TABLE 1
Buildout Site Trip Generation Results (Current Zoning/Estimate)

Land Use	Density	ITE Code	AM Peak Hour (vph)		PM Peak Hour (vph)		Daily (vpd)
			Enter	Exit	Enter	Exit	Total
Retail	45,000sf	820	108	66	144	156	3,494
Supermarket	20,000sf	850	46	31	120	115	2,630
Convenience	12fs	853	125	125	138	138	3,870
Bank	3,000sf	912	17	12	31	31	366
Site Down Rest.	4,000sf	932	22	18	24	15	448
Total Buildout Site Trips			**318**	**252**	**457**	**455**	**10,808**

TABLE 2
Buildout Site Trip Generation Results (2020 TIA Report)

Land Use	Density	ITE Code	AM Peak Hour (vph)		PM Peak Hour (vph)		Daily (vpd)
			Enter	Exit	Enter	Exit	Total
Multi-Family	295 units	220	31	103	97	57	2,190
Retail	44,900sf	820	108	66	144	156	3,488
Total Buildout Site Trips			**139**	**169**	**241**	**213**	**5,678**

TABLE 3
Buildout Site Trip Generation Results (Current Plan)

Land Use	Density	ITE Code	AM Peak Hour (vph)		PM Peak Hour (vph)		Daily (vpd)
			Enter	Exit	Enter	Exit	Total
Multi-Family	295 units	220	31	103	97	57	2,190
Retail	20,000sf	820	100	61	79	86	2,012
Total Buildout Site Trips			**131**	**164**	**176**	**143**	**4,202**

June 29, 2020

Mr. John R. Cejka, PE
Henrico County
Traffic Engineering Division
PO Box 90775
Henrico, Virginia 23273

Re: Revised Traffic Impact Analysis – Pouncey Tract
Henrico County, Virginia

Mr. Cejka,

This revised traffic impact analysis (TIA) is in regards to the proposed Pouncey Tract Property Development to be located on the southeast quadrant of the Pouncey Tract Road and Twin Hickory Lake Drive / Liesfeld Farm Drive in Henrico County, Virginia. As part of the current development plan, it is proposed that a mixed use development is to be constructed to include residential and retail land uses.

As requested by County staff, a TIA has been conducted to assess proposed site impacts expected as a result of the proposed plan of development. Discussions with VDOT and County staff have been conducted to develop a scope of services for this TIA. Based on jurisdictional review, this revised report has been prepared to address VDOT and County comments. Formal response to comments has been prepared as part of the revised report and in included in the technical appendix. Refer to Appendix A for the scope of services document that outlines the TIA study requirements and the formal response to comments.

Executive Summary

As proposed, the plan of development looks to construct a mixed use development to include residential and retail uses. Access to the site will provide six points of site access on the surrounding roadway infrastructure. Access will include one point of restricted access (right in/right out) on Pouncey Tract Road; two points of restricted access (one right-in/right out; one right in/left in/right out) on Twin Hickory Lake Drive; two points of full access on Pouncey Place; one point of access on Haven Mews Circle. Buildout of the proposed site is to include 295 multi-family residential units; 44,900sf of retail land uses. Refer to Figure 1 in Appendix C for the conceptual plan of development.

Analysis of existing (2020) peak hour traffic conditions indicates levels of service are at unacceptable levels for the intersection of Pouncey Tract Road and Twin Hickory Lake Drive during the AM peak hour of a typical weekday. Minor street movements at all study intersections are experiencing excessive delays. The Twin Hickory Lake Drive and Liesfeld Farm Drive approaches are operating at LOS E and F during the peak hours of the day. Side street left turn movements at the unsignalized intersections are operating with excessive delay measures, which is typical of minor street left turn movements under stopped control operations.

Analysis of background (2025) peak hour traffic conditions indicates the overall intersection operation of Pouncey Tract Road and Twin Hickory Lake Drive can be improved to acceptable

overall intersection levels of service with adjustments to the existing timing plan. Increase in traffic numbers expected as a result of global traffic growth projections is expected to have an adverse impact to the study area; however, the primary impacts are expected on individual traffic movements that are already operating at unacceptable levels of service under existing (2020) peak hour traffic conditions.

Analysis of buildout (2025) peak hour traffic conditions indicates that site traffic is expected to have mostly marginal impacts to the study area intersections. A significant impact is expected to occur at the intersection of Pouncey Tract Road and Pouncey Place. The increase of side street traffic expected to utilize this intersection for full access movements on Pouncey Tract Road is expected to create oversaturated conditions on the westbound left turn movement. Where this movement is operating at unacceptable levels of service under existing and background traffic conditions, impacts by site traffic are expected to be significant. Traffic volumes and proximity to a nearby traffic signal are expected to prevent warrants from being met to install a traffic signal and/or an alternative intersection design, which would be needed to mitigate left turn operations.

Based on site impacts, it is recommended to provide the following improvements as part of the Pouncey Tract Site buildout:

- Provide a 200 foot (ft) westbound left turn lane with a 100ft at the intersection of Twin Hickory Lake Drive and Site Drive #6.
- Construct a northbound auxiliary lane along the Pouncey Tract Road frontage to end at the signalized intersection of Pouncey Tract Road and Twin Hickory Lake Drive. This lane will provide a dedicated northbound right turn lane at the traffic signal once future improvements provide a second northbound through lane north of the Pouncey Tract Road and Twin Hickory Lake Drive signalized intersection.
- Provide a raised ‘pork chop’ island on the westbound approach of the Pouncey Tract Road and Site Drive #4 intersection. This improvement will restrict left turn ingress and egress movements under buildout traffic conditions. The improvement will also require the placement of appropriate pavement markings for the Pouncey Tract Road center left turn lane.

Existing/Background Traffic Conditions

In order to evaluate site impacts data was collected at all existing study area intersections for the AM (7am to 9am), and PM (4pm to 6pm) peak hours of a typical weekday. Data was obtained by conducting turning movement counts at the existing study area intersections in 15-minute intervals including heavy vehicle counts. Counts have been further analyzed to determine peak hour data for further analysis. Refer to Appendix B for all raw data sets. Refer to Figure 2 in Appendix C for the existing (2020) peak hour traffic conditions.

Based on VDOT historical data and discussions with jurisdictional review staff, a 1.5% annual growth rate is expected for buildout peak hour traffic conditions. Existing (2020) peak hour traffic conditions have been adjusted to reflect a 1.5% annual growth rate to determine background (2025) peak hour traffic conditions. Refer to Figure 3 in the Appendix C for the background (2025) peak hour traffic conditions.

Roadway Improvements

There are no approved development plans or planned roadway improvements anticipated to impact study area traffic conditions.

Buildout Traffic Conditions

Buildout site development traffic conditions were determined by analyzing site trip generation numbers for land uses and densities (295 Multi-Family Residential units; 44,900sf Retail) utilizing the ITE Trip Generation Manual, 10th Edition. Refer to Table 1 for the trip generation results.

TABLE 1
Buildout Site Trip Generation Results

Land Use	Density	ITE Code	AM Peak Hour (vph)		PM Peak Hour (vph)		Daily (vpd)
			Enter	Exit	Enter	Exit	Total
Multi-Family	295 units	220	31	103	97	57	2,190
Sub-Total Residential Trips			31	103	97	57	2,190
Sub-Total Residential Internal Trips			3	10	10	6	220
Sub-Total Residential Primary Trips			28	93	87	51	1,970
Retail	44,900sf	820	108	66	144	156	3,488
Sub-Total Commercial Trips			108	66	144	156	3,488
Sub-Total Commercial Internal Trips (10%)			10	3	6	10	220
Sub-Total Commercial Pass-By Trips (34%)			27	27	48	48	1,112
Sub-Total Commercial Primary Trips			71	36	90	98	2,156
Total Site Trips			**139**	**169**	**241**	**213**	**5,678**
Total Internal Site Trips			**13**	**13**	**16**	**16**	**440**
Total Pass-By Site Trips			**27**	**27**	**48**	**48**	**1,112**
Total Primary Site Trips			**99**	**129**	**177**	**149**	**4,126**

Total buildout site trips have been adjusted to reflect internal, pass-by and primary peak hour site trips. Internal site trips have been determined assuming a 10% capture rate for residential uses. Internal trips calculated for the residential uses have been applied to the complimentary retail use to balance total internal site trips. Pass-by site trips have been determined based on ITE data sets for ITE Code 820 (34%) land uses.

Site trips have been assigned to the surrounding roadway network based on agreed upon site distribution percentages determined during the scoping process for this site. Refer to Figures 4 and 5 in the Appendix C for the residential site distribution percentages and Figures 6 and 7 for the residential peak hour site trip assignments. Refer to Figures 8 and 9 in the Appendix C for the retail primary distribution percentages and Figures 10 and 11 for the retail primary peak hour site trip assignments. Refer to Figures 12 and 13 in the Appendix C for the retail pass-by distribution percentages and Figures 14 and 15 for the retail pass-by peak hour site trip assignments. Refer to Figures 16 and 17 in the Appendix C for the total site peak hour site trip assignments.

Buildout traffic conditions were determined by combining background (2025) peak hour traffic conditions (Figure 3) with total site traffic conditions determined in Figures 16 and 17. Refer to Figures 18 and 19 in Appendix C for the buildout (2025) peak hour traffic conditions.

Planning year traffic conditions were determined by projecting existing (2020) peak hour traffic conditions (Figure 2) to 2031 by utilizing a 1.5% annual growth rate. Refer to Figure 20 in Appendix C for the background (2031) peak hour traffic conditions. Buildout (2031) peak hour traffic conditions have been determined by adding buildout peak hour site trips (Figure 16) to background (2031) peak hour traffic conditions (Figure 20). Refer to Figure 21 in Appendix C for buildout (2031) peak hour traffic conditions.

Traffic Analysis

Existing traffic control and lane geometries have been obtained and utilized for all analysis scenarios for each off-site study intersection. Proposed site drive improvements have been utilized for Site Drive #6.

Analysis has been conducted using Synchro macro-scopic modeling for each traffic scenario. All analysis measures (delay, queues, volume-to-capacity) have been determined utilizing the Synchro modeling exclusively. Existing peak hour factors and heavy vehicle percentages have been utilized for the existing conditions analysis. Peak hour factors have been adjusted to utilize a 0.92 on all existing peak hours below 0.92, and heavy vehicle percentages have been adjusted to reflect a 2% rate on all existing percentages less than 2% for all future traffic analysis scenarios.

Traffic queues have been determined based on the SimTraffic micros-scopic modeling procedure to determine maximum observed traffic queues with a 15 minute seeding time and 60 minute analyses period under a 10 run average.

Existing (2020) Traffic Analysis

Existing (2020) peak hour traffic conditions detailed in Figure 2 have been analyzed to determine a base line for determining site traffic impacts. Refer to Table 2 for the existing (2020) peak hour analysis results. Refer to Appendix D for the computer printouts of the existing analysis.

Analysis indicates overall delay measures at the signalized intersection of Pouncey Tract Road and Twin Hickory Lake Drive is operating at LOS E under AM peak hour traffic conditions. Excessive left turn movement side street delays are occurring at the two unsignalized study area intersections under existing (2020) peak hour traffic conditions.

TABLE 2
Analysis Summary
Existing (2020) Peak Hour Traffic Conditions

	Intersection	Control	Lane Group	Available Storage[1]	AM Peak Hour Lane LOS	AM Peak Hour Lane Delay (sec/veh)	AM Peak Hour Lane Queue (ft)[2]	PM Peak Hour Lane LOS	PM Peak Hour Lane Delay (sec/veh)	PM Peak Hour Lane Queue (ft)[2]
1.	Pouncey Tract Road (N/S)		EBL	200	E	71.1	158	E	60.8	71
	and		EBTT	-	D	54.6	122	E	61.0	102
	Twin Hickory Lake Drive /		EBR	150	D	48.6	150	D	49.2	99
	Liesfeld Farm Drive (E/W)		WBL	250	F	92.7	274	E	58.5	274
			WBT	-	D	44.8	360	D	37.1	433
			WBR	-	D	42.0	86	D	36.0	58
		Signal	NBL	150	C	34.6	173	D	36.3	174
			NBT	-	C	33.2	302	E	66.4	563
			NBR	-	B	11.8	132	B	11.4	264
			SBL	250	C	26.9	274	C	32.7	256
			SBT	-	E	78.6	805	E	70.9	498
			SBR	-	B	15.3	147	B	19.0	54
		Overall Intersection			E	55.7		D	51.2	
2.	Twin Hickory Lake Drive (N/S)		NBL	125	A	8.2	16	A	7.8	25
	and	Stop	EBLTR	-	D	32.4	56	B	13.8	34
	Hearthstone Drive / Hickory Bend	Stop	WBLT	-	F	138.6	106	D	25.7	149
	Drive (E/W)	Stop	WBR	-	A	9.8	63	A	9.3	25
			SBL	125	A	9.1	77	A	8.0	31
3.	Pouncey Tract Road (N/S)	Stop	WBL	-	F	73.3	60	F	266.9	72
	and	Stop	WBR	-	B	10.9	55	B	14.3	45
	Pouncey Place (E/W)		SBL	150	A	9.1	47	B	12.1	33

NOTES
(1) – Indicates continuous lane.
(2) Queues are maximum queue observed as reported by SimTraffic.
(3) $ Indicates Delay/Queue incalculable.
(4) + Indicates Queue exceeds link capacity.

Analysis of study area intersections indicates that the following intersection movements are not operating at acceptable levels of service under existing (2020) peak hour traffic conditions:

<u>Pouncey Tract Road and Twin Hickory Lake Drive</u>
- Eastbound left movement
- Eastbound through movement
- Westbound left movement
- Northbound through movement
- Southbound through movement

<u>Twin Hickory Lake Drive and Hearthstone Drive / Hickory Bend Drive</u>
- Westbound left-through movement

<u>Pouncey Tract Road and Pouncey Place</u>
- Westbound left movement

Analysis of study area intersections indicates that the following intersection movements are not expected to operate within available turn lane storage capacity under existing (2020) peak hour traffic conditions:

Pouncey Tract Road and Twin Hickory Lake Drive

- Westbound left movement
- Northbound left movement
- Southbound left movement

Background (2025) Traffic Analysis

Background (2025) peak hour traffic conditions detailed in Figure 3 have been analyzed as part of a comparative analysis to assess site traffic impacts. Refer to Table 3 for the background (2025) peak hour analysis results. Refer to Appendix E for the computer printouts of the background analysis.

TABLE 3
Analysis Summary
Background (2025) Peak Hour Traffic Conditions

	Intersection	Control	Lane Group	Available Storage[1]	AM Peak Hour Lane LOS	AM Peak Hour Lane Delay (sec/veh)	AM Peak Hour Lane Queue (ft)[2]	PM Peak Hour Lane LOS	PM Peak Hour Lane Delay (sec/veh)	PM Peak Hour Lane Queue (ft)[2]
1.	Pouncey Tract Road (N/S)		EBL	200	F	110.9	189	F	86.2	80
	and		EBTT	-	E	59.4	208	F	124.1	122
	Twin Hickory Lake Drive /		EBR	150	D	54.8	171	E	55.7	97
	Liesfeld Farm Drive (E/W)		WBL	250	F	80.4	274	E	70.8	275
			WBT	-	D	45.6	478	D	38.4	473
			WBR	-	D	42.8	130	D	37.1	69
		Signal	NBL	150	C	33.2	174	C	27.0	175
			NBT	-	C	26.4	282	D	45.4	556
			NBR	-	A	8.9	112	A	8.8	224
			SBL	250	C	21.6	254	C	31.5	274
			SBT	-	D	46.7	589	D	44.2	471
			SBR	-	B	12.6	69	B	16.8	48
		Overall Intersection			D	46.0		D	42.9	
2.	Twin Hickory Lake Drive (N/S)		NBL	125	A	7.8	14	A	7.9	27
	and	Stop	EBLTR	-	C	17.1	61	B	14.2	36
	Hearthstone Drive / Hickory Bend	Stop	WBLT	-	E	39.6	96	D	30.0	172
	Drive (E/W)	Stop	WBR	-	A	9.8	62	A	9.4	53
			SBL	125	A	8.7	91	A	8.0	38
3.	Pouncey Tract Road (N/S)	Stop	WBL	-	F	87.8	58	F	375.0	88
	and	Stop	WBR	-	B	11.0	50	C	15.1	43
	Pouncey Place (E/W)		SBL	150	A	9.3	48	B	12.9	40

NOTES
(1) – Indicates continuous lane.
(2) Queues are maximum queue observed as reported by SimTraffic.
(3) $ Indicates Delay/Queue incalculable.
(4) + Indicates Queue exceeds link capacity.

Excessive left turn movement side street delays are expected to continue from existing traffic conditions at the two unsignalized study area intersections under background (2025) peak hour traffic conditions.

Analysis of study area intersections indicates that the following intersection movements are not operating at acceptable levels of service under background (2025) peak hour traffic conditions (italics denotes problem traffic movements determined in prior analysis):

Pouncey Tract Road and Twin Hickory Lake Drive

- *Eastbound left movement*
- *Eastbound through movement*
- Eastbound right movement
- *Westbound left movement*

Twin Hickory Lake Drive and Hearthstone Drive / Hickory Bend Drive

- *Westbound left-through movement*

Pouncey Tract Road and Pouncey Place

- *Westbound left movement*

Analysis of study area intersections indicates that the following intersection movements are not expected to operate within available turn lane storage capacity under background (2025) peak hour traffic conditions (italics denotes problem traffic movements determined in prior analysis):

Pouncey Tract Road and Twin Hickory Lake Drive

- Eastbound right movement
- *Westbound left movement*
- *Northbound left movement*
- *Southbound left movement*

Buildout (2025) Traffic Analysis

Buildout (2025) peak hour traffic conditions detailed in Figure 18 have been analyzed as part of a comparative analysis to assess site traffic impacts. Refer to Table 4 for the buildout (2025) peak hour analysis results. Refer to Appendix F for the computer printouts of the buildout (2025) peak hour traffic conditions.

Analysis of site drives indicate that all stop controlled movements are expected to operate at acceptable levels of service under buildout (2025) peak hour traffic conditions. Excessive left turn movement side street delays are expected to remain at both off-site unsignalized study area intersections under buildout (2025) peak hour traffic conditions.

TABLE 4
Analysis Summary
Buildout (2025) Peak Hour Traffic Conditions

	Intersection	Control	Lane Group	Available Storage[1]	AM Peak Hour Lane LOS	AM Peak Hour Lane Delay (sec/veh)	AM Peak Hour Lane Queue (ft)[2]	PM Peak Hour Lane LOS	PM Peak Hour Lane Delay (sec/veh)	PM Peak Hour Lane Queue (ft)[2]
1.	Pouncey Tract Road (N/S)		EBL	200	F	110.9	197	E	67.8	76
	and		EBTT	-	E	59.6	168	F	96.4	134
	Twin Hickory Lake Drive /		EBR	150	D	54.3	168	D	54.0	131
	Liesfeld Farm Drive (E/W)		WBL	250	F	80.4	274	E	78.7	274
			WBT	-	D	45.5	408	D	39.3	433
			WBR	-	D	42.8	108	D	38.0	107
		Signal	NBL	150	D	46.2	174	D	35.4	174
			NBT	-	C	27.4	275	D	49.8	288
			NBR	-	A	9.2	134	A	9.7	179
			SBL	250	C	22.4	274	D	36.8	256
			SBT	-	D	52.9	753	D	46.8	558
			SBR	-	B	13.5	157	B	16.7	46
		Overall Intersection			D	48.3		D	45.6	
2.	Twin Hickory Lake Drive (N/S)		NBL	125	A	7.8	18	A	7.9	25
	and	Stop	EBLTR	-	C	17.5	65	B	14.7	34
	Hearthstone Drive / Hickory Bend	Stop	WBLT	-	F	52.7	121	E	47.3	246
	Drive (E/W)	Stop	WBR	-	A	9.9	61	A	9.4	38
			SBL	125	A	8.7	85	A	8.1	46
3.	Pouncey Tract Road (N/S)	Stop	WBL	-	F	542.1	311	F	$	323
	and	Stop	WBR	-	B	11.3	282	C	16.3	321
	Pouncey Place (E/W)		SBL	150	A	9.6	69	B	14.5	96
4.	Pouncey Tract Road (N/S)	Stop	WBR	-	B	11.4	56	C	17.5	246
	and									
	Site Drive #4 (E/W)									
5.	Twin Hickory Lake Drive (E/W)	Stop	NBR	-	A	9.7	58	B	11.0	57
	and									
	Site Drive #5 (N/S)									
6.	Twin Hickory Lake Drive (E/W)		NBR	-	A	9.7	28	B	10.8	32
	and	Stop	WBL	150	A	8.3	47	A	9.5	72
	Site Drive #5 (N/S)									

NOTES
(1) – Indicates continuous lane.
(2) Queues are maximum queue observed as reported by SimTraffic.
(3) $ Indicates Delay/Queue incalculable.
(4) + Indicates Queue exceeds link capacity.

Analysis of study area intersections indicates that the following intersection movements are not operating at acceptable levels of service under buildout (2025) peak hour traffic conditions (italics denotes problem traffic movements determined in prior analysis):

<u>Pouncey Tract Road and Twin Hickory Lake Drive</u>

- *Eastbound left movement*
- *Eastbound through movement*
- *Westbound left movement*

<u>Twin Hickory Lake Drive and Hearthstone Drive / Hickory Bend Drive</u>

- *Westbound left-through movement*

<u>Pouncey Tract Road and Pouncey Place</u>

- *Westbound left movement*

Analysis of study area intersections indicates that the following intersection movements are not expected to operate within available turn lane storage capacity under buildout (2025) peak hour traffic conditions (italics denotes problem traffic movements determined in prior analysis):

Pouncey Tract Road and Twin Hickory Lake Drive

- *Eastbound right movement*
- *Westbound left movement*
- *Northbound left movement*
- *Southbound left movement*

Buildout (2031) Traffic Analysis

Buildout (2031) peak hour traffic conditions detailed in Figure 18 have been analyzed as part of a comparative analysis to assess site traffic impacts. Refer to Table 5 for the buildout (2031) peak hour analysis results. Refer to Appendix G for the computer printouts of the buildout (2031) peak hour traffic conditions.

Analysis indicates that the global increase in traffic volumes is expected to primarily impact the movements that are already experiencing excess delay measures. The overall operation of Pouncey Tract Road and Twin Hickory Lake Drive is expected to deteriorate to an LOS E under both AM and PM peak hour traffic conditions. Additionally, the westbound left turn movement at the intersection of Twin Hickory Lake Drive and Hearthstone Drive / Hickory Bend Drive is expected to reach saturation under PM peak hour traffic conditions.

TABLE 5
Analysis Summary
Buildout (2031) Peak Hour Traffic Conditions

	Intersection	Control	Lane Group	Available Storage[1]	AM Peak Hour Lane LOS	AM Peak Hour Lane Delay (sec/veh)	AM Peak Hour Lane Queue (ft)[2]	PM Peak Hour Lane LOS	PM Peak Hour Lane Delay (sec/veh)	PM Peak Hour Lane Queue (ft)[2]
1.	Pouncey Tract Road (N/S)		EBL	200	F	137.0	215	E	71.0	82
	and		EBTT	-	E	59.8	239	F	109.7	148
	Twin Hickory Lake Drive /		EBR	150	D	54.7	172	D	53.4	114
	Liesfeld Farm Drive (E/W)		WBL	250	F	98.0	274	F	97.9	275
			WBT	-	D	45.5	425	D	39.1	435
			WBR	-	D	42.5	102	D	37.8	108
		Signal	NBL	150	F	97.8	174	F	81.6	174
			NBT	-	C	28.7	280	E	74.4	287
			NBR	-	A	9.3	132	B	10.8	245
			SBL	250	C	23.5	274	D	52.3	274
			SBT	-	E	76.8	1022	E	58.8	763
			SBR	-	B	14.2	793	B	17.3	186
		Overall Intersection			E	61.2		E	60.1	
2.	Twin Hickory Lake Drive (N/S)		NBL	125	A	7.9	18	A	8.0	16
	and	Stop	EBLTR	-	C	19.7	62	C	15.7	42
	Hearthstone Drive / Hickory Bend	Stop	WBLT	-	F	85.2	142	F	79.6	332
	Drive (E/W)	Stop	WBR	-	B	10.1	58	A	9.6	42
			SBL	125	A	8.9	94	A	8.2	45
3.	Pouncey Tract Road (N/S)	Stop	WBL	-	F	$	332	F	$	325
	and	Stop	WBR	-	B	11.7	325	C	17.7	323
	Pouncey Place (E/W)		SBL	150	A	9.9	73	C	16.0	109
4.	Pouncey Tract Road (N/S)	Stop	WBR	-	B	11.7	72	C	19.2	252
	and									
	Site Drive #4 (E/W)									
5.	Twin Hickory Lake Drive (E/W)	Stop	NBR	-	A	9.8	55	B	11.4	56
	and									
	Site Drive #5 (N/S)									
6.	Twin Hickory Lake Drive (E/W)		NBR	-	A	9.8	30	B	11.1	30
	and	Stop	WBL	150	A	8.5	75	A	9.8	74
	Site Drive #5 (N/S)									

NOTES
(1) – Indicates continuous lane.
(2) Queues are maximum queue observed as reported by SimTraffic.
(3) $ Indicates Delay/Queue incalculable.
(4) + Indicates Queue exceeds link capacity.

Conclusions

Analysis indicates that the primary impacts to the study area by the proposed site are expected to occur on the westbound approach of the Pouncey Tract Road and Pouncey Place intersection. The westbound left turn movement is expected to exceed saturation during the peak hour of a typical weekday. Traffic volumes and proximity to a nearby traffic signal are expected to prevent warrants from being met to install a traffic signal and/or an alternative intersection design, which would be needed to mitigate left turn operations.

Site drives are expected to operate at acceptable levels of service under buildout peak hour traffic conditions. The following geometry is recommended for Site Drive #6:

- Provide a 200 foot (ft) westbound left turn lane with a 100ft at the intersection of Twin Hickory Lake Drive and Site Drive #6.
- Construct a northbound auxiliary lane along the Pouncey Tract Road frontage to end at the signalized intersection of Pouncey Tract Road and Twin Hickory Lake Drive. This lane will provide a dedicated northbound right turn lane at the traffic signal once future improvements provide a second northbound through lane north of the Pouncey Tract Road and Twin Hickory Lake Drive signalized intersection.
- Provide a raised 'pork chop' island on the westbound approach of the Pouncey Tract Road and Site Drive #4 intersection. This improvement will restrict left turn ingress and egress movements under buildout traffic conditions. The improvement will also require the placement of appropriate pavement markings for the Pouncey Tract Road center left turn lane.

If you need any additional information or have any questions regarding this submittal, please feel free to call or email.

Sincerely,
Green Light Solutions, Inc.

Erich Strohhacker, PE
President

TECHNICAL APPENDIX

APPENDIX A

SCOPE OF SERVICES

PRE-SCOPE OF WORK MEETING FORM

Information on the Project
Traffic Impact Analysis Base Assumptions

The applicant is responsible for entering the relevant information and submitting the form to VDOT and the locality no less than three (3) business days prior to the meeting. If a form is not received by this deadline, the scope of work meeting may be postponed.

Contact Information				
Consultant Name: Tele: E-mail:	Green Light Solutions, Inc. / Erich Strohhacker, PE (804) 356-4282 estrohhacker@glstraffic.com			
Developer/Owner Name: Tele: E-mail:	Blackwood Development Company / Nolen Blackwood (804) 320-0422 nblackwood@blackwooddevelopment.com			
Project Information				
Project Name:	Pouncey Tract	Locality/County:	Henrico County	
Project Location: (Attach regional and site specific location map)	Located on the southeast quadrant of the Pouncey Tract Road and Twin Hickory Lake Drive. (Figure S1)			
Submission Type	Comp Plan ☐	Rezoning ☒	Site Plan ☐	Subd Plat ☐
Project Description: (Including details on the land use, acreage, phasing, access location, etc. Attach additional sheet if necessary)	Existing zoning - B2C Proposed zoning - RCPUP Site Area - approximately 9.87 acres Development Phases - To be determined Site Access - 4 points of access to surrounding roadway facilities, where two points of restricted access (1 RIRO, 1 Left-Over) on Twin Hickory Lake Drive; 1 point of restricted access (1 RIRO) on Pouncey Tract Road; 1 point of full access on Pouncey Place. 2 points of crossover access to existing residential development east and south of the proposed site. (Figure S1) Proposed Uses - 295 multi-family residential units; 44,900sf of retail uses.			
Proposed Use(s): (Check all that apply; attach additional pages as necessary)	Residential ☐	Commercial ☐	Mixed Use ☒	Other ☐

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

	Residential Uses(s) Number of Units: 295 ITE LU Code(s): 220 (295 units) _____ _____ **Commercial Use(s)** ITE LU Code(s): 820 (44.9Ksf) _____ _____ Square Ft or Other Variable:		_____ _____ _____ **Other Use(s)** ITE LU Code(s): _____ _____ _____ Independent Variable(s): _____ _____ _____	
Total Peak Hour Trip Projection:	Less than 100 ☐	100 – 499 ☐	500 – 999 ☐	1,000 or more ☒

Traffic Impact Analysis Assumptions

Study Period	Existing Year: 2020	Build-out Year: 2025	Design Year: 2031
Study Area Boundaries (Attach map)	North: Pouncey Tract Rd.	South: Pouncey Tract Rd.	
	East: Hickory Bend Dr.	West: Liesfeld Farm Dr.	
External Factors That Could Affect Project (Planned road improvements, other nearby developments)	N/A		
Consistency With Comprehensive Plan (Land use, transportation plan)	Consistent with Comprehensive Plan.		
Available Traffic Data (Historical, forecasts)	VDOT 2018 ADT Information - Pouncey Tract Rd. 10,000vpd / Henrico County 2018 ADT Information - Twin Hickory Lake Dr. 10,000vpd		
Trip Distribution (Attach sketch)	Road Name: Pouncey Tract Rd.: North (5% Res/20% Comm) South (50% Res/20% Comm)	Road Name: Twin Hickory Lake Dr.: North (10% Res/10% Comm)	
	Road Name: Liesfeld Farm Dr.: West (15% Res/25% Comm)	Road Name: Hickory Bend Dr.: South (20% Res/25% Comm) - Figure S2/Figure S3	
Annual Vehicle Trip Growth Rate:	1.5%	Peak Period for Study (check all that apply)	☒ AM ☒ PM ☐ SAT
		Peak Hour of the Generator	N/A
Study Intersections and/or Road Segments (Attach additional sheets as necessary)	1.Pouncey Tract Rd./Twin Hickory Lake Dr.	6.Twin Hickory Lake Dr./Site Drive #6	
	2.Twin Hickory Lake Dr./Hickory Bend Dr.	7.Remaining Site Drives (Note #1)	
	3.Pouncey Tract Rd./Pouncey Place	8.	

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.

	4.Pouncey Tract Rd./Site Drive #4	9.
	5.Twin Hickory Lake Dr./Site Drive #5	10.
Trip Adjustment Factors	Internal allowance: ☒ Yes ☐ No Reduction: 10%% trips	Pass-by allowance: ☒ Yes ☐ No Reduction: 34%% trips
Software Methodology	☒ Synchro ☐ HCS (v.2000/+) ☐ aaSIDRA ☐ CORSIM ☒ Other SimTraffic	
Traffic Signal Proposed or Affected (Analysis software to be used, progression speed, cycle length)	Pouncey Tract Road/Twin Hickory Lake Drive - plans to be obtained from VDOT	
Improvement(s) Assumed or to be Considered	N/A	
Background Traffic Studies Considered	Previous TIA's conducted for the subject parcel.	
Plan Submission	☐ Master Development Plan (MDP) ☒ Generalized Development Plan (GDP) ☐ Preliminary/Sketch Plan ☐ Other Plan type (Final Site, Subd. Plan)	
Additional Issues to be Addressed	☒ Queuing analysis ☒ Actuation/Coordination ☐ Weaving analysis ☐ Merge analysis ☐ Bike/Ped Accommodations ☒ Intersection(s) ☐ TDM Measures ☐ Other ____	

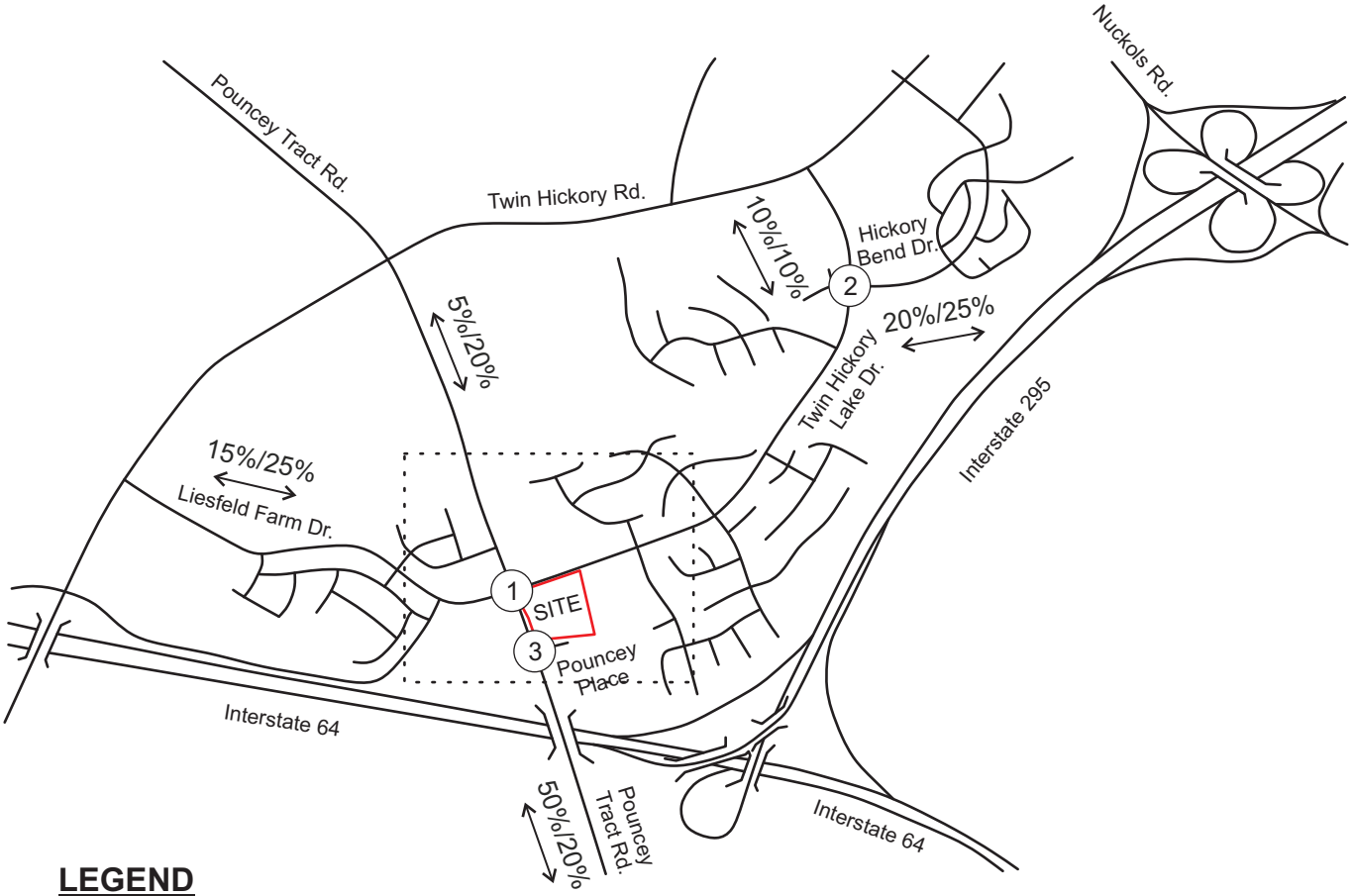
NOTES on ASSUMPTIONS:

Note #1 - Peak hour site trips will be determined for all 6 site drives. Capacity analysis will be provided for Site Drive #4, Site Drive #5, and Site Drive #6. Analysis will NOT be provided for the site drive (Site Drive #7) on Pouncey Place or the 2 crossover site drives (Site Drive #8; Site Drive #9).

SIGNED: _____ DATE: 3/23/20
Applicant or Consultant

PRINT NAME: Erich Stahlhacker
Applicant or Consultant

It is important for the applicant to provide sufficient information to county and VDOT staff so that questions regarding geographic scope, alternate methodology, or other issues can be answered at the scoping meeting.



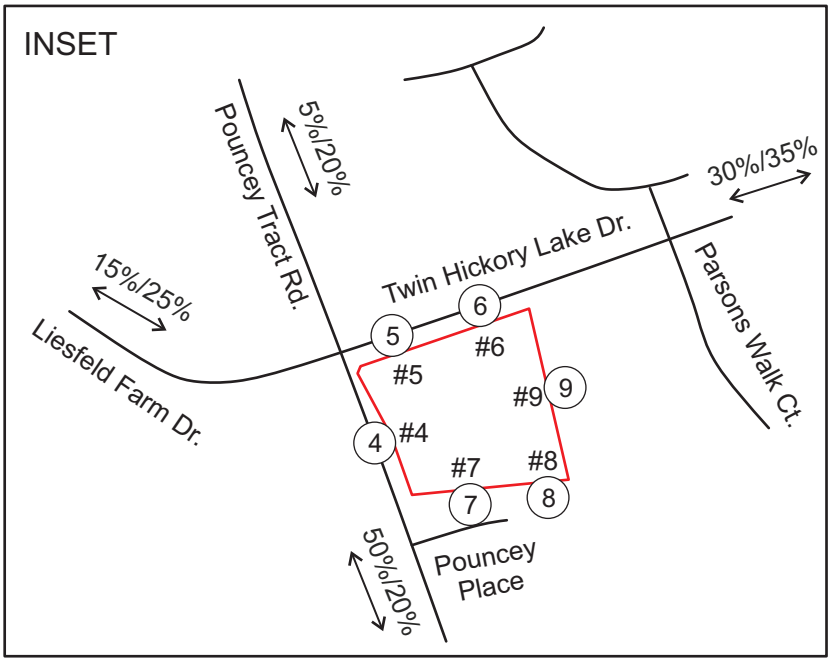
LEGEND

20%/20% — Site Distribution Percentages (Res./Com.)

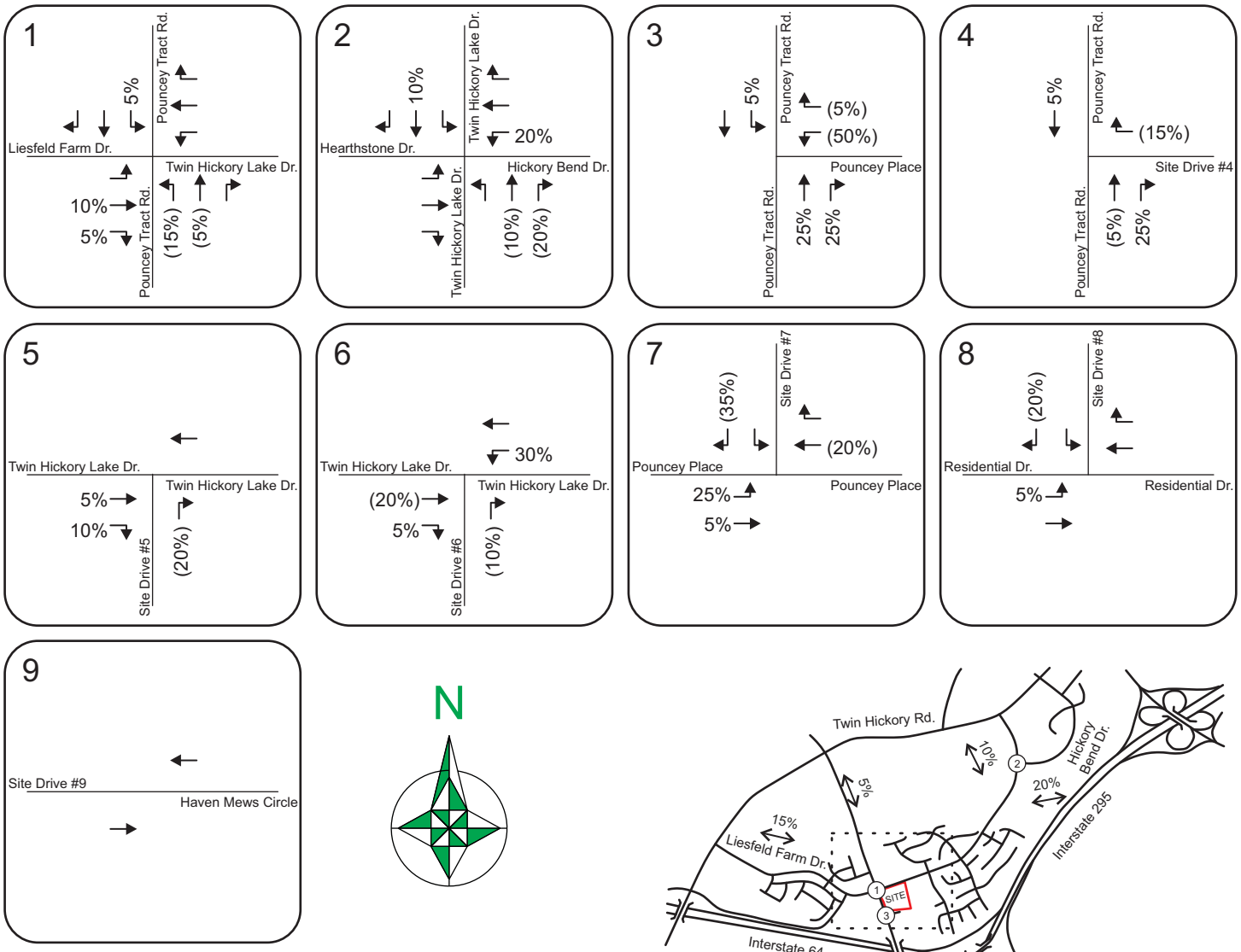
(1) — Intersection Number

Property Boundary

N



GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE S1
	Study Area Distribution Percentages	GLS Project #20100
		3/20 | Scope



GREEN LIGHT SOLUTIONS, INC.

Pouncey Tract

Residential Distribution Percentages

FIGURE S2

GLS Project #20100

3/20 | Scope

GREEN LIGHT SOLUTIONS, INC.

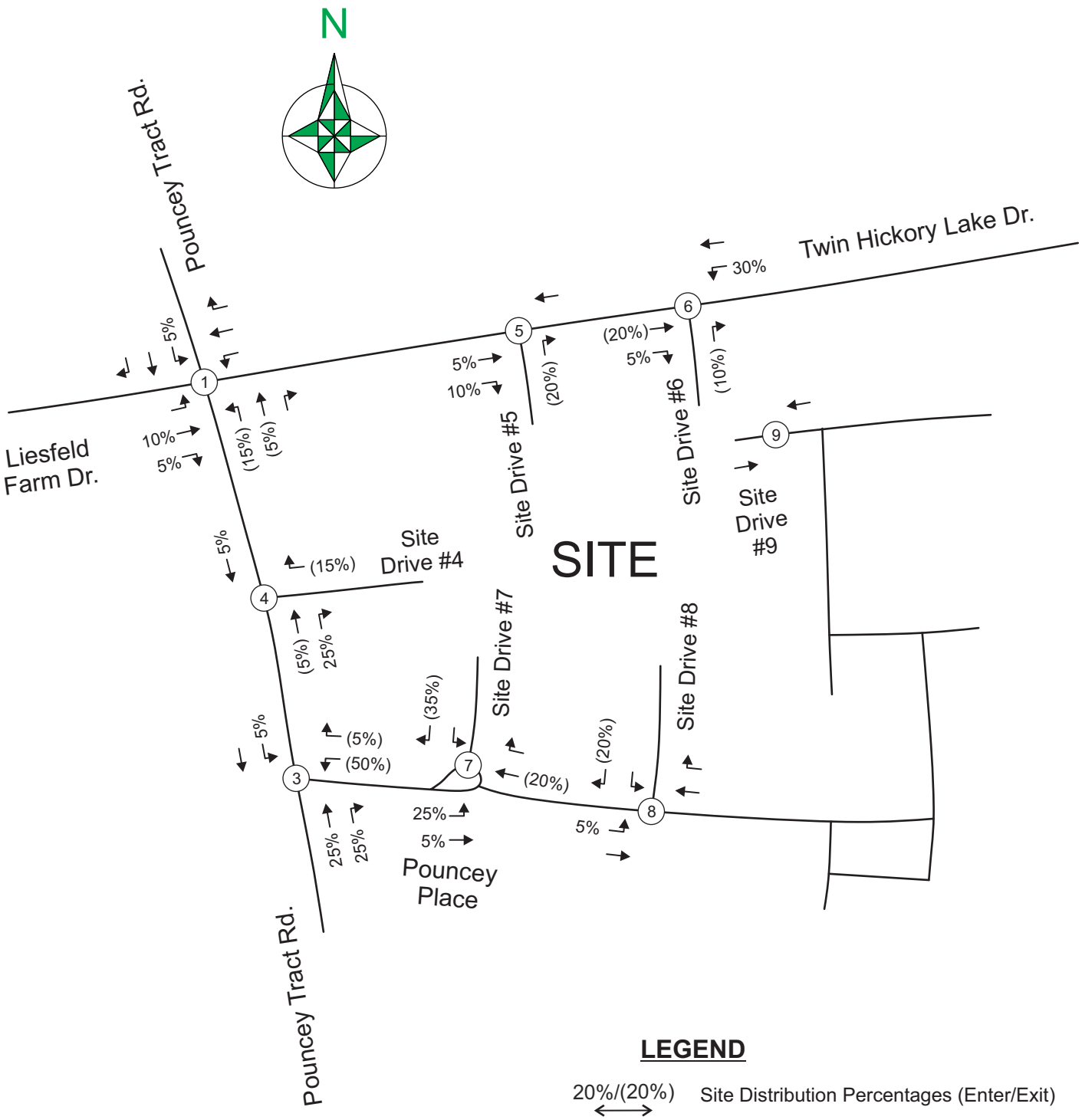
Pouncey Tract

Commercial Distribution Percentages

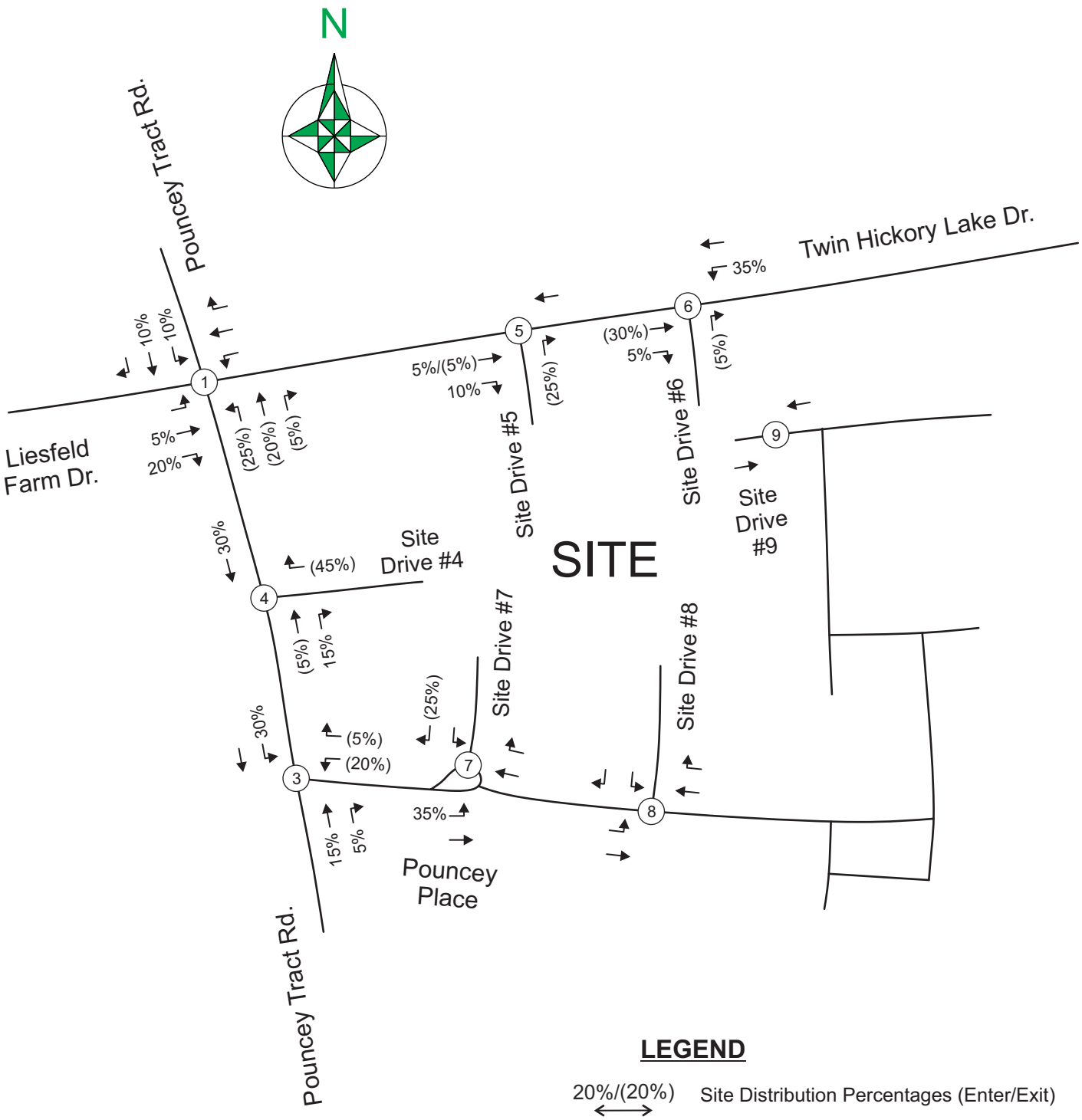
FIGURE S3

GLS Project #20100

3/20 | Scope



GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE S4
	Residential Distribution Percentages - Site Area	GLS Project #20100
		3/20 | Scope



GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE S5
	Commercial Distribution Percentages - Site Area	GLS Project #20100
		3/20 | Scope

TABLE 1
Buildout Site Trip Generation Results

Land Use	Density	ITE Code	AM Peak Hour (vph)		PM Peak Hour (vph)		Daily (vpd)
			Enter	Exit	Enter	Exit	Total
Multi-Family	295 units	220	31	103	97	57	2,190
Sub-Total Residential Trips			31	103	97	57	2,190
Sub-Total Residential Internal Trips			3	10	10	6	220
Sub-Total Residential Primary Trips			28	93	87	51	1,970
Retail	44,900sf	820	108	66	144	156	3,488
Sub-Total Commercial Trips			108	66	144	156	3,488
Sub-Total Commercial Internal Trips (10%)			10	3	6	10	220
Sub-Total Commercial Pass-By Trips (34%)			27	27	48	48	1,112
Sub-Total Commercial Primary Trips			71	36	90	98	2,156
Total Site Trips			**139**	**169**	**241**	**213**	**5,678**
Total Internal Site Trips			**13**	**13**	**16**	**16**	**440**
Total Pass-By Site Trips			**27**	**27**	**48**	**48**	**1,112**
Total Primary Site Trips			**99**	**129**	**177**	**149**	**4,126**

GREEN LIGHT
SOLUTIONS, INC.

June 29, 2020

Mr. John R. Cejka, PE
Henrico County
Traffic Engineering Division
PO Box 90775
Henrico, Virginia 23273

Re: Pouncey Tract – Response to Comments
Henrico County, Virginia

Mr. Cejka,

The purpose of the this letter is to address Virginia Department of Transportation (VDOT) and Henrico County comments in regards to review of the Traffic Impact Analysis (TIA) Report for the proposed Pouncey Tract Development dated 5/5/20. Refer to the following for the comments and responses:

1. **Comment** – (VDOT) Figures 8 and 9 show different directional distribution notations for the westbound right turn movement at Pouncey Tract Road and Site Drive #4. Figure 8 indicates 50 percent and Figure 9 shows 45 percent. Since all site outbound percentages on Figure 9 add up to 100 percent, we assume Figure 8 contains the erroneous datum. **Response** – Percentages illustrated on Figure 8 are incorrect. Refer to the revised TIA for a revised Figure 8 that correctly illustrates a 45% distribution for the westbound right turn movement at the intersection of Pouncey Tract Road and Site Drive #4.

2. **Comment** – (VDOT) The TIA shows Site Drive #4 as a right in/right out only access. The center two-way left turn lane along Pouncey Tract Road requires construction of a raised concrete 'pork chop' island at the westbound intersection leg to effectively prohibit left turns in and out. Conceptual site plan in Appendix C should illustrate this feature and TIA text should note this as a requirement on Page 2 (Executive Summary) and Page 10 (Conclusions). Pavement turn arrows within the center two-way left turn lane also require eradication to remove conflicting message/conditions. **Response** – The revised TIA has added the specific requirements recommended by the VDOT comment. Refer to the revised TIA for the recommended improvement that will construct a 'pork chop' island on Site Drive #4 that will restrict left turn ingress and egress movements at buildout of the proposed site. Additionally, the existing Pouncey Tract Road left turn lane will be changed to provide appropriate pavement markings to insure the restricted access operates according to the VDOT recommendation. The conceptual site plan has not been updated to reflect this recommendation at this time. However, the plan will be updated to reflect the final study recommendations.

3. **Comment** – (County) Page 5 – You state that 'the following intersection movements are not expected to operate within available turn lane storage'. Since these are existing conditions, were excessive queue lengths noted during the traffic counts? **Response** – Operation of the Pouncey Tract Road and Twin Hickory Lake Drive intersection was observed during the peak hours as part of the data collection process. Observations determined that traffic queues would on occasion exceed existing storage bay capacities without extending into adjacent lanes, creating spillback blockages. The primary impact

to existing operations at this intersection is due to the adjacent school site drive on Liesfeld Farm Drive during the AM peak hour. Queue spillback from the school entrance creates blockage issues at the signalized intersection of Pouncey Tract Road and Twin Hickory Lake Drive.

4. **Comment** – (County) The lists of 'unacceptable movements' for Pouncey Tract/Twin Hickory Lake are swapped between 2025 Background and 2025 Buildout. **Response** – Refer to the revised TIA for the corrected narrative.

5. **Comment** – (County) It appears that the traffic signal has been optimized for 2025 and 2031. For a correct determination of the effects of this project on the surrounding roadway network, the future timing plans should be the same as existing or all optimized for their respective traffic volumes. **Response** – Based on Chapter 527 methodologies, existing traffic conditions are typically analyzed based on existing timing plans. The original report provided results based on those plans. The primary comparison utilized to assess site impacts is determined between background 2025 and buildout 2025 peak hour traffic analyses. The revised TIA does not account for an optimized existing peak hour analysis. However, an additional analysis was completed with optimized intersection splits for the existing traffic condition. Overall intersections delays were determined to be an LOS D (49.9sec) during the AM peak hour and an LOS D (40.3sec) during the PM peak hour. Refer to the attachment with this letter for the synchro printouts.

6. **Comment** – (County) Page 8 – In the unacceptable queue list, the Eastbound Left should be italicized. **Response** – Refer to the revised TIA for the corrected narrative.

7. **Comment** – (County) Page 9 – Last sentence, first paragraph – Why only call out the AM Peak when the PM Peak is also an LOS F with a queue over double the AM Peak? **Response** – The reviewer is correct. The narrative wrongly calls out the AM peak hour where the PM peak hour best describes the conditions being discussed. The revised TIA has been corrected.

8. **Comment** – (County) Traffic Count data in Appendix B is missing one page and intersection information is out of order with one duplicate page. Also, two intersections had PM peaks counted on the same day with the same person (EWS). **Response** – The count information has been corrected to provide all relevant traffic count information. Refer to the revised TIA for the corrected data reports. Data collection for the intersection of Pouncey Tract Road and Pouncey Place was conducted during the primary count conducted for the intersection of Pouncey Tract Road and Twin Hickory Lake Drive. Data collected for the Pouncey Tract Road and Pouncey Place intersection included all major and minor street turning movements. Data was balanced with data collection at the intersection of Pouncey Tract Road and Twin Hickory Lake Drive. Changes to the data sets are not needed at this time.

9. **Comment** – (County) Appendix D – Explain why the Total Lost Time is the same as the Clearance Time / Vehicle Extensions are incorrect for all analyses / It appears that the Max 2 timings were used in the analyses based on the cycle length, but AM and PM Peaks use Max 1 timings. Please correct. **Response** – The Synchro traffic model calculates the lost time measure by adding the yellow and all red times detailed in the model setup. The model also assumes that both the start up lost time and the extension of effective green time is 2.5 seconds. Since these cancel each other out the total lost time is the same value as the yellow and all red times. Changes to the capacity models are not needed at

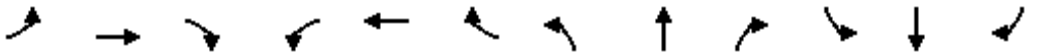
this time. / Vehicle extensions have been adjusted for all analyses. Refer to the revised TIA for the revised analyses. / Max 1 timings have been utilized for the revised TIA. Adjustments to the analyses per this comment has had no substantive change in analysis results from those determined in the original TIA report. Refer to the revised TIA for the revised analysis results.

10. **Comment** – (County) The western access point should be deleted. The eastern access point will require a standard left turn lane of 200' storage and 100' taper. Dimensions need to be shown for the proposed right turn lane. **Response** – Based on discussions with the development team, the western access location is needed for commercial development access. It is our understanding that the proposed site drive meets spacing standards and will be constructed with a dedicated eastbound right turn lane. Analysis indicates that the proposed site drive is expected to operate at acceptable levels of service under both AM and PM peak hour traffic conditions. Therefore, the revised TIA provides analysis results that assumes the entrance will be constructed as part of the development buildout. The revised TIA has been revised to reflect a 200' storage and a 100' taper.

Based on our review of jurisdictional comments, revisions to the TIA are needed. A revised study has been provided to the review jurisdictions in order to accommodate the additional information requests and provide revised study elements. Thanks for your time and patience in regards to this development request.

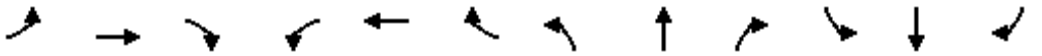
Sincerely,
Green Light Solutions, Inc.

Erich Strohhacker, PE
President



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	73	146	290	112	139	106	300	238	31	580	44
Future Volume (vph)	95	73	146	290	112	139	106	300	238	31	580	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	3471	1553	1770	1863	1583	1736	1827	1553	1752	1845	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.12	1.00	1.00	0.52	1.00	1.00
Satd. Flow (perm)	1736	3471	1553	1770	1863	1583	224	1827	1553	951	1845	1568
Peak-hour factor, PHF	0.67	0.67	0.67	0.77	0.77	0.77	0.89	0.89	0.89	0.93	0.93	0.93
Adj. Flow (vph)	142	109	218	377	145	181	119	337	267	33	624	47
RTOR Reduction (vph)	0	0	105	0	0	140	0	0	97	0	0	22
Lane Group Flow (vph)	142	109	113	377	145	41	119	337	170	33	624	25
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	4%	4%	4%	3%	3%	3%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	12.3	12.3	18.7	30.4	30.4	30.4	60.8	54.4	84.8	51.8	49.9	72.0
Effective Green, g (s)	12.3	12.3	18.7	30.4	30.4	30.4	60.8	54.4	84.8	51.8	49.9	72.0
Actuated g/C Ratio	0.09	0.09	0.14	0.23	0.23	0.23	0.46	0.41	0.64	0.39	0.38	0.54
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	160	321	218	404	425	361	175	747	990	381	692	848
v/s Ratio Prot	c0.08	0.03	0.07	c0.21	0.08		c0.03	0.18	0.11	0.00	c0.34	0.02
v/s Ratio Perm						0.03	c0.28			0.03		
v/c Ratio	0.89	0.34	0.52	0.93	0.34	0.11	0.68	0.45	0.17	0.09	0.90	0.03
Uniform Delay, d1	59.7	56.5	53.0	50.3	42.9	40.6	27.7	28.5	9.8	25.3	39.2	14.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	39.9	0.5	1.6	28.7	0.6	0.2	9.5	2.0	0.1	0.1	17.2	0.0
Delay (s)	99.6	57.0	54.5	79.0	43.5	40.8	37.2	30.4	9.9	25.4	56.4	14.2
Level of Service	F	E	D	E	D	D	D	C	A	C	E	B
Approach Delay (s)		68.7			61.8			24.0			52.2	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	49.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	70	70	353	59	46	131	623	473	45	511	21
Future Volume (vph)	25	70	70	353	59	46	131	623	473	45	511	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1787	1881	1599	1787	1881	1599	1787	1881	1599
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.17	1.00	1.00	0.18	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	1787	1881	1599	319	1881	1599	334	1881	1599
Peak-hour factor, PHF	0.85	0.85	0.85	0.88	0.88	0.88	0.93	0.93	0.93	0.85	0.85	0.85
Adj. Flow (vph)	29	82	82	401	67	52	141	670	509	53	601	25
RTOR Reduction (vph)	0	0	74	0	0	39	0	0	80	0	0	12
Lane Group Flow (vph)	29	82	8	401	67	13	141	670	429	53	601	13
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	4.5	4.5	12.3	33.9	33.9	33.9	65.5	57.7	91.6	55.7	52.8	67.1
Effective Green, g (s)	4.5	4.5	12.3	33.9	33.9	33.9	65.5	57.7	91.6	55.7	52.8	67.1
Actuated g/C Ratio	0.03	0.03	0.09	0.25	0.25	0.25	0.49	0.43	0.69	0.42	0.40	0.50
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	59	118	145	455	479	407	243	816	1101	171	746	806
v/s Ratio Prot	0.02	c0.02	0.00	c0.22	0.04		c0.03	c0.36	0.27	0.01	0.32	0.01
v/s Ratio Perm						0.01	0.25			0.12		
v/c Ratio	0.49	0.69	0.05	0.88	0.14	0.03	0.58	0.82	0.39	0.31	0.81	0.02
Uniform Delay, d1	63.1	63.6	55.0	47.6	38.3	37.2	24.2	33.1	8.8	26.8	35.6	16.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.6	15.1	0.1	18.2	0.2	0.0	2.9	9.1	0.3	0.8	9.1	0.0
Delay (s)	67.8	78.7	55.1	65.8	38.4	37.3	27.2	42.2	9.1	27.5	44.6	16.5
Level of Service	E	E	E	E	D	D	C	D	A	C	D	B
Approach Delay (s)		67.0			59.4			27.8			42.2	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	40.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX B

TRAFFIC COUNTS/VDOT INFORMATION

Green Light Solutions, Inc.

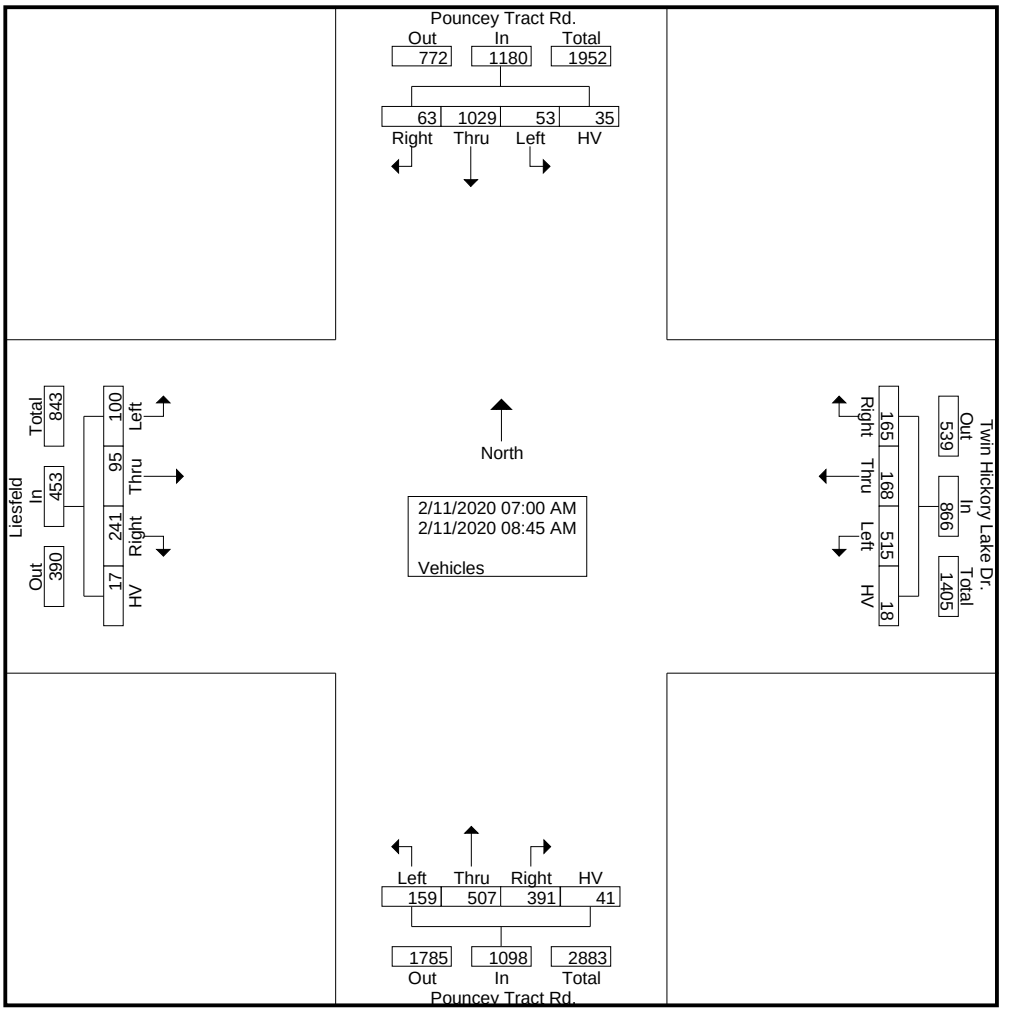
(804) 356-4282
estrohhacker@glstraffic.com

Project: Pouncey Place
Counter: Erich Strohhacker
Weather: Clear

File Name : ptthlam
Site Code : 00001212
Start Date : 2/11/2020
Page No : 1

Groups Printed- Vehicles

	Pouncey Tract Rd. From North					Twin Hickory Lake Dr. From East					Pouncey Tract Rd. From South					Liesfeld From West					
Start Time	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Int. Total
07:00 AM	1	81	1	0	83	3	8	33	0	44	16	35	7	0	58	19	3	1	0	23	208
07:15 AM	2	100	2	3	107	5	6	48	0	59	22	45	15	5	87	17	5	0	0	22	275
07:30 AM	13	157	7	9	186	6	21	75	3	105	48	62	19	6	135	36	3	2	1	42	468
07:45 AM	16	155	1	9	181	17	32	72	6	127	45	67	43	9	164	45	21	23	6	95	567
Total	32	493	11	21	557	31	67	228	9	335	131	209	84	20	444	117	32	26	7	182	1518
08:00 AM	10	140	7	1	158	59	43	74	4	180	57	91	35	5	188	55	20	42	5	122	648
08:15 AM	10	132	11	3	156	43	17	76	1	137	62	82	11	5	160	26	16	20	2	64	517
08:30 AM	8	153	12	7	180	20	20	68	4	112	74	60	17	5	156	20	16	10	2	48	496
08:45 AM	3	111	12	3	129	12	21	69	0	102	67	65	12	6	150	23	11	2	1	37	418
Total	31	536	42	14	623	134	101	287	9	531	260	298	75	21	654	124	63	74	10	271	2079
Grand Total	63	1029	53	35	1180	165	168	515	18	866	391	507	159	41	1098	241	95	100	17	453	3597
Apprch %	5.3	87.2	4.5	3		19.1	19.4	59.5	2.1		35.6	46.2	14.5	3.7		53.2	21	22.1	3.8		
Total %	1.8	28.6	1.5	1	32.8	4.6	4.7	14.3	0.5	24.1	10.9	14.1	4.4	1.1	30.5	6.7	2.6	2.8	0.5	12.6	



Green Light Solutions, Inc.

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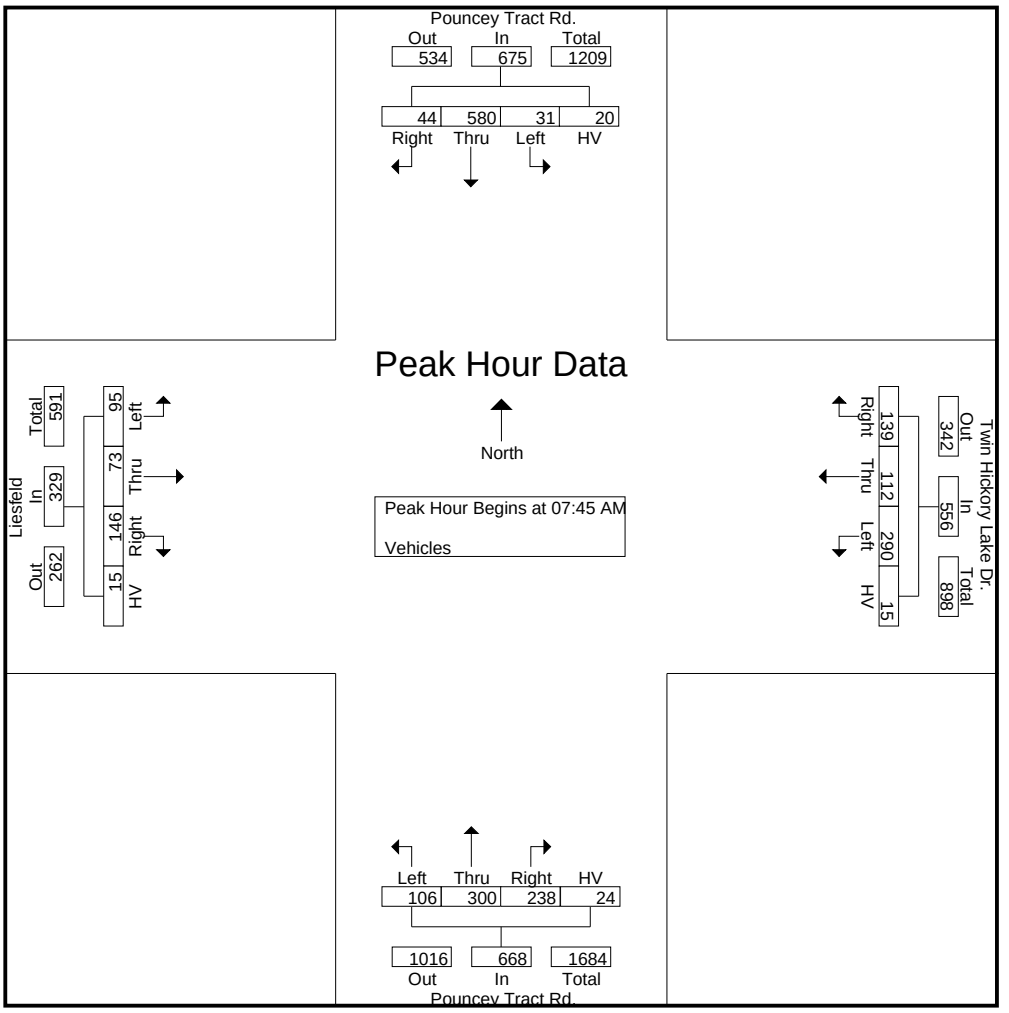
Project: Pouncey Place
Counter: Erich Strohhacker
Weather: Clear

File Name : ptthlam
Site Code : 00001212
Start Date : 2/11/2020
Page No : 2

	Pouncey Tract Rd. From North					Twin Hickory Lake Dr. From East					Pouncey Tract Rd. From South					Liesfeld From West					
Start Time	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	**16**	**155**	1	**9**	**181**	17	32	72	**6**	127	45	67	**43**	**9**	164	45	**21**	23	**6**	95	567
08:00 AM	10	140	7	1	158	**59**	**43**	74	4	**180**	57	**91**	35	5	**188**	**55**	20	**42**	5	**122**	**648**
08:15 AM	10	132	11	3	156	43	17	**76**	1	137	62	82	11	5	160	26	16	20	2	64	517
08:30 AM	8	153	**12**	7	180	20	20	68	4	112	**74**	60	17	5	156	20	16	10	2	48	496
Total Volume	44	580	31	20	675	139	112	290	15	556	238	300	106	24	668	146	73	95	15	329	2228
% App. Total	6.5	85.9	4.6	3		25	20.1	52.2	2.7		35.6	44.9	15.9	3.6		44.4	22.2	28.9	4.6		
PHF	.688	.935	.646	.556	.932	.589	.651	.954	.625	.772	.804	.824	.616	.667	.888	.664	.869	.565	.625	.674	.860



Green Light Solutions, Inc.

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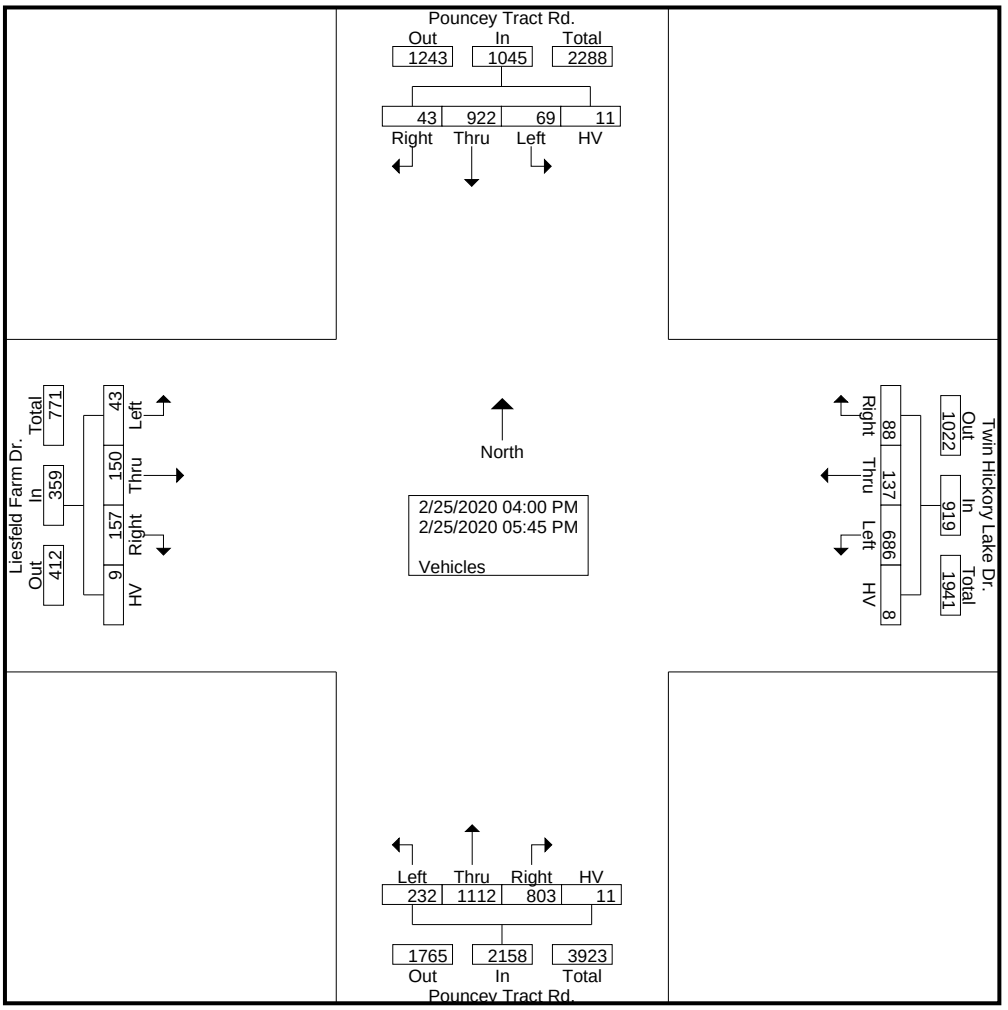
Project: Pouncey Tract
Counter: Erich Strohhacker
Weather: Clear

File Name : ptthlpm
Site Code : 00001212
Start Date : 2/25/2020
Page No : 1

Groups Printed- Vehicles

	Pouncey Tract Rd. From North					Twin Hickory Lake Dr. From East					Pouncey Tract Rd. From South					Liesfeld Farm Dr. From West					
Start Time	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Int. Total
04:00 PM	4	97	4	3	108	12	18	83	2	115	70	111	24	0	205	18	12	4	0	34	462
04:15 PM	8	112	4	2	126	7	18	73	2	100	78	97	30	2	207	25	18	4	1	48	481
04:30 PM	3	99	7	1	110	6	20	97	1	124	83	134	19	2	238	25	27	4	2	58	530
04:45 PM	7	103	9	2	121	17	22	80	3	122	99	147	28	2	276	19	23	6	2	50	569
Total	22	411	24	8	465	42	78	333	8	461	330	489	101	6	926	87	80	18	5	190	2042
05:00 PM	6	122	13	0	141	15	12	103	0	130	109	127	31	1	268	18	22	10	0	50	589
05:15 PM	3	124	12	1	140	10	22	95	0	127	128	165	38	1	332	17	14	5	0	36	635
05:30 PM	10	146	14	1	171	12	9	76	0	97	121	170	25	0	316	22	19	7	1	49	633
05:45 PM	2	119	6	1	128	9	16	79	0	104	115	161	37	3	316	13	15	3	3	34	582
Total	21	511	45	3	580	46	59	353	0	458	473	623	131	5	1232	70	70	25	4	169	2439
Grand Total	43	922	69	11	1045	88	137	686	8	919	803	1112	232	11	2158	157	150	43	9	359	4481
Apprch %	4.1	88.2	6.6	1.1		9.6	14.9	74.6	0.9		37.2	51.5	10.8	0.5		43.7	41.8	12	2.5		
Total %	1	20.6	1.5	0.2	23.3	2	3.1	15.3	0.2	20.5	17.9	24.8	5.2	0.2	48.2	3.5	3.3	1	0.2	8	



Green Light Solutions, Inc.

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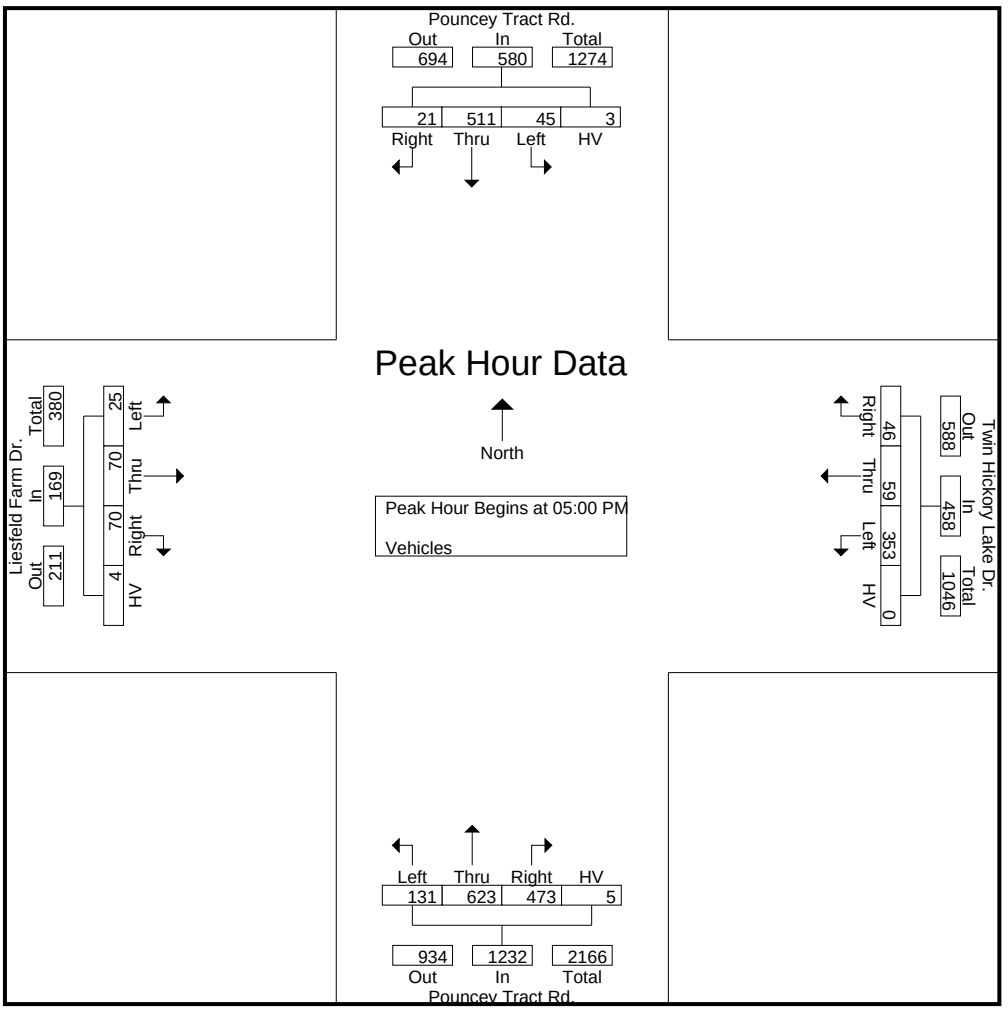
Project: Pouncey Tract
Counter: Erich Strohhacker
Weather: Clear

File Name : ptthlpm
Site Code : 00001212
Start Date : 2/25/2020
Page No : 2

	Pouncey Tract Rd. From North					Twin Hickory Lake Dr. From East					Pouncey Tract Rd. From South					Liesfeld Farm Dr. From West					
Start Time	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	6	122	13	0	141	**15**	12	**103**		**130**	109	127	31	1	268	18	**22**	**10**		**50**	589
05:15 PM	3	124	12	**1**			**22**				**128**		**38**	1	**332**	17	14	5	0	36	**635**
05:30 PM	**10**	**146**	**14**		**171**	12	9	76	0	97	121	**170**				**22**					
05:45 PM	**2**	**119**	**6**	**1**	**128**	**9**	**16**	**79**	**0**	**104**	**115**	**161**	**37**	**3**	**316**	**13**	**15**	**3**	**3**	**34**	**582**
Total Volume	21	511	45	3	580	46	59	353	0	458	473	623	131	5	1232	70	70	25	4	169	2439
% App. Total	3.6	88.1	7.8	0.5		10	12.9	77.1	0		38.4	50.6	10.6	0.4		41.4	41.4	14.8	2.4		
PHF	.525	.875	.804	.750	.848	.767	.670	.857	.000	.881	.924	.916	.862	.417	.928	.795	.795	.625	.333	.845	.960



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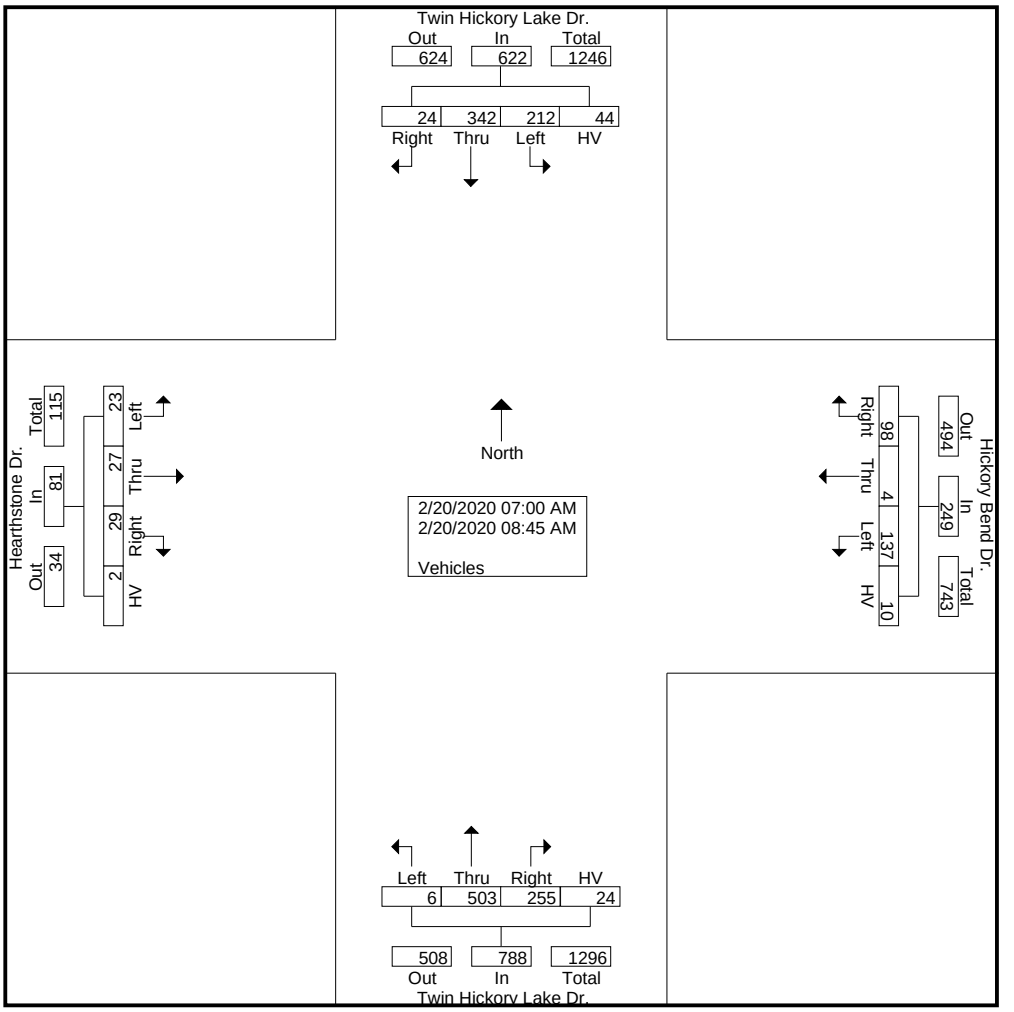
Project: Pouncey Place
Counter: Erich Strohhacker
Weather: Clear

File Name : thlhbam
Site Code : 00001313
Start Date : 2/20/2020
Page No : 1

Groups Printed- Vehicles

	Twin Hickory Lake Dr. From North					Hickory Bend Dr. From East					Twin Hickory Lake Dr. From South					Hearthstone Dr. From West					
Start Time	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Int. Total
07:00 AM	2	11	2	1	16	3	1	11	0	15	17	22	1	2	42	0	4	3	0	7	80
07:15 AM	2	20	3	1	26	1	0	13	0	14	25	24	0	2	51	2	6	0	0	8	99
07:30 AM	2	33	11	5	51	8	0	12	1	21	21	63	0	3	87	1	6	4	1	12	171
07:45 AM	2	62	56	19	139	24	0	15	4	43	40	54	0	2	96	6	2	0	0	8	286
Total	8	126	72	26	232	36	1	51	5	93	103	163	1	9	276	9	18	7	1	35	636
08:00 AM	6	78	101	6	191	28	1	16	1	46	39	67	0	5	111	13	3	2	0	18	366
08:15 AM	7	52	10	3	72	6	2	22	1	31	39	74	3	1	117	1	2	5	1	9	229
08:30 AM	0	34	9	2	45	13	0	25	2	40	34	92	1	5	132	3	1	2	0	6	223
08:45 AM	3	52	20	7	82	15	0	23	1	39	40	107	1	4	152	3	3	7	0	13	286
Total	16	216	140	18	390	62	3	86	5	156	152	340	5	15	512	20	9	16	1	46	1104
Grand Total	24	342	212	44	622	98	4	137	10	249	255	503	6	24	788	29	27	23	2	81	1740
Apprch %	3.9	55	34.1	7.1		39.4	1.6	55	4		32.4	63.8	0.8	3		35.8	33.3	28.4	2.5		
Total %	1.4	19.7	12.2	2.5	35.7	5.6	0.2	7.9	0.6	14.3	14.7	28.9	0.3	1.4	45.3	1.7	1.6	1.3	0.1	4.7	



Green Light Solutions, Inc.

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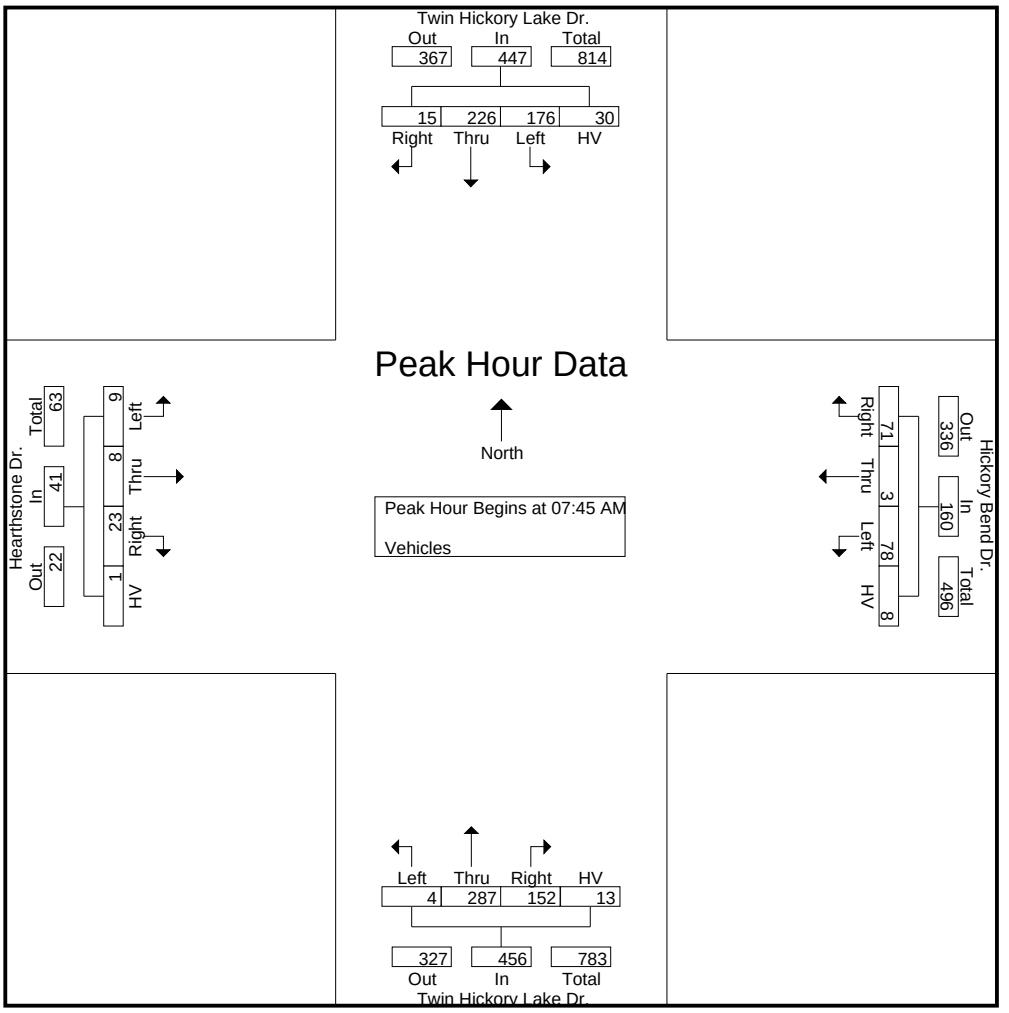
Project: Pouncey Place
Counter: Erich Strohhacker
Weather: Clear

File Name : thlhbam
Site Code : 00001313
Start Date : 2/20/2020
Page No : 2

	Twin Hickory Lake Dr. From North					Hickory Bend Dr. From East					Twin Hickory Lake Dr. From South					Hearthstone Dr. From West					
Start Time	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	2	62	56	**19**	139	24	0	15	**4**	43	**40**	54	0	2	96	6	2	0	0	8	286
08:00 AM	6	**78**	**101**	6	**191**	**28**	1	16	1	**46**	39	67	0	**5**	111	**13**	**3**	2	0	**18**	**366**
08:15 AM	**7**	52	10	3	72	6	**2**	22	1	31	39	74	**3**	1	117	1	2	**5**	**1**	9	229
08:30 AM	0	34	9	2	45	13	0	**25**	2	40	34	**92**	1	5	**132**	3	1	2	0	6	223
Total Volume	15	226	176	30	447	71	3	78	8	160	152	287	4	13	456	23	8	9	1	41	1104
% App. Total	3.4	50.6	39.4	6.7		44.4	1.9	48.8	5		33.3	62.9	0.9	2.9		56.1	19.5	22	2.4		
PHF	.536	.724	.436	.395	.585	.634	.375	.780	.500	.870	.950	.780	.333	.650	.864	.442	.667	.450	.250	.569	.754



Green Light Solutions, Inc.

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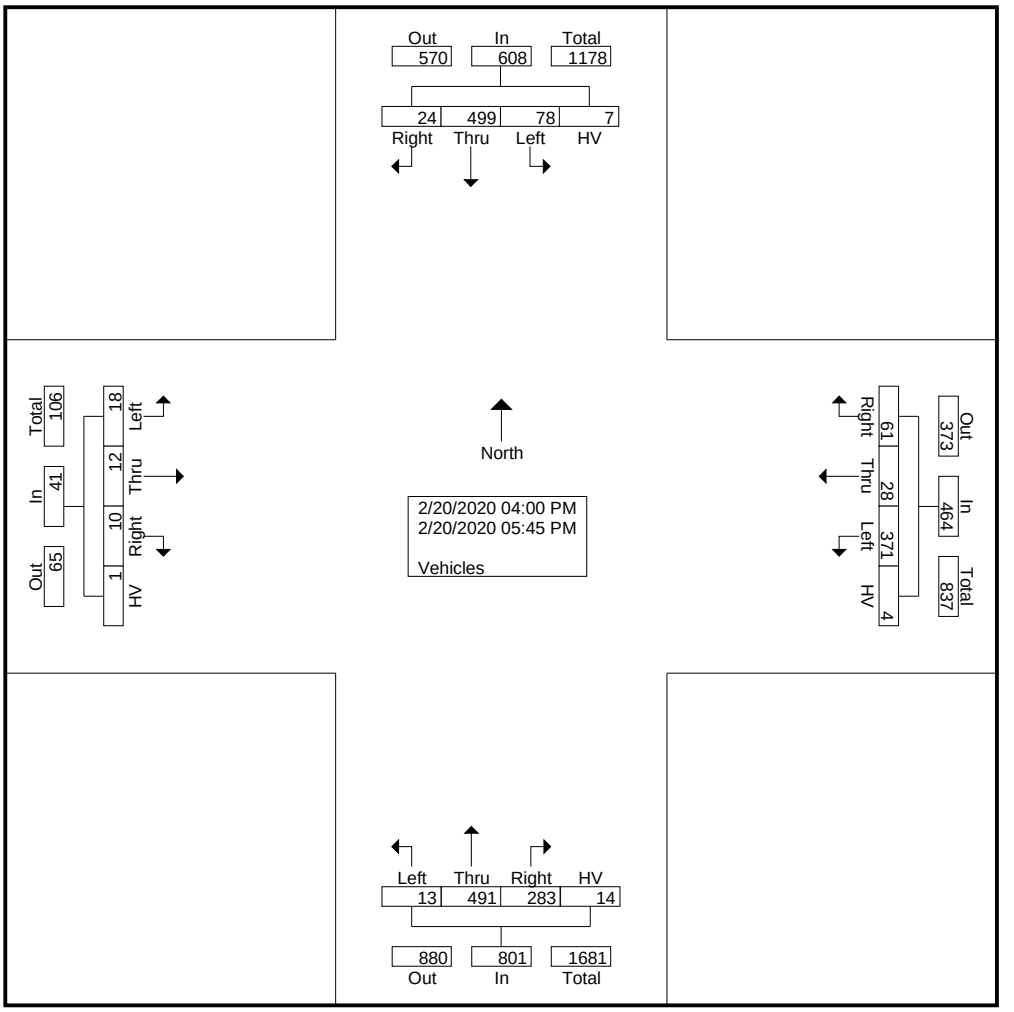
Project: Pouncey Place
Counter: Erich Strohhacker
Weather: Clear

File Name : thlhbpm
Site Code : 00001313
Start Date : 2/20/2020
Page No : 1

Groups Printed- Vehicles

	From North					From East					From South					From West					
Start Time	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Int. Total
04:00 PM	4	106	21	3	134	7	1	36	2	46	25	55	3	0	83	4	2	4	1	11	274
04:15 PM	0	49	6	1	56	3	2	38	2	45	25	59	0	2	86	0	2	1	0	3	190
04:30 PM	3	72	7	2	84	4	4	51	0	59	43	76	1	8	128	0	0	2	0	2	273
04:45 PM	5	63	6	1	75	7	3	55	0	65	35	61	1	1	98	2	2	4	0	8	246
Total	12	290	40	7	349	21	10	180	4	215	128	251	5	11	395	6	6	11	1	24	983
05:00 PM	3	56	14	0	73	6	2	51	0	59	39	68	3	2	112	0	0	2	0	2	246
05:15 PM	1	54	9	0	64	11	3	50	0	64	41	66	3	1	111	2	2	3	0	7	246
05:30 PM	3	48	5	0	56	14	9	50	0	73	36	55	1	0	92	1	2	0	0	3	224
05:45 PM	5	51	10	0	66	9	4	40	0	53	39	51	1	0	91	1	2	2	0	5	215
Total	12	209	38	0	259	40	18	191	0	249	155	240	8	3	406	4	6	7	0	17	931
Grand Total	24	499	78	7	608	61	28	371	4	464	283	491	13	14	801	10	12	18	1	41	1914
Apprch %	3.9	82.1	12.8	1.2		13.1	6	80	0.9		35.3	61.3	1.6	1.7		24.4	29.3	43.9	2.4		
Total %	1.3	26.1	4.1	0.4	31.8	3.2	1.5	19.4	0.2	24.2	14.8	25.7	0.7	0.7	41.8	0.5	0.6	0.9	0.1	2.1	



Green Light Solutions, Inc.

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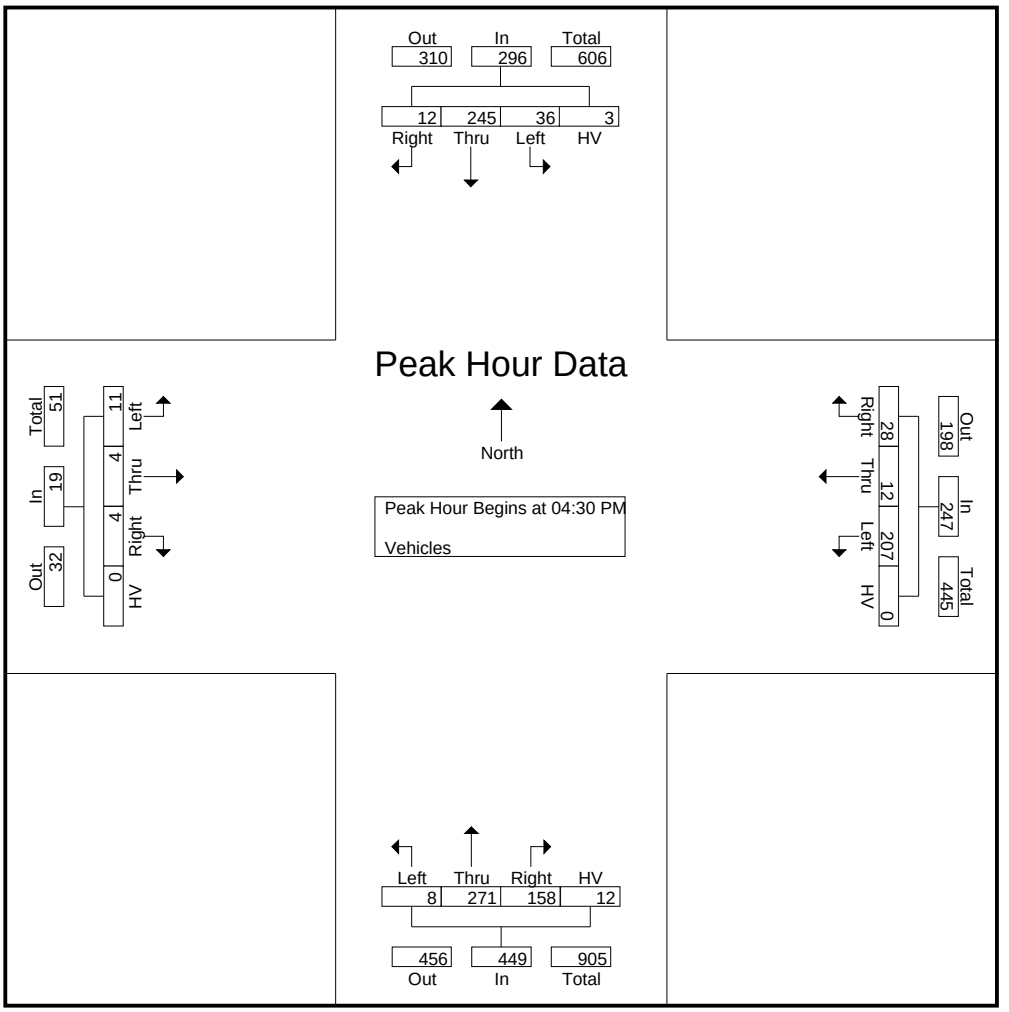
Project: Pouncey Place
Counter: Erich Strohhacker
Weather: Clear

File Name : thlhbpm
Site Code : 00001313
Start Date : 2/20/2020
Page No : 2

	From North					From East					From South					From West					
Start Time	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	3	**72**	7	**2**	**84**	4	**4**	51	0	59	**43**	**76**	1	**8**	**128**	0	0	2	0	2	**273**
04:45 PM	**5**	63	6	1	75	7	3	**55**	0	**65**	35	61	1	1	98	**2**	**2**	**4**	0	**8**	246
05:00 PM	3	56	**14**	0	73	6	2	51	0	59	39	68	**3**	2	112	0	0	2	0	2	246
05:15 PM	1	54	9	0	64	**11**	3	50	0	64	41	66	3	1	111	2	2	3	0	7	246
Total Volume	12	245	36	3	296	28	12	207	0	247	158	271	8	12	449	4	4	11	0	19	1011
% App. Total	4.1	82.8	12.2	1		11.3	4.9	83.8	0		35.2	60.4	1.8	2.7		21.1	21.1	57.9	0		
PHF	.600	.851	.643	.375	.881	.636	.750	.941	.000	.950	.919	.891	.667	.375	.877	.500	.500	.688	.000	.594	.926



Green Light Solutions, Inc.

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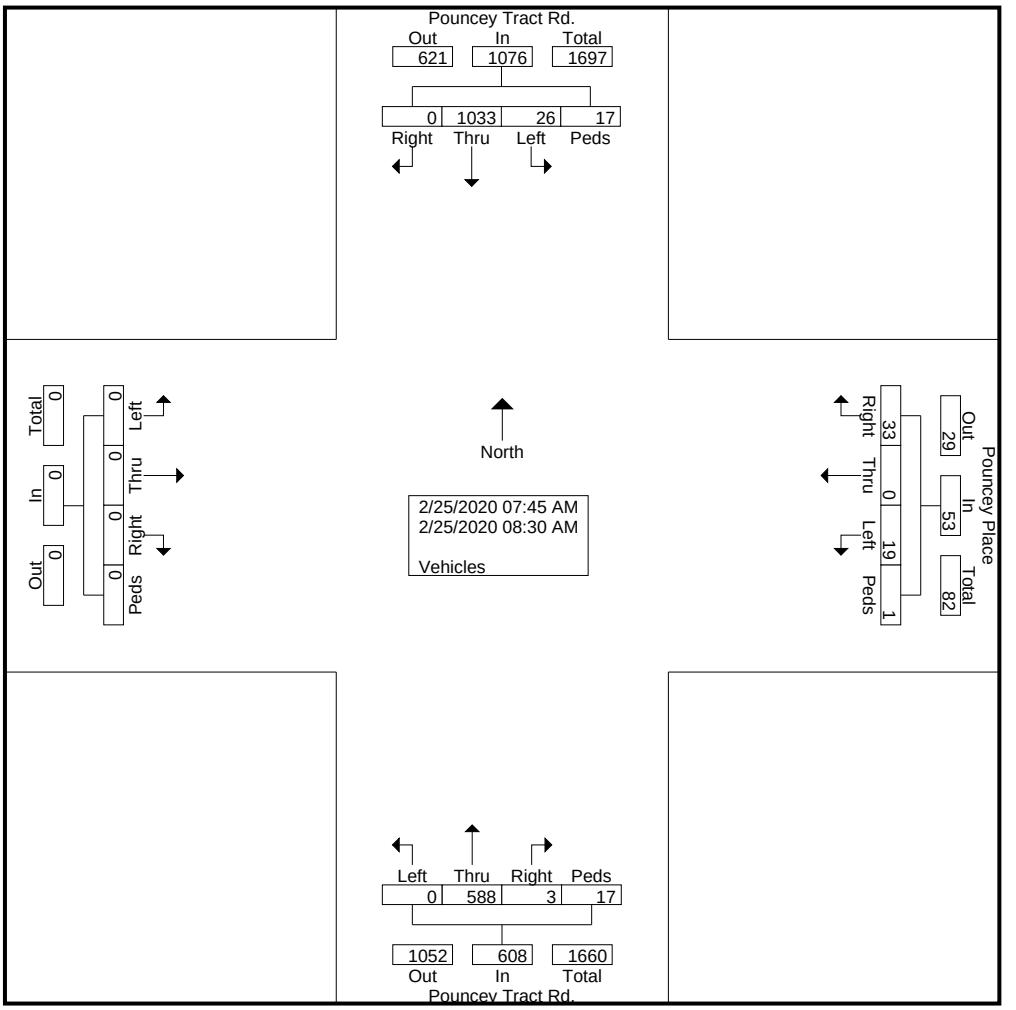
Project: Pouncey Tract
Counter: Erich Strohhacker
Weather: Clear

File Name : ptppam
Site Code : 00001414
Start Date : 2/25/2020
Page No : 1

Groups Printed- Vehicles

	Pouncey Tract Rd. From North					Pouncey Place From East					Pouncey Tract Rd. From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:45 AM	0	279	8	4	291	10	0	6	1	17	1	173	0	9	183	0	0	0	0	0	491
Total	0	279	8	4	291	10	0	6	1	17	1	173	0	9	183	0	0	0	0	0	491
08:00 AM	0	257	13	6	276	13	0	1	0	14	0	153	0	2	155	0	0	0	0	0	445
08:15 AM	0	255	3	2	260	8	0	5	0	13	1	146	0	5	152	0	0	0	0	0	425
08:30 AM	0	242	2	5	249	2	0	7	0	9	1	116	0	1	118	0	0	0	0	0	376
Grand Total	0	1033	26	17	1076	33	0	19	1	53	3	588	0	17	608	0	0	0	0	0	1737
Apprch %	0	96	2.4	1.6		62.3	0	35.8	1.9		0.5	96.7	0	2.8		0	0	0	0		
Total %	0	59.5	1.5	1	61.9	1.9	0	1.1	0.1	3.1	0.2	33.9	0	1	35	0	0	0	0	0	



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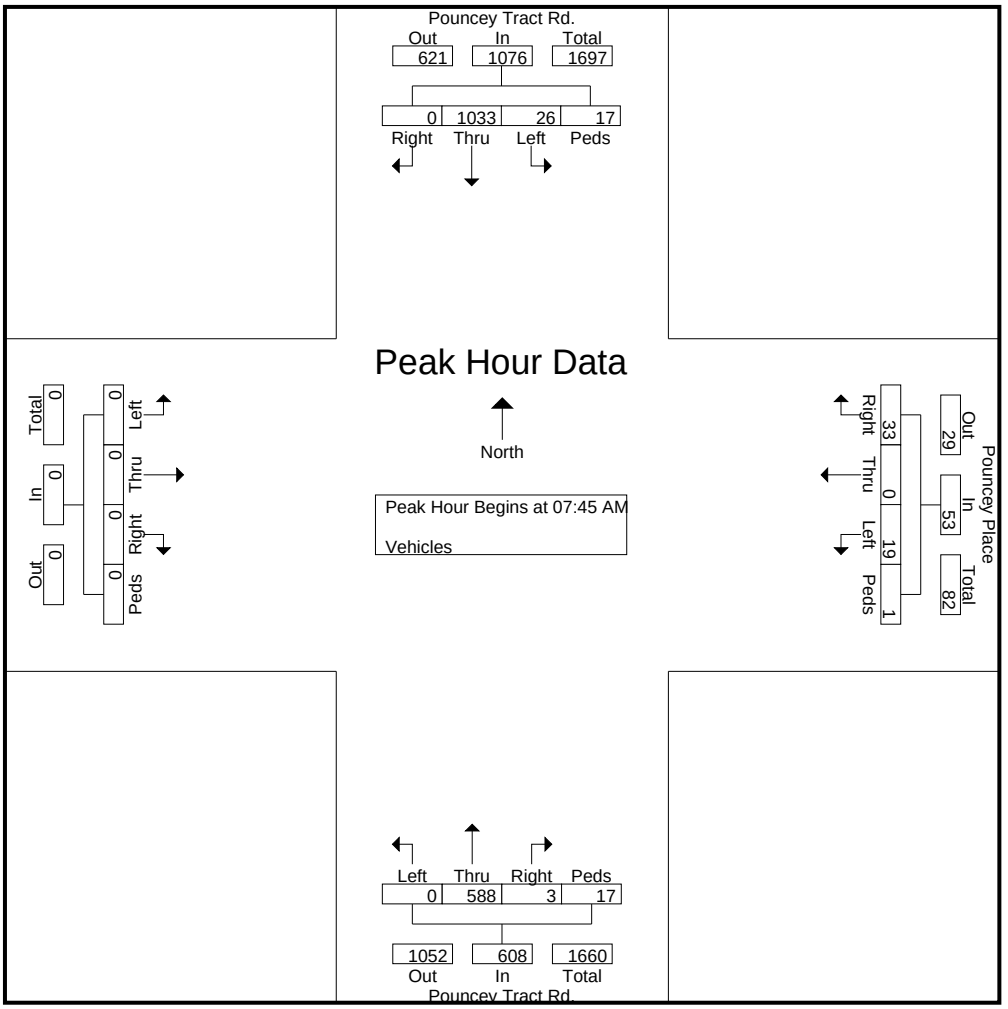
Project: Pouncey Tract
Counter: Erich Strohhacker
Weather: Clear

File Name : ptppam
Site Code : 00001414
Start Date : 2/25/2020
Page No : 2

	Pouncey Tract Rd. From North					Pouncey Place From East					Pouncey Tract Rd. From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:45 AM to 08:30 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	0	**279**	8	4	**291**	10	0	6	**1**	**17**	**1**	**173**		**9**	**183**	0	0	0	0	0	**491**
08:00 AM	0	257	**13**	**6**		**13**	0	1	0	14	0	153	0	2	155	0	0	0	0	0	445
08:15 AM	0	255	3	2	260	8	0	5	0	13	1	146	0	5	152	0	0	0	0	0	425
08:30 AM	0	242	2	5	249	2	0	**7**													
Total Volume	0	1033	26	17	1076	33	0	19	1	53	3	588	0	17	608	0	0	0	0	0	1737
% App. Total	0	96	2.4	1.6		62.3	0	35.8	1.9		0.5	96.7	0	2.8		0	0	0	0		
PHF	.000	.926	.500	.708	.924	.635	.000	.679	.250	.779	.750	.850	.000	.472	.831	.000	.000	.000	.000	.000	.884



Green Light Solutions, Inc.

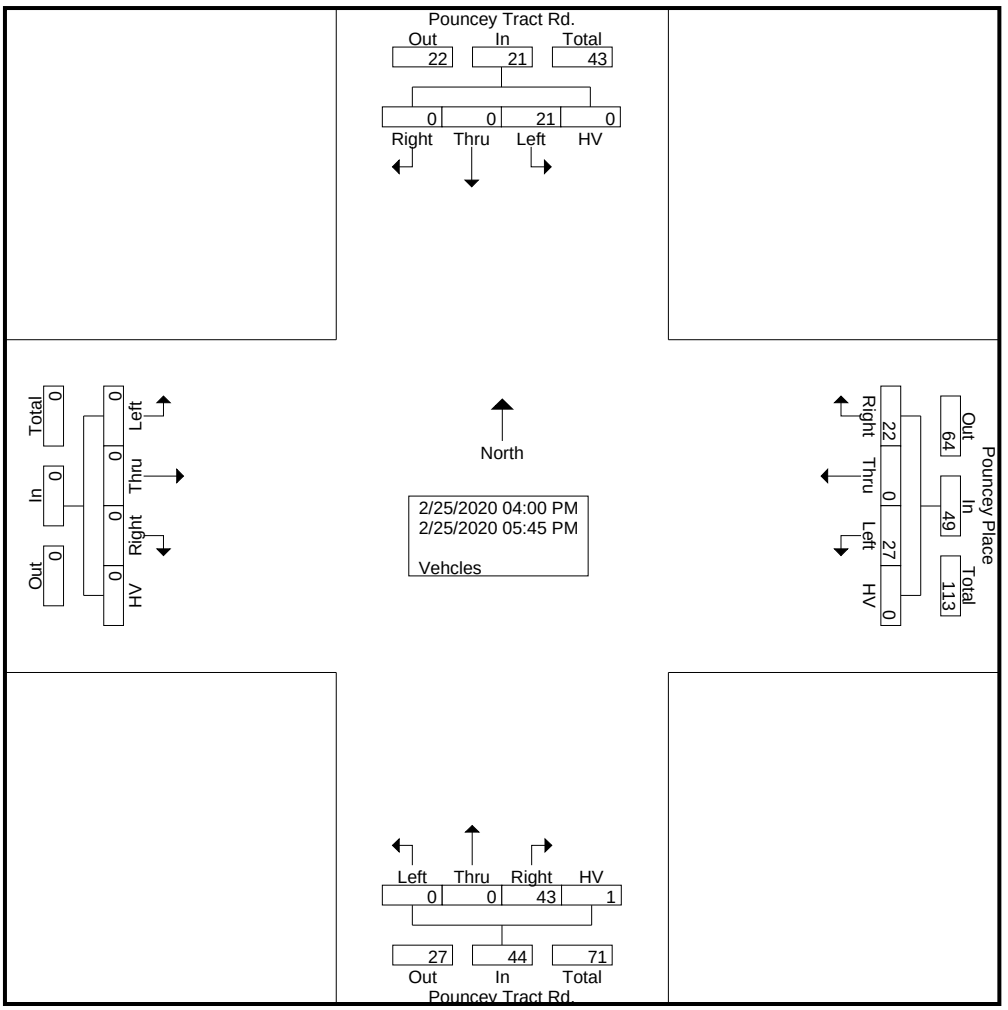
(804) 356-4282
estrohhacker@glstraffic.com

Project: Pouncey Tract
Counter: Erich Strohhacker
Weather: Clear

File Name : ptthlpm
Site Code : 00001212
Start Date : 2/25/2020
Page No : 1

Groups Printed- Vehcles

	Pouncey Tract Rd. From North					Pouncey Place From East					Pouncey Tract Rd. From South					From West					
Start Time	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Right	Thru	Left	HV	App. Total	Int. Total
04:00 PM	0	0	4	0	4	2	0	2	0	4	3	0	0	0	3	0	0	0	0	0	11
04:15 PM	0	0	3	0	3	4	0	2	0	6	3	0	0	0	3	0	0	0	0	0	12
04:30 PM	0	0	3	0	3	3	0	0	0	3	3	0	0	0	3	0	0	0	0	0	9
04:45 PM	0	0	3	0	3	1	0	6	0	7	4	0	0	0	4	0	0	0	0	0	14
Total	0	0	13	0	13	10	0	10	0	20	13	0	0	0	13	0	0	0	0	0	46
05:00 PM	0	0	2	0	2	5	0	4	0	9	9	0	0	0	9	0	0	0	0	0	20
05:15 PM	0	0	3	0	3	1	0	2	0	3	2	0	0	0	2	0	0	0	0	0	8
05:30 PM	0	0	3	0	3	4	0	4	0	8	10	0	0	0	10	0	0	0	0	0	21
05:45 PM	0	0	0	0	0	2	0	7	0	9	9	0	0	1	10	0	0	0	0	0	19
Total	0	0	8	0	8	12	0	17	0	29	30	0	0	1	31	0	0	0	0	0	68
Grand Total	0	0	21	0	21	22	0	27	0	49	43	0	0	1	44	0	0	0	0	0	114
Apprch %	0	0	100	0		44.9	0	55.1	0		97.7	0	0	2.3		0	0	0	0		
Total %	0	0	18.4	0	18.4	19.3	0	23.7	0	43	37.7	0	0	0.9	38.6	0	0	0	0	0	



SEPAC ECOM All Data

3/5/2020
10:15:22AM

Intersection Name: **03 271 & Twin Hickory** Intersection Alias: **0271043TS128**

Access Data

1 :**1200/1312 Baud**
3 :**9600 Baud**

Access Code: **9999** Channel: 1 Address: **3**

Revision: **3.34g** IP Address:

Phase Initialization Data

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Initial	1-Inact	4-Grn	1-Inact	1-Inact	1-Inact	4-Grn	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None	0-None

PHASE DATA

	Vehical Basic Timings						Misc Timings						Pedestrian Timings						
Phase	Min Green	Passage	Max1	Max2	Yellow	All Red	Green Delay	Yellow Delay	Walk Off	Walk Offset Mode	Bike Green	Bike Psg	Walk	Ped Clr	Alt Walk	Alt Ped Clr	Flash Walk	Ext Ped Clr	Actuated Rest in Walk
1	7	2.5	15	30	4.9	4.9	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
2	15	6.0	50	50	4.9	4.9	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
3	7	3.5	33	45	4.1	3.4	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
4	7	2.5	25	50	4.2	2.7	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
5	7	2.5	25	30	4.9	4.9	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
6	15	6.0	50	50	4.9	4.9	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
7	0	0.0	0	0	3.5	1.5	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
8	0	0.0	0	0	3.5	1.5	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
9	0	0.0	0	0	3.0	0.0	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
10	0	0.0	0	0	3.0	0.0	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
11	0	0.0	0	0	3.0	0.0	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
12	0	0.0	0	0	3.0	0.0	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
13	0	0.0	0	0	3.0	0.0	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
14	0	0.0	0	0	3.0	0.0	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
15	0	0.0	0	0	3.0	0.0	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No
16	0	0.0	0	0	3.0	0.0	0	0	0	0-Advance	0	0.0	0	0	0	0	No	0	No

Vehicle Density Timings							General Control				Miscellaneous					Special Sequence		
Ph.	Added Initial	Max Initial	Time B4 Redu	Car B4 Redu	Time To Redu	Min Gap	Non-Act Response	Veh Recall	Ped Recall	Recall Delay	Non Lock	Dual Entry	Last Car Pass	Condit Service	No Simu Gap Out	Omit	Minus Yel	Omit Call
1	0.0	0	0	0	0	0.0	None	None	None	5	Yes	No	No	No	No	2	0	0
2	1.5	20	20	0	10	4.0	None	Min	None	0	No	No	No	No	No	0	0	0
3	0.0	0	0	0	0	0.0	None	None	None	0	Yes	No	No	No	No	0	0	0
4	0.0	0	0	0	0	0.0	None	None	None	5	Yes	No	No	No	No	0	0	0
5	0.0	0	0	0	0	0.0	None	None	None	5	Yes	No	No	No	No	6	0	0
6	1.5	20	20	0	10	4.0	None	Min	None	0	No	No	No	No	No	0	0	0
7	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
8	0.0	0	0	0	0	0.0	None	None	None	5	No	No	No	No	No	0	0	0
9	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
10	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
11	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
12	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
13	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
14	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
15	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0
16	0.0	0	0	0	0	0.0	None	None	None	0	No	No	No	No	No	0	0	0

Vehical Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
Veh Det:1	1	Veh	0	0.0	5
Veh Det:2	2	Veh	0	0.0	0
Veh Det:3	3	Veh	0	0.0	0
Veh Det:4	4	Veh	0	0.0	5
Veh Det:5	5	Veh	0	0.0	5
Veh Det:6	6	Veh	0	0.0	0
Veh Det:7	7	Veh	0	0.0	0
Veh Det:8	3	Veh	0	0.0	5

Pedestrian Detector

Default Data

Special Detector Phase Assignment

	Assign Phase	Mode	Switch Phase	Extend	Delay
:					

Unit Data

General Control

Startup Time: 0sec
Startup State: Flash
Red Revert: 40sec
Auto Ped Clr: No
Stop T Reset: No
Alt Sequence: 0
Special Seq: 0-Standard
I/O Modes:
ABC Input(Entry) Modes: 0
ABC Output(O/STS) Modes: 0
D Input(Entry) Modes: 2
D Output(O/STS) Modes: 2

Ring	Input Respons	Output Selection
1	Ring 1	Ring 1
2	Ring 2	Ring 2
3	None	None
4	None	None

Remote Flash

Test A = Flash

Phase	Entry	Exit

Default Data - No Fla

Channel	Flash Color	Flash Alternat

Default Data - No Flash

Overlaps

	Overlaps															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)	3	1	4													

Start Green

	Overlaps															
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Phase(s)																

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Trail Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trail Yellow	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Trail Red	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
TG Preempt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stop Grn/Yel Phase	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Ring

Phase	Ring	Next Phase
1	1	2
2	1	3
3	1	4
4	1	1
5	2	6
6	2	7

	Phase(s)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Concurrent Phases	1	2	3	4	1	1	3	3	9	10	11	12	13	14	15	16
	5	5	7	7	2	2	4	4								
	6	6	8	8	5	6	7	8								

Alternate Sequences

No Alternate Sequences Programmed

Port 1 Data

BIU Addr	Port Status	Basic Det	Message 40

Default Data

Channel	Control	Hardware Pins
1	1 - Veh Phase 1	1 - Phase 1 RYG
2	2 - Veh Phase 2	2 - Phase 2 RYG
3	3 - Veh Phase 3	3 - Phase 3 RYG
4	4 - Veh Phase 4	4 - Phase 4 RYG
5	5 - Veh Phase 5	5 - Phase 5 RYG
6	6 - Veh Phase 6	6 - Phase 6 RYG
7	7 - Veh Phase 7	7 - Phase 7 RYG
8	8 - Veh Phase 8	8 - Phase 8 RYG
9	18 - Ped Phase 2	10 - Phase 2 DPW
10	20 - Ped Phase 4	12 - Phase 4 DPW
11	22 - Ped Phase 6	14 - Phase 6 DPW
12	24 - Ped Phase 8	16 - Phase 8 DPW
13	33 - Overlap A	17 - Overlap A RYG
14	34 - Overlap B	18 - Overlap B RYG
15	35 - Overlap C	19 - Overlap C RYG
16	36 - Overlap D	20 - Overlap D RYG
17	17 - Ped Phase 1	9 - Phase 1 DPW
18	19 - Ped Phase 3	11 - Phase 3 DPW
19	21 - Ped Phase 5	13 - Phase 5 DPW
20	23 - Ped Phase 7	15 - Phase 7 DPW

Coordination Data

Dial/Split **Cycle**

/

General Coordination Data

Operation Mode: 0=Free
Coordination Mode: 0=Permissive
Maximun Mode: 2=Max 2
Correction Mode: 0=Dwell

Offset Mode: 0=Beg Grn
Force Mode: 0=Plan
Max Dwell Time: 0
Yield Period: 0

Manual Dial: 1
Manual Split: 1
Manual Offset: 1

Split Times and Phase Mod

Dial / **Split**

Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode	Ph.	Splits	Ph. Mode

Traffic Plan Data

Plan: //
Offset Time:
Alternat Sequence:
Rg 2 Lag Time:
Rg 3 Lag Time:
Rg 4 Lag Time:
Mode:
Special Function:
Correction Mode:

Local TBC Data

Start of Daylight Saving Month: 3 Week: 2 Cycle Zero Reference Hours: 0 Min: 1
End of Daylight Saving Month: 11 Week: 1

Source Day	Equate Days 1	2	3	4	5	6	7
2	3	4	5	6	0	0	0

Traffic Data

Event	Day	Time	D/S/O	flash	PHASE FUNCTION 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	2	15:15	0/0/0		☐	☐	X	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
2	2	16:45	0/0/4		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

AUX. Events

Event	Program Day	Hour	Min.	Aux Ouputs 1	2	3	Det. Diag. D1	Det. Rpt. D2	Det. Mult100 D3	Dimming	Special Function Outputs 1	2	3	4	5	6	7	8
				☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Default Data - No Special Day(s) or Week(s) Programmed

Special Functions

Function	SF1	SF2	SF3	SF4	SF5	SF6	SF7	SF8	SF9	SF10	SF11	SF12	SF13	SF14	SF15	SF16
Special Function 1	X															
Special Function 2		X														
Special Function 3			X													
Special Function 4				X												
Special Function 5					X											
Special Function 6						X										
Special Function 7							X									
Special Function 8								X								

Phase Function

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Max2	X															
Phase 2 Max2		X														
Phase 3 Max2			X													
Phase 4 Max2				X												
Phase 5 Max2					X											
Phase 6 Max2						X										
Phase 7 Max2							X									
Phase 8 Max2								X								

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
Phase 1 Phase Omit									X							
Phase 2 Phase Omit										X						
Phase 3 Phase Omit											X					
Phase 4 Phase Omit												X				
Phase 5 Phase Omit													X			
Phase 6 Phase Omit														X		
Phase 7 Phase Omit															X	
Phase 8 Phase Omit																X

	PF1	PF2	PF3	PF4	PF5	PF6	PF7	PF8	PF9	PF10	PF11	PF12	PF13	PF14	PF15	PF16
	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Function Phase Recall

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Vehicle Function

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Overlap Function

PF1 PF2 PF3 PF4 PF5 PF6 PF7 PF8 PF9 PF10 PF11 PF12 PF13 PF14 PF15 PF16

Dimming Data

Channel	Red	Yellow	Green	Alternate

Default Data - No Dimming Programmed

Lane Defination

Lanes	Name	Green Inbound	Yellow Inbound	Red Inbound	Green Outbound	Yellow Outbound

Default Data - Lane Defination

Preemption Data

General Preemption Data

Flash > Preempt 1	Preempt 2 = Preempt 3	Preempt 4 = Preempt 5
Preempt 1 > Preempt 2	Preempt 3 = Preempt 4	Preempt 5 = Preempt 6

Preempt Timers

Preempt	Non-Locking	Link to Preempt	Delay	Extend	Duration	Max Call	Lock-Out	Min Green	Min Walk	Debounce	Gate ext end	Select Ped Clear	Select Yel	Select Red	Track Grn	Track Ped	Track Yel	Track Red	Dwell Green	Return Ped Clear	Return Yel	Return Red
1	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Preempt 1			Preempt 2			Preempt 3			Preempt 4			Preempt 5			Preempt 6		
Phase	Exit Phase	Exit Calls	Phase	Exit Phase	Exit Calls	Phase	Exit Phase	Exit Calls	Phase	Exit Phase	Exit Calls	Phase	Exit Phase	Exit Calls	Phase	Exit Phase	Exit Calls

Priority Timers

Priority	Non-Locking	Delay	Extend	Free Dial	Free Split	Min Green	No Lock out	Lock out A	Lock out B	Max Green	Pre-Green	Recall	Excl-co Phase Svc.	Transit Overlap Signal Type	Transit Overlap Blankout

Priority		Priority		Priority		Priority		Priority		Priority	
Name	DetNum	Name	DetNum	Name	DetNum	Name	DetNum	Name	DetNum	Name	DetNum

Priority :			Priority :			Priority :			Priority :			Priority :			Priority :		
Phase	Co-Phase	QJ-Phase	Phase	Co-Phase	QJ-Phase	Phase	Co-Phase	QJ-Phase	Phase	Co-Phase	QJ-Phase	Phase	Co-Phase	QJ-Phase	Phase	Co-Phase	QJ-Phase

Priority :
Priority Bank :

Level

Partial Priority

Alt Seq
Alt Seq Enabled
Min Walk

Full Priority

FPF Override
Ped skip
Force full Priority
Frequency
Force Full Priority

Recovery

Method
Return
PedWait
PedOverride

Phases	Exit Call	Ph-Omit	Ped Omit	Recovery

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PedWait
PedOverride

Phases	Exit Call	Ph-Omit	Ped Omit	Recovery

Priority :	Priority :	Priority :	Priority :
Priority Bank :	Priority Bank :	Priority Bank :	Priority Bank :
Level	Level	Level	Level
Partial Priority	**Partial Priority**	**Partial Priority**	**Partial Priority**
Alt Seq	Alt Seq	Alt Seq	Alt Seq
Alt Seq Enabled	Alt Seq Enabled	Alt Seq Enabled	Alt Seq Enabled
Min Walk	Min Walk	Min Walk	Min Walk
Full Priority	**Full Priority**	**Full Priority**	**Full Priority**
FPF Override	FPF Override	FPF Override	FPF Override
Ped skip	Ped skip	Ped skip	Ped skip
Force full Priority	Force full Priority	Force full Priority	Force full Priority
Frequency	Frequency	Frequency	Frequency
Force Full Priority	Force Full Priority	Force Full Priority	Force Full Priority
Recovery	**Recovery**	**Recovery**	**Recovery**
Method	Method	Method	Method
Return	Return	Return	Return
PedWait	PedWait	PedWait	PedWait
PedOverride	PedOverride	PedOverride	PedOverride

Phases	Exit Call	Ph-Omit	Ped Omit	Recovery	Phases	Exit Call	Ph-Omit	Ped Omit	Recovery	Phases	Exit Call	Ph-Omit	Ped Omit	Recovery	Phases	Exit Call	Ph-Omit	Ped Omit	Recovery

Priority :	Priority :	Priority :	Priority :
Priority Bank :	Priority Bank :	Priority Bank :	Priority Bank :
Level	Level	Level	Level
Partial Priority	**Partial Priority**	**Partial Priority**	**Partial Priority**
Alt Seq	Alt Seq	Alt Seq	Alt Seq
Alt Seq Enabled	Alt Seq Enabled	Alt Seq Enabled	Alt Seq Enabled
Min Walk	Min Walk	Min Walk	Min Walk
Full Priority	**Full Priority**	**Full Priority**	**Full Priority**
FPF Override	FPF Override	FPF Override	FPF Override
Ped skip	Ped skip	Ped skip	Ped skip
Force full Priority	Force full Priority	Force full Priority	Force full Priority
Frequency	Frequency	Frequency	Frequency
Force Full Priority	Force Full Priority	Force Full Priority	Force Full Priority
Recovery	**Recovery**	**Recovery**	**Recovery**
Method	Method	Method	Method
Return	Return	Return	Return
PedWait	PedWait	PedWait	PedWait
PedOverride	PedOverride	PedOverride	PedOverride

Phases	Exit Call	Ph-Omit	Ped Omit	Recovery	Phases	Exit Call	Ph-Omit	Ped Omit	Recovery	Phases	Exit Call	Ph-Omit	Ped Omit	Recovery	Phases	Exit Call	Ph-Omit	Ped Omit	Recovery

Priority :
Priority Bank :

Level				
Partial Priority				
Alt Seq				
Alt Seq Enabled				
Min Walk				
Full Priority				
FPF Override				
Ped skip				
Force full Priority				
Frequency				
Force Full Priority				
Recovery				
Method				
Return				
PedWait				
PedOverride				

Phases	Exit Call	Ph-Omit	Ped Omit	Recovery

Priority :
Priority Bank :

Level				
Partial Priority				
Alt Seq				
Alt Seq Enabled				
Min Walk				
Full Priority				
FPF Override				
Ped skip				
Force full Priority				
Frequency				
Force Full Priority				
Recovery				
Method				
Return				
PedWait				
PedOverride				

Phases	Exit Call	Ph-Omit	Ped Omit	Recovery

Priority :
Priority Bank :

Level				
Partial Priority				
Alt Seq				
Alt Seq Enabled				
Min Walk				
Full Priority				
FPF Override				
Ped skip				
Force full Priority				
Frequency				
Force Full Priority				
Recovery				
Method				
Return				
PedWait				
PedOverride				

Phases	Exit Call	Ph-Omit	Ped Omit	Recovery

Priority :
Priority Bank :

Level				
Partial Priority				
Alt Seq				
Alt Seq Enabled				
Min Walk				
Full Priority				
FPF Override				
Ped skip				
Force full Priority				
Frequency				
Force Full Priority				
Recovery				
Method				
Return				
PedWait				
PedOverride				

Phases	Exit Call	Ph-Omit	Ped Omit	Recovery

Priority :
Priority Bank :

Queue	Ph-ase	Det	Time

Default data

Priority :
Priority Bank :

Queue	Ph-ase	Det	Time

Default data

Priority :
Priority Bank :

Queue	Ph-ase	Det	Time

Default data

Priority :
Priority Bank :

Queue	Ph-ase	Det	Time

Default data

Priority :
Priority Bank :

Queue	Ph-ase	Det	Time

Default data

Priority :
Priority Bank :

Queue	Ph-ase	Det	Time

Default data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Priority :
Bank

Detector	PE	1A	2A	3A	4A	5A	6A	B

Default Data

Preempt 1

Vehical Phases

Ph.	Track	Dwell	Cycle

Default Data

Pedestrian Phases

Ph	Track	Dwell	Cycle

Default Data

Overlaps

Ovlp	Track	Dwell	Cycle

Default Data

Preempt 2

Vehical Phases				Pedestrian Phases				Overlaps			
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle

Default Data **Default Data** **Default Data**

Preempt 3

Vehical Phases				Pedestrian Phases				Overlaps			
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle

Default Data **Default Data** **Default Data**

Preempt 4

Vehical Phases				Pedestrian Phases				Overlaps			
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle

Default Data **Default Data** **Default Data**

Preempt 5

Vehical Phases				Pedestrian Phases				Overlaps			
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle

Default Data **Default Data** **Default Data**

Preempt 6

Vehical Phases				Pedestrian Phases				Overlaps			
Ph.	Track	Dwell	Cycle	Ph.	Track	Dwell	Cycle	Ovlp.	Track	Dwell	Cycle

Default Data **Default Data** **Default Data**

System/Detectors Data

Local Critical Alarms

Revert to Backup: 15

1st Phone:

2nd Phone:

Local Free: No Cycle Failure: No Coord Failure: No Conflict Flash: No Remote Flash: No

Local Fash: No Cycle Fault: No Coord Fault: No Premption: No Voltage Monitor: No

Special Status 1: No Special Status 2: No Special Status 3: No Special Status 4: No Special Status 5: No Special Status 6: No

Traffic Responsive

System Detector	Detector Channel	Name	Veh/ Hr	Average Time(mins)	Occupancy Correction/10	Min Volume %	Queue 1 Detectors	Queue 1 System Detectors	Queue 1 Weight Factor	Queue 2 Detectors	Queue 2 System Detectors	Queue 2 Weight Factor

Default Data **Default Data** **Default Data**

Sample Interval:

Queue: 1 Input Selection: 0=Average

Detector Failed Level : 0

Queue: 2 Input Selection: 0=Average

Detector Failed Level : 0

Queue:

Level	Enter	Leave	Dial / Split / Offset
			/ /

Default Data

Vehical Detector				Vehical Detector				Special Detector			
	Diagnostic Value 0				Diagnostic Value 1				Diagnostic Value 0		
Detector	Max Presence	No Activity	Erratic Count	Detector	Max Presence	No Activity	Erratic Count	Detector	Max Presence	No Activity	Erratic Count

Default Data - Diag 0 Values **Default Data - No Diag 1 Values** **Default Data - No Diag 0 Valu**

Pedestrian Detector				Pedestrian Detector				Special Detector			
	Diagnostic Value 0				Diagnostic Value 1				Diagnostic Value 1		
Detector	Max Presence	No Activity	Erratic Count	Detector	Max Presence	No Activity	Erratic Count	Detector	Max Presence	No Activity	Erratic Count

Default Data - No Diag 0 Values **Default Data - No Diag 1 Values** **Default Data - No Diag 1 Values**

Speed Trap Data

Speed Trap:

Measurement:

Detector 1	Detector_2	Distance :	Dial/Split/Offset	Speed Trap Low Treshold	Speed Trap High Treshold
			//		

Default Data

Default Data

Volume Detector Data

Volume Detector Number	Controller Detector Channel	Report Interval	0

Default Data

APPENDIX C

TRAFFIC FIGURES

BLACKWOOD DEVELOPMENT COMPANY

1 Site Plan - Ground Level
Scale: 1" = 100'-0" Plan

2 Site Plan - Levels 2 & 3
Scale: 1" = 100'-0" Plan

POJECT DATA

3 Story Residential:
295 Units
(avg. unit = 800 S.F.)

Amenity: 10,000 S.F.

Retail: 20,000 S.F.
Retail 1: 5,000 S.F.
Retail 2: 6,000 S.F.
Retail 3: 5,400 S.F.
Retail 4: 3,600 S.F.

Commercial: 24,900 S.F.
Commercial 1: 12,450 S.F.
Commercial 2: 12,450 S.F.

Parking: 475 Spaces
452 Surface Parking Spaces
23 Garage Spaces

N

POUNCEY TRACT, HENRICO, VA

FIGURE 1

GLS Project #20100

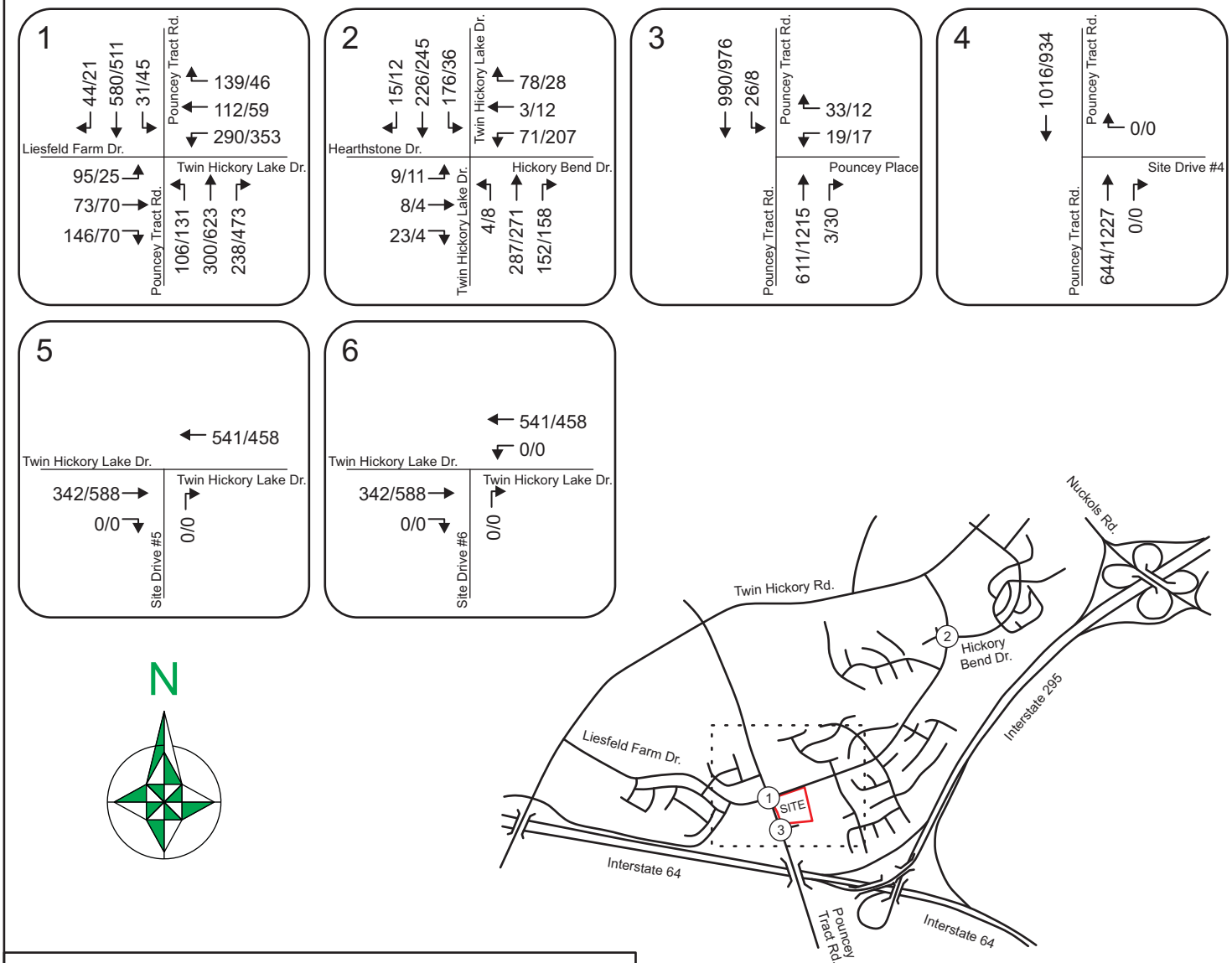
Appendix C

5/20

Pouncey Tract

Conceptual Site Plan

GREEN LIGHT SOLUTIONS, INC.



GREEN LIGHT SOLUTIONS, INC.

Pouncey Tract

Existing (2019) Peak Hour Traffic Conditions

FIGURE 2

GLS Project #20100

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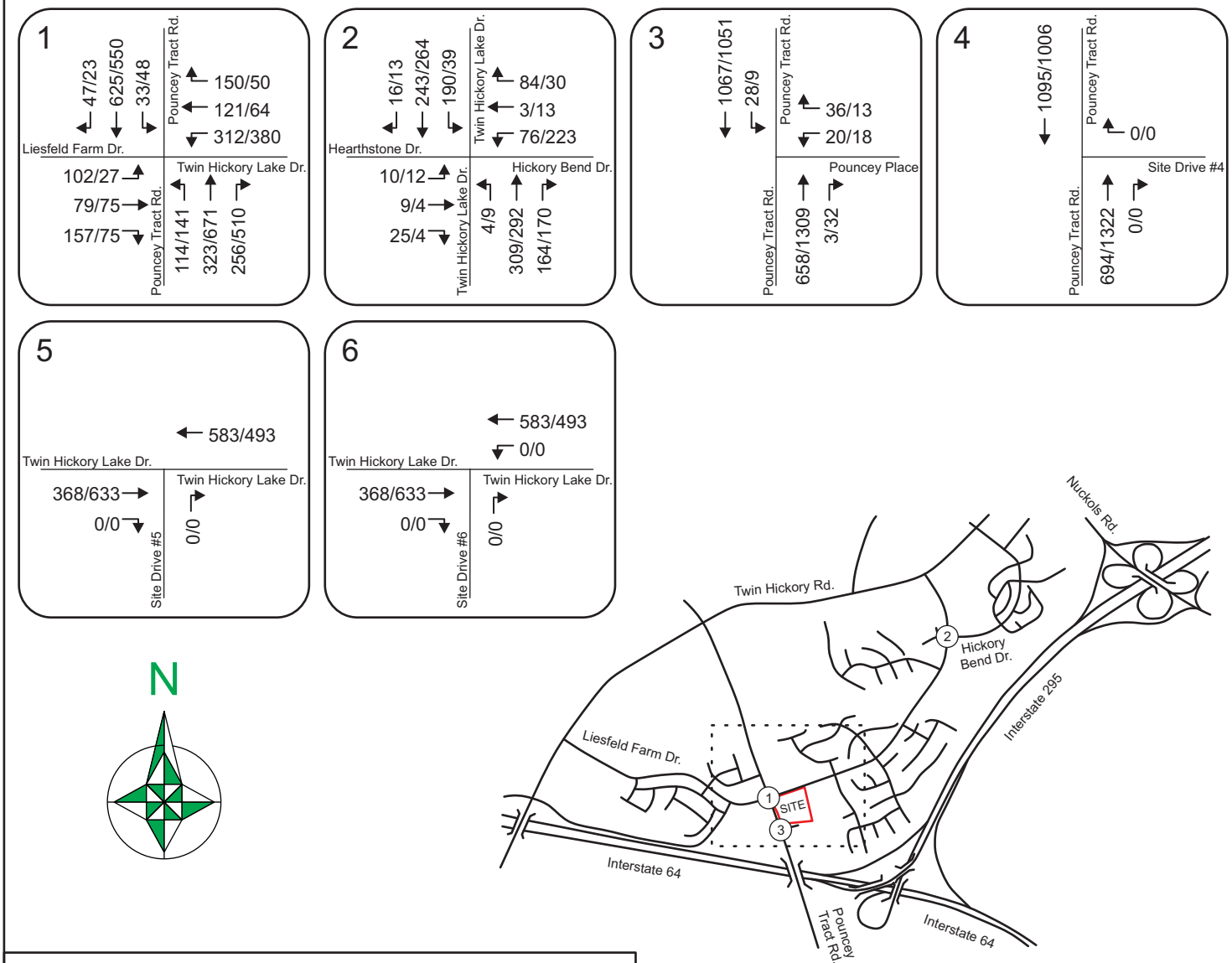
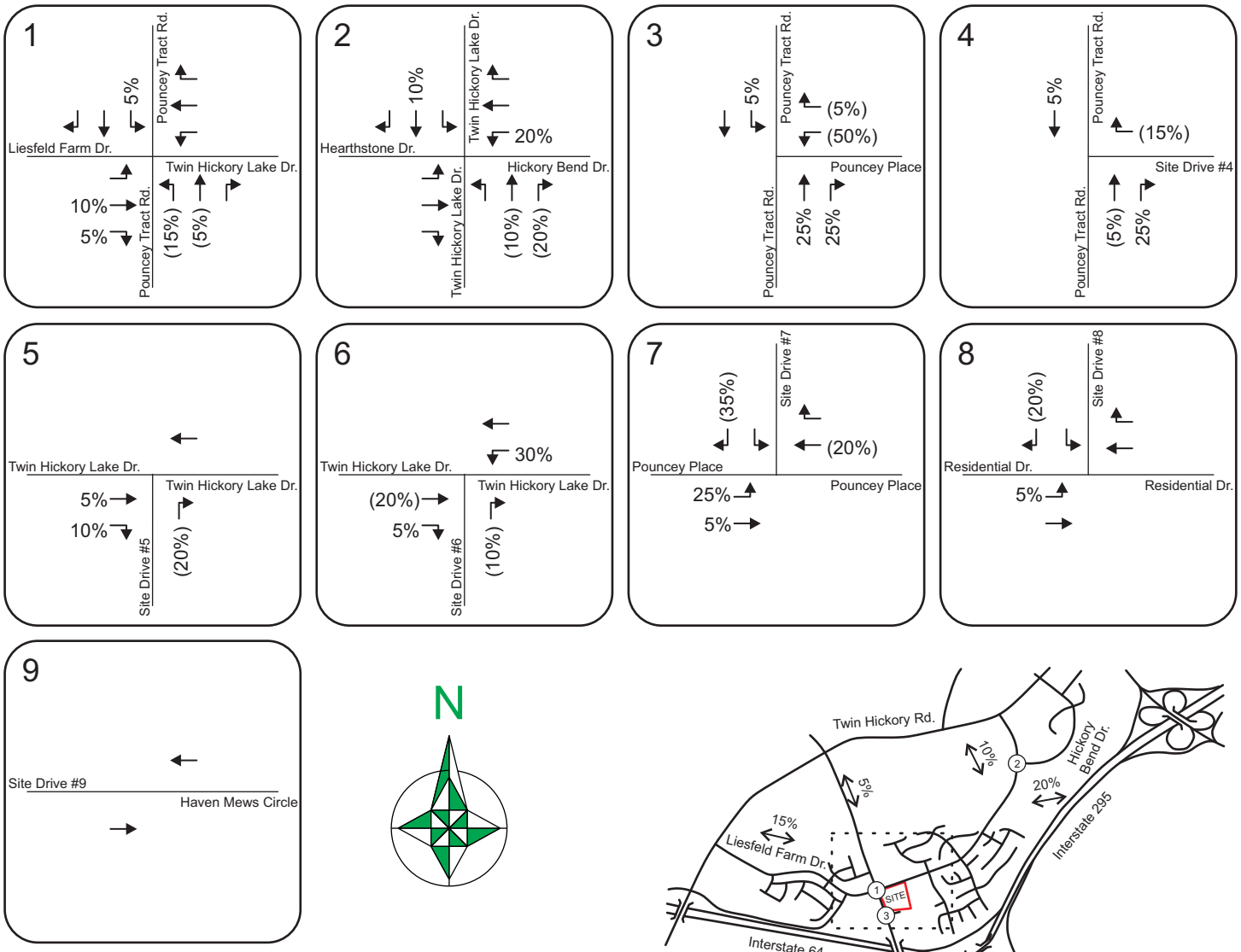


GREEN LIGHT SOLUTIONS, INC.

Pouncey Tract	FIGURE 3
Background (2025) Peak Hour Traffic Conditions	GLS Project #20100
	5/20 | Appendix C



GREEN LIGHT SOLUTIONS, INC.

Pouncey Tract

Residential Distribution Percentages

FIGURE 4

GLS Project #20100

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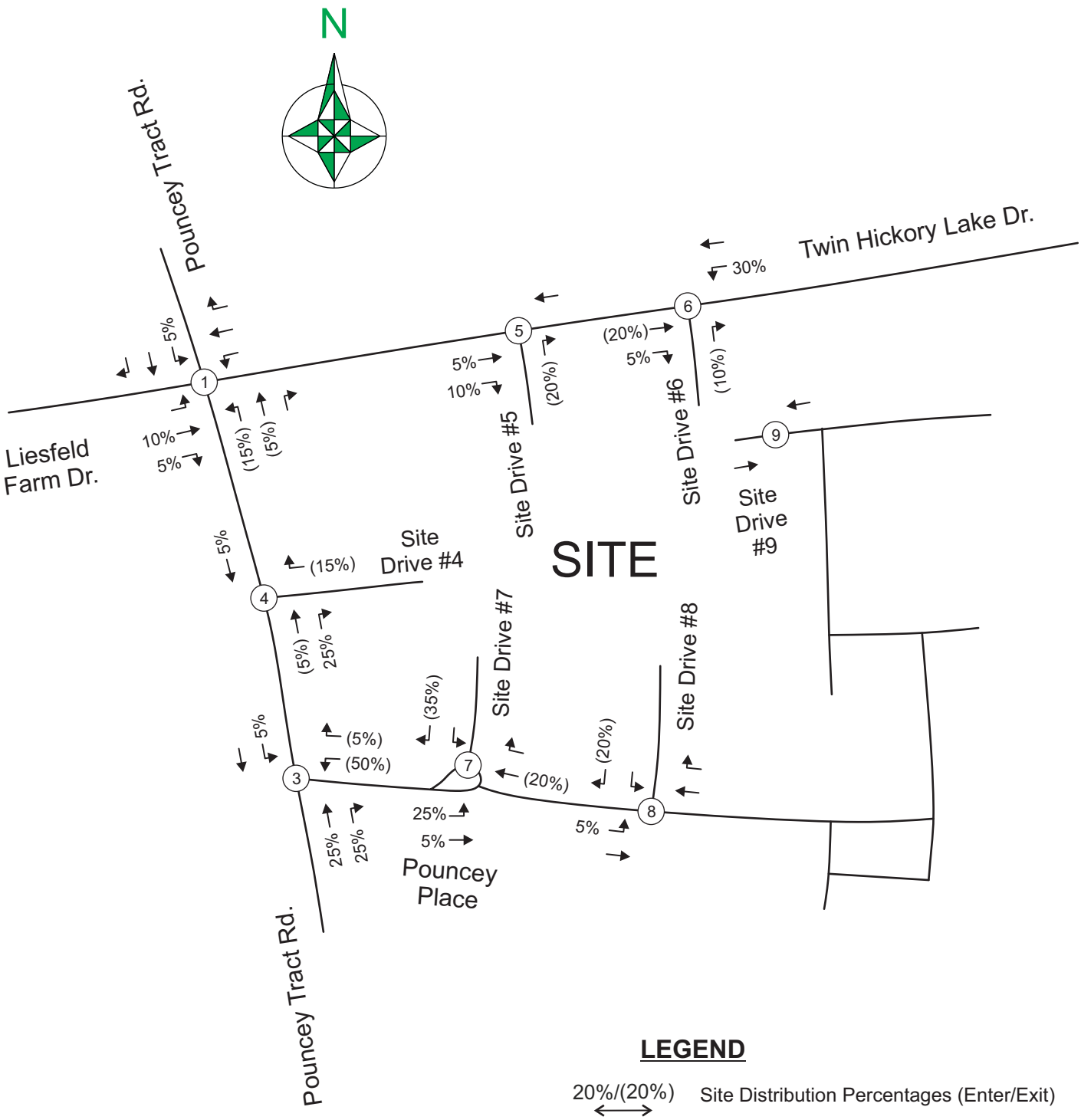
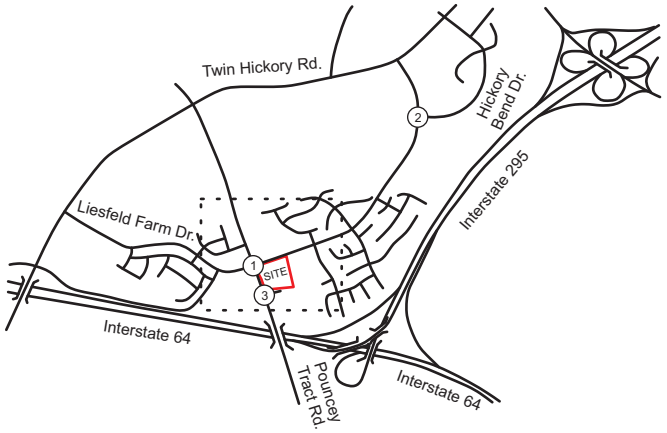


GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE 5
	Residential Distribution Percentages - Site Area	GLS Project #20100
		5/20 | Appendix C



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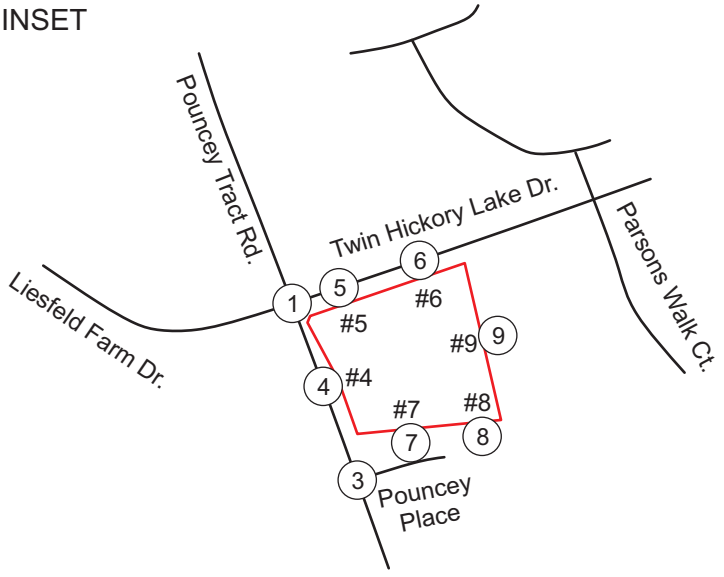

LEGEND

← 534/259	AM Peak/PM Peak Traffic Volumes
(1)	Intersection Number
———	Property Boundary

GREEN LIGHT SOLUTIONS, INC.

Pouncey Tract

Residential Peak Hour Site Trips

FIGURE 6

GLS Project #20100

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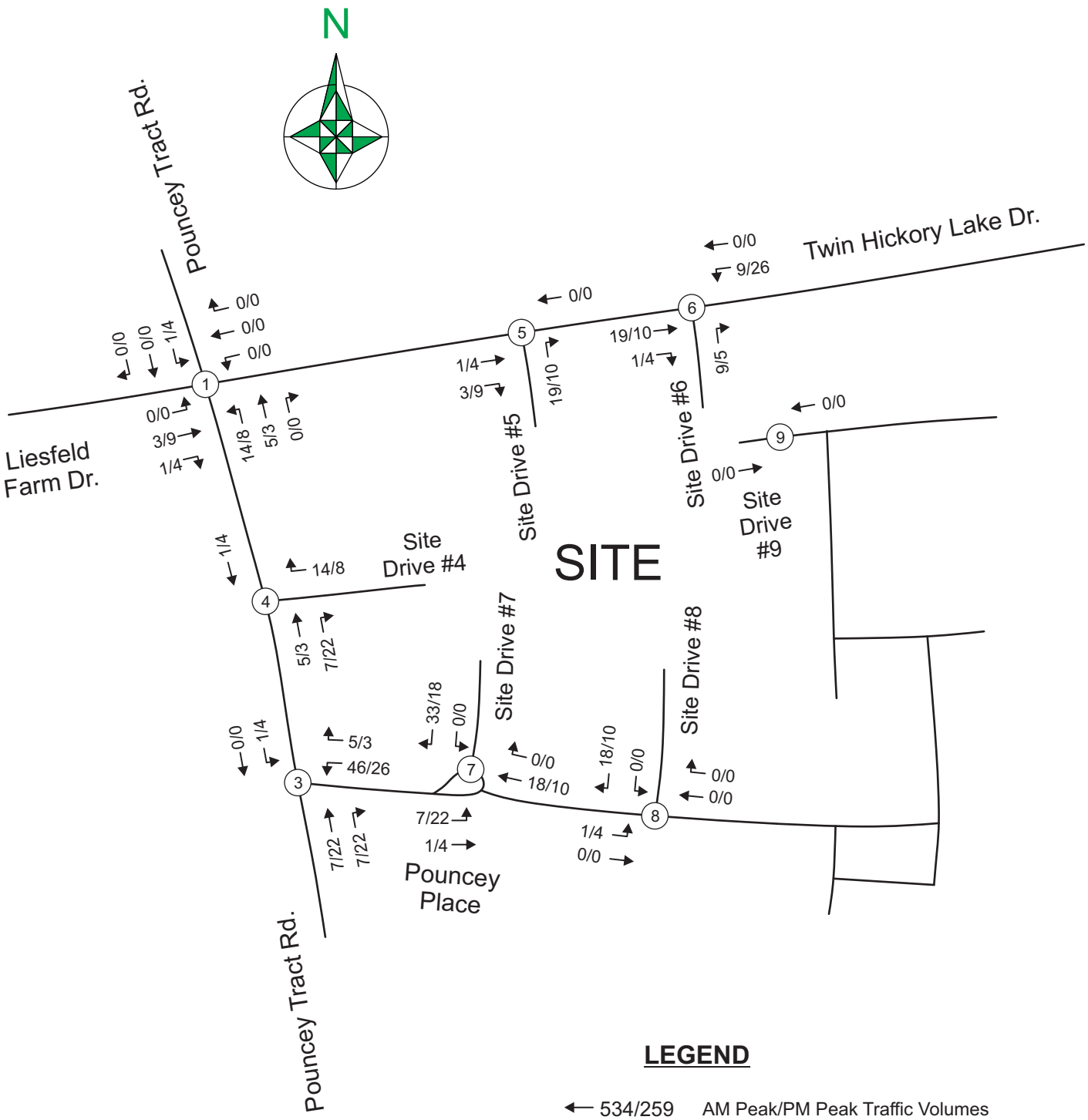
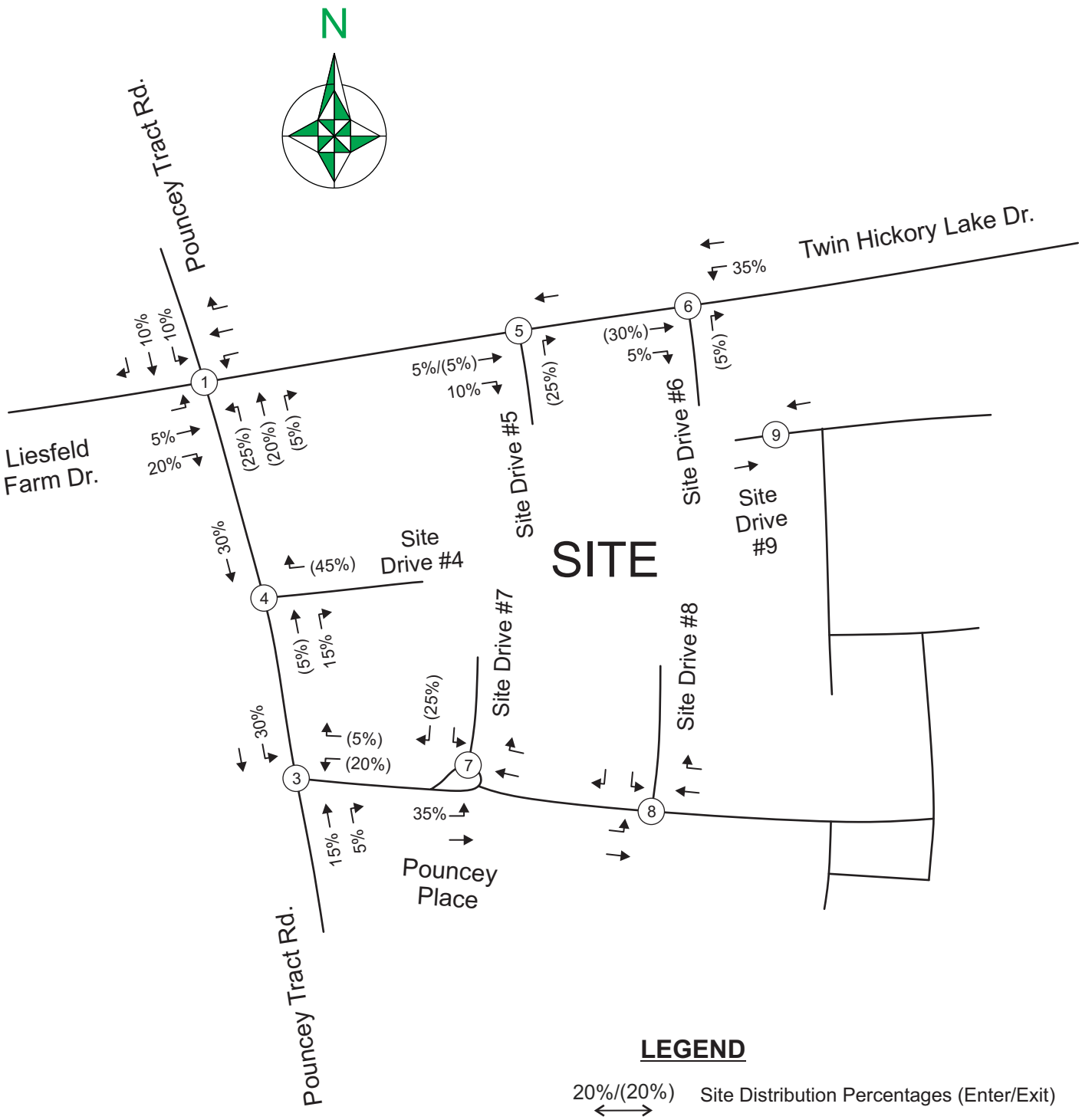


GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE 7
	Residential Peak Hour Site Trips - Site Area	GLS Project #20100
		5/20 | Appendix C

GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE 8
	Retail Distribution Percentages	GLS Project #20100
		6/20 | Appendix C



GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE 9
	Retail Distribution Percentages - Site Area	GLS Project #20100
		5/20 | Appendix C

GREEN LIGHT SOLUTIONS, INC.

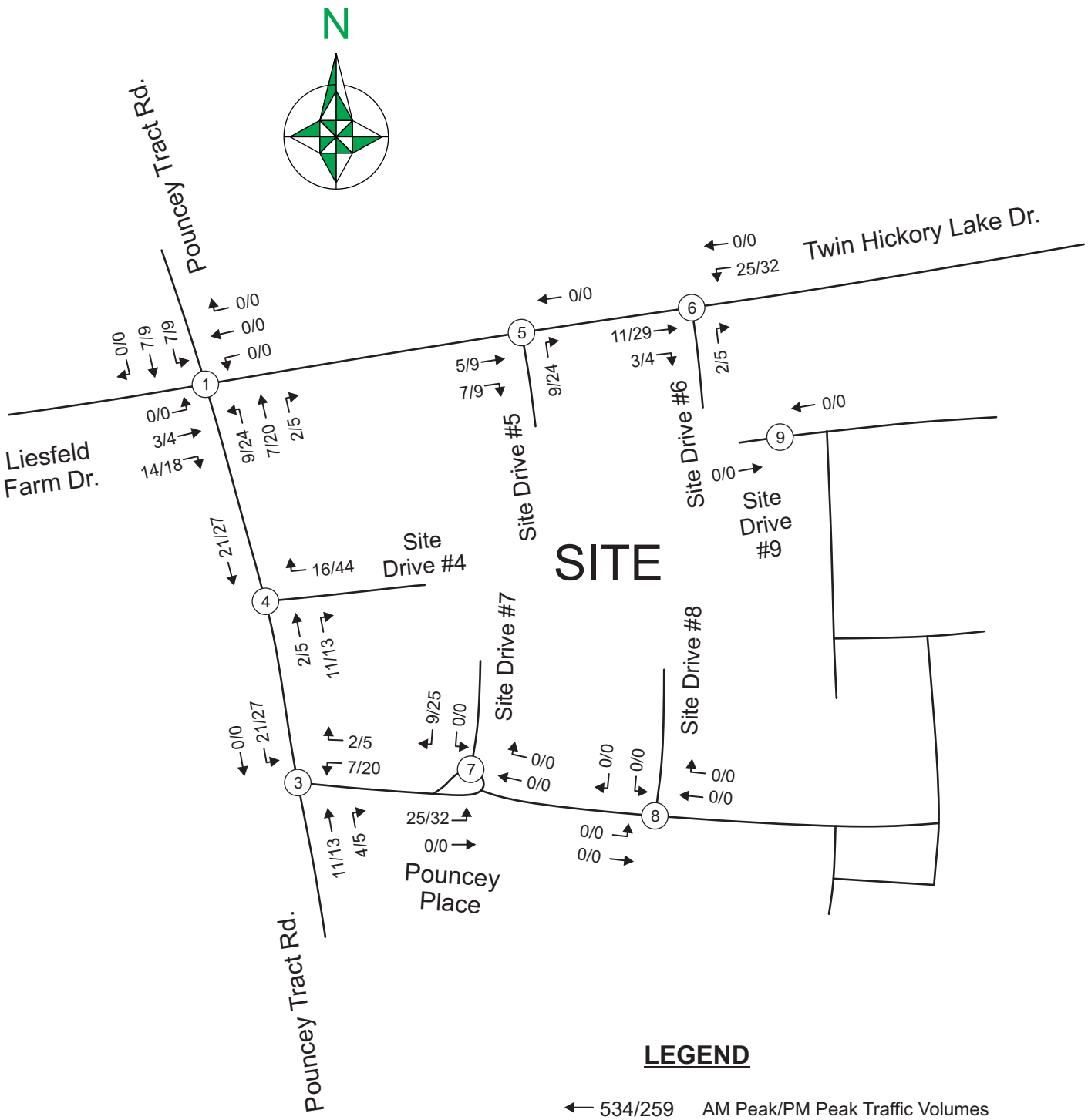
Pouncey Tract

Retail Primary Peak Hour Site Trips

FIGURE 10

GLS Project #20100

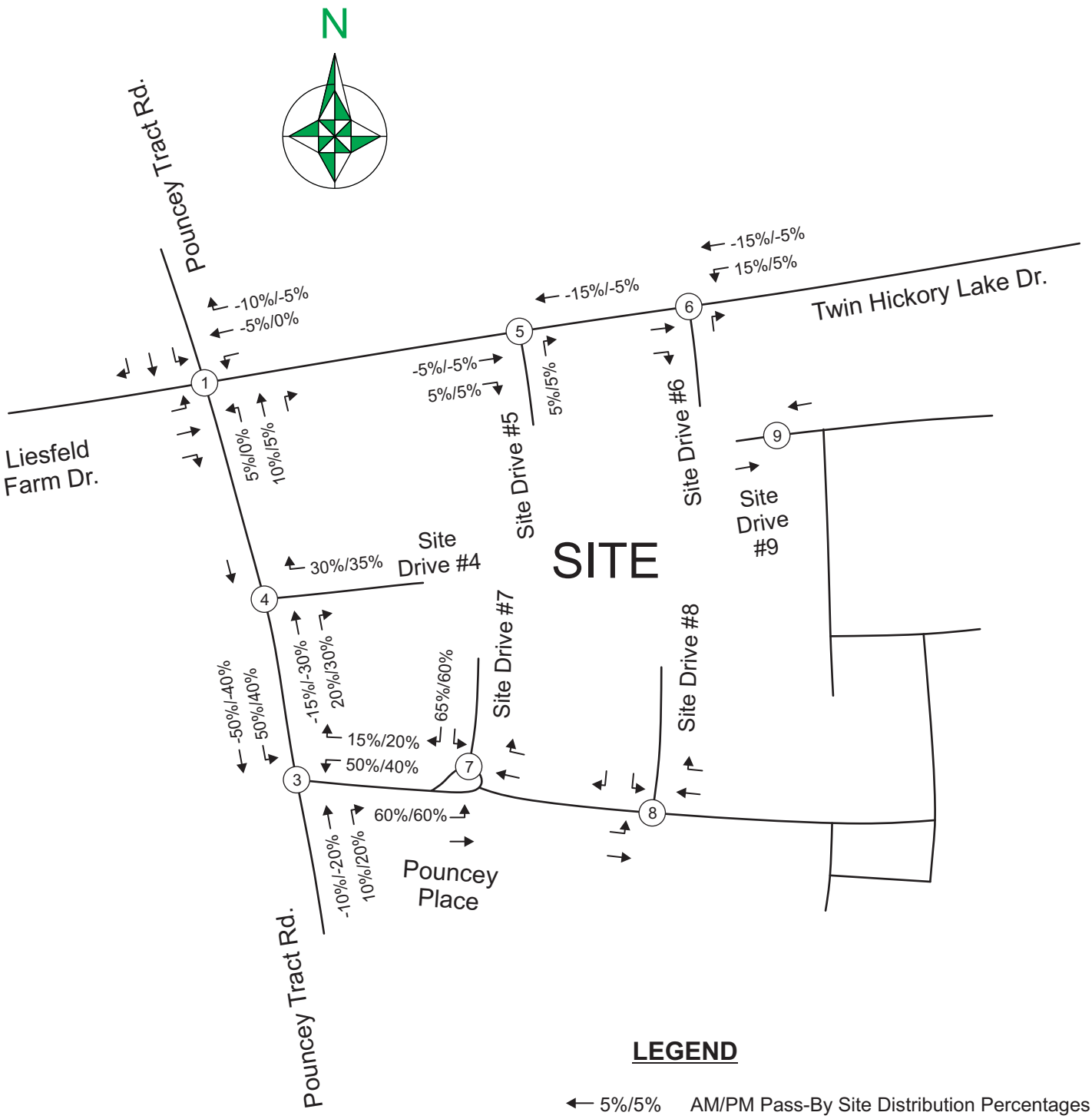
5/20 | Appendix C



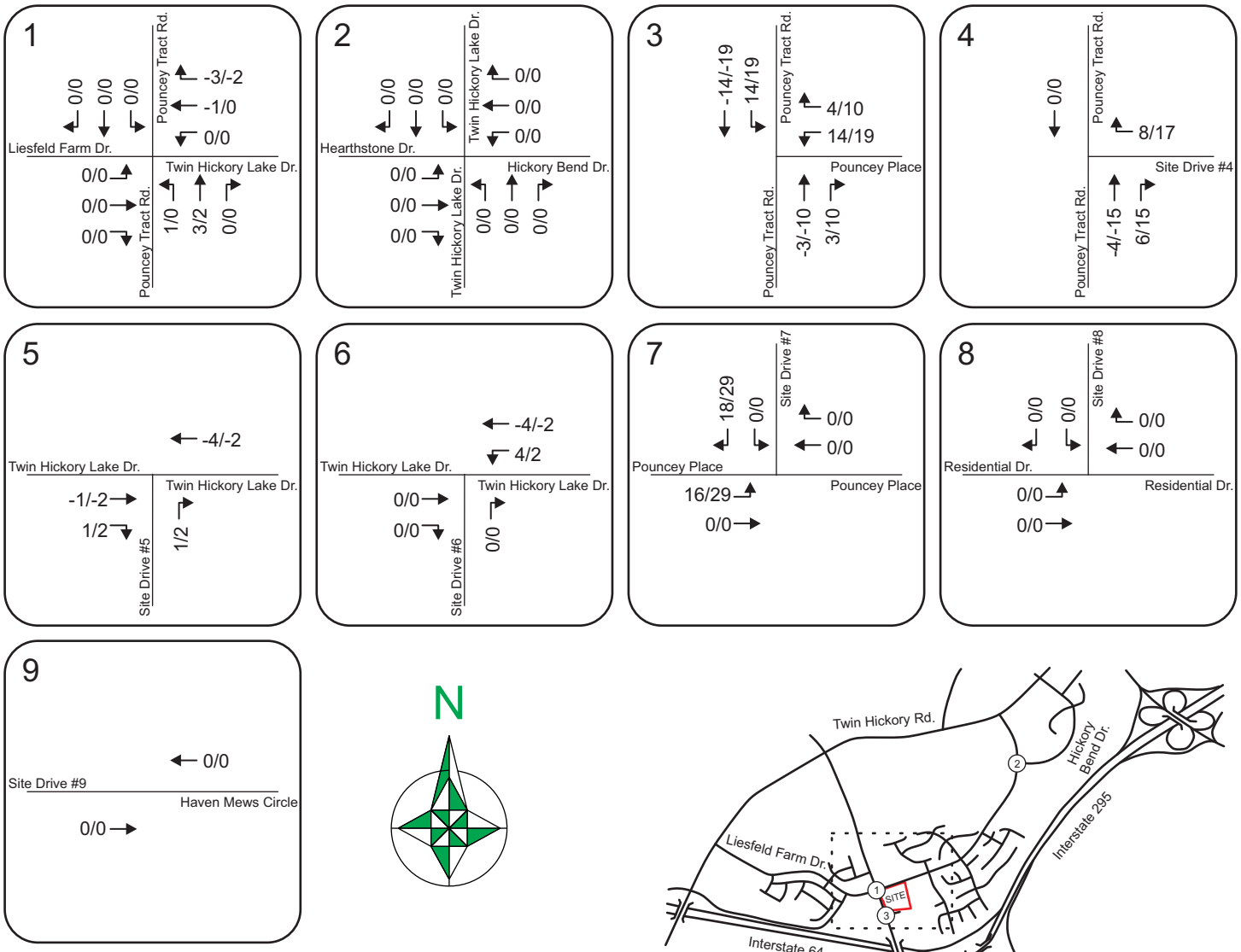
GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE 11
	Retail Primary Peak Hour Site Trips - Site Area	GLS Project #20100
		5/20 | Appendix C

GREEN LIGHT SOLUTIONS, INC.

Pouncey Tract	FIGURE 12
Retail Pass-By Distribution Percentages	GLS Project #20100
	5/20 | Appendix C



GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE 13
	Retail Pass-By Distribution Percentages - Site Area	GLS Project #20100
		5/20 | Appendix C



GREEN LIGHT SOLUTIONS, INC.

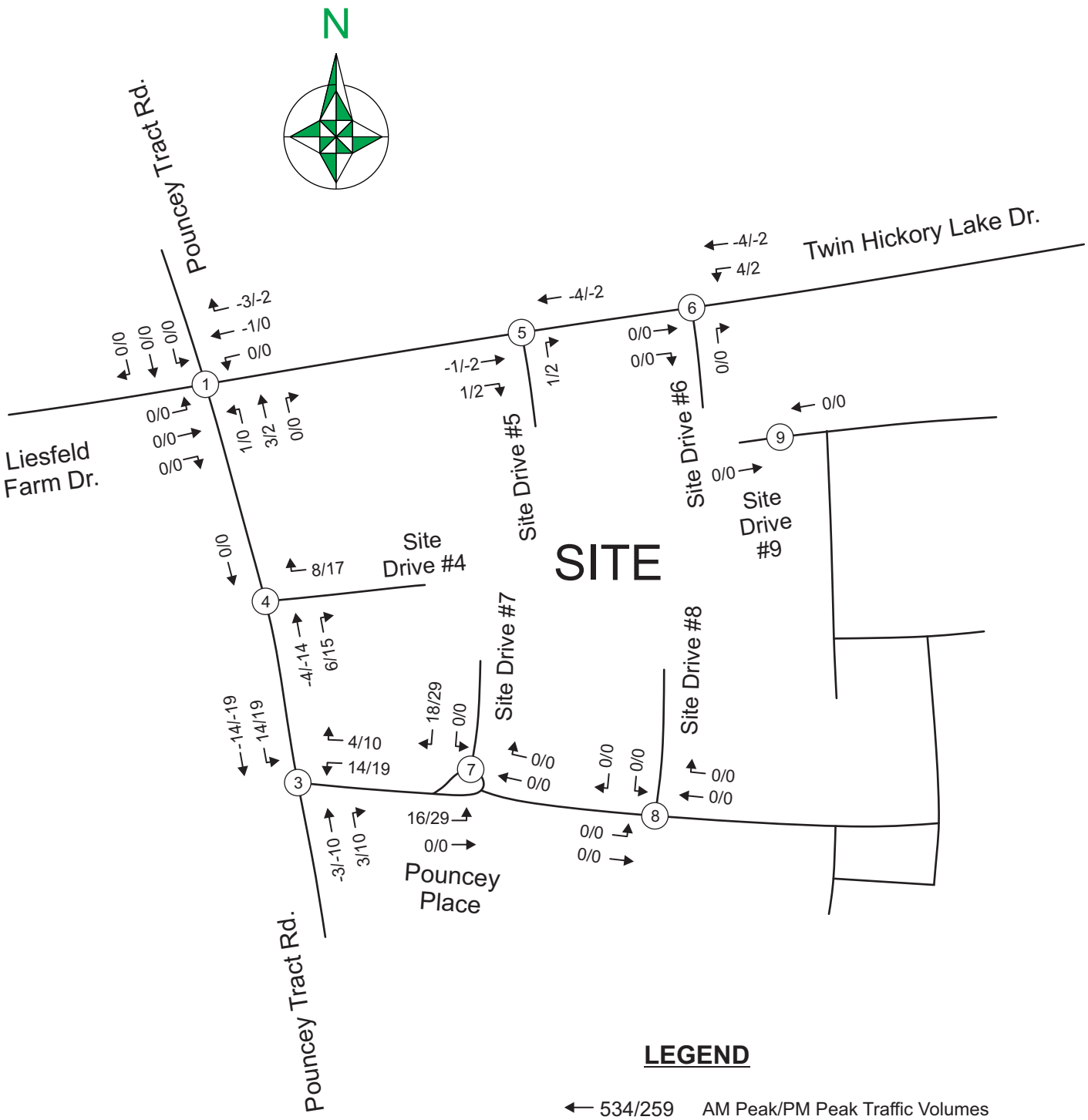
Pouncey Tract

Retail Pass-By Peak Hour Site Trips

FIGURE 14

GLS Project #20100

5/20 | Appendix C



GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE 15
	Retail Pass-By Peak Hour Site Trips - Site Area	GLS Project #20100
		5/20 | Appendix C

GREEN LIGHT SOLUTIONS, INC.

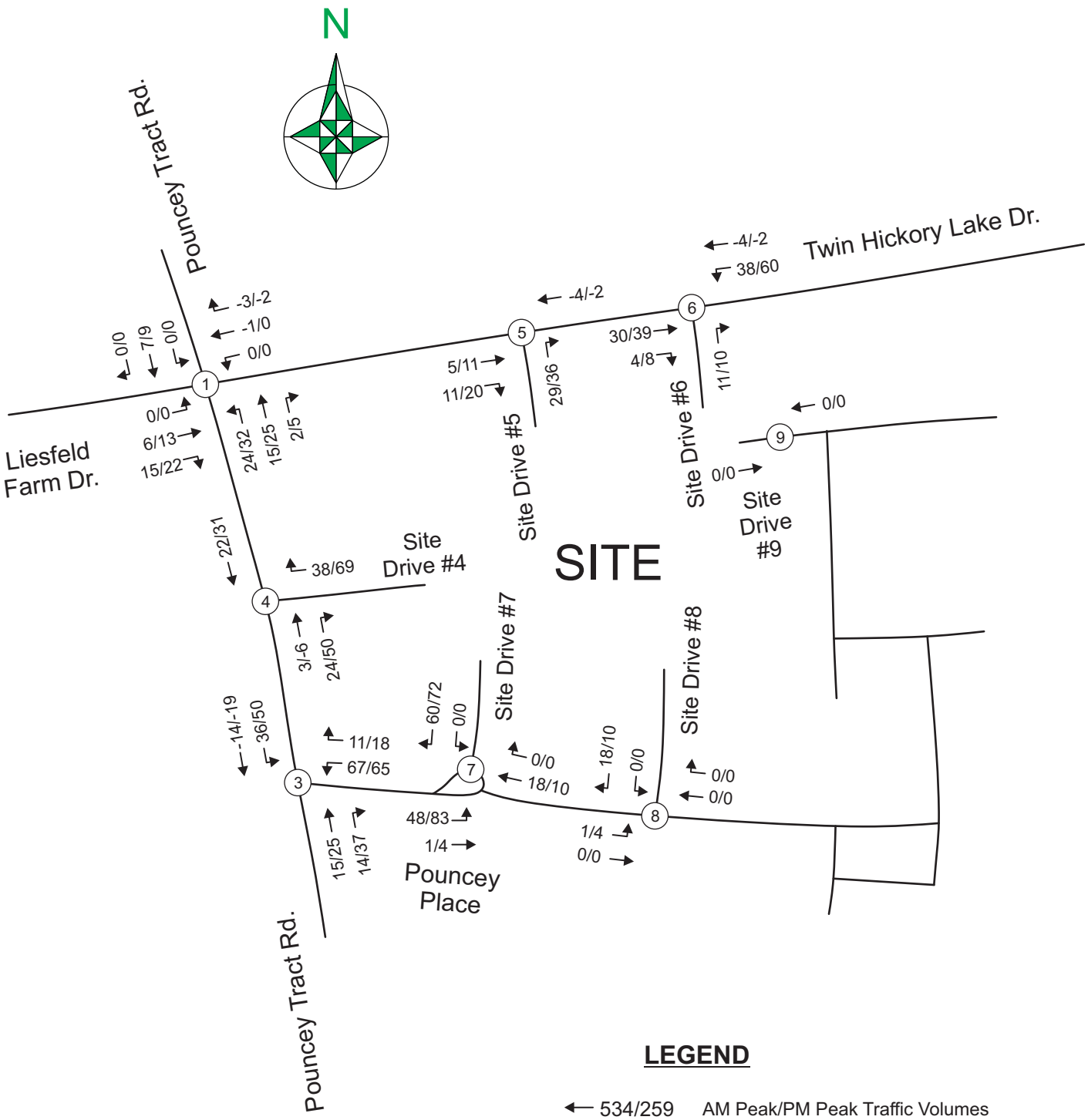
Pouncey Tract

Total Peak Hour Site Trips

FIGURE 16

GLS Project #20100

5/20 | Appendix C



GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE 17
	Total Peak Hour Site Trips - Site Area	GLS Project #20100
		5/20 | Appendix C

GREEN LIGHT SOLUTIONS, INC.

Pouncey Tract

Buildout (2025) Peak Hour Traffic Conditions

FIGURE 18

GLS Project #20100

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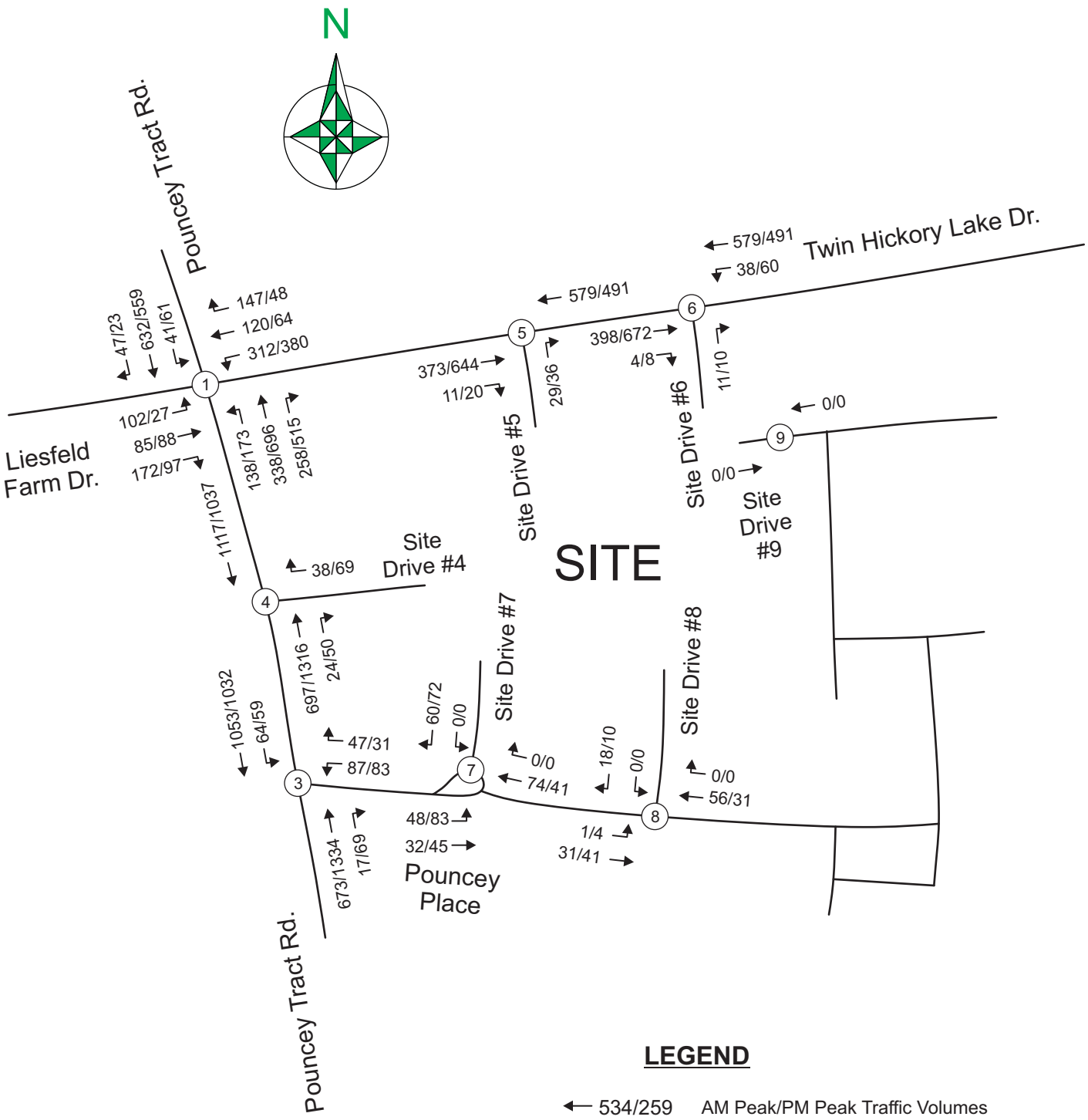
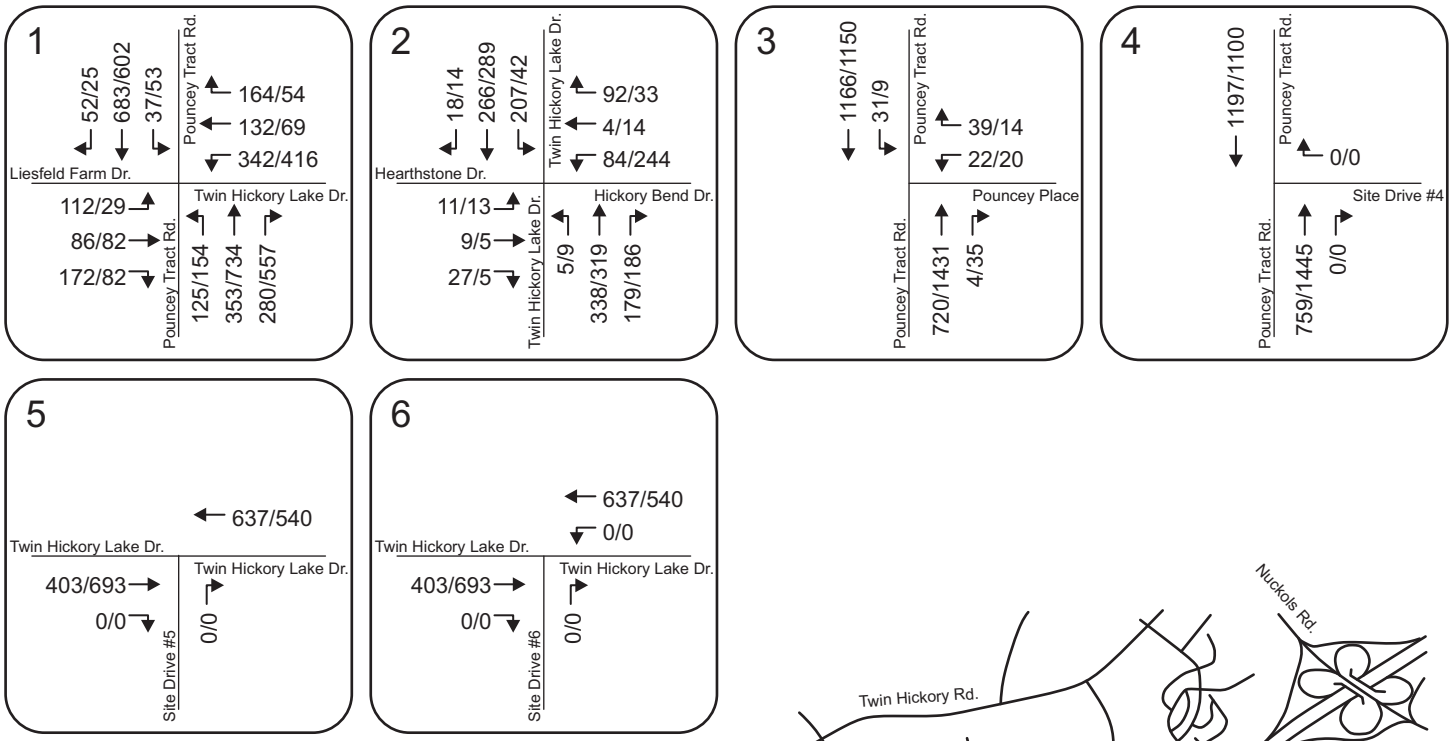
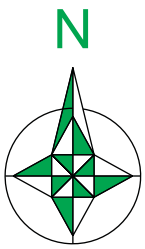
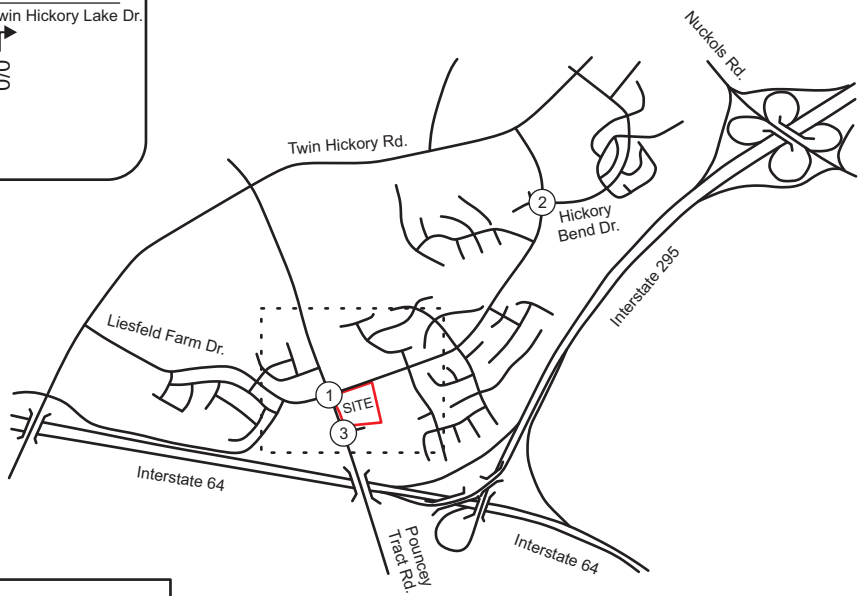
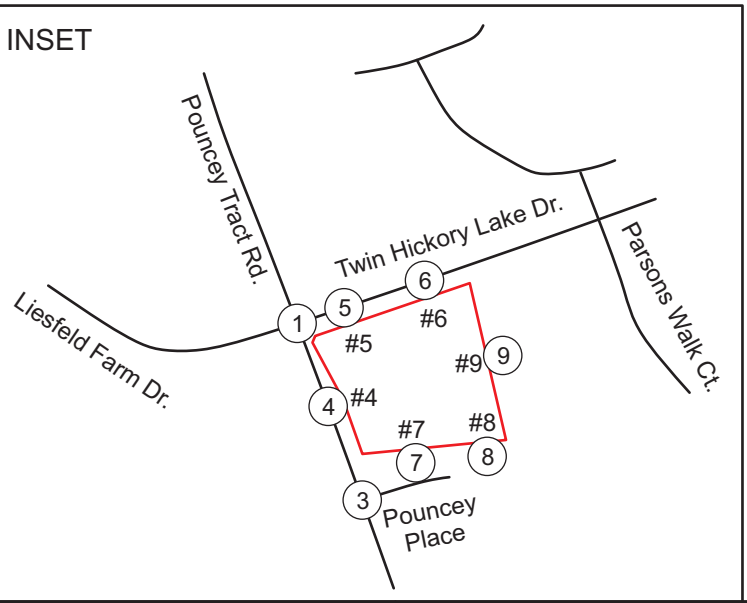


GREEN LIGHT SOLUTIONS, INC.	Pouncey Tract	FIGURE 19
	Buildout (2025) Peak Hour Traffic Conditions - Site Area	GLS Project #20100
		5/20 | Appendix C









LEGEND

- ← 534/259 — AM Peak/PM Peak Traffic Volumes
- (1) — Intersection Number
- ——— — Property Boundary

GREEN LIGHT SOLUTIONS, INC.

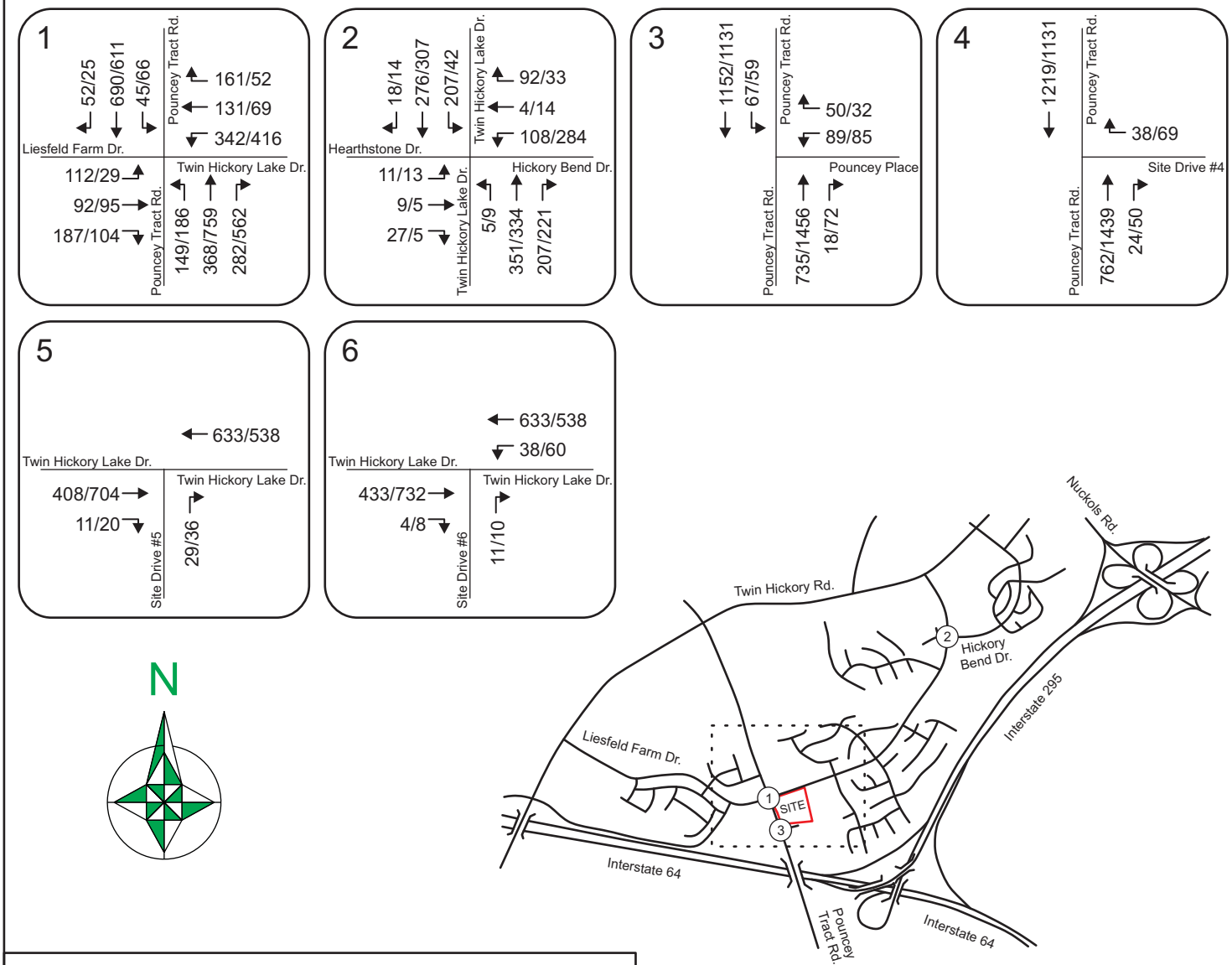
Pouncey Tract

Background (2031) Peak Hour Traffic Conditions

FIGURE 20

GLS Project #20100

5/20 | Appendix C



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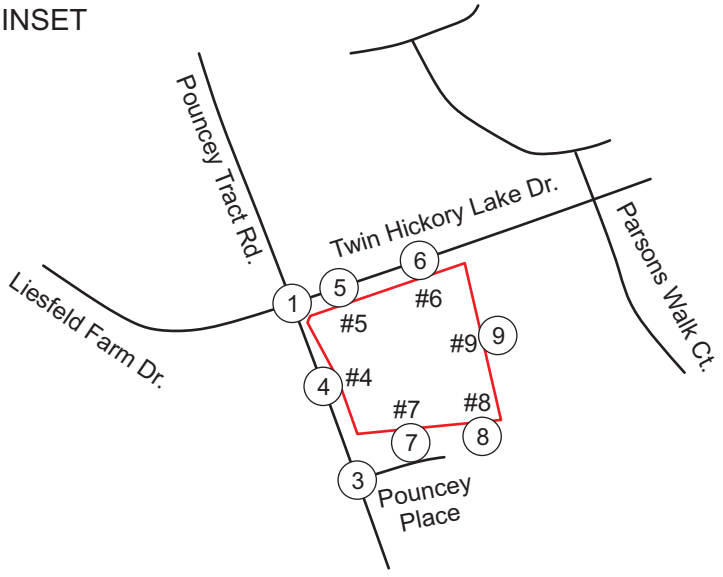


LEGEND

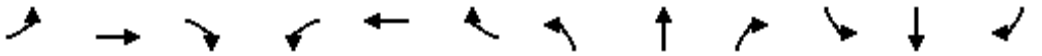
- ← 534/259 — AM Peak/PM Peak Traffic Volumes
- (1) — Intersection Number
- Property Boundary

GREEN LIGHT SOLUTIONS, INC.

Pouncey Tract	FIGURE 21
Buildout (2031) Peak Hour Traffic Conditions	GLS Project #20100
	5/20 | Appendix C

APPENDIX D

EXISTING (2020) PEAK HOUR ANALYSIS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	95	73	146	290	112	139	106	300	238	31	580	44
Future Volume (vph)	95	73	146	290	112	139	106	300	238	31	580	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	3471	1553	1770	1863	1583	1736	1827	1553	1752	1845	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.08	1.00	1.00	0.52	1.00	1.00
Satd. Flow (perm)	1736	3471	1553	1770	1863	1583	143	1827	1553	960	1845	1568
Peak-hour factor, PHF	0.67	0.67	0.67	0.77	0.77	0.77	0.89	0.89	0.89	0.93	0.93	0.93
Adj. Flow (vph)	142	109	218	377	145	181	119	337	267	33	624	47
RTOR Reduction (vph)	0	0	91	0	0	142	0	0	106	0	0	22
Lane Group Flow (vph)	142	109	127	377	145	39	119	337	161	33	624	25
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	4%	4%	4%	3%	3%	3%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	14.7	14.7	24.9	28.9	28.9	28.9	61.4	51.2	80.1	49.4	45.2	69.7
Effective Green, g (s)	14.7	14.7	24.9	28.9	28.9	28.9	61.4	51.2	80.1	49.4	45.2	69.7
Actuated g/C Ratio	0.11	0.11	0.19	0.22	0.22	0.22	0.46	0.38	0.60	0.37	0.34	0.52
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	191	383	290	384	404	343	188	703	935	381	627	821
v/s Ratio Prot	c0.08	0.03	0.08	c0.21	0.08		c0.05	0.18	0.10	0.00	c0.34	0.02
v/s Ratio Perm						0.02	c0.24			0.03		
v/c Ratio	0.74	0.28	0.44	0.98	0.36	0.11	0.63	0.48	0.17	0.09	1.00	0.03
Uniform Delay, d1	57.3	54.3	47.9	51.8	44.2	41.8	28.7	30.8	11.7	26.8	43.8	15.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	13.8	0.3	0.8	41.0	0.6	0.2	6.0	2.3	0.1	0.1	34.8	0.0
Delay (s)	71.1	54.6	48.6	92.7	44.8	42.0	34.6	33.2	11.8	26.9	78.6	15.3
Level of Service	E	D	D	F	D	D	C	C	B	C	E	B
Approach Delay (s)		56.8			69.8			25.5			71.9	
Approach LOS		E			E			C			E	

Intersection Summary			
HCM 2000 Control Delay	55.7	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	0.94		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	11.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	8	23	71	3	78	4	287	152	176	226	15
Future Vol, veh/h	9	8	23	71	3	78	4	287	152	176	226	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	125	-	125	125	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	57	57	57	87	87	87	86	86	86	56	56	56
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	7	7	7
Mvmt Flow	16	14	40	82	3	90	5	334	177	314	404	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1210	1375	202	1180	1375	167	404	0	0	334	0	0
Stage 1	1032	1032	-	343	343	-	-	-	-	-	-	-
Stage 2	178	343	-	837	1032	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.58	6.58	6.98	4.16	-	-	4.24	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.54	4.04	3.34	2.23	-	-	2.27	-	-
Pot Cap-1 Maneuver	137	143	802	143	142	842	1144	-	-	1187	-	-
Stage 1	247	306	-	640	631	-	-	-	-	-	-	-
Stage 2	804	633	-	323	304	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	95	105	802	97	104	842	1144	-	-	1187	-	-
Mov Cap-2 Maneuver	95	105	-	97	104	-	-	-	-	-	-	-
Stage 1	246	225	-	637	628	-	-	-	-	-	-	-
Stage 2	711	630	-	212	224	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.4	72.5	0.1	3.8
HCM LOS	D	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1144	-	-	200	97	842	1187	-	-
HCM Lane V/C Ratio	0.004	-	-	0.351	0.877	0.106	0.265	-	-
HCM Control Delay (s)	8.2	-	-	32.4	138.6	9.8	9.1	-	-
HCM Lane LOS	A	-	-	D	F	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	1.5	5	0.4	1.1	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	19	33	611	3	26	990
Future Vol, veh/h	19	33	611	3	26	990
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	78	78	89	89	93	93
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	24	42	687	3	28	1065

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1808	345	0	0	690	0
Stage 1	688	-	-	-	-	-
Stage 2	1120	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.145	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.2285	-
Pot Cap-1 Maneuver	78	652	-	-	897	-
Stage 1	461	-	-	-	-	-
Stage 2	311	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	76	652	-	-	897	-
Mov Cap-2 Maneuver	76	-	-	-	-	-
Stage 1	461	-	-	-	-	-
Stage 2	301	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	33.7	0	0.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	76	652	897	-
HCM Lane V/C Ratio	-	-	0.321	0.065	0.031	-
HCM Control Delay (s)	-	-	73.3	10.9	9.1	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	1.2	0.2	0.1	-

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	T	R	L	T
Maximum Queue (ft)	158	122	52	150	274	360	86	173	302	132	274	805
Average Queue (ft)	76	46	10	69	201	99	29	77	137	45	51	453
95th Queue (ft)	142	102	34	126	292	260	63	155	249	100	197	764
Link Distance (ft)		737	737			1361	1361		539	539		1042
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	250			150			250	
Storage Blk Time (%)	0			0	7	0		0	7		0	37
Queuing Penalty (veh)	0			0	8	0		1	7		0	12

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	SB
Directions Served	R
Maximum Queue (ft)	147
Average Queue (ft)	22
95th Queue (ft)	110
Link Distance (ft)	1042
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Twin Hickory Lake Dr. & Hearthstone Dr./Hickory Bend Dr.

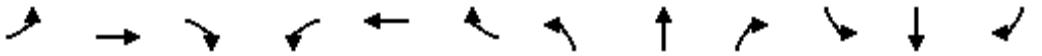
Movement	EB	WB	WB	NB	NB	NB	SB
Directions Served	LTR	LT	R	L	T	R	L
Maximum Queue (ft)	56	106	63	16	3	14	77
Average Queue (ft)	20	37	27	1	0	1	31
95th Queue (ft)	45	75	49	7	2	7	63
Link Distance (ft)	151	1022	1022		738		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				125		125	125
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 3: Pouncey Tract Rd. & Pouncey Place

Movement	WB	WB	SB
Directions Served	L	R	L
Maximum Queue (ft)	60	55	47
Average Queue (ft)	18	21	12
95th Queue (ft)	47	47	39
Link Distance (ft)	302	302	
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			150
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 28



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	70	70	353	59	46	131	623	473	45	511	21
Future Volume (vph)	25	70	70	353	59	46	131	623	473	45	511	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1787	1881	1599	1787	1881	1599	1787	1881	1599
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.09	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	1787	1881	1599	161	1881	1599	170	1881	1599
Peak-hour factor, PHF	0.85	0.85	0.85	0.88	0.88	0.88	0.93	0.93	0.93	0.85	0.85	0.85
Adj. Flow (vph)	29	82	82	401	67	52	141	670	509	53	601	25
RTOR Reduction (vph)	0	0	70	0	0	38	0	0	156	0	0	13
Lane Group Flow (vph)	29	82	12	401	67	14	141	670	353	53	601	12
Heavy Vehicles (%)	3%	3%	3%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	8.0	8.0	19.1	35.6	35.6	35.6	60.5	49.4	85.0	50.3	44.3	62.1
Effective Green, g (s)	8.0	8.0	19.1	35.6	35.6	35.6	60.5	49.4	85.0	50.3	44.3	62.1
Actuated g/C Ratio	0.06	0.06	0.14	0.27	0.27	0.27	0.45	0.37	0.64	0.38	0.33	0.47
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	105	210	225	478	503	428	208	698	1021	137	626	746
v/s Ratio Prot	0.02	c0.02	0.01	c0.22	0.04		c0.06	c0.36	0.22	0.02	0.32	0.01
v/s Ratio Perm						0.01	0.25			0.13		
v/c Ratio	0.28	0.39	0.05	0.84	0.13	0.03	0.68	0.96	0.35	0.39	0.96	0.02
Uniform Delay, d1	59.7	60.2	49.1	46.0	37.0	36.0	28.6	40.8	11.1	31.3	43.5	19.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.9	0.1	12.5	0.1	0.0	7.7	25.5	0.2	1.3	27.4	0.0
Delay (s)	60.8	61.0	49.2	58.5	37.1	36.0	36.3	66.4	11.4	32.7	70.9	19.0
Level of Service	E	E	D	E	D	D	D	E	B	C	E	B
Approach Delay (s)		56.0			53.5			42.0			66.0	
Approach LOS		E			D			D			E	

Intersection Summary			
HCM 2000 Control Delay	51.2	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	6.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	4	4	207	12	28	8	271	158	36	245	12
Future Vol, veh/h	11	4	4	207	12	28	8	271	158	36	245	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	125	-	125	125	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	95	95	95	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	1	1	1	2	2	2	1	1	1
Mvmt Flow	12	4	4	218	13	29	9	308	180	41	278	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	538	686	139	549	686	154	278	0	0	308	0	0
Stage 1	360	360	-	326	326	-	-	-	-	-	-	-
Stage 2	178	326	-	223	360	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.52	6.52	6.92	4.14	-	-	4.12	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.52	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.52	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.51	4.01	3.31	2.22	-	-	2.21	-	-
Pot Cap-1 Maneuver	426	369	884	421	371	868	1282	-	-	1257	-	-
Stage 1	631	625	-	663	649	-	-	-	-	-	-	-
Stage 2	806	647	-	762	627	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	388	354	884	402	356	868	1282	-	-	1257	-	-
Mov Cap-2 Maneuver	388	354	-	402	356	-	-	-	-	-	-	-
Stage 1	627	605	-	658	644	-	-	-	-	-	-	-
Stage 2	758	642	-	728	607	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	23.8	0.1	1
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1282	-	-	430	399	868	1257	-	-
HCM Lane V/C Ratio	0.007	-	-	0.05	0.578	0.034	0.033	-	-
HCM Control Delay (s)	7.8	-	-	13.8	25.7	9.3	8	-	-
HCM Lane LOS	A	-	-	B	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	3.5	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	12	1215	30	8	976
Future Vol, veh/h	17	12	1215	30	8	976
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	85	85
Heavy Vehicles, %	2	2	1	1	1	1
Mvmt Flow	18	13	1306	32	9	1148

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2490	669	0	0	1339	0
Stage 1	1323	-	-	-	-	-
Stage 2	1167	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.115	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.2095	-
Pot Cap-1 Maneuver	28	401	-	-	517	-
Stage 1	214	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	28	401	-	-	517	-
Mov Cap-2 Maneuver	28	-	-	-	-	-
Stage 1	214	-	-	-	-	-
Stage 2	290	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	162.4	0	0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	28	401	517	-
HCM Lane V/C Ratio	-	-	0.66	0.033	0.018	-
HCM Control Delay (s)	-	-	266.9	14.3	12.1	-
HCM Lane LOS	-	-	F	B	B	-
HCM 95th %tile Q(veh)	-	-	2.1	0.1	0.1	-

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	T	R	L	T
Maximum Queue (ft)	71	102	49	99	274	433	58	174	563	264	256	498
Average Queue (ft)	21	43	7	33	224	104	13	101	390	101	51	284
95th Queue (ft)	55	87	29	74	307	337	37	192	611	230	168	442
Link Distance (ft)		737	737			1361	1361		539	539		1042
Upstream Blk Time (%)									7	0		
Queuing Penalty (veh)									43	1		
Storage Bay Dist (ft)	200			150	250			150			250	
Storage Blk Time (%)				0	11	0		1	38			15
Queuing Penalty (veh)				0	7	0		6	49			7

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	SB
Directions Served	R
Maximum Queue (ft)	54
Average Queue (ft)	11
95th Queue (ft)	37
Link Distance (ft)	1042
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Twin Hickory Lake Dr. & Hearthstone Dr./Hickory Bend Dr.

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	LT	R	L	L
Maximum Queue (ft)	34	149	25	25	31
Average Queue (ft)	11	67	13	2	7
95th Queue (ft)	31	125	32	14	25
Link Distance (ft)	151	1022	1022		
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)				125	125
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 3: Pouncey Tract Rd. & Pouncey Place

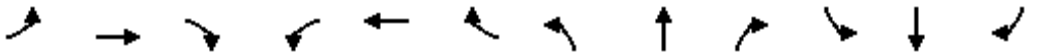
Movement	WB	WB	NB	NB	SB
Directions Served	L	R	T	TR	L
Maximum Queue (ft)	72	45	417	327	33
Average Queue (ft)	23	13	83	45	7
95th Queue (ft)	60	49	358	280	27
Link Distance (ft)	302	302	639	639	
Upstream Blk Time (%)			1	1	
Queuing Penalty (veh)			0	0	
Storage Bay Dist (ft)					150
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 113

APPENDIX E

BACKGROUND (2025) PEAK HOUR ANALYSIS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	79	157	312	121	150	114	323	256	33	625	47
Future Volume (vph)	102	79	157	312	121	150	114	323	256	33	625	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	3471	1553	1770	1863	1583	1736	1827	1553	1752	1845	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.14	1.00	1.00	0.51	1.00	1.00
Satd. Flow (perm)	1736	3471	1553	1770	1863	1583	254	1827	1553	940	1845	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	111	86	171	339	132	163	124	351	278	35	672	51
RTOR Reduction (vph)	0	0	118	0	0	129	0	0	95	0	0	22
Lane Group Flow (vph)	111	86	53	339	132	34	124	351	183	35	672	29
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	4%	4%	4%	3%	3%	3%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	9.5	9.5	15.1	27.6	27.6	27.6	65.6	60.0	87.6	58.2	56.3	75.6
Effective Green, g (s)	9.5	9.5	15.1	27.6	27.6	27.6	65.6	60.0	87.6	58.2	56.3	75.6
Actuated g/C Ratio	0.07	0.07	0.11	0.21	0.21	0.21	0.49	0.45	0.66	0.44	0.42	0.57
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	124	247	176	367	386	328	187	824	1022	422	781	891
v/s Ratio Prot	c0.06	0.02	0.03	c0.19	0.07		c0.03	0.19	0.12	0.00	c0.36	0.02
v/s Ratio Perm						0.02	c0.30			0.04		
v/c Ratio	0.90	0.35	0.30	0.92	0.34	0.10	0.66	0.43	0.18	0.08	0.86	0.03
Uniform Delay, d1	61.3	58.8	54.1	51.7	45.0	42.7	25.5	24.8	8.8	21.5	34.8	12.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	49.6	0.6	0.7	28.7	0.6	0.2	7.7	1.6	0.1	0.1	11.9	0.0
Delay (s)	110.9	59.4	54.8	80.4	45.6	42.8	33.2	26.4	8.9	21.6	46.7	12.6
Level of Service	F	E	D	F	D	D	C	C	A	C	D	B
Approach Delay (s)		72.8			63.5			21.1			43.3	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	46.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	88.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	9	25	76	3	84	4	309	164	190	243	16
Future Vol, veh/h	10	9	25	76	3	84	4	309	164	190	243	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	125	-	125	125	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	7	7	7
Mvmt Flow	11	10	27	83	3	91	4	336	178	207	264	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	855	1022	132	895	1022	168	264	0	0	336	0	0
Stage 1	677	677	-	345	345	-	-	-	-	-	-	-
Stage 2	178	345	-	550	677	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.58	6.58	6.98	4.16	-	-	4.24	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.54	4.04	3.34	2.23	-	-	2.27	-	-
Pot Cap-1 Maneuver	250	233	890	232	231	840	1290	-	-	1185	-	-
Stage 1	406	448	-	638	630	-	-	-	-	-	-	-
Stage 2	804	632	-	482	445	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	190	192	890	187	190	840	1290	-	-	1185	-	-
Mov Cap-2 Maneuver	190	192	-	187	190	-	-	-	-	-	-	-
Stage 1	405	370	-	636	628	-	-	-	-	-	-	-
Stage 2	711	630	-	375	367	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.1	24.2	0.1	3.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1290	-	-	345	187	840	1185	-	-
HCM Lane V/C Ratio	0.003	-	-	0.139	0.459	0.109	0.174	-	-
HCM Control Delay (s)	7.8	-	-	17.1	39.6	9.8	8.7	-	-
HCM Lane LOS	A	-	-	C	E	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	2.2	0.4	0.6	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	36	658	3	28	1067
Future Vol, veh/h	20	36	658	3	28	1067
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	93	93
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	22	39	715	3	30	1147

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1925	359	0	0	718	0
Stage 1	717	-	-	-	-	-
Stage 2	1208	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.145	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.2285	-
Pot Cap-1 Maneuver	66	638	-	-	875	-
Stage 1	446	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	64	638	-	-	875	-
Mov Cap-2 Maneuver	64	-	-	-	-	-
Stage 1	446	-	-	-	-	-
Stage 2	272	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	38.4	0	0.2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	64	638	875	-
HCM Lane V/C Ratio	-	-	0.34	0.061	0.034	-
HCM Control Delay (s)	-	-	87.8	11	9.3	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	1.2	0.2	0.1	-

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	T	R	L	T
Maximum Queue (ft)	189	208	198	171	274	478	130	174	282	112	254	589
Average Queue (ft)	106	61	26	87	223	162	33	82	140	39	37	343
95th Queue (ft)	197	155	117	160	307	409	87	163	239	87	155	529
Link Distance (ft)		737	737			1361	1361		539	539		1042
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)	200			150	250			150			250	
Storage Blk Time (%)	6		0	5	14	0		1	7		0	21
Queuing Penalty (veh)	2		0	2	17	0		3	7		0	7

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	SB
Directions Served	R
Maximum Queue (ft)	69
Average Queue (ft)	20
95th Queue (ft)	55
Link Distance (ft)	1042
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Twin Hickory Lake Dr. & Hearthstone Dr./Hickory Bend Dr.

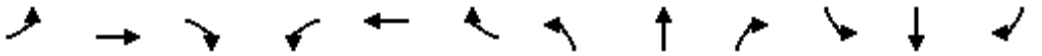
Movement	EB	WB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LT	R	L	T	R	L	R
Maximum Queue (ft)	61	96	62	14	2	16	91	1
Average Queue (ft)	22	38	26	1	0	1	34	0
95th Queue (ft)	46	72	47	7	2	9	68	1
Link Distance (ft)	151	1022	1022		738			
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				125		125	125	125
Storage Blk Time (%)							0	
Queuing Penalty (veh)							0	

Intersection: 3: Pouncey Tract Rd. & Pouncey Place

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	58	50	2	48
Average Queue (ft)	20	20	0	12
95th Queue (ft)	51	46	2	39
Link Distance (ft)	302	302	639	
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				150
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 38



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	75	75	380	64	50	141	671	510	48	550	23
Future Volume (vph)	27	75	75	380	64	50	141	671	510	48	550	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.17	1.00	1.00	0.15	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	1770	1863	1583	321	1863	1583	270	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	29	82	82	413	70	54	152	722	548	52	598	25
RTOR Reduction (vph)	0	0	75	0	0	40	0	0	62	0	0	13
Lane Group Flow (vph)	29	82	7	413	70	14	152	722	486	52	598	13
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	3.5	3.5	11.7	34.1	34.1	34.1	67.5	59.3	93.4	55.3	53.2	66.5
Effective Green, g (s)	3.5	3.5	11.7	34.1	34.1	34.1	67.5	59.3	93.4	55.3	53.2	66.5
Actuated g/C Ratio	0.03	0.03	0.09	0.26	0.26	0.26	0.51	0.45	0.70	0.42	0.40	0.50
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	46	92	137	453	477	405	252	830	1111	135	745	791
v/s Ratio Prot	0.02	c0.02	0.00	c0.23	0.04		c0.04	c0.39	0.31	0.01	0.32	0.01
v/s Ratio Perm						0.01	0.27			0.15		
v/c Ratio	0.63	0.89	0.05	0.91	0.15	0.03	0.60	0.87	0.44	0.39	0.80	0.02
Uniform Delay, d1	64.1	64.6	55.6	48.0	38.2	37.1	23.6	33.4	8.5	30.2	35.3	16.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	22.0	59.5	0.1	22.8	0.2	0.0	3.4	12.0	0.3	1.3	8.9	0.0
Delay (s)	86.2	124.1	55.7	70.8	38.4	37.1	27.0	45.4	8.8	31.5	44.2	16.8
Level of Service	F	F	E	E	D	D	C	D	A	C	D	B
Approach Delay (s)		89.3			63.2			29.3			42.2	
Approach LOS		F			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	42.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	88.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	4	4	223	13	30	9	292	170	39	264	13
Future Vol, veh/h	12	4	4	223	13	30	9	292	170	39	264	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	125	-	125	125	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	95	95	95	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	13	4	4	235	14	32	10	317	185	42	287	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	557	709	143	567	709	159	287	0	0	317	0	0
Stage 1	372	372	-	337	337	-	-	-	-	-	-	-
Stage 2	185	337	-	230	372	-	-	-	-	-	-	-
Critical Hdwy	7.54	6.54	6.94	7.54	6.54	6.94	4.14	-	-	4.14	-	-
Critical Hdwy Stg 1	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.54	5.54	-	6.54	5.54	-	-	-	-	-	-	-
Follow-up Hdwy	3.52	4.02	3.32	3.52	4.02	3.32	2.22	-	-	2.22	-	-
Pot Cap-1 Maneuver	413	358	879	406	358	858	1272	-	-	1240	-	-
Stage 1	621	617	-	651	640	-	-	-	-	-	-	-
Stage 2	799	640	-	752	617	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	374	343	879	387	343	858	1272	-	-	1240	-	-
Mov Cap-2 Maneuver	374	343	-	387	343	-	-	-	-	-	-	-
Stage 1	616	596	-	646	635	-	-	-	-	-	-	-
Stage 2	747	635	-	718	596	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	27.7	0.2	1
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1272	-	-	414	384	858	1240	-	-
HCM Lane V/C Ratio	0.008	-	-	0.053	0.647	0.037	0.034	-	-
HCM Control Delay (s)	7.9	-	-	14.2	30	9.4	8	-	-
HCM Lane LOS	A	-	-	B	D	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	4.4	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	18	13	1309	32	9	1051
Future Vol, veh/h	18	13	1309	32	9	1051
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	14	1408	34	10	1142

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2587	721	0	0	1442	0
Stage 1	1425	-	-	-	-	-
Stage 2	1162	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	24	371	-	-	468	-
Stage 1	189	-	-	-	-	-
Stage 2	297	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	23	371	-	-	468	-
Mov Cap-2 Maneuver	23	-	-	-	-	-
Stage 1	189	-	-	-	-	-
Stage 2	291	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	224.1	0	0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	23	371	468	-
HCM Lane V/C Ratio	-	-	0.851	0.038	0.021	-
HCM Control Delay (s)	-	-	$ 375	15.1	12.9	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	2.5	0.1	0.1	-

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	T	R	L	T
Maximum Queue (ft)	80	122	78	97	275	473	69	175	556	224	274	471
Average Queue (ft)	24	57	10	37	235	147	16	116	379	80	50	297
95th Queue (ft)	59	108	46	76	313	425	45	206	579	170	162	447
Link Distance (ft)		737	737			1361	1361		539	539		1042
Upstream Blk Time (%)									3			
Queuing Penalty (veh)									23			
Storage Bay Dist (ft)	200			150	250			150			250	
Storage Blk Time (%)			0		15	0		3	32			16
Queuing Penalty (veh)			0		10	0		18	45			8

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	SB
Directions Served	R
Maximum Queue (ft)	48
Average Queue (ft)	10
95th Queue (ft)	33
Link Distance (ft)	1042
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Twin Hickory Lake Dr. & Hearthstone Dr./Hickory Bend Dr.

Movement	EB	WB	WB	NB	NB	SB
Directions Served	LTR	LT	R	L	R	L
Maximum Queue (ft)	36	172	53	27	2	38
Average Queue (ft)	13	74	16	2	0	10
95th Queue (ft)	34	133	39	13	2	32
Link Distance (ft)	151	1022	1022			
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				125	125	125
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: Pouncey Tract Rd. & Pouncey Place

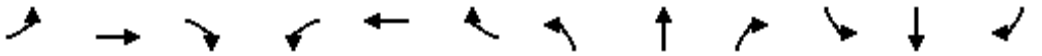
Movement	WB	WB	NB	NB	SB
Directions Served	L	R	T	TR	L
Maximum Queue (ft)	88	43	336	219	40
Average Queue (ft)	27	13	40	17	8
95th Queue (ft)	72	42	202	142	30
Link Distance (ft)	302	302	639	639	
Upstream Blk Time (%)			0	0	
Queuing Penalty (veh)			0	0	
Storage Bay Dist (ft)					150
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty: 103

APPENDIX F

BUILDOUT (2025) PEAK HOUR ANALYSIS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	85	172	312	120	147	138	338	258	41	632	47
Future Volume (vph)	102	85	172	312	120	147	138	338	258	41	632	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	3471	1553	1770	1863	1583	1736	1827	1553	1752	1845	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.11	1.00	1.00	0.50	1.00	1.00
Satd. Flow (perm)	1736	3471	1553	1770	1863	1583	206	1827	1553	924	1845	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	111	92	187	339	130	160	150	367	280	44	680	51
RTOR Reduction (vph)	0	0	108	0	0	127	0	0	97	0	0	23
Lane Group Flow (vph)	111	92	79	339	130	33	150	367	183	44	680	28
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	4%	4%	4%	3%	3%	3%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	9.5	9.5	17.0	27.6	27.6	27.6	66.8	59.3	86.9	57.0	54.4	73.7
Effective Green, g (s)	9.5	9.5	17.0	27.6	27.6	27.6	66.8	59.3	86.9	57.0	54.4	73.7
Actuated g/C Ratio	0.07	0.07	0.13	0.21	0.21	0.21	0.50	0.45	0.65	0.43	0.41	0.55
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	124	247	198	367	386	328	189	814	1014	412	754	868
v/s Ratio Prot	c0.06	0.03	0.05	c0.19	0.07		c0.04	0.20	0.12	0.00	c0.37	0.02
v/s Ratio Perm						0.02	c0.35			0.04		
v/c Ratio	0.90	0.37	0.40	0.92	0.34	0.10	0.79	0.45	0.18	0.11	0.90	0.03
Uniform Delay, d1	61.3	58.9	53.3	51.7	44.9	42.7	26.7	25.6	9.1	22.3	36.8	13.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	49.6	0.7	1.0	28.7	0.6	0.2	19.5	1.8	0.1	0.1	16.1	0.0
Delay (s)	110.9	59.6	54.3	80.4	45.5	42.8	46.2	27.4	9.2	22.4	52.9	13.5
Level of Service	F	E	D	F	D	D	D	C	A	C	D	B
Approach Delay (s)		71.6			63.6			24.5			48.6	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	48.3	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	86.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	9	25	100	3	84	4	322	192	190	253	16
Future Vol, veh/h	10	9	25	100	3	84	4	322	192	190	253	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	125	-	125	125	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	7	7	7
Mvmt Flow	11	10	27	109	3	91	4	350	209	207	275	17

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	873	1047	138	914	1047	175	275	0	0	350	0	0
Stage 1	688	688	-	359	359	-	-	-	-	-	-	-
Stage 2	185	359	-	555	688	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.58	6.58	6.98	4.16	-	-	4.24	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.54	4.04	3.34	2.23	-	-	2.27	-	-
Pot Cap-1 Maneuver	243	225	882	225	223	832	1278	-	-	1170	-	-
Stage 1	400	443	-	626	621	-	-	-	-	-	-	-
Stage 2	796	623	-	478	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	184	185	882	181	183	832	1278	-	-	1170	-	-
Mov Cap-2 Maneuver	184	185	-	181	183	-	-	-	-	-	-	-
Stage 1	399	365	-	624	619	-	-	-	-	-	-	-
Stage 2	703	621	-	371	362	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.5	33.5	0.1	3.6
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1278	-	-	335	181	832	1170	-	-
HCM Lane V/C Ratio	0.003	-	-	0.143	0.619	0.11	0.177	-	-
HCM Control Delay (s)	7.8	-	-	17.5	52.7	9.9	8.7	-	-
HCM Lane LOS	A	-	-	C	F	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	3.5	0.4	0.6	-	-

Intersection	
Int Delay, s/veh	25.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	87	47	673	17	64	1053
Future Vol, veh/h	87	47	673	17	64	1053
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	93	93
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	95	51	732	18	69	1132

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2011	375	0	0	750	0
Stage 1	741	-	-	-	-	-
Stage 2	1270	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.145	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.2285	-
Pot Cap-1 Maneuver	~ 58	623	-	-	851	-
Stage 1	433	-	-	-	-	-
Stage 2	263	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 53	623	-	-	851	-
Mov Cap-2 Maneuver	~ 53	-	-	-	-	-
Stage 1	433	-	-	-	-	-
Stage 2	242	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 355.9	0	0.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	53	623	851	-
HCM Lane V/C Ratio	-	-	1.784	0.082	0.081	-
HCM Control Delay (s)	-	-	$ 542.1	11.3	9.6	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	9.1	0.3	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	38	697	24	0	1117
Future Vol, veh/h	0	38	697	24	0	1117
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	0	41	758	26	0	1214

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	392	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.93	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	-	-	-	-
Pot Cap-1 Maneuver	0	608	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	608	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	608	-
HCM Lane V/C Ratio	-	-	0.068	-
HCM Control Delay (s)	-	-	11.4	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	373	11	0	579	0	29
Future Vol, veh/h	373	11	0	579	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	405	12	0	629	0	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	209
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	797
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	797
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	797	-	-	-
HCM Lane V/C Ratio	0.04	-	-	-
HCM Control Delay (s)	9.7	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	398	4	38	579	0	11
Future Vol, veh/h	398	4	38	579	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	433	4	41	629	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	437	0	-	218
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	1119	-	0	786
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1119	-	-	786
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	786	-	-	1119	-
HCM Lane V/C Ratio	0.015	-	-	0.037	-
HCM Control Delay (s)	9.7	-	-	8.3	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	T	R	L	T
Maximum Queue (ft)	197	168	155	168	274	408	108	174	275	134	274	753
Average Queue (ft)	98	52	21	89	217	139	37	95	145	52	65	400
95th Queue (ft)	183	118	84	159	305	333	78	171	256	111	224	682
Link Distance (ft)		737	737			421	421		270	270		1042
Upstream Blk Time (%)						0			1			0
Queuing Penalty (veh)						1			3			0
Storage Bay Dist (ft)	200			150	250			150			250	
Storage Blk Time (%)	2		0	3	10	0		2	6			27
Queuing Penalty (veh)	1		0	1	12	0		7	9			11

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	SB
Directions Served	R
Maximum Queue (ft)	157
Average Queue (ft)	22
95th Queue (ft)	114
Link Distance (ft)	1042
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Twin Hickory Lake Dr. & Hearthstone Dr./Hickory Bend Dr.

Movement	EB	WB	WB	NB	NB	NB	SB
Directions Served	LTR	LT	R	L	T	R	L
Maximum Queue (ft)	65	121	61	18	2	10	85
Average Queue (ft)	22	48	27	1	0	0	35
95th Queue (ft)	48	97	47	8	2	5	67
Link Distance (ft)	151	1022	1022		738		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				125		125	125
Storage Blk Time (%)							0
Queuing Penalty (veh)							0

Intersection: 3: Pouncey Tract Rd. & Pouncey Place

Movement	WB	WB	NB	SB
Directions Served	L	R	TR	L
Maximum Queue (ft)	311	282	5	69
Average Queue (ft)	228	134	0	25
95th Queue (ft)	394	365	4	56
Link Distance (ft)	302	302	639	
Upstream Blk Time (%)	41	28		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				150
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Pouncey Tract Rd. & Site Dr. #4

Movement	WB	NB	NB
Directions Served	R	T	TR
Maximum Queue (ft)	56	89	6
Average Queue (ft)	24	5	0
95th Queue (ft)	49	46	8
Link Distance (ft)	231	212	212
Upstream Blk Time (%)		0	
Queuing Penalty (veh)		0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Site Drive #5 & Twin Hickory Lake Dr.

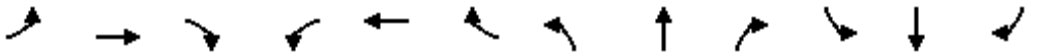
Movement	WB	NB
Directions Served	T	R
Maximum Queue (ft)	36	58
Average Queue (ft)	2	21
95th Queue (ft)	28	49
Link Distance (ft)	199	224
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 6: Site Drive #6 & Twin Hickory Lake Dr.

Movement	WB	WB	NB
Directions Served	L	T	R
Maximum Queue (ft)	47	4	28
Average Queue (ft)	12	0	8
95th Queue (ft)	38	5	28
Link Distance (ft)		622	220
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)	200		
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 46



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	88	97	380	64	48	173	696	515	61	559	23
Future Volume (vph)	27	88	97	380	64	48	173	696	515	61	559	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.16	1.00	1.00	0.12	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	1770	1863	1583	289	1863	1583	219	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	29	96	105	413	70	52	186	748	554	66	608	25
RTOR Reduction (vph)	0	0	94	0	0	39	0	0	47	0	0	12
Lane Group Flow (vph)	29	96	11	413	70	13	186	748	507	66	608	13
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	4.5	4.5	13.7	32.9	32.9	32.9	68.2	59.0	91.9	55.0	52.4	66.7
Effective Green, g (s)	4.5	4.5	13.7	32.9	32.9	32.9	68.2	59.0	91.9	55.0	52.4	66.7
Actuated g/C Ratio	0.03	0.03	0.10	0.25	0.25	0.25	0.51	0.44	0.69	0.41	0.39	0.50
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	59	118	161	437	460	391	250	826	1093	120	733	793
v/s Ratio Prot	0.02	c0.03	0.01	c0.23	0.04		c0.05	c0.40	0.32	0.01	0.33	0.01
v/s Ratio Perm						0.01	0.33			0.21		
v/c Ratio	0.49	0.81	0.07	0.95	0.15	0.03	0.74	0.91	0.46	0.55	0.83	0.02
Uniform Delay, d1	63.1	63.8	53.9	49.2	39.1	38.0	24.7	34.4	9.3	32.5	36.3	16.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.6	32.5	0.1	29.6	0.2	0.0	10.8	15.4	0.4	4.3	10.5	0.0
Delay (s)	67.8	96.4	54.0	78.7	39.3	38.0	35.4	49.8	9.7	36.8	46.8	16.7
Level of Service	E	F	D	E	D	D	D	D	A	D	D	B
Approach Delay (s)		73.4			69.6			33.1			44.8	
Approach LOS		E			E			C			D	

Intersection Summary			
HCM 2000 Control Delay	45.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	89.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	11.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	4	4	263	13	30	9	307	205	39	282	13
Future Vol, veh/h	12	4	4	263	13	30	9	307	205	39	282	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	125	-	125	125	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	7	7	7
Mvmt Flow	13	4	4	286	14	33	10	334	223	42	307	14

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	584	744	153	593	744	167	307	0	0	334	0	0
Stage 1	391	391	-	353	353	-	-	-	-	-	-	-
Stage 2	193	353	-	240	391	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.58	6.58	6.98	4.16	-	-	4.24	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.54	4.04	3.34	2.23	-	-	2.27	-	-
Pot Cap-1 Maneuver	393	339	863	385	337	842	1243	-	-	1187	-	-
Stage 1	602	603	-	631	624	-	-	-	-	-	-	-
Stage 2	787	627	-	736	601	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	353	324	863	367	322	842	1243	-	-	1187	-	-
Mov Cap-2 Maneuver	353	324	-	367	322	-	-	-	-	-	-	-
Stage 1	597	582	-	626	619	-	-	-	-	-	-	-
Stage 2	733	622	-	701	580	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.7	43.6	0.1	1
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1243	-	-	392	365	842	1187	-	-
HCM Lane V/C Ratio	0.008	-	-	0.055	0.822	0.039	0.036	-	-
HCM Control Delay (s)	7.9	-	-	14.7	47.3	9.4	8.1	-	-
HCM Lane LOS	A	-	-	B	E	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	7.3	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	82.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	83	31	1334	69	59	1032
Future Vol, veh/h	83	31	1334	69	59	1032
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	34	1434	74	64	1122

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2722	754	0	0	1509	0
Stage 1	1472	-	-	-	-	-
Stage 2	1250	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	~ 19	353	-	-	441	-
Stage 1	178	-	-	-	-	-
Stage 2	269	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 16	353	-	-	441	-
Mov Cap-2 Maneuver	~ 16	-	-	-	-	-
Stage 1	178	-	-	-	-	-
Stage 2	230	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, $	1869.9	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	16	353	441	-
HCM Lane V/C Ratio	-	-	5.639	0.095	0.145	-
HCM Control Delay (s)	-	-	$ 2562.2	16.3	14.5	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	12.1	0.3	0.5	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	69	1316	50	0	1037
Future Vol, veh/h	0	69	1316	50	0	1037
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	75	1415	54	0	1127

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	734	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.93	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	-	-	-	-
Pot Cap-1 Maneuver	0	363	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	363	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.5	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	363	-
HCM Lane V/C Ratio	-	-	0.207	-
HCM Control Delay (s)	-	-	17.5	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.8	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	644	20	0	491	0	36
Future Vol, veh/h	644	20	0	491	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	700	22	0	534	0	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	361
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	636
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	636
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	11
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	636	-	-	-
HCM Lane V/C Ratio	0.062	-	-	-
HCM Control Delay (s)	11	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	672	8	60	491	0	10
Future Vol, veh/h	672	8	60	491	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	730	9	65	534	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	739	0	-	370
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	863	-	0	627
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	863	-	-	627
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	627	-	-	863	-
HCM Lane V/C Ratio	0.017	-	-	0.076	-
HCM Control Delay (s)	10.8	-	-	9.5	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	-

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	T	R	L	T
Maximum Queue (ft)	76	134	98	131	274	433	107	174	288	179	256	558
Average Queue (ft)	21	66	15	48	245	190	19	135	267	87	71	325
95th Queue (ft)	54	122	61	104	316	489	67	212	309	158	206	496
Link Distance (ft)		737	737			421	421		270	270		1042
Upstream Blk Time (%)						6	0		21			
Queuing Penalty (veh)						14	0		148			
Storage Bay Dist (ft)	200			150	250			150			250	
Storage Blk Time (%)			0	0	25	0		6	36			20
Queuing Penalty (veh)			0	0	16	0		39	62			12

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	SB
Directions Served	R
Maximum Queue (ft)	46
Average Queue (ft)	9
95th Queue (ft)	33
Link Distance (ft)	1042
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Twin Hickory Lake Dr. & Hearthstone Dr./Hickory Bend Dr.

Movement	EB	WB	WB	NB	SB	SB	SB	SB
Directions Served	LTR	LT	R	L	L	T	T	R
Maximum Queue (ft)	34	246	38	25	46	3	1	1
Average Queue (ft)	11	109	15	2	9	0	0	0
95th Queue (ft)	32	208	35	12	33	2	1	1
Link Distance (ft)	151	1022	1022			807	807	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)				125	125			125
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 3: Pouncey Tract Rd. & Pouncey Place

Movement	WB	WB	NB	NB	SB
Directions Served	L	R	T	TR	L
Maximum Queue (ft)	323	321	475	338	96
Average Queue (ft)	306	254	101	34	41
95th Queue (ft)	329	437	343	219	82
Link Distance (ft)	302	302	639	639	
Upstream Blk Time (%)	96	77	0	0	
Queuing Penalty (veh)	0	0	0	0	
Storage Bay Dist (ft)					150
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 4: Pouncey Tract Rd. & Site Dr. #4

Movement	WB	NB	NB
Directions Served	R	T	TR
Maximum Queue (ft)	246	230	26
Average Queue (ft)	135	156	1
95th Queue (ft)	272	290	27
Link Distance (ft)	231	212	212
Upstream Blk Time (%)	23	9	0
Queuing Penalty (veh)	0	62	0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Site Drive #5 & Twin Hickory Lake Dr.

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	158	26	57
Average Queue (ft)	24	1	25
95th Queue (ft)	119	22	50
Link Distance (ft)	199	199	224
Upstream Blk Time (%)	2	0	
Queuing Penalty (veh)	4	0	
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Site Drive #6 & Twin Hickory Lake Dr.

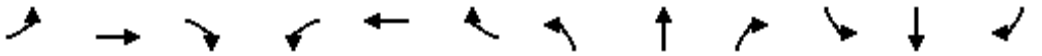
Movement	WB	WB	WB	NB
Directions Served	L	T	T	R
Maximum Queue (ft)	72	80	19	32
Average Queue (ft)	22	9	1	9
95th Queue (ft)	54	80	24	31
Link Distance (ft)		622	622	220
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)	200			
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Network Summary

Network wide Queuing Penalty: 360

APPENDIX G

BUILDOUT (2031) PEAK HOUR ANALYSIS



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	112	92	187	342	131	161	149	368	282	45	690	52
Future Volume (vph)	112	92	187	342	131	161	149	368	282	45	690	52
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1736	3471	1553	1770	1863	1583	1736	1827	1553	1752	1845	1568
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.07	1.00	1.00	0.47	1.00	1.00
Satd. Flow (perm)	1736	3471	1553	1770	1863	1583	124	1827	1553	872	1845	1568
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93
Adj. Flow (vph)	122	100	203	372	142	175	162	400	307	48	742	56
RTOR Reduction (vph)	0	0	97	0	0	138	0	0	106	0	0	26
Lane Group Flow (vph)	122	100	106	372	142	37	162	400	201	48	742	30
Heavy Vehicles (%)	4%	4%	4%	2%	2%	2%	4%	4%	4%	3%	3%	3%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	9.5	9.5	18.1	28.1	28.1	28.1	67.4	58.8	86.9	55.4	52.8	72.1
Effective Green, g (s)	9.5	9.5	18.1	28.1	28.1	28.1	67.4	58.8	86.9	55.4	52.8	72.1
Actuated g/C Ratio	0.07	0.07	0.14	0.21	0.21	0.21	0.51	0.44	0.65	0.42	0.40	0.54
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	124	247	211	373	393	334	167	807	1014	380	732	850
v/s Ratio Prot	c0.07	0.03	0.07	c0.21	0.08		c0.06	0.22	0.13	0.00	0.40	0.02
v/s Ratio Perm						0.02	c0.43			0.05		
v/c Ratio	0.98	0.40	0.50	1.00	0.36	0.11	0.97	0.50	0.20	0.13	1.01	0.04
Uniform Delay, d1	61.7	59.0	53.3	52.4	44.8	42.4	37.3	26.5	9.2	23.4	40.1	14.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	75.3	0.8	1.4	45.6	0.7	0.2	60.5	2.2	0.1	0.1	36.7	0.0
Delay (s)	137.0	59.8	54.7	98.0	45.5	42.5	97.8	28.7	9.3	23.5	76.8	14.2
Level of Service	F	E	D	F	D	D	F	C	A	C	E	B
Approach Delay (s)		79.5			73.1			34.7			69.6	
Approach LOS		E			E			C			E	

Intersection Summary			
HCM 2000 Control Delay	61.2	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	95.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	9	27	108	4	92	5	351	207	207	276	18
Future Vol, veh/h	11	9	27	108	4	92	5	351	207	207	276	18
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	125	-	125	125	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	7	7	7
Mvmt Flow	12	10	29	117	4	100	5	382	225	225	300	20

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	954	1142	150	997	1142	191	300	0	0	382	0	0
Stage 1	750	750	-	392	392	-	-	-	-	-	-	-
Stage 2	204	392	-	605	750	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.58	6.58	6.98	4.16	-	-	4.24	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.54	4.04	3.34	2.23	-	-	2.27	-	-
Pot Cap-1 Maneuver	212	198	866	196	196	812	1251	-	-	1138	-	-
Stage 1	367	415	-	599	600	-	-	-	-	-	-	-
Stage 2	776	602	-	447	412	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	154	158	866	153	157	812	1251	-	-	1138	-	-
Mov Cap-2 Maneuver	154	158	-	153	157	-	-	-	-	-	-	-
Stage 1	366	333	-	597	598	-	-	-	-	-	-	-
Stage 2	673	600	-	336	331	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.7	51.3	0.1	3.7
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1251	-	-	295	153	812	1138	-	-
HCM Lane V/C Ratio	0.004	-	-	0.173	0.796	0.123	0.198	-	-
HCM Control Delay (s)	7.9	-	-	19.7	85.2	10.1	8.9	-	-
HCM Lane LOS	A	-	-	C	F	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.6	5.1	0.4	0.7	-	-

Intersection	
Int Delay, s/veh	37.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	89	50	735	18	67	1152
Future Vol, veh/h	89	50	735	18	67	1152
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	93	93
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	97	54	799	20	72	1239

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2192	409	0	0	818	0
Stage 1	809	-	-	-	-	-
Stage 2	1383	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.145	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.2285	-
Pot Cap-1 Maneuver	~ 44	592	-	-	803	-
Stage 1	399	-	-	-	-	-
Stage 2	232	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 40	592	-	-	803	-
Mov Cap-2 Maneuver	~ 40	-	-	-	-	-
Stage 1	399	-	-	-	-	-
Stage 2	211	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 555.6	0	0.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	40	592	803	-
HCM Lane V/C Ratio	-	-	2.418	0.092	0.09	-
HCM Control Delay (s)	-	-	$ 861.2	11.7	9.9	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	10.5	0.3	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	38	762	24	0	1219
Future Vol, veh/h	0	38	762	24	0	1219
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	4	4	3	3
Mvmt Flow	0	41	828	26	0	1325

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	427	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.93	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	-	-	-	-
Pot Cap-1 Maneuver	0	577	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	577	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	577	-
HCM Lane V/C Ratio	-	-	0.072	-
HCM Control Delay (s)	-	-	11.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	408	11	0	633	0	29
Future Vol, veh/h	408	11	0	633	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	443	12	0	688	0	32

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	228
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	775
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	775
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	775	-	-	-
HCM Lane V/C Ratio	0.041	-	-	-
HCM Control Delay (s)	9.8	-	-	-
HCM Lane LOS	A	-	-	-
HCM 95th %tile Q(veh)	0.1	-	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	433	4	38	633	0	11
Future Vol, veh/h	433	4	38	633	0	11
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	471	4	41	688	0	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	475	0	-	238
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	1083	-	0	763
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1083	-	-	763
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	763	-	-	1083	-
HCM Lane V/C Ratio	0.016	-	-	0.038	-
HCM Control Delay (s)	9.8	-	-	8.5	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	-

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	T	R	L	T
Maximum Queue (ft)	215	238	239	172	274	425	102	174	280	132	274	1022
Average Queue (ft)	133	83	45	94	235	202	40	110	168	52	73	722
95th Queue (ft)	229	232	183	165	312	453	80	188	282	107	238	1165
Link Distance (ft)		737	737			421	421		270	270		1042
Upstream Blk Time (%)						6			2			20
Queuing Penalty (veh)						20			6			0
Storage Bay Dist (ft)	200			150	250			150			250	
Storage Blk Time (%)	12	0		4	21	0		3	10		0	50
Queuing Penalty (veh)	5	0		2	28	0		11	14		0	22

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	SB
Directions Served	R
Maximum Queue (ft)	793
Average Queue (ft)	291
95th Queue (ft)	1041
Link Distance (ft)	1042
Upstream Blk Time (%)	11
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Twin Hickory Lake Dr. & Hearthstone Dr./Hickory Bend Dr.

Movement	EB	WB	WB	NB	NB	NB	SB
Directions Served	LTR	LT	R	L	T	R	L
Maximum Queue (ft)	62	142	58	18	3	19	94
Average Queue (ft)	24	57	28	1	0	1	39
95th Queue (ft)	49	111	47	8	3	10	74
Link Distance (ft)	151	1022	1022		738		
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (ft)				125		125	125
Storage Blk Time (%)							0
Queuing Penalty (veh)							0

Intersection: 3: Pouncey Tract Rd. & Pouncey Place

Movement	WB	WB	NB	SB
Directions Served	L	R	T	L
Maximum Queue (ft)	332	325	4	73
Average Queue (ft)	281	229	0	28
95th Queue (ft)	406	441	3	60
Link Distance (ft)	302	302	639	
Upstream Blk Time (%)	77	62		
Queuing Penalty (veh)	0	0		
Storage Bay Dist (ft)				150
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Pouncey Tract Rd. & Site Dr. #4

Movement	WB	NB	NB
Directions Served	R	T	TR
Maximum Queue (ft)	72	92	5
Average Queue (ft)	23	8	0
95th Queue (ft)	53	48	5
Link Distance (ft)	231	212	212
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Site Drive #5 & Twin Hickory Lake Dr.

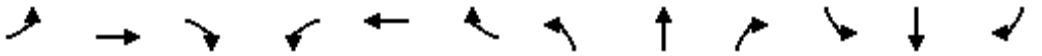
Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	127	32	55
Average Queue (ft)	23	2	20
95th Queue (ft)	118	30	49
Link Distance (ft)	199	199	224
Upstream Blk Time (%)	2		
Queuing Penalty (veh)	7		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Site Drive #6 & Twin Hickory Lake Dr.

Movement	WB	WB	WB	NB
Directions Served	L	T	T	R
Maximum Queue (ft)	75	114	74	30
Average Queue (ft)	14	14	4	9
95th Queue (ft)	52	139	75	30
Link Distance (ft)		622	622	220
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)	200			
Storage Blk Time (%)		1		
Queuing Penalty (veh)		0		

Network Summary

Network wide Queuing Penalty: 117



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	95	104	416	69	52	186	759	562	66	611	25
Future Volume (vph)	29	95	104	416	69	52	186	759	562	66	611	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	7.5	7.5	7.5	6.9	6.9	6.9	9.8	9.8	9.8	9.8	9.8	9.8
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1752	3505	1568	1770	1863	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.09	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	1752	3505	1568	1770	1863	1583	175	1863	1583	146	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.93	0.93	0.93	0.92	0.92	0.92
Adj. Flow (vph)	32	103	113	452	75	57	200	816	604	72	664	27
RTOR Reduction (vph)	0	0	100	0	0	43	0	0	37	0	0	14
Lane Group Flow (vph)	32	103	13	452	75	14	200	816	567	72	664	13
Heavy Vehicles (%)	3%	3%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Turn Type	Split	NA	pt+ov	Split	NA	Perm	pm+pt	NA	pt+ov	pm+pt	NA	pt+ov
Protected Phases	4	4	4 5	8	8		5	2	2 8	1	6	6 4
Permitted Phases						8	2			6		
Actuated Green, G (s)	4.5	4.5	14.5	33.3	33.3	33.3	67.8	57.8	91.1	54.6	51.2	65.5
Effective Green, g (s)	4.5	4.5	14.5	33.3	33.3	33.3	67.8	57.8	91.1	54.6	51.2	65.5
Actuated g/C Ratio	0.03	0.03	0.11	0.25	0.25	0.25	0.51	0.43	0.68	0.41	0.38	0.49
Clearance Time (s)	7.5	7.5		6.9	6.9	6.9	9.8	9.8		9.8	9.8	
Vehicle Extension (s)	2.5	2.5		3.5	3.5	3.5	2.5	6.0		2.5	6.0	
Lane Grp Cap (vph)	59	118	170	443	466	396	209	809	1084	101	717	779
v/s Ratio Prot	0.02	c0.03	0.01	c0.26	0.04		c0.07	c0.44	0.36	0.02	0.36	0.01
v/s Ratio Perm						0.01	0.41			0.27		
v/c Ratio	0.54	0.87	0.08	1.02	0.16	0.04	0.96	1.01	0.52	0.71	0.93	0.02
Uniform Delay, d1	63.2	64.0	53.2	49.9	38.9	37.7	32.0	37.6	10.3	32.5	39.1	17.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.8	45.7	0.1	48.0	0.2	0.0	49.5	33.8	0.5	19.8	19.7	0.0
Delay (s)	71.0	109.7	53.4	97.9	39.1	37.8	81.6	71.4	10.8	52.3	58.8	17.3
Level of Service	E	F	D	F	D	D	F	E	B	D	E	B
Approach Delay (s)		79.1			84.4			50.1			56.7	
Approach LOS		E			F			D			E	

Intersection Summary			
HCM 2000 Control Delay	60.1	HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	133.0	Sum of lost time (s)	34.0
Intersection Capacity Utilization	95.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	19.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	13	5	5	284	14	33	9	334	221	42	307	14
Future Vol, veh/h	13	5	5	284	14	33	9	334	221	42	307	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	125	-	125	125	-	125
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	3	3	3	4	4	4	3	3	3	7	7	7
Mvmt Flow	14	5	5	309	15	36	10	363	240	46	334	15

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	634	808	167	644	808	182	334	0	0	363	0	0
Stage 1	425	425	-	383	383	-	-	-	-	-	-	-
Stage 2	209	383	-	261	425	-	-	-	-	-	-	-
Critical Hdwy	7.56	6.56	6.96	7.58	6.58	6.98	4.16	-	-	4.24	-	-
Critical Hdwy Stg 1	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.56	5.56	-	6.58	5.58	-	-	-	-	-	-	-
Follow-up Hdwy	3.53	4.03	3.33	3.54	4.04	3.34	2.23	-	-	2.27	-	-
Pot Cap-1 Maneuver	362	311	845	354	309	823	1215	-	-	1157	-	-
Stage 1	575	582	-	606	605	-	-	-	-	-	-	-
Stage 2	771	608	-	716	580	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	321	296	845	334	294	823	1215	-	-	1157	-	-
Mov Cap-2 Maneuver	321	296	-	334	294	-	-	-	-	-	-	-
Stage 1	570	559	-	601	600	-	-	-	-	-	-	-
Stage 2	713	603	-	676	557	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.7	72.6	0.1	1
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1215	-	-	363	332	823	1157	-	-
HCM Lane V/C Ratio	0.008	-	-	0.069	0.976	0.044	0.039	-	-
HCM Control Delay (s)	8	-	-	15.7	79.6	9.6	8.2	-	-
HCM Lane LOS	A	-	-	C	F	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2	10.5	0.1	0.1	-	-

Intersection	
Int Delay, s/veh	121.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	85	32	1456	72	59	1131
Future Vol, veh/h	85	32	1456	72	59	1131
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	0	-	-	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	35	1566	77	64	1229

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	2962	822	0	0	1643	0
Stage 1	1604	-	-	-	-	-
Stage 2	1358	-	-	-	-	-
Critical Hdwy	6.63	6.93	-	-	4.13	-
Critical Hdwy Stg 1	5.83	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.519	3.319	-	-	2.219	-
Pot Cap-1 Maneuver	~ 13	318	-	-	392	-
Stage 1	151	-	-	-	-	-
Stage 2	238	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 11	318	-	-	392	-
Mov Cap-2 Maneuver	~ 11	-	-	-	-	-
Stage 1	151	-	-	-	-	-
Stage 2	199	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 2910.2	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	11	318	392	-
HCM Lane V/C Ratio	-	-	8.399	0.109	0.164	-
HCM Control Delay (s)	-	-	$ 3999.2	17.7	16	-
HCM Lane LOS	-	-	F	C	C	-
HCM 95th %tile Q(veh)	-	-	12.9	0.4	0.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	69	1439	50	0	1131
Future Vol, veh/h	0	69	1439	50	0	1131
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	93	93	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	75	1547	54	0	1229

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	801	0	0	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.93	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.319	-	-	-	-
Pot Cap-1 Maneuver	0	328	-	-	0	-
Stage 1	0	-	-	-	0	-
Stage 2	0	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	-	328	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	19.2	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	328	-
HCM Lane V/C Ratio	-	-	0.229	-
HCM Control Delay (s)	-	-	19.2	-
HCM Lane LOS	-	-	C	-
HCM 95th %tile Q(veh)	-	-	0.9	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	704	20	0	538	0	36
Future Vol, veh/h	704	20	0	538	0	36
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	765	22	0	585	0	39

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	393
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	606
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	606
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	606	-	-	-
HCM Lane V/C Ratio	0.065	-	-	-
HCM Control Delay (s)	11.4	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	732	8	60	538	0	10
Future Vol, veh/h	732	8	60	538	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	150	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	796	9	65	585	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	804	0	-	402
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.14	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.22	-	-	3.32
Pot Cap-1 Maneuver	-	-	816	-	0	598
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	816	-	-	598
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	598	-	-	816	-
HCM Lane V/C Ratio	0.018	-	-	0.08	-
HCM Control Delay (s)	11.1	-	-	9.8	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	EB	EB	EB	EB	WB	WB	WB	NB	NB	NB	SB	SB
Directions Served	L	T	T	R	L	T	R	L	T	R	L	T
Maximum Queue (ft)	82	148	125	114	275	435	108	174	287	245	274	763
Average Queue (ft)	23	76	25	47	259	278	26	143	273	119	93	449
95th Queue (ft)	60	133	85	95	311	557	94	210	284	215	257	778
Link Distance (ft)		737	737			421	421		270	270		1042
Upstream Blk Time (%)						11			33	0		0
Queuing Penalty (veh)						30			246	1		0
Storage Bay Dist (ft)	200			150	250			150			250	
Storage Blk Time (%)		0	0	0	35	0		8	44		0	32
Queuing Penalty (veh)		0	0	0	24	0		58	81		0	21

Intersection: 1: Pouncey Tract Rd. & Liesfeld Farm Dr./Twin Hickory Lake Dr.

Movement	SB
Directions Served	R
Maximum Queue (ft)	186
Average Queue (ft)	20
95th Queue (ft)	162
Link Distance (ft)	1042
Upstream Blk Time (%)	0
Queuing Penalty (veh)	0
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Twin Hickory Lake Dr. & Hearthstone Dr./Hickory Bend Dr.

Movement	EB	WB	WB	NB	SB	SB
Directions Served	LTR	LT	R	L	L	T
Maximum Queue (ft)	42	332	42	16	45	1
Average Queue (ft)	15	143	17	1	11	0
95th Queue (ft)	37	290	37	11	35	1
Link Distance (ft)	151	1022	1022			807
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)				125	125	
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 3: Pouncey Tract Rd. & Pouncey Place

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	R	T	TR	L	T
Maximum Queue (ft)	325	323	608	603	109	20
Average Queue (ft)	305	244	318	235	44	1
95th Queue (ft)	327	440	743	717	87	21
Link Distance (ft)	302	302	639	639		212
Upstream Blk Time (%)	97	73	12	8		0
Queuing Penalty (veh)	0	0	0	0		0
Storage Bay Dist (ft)					150	
Storage Blk Time (%)					0	0
Queuing Penalty (veh)					1	0

Intersection: 4: Pouncey Tract Rd. & Site Dr. #4

Movement	WB	NB	NB	SB
Directions Served	R	T	TR	T
Maximum Queue (ft)	252	239	116	5
Average Queue (ft)	229	208	8	0
95th Queue (ft)	273	275	74	5
Link Distance (ft)	231	212	212	270
Upstream Blk Time (%)	89	23	0	
Queuing Penalty (veh)	0	168	2	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 5: Site Drive #5 & Twin Hickory Lake Dr.

Movement	WB	WB	NB
Directions Served	T	T	R
Maximum Queue (ft)	143	20	56
Average Queue (ft)	44	2	23
95th Queue (ft)	167	23	51
Link Distance (ft)	199	199	224
Upstream Blk Time (%)	6		
Queuing Penalty (veh)	15		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 6: Site Drive #6 & Twin Hickory Lake Dr.

Movement	WB	WB	WB	NB
Directions Served	L	T	T	R
Maximum Queue (ft)	74	83	70	30
Average Queue (ft)	30	43	16	7
95th Queue (ft)	98	270	162	28
Link Distance (ft)		622	622	220
Upstream Blk Time (%)		1	0	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)	200			
Storage Blk Time (%)		5		
Queuing Penalty (veh)		3		

Network Summary

Network wide Queuing Penalty: 651