2	1	0	5	0	6	2	2	1	0	5	22
%Heavy trucks	4.8	0.0	6.1	0.0	5.2	0.0	11.8	0.0	0.0	11.1	50.0	0.0	6.1	0.0	5.1	2.1	8.3	100.0	0.0	4.2	5.1

NOON

	Steele Rd/Swafford Rd Northbound					Steele Rd/Swafford Rd Southbound					Sam Lee Rd Eastbound					Sam Lee Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 10:00 AM - 02:00 PM																					
Peak Hour for Entire Intersection Begins at 11:30 AM																					
11:30 AM	15	4	7	0	26	1	1	1	0	3	0	3	15	0	18	0	3	0	0	3	50
11:45 AM	13	0	0	0	13	0	4	1	0	5	0	0	17	0	17	1	1	0	0	2	37
12:00 PM	10	3	5	0	18	0	4	1	0	5	0	1	11	0	12	5	4	1	0	10	45
12:15 PM	14	1	3	0	18	0	2	1	0	3	0	1	11	0	12	3	0	0	0	3	36
Total Volume	52	8	15	0	75	1	11	4	0	16	0	5	54	0	59	9	8	1	0	18	168
% App. Total	69.3	10.7	20.0	0.0	100	6.3	68.8	25.0	0.0	100	0.0	8.5	91.5	0.0	100	50.0	44.4	5.6	0.0	100	
PHF	0.721					0.800					0.819					0.450					0.840
Cars, PU, Vans	49	7	11	0	67	1	11	3	0	15	0	5	51	0	56	9	7	1	0	17	155
% Cars, PU, Vans	94.2	87.5	73.3	0.0	89.3	100.0	100.0	75.0	0.0	93.8	0.0	100.0	94.4	0.0	94.9	100.0	87.5	100.0	0.0	94.4	92.3
Heavy trucks	3	1	4	0	8	0	0	1	0	1	0	0	3	0	3	0	1	0	0	1	13
%Heavy trucks	5.8	12.5	26.7	0.0	10.7	0.0	0.0	25.0	0.0	6.3	0.0	0.0	5.6	0.0	5.1	0.0	12.5	0.0	0.0	5.6	7.7

PM

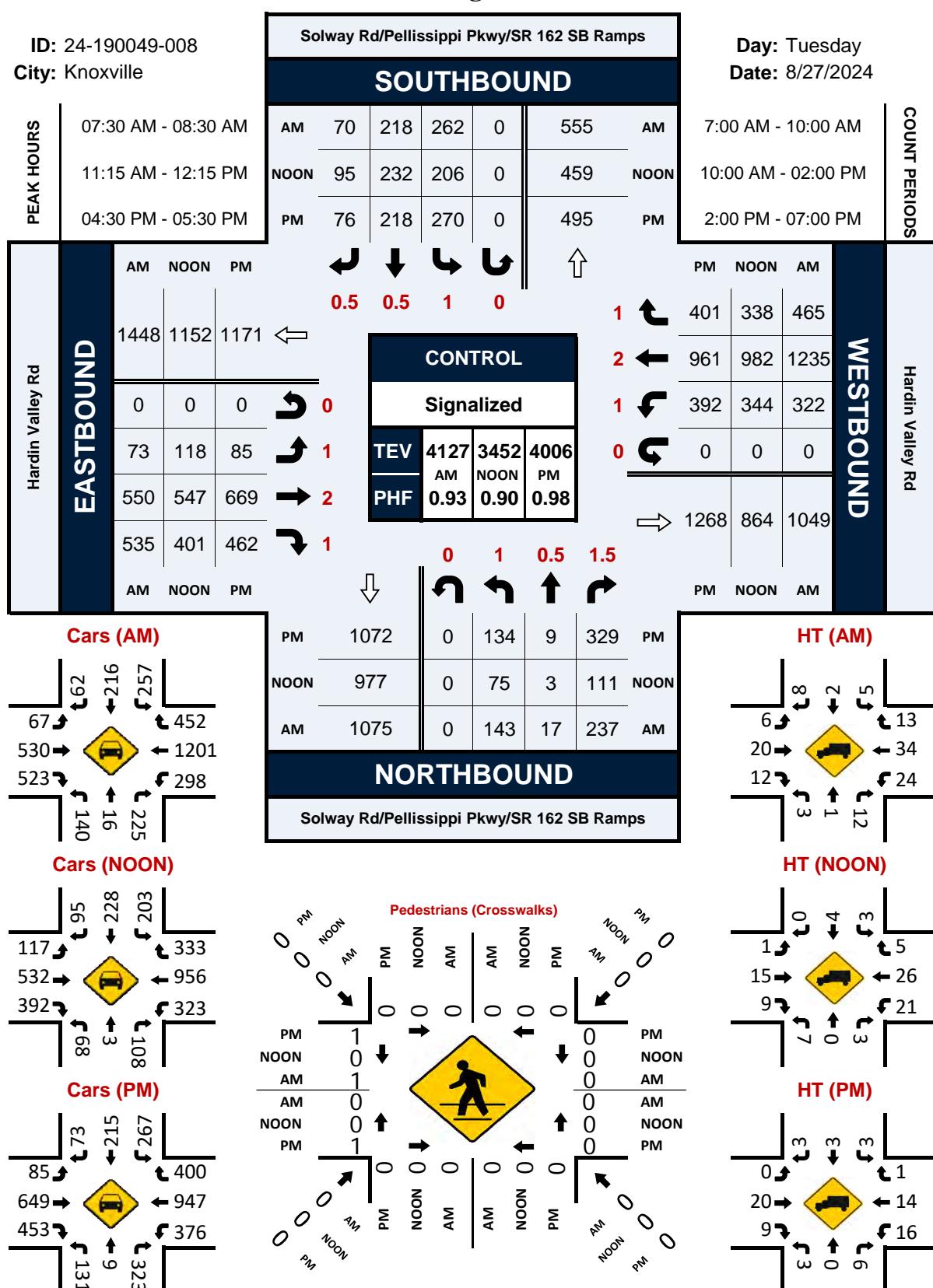
	Steele Rd/Swafford Rd Northbound					Steele Rd/Swafford Rd Southbound					Sam Lee Rd Eastbound					Sam Lee Rd Westbound					
Start Time	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 02:00 PM - 07:00 PM																					
Peak Hour for Entire Intersection Begins at 03:15 PM																					
3:15 PM	9	3	7	0	19	0	4	1	0	5	1	3	18	0	22	15	7	1	0	23	69
3:30 PM	9	7	36	0	52	1	5	0	0	6	1	7	11	0	19	18	3	0	0	21	98
3:45 PM	29	14	120	0	163	0	3	2	0	5	0	4	10	0	14	16	7	0	0	23	205
4:00 PM	18	2	24	0	44	1	1	1	0	3	4	6	6	0	16	8	3	1	0	12	75
Total Volume	65	26	187	0	278	2	13	4	0	19	6	20	45	0	71	57	20	2	0	79	447
% App. Total	23.4	9.4	67.3	0.0	100	10.5	68.4	21.1	0.0	100	8.5	28.2	63.4	0.0	100	72.2	25.3	2.5	0.0	100	
PHF	0.426					0.792					0.807					0.859					0.545
Cars, PU, Vans	61	26	182	0	269	2	13	4	0	19	5	19	42	0	66	57	20	2	0	79	433
% Cars, PU, Vans	93.8	100.0	97.3	0.0	96.8	100.0	100.0	100.0	0.0	100.0	83.3	95.0	93.3	0.0	93.0	100.0	100.0	100.0	0.0	100.0	96.9
Heavy trucks	4	0	5	0	9	0	0	0	0	0	1	1	3	0	5	0	0	0	0	0	14
%Heavy trucks	6.2	0.0	2.7	0.0	3.2	0.0	0.0	0.0	0.0	0.0	16.7	5.0	6.7	0.0	7.0	0.0	0.0	0.0	0.0	0.0	3.1

## Solway Rd/Pellissippi Pkwy/SR 162 SB Ramps &amp; Hardin Valley Rd

## Peak Hour Turning Movement Count

ID: 24-190049-008

City: Knoxville



Groups Printed - Cars, PU, Vans - Heavy Trucks																									
	Solway Rd/Pellissippi Pkwy/SR 162 SB Ramp							Hardin Valley Rd																	
	Northbound				Southbound			Eastbound				Westbound													
Start Time	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Left	Thru	Rgt	Uturn	Peds	App. Total	Int. Total						
7:00 AM	21	1	33	0	0	55	51	46	14	0	0	111	7	115	112	0	0	234	132	181	38	0	0	351	751
7:15 AM	21	2	49	0	0	72	105	72	13	0	0	190	4	118	166	0	0	288	119	224	63	0	0	406	956
7:30 AM	34	3	58	0	0	95	81	65	11	0	0	157	9	142	150	0	0	301	78	235	70	0	0	383	936
7:45 AM	31	0	78	0	0	109	66	59	13	0	0	138	15	137	126	0	1	278	79	288	136	0	0	503	1028
Total	107	6	218	0	0	331	303	242	51	0	0	596	35	512	554	0	1	1101	408	928	307	0	0	1643	3671
8:00 AM	34	6	63	0	0	103	67	43	26	0	0	136	29	149	134	0	0	312	80	342	136	0	0	558	1109
8:15 AM	44	8	38	0	0	90	48	51	20	0	0	119	20	122	125	0	0	267	85	370	123	0	0	578	1054
8:30 AM	25	5	35	0	0	65	31	64	8	0	0	103	18	126	127	0	0	271	108	214	77	0	0	399	838
8:45 AM	30	0	48	0	0	78	49	50	11	0	0	110	12	116	137	0	0	265	114	157	68	0	0	339	792
Total	133	19	184	0	0	336	195	208	65	0	0	468	79	513	523	0	0	1115	387	1083	404	0	0	1874	3793
9:00 AM	19	0	23	0	0	42	16	36	18	0	0	70	6	98	75	0	0	179	118	166	57	0	0	341	632
9:15 AM	20	4	22	0	0	46	35	40	14	0	0	89	6	76	78	0	0	160	95	201	70	0	0	366	661
9:30 AM	22	9	24	0	0	55	21	68	10	0	0	99	10	114	90	0	0	214	88	285	108	0	0	481	849
9:45 AM	24	5	30	0	2	59	58	49	13	0	0	120	9	101	103	0	0	213	83	305	132	0	0	520	912
Total	85	18	99	0	2	202	130	193	55	0	0	378	31	389	346	0	0	766	384	957	367	0	0	1708	3054
***BREAK***																									
10:00 AM	12	0	15	0	0	27	24	37	20	0	0	81	11	104	111	0	0	226	90	164	33	0	0	287	621
10:15 AM	9	2	22	0	0	33	16	24	12	0	0	52	12	63	92	0	0	167	73	144	22	0	0	239	491
10:30 AM	11	0	24	0	0	35	15	22	15	0	0	52	5	75	79	0	0	159	88	117	40	0	0	245	491
10:45 AM	25	1	20	0	0	46	19	36	8	0	0	63	11	81	81	0	0	173	79	133	52	0	0	264	546
Total	57	3	81	0	0	141	74	119	55	0	0	248	39	323	363	0	0	725	330	558	147	0	0	1035	2149
11:00 AM	19	2	30	0	0	51	26	42	19	0	0	87	17	100	93	1	0	211	87	137	54	0	0	278	627
11:15 AM	21	1	26	0	0	48	67	71	27	0	0	165	20	116	88	0	0	224	74	227	70	0	0	371	808
11:30 AM	24	2	24	0	0	50	71	70	32	0	0	173	39	139	114	0	0	292	80	270	95	0	0	445	960
11:45 AM	15	0	30	0	0	45	40	58	18	0	0	116	36	135	93	0	0	264	86	280	111	0	0	477	902
Total	79	5	110	0	0	194	204	241	96	0	0	541	112	490	388	1	0	991	327	914	330	0	0	1571	3297
12:00 PM	15	0	31	0	0	46	28	33	18	0	0	79	23	157	106	0	0	286	104	205	62	0	0	371	782
12:15 PM	19	0	36	0	0	55	27	37	21	0	0	85	15	100	97	0	0	212	92	173	72	0	0	337	689
12:30 PM	18	0	23	0	0	41	16	28	16	0	0	60	22	121	94	0	0	237	76	167	60	0	0	303	641
12:45 PM	21	4	36	0	0	61	20	35	22	0	0	77	22	107	84	0	0	213	96	208	62	0	0	366	717
Total	73	4	126	0	0	203	91	133	77	0	0	301	82	485	381	0	0	948	368	753	256	0	0	1377	2829
1:00 PM	28	0	25	0	0	53	47	44	12	0	0	103	14	118	118	0	0	250	90	217	92	1	0	400	806
1:15 PM	14	1	36	0	0	51	70	69	21	0	0	160	19	130	124	0	0	273	89	219	93	0	0	401	885
1:30 PM	19	1	34	0	0	54	92	83	9	0	0	184	21	153	157	0	0	331	86	162	62	1	0	311	880
1:45 PM	24	2	30	0	0	56	41	50	22	0	0	113	13	113	95	0	0	221	78	206	52	0	0	336	726
Total	85	4	125	0	0	214	250	246	64	0	0	560	67	514	494	0	0	1075	343	804	299	2	0	1448	3297
***BREAK***																									
2:00 PM	21	0	15	0	0	36	27	44	13	0	0	84	14	128	108	0	0	250	85	170	56	0	0	311	681
2:15 PM	18	2	29	0	0	49	28	41	18	0	0	87	18	116	82	0	0	216	102	181	79	0	0	362	714
2:30 PM	15	3	34	0	0	52	29	53	14	0	0	96	14	91	87	0	0	192	123	205	92	0	0	420	760
2:45 PM	25	1	38	0	1	64	74	62	21	0	0	157	11	142	128	0	0	281	98	259	109	0	0	466	968
Total	79	6	116	0	1	201	158	200	66	0	0	424	57	477	405	0	0	939	408	815	336	0	0	1559	3123
3:00 PM	38	0	44	0	0	82	78	84	15	0	1	177	19	143	171	0	0	333	87	219	68	0	0	374	966
3:15 PM	34	2	57	0	0	93	30	71	17	0	0	118	19	111	119	0	0	249	106	213	75	0	0	394	854
3:30 PM	26	3	50	0	0	79	42	40	11	0	0	93	11	137	117	0	0	265	130	204	75	0	0	409	846
3:45 PM	28	1	68	0	0	97	71	53	15	0	0	139	26	169	109	0	0	304	102	218	79	0	0	399	939
Total	126	6	219	0	0	351	221	248	58	0	1	527	75	560	516	0	0	1151	425	854	297	0	0	1576	3605
4:00 PM	39	0	66	1	0	106	57	38	27	0	0	122	4	144	116	0	0	264	100	218	91	0	0	409	901
4:15 PM	53	1	79	0	0	133	55	57	19	0	0	131	23	172	122	0	0	317	92	218	105	0	0	415	996
4:30 PM	26	4	83	0	0	113	86	86	20	0	0	192	23	168	131	0	1	322	85	218	94	0	0	397	1024
4:45 PM	37	1	82	0	0	120	78	46	23	0	0	147	19	160	112	0	0	291	103	241	76	0	0	420	978
Total	155	6	310	1	0	472	276	227	89	0	0	592	69	644	481	0	1	1194	380	895	366	0	0	1641	3899
5:00 PM	36	2	82	0	0	120	52	54	15	0	0	121	22	153	118	0	0	293	111	240	105	0	0	456	990
5:15 PM	35	2	82	0	0	119	54	32	18	0	0	104	21	188	101	0	1	310	93	262	126	0	0	481	1014
5:30 PM	55	1	84	0	0	140	58	47	20	0	0	125	23	147	96	0	0	266	86	245	116	0	0	447	978

5:45 PM	41	0	76	0	0	117	56	50	24	0	0	130	8	140	83	0	0	231	93	255	110	0	0	458	936	
Total	167	5	324	0	0	496	220	183	77	0	0	480	74	628	398	0	1	1100	383	1002	457	0	0	1842	3918	
6:00 PM	42	2	67	0	0	111	42	31	22	0	0	95	20	149	110	0	0	279	97	267	106	0	0	470	955	
6:15 PM	25	1	44	0	0	70	35	34	25	0	0	94	15	131	92	0	0	238	77	232	88	0	0	397	799	
6:30 PM	23	2	34	0	0	59	30	28	29	0	0	87	21	120	75	0	0	216	78	192	73	0	0	343	705	
6:45 PM	27	2	36	0	0	65	23	27	10	0	0	60	34	112	79	0	0	225	73	204	85	0	0	362	712	
Total	117	7	181	0	0	305	130	120	86	0	0	336	90	512	356	0	0	958	325	895	352	0	0	1572	3171	
Grand Total	1263	89	2093	1	3	3446	2252	2360	839	0	1	5451	810	6047	5205	1	3	12063	4468	10458	3918	2	0	18846	39806	
Apprch %	36.7	2.6	60.7	0.0	0.1		41.3	43.3	15.4	0.0	0.0		6.7	50.1	43.1	0.0	0.0		23.7	55.5	20.8	0.0	0.0			
Total %	3.2	0.2	5.3	0.0	0.0	8.7	5.7	5.9	2.1	0.0	0.0	13.7	2.0	15.2	13.1	0.0	0.0	30.3	11.2	26.3	9.8	0.0	0.0	47.3		
Cars, PU, Vans	1207	83	2010	1		3301	2204	2334	803	0		5341	792	5816	5065	1		11674	4115	10186	3841	2		18144	38460	
% Cars, PU, Vans	95.6	93.3	96.0	100.0			95.8	97.9	98.9	95.7	0.0		98.0	97.8	96.2	97.3	100.0		96.8	92.1	97.4	98.0	100.0		96.3	96.6
Heavy trucks	56	6	83	0		145	48	26	36	0		110	18	231	140	0		389	353	272	77	0		702	1346	
%Heavy trucks	4.4	6.7	4.0	0.0			4.2	2.1	1.1	4.3	0.0		2.0	2.2	3.8	2.7	0.0		3.2	7.9	2.6	2.0	0.0		3.7	3.4

Project ID: 24-190049-008

Location: Solway Rd/Pelissippi Pkwy/SR 162 SB Ramps & I  
City: Knoxville**PEAK HOURS**Day: Tuesday  
Date: 8/27/2024**AM**

Start Time	Solway Rd/Pelissippi Pkwy/SR 162 SB Northbound					Ray Rd/Pelissippi Pkwy/SR 162 SB Ramps Southbound					Hardin Valley Rd Eastbound					Hardin Valley Rd Westbound					
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 07:00 AM - 10:00 AM																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
7:30 AM	34	3	58	0	95	81	65	11	0	157	9	142	150	0	301	78	235	70	0	383	936
7:45 AM	31	0	78	0	109	66	59	13	0	138	15	137	126	0	278	79	288	136	0	503	1028
8:00 AM	34	6	63	0	103	67	43	26	0	136	29	149	134	0	312	80	342	136	0	558	1109
8:15 AM	44	8	38	0	90	48	51	20	0	119	20	122	125	0	267	85	370	123	0	578	1054
Total Volume	143	17	237	0	397	262	218	70	0	550	73	550	535	0	1158	322	1235	465	0	2022	4127
% App. Total	36.0	4.3	59.7	0.0	100	47.6	39.6	12.7	0.0	100	6.3	47.5	46.2	0.0	100	15.9	61.1	23.0	0.0	100	
PHF			0.911							0.876						0.928			0.875		0.930
Cars, PU, Vans	140	16	225	0	381	257	216	62	0	535	67	530	523	0	1120	298	1201	452	0	1951	3987
% Cars, PU, Vans	97.9	94.1	94.9	0.0	96.0	98.1	99.1	88.6	0.0	97.3	91.8	96.4	97.8	0.0	96.7	92.5	97.2	97.2	0.0	96.5	96.6
Heavy trucks	3	1	12	0	16	5	2	8	0	15	6	20	12	0	38	24	34	13	0	71	140
% Heavy trucks	2.1	5.9	5.1	0.0	4.0	1.9	0.9	11.4	0.0	2.7	8.2	3.6	2.2	0.0	3.3	7.5	2.8	2.8	0.0	3.5	3.4

**NOON**

Start Time	Solway Rd/Pelissippi Pkwy/SR 162 SB Northbound					Ray Rd/Pelissippi Pkwy/SR 162 SB Ramps Southbound					Hardin Valley Rd Eastbound					Hardin Valley Rd Westbound					
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 10:00 AM - 02:00 PM																					
Peak Hour for Entire Intersection Begins at 11:15 AM																					
11:15 AM	21	1	26	0	48	67	71	27	0	165	20	116	88	0	224	74	227	70	0	371	808
11:30 AM	24	2	24	0	50	71	70	32	0	173	39	139	114	0	292	80	270	95	0	445	960
11:45 AM	15	0	30	0	45	40	58	18	0	116	36	135	93	0	264	86	280	111	0	477	902
12:00 PM	15	0	31	0	46	28	33	18	0	79	23	157	106	0	286	104	205	62	0	371	782
Total Volume	75	3	111	0	189	206	232	95	0	533	118	547	401	0	1066	344	982	338	0	1664	3452
% App. Total	39.7	1.6	58.7	0.0	100	38.6	43.5	17.8	0.0	100	11.1	51.3	37.6	0.0	100	20.7	59.0	20.3	0.0	100	
PHF			0.945							0.770						0.913			0.872		0.899
Cars, PU, Vans	68	3	108	0	179	203	228	95	0	526	117	532	392	0	1041	323	956	333	0	1612	3358
% Cars, PU, Vans	90.7	100.0	97.3	0.0	94.7	98.5	98.3	100.0	0.0	98.7	99.2	97.3	97.8	0.0	97.7	93.9	97.4	98.5	0.0	96.9	97.3
Heavy trucks	7	0	3	0	10	3	4	0	0	7	1	15	9	0	25	21	26	5	0	52	94
% Heavy trucks	9.3	0.0	2.7	0.0	5.3	1.5	1.7	0.0	0.0	1.3	0.8	2.7	2.2	0.0	2.3	6.1	2.6	1.5	0.0	3.1	2.7

**PM**

Start Time	Solway Rd/Pelissippi Pkwy/SR 162 SB Northbound					Ray Rd/Pelissippi Pkwy/SR 162 SB Ramps Southbound					Hardin Valley Rd Eastbound					Hardin Valley Rd Westbound					
	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Left	Thru	Rgt	Uturn	App. Total	Int. Total
Peak Hour Analysis from 02:00 PM - 07:00 PM																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
4:30 PM	26	4	83	0	113	86	86	20	0	192	23	168	131	0	322	85	218	94	0	397	1024
4:45 PM	37	1	82	0	120	78	46	23	0	147	19	160	112	0	291	103	241	76	0	420	978
5:00 PM	36	2	82	0	120	52	54	15	0	121	22	153	118	0	293	111	240	105	0	456	990
5:15 PM	35	2	82	0	119	54	32	18	0	104	21	188	101	0	310	93	262	126	0	481	1014
Total Volume	134	9	329	0	472	270	218	76	0	564	85	669	462	0	1216	392	961	401	0	1754	4006
% App. Total	28.4	1.9	69.7	0.0	100	47.9	38.7	13.5	0.0	100	7.0	55.0	38.0	0.0	100	22.3	54.8	22.9	0.0	100	
PHF			0.983							0.734						0.944			0.912		0.978
Cars, PU, Vans	131	9	323	0	463	267	215	73	0	555	85	649	453	0	1187	376	947	400	0	1723	3928
% Cars, PU, Vans	97.8	100.0	98.2	0.0	98.1	98.9	98.6	96.1	0.0	98.4	100.0	97.0	98.1	0.0	97.6	95.9	98.5	99.8	0.0	98.2	98.1
Heavy trucks	3	0	6	0	9	3	3	3	0	9	0	20	9	0	29	16	14	1	0	31	78
% Heavy trucks	2.2	0.0	1.8	0.0	1.9	1.1	1.4	3.9	0.0	1.6	0.0	3.0	1.9	0.0	2.4	4.1	1.5	0.2	0.0	1.8	1.9

**VOLUME****Swafford Rd W/O Beaver Creek**

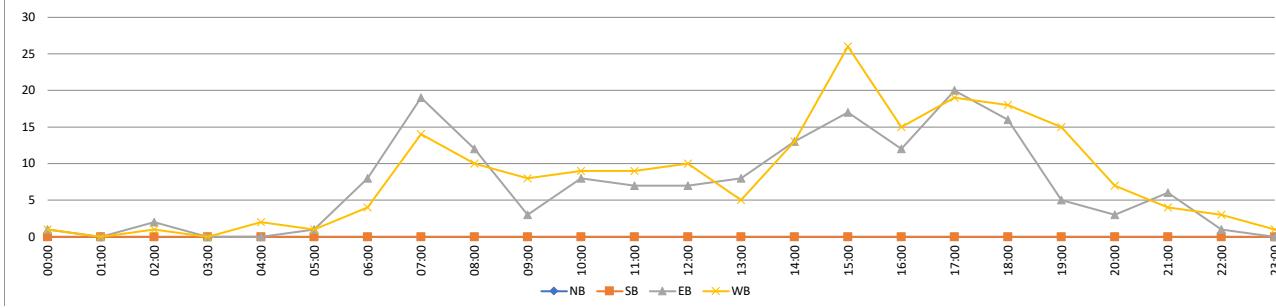
Day: Tuesday

Date: 8/27/2024

City: Knoxville

Project #: TN24\_190050\_001

DAILY TOTALS					NB	SB	EB	WB	Total	DAILY TOTALS							
TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL	TIME	NB	SB	EB	WB	TOTAL
<b>15-Minutes Interval</b>																	
0:00			0	0	0	12:00			5	3	8	00:00	01:00		1	1	2
0:15		1	1	2	2	12:15			2	1	3	01:00	02:00		0	0	0
0:30	0	0	0	0	0	12:30			0	2	2	02:00	03:00		2	1	3
0:45	0	0	0	0	0	12:45			0	4	4	03:00	04:00		0	0	0
1:00		0	0	0	0	13:00			1	0	1	04:00	05:00		0	2	2
1:15		0	0	0	0	13:15			3	1	4	05:00	06:00		1	1	2
1:30	0	0	0	0	0	13:30			3	2	5	06:00	07:00		8	4	12
1:45	0	0	0	0	0	13:45			1	2	3	07:00	08:00		19	14	33
2:00		0	0	0	0	14:00			4	7	11	08:00	09:00		12	10	22
2:15	1	1	2	2	2	14:15			3	1	4	09:00	10:00		3	8	11
2:30	1	0	1	1	1	14:30			3	4	7	10:00	11:00		8	9	17
2:45	0	0	0	0	0	14:45			3	1	4	11:00	12:00		7	9	16
3:00		0	0	0	0	15:00			4	4	8	12:00	13:00		7	10	17
3:15	0	0	0	0	0	15:15			4	5	9	13:00	14:00		8	5	13
3:30	0	0	0	0	0	15:30			7	2	9	14:00	15:00		13	13	26
3:45	0	0	0	0	0	15:45			2	15	17	15:00	16:00		17	26	43
4:00		0	0	0	0	16:00			3	6	9	16:00	17:00		12	15	27
4:15	0	0	0	0	0	16:15			1	4	5	17:00	18:00		20	19	39
4:30	0	0	0	0	0	16:30			3	3	6	18:00	19:00		16	18	34
4:45	0	2	2	2	2	16:45			5	2	7	19:00	20:00		5	15	20
5:00		0	0	0	0	17:00			4	3	7	20:00	21:00		3	7	10
5:15	1	0	1	1	1	17:15			3	6	9	21:00	22:00		6	4	10
5:30	0	0	0	0	0	17:30			7	5	12	22:00	23:00		1	3	4
5:45	0	1	1	1	1	17:45			6	5	11	23:00	00:00		0	1	1
6:00		0	0	0	0	18:00			6	6	12	<b>STATISTICS</b>					
6:15	0	0	0	0	0	18:15			2	5	7	Peak Period	00:00 to 12:00				
6:30	1	2	3	3	3	18:30			2	3	5	Volume		61	59		120
6:45	7	2	9	9	9	18:45			6	4	10	Peak Hour		7:15	7:30		7:15
7:00	2	3	5	5	5	19:00			2	7	9	Peak Volume		22	17		37
7:15	9	3	12	12	12	19:15			0	1	1	Peak Hour Factor		0.611	0.850		0.771
7:30	3	4	7	7	7	19:30			3	3	6	Peak Period	12:00 to 00:00				
7:45	5	4	9	9	9	19:45			0	4	4	Volume		108	136		244
8:00	5	4	9	9	9	20:00			0	2	2	Peak Hour		17:15	15:15		15:15
8:15	1	5	6	6	6	20:15			0	0	0	Peak Volume		22	28		44
8:30	5	1	6	6	6	20:30			2	2	4	Peak Hour Factor		0.786	0.467		0.647
8:45	1	0	1	1	1	20:45			1	3	4	Peak Period	07:00 to 09:00				
9:00	0	2	2	2	2	21:00			4	0	4	Volume		31	24		55
9:15	0	1	1	1	1	21:15			0	0	0	Peak Hour		7:15	7:30		7:15
9:30	0	1	1	1	1	21:30			0	2	2	Peak Volume		22	17		37
9:45	3	4	7	7	7	21:45			2	2	4	Peak Hour Factor		0.611	0.850		0.771
10:00		1	3	4	4	22:00			0	2	2	Peak Period	16:00 to 18:00				
10:15	3	2	5	5	5	22:15			1	0	1	Volume		32	34		66
10:30	3	3	6	6	6	22:30			0	1	1	Peak Hour		17:00	17:00		17:00
10:45	1	1	2	2	2	22:45			0	0	0	Peak Volume		20	19		39
11:00	0	1	1	1	1	23:00			0	1	1	Peak Hour Factor		0.714	0.792		0.813
<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>61</b>	<b>59</b>	<b>120</b>	<b>TOTALS</b>	<b>0</b>	<b>0</b>	<b>108</b>	<b>136</b>	<b>244</b>	SPLIT %	<b>0%</b>	<b>0%</b>	<b>51%</b>	<b>49%</b>	
SPLIT %	0%	0%	51%	49%	33%	SPLIT %	0%	0%	44%	56%	67%						





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## APPENDIX B | TRIP GENERATION

# Land Use: 210

## Single-Family Detached Housing

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### Description

A single-family detached housing site includes any single-family detached home on an individual lot. A typical site surveyed is a suburban subdivision.

### Specialized Land Use

Data have been submitted for several single-family detached housing developments with homes that are commonly referred to as patio homes. A patio home is a detached housing unit that is located on a small lot with little (or no) front or back yard. In some subdivisions, communal maintenance of outside grounds is provided for the patio homes. The three patio home sites total 299 dwelling units with overall weighted average trip generation rates of 5.35 vehicle trips per dwelling unit for weekday, 0.26 for the AM adjacent street peak hour, and 0.47 for the PM adjacent street peak hour. These patio home rates based on a small sample of sites are lower than those for single-family detached housing (Land Use 210), lower than those for single-family attached housing (Land Use 251), and higher than those for senior adult housing -- single-family (Land Use 251). Further analysis of this housing type will be conducted in a future edition of *Trip Generation Manual*.

### Additional Data

The technical appendices provide supporting information on time-of-day distributions for this land use. The appendices can be accessed through either the ITETripGen web app or the trip generation resource page on the ITE website (<https://www.ite.org/technical-resources/topics/trip-and-parking-generation/>).

For 30 of the study sites, data on the number of residents and number of household vehicles are available. The overall averages for the 30 sites are 3.6 residents per dwelling unit and 1.5 vehicles per dwelling unit.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Arizona, California, Connecticut, Delaware, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Minnesota, Montana, New Jersey, North Carolina, Ohio, Ontario (CAN), Oregon, Pennsylvania, South Carolina, South Dakota, Tennessee, Vermont, Virginia, and West Virginia.

### Source Numbers

100, 105, 114, 126, 157, 167, 177, 197, 207, 211, 217, 267, 275, 293, 300, 319, 320, 356, 357, 367, 384, 387, 407, 435, 522, 550, 552, 579, 598, 601, 603, 614, 637, 711, 716, 720, 728, 735, 868, 869, 903, 925, 936, 1005, 1007, 1008, 1010, 1033, 1066, 1077, 1078, 1079

# Single-Family Detached Housing (210)

Vehicle Trip Ends vs: Dwelling Units  
On a: Weekday

Setting/Location: General Urban/Suburban

Number of Studies: 174

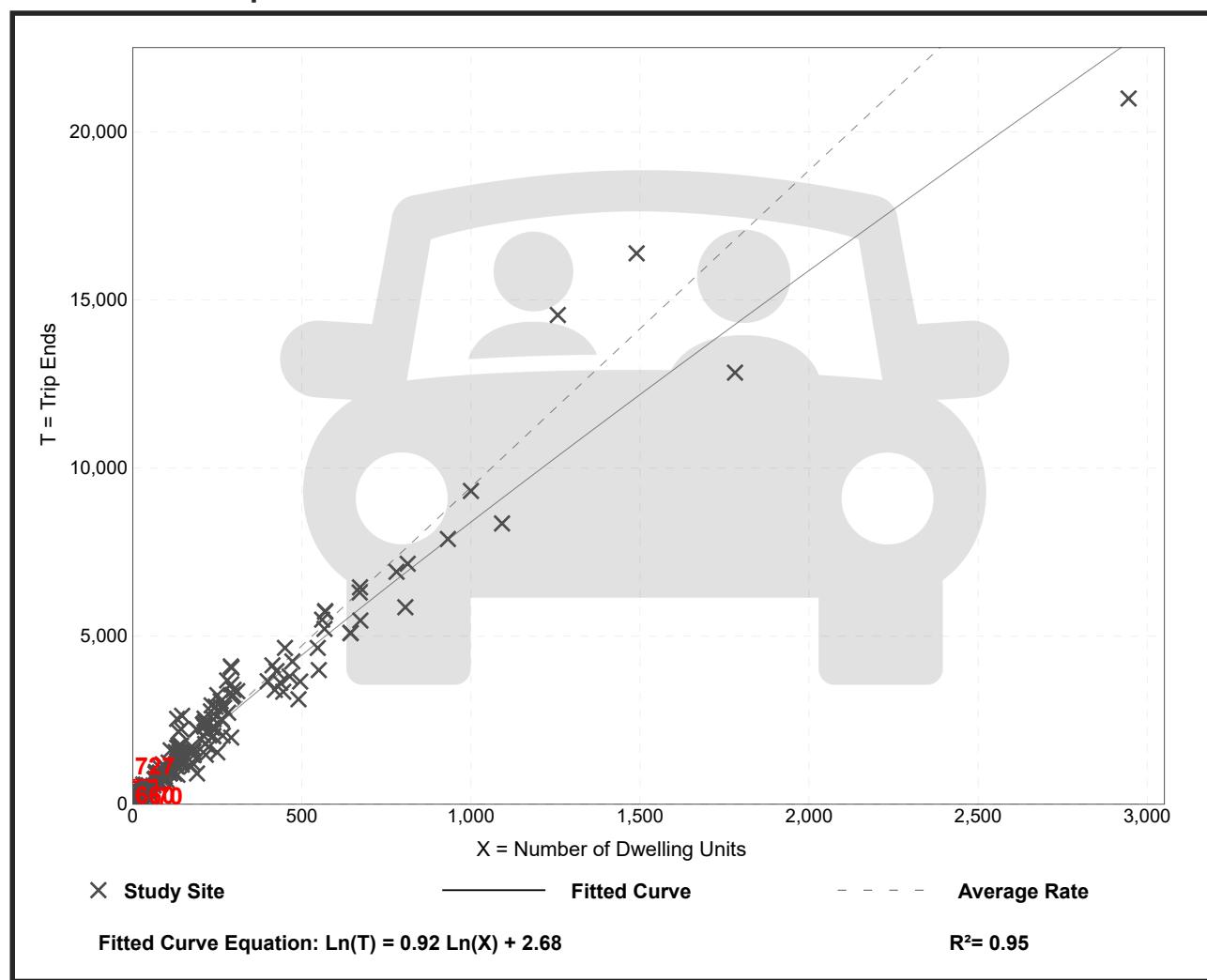
Avg. Num. of Dwelling Units: 246

Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
9.43	4.45 - 22.61	2.13

## Data Plot and Equation



# Single-Family Detached Housing (210)

**Vehicle Trip Ends vs:** Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 7 and 9 a.m.

**Setting/Location:** General Urban/Suburban

Number of Studies: 192

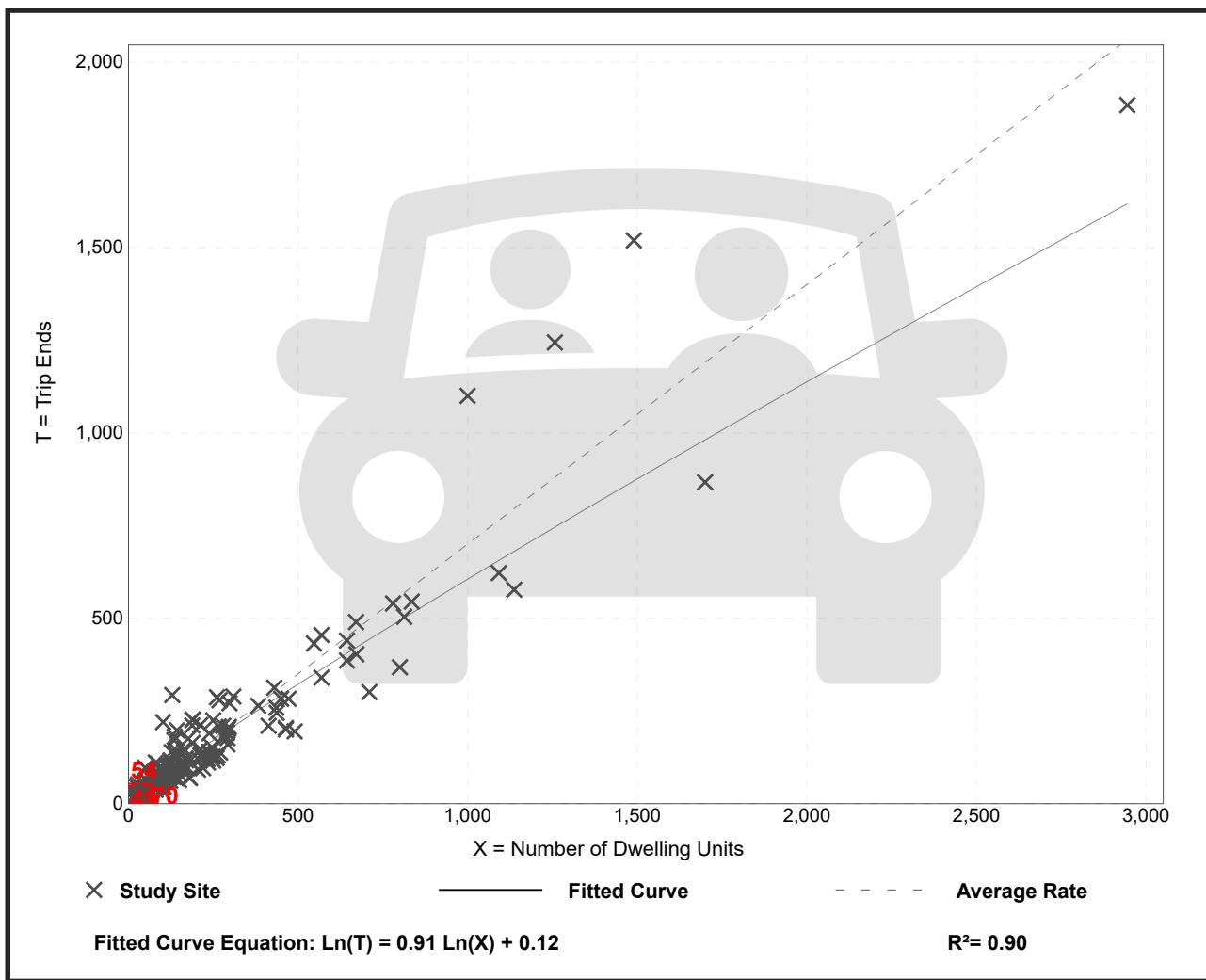
Avg. Num. of Dwelling Units: 226

Directional Distribution: 25% entering, 75% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.70	0.27 - 2.27	0.24

## Data Plot and Equation



# Single-Family Detached Housing (210)

**Vehicle Trip Ends vs:** Dwelling Units

On a: Weekday,

Peak Hour of Adjacent Street Traffic,

One Hour Between 4 and 6 p.m.

**Setting/Location:** General Urban/Suburban

Number of Studies: 208

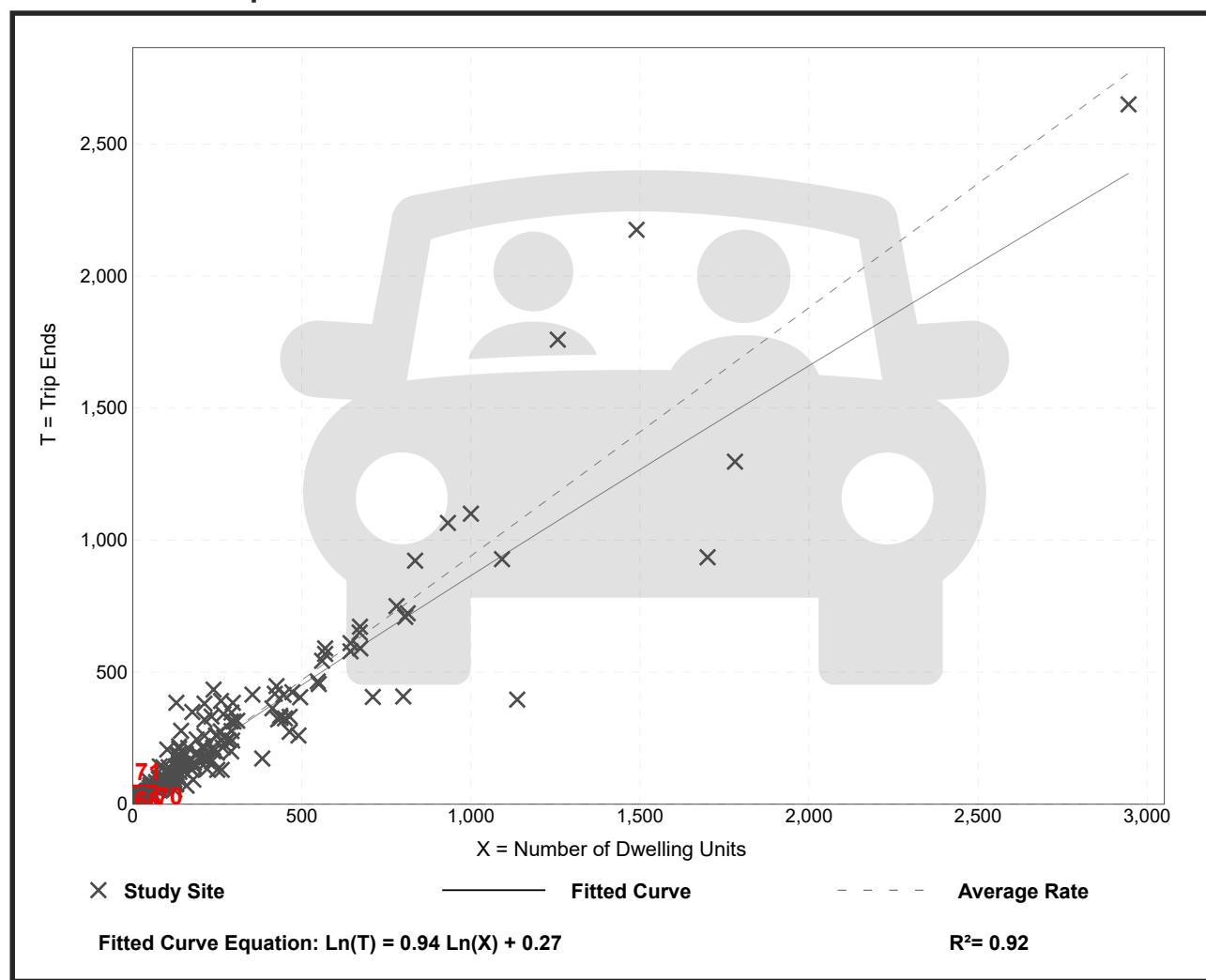
Avg. Num. of Dwelling Units: 248

Directional Distribution: 63% entering, 37% exiting

## Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.94	0.35 - 2.98	0.31

## Data Plot and Equation

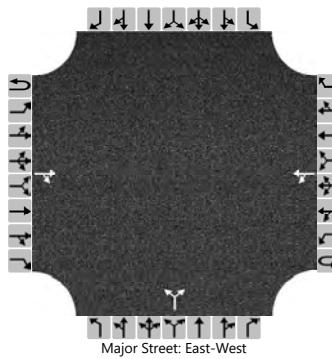




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**APPENDIX C | CAPACITY ANALYSES**

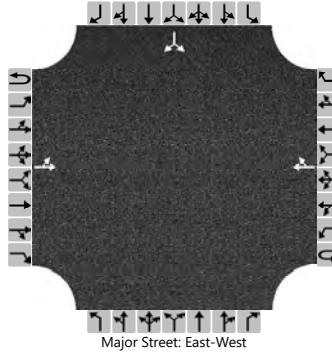
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Swafford Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		Guinn Road																								
Analysis Year	2024			North/South Street		Swafford Road																								
Time Analyzed	AM Peak - 2024 Existing			Peak Hour Factor		0.76																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	1U	1	2	3	4U	4	5	6	7	8	9	10, 11, 12																		
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0, 0, 0																		
Configuration	TR			LT			LR																							
Volume (veh/h)	59, 4			12, 22			1, 23																							
Percent Heavy Vehicles (%)				3			3			3																				
Proportion Time Blocked																														
Percent Grade (%)							0																							
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)				4.1			7.1			6.2																				
Critical Headway (sec)				4.13			6.43			6.23																				
Base Follow-Up Headway (sec)				2.2			3.5			3.3																				
Follow-Up Headway (sec)				2.23			3.53			3.33																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)				16			32																							
Capacity, c (veh/h)				1508			971																							
v/c Ratio				0.01			0.03																							
95% Queue Length, Q <sub>95</sub> (veh)				0.0			0.1																							
Control Delay (s/veh)				7.4, 0.1			8.8																							
Level of Service (LOS)				A, A			A																							
Approach Delay (s/veh)				2.7			8.8																							
Approach LOS				A			A																							

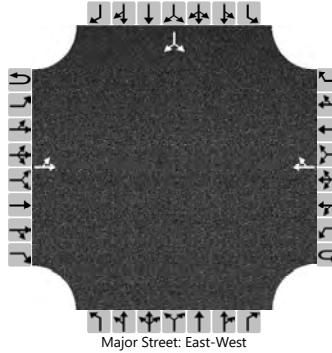
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Swafford Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		Guinn Road																								
Analysis Year	2024			North/South Street		Swafford Road																								
Time Analyzed	PM Peak - 2024 Existing			Peak Hour Factor		0.86																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	1U	1	2	3	4U	4	5	6	7	8	9	10, 11, 12																		
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0, 0, 0																		
Configuration	TR			LT			LR																							
Volume (veh/h)	40, 1			17, 71			1, 15																							
Percent Heavy Vehicles (%)				3			3, 3																							
Proportion Time Blocked																														
Percent Grade (%)							0																							
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)							4.1			7.1																				
Critical Headway (sec)							4.13			6.43																				
Base Follow-Up Headway (sec)							2.2			3.5																				
Follow-Up Headway (sec)							2.23			3.53																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)							20			19																				
Capacity, c (veh/h)							1553			1003																				
v/c Ratio							0.01			0.02																				
95% Queue Length, Q <sub>95</sub> (veh)							0.0			0.1																				
Control Delay (s/veh)							7.3, 0.1			8.7																				
Level of Service (LOS)							A, A			A																				
Approach Delay (s/veh)							1.5			8.7																				
Approach LOS							A			A																				

# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		Guinn Road																								
Analysis Year	2024			North/South Street		Old Solway Road																								
Time Analyzed	AM Peak - 2024 Existing			Peak Hour Factor		0.79																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	U	L	T	U	L	T	U	L	T																		
Priority	1U	1	2	4U	4	5	6	7	8	9	10	11																		
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	1																		
Configuration	LT			TR						LR																				
Volume (veh/h)	9			69			33			0																				
Percent Heavy Vehicles (%)	3									3																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)	4.1									7.1																				
Critical Headway (sec)	4.13									6.43																				
Base Follow-Up Headway (sec)	2.2									3.5																				
Follow-Up Headway (sec)	2.23									3.53																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)	11									15																				
Capacity, c (veh/h)	1561									1026																				
v/c Ratio	0.01									0.01																				
95% Queue Length, Q <sub>95</sub> (veh)	0.0									0.0																				
Control Delay (s/veh)	7.3			0.1						8.6																				
Level of Service (LOS)	A									A																				
Approach Delay (s/veh)	0.9									8.6																				
Approach LOS	A									A																				

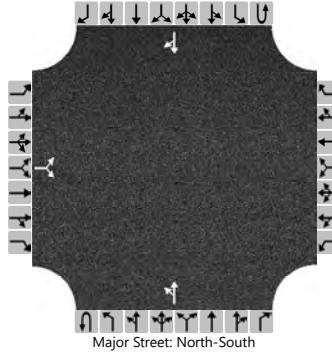
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		Guinn Road																								
Analysis Year	2024			North/South Street		Old Solway Road																								
Time Analyzed	PM Peak - 2024 Existing			Peak Hour Factor		0.81																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	U	L	T	U	L	T	U	L	T																		
Priority	1U	1	2	4U	4	5	6	7	8	9	10	11																		
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	1																		
Configuration	LT			TR						LR																				
Volume (veh/h)	4			50			66			0																				
Percent Heavy Vehicles (%)	3									3																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)	4.1									7.1																				
Critical Headway (sec)	4.13									6.43																				
Base Follow-Up Headway (sec)	2.2									3.5																				
Follow-Up Headway (sec)	2.23									3.53																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)	5									27																				
Capacity, c (veh/h)	1510									961																				
v/c Ratio	0.00									0.03																				
95% Queue Length, Q <sub>95</sub> (veh)	0.0									0.1																				
Control Delay (s/veh)	7.4			0.0						8.9																				
Level of Service (LOS)	A									A																				
Approach Delay (s/veh)	0.6									8.9																				
Approach LOS	A									A																				

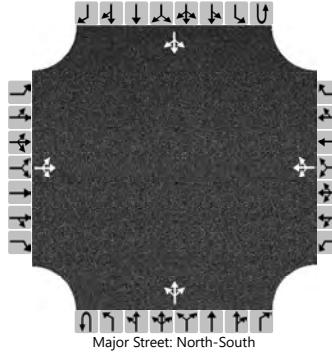
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		Old Solway Road																								
Analysis Year	2024			North/South Street		Solway Road																								
Time Analyzed	AM Peak - 2024 Existing			Peak Hour Factor		0.83																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		9		0					0	74		167																		
Percent Heavy Vehicles (%)		3		3					3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		11							0																					
Capacity, c (veh/h)		692							1350																					
v/c Ratio		0.02							0.00																					
95% Queue Length, Q <sub>95</sub> (veh)		0.0							0.0																					
Control Delay (s/veh)		10.3							7.7	0.0																				
Level of Service (LOS)		B							A	A																				
Approach Delay (s/veh)	10.3								0.0																					
Approach LOS	B								A																					

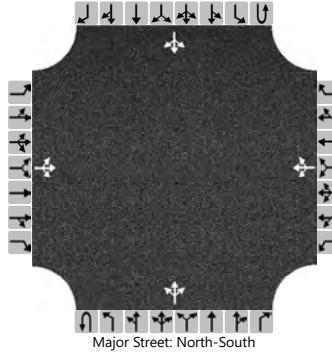
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		Old Solway Road																								
Analysis Year	2024			North/South Street		Solway Road																								
Time Analyzed	PM Peak - 2024 Existing			Peak Hour Factor		0.94																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		4		0					0	75		168																		
Percent Heavy Vehicles (%)		3		3					3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		4							0																					
Capacity, c (veh/h)		722							1375																					
v/c Ratio		0.01							0.00																					
95% Queue Length, Q <sub>95</sub> (veh)		0.0							0.0																					
Control Delay (s/veh)		10.0							7.6	0.0																				
Level of Service (LOS)		B							A	A																				
Approach Delay (s/veh)	10.0								0.0																					
Approach LOS	B								A																					

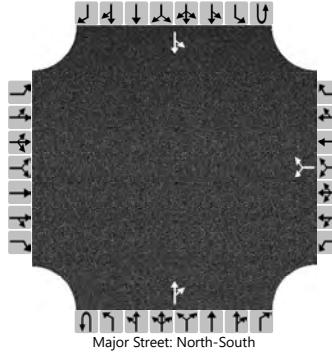
# HCS Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	MEM			Intersection			Solway Road and Gable Run Drive & Guinn R...																													
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction			Knox County, TN																													
Date Performed	9/10/2024			East/West Street			Gable Run Drive & Guinn Road																													
Analysis Year	2024			North/South Street			Solway Road																													
Time Analyzed	AM Peak - 2024 Existing			Peak Hour Factor			0.90																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			0.25																													
Project Description	Rowland Manor																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0																							
Configuration		LTR				LTR				LTR			LTR																							
Volume (veh/h)		5	2	65		52	2	7		26	66	22	4																							
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3			3																							
Proportion Time Blocked																																				
Percent Grade (%)	0				0																															
Right Turn Channelized																																				
Median Type   Storage	Undivided																																			
Critical and Follow-up Headways																																				
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1			4.1																							
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13			4.13																							
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2			2.2																							
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23			2.23																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)			80			68			29				4																							
Capacity, c (veh/h)			779			517			1342				1489																							
v/c Ratio			0.10			0.13			0.02				0.00																							
95% Queue Length, Q <sub>95</sub> (veh)			0.3			0.4			0.1				0.0																							
Control Delay (s/veh)			10.1			13.0			7.7	0.2	0.2		7.4																							
Level of Service (LOS)			B			B			A	A	A		A																							
Approach Delay (s/veh)	10.1				13.0				1.9				0.2																							
Approach LOS	B				B				A				A																							

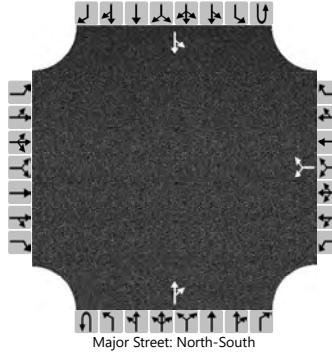
# HCS Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	MEM			Intersection			Solway Road and Gable Run Drive & Guinn R...																													
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction			Knox County, TN																													
Date Performed	9/10/2024			East/West Street			Gable Run Drive & Guinn Road																													
Analysis Year	2024			North/South Street			Solway Road																													
Time Analyzed	PM Peak - 2024 Existing			Peak Hour Factor			0.90																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			0.25																													
Project Description	Rowland Manor																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0																							
Configuration		LTR				LTR				LTR			LTR																							
Volume (veh/h)		7	1	41		26	3	5		69	86	47	11																							
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3		3																								
Proportion Time Blocked																																				
Percent Grade (%)	0				0																															
Right Turn Channelized																																				
Median Type   Storage	Undivided																																			
Critical and Follow-up Headways																																				
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1			4.1																							
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13			4.13																							
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2			2.2																							
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23			2.23																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)		54				38			77			12																								
Capacity, c (veh/h)		746				458			1386			1428																								
v/c Ratio		0.07				0.08			0.06			0.01																								
95% Queue Length, Q <sub>95</sub> (veh)		0.2				0.3			0.2			0.0																								
Control Delay (s/veh)		10.2				13.6			7.8	0.5	0.5	7.5	0.1																							
Level of Service (LOS)		B				B			A	A	A	A	A																							
Approach Delay (s/veh)	10.2				13.6				3.0			0.5																								
Approach LOS	B				B				A			A																								

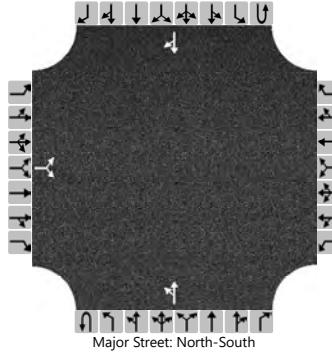
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and George Light Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		George Light Road																								
Analysis Year	2024			North/South Street		Solway Road																								
Time Analyzed	AM Peak - 2024 Existing			Peak Hour Factor		0.88																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	0	0		0	1	0	0	0	0	1																		
Configuration						LR				TR		LT																		
Volume (veh/h)						36		38		76	18	76																		
Percent Heavy Vehicles (%)						3		3				3																		
Proportion Time Blocked																														
Percent Grade (%)						0																								
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)						7.1		6.2				4.1																		
Critical Headway (sec)						6.43		6.23				4.13																		
Base Follow-Up Headway (sec)						3.5		3.3				2.2																		
Follow-Up Headway (sec)						3.53		3.33				2.23																		
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)						84						86																		
Capacity, c (veh/h)						630						1478																		
v/c Ratio						0.13						0.06																		
95% Queue Length, Q <sub>95</sub> (veh)						0.5						0.2																		
Control Delay (s/veh)						11.6						7.6																		
Level of Service (LOS)						B						A																		
Approach Delay (s/veh)				11.6						2.2																				
Approach LOS				B						A																				

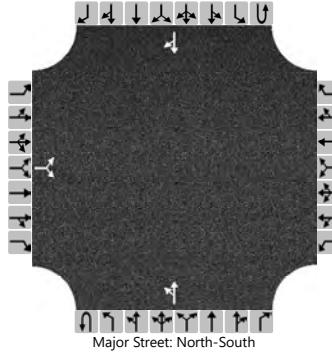
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and George Light Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		George Light Road																								
Analysis Year	2024			North/South Street		Solway Road																								
Time Analyzed	PM Peak - 2024 Existing			Peak Hour Factor		0.93																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	0	0		0	1	0	0	0	0	1																		
Configuration						LR				TR		LT																		
Volume (veh/h)						8		56		147	16	35																		
Percent Heavy Vehicles (%)						3		3				3																		
Proportion Time Blocked																														
Percent Grade (%)						0																								
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)						7.1		6.2			4.1																			
Critical Headway (sec)						6.43		6.23			4.13																			
Base Follow-Up Headway (sec)						3.5		3.3			2.2																			
Follow-Up Headway (sec)						3.53		3.33			2.23																			
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)						69					38																			
Capacity, c (veh/h)						815					1395																			
v/c Ratio						0.08					0.03																			
95% Queue Length, Q <sub>95</sub> (veh)						0.3					0.1																			
Control Delay (s/veh)						9.8					7.7	0.2																		
Level of Service (LOS)						A					A	A																		
Approach Delay (s/veh)				9.8						1.4																				
Approach LOS				A						A																				

# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Sam Lee Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		Sam Lee Road																								
Analysis Year	2024			North/South Street		Solway Road																								
Time Analyzed	AM Peak - 2024 Existing			Peak Hour Factor		0.95																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		38	210						108	77		249																		
Percent Heavy Vehicles (%)		3	3						3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		261							114																					
Capacity, c (veh/h)		669							1241																					
v/c Ratio		0.39							0.09																					
95% Queue Length, Q <sub>95</sub> (veh)		1.9							0.3																					
Control Delay (s/veh)		13.8							8.2	0.8																				
Level of Service (LOS)		B							A	A																				
Approach Delay (s/veh)	13.8								5.1																					
Approach LOS	B								A																					

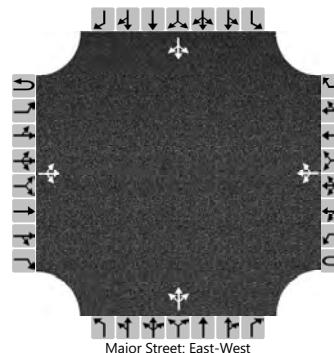
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Sam Lee Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/10/2024			East/West Street		Sam Lee Road																								
Analysis Year	2024			North/South Street		Solway Road																								
Time Analyzed	PM Peak - 2024 Existing			Peak Hour Factor		0.81																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		45		189					123	139		164																		
Percent Heavy Vehicles (%)		3		3					3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)			289						152																					
Capacity, c (veh/h)			644						1299																					
v/c Ratio			0.45						0.12																					
95% Queue Length, Q <sub>95</sub> (veh)			2.3						0.4																					
Control Delay (s/veh)			15.1						8.1	1.1																				
Level of Service (LOS)			C						A	A																				
Approach Delay (s/veh)	15.1								4.4																					
Approach LOS	C								A																					

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MEM			Intersection	Sam Lee Road and Swafford Road / Steele R...		
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction	Knox County, TN		
Date Performed	9/10/2024			East/West Street	Sam Lee Road		
Analysis Year	2024			North/South Street	Swafford Road / Steele Road		
Time Analyzed	AM Peak - 2024 Existing			Peak Hour Factor	0.86		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Rowland Manor						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0
Configuration			LTR				LTR			LTR				LTR		
Volume (veh/h)		2	33	82		95	24	1	42	16	115		1	17	0	0
Percent Heavy Vehicles (%)		3				3			3	3	3		3	3	3	3
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage		Undivided														

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

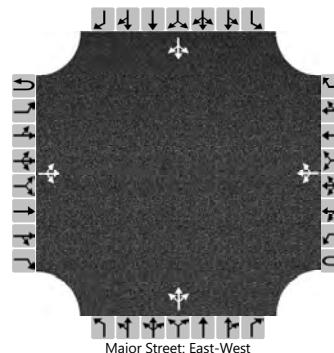
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		2				110				201				21		
Capacity, c (veh/h)		1578				1445				762				497		
v/c Ratio		0.00				0.08				0.26				0.04		
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.2				1.1				0.1		
Control Delay (s/veh)		7.3	0.0	0.0		7.7	0.6	0.6		11.4				12.6		
Level of Service (LOS)		A	A	A		A	A	A		B				B		
Approach Delay (s/veh)		0.1				6.2				11.4				12.6		
Approach LOS		A				A				B				B		

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MEM			Intersection	Sam Lee Road and Swafford Road / Steele R...		
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction	Knox County, TN		
Date Performed	9/10/2024			East/West Street	Sam Lee Road		
Analysis Year	2024			North/South Street	Swafford Road / Steele Road		
Time Analyzed	PM Peak - 2024 Existing			Peak Hour Factor	0.55		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Rowland Manor						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0
Configuration			LTR				LTR			LTR				LTR		
Volume (veh/h)		6	20	45		57	20	2	65	26	187		2	13	4	
Percent Heavy Vehicles (%)		3				3			3	3	3		3	3	3	
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage		Undivided														

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		11				104				505				35		
Capacity, c (veh/h)		1563				1464				762				504		
v/c Ratio		0.01				0.07				0.66				0.07		
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.2				5.1				0.2		
Control Delay (s/veh)		7.3	0.1	0.1		7.6	0.6	0.6		18.5				12.7		
Level of Service (LOS)		A	A	A		A	A	A		C				B		
Approach Delay (s/veh)		0.7				5.7				18.5				12.7		
Approach LOS		A				A				C				B		

## Lanes, Volumes, Timings

## 1: Pellissippi Pkwy SB Ramps/Solway Road &amp; Hardin Valley Road

2024 Existing AM Peak

2024 Existing

	↑	→	↓	↶	←	↷	↑	↓	↶	↷	↓	↑
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (vph)	73	550	535	332	1235	465	143	17	237	262	218	70
Future Volume (vph)	73	550	535	332	1235	465	143	17	237	262	218	70
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850			0.850		0.870	0.850		0.963
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1540	1504	1770	1794	0
Flt Permitted	0.950			0.434			0.833			0.833		
Satd. Flow (perm)	1770	3539	1583	808	3539	1583	1552	1540	1504	1552	1794	0
Satd. Flow (RTOR)			262			476		117	169		12	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										47%		
Lane Group Flow (vph)	77	579	563	349	1300	489	151	135	132	276	303	0
Turn Type	Prot	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2	3	1	6		3	8	1	7	4	
Permitted Phases			2	6		6	8		8	4		
Detector Phase	5	2	3	1	6	6	3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0	15.0	5.0	6.0	5.0	5.0	6.0	
Minimum Split (s)	11.5	22.0	11.5	11.5	33.5	33.5	11.5	12.5	11.5	11.5	45.5	
Total Split (s)	15.0	35.0	15.0	37.0	57.0	57.0	15.0	19.0	37.0	19.0	23.0	
Total Split (%)	13.6%	31.8%	13.6%	33.6%	51.8%	51.8%	13.6%	17.3%	33.6%	17.3%	20.9%	
Maximum Green (s)	8.5	28.0	8.5	30.5	50.5	50.5	8.5	12.5	30.5	12.5	16.5	
Yellow Time (s)	4.0	4.5	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	7.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lead	Lead							
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	
Recall Mode	None	C-Min	None	None	C-Min	C-Min	None	None	None	None	None	
Walk Time (s)					7.0	7.0					7.0	
Flash Dont Walk (s)					20.0	20.0					32.0	
Pedestrian Calls (#/hr)					0	0					0	
Act Effct Green (s)	7.4	23.1	39.1	49.9	49.9	49.9	13.9	13.9	45.3	19.9	19.9	
Actuated g/C Ratio	0.07	0.21	0.36	0.45	0.45	0.45	0.13	0.13	0.41	0.18	0.18	
v/c Ratio	0.65	0.78	0.77	0.54	0.81	0.50	0.71	0.46	0.18	0.89	0.90	
Control Delay	74.6	48.8	24.0	26.5	28.2	4.0	66.1	16.8	1.4	75.2	74.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	74.6	48.8	24.0	26.5	28.2	4.0	66.1	16.8	1.4	75.2	74.7	
LOS	E	D	C	C	C	A	E	B	A	E	E	
Approach Delay		39.0			22.4			29.7		74.9		
Approach LOS		D			C			C		E		
Queue Length 50th (ft)	54	206	198	168	453	43	105	12	0	196	~210	
Queue Length 95th (ft)	#111	253	318	206	533	63	#211	74	12	#383	#409	
Internal Link Dist (ft)		972			628			436		569		
Turn Bay Length (ft)	85		130	475			270		250	120		
Base Capacity (vph)	136	900	731	660	1636	988	213	296	732	311	335	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	

## Lanes, Volumes, Timings

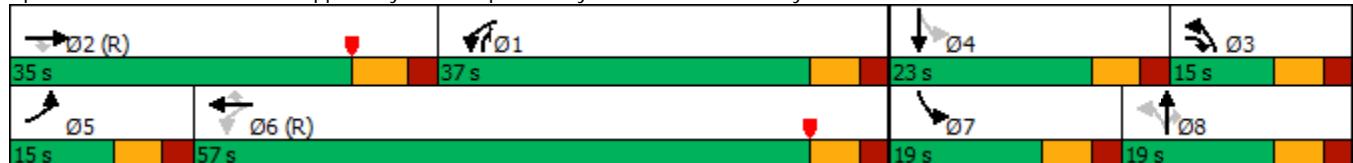
### 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road

2024 Existing AM Peak

2024 Existing

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.64	0.77	0.53	0.79	0.49	0.71	0.46	0.18	0.89	0.90	0.90
Intersection Summary												
Cycle Length:	110											
Actuated Cycle Length:	110											
Offset:	51 (46%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow											
Natural Cycle:	125											
Control Type:	Actuated-Coordinated											
Maximum v/c Ratio:	0.90											
Intersection Signal Delay:	34.7											
Intersection Capacity Utilization	83.6%											
ICU Level of Service	E											
Analysis Period (min)	15											
<ul style="list-style-type: none"> <li>~ Volume exceeds capacity, queue is theoretically infinite.</li> <li>Queue shown is maximum after two cycles.</li> </ul>												
# 95th percentile volume exceeds capacity, queue may be longer.												
Queue shown is maximum after two cycles.												

Splits and Phases: 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road



## Lanes, Volumes, Timings

## 1: Pellissippi Pkwy SB Ramps/Solway Road &amp; Hardin Valley Road

2024 Existing PM Peak

2024 Existing

	↑	→	↓	↶	←	↷	↑	↓	↶	↑	↓	↷
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	85	669	462	392	961	401	134	9	329	270	218	76
Future Volume (vph)	85	669	462	392	961	401	134	9	329	270	218	76
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850			0.850		0.858	0.850		0.961
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1518	1504	1770	1790	0
Flt Permitted	0.950			0.340								
Satd. Flow (perm)	1770	3539	1583	633	3539	1583	1863	1518	1504	1863	1790	0
Satd. Flow (RTOR)				170			431		173	144		12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	91	719	497	422	1033	431	144	183	181	290	316	0
Turn Type	Prot	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2	3	1	6		3	8	1	7	4	
Permitted Phases				2	6		6	8		8	4	
Detector Phase	5	2	3	1	6	6	3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0	15.0	5.0	6.0	5.0	5.0	6.0	
Minimum Split (s)	11.5	22.0	11.5	11.5	34.0	34.0	11.5	12.5	11.5	11.5	45.5	
Total Split (s)	15.0	42.0	22.0	33.0	60.0	60.0	22.0	22.0	33.0	28.0	28.0	
Total Split (%)	12.0%	33.6%	17.6%	26.4%	48.0%	48.0%	17.6%	17.6%	26.4%	22.4%	22.4%	
Maximum Green (s)	8.5	35.5	15.5	26.5	53.5	53.5	15.5	15.5	26.5	21.5	21.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lead	Lead							
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	
Recall Mode	None	C-Min	None	None	C-Min	C-Min	None	None	None	None	None	
Walk Time (s)							7.0	7.0				7.0
Flash Dont Walk (s)							20.0	20.0				32.0
Pedestrian Calls (#/hr)							0	0				0
Act Effct Green (s)	8.1	35.5	57.5	51.3	51.3	51.3	16.8	16.8	40.6	24.2	24.2	
Actuated g/C Ratio	0.06	0.28	0.46	0.41	0.41	0.41	0.13	0.13	0.32	0.19	0.19	
v/c Ratio	0.80	0.72	0.61	0.89	0.71	0.48	0.58	0.52	0.31	0.80	0.89	
Control Delay	100.9	45.6	20.0	62.7	35.3	8.3	61.1	14.3	5.4	66.1	73.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	100.9	45.6	20.0	62.7	35.3	8.3	61.1	14.3	5.4	66.1	73.9	
LOS	F	D	C	E	D	A	E	B	A	E	E	
Approach Delay		39.7			35.3				24.4			70.2
Approach LOS		D			D			C				E
Queue Length 50th (ft)	74	291	210	308	414	88	112	7	10	220	236	
Queue Length 95th (ft)	#164	346	310	#407	473	146	184	82	43	#396	#443	
Internal Link Dist (ft)		972			628			436				569
Turn Bay Length (ft)	85		130	475			270		250	120		
Base Capacity (vph)	121	1063	812	520	1532	930	260	353	619	361	356	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	

## Lanes, Volumes, Timings

### 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road

2024 Existing PM Peak

2024 Existing

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.68	0.61	0.81	0.67	0.46	0.55	0.52	0.29	0.80	0.89	

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 32.5 (26%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.89

Intersection Signal Delay: 40.2

Intersection LOS: D

Intersection Capacity Utilization 85.4%

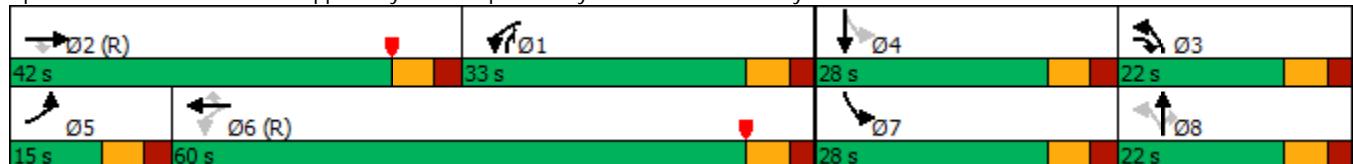
ICU Level of Service E

Analysis Period (min) 15

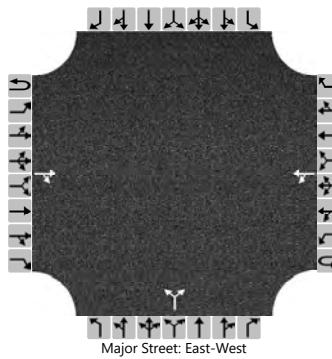
# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

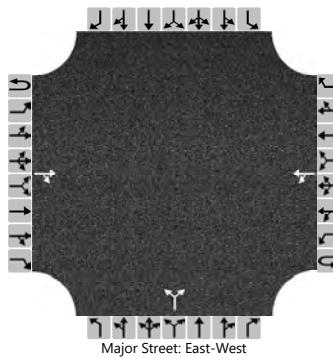
Splits and Phases: 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road



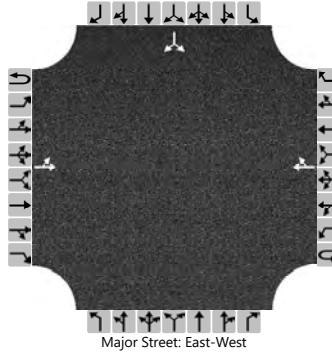
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Swafford Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		Guinn Road																								
Analysis Year	2026			North/South Street		Swafford Road																								
Time Analyzed	AM Peak - 2026 Back.			Peak Hour Factor		0.76																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	U	L	T	U	L	T	U	L	T																		
Priority	1U	1	2	4U	4	5	6	7	8	9	10	11																		
Number of Lanes	0	0	1	0	0	0	1	0	1	0	0	0																		
Configuration	TR			LT			LR																							
Volume (veh/h)	66			13			24			1																				
Percent Heavy Vehicles (%)				3						3																				
Proportion Time Blocked																														
Percent Grade (%)							0																							
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)				4.1			7.1			6.2																				
Critical Headway (sec)				4.13			6.43			6.23																				
Base Follow-Up Headway (sec)				2.2			3.5			3.3																				
Follow-Up Headway (sec)				2.23			3.53			3.33																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)				17			36																							
Capacity, c (veh/h)				1496			960																							
v/c Ratio				0.01			0.04																							
95% Queue Length, Q <sub>95</sub> (veh)				0.0			0.1																							
Control Delay (s/veh)				7.4			8.9																							
Level of Service (LOS)	A			A			A																							
Approach Delay (s/veh)				2.7			8.9																							
Approach LOS	A			A			A																							

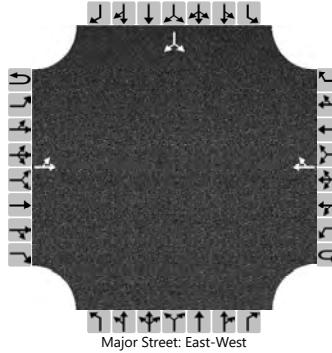
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Swafford Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		Guinn Road																								
Analysis Year	2026			North/South Street		Swafford Road																								
Time Analyzed	PM Peak - 2026 Back			Peak Hour Factor		0.86																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	1U	1	2	3	4U	4	5	6	7	8	9	10, 11, 12																		
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0, 0, 0																		
Configuration	TR			LT			LR																							
Volume (veh/h)	45			19			1			17																				
Percent Heavy Vehicles (%)				3			3			3																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)				4.1			7.1			6.2																				
Critical Headway (sec)				4.13			6.43			6.23																				
Base Follow-Up Headway (sec)				2.2			3.5			3.3																				
Follow-Up Headway (sec)				2.23			3.53			3.33																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)				22			21																							
Capacity, c (veh/h)				1546			996																							
v/c Ratio				0.01			0.02																							
95% Queue Length, Q <sub>95</sub> (veh)				0.0			0.1																							
Control Delay (s/veh)				7.4			8.7																							
Level of Service (LOS)				A			A																							
Approach Delay (s/veh)				1.5			8.7																							
Approach LOS				A			A																							

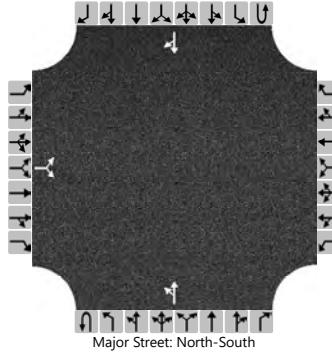
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		Guinn Road																								
Analysis Year	2026			North/South Street		Old Solway Road																								
Time Analyzed	AM Peak - 2026 Back.			Peak Hour Factor		0.79																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	1U	1	2	3	4U	4	5	6	7	8	9	10																		
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	1																		
Configuration	LT			TR						LR																				
Volume (veh/h)	10			77			37			0																				
Percent Heavy Vehicles (%)	3									3																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)	4.1									7.1																				
Critical Headway (sec)	4.13									6.43																				
Base Follow-Up Headway (sec)	2.2									3.5																				
Follow-Up Headway (sec)	2.23									3.53																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)	13									16																				
Capacity, c (veh/h)	1554									1020																				
v/c Ratio	0.01									0.02																				
95% Queue Length, Q <sub>95</sub> (veh)	0.0									0.0																				
Control Delay (s/veh)	7.3			0.1						8.6																				
Level of Service (LOS)	A									A																				
Approach Delay (s/veh)	0.9									8.6																				
Approach LOS	A									A																				

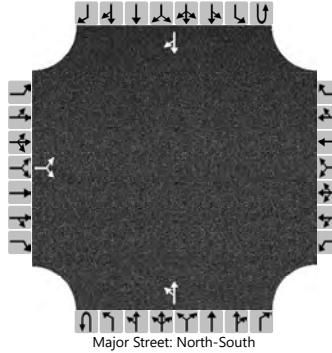
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		Guinn Road																								
Analysis Year	2026			North/South Street		Old Solway Road																								
Time Analyzed	PM Peak - 2026 Back.			Peak Hour Factor		0.81																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	1U	1	2	3	4U	4	5	6	7	8	9	10																		
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	1																		
Configuration	LT			TR						LR																				
Volume (veh/h)	4			56			73			0																				
Percent Heavy Vehicles (%)	3									3																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)	4.1									7.1																				
Critical Headway (sec)	4.13									6.43																				
Base Follow-Up Headway (sec)	2.2									3.5																				
Follow-Up Headway (sec)	2.23									3.53																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)	5									30																				
Capacity, c (veh/h)	1499									950																				
v/c Ratio	0.00									0.03																				
95% Queue Length, Q <sub>95</sub> (veh)	0.0									0.1																				
Control Delay (s/veh)	7.4			0.0						8.9																				
Level of Service (LOS)	A									A																				
Approach Delay (s/veh)	0.5									8.9																				
Approach LOS	A									A																				

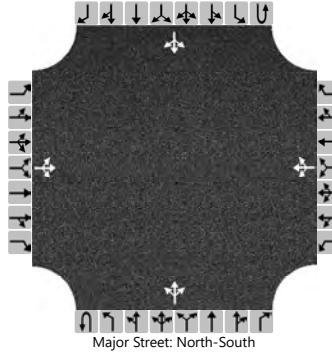
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		Old Solway Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	AM Peak - 2026 Back			Peak Hour Factor		0.83																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		10		0					0	82		186																		
Percent Heavy Vehicles (%)		3		3					3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		12							0																					
Capacity, c (veh/h)		662							1322																					
v/c Ratio		0.02							0.00																					
95% Queue Length, Q <sub>95</sub> (veh)		0.1							0.0																					
Control Delay (s/veh)		10.5							7.7	0.0																				
Level of Service (LOS)		B							A	A																				
Approach Delay (s/veh)	10.5								0.0																					
Approach LOS	B								A																					

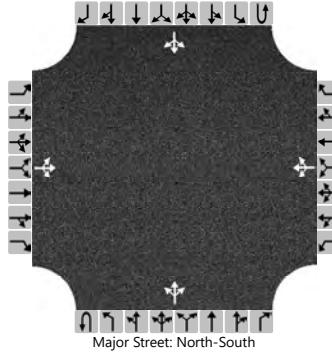
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		Old Solway Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	PM Peak - 2026 Back.			Peak Hour Factor		0.94																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		4		0					0	83		187																		
Percent Heavy Vehicles (%)		3		3					3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		4							0																					
Capacity, c (veh/h)		694							1350																					
v/c Ratio		0.01							0.00																					
95% Queue Length, Q <sub>95</sub> (veh)		0.0							0.0																					
Control Delay (s/veh)		10.2							7.7	0.0																				
Level of Service (LOS)		B							A	A																				
Approach Delay (s/veh)	10.2								0.0																					
Approach LOS	B								A																					

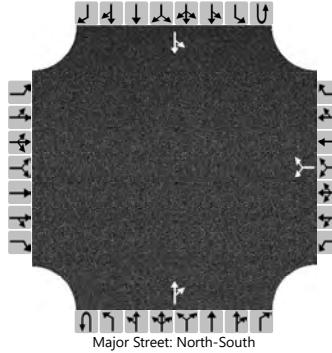
# HCS Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	MEM			Intersection			Solway Road and Gable Run Drive & Guinn R...																													
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction			Knox County, TN																													
Date Performed	9/11/2024			East/West Street			Gable Run Drive & Guinn Road																													
Analysis Year	2026			North/South Street			Solway Road																													
Time Analyzed	AM Peak - 2026 Back.			Peak Hour Factor			0.90																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			0.25																													
Project Description	Rowland Manor																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0																							
Configuration		LTR				LTR				LTR			LTR																							
Volume (veh/h)		6	2	72		58	2	8		29	73	24	4																							
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3		3																								
Proportion Time Blocked																																				
Percent Grade (%)	0				0																															
Right Turn Channelized																																				
Median Type   Storage	Undivided																																			
Critical and Follow-up Headways																																				
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1			4.1																							
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13			4.13																							
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2			2.2																							
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23			2.23																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)			89			76			32			4																								
Capacity, c (veh/h)			751			478			1315			1477																								
v/c Ratio			0.12			0.16			0.02			0.00																								
95% Queue Length, Q <sub>95</sub> (veh)			0.4			0.6			0.1			0.0																								
Control Delay (s/veh)			10.4			13.9			7.8	0.2	0.2	7.4	0.0																							
Level of Service (LOS)			B			B			A	A	A	A	A																							
Approach Delay (s/veh)	10.4				13.9				2.0			0.2																								
Approach LOS	B				B				A			A																								

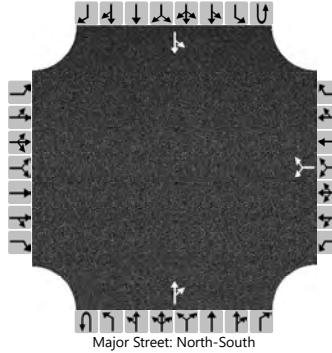
# HCS Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	MEM			Intersection			Solway Road and Gable Run Drive & Guinn R...																													
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction			Knox County, TN																													
Date Performed	9/11/2024			East/West Street			Gable Run Drive & Guinn Road																													
Analysis Year	2026			North/South Street			Solway Road																													
Time Analyzed	PM Peak - 2026 Back.			Peak Hour Factor			0.90																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			0.25																													
Project Description	Rowland Manor																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound			Westbound			Northbound			Southbound																										
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0																							
Configuration		LTR				LTR				LTR			LTR																							
Volume (veh/h)		8	1	46		29	3	6		77	96	52	12																							
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3			3																							
Proportion Time Blocked																																				
Percent Grade (%)	0			0																																
Right Turn Channelized																																				
Median Type   Storage	Undivided																																			
Critical and Follow-up Headways																																				
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1			4.1																							
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13			4.13																							
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2			2.2																							
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23			2.23																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)		61			42			86				13																								
Capacity, c (veh/h)		712			417			1361				1408																								
v/c Ratio		0.09			0.10			0.06				0.01																								
95% Queue Length, Q <sub>95</sub> (veh)		0.3			0.3			0.2				0.0																								
Control Delay (s/veh)		10.5			14.6			7.8	0.5	0.5		7.6	0.1																							
Level of Service (LOS)		B			B			A	A	A		A	A																							
Approach Delay (s/veh)	10.5			14.6			3.0			0.5																										
Approach LOS	B			B			A			A																										

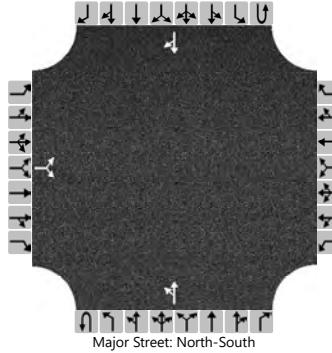
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and George Light Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		George Light Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	AM Peak - 2026 Back.			Peak Hour Factor		0.88																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	0	0		0	1	0	0	0	0	1																		
Configuration						LR				TR		LT																		
Volume (veh/h)						42		40		85	20	85																		
Percent Heavy Vehicles (%)						3		3				3																		
Proportion Time Blocked																														
Percent Grade (%)						0																								
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)						7.1		6.2				4.1																		
Critical Headway (sec)						6.43		6.23				4.13																		
Base Follow-Up Headway (sec)						3.5		3.3				2.2																		
Follow-Up Headway (sec)						3.53		3.33				2.23																		
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)						93						97																		
Capacity, c (veh/h)						577						1462																		
v/c Ratio						0.16						0.07																		
95% Queue Length, Q <sub>95</sub> (veh)						0.6						0.2																		
Control Delay (s/veh)						12.4						7.6																		
Level of Service (LOS)						B						A																		
Approach Delay (s/veh)				12.4						2.3																				
Approach LOS				B						A																				

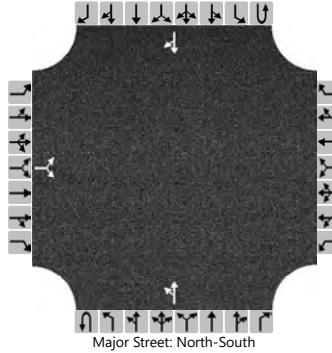
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and George Light Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		George Light Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	PM Peak - 2026 Back.			Peak Hour Factor		0.93																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	0	0		0	1	0	0	0	0	1																		
Configuration						LR				TR		LT																		
Volume (veh/h)						9		62		164	18	39																		
Percent Heavy Vehicles (%)						3		3				3																		
Proportion Time Blocked																														
Percent Grade (%)						0																								
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)						7.1		6.2			4.1																			
Critical Headway (sec)						6.43		6.23			4.13																			
Base Follow-Up Headway (sec)						3.5		3.3			2.2																			
Follow-Up Headway (sec)						3.53		3.33			2.23																			
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)						76				42																				
Capacity, c (veh/h)						786				1371																				
v/c Ratio						0.10				0.03																				
95% Queue Length, Q <sub>95</sub> (veh)						0.3				0.1																				
Control Delay (s/veh)						10.1				7.7	0.3																			
Level of Service (LOS)						B				A	A																			
Approach Delay (s/veh)				10.1						1.4																				
Approach LOS				B						A																				

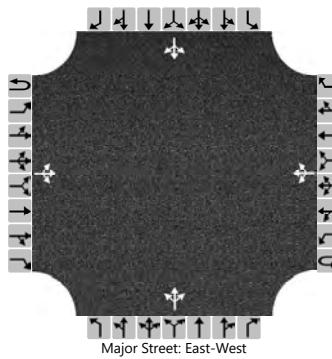
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Sam Lee Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		Sam Lee Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	AM Peak - 2026 Back.			Peak Hour Factor		0.95																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		42	234						120	86		277 55																		
Percent Heavy Vehicles (%)		3	3						3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		291							126																					
Capacity, c (veh/h)		631							1204																					
v/c Ratio		0.46							0.10																					
95% Queue Length, Q <sub>95</sub> (veh)		2.4							0.4																					
Control Delay (s/veh)		15.5							8.3 0.9																					
Level of Service (LOS)		C							A A																					
Approach Delay (s/veh)	15.5								5.2																					
Approach LOS	C								A																					

# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Sam Lee Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/11/2024			East/West Street		Sam Lee Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	PM Peak - 2026 Back.			Peak Hour Factor		0.81																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		50	210						137	155		183																		
Percent Heavy Vehicles (%)		3	3						3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		321							169																					
Capacity, c (veh/h)		600							1267																					
v/c Ratio		0.54							0.13																					
95% Queue Length, Q <sub>95</sub> (veh)		3.2							0.5																					
Control Delay (s/veh)		17.7							8.3	1.2																				
Level of Service (LOS)		C							A	A																				
Approach Delay (s/veh)	17.7								4.5																					
Approach LOS	C								A																					

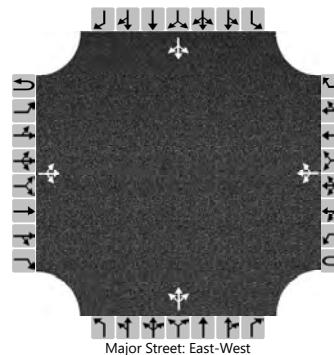
# HCS Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	MEM			Intersection			Sam Lee Road and Swafford Road / Steele R...																													
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction			Knox County, TN																													
Date Performed	9/11/2024			East/West Street			Sam Lee Road																													
Analysis Year	2026			North/South Street			Swafford Road / Steele Road																													
Time Analyzed	AM Peak - 2026 Back.			Peak Hour Factor			0.86																													
Intersection Orientation	East-West			Analysis Time Period (hrs)			0.25																													
Project Description	Rowland Manor																																			
Lanes																																				
 Major Street: East-West																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority	1U	1	2	3	4U	4	5	6	7	8	9		10																							
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0		0																							
Configuration			LTR				LTR			LTR			LTR																							
Volume (veh/h)		2	37	91		106	27	1	47	18	128		1																							
Percent Heavy Vehicles (%)		3				3			3	3	3		3																							
Proportion Time Blocked																																				
Percent Grade (%)									0				0																							
Right Turn Channelized																																				
Median Type   Storage	Undivided																																			
Critical and Follow-up Headways																																				
Base Critical Headway (sec)		4.1				4.1			7.1	6.5	6.2		7.1																							
Critical Headway (sec)		4.13				4.13			7.13	6.53	6.23		7.13																							
Base Follow-Up Headway (sec)		2.2				2.2			3.5	4.0	3.3		3.5																							
Follow-Up Headway (sec)		2.23				2.23			3.53	4.03	3.33		3.53																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)		2				123			224				23																							
Capacity, c (veh/h)		1573				1426			729				463																							
v/c Ratio		0.00				0.09			0.31				0.05																							
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.3			1.3				0.2																							
Control Delay (s/veh)		7.3	0.0	0.0		7.8	0.7	0.7		12.1			13.2																							
Level of Service (LOS)		A	A	A		A	A	A		B			B																							
Approach Delay (s/veh)	0.1			6.3			12.1			13.2																										
Approach LOS	A			A			B			B																										

# HCS Two-Way Stop-Control Report

General Information				Site Information			
Analyst	MEM			Intersection	Sam Lee Road and Swafford Road / Steele R...		
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction	Knox County, TN		
Date Performed	9/11/2024			East/West Street	Sam Lee Road		
Analysis Year	2026			North/South Street	Swafford Road / Steele Road		
Time Analyzed	PM Peak - 2026 Back.			Peak Hour Factor	0.55		
Intersection Orientation	East-West			Analysis Time Period (hrs)	0.25		
Project Description	Rowland Manor						

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6	7	8	9		10	11	12	
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0	0
Configuration			LTR				LTR			LTR				LTR		
Volume (veh/h)		7	22	50		63	22	2	72	29	208		2	14	4	
Percent Heavy Vehicles (%)		3				3			3	3	3		3	3	3	
Proportion Time Blocked																
Percent Grade (%)									0				0			
Right Turn Channelized																
Median Type   Storage		Undivided														

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		13				115				562				36		
Capacity, c (veh/h)		1558				1448				732				463		
v/c Ratio		0.01				0.08				0.77				0.08		
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.3				7.3				0.3		
Control Delay (s/veh)		7.3	0.1	0.1		7.7	0.6	0.6		24.2				13.4		
Level of Service (LOS)		A	A	A		A	A	A		C				B		
Approach Delay (s/veh)		0.7				5.7				24.2				13.4		
Approach LOS		A				A				C				B		

## Lanes, Volumes, Timings

2026 Background AM Peak

## 1: Pellissippi Pkwy SB Ramps/Solway Road &amp; Hardin Valley Road

2026 Background

	↑	→	↓	↶	←	↗	↖	↑	↗	↖	↓	↶
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (vph)	81	612	595	358	1375	518	159	19	264	292	243	78
Future Volume (vph)	81	612	595	358	1375	518	159	19	264	292	243	78
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850			0.850		0.870	0.850		0.964
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1540	1504	1770	1796	0
Flt Permitted	0.950			0.390								
Satd. Flow (perm)	1770	3539	1583	726	3539	1583	1863	1540	1504	1863	1796	0
Satd. Flow (RTOR)				225			476		131	164		12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										47%		
Lane Group Flow (vph)	85	644	626	377	1447	545	167	151	147	307	338	0
Turn Type	Prot	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2	3	1	6		3	8	1	7	4	
Permitted Phases				2	6		6	8		8	4	
Detector Phase	5	2	3	1	6	6	3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0	15.0	5.0	6.0	5.0	5.0	6.0	
Minimum Split (s)	11.5	22.0	12.0	11.5	33.5	33.5	12.0	13.0	11.5	12.0	45.5	
Total Split (s)	15.0	35.0	15.0	37.0	57.0	57.0	15.0	19.0	37.0	19.0	23.0	
Total Split (%)	13.6%	31.8%	13.6%	33.6%	51.8%	51.8%	13.6%	17.3%	33.6%	17.3%	20.9%	
Maximum Green (s)	8.5	28.5	8.5	30.5	50.5	50.5	8.5	12.5	30.5	12.5	16.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lead	Lead							
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	
Recall Mode	None	C-Min	None	None	C-Min	C-Min	None	None	None	None	None	
Walk Time (s)						7.0	7.0				7.0	
Flash Dont Walk (s)						20.0	20.0				32.0	
Pedestrian Calls (#/hr)						0	0				0	
Act Effct Green (s)	7.5	24.2	39.2	51.2	51.2	51.2	12.5	12.5	44.7	19.1	19.1	
Actuated g/C Ratio	0.07	0.22	0.36	0.47	0.47	0.47	0.11	0.11	0.41	0.17	0.17	
v/c Ratio	0.70	0.83	0.88	0.59	0.88	0.55	0.79	0.52	0.21	0.95	1.05	
Control Delay	79.7	50.6	36.1	28.5	32.2	4.8	73.9	17.9	2.0	86.1	108.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	79.7	50.6	36.1	28.5	32.2	4.8	73.9	17.9	2.0	86.1	108.6	
LOS	E	D	D	C	C	A	E	B	A	F	F	
Approach Delay		45.7			25.3			33.0			97.9	
Approach LOS		D			C			C			F	
Queue Length 50th (ft)	59	229	283	182	516	52	117	13	0	-246	~286	
Queue Length 95th (ft)	#128	283	#455	229	#615	76	#227	80	18	#420	#469	
Internal Link Dist (ft)		972			628			436			569	
Turn Bay Length (ft)	85		130	475			270		250	120		
Base Capacity (vph)	136	916	708	651	1645	991	211	291	714	323	321	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	

## Lanes, Volumes, Timings

### 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road

2026 Background AM Peak

2026 Background



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.70	0.88	0.58	0.88	0.55	0.79	0.52	0.21	0.95	1.05	

#### Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 51.5 (47%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 41.5

Intersection LOS: D

Intersection Capacity Utilization 90.5%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road



## Lanes, Volumes, Timings

## 1: Pellissippi Pkwy SB Ramps/Solway Road &amp; Hardin Valley Road

2026 Background PM Peak

2026 Background

	↑	→	↓	↶	←	↷	↑	↓	↶	↑	↓	↷
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (vph)	95	745	514	436	1070	446	149	10	366	301	243	85
Future Volume (vph)	95	745	514	436	1070	446	149	10	366	301	243	85
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850			0.850		0.858	0.850		0.961
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1518	1504	1770	1790	0
Flt Permitted	0.950			0.246			0.000			0.000		
Satd. Flow (perm)	1770	3539	1583	458	3539	1583	0	1518	1504	0	1790	0
Satd. Flow (RTOR)				125			439		193	144		12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	102	801	553	469	1151	480	160	204	201	324	352	0
Turn Type	Prot	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2	3	1	6		3	8	1	7	4	
Permitted Phases				2	6		6	8		8	4	
Detector Phase	5	2	3	1	6	6	3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0	15.0	5.0	6.0	5.0	5.0	6.0	
Minimum Split (s)	11.5	22.0	11.5	11.5	34.0	34.0	11.5	12.5	11.5	11.5	45.5	
Total Split (s)	15.0	42.0	22.0	33.0	60.0	60.0	22.0	22.0	33.0	28.0	28.0	
Total Split (%)	12.0%	33.6%	17.6%	26.4%	48.0%	48.0%	17.6%	17.6%	26.4%	22.4%	22.4%	
Maximum Green (s)	8.5	35.5	15.5	26.5	53.5	53.5	15.5	15.5	26.5	21.5	21.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lead	Lead							
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	
Recall Mode	None	C-Min	None	None	C-Min	C-Min	None	None	None	None	None	
Walk Time (s)						7.0	7.0				7.0	
Flash Dont Walk (s)						20.0	20.0				32.0	
Pedestrian Calls (#/hr)						0	0				0	
Act Effct Green (s)	8.3	32.2	54.2	51.9	51.9	51.9	15.5	15.5	43.5	23.3	23.3	
Actuated g/C Ratio	0.07	0.26	0.43	0.42	0.42	0.42	0.12	0.12	0.35	0.19	0.19	
v/c Ratio	0.87	0.88	0.73	0.97	0.78	0.53	0.73	0.57	0.33	0.98	1.03	
Control Delay	112.7	56.2	28.3	79.5	38.9	9.7	72.6	15.1	6.3	96.5	103.9	
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	112.7	56.2	28.3	79.5	39.1	9.7	72.6	15.1	6.3	96.5	103.9	
LOS	F	E	C	E	D	A	E	B	A	F	F	
Approach Delay		49.6			41.4			28.3		100.3		
Approach LOS		D			D			C		F		
Queue Length 50th (ft)	83	324	283	333	453	109	126	8	17	-289	-317	
Queue Length 95th (ft)	#188	394	413	#562	535	180	#227	87	51	#475	#512	
Internal Link Dist (ft)		972			628			436		569		
Turn Bay Length (ft)	85		130	475			270		250	120		
Base Capacity (vph)	120	1005	756	484	1514	928	219	357	616	330	343	
Starvation Cap Reductn	0	0	0	0	31	0	0	0	0	0	0	

## Lanes, Volumes, Timings

### 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road

2026 Background PM Peak

2026 Background

	→	→	→	←	←	↑	↑	↓	↓	←		
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.80	0.73	0.97	0.78	0.52	0.73	0.57	0.33	0.98	1.03	

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 32.5 (26%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 50.6

Intersection LOS: D

Intersection Capacity Utilization 92.6%

ICU Level of Service F

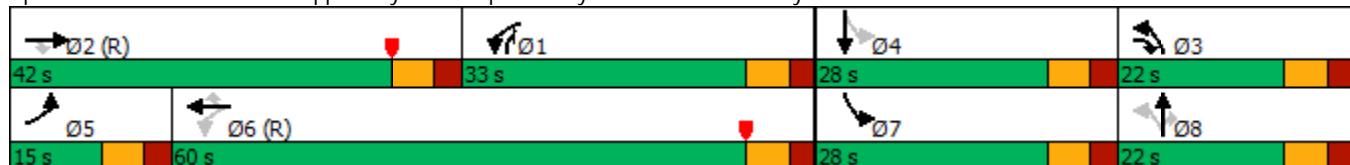
Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.
- # Queue shown is maximum after two cycles.

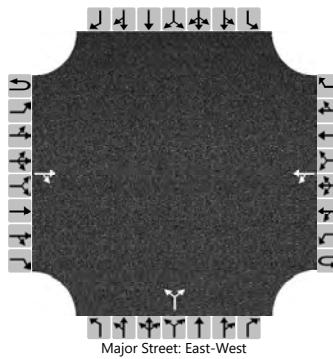
# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

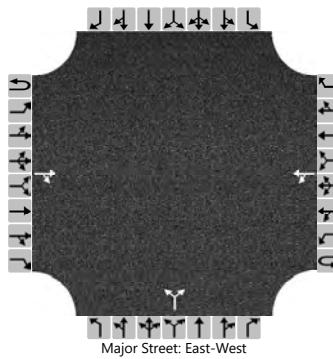
### Splits and Phases: 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road



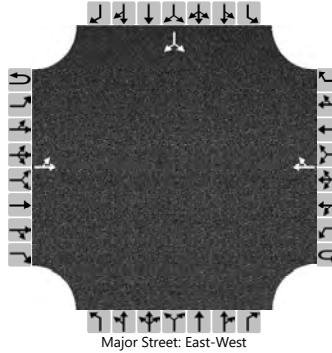
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Swafford Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Guinn Road																								
Analysis Year	2026			North/South Street		Swafford Road																								
Time Analyzed	AM Peak - 2026 Comb.			Peak Hour Factor		0.76																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	1U	1	2	3	4U	4	5	6	7	8	9	10	11	12																
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0	0	0																
Configuration	TR			LT			LR																							
Volume (veh/h)	66			22			1			55																				
Percent Heavy Vehicles (%)				3			3			3																				
Proportion Time Blocked																														
Percent Grade (%)							0																							
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)							4.1			7.1																				
Critical Headway (sec)							4.13			6.43																				
Base Follow-Up Headway (sec)							2.2			3.5																				
Follow-Up Headway (sec)							2.23			3.53																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)							29			74																				
Capacity, c (veh/h)							1496			962																				
v/c Ratio							0.02			0.08																				
95% Queue Length, Q <sub>95</sub> (veh)							0.1			0.2																				
Control Delay (s/veh)							7.5			9.1																				
Level of Service (LOS)							A			A																				
Approach Delay (s/veh)							3.6			9.1																				
Approach LOS							A			A																				

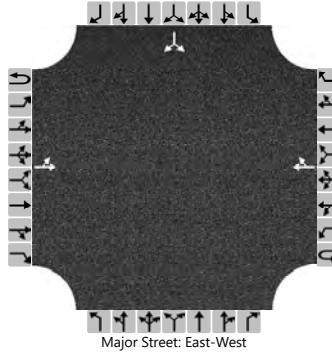
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Swafford Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Guinn Road																								
Analysis Year	2026			North/South Street		Swafford Road																								
Time Analyzed	PM Peak - 2026 Comb.			Peak Hour Factor		0.86																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	1U	1	2	3	4U	4	5	6	7	8	9	10	11	12																
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0	0	0																
Configuration				TR				LT				LR																		
Volume (veh/h)				45				50				1																		
Percent Heavy Vehicles (%)								3				3																		
Proportion Time Blocked																														
Percent Grade (%)												0																		
Right Turn Channelized																														
Median Type   Storage				Undivided																										
Critical and Follow-up Headways																														
Base Critical Headway (sec)								4.1				7.1																		
Critical Headway (sec)								4.13				6.43																		
Base Follow-Up Headway (sec)								2.2				3.5																		
Follow-Up Headway (sec)								2.23				3.53																		
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)								58				42																		
Capacity, c (veh/h)								1546				999																		
v/c Ratio								0.04				0.04																		
95% Queue Length, Q <sub>95</sub> (veh)								0.1				0.1																		
Control Delay (s/veh)								7.4				8.8																		
Level of Service (LOS)								A				A																		
Approach Delay (s/veh)								3.1				8.8																		
Approach LOS								A				A																		

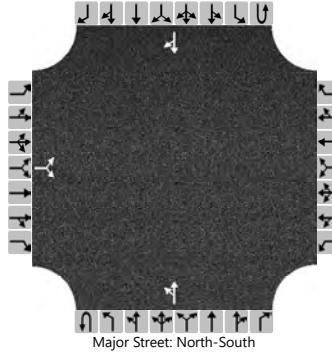
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Guinn Road																								
Analysis Year	2026			North/South Street		Old Solway Road																								
Time Analyzed	AM Peak - 2026 Comb.			Peak Hour Factor		0.79																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	U	L	T	U	L	T	U	L	T																		
Priority	1U	1	2	4U	4	5	6	7	8	9	10	11																		
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	1																		
Configuration	LT			TR						LR																				
Volume (veh/h)	12			104			45			0																				
Percent Heavy Vehicles (%)	3									3																				
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)	4.1									7.1																				
Critical Headway (sec)	4.13									6.43																				
Base Follow-Up Headway (sec)	2.2									3.5																				
Follow-Up Headway (sec)	2.23									3.53																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)	15									18																				
Capacity, c (veh/h)	1541									1007																				
v/c Ratio	0.01									0.02																				
95% Queue Length, Q <sub>95</sub> (veh)	0.0									0.1																				
Control Delay (s/veh)	7.4			0.1						8.6																				
Level of Service (LOS)	A									A																				
Approach Delay (s/veh)	0.8									8.6																				
Approach LOS	A									A																				

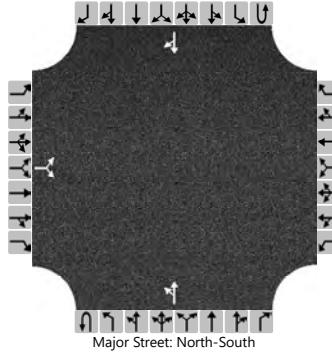
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Guinn Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Guinn Road																								
Analysis Year	2026			North/South Street		Old Solway Road																								
Time Analyzed	PM Peak - 2026 Comb.			Peak Hour Factor		0.81																								
Intersection Orientation	East-West			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: East-West																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	U	L	T	U	L	T	U	L	T																		
Priority	1U	1	2	4U	4	5	6	7	8	9	10	11																		
Number of Lanes	0	0	1	0	0	0	1	0	0	0	0	1																		
Configuration	LT			TR						LR																				
Volume (veh/h)	5 73			102 0						2 24																				
Percent Heavy Vehicles (%)	3									3																				
Proportion Time Blocked																														
Percent Grade (%)										0																				
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)	4.1									7.1																				
Critical Headway (sec)	4.13									6.43																				
Base Follow-Up Headway (sec)	2.2									3.5																				
Follow-Up Headway (sec)	2.23									3.53																				
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)	6									32																				
Capacity, c (veh/h)	1454									906																				
v/c Ratio	0.00									0.04																				
95% Queue Length, Q <sub>95</sub> (veh)	0.0									0.1																				
Control Delay (s/veh)	7.5 0.0									9.1																				
Level of Service (LOS)	A A									A																				
Approach Delay (s/veh)	0.5									9.1																				
Approach LOS	A									A																				

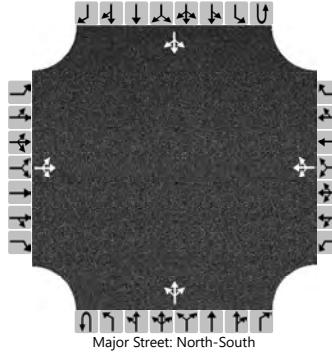
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Old Solway Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	AM Peak - 2026 Comb.			Peak Hour Factor		0.83																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		12		0					0	82		187																		
Percent Heavy Vehicles (%)		3		3					3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		14							0																					
Capacity, c (veh/h)		661							1320																					
v/c Ratio		0.02							0.00																					
95% Queue Length, Q <sub>95</sub> (veh)		0.1							0.0																					
Control Delay (s/veh)		10.6							7.7	0.0																				
Level of Service (LOS)		B							A	A																				
Approach Delay (s/veh)	10.6																													
Approach LOS	B																													

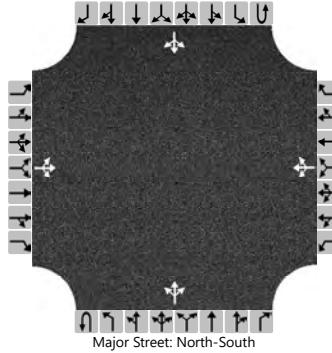
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and old Solway Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Old Solway Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	PM Peak - 2026 Comb.			Peak Hour Factor		0.94																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		5		0					0	83		189																		
Percent Heavy Vehicles (%)		3		3					3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		5							0																					
Capacity, c (veh/h)		691							1346																					
v/c Ratio		0.01							0.00																					
95% Queue Length, Q <sub>95</sub> (veh)		0.0							0.0																					
Control Delay (s/veh)		10.2							7.7	0.0																				
Level of Service (LOS)		B							A	A																				
Approach Delay (s/veh)	10.2																													
Approach LOS	B																													

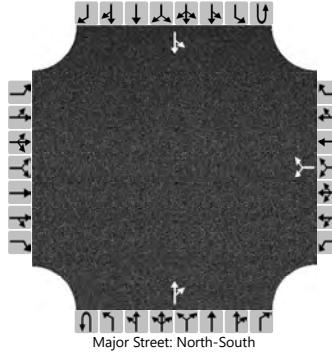
# HCS Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	MEM			Intersection			Solway Road and Gable Run Drive & Guinn R...																													
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction			Knox County, TN																													
Date Performed	9/16/2024			East/West Street			Gable Run Drive & Guinn Road																													
Analysis Year	2026			North/South Street			Solway Road																													
Time Analyzed	AM Peak - 2026 Comb.			Peak Hour Factor			0.90																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			0.25																													
Project Description	Rowland Manor																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0																							
Configuration		LTR				LTR				LTR			LTR																							
Volume (veh/h)		8	2	97		58	2	8		36	73	24																								
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3		3																								
Proportion Time Blocked																																				
Percent Grade (%)	0				0																															
Right Turn Channelized																																				
Median Type   Storage	Undivided																																			
Critical and Follow-up Headways																																				
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1			4.1																							
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13			4.13																							
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2			2.2																							
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23			2.23																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)			119			76			40				4																							
Capacity, c (veh/h)			750			439			1313				1477																							
v/c Ratio			0.16			0.17			0.03				0.00																							
95% Queue Length, Q <sub>95</sub> (veh)			0.6			0.6			0.1				0.0																							
Control Delay (s/veh)			10.7			14.9			7.8	0.3	0.3		7.4																							
Level of Service (LOS)			B			B			A	A	A		A																							
Approach Delay (s/veh)	10.7				14.9				2.3				0.2																							
Approach LOS	B				B				A				A																							

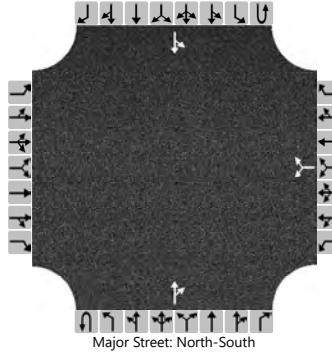
# HCS Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	MEM			Intersection			Solway Road and Gable Run Drive & Guinn R...																													
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction			Knox County, TN																													
Date Performed	9/16/2024			East/West Street			Gable Run Drive & Guinn Road																													
Analysis Year	2026			North/South Street			Solway Road																													
Time Analyzed	PM Peak - 2026 Comb.			Peak Hour Factor			0.90																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			0.25																													
Project Description	Rowland Manor																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound			Westbound			Northbound			Southbound																										
Movement	U	L	T	R	U	L	T	R	U	L	T	R																								
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		0	1	0		0	1	0	0	0	1	0	0																							
Configuration		LTR				LTR				LTR			LTR																							
Volume (veh/h)		9	1	62		29	3	6		104	96	52	12																							
Percent Heavy Vehicles (%)		3	3	3		3	3	3		3			3																							
Proportion Time Blocked																																				
Percent Grade (%)	0			0																																
Right Turn Channelized																																				
Median Type   Storage	Undivided																																			
Critical and Follow-up Headways																																				
Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1			4.1																							
Critical Headway (sec)		7.13	6.53	6.23		7.13	6.53	6.23		4.13			4.13																							
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2			2.2																							
Follow-Up Headway (sec)		3.53	4.03	3.33		3.53	4.03	3.33		2.23			2.23																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)		80			42			116				13																								
Capacity, c (veh/h)		705			361			1359				1408																								
v/c Ratio		0.11			0.12			0.09				0.01																								
95% Queue Length, Q <sub>95</sub> (veh)		0.4			0.4			0.3				0.0																								
Control Delay (s/veh)		10.8			16.3			7.9	0.7	0.7		7.6	0.1																							
Level of Service (LOS)		B			C			A	A	A		A	A																							
Approach Delay (s/veh)	10.8			16.3			3.7			0.5																										
Approach LOS	B			C			A			A																										

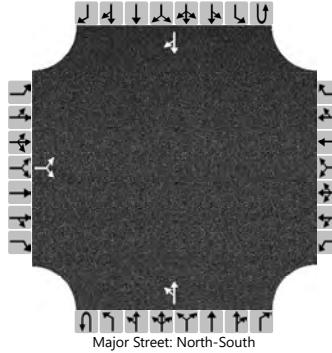
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and George Light Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		George Light Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	AM Peak - 2026 Comb.			Peak Hour Factor		0.88																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	0	0		0	1	0	0	0	0	1																		
Configuration						LR				TR		LT																		
Volume (veh/h)						44		40		90	20	91																		
Percent Heavy Vehicles (%)						3		3				3																		
Proportion Time Blocked																														
Percent Grade (%)						0																								
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)						7.1		6.2				4.1																		
Critical Headway (sec)						6.43		6.23				4.13																		
Base Follow-Up Headway (sec)						3.5		3.3				2.2																		
Follow-Up Headway (sec)						3.53		3.33				2.23																		
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)						95						103																		
Capacity, c (veh/h)						545						1455																		
v/c Ratio						0.18						0.07																		
95% Queue Length, Q <sub>95</sub> (veh)						0.6						0.2																		
Control Delay (s/veh)						13.0						7.7																		
Level of Service (LOS)						B						A																		
Approach Delay (s/veh)				13.0						2.3																				
Approach LOS				B						A																				

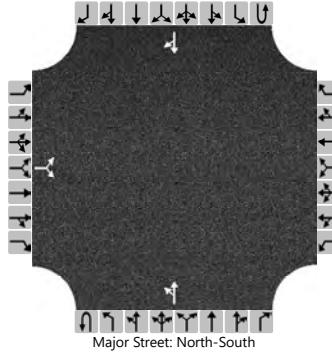
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and George Light Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		George Light Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	PM Peak - 2026 Comb.			Peak Hour Factor		0.93																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	0	0		0	1	0	0	0	0	1																		
Configuration						LR				TR		LT																		
Volume (veh/h)						9		69		184	18	43																		
Percent Heavy Vehicles (%)						3		3				3																		
Proportion Time Blocked																														
Percent Grade (%)						0																								
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)						7.1		6.2			4.1																			
Critical Headway (sec)						6.43		6.23			4.13																			
Base Follow-Up Headway (sec)						3.5		3.3			2.2																			
Follow-Up Headway (sec)						3.53		3.33			2.23																			
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)						84				46																				
Capacity, c (veh/h)						766				1347																				
v/c Ratio						0.11				0.03																				
95% Queue Length, Q <sub>95</sub> (veh)						0.4				0.1																				
Control Delay (s/veh)						10.3				7.8	0.3																			
Level of Service (LOS)						B				A	A																			
Approach Delay (s/veh)				10.3						1.5																				
Approach LOS				B						A																				

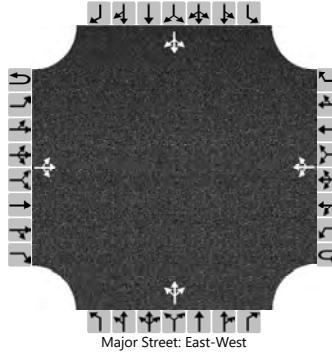
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Sam Lee Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Sam Lee Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	AM Peak - 2026 Comb.			Peak Hour Factor		0.95																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		42	234						120	91		296 55																		
Percent Heavy Vehicles (%)		3	3						3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		291							126																					
Capacity, c (veh/h)		613							1184																					
v/c Ratio		0.47							0.11																					
95% Queue Length, Q <sub>95</sub> (veh)		2.5							0.4																					
Control Delay (s/veh)		16.0							8.4 0.9																					
Level of Service (LOS)		C							A A																					
Approach Delay (s/veh)	16.0								5.2																					
Approach LOS	C								A																					

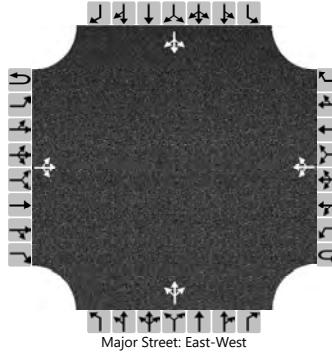
# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Solway Road and Sam Lee Road																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Sam Lee Road																								
Analysis Year	2026			North/South Street		Solway Road																								
Time Analyzed	PM Peak - 2026 Comb.			Peak Hour Factor		0.81																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	1	0		0	0	0	0	0	1	0																		
Configuration		LR							LT			TR																		
Volume (veh/h)		50	210						137	175		195																		
Percent Heavy Vehicles (%)		3	3						3																					
Proportion Time Blocked																														
Percent Grade (%)	0																													
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)		7.1		6.2					4.1																					
Critical Headway (sec)		6.43		6.23					4.13																					
Base Follow-Up Headway (sec)		3.5		3.3					2.2																					
Follow-Up Headway (sec)		3.53		3.33					2.23																					
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)		321							169																					
Capacity, c (veh/h)		580							1251																					
v/c Ratio		0.55							0.14																					
95% Queue Length, Q <sub>95</sub> (veh)		3.4							0.5																					
Control Delay (s/veh)		18.6							8.3	1.3																				
Level of Service (LOS)		C							A	A																				
Approach Delay (s/veh)	18.6								4.4																					
Approach LOS	C								A																					

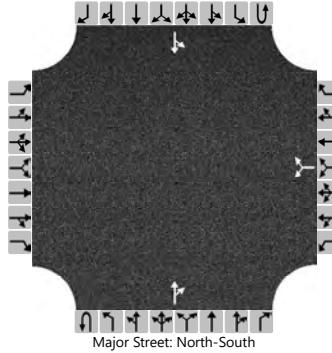
# HCS Two-Way Stop-Control Report

General Information				Site Information																														
Analyst	MEM			Intersection				Sam Lee Road and Swafford Road / Steele R...																										
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction				Knox County, TN																										
Date Performed	9/16/2024			East/West Street				Sam Lee Road																										
Analysis Year	2026			North/South Street				Swafford Road / Steele Road																										
Time Analyzed	AM Peak - 2026 Comb.				Peak Hour Factor				0.86																									
Intersection Orientation	East-West				Analysis Time Period (hrs)				0.25																									
Project Description	Rowland Manor																																	
Lanes																																		
 Major Street: East-West																																		
Vehicle Volumes and Adjustments																																		
Approach	Eastbound				Westbound				Northbound				Southbound																					
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12																		
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0																			
Configuration			LTR				LTR			LTR				LTR																				
Volume (veh/h)		2	37	91		106	27	1	47	22	128		1	31	0																			
Percent Heavy Vehicles (%)		3				3			3	3	3		3	3	3																			
Proportion Time Blocked																																		
Percent Grade (%)									0				0																					
Right Turn Channelized																																		
Median Type   Storage	Undivided																																	
Critical and Follow-up Headways																																		
Base Critical Headway (sec)		4.1				4.1			7.1	6.5	6.2		7.1	6.5	6.2																			
Critical Headway (sec)		4.13				4.13			7.13	6.53	6.23		7.13	6.53	6.23																			
Base Follow-Up Headway (sec)		2.2				2.2			3.5	4.0	3.3		3.5	4.0	3.3																			
Follow-Up Headway (sec)		2.23				2.23			3.53	4.03	3.33		3.53	4.03	3.33																			
Delay, Queue Length, and Level of Service																																		
Flow Rate, v (veh/h)		2				123			229				37																					
Capacity, c (veh/h)		1573				1426			713				465																					
v/c Ratio		0.00				0.09			0.32				0.08																					
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.3			1.4				0.3																					
Control Delay (s/veh)		7.3	0.0	0.0		7.8	0.7	0.7		12.4				13.4																				
Level of Service (LOS)		A	A	A		A	A	A		B			B																					
Approach Delay (s/veh)	0.1			6.3				12.4				13.4																						
Approach LOS	A			A				B				B																						

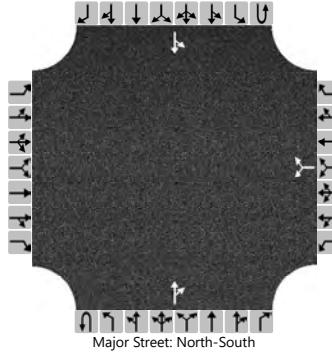
# HCS Two-Way Stop-Control Report

General Information				Site Information																														
Analyst	MEM			Intersection				Sam Lee Road and Swafford Road / Steele R...																										
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction				Knox County, TN																										
Date Performed	9/16/2024			East/West Street				Sam Lee Road																										
Analysis Year	2026			North/South Street				Swafford Road / Steele Road																										
Time Analyzed	PM Peak - 2026 Comb.				Peak Hour Factor				0.55																									
Intersection Orientation	East-West				Analysis Time Period (hrs)				0.25																									
Project Description	Rowland Manor																																	
Lanes																																		
 Major Street: East-West																																		
Vehicle Volumes and Adjustments																																		
Approach	Eastbound				Westbound				Northbound				Southbound																					
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12																		
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0	0	1	0																			
Configuration			LTR				LTR			LTR				LTR																				
Volume (veh/h)		7	22	50		63	22	2		72	43	208		2	22	4																		
Percent Heavy Vehicles (%)		3				3				3	3	3		3	3	3																		
Proportion Time Blocked																																		
Percent Grade (%)										0				0																				
Right Turn Channelized																																		
Median Type   Storage	Undivided																																	
Critical and Follow-up Headways																																		
Base Critical Headway (sec)		4.1				4.1				7.1	6.5	6.2		7.1	6.5	6.2																		
Critical Headway (sec)		4.13				4.13				7.13	6.53	6.23		7.13	6.53	6.23																		
Base Follow-Up Headway (sec)		2.2				2.2				3.5	4.0	3.3		3.5	4.0	3.3																		
Follow-Up Headway (sec)		2.23				2.23				3.53	4.03	3.33		3.53	4.03	3.33																		
Delay, Queue Length, and Level of Service																																		
Flow Rate, v (veh/h)		13				115				587				51																				
Capacity, c (veh/h)		1558				1448				708				460																				
v/c Ratio		0.01				0.08				0.83				0.11																				
95% Queue Length, Q <sub>95</sub> (veh)		0.0				0.3				9.1				0.4																				
Control Delay (s/veh)		7.3	0.1	0.1		7.7	0.6	0.6		29.8				13.8																				
Level of Service (LOS)		A	A	A		A	A	A		D				B																				
Approach Delay (s/veh)	0.7				5.7				29.8				13.8																					
Approach LOS	A				A				D				B																					

# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Swafford Road and Site Access																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Site Access																								
Analysis Year	2026			North/South Street		Swafford Road																								
Time Analyzed	AM Peak - 2026 Comb.			Peak Hour Factor		0.92																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	0	0		0	1	0	0	0	0	1																		
Configuration						LR				TR		LT																		
Volume (veh/h)						12		29		21	4	9																		
Percent Heavy Vehicles (%)						3		3				3																		
Proportion Time Blocked																														
Percent Grade (%)						0																								
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)						7.1		6.2				4.1																		
Critical Headway (sec)						6.43		6.23				4.13																		
Base Follow-Up Headway (sec)						3.5		3.3				2.2																		
Follow-Up Headway (sec)						3.53		3.33				2.23																		
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)						45						10																		
Capacity, c (veh/h)						1011						1580																		
v/c Ratio						0.04						0.01																		
95% Queue Length, Q <sub>95</sub> (veh)						0.1						0.0																		
Control Delay (s/veh)						8.7						7.3																		
Level of Service (LOS)						A						A																		
Approach Delay (s/veh)				8.7					2.4																					
Approach LOS				A					A																					

# HCS Two-Way Stop-Control Report

General Information				Site Information																										
Analyst	MEM			Intersection		Swafford Road and Site Access																								
Agency/Co.	Cannon & Cannon, Inc.			Jurisdiction		Knox County, TN																								
Date Performed	9/16/2024			East/West Street		Site Access																								
Analysis Year	2026			North/South Street		Swafford Road																								
Time Analyzed	PM Peak - 2026 Comb.			Peak Hour Factor		0.92																								
Intersection Orientation	North-South			Analysis Time Period (hrs)		0.25																								
Project Description	Rowland Manor																													
Lanes																														
 Major Street: North-South																														
Vehicle Volumes and Adjustments																														
Approach	Eastbound			Westbound			Northbound			Southbound																				
Movement	U	L	T	R	U	L	T	R	U	L	T	R																		
Priority		10	11	12		7	8	9	1U	1	2	3																		
Number of Lanes		0	0	0		0	1	0	0	0	0	1																		
Configuration						LR				TR		LT																		
Volume (veh/h)						8		18		38	14	31																		
Percent Heavy Vehicles (%)						3		3				3																		
Proportion Time Blocked																														
Percent Grade (%)						0																								
Right Turn Channelized																														
Median Type   Storage	Undivided																													
Critical and Follow-up Headways																														
Base Critical Headway (sec)						7.1		6.2			4.1																			
Critical Headway (sec)						6.43		6.23			4.13																			
Base Follow-Up Headway (sec)						3.5		3.3			2.2																			
Follow-Up Headway (sec)						3.53		3.33			2.23																			
Delay, Queue Length, and Level of Service																														
Flow Rate, v (veh/h)						28					34																			
Capacity, c (veh/h)						953					1542																			
v/c Ratio						0.03					0.02																			
95% Queue Length, Q <sub>95</sub> (veh)						0.1					0.1																			
Control Delay (s/veh)						8.9					7.4	0.2																		
Level of Service (LOS)						A					A	A																		
Approach Delay (s/veh)				8.9						4.6																				
Approach LOS				A						A																				

## Lanes, Volumes, Timings

## 1: Pellissippi Pkwy SB Ramps/Solway Road &amp; Hardin Valley Road

2026 Combined AM Peak

2024 Combined

	↑	→	↓	↶	←	↗	↖	↑	↗	↖	↓	↶
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (vph)	81	618	601	358	1378	522	160	20	264	303	251	78
Future Volume (vph)	81	618	601	358	1378	522	160	20	264	303	251	78
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850			0.850		0.871	0.850		0.964
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1541	1504	1770	1796	0
Flt Permitted	0.950			0.381								
Satd. Flow (perm)	1770	3539	1583	710	3539	1583	1863	1541	1504	1863	1796	0
Satd. Flow (RTOR)				221			478		131	164		12
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)										47%		
Lane Group Flow (vph)	85	651	633	377	1451	549	168	152	147	319	346	0
Turn Type	Prot	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2	3	1	6		3	8	1	7	4	
Permitted Phases				2	6		6	8		8	4	
Detector Phase	5	2	3	1	6	6	3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0	15.0	5.0	6.0	5.0	5.0	6.0	
Minimum Split (s)	11.5	22.0	11.5	11.5	34.0	34.0	11.5	12.5	11.5	11.5	45.5	
Total Split (s)	15.0	35.0	15.0	37.0	57.0	57.0	15.0	19.0	37.0	19.0	23.0	
Total Split (%)	13.6%	31.8%	13.6%	33.6%	51.8%	51.8%	13.6%	17.3%	33.6%	17.3%	20.9%	
Maximum Green (s)	8.5	28.5	8.5	30.5	50.5	50.5	8.5	12.5	30.5	12.5	16.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lead	Lead							
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	
Recall Mode	None	C-Min	None	None	C-Min	C-Min	None	None	None	None	None	
Walk Time (s)						7.0	7.0				7.0	
Flash Dont Walk (s)						20.0	20.0				32.0	
Pedestrian Calls (#/hr)						0	0				0	
Act Effct Green (s)	7.5	24.3	39.3	51.2	51.2	51.2	12.5	12.5	44.6	19.1	19.1	
Actuated g/C Ratio	0.07	0.22	0.36	0.47	0.47	0.47	0.11	0.11	0.41	0.17	0.17	
v/c Ratio	0.70	0.83	0.90	0.59	0.88	0.55	0.80	0.52	0.21	0.99	1.08	
Control Delay	79.7	50.7	37.8	28.3	31.8	4.7	74.4	18.1	2.0	95.2	116.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	79.7	50.7	37.8	28.3	31.8	4.7	74.4	18.1	2.0	95.2	116.2	
LOS	E	D	D	C	C	A	E	B	A	F	F	
Approach Delay		46.5			25.0			33.3			106.1	
Approach LOS		D			C			C			F	
Queue Length 50th (ft)	59	232	293	177	518	50	117	14	0	-264	~298	
Queue Length 95th (ft)	#128	286	#492	221	#617	72	#229	80	18	#439	#482	
Internal Link Dist (ft)		972			628			436			569	
Turn Bay Length (ft)	85		130	475			270		250	120		
Base Capacity (vph)	136	916	707	647	1647	992	211	291	713	322	321	
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	

## Lanes, Volumes, Timings

### 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road

2026 Combined AM Peak

2024 Combined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.63	0.71	0.90	0.58	0.88	0.55	0.80	0.52	0.21	0.99	1.08	

Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 51.5 (47%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 145

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 42.9

Intersection LOS: D

Intersection Capacity Utilization 91.3%

ICU Level of Service F

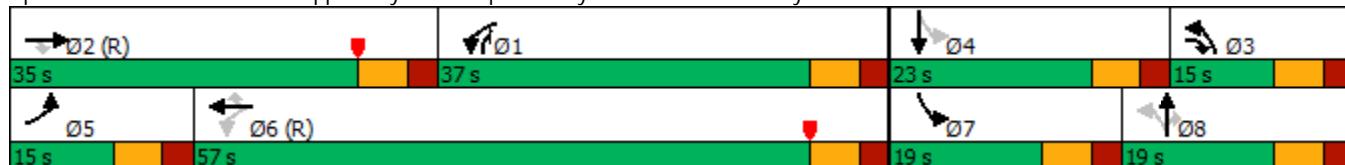
Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.
- # Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road



## Lanes, Volumes, Timings

## 1: Pellissippi Pkwy SB Ramps/Solway Road &amp; Hardin Valley Road

2026 Combined PM Peak

2024 Combined

	↑	→	↓	↶	←	↷	↑	↓	↶	↑	↓	↷
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑	↑	↑↑	↑
Traffic Volume (vph)	95	749	518	436	1082	464	151	12	366	308	248	85
Future Volume (vph)	95	749	518	436	1082	464	151	12	366	308	248	85
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt				0.850			0.850		0.859	0.850		0.962
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1520	1504	1770	1792	0
Flt Permitted	0.950			0.242			0.000			0.000		
Satd. Flow (perm)	1770	3539	1583	451	3539	1583	0	1520	1504	0	1792	0
Satd. Flow (RTOR)				122			452		193	144		12
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	102	805	557	469	1163	499	162	206	201	331	358	0
Turn Type	Prot	NA	pm+ov	pm+pt	NA	Perm	pm+pt	NA	pm+ov	pm+pt	NA	
Protected Phases	5	2	3	1	6		3	8	1	7	4	
Permitted Phases				2	6		6	8		8	4	
Detector Phase	5	2	3	1	6	6	3	8	1	7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0	15.0	5.0	6.0	5.0	5.0	6.0	
Minimum Split (s)	11.5	22.0	11.5	11.5	33.5	33.5	11.5	12.5	11.5	11.5	45.5	
Total Split (s)	15.0	42.0	22.0	33.0	60.0	60.0	22.0	22.0	33.0	28.0	28.0	
Total Split (%)	12.0%	33.6%	17.6%	26.4%	48.0%	48.0%	17.6%	17.6%	26.4%	22.4%	22.4%	
Maximum Green (s)	8.5	35.5	15.5	26.5	53.5	53.5	15.5	15.5	26.5	21.5	21.5	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
All-Red Time (s)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	
Lead/Lag	Lead	Lead	Lag	Lead	Lead							
Lead-Lag Optimize?	Yes											
Vehicle Extension (s)	1.0	2.0	1.0	1.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	
Recall Mode	None	C-Min	None	None	C-Min	C-Min	None	None	None	None	None	
Walk Time (s)						7.0	7.0				7.0	
Flash Dont Walk (s)						20.0	20.0				32.0	
Pedestrian Calls (#/hr)						0	0				0	
Act Effct Green (s)	8.3	32.3	54.3	52.1	52.1	52.1	15.5	15.5	43.6	23.2	23.2	
Actuated g/C Ratio	0.07	0.26	0.43	0.42	0.42	0.42	0.12	0.12	0.35	0.19	0.19	
v/c Ratio	0.87	0.88	0.74	0.97	0.79	0.54	0.74	0.58	0.33	1.01	1.05	
Control Delay	112.7	56.4	28.8	79.1	38.7	9.6	73.4	15.5	6.3	103.2	109.4	
Queue Delay	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	112.7	56.4	28.8	79.1	38.9	9.6	73.4	15.5	6.3	103.2	109.4	
LOS	F	E	C	E	D	A	E	B	A	F	F	
Approach Delay		49.8			40.9			28.8		106.4		
Approach LOS		D			D			C		F		
Queue Length 50th (ft)	83	326	289	331	458	114	128	9	17	-301	-327	
Queue Length 95th (ft)	#188	396	420	#559	543	178	#231	90	51	#489	#523	
Internal Link Dist (ft)		972			628			436		569		
Turn Bay Length (ft)	85		130	475			270		250	120		
Base Capacity (vph)	120	1005	756	483	1514	936	219	357	617	328	342	
Starvation Cap Reductn	0	0	0	0	30	0	0	0	0	0	0	

## Lanes, Volumes, Timings

### 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road

2026 Combined PM Peak

2024 Combined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	0.80	0.74	0.97	0.78	0.53	0.74	0.58	0.33	1.01	1.05	

Intersection Summary

Cycle Length: 125

Actuated Cycle Length: 125

Offset: 32.5 (26%), Referenced to phase 2:EBT and 6:WBTL, Start of Yellow

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 51.4

Intersection LOS: D

Intersection Capacity Utilization 93.1%

ICU Level of Service F

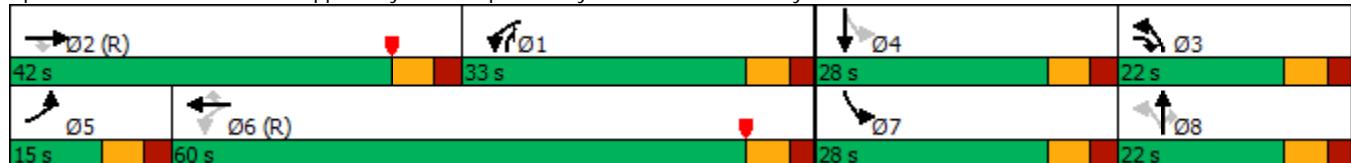
Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.
- # Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

### Splits and Phases: 1: Pellissippi Pkwy SB Ramps/Solway Road & Hardin Valley Road



# HCS All-Way Stop Control Report

General and Site Information		Lanes											
Analyst	WAS												
Agency/Co.	Cannon & Cannon, Inc.												
Date Performed	11/25/2024												
Analysis Year	2024												
Analysis Time Period (hrs)	0.25												
Time Analyzed	AM Peak - 2024 Existing												
Project Description	Rowland Manor												
Intersection	Guinn Road and Swafford Road												
Jurisdiction	Knox County, TN												
East/West Street	Guinn Road												
North/South Street	Swafford Road												
Peak Hour Factor	0.76												
<b>Turning Movement Demand Volumes</b>													
Approach	Eastbound			Westbound			Northbound			Southbound			
Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (veh/h)		59	4	12	22		1		23				
% Thrus in Shared Lane													
<b>Lane Flow Rate and Adjustments</b>													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	83			45			32						
Percent Heavy Vehicles	2			2			2						
Initial Departure Headway, $h_d$ (s)	3.20			3.20			3.20						
Initial Degree of Utilization, x	0.074			0.040			0.028						
Final Departure Headway, $h_d$ (s)	4.00			4.14			3.64						
Final Degree of Utilization, x	0.092			0.051			0.032						
Move-Up Time, m (s)	2.0			2.0			2.0						
Service Time, $t_s$ (s)	2.00			2.14			1.64						
<b>Capacity, Delay and Level of Service</b>													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	83			45			32						
Capacity (veh/h)	900			869			990						
95% Queue Length, $Q_{95}$ (veh)	0.3			0.2			0.1						
Control Delay (s/veh)	7.4			7.4			6.8						
Level of Service, LOS	A			A			A						
Approach Delay (s/veh)   LOS	7.4		A	7.4		A	6.8		A				
Intersection Delay (s/veh)   LOS				7.3						A			

# HCS All-Way Stop Control Report

General and Site Information		Lanes											
Analyst	WAS												
Agency/Co.	Cannon & Cannon, Inc.												
Date Performed	11/25/2024												
Analysis Year	2024												
Analysis Time Period (hrs)	0.25												
Time Analyzed	PM Peak - 2024 Existing												
Project Description	Rowland Manor												
Intersection	Guinn Road and Swafford Road												
Jurisdiction	Knox County, TN												
East/West Street	Guinn Road												
North/South Street	Swafford Road												
Peak Hour Factor	0.86												
Turning Movement Demand Volumes													
Approach	Eastbound			Westbound			Northbound			Southbound			
Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (veh/h)		40	1	17	71		1			15			
% Thrus in Shared Lane													
Lane Flow Rate and Adjustments													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	48			102			19						
Percent Heavy Vehicles	2			2			2						
Initial Departure Headway, $h_d$ (s)	3.20			3.20			3.20						
Initial Degree of Utilization, x	0.042			0.091			0.017						
Final Departure Headway, $h_d$ (s)	4.05			4.05			3.70						
Final Degree of Utilization, x	0.054			0.115			0.019						
Move-Up Time, m (s)	2.0			2.0			2.0						
Service Time, $t_s$ (s)	2.05			2.05			1.70						
Capacity, Delay and Level of Service													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	48			102			19						
Capacity (veh/h)	888			888			972						
95% Queue Length, $Q_{95}$ (veh)	0.2			0.4			0.1						
Control Delay (s/veh)	7.3			7.6			6.8						
Level of Service, LOS	A			A			A						
Approach Delay (s/veh)   LOS	7.3		A	7.6		A	6.8		A				
Intersection Delay (s/veh)   LOS				7.4						A			

# HCS All-Way Stop Control Report

General and Site Information		Lanes											
Analyst	WAS												
Agency/Co.	Cannon & Cannon, Inc.												
Date Performed	11/25/2024												
Analysis Year	2024												
Analysis Time Period (hrs)	0.25												
Time Analyzed	AM Peak - 2026 Background												
Project Description	Rowland Manor												
Intersection	Guinn Road and Swafford Road												
Jurisdiction	Knox County, TN												
East/West Street	Guinn Road												
North/South Street	Swafford Road												
Peak Hour Factor	0.76												
Turning Movement Demand Volumes													
Approach	Eastbound			Westbound			Northbound			Southbound			
Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (veh/h)		66	4	13	24		1		26				
% Thrus in Shared Lane													
Lane Flow Rate and Adjustments													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	92			49			36						
Percent Heavy Vehicles	2			2			2						
Initial Departure Headway, $h_d$ (s)	3.20			3.20			3.20						
Initial Degree of Utilization, x	0.082			0.043			0.032						
Final Departure Headway, $h_d$ (s)	4.02			4.16			3.66						
Final Degree of Utilization, x	0.103			0.056			0.036						
Move-Up Time, m (s)	2.0			2.0			2.0						
Service Time, $t_s$ (s)	2.02			2.16			1.66						
Capacity, Delay and Level of Service													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	92			49			36						
Capacity (veh/h)	896			865			983						
95% Queue Length, $Q_{95}$ (veh)	0.3			0.2			0.1						
Control Delay (s/veh)	7.5			7.4			6.8						
Level of Service, LOS	A			A			A						
Approach Delay (s/veh)   LOS	7.5	A		7.4	A		6.8	A					
Intersection Delay (s/veh)   LOS			7.3							A			

# HCS All-Way Stop Control Report

General and Site Information		Lanes											
Analyst	WAS												
Agency/Co.	Cannon & Cannon, Inc.												
Date Performed	11/25/2024												
Analysis Year	2024												
Analysis Time Period (hrs)	0.25												
Time Analyzed	PM Peak - 2026 Background												
Project Description	Rowland Manor												
Intersection	Guinn Road and Swafford Road												
Jurisdiction	Knox County, TN												
East/West Street	Guinn Road												
North/South Street	Swafford Road												
Peak Hour Factor	0.86												
Turning Movement Demand Volumes													
Approach	Eastbound			Westbound			Northbound			Southbound			
Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (veh/h)		45	1	19	79		1			17			
% Thrus in Shared Lane													
Lane Flow Rate and Adjustments													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	53			114			21						
Percent Heavy Vehicles	2			2			2						
Initial Departure Headway, $h_d$ (s)	3.20			3.20			3.20						
Initial Degree of Utilization, x	0.048			0.101			0.019						
Final Departure Headway, $h_d$ (s)	4.07			4.06			3.73						
Final Degree of Utilization, x	0.060			0.129			0.022						
Move-Up Time, m (s)	2.0			2.0			2.0						
Service Time, $t_s$ (s)	2.07			2.06			1.73						
Capacity, Delay and Level of Service													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	53			114			21						
Capacity (veh/h)	885			886			964						
95% Queue Length, $Q_{95}$ (veh)	0.2			0.4			0.1						
Control Delay (s/veh)	7.3			7.7			6.8						
Level of Service, LOS	A			A			A						
Approach Delay (s/veh)   LOS	7.3		A	7.7		A	6.8		A				
Intersection Delay (s/veh)   LOS				7.5						A			

# HCS All-Way Stop Control Report

General and Site Information		Lanes											
Analyst	WAS												
Agency/Co.	Cannon & Cannon, Inc.												
Date Performed	11/25/2024												
Analysis Year	2024												
Analysis Time Period (hrs)	0.25												
Time Analyzed	AM Peak - 2026 Combined												
Project Description	Rowland Manor												
Intersection	Guinn Road and Swafford Road												
Jurisdiction	Knox County, TN												
East/West Street	Guinn Road												
North/South Street	Swafford Road												
Peak Hour Factor	0.76												
<b>Turning Movement Demand Volumes</b>													
Approach	Eastbound			Westbound			Northbound			Southbound			
Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (veh/h)		66	4	22	24		1		55				
% Thrus in Shared Lane													
<b>Lane Flow Rate and Adjustments</b>													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	92			61			74						
Percent Heavy Vehicles	2			2			2						
Initial Departure Headway, $h_d$ (s)	3.20			3.20			3.20						
Initial Degree of Utilization, x	0.082			0.054			0.065						
Final Departure Headway, $h_d$ (s)	4.11			4.26			3.68						
Final Degree of Utilization, x	0.105			0.072			0.075						
Move-Up Time, m (s)	2.0			2.0			2.0						
Service Time, $t_s$ (s)	2.11			2.26			1.68						
<b>Capacity, Delay and Level of Service</b>													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	92			61			74						
Capacity (veh/h)	877			844			978						
95% Queue Length, $Q_{95}$ (veh)	0.4			0.2			0.2						
Control Delay (s/veh)	7.6			7.6			7.0						
Level of Service, LOS	A			A			A						
Approach Delay (s/veh)   LOS	7.6		A	7.6		A	7.0		A				
Intersection Delay (s/veh)   LOS				7.4						A			

# HCS All-Way Stop Control Report

General and Site Information		Lanes											
Analyst	WAS												
Agency/Co.	Cannon & Cannon, Inc.												
Date Performed	11/25/2024												
Analysis Year	2024												
Analysis Time Period (hrs)	0.25												
Time Analyzed	PM Peak - 2026 Combined												
Project Description	Rowland Manor												
Intersection	Guinn Road and Swafford Road												
Jurisdiction	Knox County, TN												
East/West Street	Guinn Road												
North/South Street	Swafford Road												
Peak Hour Factor	0.86												
Turning Movement Demand Volumes													
Approach	Eastbound			Westbound			Northbound			Southbound			
Movement	L	T	R	L	T	R	L	T	R	L	T	R	
Volume (veh/h)		45	1	50	79		1			35			
% Thrus in Shared Lane													
Lane Flow Rate and Adjustments													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	53			150			42						
Percent Heavy Vehicles	2			2			2						
Initial Departure Headway, $h_d$ (s)	3.20			3.20			3.20						
Initial Degree of Utilization, x	0.048			0.133			0.037						
Final Departure Headway, $h_d$ (s)	4.15			4.15			3.80						
Final Degree of Utilization, x	0.062			0.173			0.044						
Move-Up Time, m (s)	2.0			2.0			2.0						
Service Time, $t_s$ (s)	2.15			2.15			1.80						
Capacity, Delay and Level of Service													
Approach	Eastbound			Westbound			Northbound			Southbound			
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3	
Configuration	TR			LT			LR						
Flow Rate, v (veh/h)	53			150			42						
Capacity (veh/h)	867			868			948						
95% Queue Length, $Q_{95}$ (veh)	0.2			0.6			0.1						
Control Delay (s/veh)	7.4			8.0			7.0						
Level of Service, LOS	A			A			A						
Approach Delay (s/veh)   LOS	7.4		A	8.0		A	7.0		A				
Intersection Delay (s/veh)   LOS				7.7						A			



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**APPENDIX D | TURN LANE WARRANTS**

<b>TABLE 4A</b> <b>KNOX COUNTY LEFT-TURN LANE VOLUME THRESHOLDS</b> <b>FOR 2-LANE ROADWAYS WITH A PREVAILING SPEED OF 0 TO 35 MPH</b>	Project No: 01203-0004 Project Name: Rowland Manor TIS Notes: Combined
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(If the left-turn volume exceeds the table value a left-turn lane is needed)

OPPOSING VOLUME	THROUGH VOLUME PLUS RIGHT-TURN VOLUME *					
	100 - 149	150 - 199	200 - 249	250 - 299	300 - 349	350 - 399
100 - 149	300	235	185	145	120	100
150 - 199	245	200	160	130	110	90
200 - 249	205	170	140	115	100	80
250 - 299	175	150	125	105	90	70
300 - 349	155	135	110	95	80	65
350 - 399	135	120	100	85	70	60
400 - 449	120	105	90	75	65	55
450 - 499	105	90	80	70	60	50
500 - 549	95	80	70	65	55	50
550 - 599	85	70	65	60	50	45
600 - 649	75	65	60	55	45	40
650 - 699	70	60	55	50	40	35
700 - 749	65	55	50	45	35	30
750 or More	60	50	45	40	35	30

OPPOSING VOLUME	THROUGH VOLUME PLUS RIGHT-TURN VOLUME *					
	350 - 399	400 - 449	450 - 499	500 - 549	550 - 599	= / > 600
100 - 149	100	80	70	60	55	50
150 - 199	90	75	65	55	50	45
200 - 249	80	72	60	55	50	45
250 - 299	70	65	55	50	45	40
300 - 349	65	60	50	50	45	40
350 - 399	60	55	50	45	40	40
400 - 449	55	50	45	45	40	35
450 - 499	50	45	45	40	35	35
500 - 549	50	45	40	40	35	35
550 - 599	45	40	40	35	35	35
600 - 649	40	35	35	35	35	30
650 - 699	35	35	35	30	30	30
700 - 749	30	30	30	30	30	30
750 or More	30	30	30	30	30	30

\* Or through volume only if a right-turn lane exists

Intersection	Time Period	Opposing Volume	Through Volume	Left-Turn Volume	Warrant Threshold	Left-Turn Lane Warranted (Yes / No)
Site at Swafford	AM Peak	25	19	9	300	NO
Site at Swafford	PM Peak	52	20	31	300	NO

<b>TABLE 4B</b> <b>KNOX COUNTY RIGHT-TURN LANE VOLUME THRESHOLDS</b> <b>FOR 2-LANE ROADWAYS WITH A PREVAILING SPEED OF 0 TO 35 MPH</b>	Project No: 01203-0004 Project Name: Rowland Manor TIS Notes: Combined
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RIGHT-TURN VOLUME	THROUGH VOLUME PLUS LEFT-TURN VOLUME *					
	< 100	100 - 199	200 - 249	250 - 299	300 - 349	350 - 399
Fewer Than 25						
25 - 49						
50 - 99						
100 - 149						
150 - 199						
200 - 249						
250 - 299						Yes
300 - 349					Yes	Yes
350 - 399				Yes	Yes	Yes
400 - 449			Yes	Yes	Yes	Yes
450 - 499			Yes	Yes	Yes	Yes
500 - 549		Yes	Yes	Yes	Yes	Yes
550 - 599		Yes	Yes	Yes	Yes	Yes
600 or More	Yes	Yes	Yes	Yes	Yes	Yes

RIGHT-TURN VOLUME	THROUGH VOLUME PLUS LEFT-TURN VOLUME *					
	350 - 399	400 - 449	450 - 499	500 - 549	550 - 599	= / > 600
Fewer Than 25						
25 - 49						Yes
50 - 99					Yes	Yes
100 - 149				Yes	Yes	Yes
150 - 199			Yes	Yes	Yes	Yes
200 - 249		Yes	Yes	Yes	Yes	Yes
250 - 299	Yes	Yes	Yes	Yes	Yes	Yes
300 - 349	Yes	Yes	Yes	Yes	Yes	Yes
350 - 399	Yes	Yes	Yes	Yes	Yes	Yes
400 - 449	Yes	Yes	Yes	Yes	Yes	Yes
450 - 499	Yes	Yes	Yes	Yes	Yes	Yes
500 - 549	Yes	Yes	Yes	Yes	Yes	Yes
550 - 599	Yes	Yes	Yes	Yes	Yes	Yes
600 or More	Yes	Yes	Yes	Yes	Yes	Yes

\* Or through volume only if a left-turn lane exists

Intersection	Time Period	Through Volume	Right-Turn Volume	Right-Turn Lane Warranted (Yes / No)
Site at Swafford	AM Peak	21	4	NO
Site at Swafford	PM Peak	38	14	NO



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APPENDIX E | TIS COMMENT RESPONSE DOCUMENT



Date: November 25, 2024

Project Name: Rowland Manor

To: Knox County Engineering & Public Works

Subject: TIS Comment Response Document for Rowland Manor

Review Comments Dated: November 15, 2024

Dear Knox County Staff,

The following comment response document is submitted to address comments dated November 15, 2024.

1. **Reviewer Comment:** The TIS notes the deficient sight distance amount at the intersection of Swafford Rd at Guinn Rd looking to the right but does not provide any recommendations for potential mitigation. Please provide an assessment of modifying this intersection to an all-way stop control as one potential means of addressing the sight distance issue. The assessment should include an analysis of impacts to the intersection operations/level-of-service as well as availability of required stopping sight distance for westbound traffic and any associated signs and markings recommended for advance warning of the all-way stop.

Response: Recommendation to convert intersection to All-way Stop Control added to narrative on page 19. Resulting capacity analysis for Existing, Background, and Combined conditions included in TABLE 3 on page 18.

2. **Reviewer Comment:** The TIS needs to include a turn lane warrant assessment for the proposed site access at Swafford Rd.

Response: Turn lane warrant assessment added to narrative on page 20. Appendix D "TURN LANE WARRANTS" now included in the overall Appendices.

Sincerely,

Welsey Stokes, P.E.

