Traffic Impact Study

Keg Creek Landing and Seavy Hills City of Senoia, Georgia

October 30, 2017



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study prepared for:

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Introduction

This study assesses the traffic impact of two proposed single-family residential subdivisions in the City of Senoia, Georgia. The Keg Creek Landing development consists of three Pods – Pods A, B, and C and will be located on the north side of Seavy Street. Seavy Hills will consist of Pod D and will be located on the south side of Seavy Street. Pod A will include 106 senior age-targeted homes, Pod B will be developed with 79 single-family homes, and Pod C will be comprised of 135 single family lots. Seavy Hills' Pod D will include 36 single-family homes. Two full-movement accesses will serve Keg Creek Landing on the north side of Seavy Street, while one full-movement access will serve Seavy Hills, which will align with the western access to Keg Creek Landing. The location of the sites are shown in the map in Figure 1.

The purpose of this traffic impact study is to determine existing traffic operating conditions in the vicinity of the proposed subdivisions, project future traffic volumes, assess the impact of the subject developments, then develop conclusions and recommendations to mitigate the project traffic impact and ensure safe and efficient existing and future traffic conditions in the vicinity of the projects.



Figure 1 - Keg Creek Landing and Seavy Hills Site Location Map

Existing Traffic Conditions

Existing traffic operating conditions in the vicinity of the proposed subdivisions were assessed. The following is a description of existing transportation facilities, traffic volumes, and intersection operations.

Description of Existing Roadways

Seavy Street is a two lane, east/west collector that begins just west of downtown Senoia, extends through downtown, crosses the railroad tracks and continues to its terminus at GA 74/85. The terrain along Seavy Street in the vicinity of the proposed subdivisions is very gently rolling. The posted speed limit on Seavy Street is 35 mph adjacent to the subject properties, dropping to 25 mph near Johnson Street. Seavy Street is side street stop sign controlled at GA 74/85. At Johnson Street, Seavy Street is uncontrolled, while Johnson Street is side street stop sign controlled.

Georgia State Route 74/85 is a two lane southwest to northeast highway that provides a major route through this section of Georgia. Near Seavy Street, the terrain on GA 74/85 is gently rolling and the posted speed limit is 55 mph. The Georgia Department of Transportation (Georgia DOT) recorded an Annual Average Daily Traffic (AADT) volume of 11,700 on GA 74/85 just north of Seavy Street in 2016 (the latest year for which data was available at this location at the time of this study).

Pedestrian, Bicycle, and Transit Accessibility

There are no sidewalks along Seavy Street, GA 74/85, or Johnson Street in the vicinity of the proposed subdivisions. There are no striped designated bicycle lanes in the vicinity. There is no regularly-scheduled mass transit service in the vicinity of the subject sites.

Photograph 1 is taken on Seavy Street facing west toward its intersection with Johnson Street. Photograph 2 shows Seavy Street facing east at GA 74/85. Photograph 3 is the view north on GA 74/85 taken from Seavy Street. Photograph 4 is the view facing east along Seavy Street, taken from the vicinity of the proposed site accesses.



Photograph 1 – Seavy Street Facing West Toward Johnson Street



Photograph 2 – Seavy Street Facing East at GA 74/85



Photograph 3 – View Facing North on GA 74/85 from Seavy Street



Photograph 4 – Seavy Street Facing East from the Vicinity of the Proposed Site Accesses

Existing Traffic Volumes

Existing full turning movement traffic volume counts were collected at the following intersections in the vicinity of the proposed development:

- 1. Seavy Street / Johnson Street
- 2. GA 74/85 / Seavy Street

The counts were collected on Tuesday, October 17, 2017, from 7:00 a.m. to 9:00 a.m. and from 4:30 p.m. to 6:30 p.m. Area schools were in standard session on the day on which the counts were recorded. From the count data, the highest four consecutive 15-minute interval volumes at each intersection, during each time period, were determined. These volumes make up the typical weekday a.m. and p.m. peak hour traffic volumes at that intersection. The existing a.m. and p.m. peak hour turning movement volumes are shown in Figure 2. The intersection raw count data is found in Appendix A.

In addition to the intersection turning movement counts, Georgia Department of Transportation (Georgia DOT) annual average daily traffic (AADT) volume counts were obtained on nearby roadways for 2016 (the latest year for which volumes are available). Table 3, presented later in this report, shows the historic Georgia DOT counts and the annual growth rates between the counts.

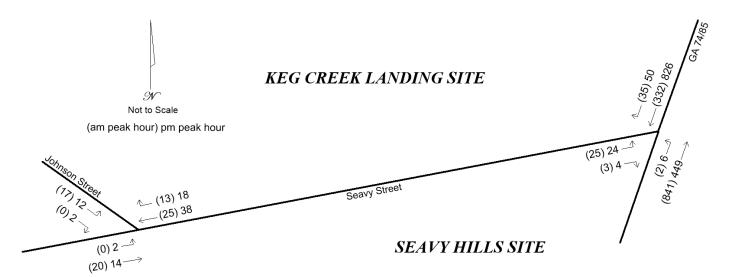


Figure 2 - Existing Weekday A.M. and P.M. Peak Hour Traffic Volumes

Existing Intersection Operations

Existing traffic operations were analyzed at the counted intersections using Synchro software, version 10, in accordance with the methodology presented in the Transportation Research Board's 2016 *Highway Capacity Manual (HCM 6)*. The *HCM 6* methodology is presented in Appendix B. The results of the analysis are shown in Table 1. Computer printouts containing detailed results of the analysis are located in Appendix C. Levels of service and delays are provided for each overall intersection and for each approach or controlled movement.

Table 1 – Existing Intersection Operations

	A.M. Pe	P.M. Peak Hour			
Intersection / Approach	LOS	Delay (s/veh)	LOS	Delay (s/veh)	
Seavy Street / Johnson Street	A	1.9	Α	2.1	
southbound approach	A	9.0	Α	9.0	
eastbound left turn	A	0.0	А	7.4	
2. GA 74/85 / Seavy Street	A	1.0	Α	0.9	
northbound left turn	A	8.2	В	10.3	
eastbound approach	E	35.2	E	40.4	

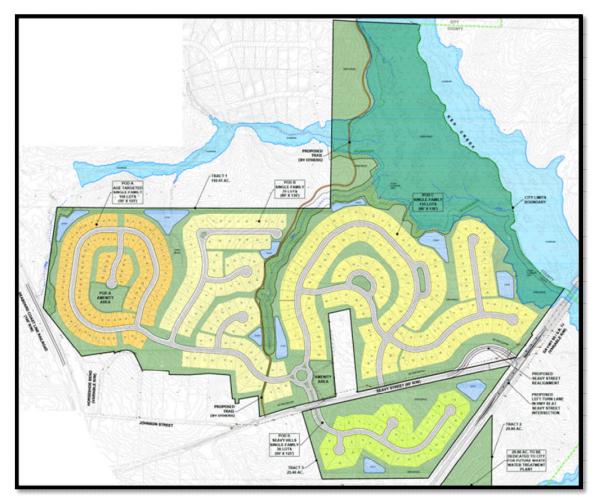
The analysis of the two counted intersections shows generally acceptable traffic operations. However, the eastbound approach of Seavy Street at GA 74/85 is operating at the limit of acceptable delay. This delay is primarily due to the difficulty of turning left from Seavy Street to northbound GA 74/85. This condition is not unusual on a side street stop sign controlled approach at a major road such as GA 74/85. The only way to mitigate this delay is to signalize the intersection. Based on the existing volumes, this intersection is considered a weak candidate for signalization. No mitigation or changes are recommended in the existing condition.

Project Traffic Characteristics

This section describes the anticipated traffic characteristics of the proposed developments, including a site description, how much traffic the project will generate, and where that traffic will travel.

Project Description

The project includes two single-family residential subdivisions — Keg Creek Landing and Seavy Hills. The Keg Creek Landing development consists of three Pods — Pods A, B, and C and will be located on the north side of Seavy Street. Seavy Hills, consisting of Pod D, will be located on the south side of Seavy Street. Pod A will include 106 senior age-targeted homes, Pod B will be developed with 79 single-family homes, and Pod C will be comprised of 135 single family lots. Seavy Hills' Pod D will include 36 single-family homes. Two full-movement accesses will serve Keg Creek Landing on the north side of Seavy Street, while one full-movement access will serve Seavy Hills, which will align with the western access to Keg Creek Landing. The site plan is presented in Figure 3.



site plan by Moore Bass

Figure 3 - Keg Creek Landing and Seavy Hills Site Plan

Trip Generation

Trip generation is an estimate of the number of entering and exiting vehicular trips that will be generated by the proposed developments. The volume of traffic that will be generated by the proposed subdivisions was calculated using the equations and rates in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 9th Edition. ITE Land Use 210 – Single Family Detached Housing was selected as representative of Pods B, C, and D. For Pod A, ITE Land Use 251 – Senior Adult Housing – Detached was selected. The ITE equations were used for Pods B, C, and D, but the average rates were used for Pod A. This is due to the fact that the proposed number of units in Pod A is much lower (106) than the numbers of units in the counted ITE database (in the range of 600 to 700 units, depending on time of day for the data).

It is noted that a multi-use trail is proposed through a portion of the Keg Creek Landing site. This trail will be used primarily for recreation, but may be used as an alternative mode to some automobile trips. Therefore, it is likely that there will be some reduction in project trip generation due to the use of the trail. However, this reduction is expected to be small, and, to be conservative, no reduction was applied to the trip generation calculations for this project. The trip generation for the proposed developments is shown in Table 2.

A.M. Peak Hour P.M. Peak Hour 24-Hour ITE **Land Use** Size Code Out 2-Way Out 2-Way 2-Way Pod A – Senior-Targeted Homes 15 12 251 106 homes 8 23 17 29 390 Pods B and C - Single Family Homes 210 214 homes 40 120 160 131 77 208 2,114 Pod D - Single Family Homes 210 36 homes 9 26 35 26 16 42 410 Total 356 homes 57 161 218 174 105 279 2,914

Table 2 – Keg Creek Landing and Seavy Hills Trip Generation

Trip Distribution and Assignment

The trip distribution percentages indicate what proportion of the project's trips will travel to and from various directions. The trip distribution percentages were developed for the residential subdivisions based on the locations and proximity of area trip attractors, such as employment centers (including Atlanta, Newnan, Peachtree City), retail and restaurants, schools, etc. Two distributions were developed – one for the senior-targeted homes in Pod A and one for the standard single-family homes in Pods B, C, and D. The senior distribution gave higher emphasis to downtown Senoia, and recreation and shopping, while the standard single-family distribution gave higher emphasis to employment and schools. The site trips, shown in Table 2, were assigned to the roadway network based on these trip distribution percentages. The project trip distribution percentages, and the a.m. and p.m. peak hour trips expected to be generated solely by the project, are shown in Figure 4.

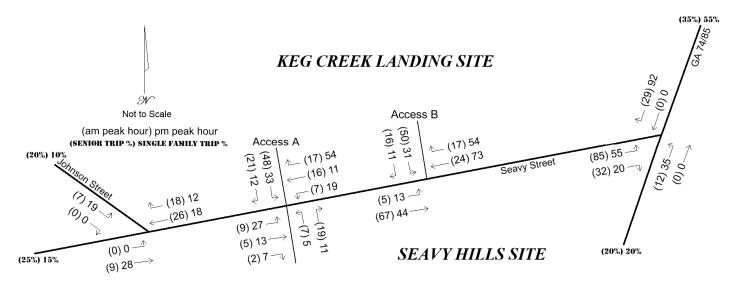


Figure 4 - Project Trip Distribution Percentages and Weekday A.M. and P.M. Peak Hour Site Trips

Future Traffic Conditions

This section describes the conditions that will exist in the future after the proposed Keg Creek Landing and Seavy Hills subdivisions are built and fully operational.

Future Volumes

Future volume projections were made based on historic traffic volume growth trends in the area. Georgia DOT historic traffic volume count data was collected at several GDOT count stations closest to the subject development. The data was obtained for the years 2012 through 2016 (the last year for which data was available at the time this study was performed). This data was used to develop annual growth rates for each year, and an overall growth percentage from 2012 to 2016. Table 3 presents this historic GDOT data and the growth rates.

Table 3 – Historic Georgia DOT Traffic Volume Counts and Annual Growth Rates

Year	GA 74/85 N of Seavy	Annual Growth	GA 74/85 S of GA 16	Annual Growth	GA 16 W of GA 74/85	Annual Growth	Main St S of RR	Annual Growth
Station ID	0770378		0770376		0770334		0770436	
2012	10,580		5,060		9,650		4,290	
2013	11,020	4.2%	5,070	0.2%	9,590	-0.6%	4,270	-0.5%
2014	11,000	-0.2%	5,740	13.2%	11,700	22.0%	6,160	44.3%
2015	11,300	2.7%	6,180	7.7%	12,600	7.7%	6,460	4.9%
2016	11,700	3.5%	5,570	-9.9%	11,100	-11.9%	6,800	5.3%
Average Growth		2.5%		2.4%		3.6%		12.2%

The data presented in Table 3 reveals fluctuations in growth rates on the various roadways in the area. Based on the data in Table 3, an annual average growth rate of 3% was applied to GA 74/85 and an annual rate of 5% was applied to Seavy Street for developing future volume projections adjacent to the subject site. The growth rate selected for Seavy Street was higher than on GA 74/85 based on the stronger growth observed on Main Street. This may be attributable to increased popularity of downtown Senoia, with Seavy Street being a primary route from the main highways to downtown Senoia.

The counted traffic volumes, shown previously in Figure 2, were increased by annual growth factors for five years, or a total of 15.9% on GA 74/85 and 27.6% on Seavy Street, to account for growth and development that will occur in the area while the proposed subdivisions are under construction. Five years was chosen as a reasonable future date for build-out analysis, recognizing that the build-out date of the entire Keg Creek Landing and Seavy Hills projects will be dependent on market conditions. The trips that will be generated by the proposed development, shown previously in Figure 4, were added to the increased volumes. This produces the future volumes that will be at each study intersection after the proposed developments are built and operational. Volume projections were also made for the site accesses on Seavy Street. These future volumes

are shown in Figure 5. It is noted that the future volumes at the Johnson intersection don't exactly balance with the volumes at site Access A, the western site driveway. This is due to the fact that the volumes on Seavy at the driveways were based on the volumes turning into and out from Seavy at GA 74/85. The counted peak hour of that intersection is heavily influenced by the high north and south through volumes on GA 74/85, which shifted the peak hours slightly at the Seavy / GA 74/85 intersection from the Seavy / Johnson intersection. Because the peak hours at the two counted intersections occur at slightly different times, the volumes at the two intersections do not balance exactly.

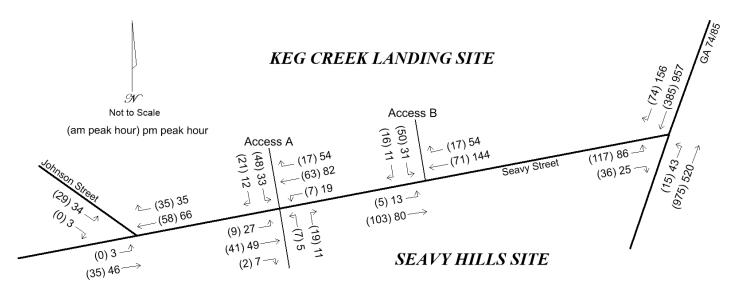


Figure 5 – Future Weekday A.M and P.M. Peak Hour Traffic Volume Projections

Future Lane Configuration

In conjunction with the proposed developments, an exclusive right turn lane is proposed at each site access. In addition, the developer, working with Moore Bass Engineers, has proposed a roadway improvement project that would realign Seavy Street at its intersection with GA 74/85, to create a right-angled side street approach. The project would also include the addition of a northbound exclusive left turn lane and a southbound exclusive right turn lane to be added on GA 74/85 at Seavy Street. The future analysis assumes these improvements will be built in conjunction with the construction of the proposed developments.

Programmed Improvements

Programmed transportation infrastructure projects in the vicinity of the proposed developments were researched. Project data was obtained from the latest Atlanta Regional Commission's (ARC) Regional Transportation Plan (RTP), adopted in March 2016. In addition, the City of Senoia is planning to improve Seavy Street from Johnson Street to GA 74/85. These projects are listed in Table 4, with the detailed project sheets located in Appendix F.

Table 4 – Programmed Transportation Infrastructure Projects

Project	Description	Construction
AR-302	General operational and safety improvements along GA 74/85 from GA 92 in Fayette County to GA 16	TBD
CW-028	Replacement of the GA 74/85 bridge over the railroad tracks closer to GA 16	TBD
CW-075	GA 16 intersection improvements and bridge replacement at Plyant Street and Dead Oak Creek Bridge on Plyant Street	TBD
CW-077	Provide a shared-use path adjacent to Keg Creek	TBD
LMIG 2017	Widen and resurface Seavy Street from Johnson Street to GA 74/85	Let in 2017

The first three projects should improve general mobility and safety in the area. However, their implementation date is unknown as of the date of this report and, so, these projects were not factored into this traffic impact study. The fourth project will create a multi-use path which will pass through or adjacent to the subject developments. While it is anticipated that this path will be used by residents of the proposed developments, the impact on reduction of peak hour site-generated trips is expected to be relatively small. Therefore, as noted previously, no adjustment was made in the project trip generation to account for this multi-use path. This will produce slightly-conservatively-high trip generation for the project. The widening and repaving of Seavy Street will improve safety on the roadway, but the project does not include adding new lanes of travel on Seavy.

Future Intersection Operations

An operational analysis was performed for the anticipated 2022 future build-out year at each study intersection, including the site accesses on Seavy Street. Table 5 presents the results of this analysis. Computer printouts containing detailed results of the analysis are located in Appendix D.

Table 5 – Future Intersection Operations

	A.M. Pe	eak Hour	P.M. Pe	eak Hour
Intersection / Approach	LOS	Delay (s/veh)	LOS	Delay (s/veh)
Seavy Street / Johnson Street	А	1.7	Α	2.5
southbound approach	А	9.5	Α	9.9
eastbound left turn	А	0.0	Α	7.5
2. GA 74/85 / Seavy Street	D	34.6	В	19.7
northbound left turn	А	8.6	В	12.3
eastbound approach	F	323.8	F	308.7
3. Seavy Street / Site Access A	А	4.6	А	3.6
northbound approach exiting Seavy Hills	А	9.1	А	9.7
southbound approach exiting Keg Creek Landing	В	10.2	В	11.1
eastbound left turn entering Keg Creek Landing	А	7.5	Α	7.7
westbound left turn entering Seavy Hills	А	7.3	Α	7.4
4. Seavy Street / Site Access B	А	3.0	А	1.8
southbound approach exiting Keg Creek Landing	В	10.2	В	10.8
eastbound left turn entering Keg Creek Landing	А	7.5	Α	7.8

As with the existing condition, all locations will work well in the future, with the traffic added by the proposed developments, except the eastbound approach on Seavy Street at GA 74/85. The delays on this approach will become unacceptable. Consideration should be given to adding an eastbound right turn lane on Seavy Street. This will allow the right turning traffic to make their easier movement without being trapped behind the more-challenging left turn movement. From and exclusive right turn lane, the level of service for the right turn movement would become LOS B in the a.m. and LOS C in the p.m. However, the left turn delays would still remain unacceptable. The only way to reduce the Seavy Street left turn delays to acceptable levels is to signalize the intersection. It is recommended that a signal warrant analysis be performed for this intersection based on the Federal Highway Administration's *Manual On Uniform Traffic Control Devices* (MUTCD). This would determine if and when signalization of this intersection is appropriate.

At the site accesses, the overall intersections, and all movements, will operate well. There is a gentle crest of a hill on Seavy Street in the vicinity of the proposed site accesses. The accesses should be located and constructed to ensure that sufficient intersection sight distance is provided for vehicles exiting the sites on both sides.

The site accesses should each be designed with one entering and one exiting lane and the exiting approaches should be controlled by stop sign and accompanying stop bar.

Discussion of Findings and Recommendations

The two counted intersections evaluated in this study, Seavy Street at Johnson Street and GA 74/85 at Seavy Street, generally operate well during peak times in the existing condition. In off-peak times, the delays have been observed to be minimal at these locations. However, delays are notable during the peak times on the Seavy Street side street stop sign controlled approach at GA 74/85.

The volumes that will be generated by the proposed subdivisions will be moderate. They will increase volumes on Seavy Street by a proportionately-high amount, but the proportion is high due to the fact that existing volumes on the local streets are low. Future volumes on Seavy and Johnson Streets will continue to be moderate, even with the traffic added from the proposed Keg Creek Landing and Seavy Hills subdivisions.

The planned modifications to the intersection of GA 74/85 and Seavy Street include realigning Seavy Street to create a 90 degree intersection with GA 74/85, and adding a northbound left turn lane and a southbound right turn lane on GA 74/85 at Seavy Street.

Based on the future volumes at the GA 74/85 intersection, consideration should be given to adding an eastbound right turn lane on Seavy Street. A signal warrant analysis should be performed to determine if and when a signal might be justified at this intersection.

The site accesses should each be designed with one entering and one exiting lane and the exiting approaches should be controlled by stop sign and accompanying stop bar. Due to the slight hill along Seavy Street, the location and design of the accesses should ensure that sufficient sight distance is provided.

Appendix A

Traffic Count Data and Volume Worksheets

October 2017

Intersection: 1. Seavy Street at Johnson Street

Weekday A.M. Peak Hour	Southbo	und Johnson Stree	et	E	astbound Seav	y Street	Westbound Seavy Street			
	L	R	Tot	L	T	Tot	T	R	Tot	
Counted Volumes (Tuesday, October 17, 2017)	17	0	17	0	20	20	25	13	38	
Total Annual Background Growth	27.6%	27.6%		27.6%	27.6%		27.6%	27.6%		
No-Build Volumes	22	0	22	0	26	26	32	17	48	
Keg Creek Landing Pod A Trips	2	0	2	0	2	2	4	3	7	
Keg Creek Landing Pods B and C Trips	4	0	4	0	6	6	18	12	30	
Seavy Hills Pod D Trips	1	0	1	0	1	1	4	3	7	
Keg Creek Landing/Seavy Hills Total Trips	7	0	7	0	9	9	26	18	44	
Build Volumes	29	0	29	0	35	35	58	35	92	

Weekday P.M. Peak Hour	Southboo	und Johnson Street		Eastbound Sea	vy Street	Westbound Seavy Street			
	L	R To	t	L T	Tot	T	R	Tot	
Counted Volumes (Tuesday, October 17, 2017)	12	2 14	1	2 14	16	38	18	56	
Total Annual Background Growth	27.6%	27.6%		27.6% 27.6%		27.6%	27.6%		
No-Build Volumes	15	3 18	3	3 18	20	48	23	71	
Keg Creek Landing Pod A Trips	3	0 3		0 4	4	3	2	5	
Keg Creek Landing Pods B and C Trips	13	0 13	3	0 20	20	12	8	20	
Seavy Hills Pod D Trips	3	0 3		0 4	4	3	2	5	
Keg Creek Landing/Seavy Hills Total Trips	19	0 19	•	0 28	28	18	12	30	
Build Volumes	34	3 37	,	3 46	48	66	35	101	

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Intersection: 2. Georgia Highway 74/85 at Seavy Street

Weekday A.M. Peak Hour		Northboun	d GA 74/85	Southboun	d GA 74/85	5	Ea	stbound Seavy Stree	et
•	L	Т	Tot	Т	R	Tot	L	R	Tot
Counted Volumes (Tuesday, October 17, 2017)	2	841	843	332	35	367	25	3	28
Total Annual Background Growth	27.6%	15.9%		15.9%	27.6%		27.6%	27.6%	
No-Build Volumes	3	975	977	385	45	429	32	4	36
Keg Creek Landing Pod A Trips	2	0	2	0	2	2	5	3	8
Keg Creek Landing Pods B and C Trips	8	0	8	0	22	22	66	24	90
Seavy Hills Pod D Trips	2	0	2	0	5	5	14	5	19
Keg Creek Landing/Seavy Hills Total Trips	12	0	12	0	29	29	85	32	117
Build Volumes	15	975	989	385	74	458	117	36	153

Weekday P.M. Peak Hour	N	orthbound	GA 74/85	Southboun	d GA 74/85	j	Eas	tbound Seavy Stree	ŧ	
	L	T	Tot	T	R	Tot	L	R	Tot	i
Counted Volumes (Tuesday, October 17, 2017)	6	449	455	826	50	876	24	4	28	
										ı
Total Annual Background Growth	27.6%	15.9%		15.9%	27.6%		27.6%	27.6%		i
No-Build Volumes	8	520	528	957	64	1021	31	5	36	ı
										l
Keg Creek Landing Pod A Trips	4	0	4	0	6	6	4	3	7	i
Keg Creek Landing Pods B and C Trips	26	0	26	0	72	72	42	15	57	i
Seavy Hills Pod D Trips	5	0	5	0	14	14	9	2	11	i
Keg Creek Landing/Seavy Hills Total Trips	35	0	35	0	92	92	55	20	75	i
										i
Build Volumes	43	520	563	957	156	1113	86	25	111	i

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Intersection: A. Seavy Street at Access A

Weekday A.M. Peak Hour	North	bound Se	avy Hills A	ccess	Southbo	ound Keg (Creek Wes	t Access	E	Eastbound S	Seavy Stre	et	Westbound Seavy Street			
•	L	Т	R	Tot					L	T	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 17, 2017)										28		28		37		37
Total Annual Background Growth No-Build Volumes										27.6% 36		36		27.6% 47		47
Keg Creek Landing Pod A Trips	0	0	0	0	8	0	7	15	4	0	0	4	0	0	4	4
Keg Creek Landing Pods B and C Trips	0	0	0	0	40	0	14	54	5	5	0	10	0	16	13	29
Seavy Hills Pod D Trips	7	0	19	26	0	0	0	0	0	0	2	2	7	0	0	7
Keg Creek Landing/Seavy Hills Total Trips	7	0	19	26	48	0	21	69	9	5	2	16	7	16	17	40
Build Volumes	7	0	19	26	48	0	21	69	9	41	2	52	7	63	17	87

Weekday P.M. Peak Hour	North	Northbound Seavy Hills Access				Southbound Keg Creek West Access				astbound S	Seavy Stre	eet	Westbound Seavy Street			
	L	Т	R	Tot					L	Т	R	Tot	L	T	R	Tot
Counted Volumes (Tuesday, October 17, 2017)										28		28		56		56
Total Annual Background Growth										27.6%				27.6%		
No-Build Volumes										36		36		71		71
Keg Creek Landing Pod A Trips	0	0	0	0	7	0	5	12	7	0	0	7	0	0	10	10
Keg Creek Landing Pods B and C Trips	0	0	0	0	26	0	7	33	20	13	0	33	0	11	44	55
Seavy Hills Pod D Trips	5	0	11	16	0	0	0	0	0	0	7	7	19	0.6	0.6	1
Keg Creek Landing/Seavy Hills Total Trips	5	0	11	16	33	0	12	45	27	13	7	47	19	11.6	54.6	85
Build Volumes	5	0	11	16	33	0	12	45	27	49	7	83	19	83	55	157

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Intersection: B. Seavy Street at Access B

Weekday A.M. Peak Hour	Southbo	und Keg (Creek East	Access	E	Eastbound Seav	y Street	Westbound Seavy Street			
·					L	T	Tot	T	R	Tot	
Counted Volumes (Tuesday, October 17, 2017)						28	28	37		37	
Total Annual Background Growth						27.6%		27.6%			
No-Build Volumes						36	36	47		47	
Keg Creek Landing Pod A Trips	0	0	0	0	0	8	8	4	0	4	
Keg Creek Landing Pods B and C Trips	50	0	16	66	5	40	45	13	17	30	
Seavy Hills Pod D Trips	0	0	0	0	0	19	19	7	0	7	
Keg Creek Landing/Seavy Hills Total Trips	50	0	16	66	5	67	72	24	17	41	
Build Volumes	50	0	16	66	5	103	108	71	17	88	

Weekday P.M. Peak Hour	Southbo	und Keg	Creek Eas	t Access	E	astbound Seav	y Street	Westbound	Seavy Stre	et
					L	T	Tot	T	R	Tot
Counted Volumes (Tuesday, October 17, 2017)						28	28	56		56
Total Annual Background Growth						27.6%		27.6%		
No-Build Volumes						36	36	71		71
Keg Creek Landing Pod A Trips	0	0	0	0	0	7	7	10	0	10
Keg Creek Landing Pods B and C Trips	31	0	11	42	13	26	39	44	54	98
Seavy Hills Pod D Trips	0	0	0	0	0	11	11	19	0.65	1
Keg Creek Landing/Seavy Hills Total Trips	31	0	11	42	13	44	57	73	54.65	128
Build Volumes	31	0	11	42	13	80	93	144	55	199

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TMC Data Seavy St @ Johnson St File Name : 41380001 Site Code : 41380001 Start Date : 10/17/2017

7-9am | 4:30-6:30pm

Groups	Printea-	cars,	i rucks,	Buses
Johnson	St			Seav

		Pri	vate D	rwy			Jo	hnson	St			S	Seavy S	St			S	Seavy S	t		
		No	rthbou	ınd			So	uthbou	ınd			Ea	stbou	nd			W	estbou	nd		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	0	0	0	0	5	0	0	0	5	0	6	0	0	6	0	2	0	0	2	13
07:15 AM	0	0	0	0	0	4	0	0	0	4	0	5	0	0	5	0	4	1	0	5	14
07:30 AM	1	0	0	0	1	2	0	0	0	2	1	2	0	0	3	0	11	0	0	11	17
07:45 AM	0	0	0	0	0	5	0	0	0	5	1	1_	1_	0	3	0	9	1_	0	10	18
Total	1	0	0	0	1	16	0	0	0	16	2	14	1	0	17	0	26	2	0	28	62
08:00 AM	1	0	0	0	1	5	0	0	0	5	0	5	0	0	5	0	7	5	0	12	23
08:15 AM	0	0	0	0	0	2	0	0	0	2	0	6	0	0	6	0	2	1	0	3	11
08:30 AM	0	0	1	0	1	6	0	0	0	6	0	6	0	0	6	0	6	1	0	7	20
08:45 AM	0	0	0	0	0	4	0	0	0	4	0	3	0	0	3	0	10	6	0	16	23
Total	1	0	1	0	2	17	0	0	0	17	0	20	0	0	20	0	25	13	0	38	77
*** BREAK	***																				
04:30 PM	0	0	0	0	0	1	0	0	0	1	0	6	0	0	6	0	8	5	0	13	20
04:45 PM	0	0	0	0	0	2	0	0	0	2	1	4	0	0	5	0	3	8	0	11	18
Total	0	0	0	0	0	3	0	0	0	3	1	10	0	0	11	0	11	13	0	24	38
05:00 PM	0	0	0	0	0	3	0	1	0	4	1	5	0	0	6	0	5	7	0	12	22
05:15 PM	0	0	0	0	0	6	0	1	0	7	1	3	1	0	5	0	9	2	0	11	23
05:30 PM	0	1	0	0	1	1	0	1	0	2	1	5	0	0	6	0	8	3	0	11	20
05:45 PM	0	0	0	0	0	2	0	0	0	2	0	3	0	0	3	0	8	6	0	14	19
Total	0	1	0	0	1	12	0	3	0	15	3	16	1	0	20	0	30	18	0	48	84
06:00 PM	0	0	0	0	0	3	0	0	0	3	0	2	0	0	2	0	13	7	0	20	25
06:15 PM	0	0	0	0	0	4	0	0	0	4	1	8	0	0	9	0	6	1	0	7	20
Grand Total	2	1	1	0	4	55	0	3	0	58	7	70	2	0	79	0	111	54	0	165	306
Apprch %	50	25	25	0		94.8	0	5.2	0		8.9	88.6	2.5	0		0	67.3	32.7	0		
Total %	0.7	0.3	0.3	0	1.3	18	0	1	0	19	2.3	22.9	0.7	0	25.8	0	36.3	17.6	0	53.9	

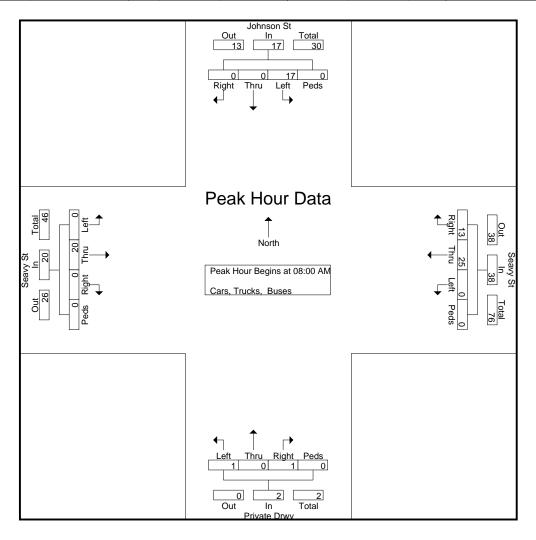
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TMC Data Seavy St @ Johnson St

7-9am | 4:30-6:30pm

File Name: 41380001 Site Code: 41380001 Start Date: 10/17/2017

		Pri	vate D	rwy			Jo	hnson	St			5	Seavy S	St			5	Seavy S	St		
		No	rthbou	ınd			So	uthbou	ınd			E	astbou	nd			W	estbou	nd		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysi	s From 0	7:00 AM	to 08:45 A	AM - Peal	k 1 of 1																
Peak Hour for	r Entire	Inters	ection 1	Begins	at 08:00	AM															
08:00 AM	1	0	0	0	1	5	0	0	0	5	0	5	0	0	5	0	7	5	0	12	23
08:15 AM	0	0	0	0	0	2	0	0	0	2	0	6	0	0	6	0	2	1	0	3	11
08:30 AM	0	0	1	0	1	6	0	0	0	6	0	6	0	0	6	0	6	1	0	7	20
08:45 AM	0	0	0	0	0	4	0	0	0	4	0	3	0	0	3	0	10	6	0	16	23
Total Volume	1	0	1	0	2	17	0	0	0	17	0	20	0	0	20	0	25	13	0	38	77
% App. Total	50	0	50	0		100	0	0	0		0	100	0	0		0	65.8	34.2	0		
PHF	.250	.000	.250	.000	.500	.708	.000	.000	.000	.708	.000	.833	.000	.000	.833	.000	.625	.542	.000	.594	.837

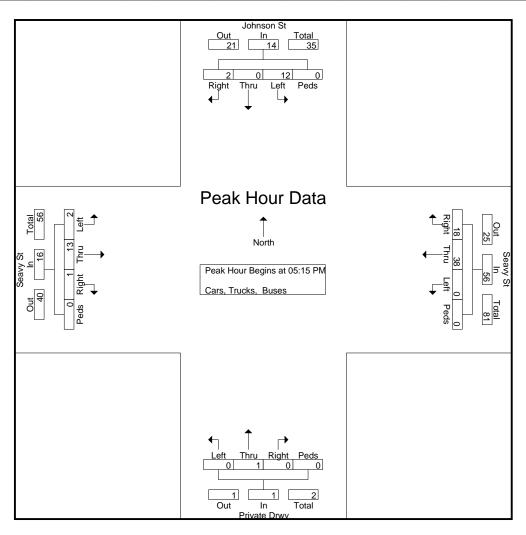


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TMC Data Seavy St @ Johnson St File Name : 41380001 Site Code : 41380001 Start Date : 10/17/2017

7-9am	4:30-6:30pm
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			vate D	•				hnson uthbou					Seavy S astbou					Seavy S estbou			
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysi	is From 04	4:30 PM t	to 06:15 P	M - Peak	1 of 1																
Peak Hour for	r Entire	Inters	ection l	Begins	at 05:15	PM															
05:15 PM	0	0	0	0	0	6	0	1	0	7	1	3	1	0	5	0	9	2	0	11	23
05:30 PM	0	1	0	0	1	1	0	1	0	2	1	5	0	0	6	0	8	3	0	11	20
05:45 PM	0	0	0	0	0	2	0	0	0	2	0	3	0	0	3	0	8	6	0	14	19
06:00 PM	0	0	0	0	0	3	0	0	0	3	0	2	0	0	2	0	13	7	0	20	25
Total Volume	0	1	0	0	1	12	0	2	0	14	2	13	1	0	16	0	38	18	0	56	87
% App. Total	0	100	0	0		85.7	0	14.3	0		12.5	81.2	6.2	0		0	67.9	32.1	0		
PHF	.000	.250	.000	.000	.250	.500	.000	.500	.000	.500	.500	.650	.250	.000	.667	.000	.731	.643	.000	.700	.870



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TMC Data Seavy St @ GA 74/ GA 85 File Name : 41380002 Site Code : 41380002 Start Date : 10/17/2017

7-9am | 4:30-6:30pm

							•	Froups	Printe	ed- Cars	, Truck	s, Bus	ses								
		GA	74/ G	A 85			GA	74/ G.	A 85			S	eavy S	St							l
		No	rthbou	ınd			So	uthbou	ınd			Ea	stbou	nd			W	estbou	nd		İ
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	172	0	0	173	0	75	2	0	77	8	0	1	0	9	0	0	0	0	0	259
07:15 AM	0	212	0	0	212	0	65	5	0	70	6	0	1	0	7	0	0	0	0	0	289
07:30 AM	1	251	0	0	252	0	96	10	0	106	3	0	2	0	5	0	0	0	0	0	363
_07:45 AM	1	203	0	0	204	0	99	11	0	110	5	0	0	0	5	0	0	0	0	0	319
Total	3	838	0	0	841	0	335	28	0	363	22	0	4	0	26	0	0	0	0	0	1230
08:00 AM	0	175	0	0	175	0	72	9	0	81	11	0	0	0	11	0	0	0	0	0	267
08:15 AM	1	163	0	0	164	0	76	2	0	78	8	0	1	0	9	0	0	0	0	0	251
08:30 AM	2	142	0	0	144	0	80	11	0	91	11	0	0	0	11	0	0	0	0	0	246
08:45 AM	1	145	0	0	146	0	67	8	0	75	9	0	0	0	9	0	0	0	0	0	230
Total	4	625	0	0	629	0	295	30	0	325	39	0	1	0	40	0	0	0	0	0	994
*** BREAK	***																				
04:30 PM	3	92	0	0	95	0	166	13	0	179	6	0	0	0	6	0	0	0	0	0	280
04:45 PM	0	76	0	0	76	0	191	8	0	199	3	0	3	0	6	0	0	0	0	0	281
Total	3	168	0	0	171	0	357	21	0	378	9	0	3	0	12	0	0	0	0	0	561
05:00 PM	2	107	0	0	109	0	181	11	0	192	8	0	1	0	9	0	0	0	0	0	310
05:15 PM	1	103	0	0	104	0	245	9	0	254	8	0	0	0	8	0	0	0	0	0	366
05:30 PM	0	107	0	0	107	0	213	11	0	224	5	0	2	0	7	0	0	0	0	0	338
05:45 PM	3	132	0_	0	135	0	187	19_	0	206	3	0	1_	0	4	0_	0	0_	0	0	345
Total	6	449	0	0	455	0	826	50	0	876	24	0	4	0	28	0	0	0	0	0	1359
06:00 PM	0	76	0	0	76	0	170	16	0	186	5	0	0	0	5	0	0	0	0	0	267
06:15 PM	1	98	0	0	99	0	162	5	0	167	12	0	0	0	12	0	0	0	0	0	278
Grand Total	17	2254	0	0	2271	0	2145	150	0	2295	111	0	12	0	123	0	0	0	0	0	4689
Apprch %	0.7	99.3	0	0		0	93.5	6.5	0		90.2	0	9.8	0		0	0	0	0		
Total %	0.4	48.1	0	0	48.4	0	45.7	3.2	0	48.9	2.4	0	0.3	0	2.6	0	0	0	0	0	I

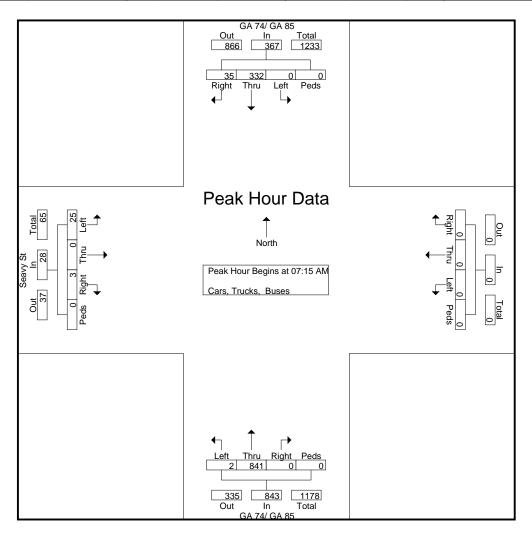
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TMC Data Seavy St @ GA 74/ GA 85

7-9am | 4:30-6:30pm

File Name: 41380002 Site Code: 41380002 Start Date: 10/17/2017

		GA	74/ G	A 85			GA	74/ G	A 85			S	Seavy S	St							
		No	rthbou	ınd			So	uthbou	ınd			E	astbou	nd			W	estbou	nd		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysi	is From 0'	7:00 AM	to 08:45 A	AM - Peal	k 1 of 1																
Peak Hour for	r Entire	Inters	ection 1	Begins	at 07:15	AM															
07:15 AM	0	212	0	0	212	0	65	5	0	70	6	0	1	0	7	0	0	0	0	0	289
07:30 AM	1	251	0	0	252	0	96	10	0	106	3	0	2	0	5	0	0	0	0	0	363
07:45 AM	1	203	0	0	204	0	99	11	0	110	5	0	0	0	5	0	0	0	0	0	319
08:00 AM	0	175	0	0	175	0	72	9	0	81	11	0	0	0	11	0	0	0	0	0	267
Total Volume	2	841	0	0	843	0	332	35	0	367	25	0	3	0	28	0	0	0	0	0	1238
% App. Total	0.2	99.8	0	0		0	90.5	9.5	0		89.3	0	10.7	0		0	0	0	0		
PHF	.500	.838	.000	.000	.836	.000	.838	.795	.000	.834	.568	.000	.375	.000	.636	.000	.000	.000	.000	.000	.853



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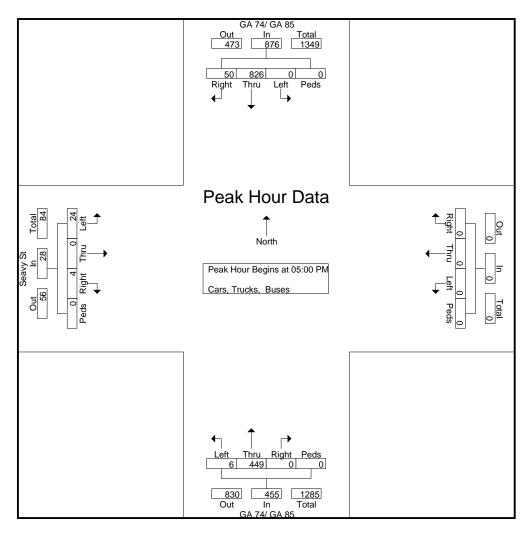
TMC Data Seavy St @ GA 74/ GA 85

Site Code : 41380002 Start Date : 10/17/2017

File Name: 41380002

7-9am | 4:30-6:30pm

		GA	74/ G	A 85			GA	74/ G	A 85			5	Seavy S	St							
		No	rthbou	ınd			So	uthbou	ınd			E	astbou	nd			W	estbou	nd		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysi	is From 0	4:30 PM t	to 06:15 P	M - Peak	1 of 1																
Peak Hour for	r Entire	Inters	ection 1	Begins	at 05:00	PM															
05:00 PM	2	107	0	0	109	0	181	11	0	192	8	0	1	0	9	0	0	0	0	0	310
05:15 PM	1	103	0	0	104	0	245	9	0	254	8	0	0	0	8	0	0	0	0	0	366
05:30 PM	0	107	0	0	107	0	213	11	0	224	5	0	2	0	7	0	0	0	0	0	338
_05:45 PM	3	132	0	0	135	0	187	19	0	206	3	0	1	0	4	0	0	0	0	0	345
Total Volume	6	449	0	0	455	0	826	50	0	876	24	0	4	0	28	0	0	0	0	0	1359
% App. Total	1.3	98.7	0	0		0	94.3	5.7	0		85.7	0	14.3	0		0	0	0	0		
PHF	.500	.850	.000	.000	.843	.000	.843	.658	.000	.862	.750	.000	.500	.000	.778	.000	.000	.000	.000	.000	.928



Appendix B

Intersection Analysis Methodology

Intersection Analysis Methodology

The methodology used for evaluating traffic operations at intersections is presented in the Transportation Research Board's *Highway Capacity Manual*, 2016 edition (HCM 6). Synchro 10 software, which emulates the HCM 6 methodology, was used for all analyses. The following is an overview of the methodology employed for the analysis of signalized intersections and roundabouts and stop-sign controlled (unsignalized) intersections. Levels of service (LOS) are assigned letters A through F. LOS A indicates operations with very low control delay while LOS F describes operations with high control delay. LOS F is considered to be unacceptable by most drivers, while LOS E is typically considered to be the limit of acceptable delay.

Signalized Intersections and Roundabouts – Level of service for a signalized intersection and a roundabout is defined in terms of control delay per vehicle. For signalized intersections and roundabouts, a composite intersection level of service is determined. The thresholds for each level of service are higher for signalized intersections and roundabouts than for unsignalized intersections. This is attributable to a variety of factors including expectation and acceptance of higher delays at signals/roundabouts, and the fact that drivers can relax when waiting at a signal as opposed to having to remain attentive as they proceed through the unsignalized intersection. The level of service criteria for signalized intersections and roundabouts are shown in Table A.

Table A – Level of Service Criteria for Signalized Intersections and Roundabouts

Control Delay (s/veh)	LOS
≤ 10	А
> 10 and ≤ 20	В
> 20 and ≤ 35	С
> 35 and ≤ 55	D
> 55 and ≤ 80	Е
> 80	F

Source: Highway Capacity Manual 6

Unsignalized Intersections – Level of service for an unsignalized intersection is defined in terms of control delay per vehicle. Control delay is that portion of delay attributable to the control device and includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The delays at unsignalized intersections are based on gap acceptance theory, factoring in availability of gaps, usefulness of the gaps, and the priority of right-of-way given to each traffic stream. The level of service criteria for unsignalized intersections are presented in Table B.

Table B - Level of Service Criteria for Unsignalized Intersections

Control Delay (s/veh)	LOS
0-10	А
> 10 and ≤ 15	В
> 15 and ≤ 25	С
> 25 and ≤ 35	D
> 35 and ≤ 50	Е
> 50	F

Source: Highway Capacity Manual 6

Appendix C

Existing Intersection Operational Analysis

Intersection						
Int Delay, s/veh	1.9					
		EDT	MPT	WED	OFI	CED
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		ની	ĵ.	4.0	¥	
Traffic Vol, veh/h	0	20	25	13	17	0
Future Vol, veh/h	0	20	25	13	17	0
Conflicting Peds, #/hr	_ 0	_ 0	_ 0	_ 0	0	0
<u> </u>	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	83	83	59	59	71	71
Heavy Vehicles, %	0	1	1	1	1	0
Mvmt Flow	0	24	42	22	24	0
Major/Minor Major/Minor	ajor1	N	//ajor2		Minor2	
Conflicting Flow All	64	0	- najoiz	0	77	53
Stage 1	-	U	_	-	53	-
Stage 2	_	_		_	24	_
Critical Hdwy	4.1	-	-	-	6.41	6.2
Critical Hdwy Stg 1	4.1	_	-	-	5.41	0.2
		-	-	-	5.41	-
Critical Hdwy Stg 2	2.2	-	-	-	3.509	3.3
Follow-up Hdwy		-	-	-		
	1551	-	-	-	928	1020
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	1001	-
Platoon blocked, %	4554	-	-	-	000	4000
	1551	-	-	-	928	1020
Mov Cap-2 Maneuver	-	-	-	-	928	-
Stage 1	-	-	-	-	972	-
Stage 2	-	-	-	-	1001	-
Approach	EB		WB		SE	
HCM Control Delay, s	0		0		9	
HCM LOS	U		- 0		A	
TIOW EOO					А	
Minantana/Maria Maria		EBI	EDT	MOT	MPP	NEL 4
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR:	
		1551	-	-	-	928
Capacity (veh/h)						0.026
HCM Lane V/C Ratio		-	-	-		
HCM Lane V/C Ratio HCM Control Delay (s)		0	-	-	-	9
HCM Lane V/C Ratio						

Intersection						
Int Delay, s/veh	1					
	-					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	W			र्स	ĥ	
Traffic Vol, veh/h	25	3	2	841	332	35
Future Vol, veh/h	25	3	2	841	332	35
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 Storag		_	_	0	0	_
Grade, %	0, # 0	<u>-</u>	_	0	0	<u>-</u>
Peak Hour Factor	64	64	84	84	83	83
Heavy Vehicles, %	1	1	1	7	7	1
Mvmt Flow	39	5	2	1001	400	42
IVIVIIIL FIOW	39	5	2	1001	400	42
Major/Minor	Minor2		Major1	N	/lajor2	
Conflicting Flow All	1426	421	442	0	_	0
Stage 1	421	_	_	-	_	_
Stage 2	1005	_	_	_	_	_
Critical Hdwy	6.41	6.21	4.11	_	_	_
Critical Hdwy Stg 1	5.41	0.21	7.11	_	_	_
Critical Hdwy Stg 2	5.41	_		_	-	_
		3.309	2.209	-	_	-
Follow-up Hdwy				-	-	-
Pot Cap-1 Maneuver	150	635	1123	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	355	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		635	1123	-	-	-
Mov Cap-2 Maneuver	149	-	-	-	-	-
Stage 1	661	-	-	-	-	-
Stage 2	355	-	-	-	-	-
J						
A	- ED		ND		OD.	
Approach	EB		NB		SB	
HCM Control Delay, s			0		0	
HCM LOS	Е					
Minor Lane/Major Mvr	nt	NBL	NRT	EBLn1	SBT	SBR
		1123				אנטטו
Capacity (veh/h)			-		-	-
HCM Control Dolors	.\	0.002	-	0.27	-	-
HCM Control Delay (s	<i>(</i>)	8.2	0	35.2	-	-
HCM Lane LOS	,	A	Α	E	-	-
HCM 95th %tile Q(veh	1)	0	-	1	-	-

Interception						
Intersection Int Delay, s/veh	2.1					
-			14/5			
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		4	₽		¥	
Traffic Vol, veh/h	2	14	38	18	12	2
Future Vol, veh/h	2	14	38	18	12	2
Conflicting Peds, #/hr	0	0	0	0	0	0
	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	67	67	70	70	50	50
Heavy Vehicles, %	0	1	1	1	1	0
Mvmt Flow	3	21	54	26	24	4
NA - 1 /NA1 NA	1.14		4.1.0		A' O	
	lajor1		//ajor2		Minor2	
Conflicting Flow All	80	0	-	0	94	67
Stage 1	-	-	-	-	67	-
Stage 2	-	-	-	-	27	-
Critical Hdwy	4.1	-	-	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.2	-	-	-	3.509	3.3
Pot Cap-1 Maneuver	1531	-	-	-	908	1002
Stage 1	-	-	-	-	958	-
Stage 2	-	-	-	-	998	-
Platoon blocked, %		-	-	-		
	1531	_	_	_	906	1002
Mov Cap-2 Maneuver	-	_	_	_	906	-
Stage 1	-	_	_	_	956	_
Stage 2	_	_	_	_	998	_
Olugo Z					550	
Approach	EB		WB		SE	
HCM Control Delay, s	0.9		0		9	
HCM LOS					Α	
Minor Lang/Major Mumt		EBL	EBT	WBT	WBR S	2EI 51
Minor Lane/Major Mvmt			EDI	VVDI		
Capacity (veh/h)		1531	-	-	-	919
HCM Lane V/C Ratio		0.002	-	-	-	0.03
HCM Control Delay (s)		7.4	0	-	-	9
HCM Lane LOS		Α	Α	-	-	Α
HCM 95th %tile Q(veh)		0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
		LDIN	NDL			SDIX
Lane Configurations	74	1	C	€	926	5 0
Traffic Vol, veh/h	24	4	6	449	826	50
Future Vol, veh/h	24	4	6	449	826	50
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	e, # 0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	78	78	84	84	86	86
Heavy Vehicles, %	1	1	1	7	7	1
Mvmt Flow	31	5	7	535	960	58
Major/Minor	Minor2		Major1	N	/lajor2	
Conflicting Flow All	1538	989	1018	0	-	0
Stage 1	989	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Critical Hdwy	6.41	6.21	4.11	_	_	_
Critical Hdwy Stg 1	5.41	-	_	_	_	_
Critical Hdwy Stg 2	5.41	_	_	_	_	_
Follow-up Hdwy		3.309	2 200		_	_
	128	301	685	-	-	_
Pot Cap-1 Maneuver			000	-		
Stage 1	362	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver		301	685	-	-	-
Mov Cap-2 Maneuver	126	-	-	-	-	-
Stage 1	357	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Approach	EB		NB		SB	
HCM Control Delay, s	40.4		0.1		0	
HCM LOS	Е					
Minor Long/Major My	-1	NIDI	NDT	EDL1	CDT	CDD
Minor Lane/Major Mvr	IIL	NBL		EBLn1	SBT	SBR
Capacity (veh/h)		685	-		-	-
HCM Lane V/C Ratio		0.01		0.262	-	-
HCM Control Delay (s)	10.3	0	40.4	-	-
HCM Lane LOS		В	Α	Е	-	-
HCM 95th %tile Q(veh	1)	0	-	1	-	-

Appendix D

Future Intersection Operational Analysis

Intersection						
Int Delay, s/veh	1.7					
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		4	₽		, A	
Traffic Vol, veh/h	0	35	58	35	29	0
Future Vol, veh/h	0	35	58	35	29	0
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	e,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	65	65	73	73
Heavy Vehicles, %	0	1	1	1	1	0
Mymt Flow	0	41	89	54	40	0
WWW	•	- ''	00	01	10	Ū
	Major1	N	//ajor2		Minor2	
Conflicting Flow All	143	0	-	0	157	116
Stage 1	-	-	-	-	116	-
Stage 2	-	-	-	-	41	-
Critical Hdwy	4.1	-	-	-	6.41	6.2
Critical Hdwy Stg 1	-	_	-	_	5.41	-
Critical Hdwy Stg 2	_	_	-	-	5.41	_
Follow-up Hdwy	2.2	_	_	_	3.509	3.3
Pot Cap-1 Maneuver	1452	_	_	_	837	942
Stage 1	-	_	_	_	911	-
Stage 2	_			_	984	_
Platoon blocked, %				_	JU T	
Mov Cap-1 Maneuver	1452	_	-	_	837	942
Mov Cap-1 Maneuver			_	-	837	942
	-	-	-	-		
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	984	-
Approach	EB		WB		SE	
HCM Control Delay, s	0		0		9.5	
HCM LOS					Α.	
TIOWI LOO						
Minor Lane/Major Mvm	nt	EBL	EBT	WBT	WBR S	SELn1
Capacity (veh/h)		1452	-	-	-	837
HCM Lane V/C Ratio		-	-	-	-	0.047
HCM Control Delay (s)		0	-	_	-	9.5
HCM Lane LOS		A	-	-	-	Α
HCM 95th %tile Q(veh)	0	_	-	_	0.1
7000 00	1					J.,

Delay, s/veh 34.6
The Configurations The Con
ffic Vol, Veh/h
ffic Vol, Veh/h
ure Vol, veh/h 117 36 15 975 385 74 fflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Ifficting Peds, #/hr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
n Control Stop Stop Free Free Free Free Channelized - None rage Length 0 - 325 - 275 n'in Median Storage, # 0 - 0 0 0 - 0 de, % 0 0 - 0 0 0 - 0 de, % 1 1 1 7 7 7 1 mt Flow 156 48 18 1147 458 88 or/Minor Minor2 Major1 Major2 riflicting Flow All 1641 458 546 0 - 0 Stage 1 458
Channelized - None - None rage Length 0 - 325 275 rin Median Storage, # 0 0 0 0 - de, % 0 0 0 0 - de, % 0 1 0 0 0 - de, % 0 1 1 1 1 7 7 1 mt Felow 156 48 18 1147 458 88 deavy Vehicles, % 1 1 1 7 7 7 1 mt Flow 156 48 18 1147 458 88 deavy Vehicles, % 1 1 1 1 7 7 7 1 mt Flow 156 48 18 1147 458 88 deavy Vehicles, % 1 1 641 458 546 0 - 0 Stage 1 458 Stage 2 1183
rage Length 0 - 325 - 275 in Median Storage, # 0 - 0 0 - 4 de, % 0 - 0 0 - 4 is Hour Factor 75 75 85 85 84 84 avy Vehicles, % 1 1 1 7 7 1 int Flow 156 48 18 1147 458 88 or/Minor Minor2 Major1 Major2 ifflicting Flow All 1641 458 546 0 - 0 Stage 1 458
The Median Storage, # 0
Ide, %
ak Hour Factor 75 75 85 85 84 84 avy Vehicles, % 1 1 1 7 7 7 1 mt Flow 156 48 18 1147 458 88 or/Minor Minor2 Major1 Major2 filicting Flow All 1641 458 546 0 - 0 Stage 1 458 Stage 2 1183 ical Hdwy Stg 1 5.41 ical Hdwy Stg 2 5.41
avy Vehicles, % 1 1 1 7 7 7 1 mt Flow 156 48 18 1147 458 88 Orr/Minor Minor2 Major1 Major2
or/Minor Minor2 Major1 Major2
for/Minor Minor2 Major1 Major2 nflicting Flow All 1641 458 546 0 - 0 Stage 1 458 -
Stage 1
Stage 1
Stage 1
Stage 2
ical Hdwy 6.41 6.21 4.11
ical Hdwy Stg 1 5.41
ical Hdwy Stg 2 5.41
Sow-up Hdwy
Cap-1 Maneuver ~ 111 605 1028 - - - Stage 1 639 - - - - - Stage 2 292 - - - - - toon blocked, % -<
Stage 1 639
Stage 2 292 -
toon blocked, % v Cap-1 Maneuver ~ 109 605 1028
v Cap-1 Maneuver ~ 109 605 1028
V Cap-2 Maneuver ~ 109 -
Stage 1 627 -
Stage 2 292
oroach EB NB SB M Control Delay, s\$ 323.8
M Control Delay, s\$ 323.8
M Control Delay, s\$ 323.8
M LOS F or Lane/Major Mvmt NBL NBT EBLn1 SBT SBR pacity (veh/h) 1028 - 135 M Lane V/C Ratio 0.017 - 1.511 M Control Delay (s) 8.6 -\$ 323.8 M Lane LOS A - F M 95th %tile Q(veh) 0.1 - 14.1
or Lane/Major Mvmt NBL NBT EBLn1 SBT SBR Dacity (veh/h) 1028 - 135 M Lane V/C Ratio 0.017 - 1.511 M Control Delay (s) 8.6 -\$ 323.8 M Lane LOS A - F M 95th %tile Q(veh) 0.1 - 14.1
Dacity (veh/h) 1028 - 135 M Lane V/C Ratio 0.017 - 1.511 M Control Delay (s) 8.6 -\$ 323.8 M Lane LOS A - F M 95th %tile Q(veh) 0.1 - 14.1
Dacity (veh/h) 1028 - 135 M Lane V/C Ratio 0.017 - 1.511 M Control Delay (s) 8.6 -\$ 323.8 M Lane LOS A - F M 95th %tile Q(veh) 0.1 - 14.1
Dacity (veh/h) 1028 - 135 M Lane V/C Ratio 0.017 - 1.511 M Control Delay (s) 8.6 -\$ 323.8 M Lane LOS A - F - M 95th %tile Q(veh) 0.1 - 14.1
M Lane V/C Ratio 0.017 - 1.511 M Control Delay (s) 8.6 -\$ 323.8 M Lane LOS A - F M 95th %tile Q(veh) 0.1 - 14.1
M Control Delay (s) 8.6 -\$ 323.8 M Lane LOS A - F M 95th %tile Q(veh) 0.1 - 14.1
M Lane LOS A - F M 95th %tile Q(veh) 0.1 - 14.1
M 95th %tile Q(veh) 0.1 - 14.1 es
es
olume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection												
Int Delay, s/veh	4.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		र्स	7		र्स	7		4			4	
Traffic Vol, veh/h	9	41	2	7	63	17	7	0	19	48	0	21
Future Vol, veh/h	9	41	2	7	63	17	7	0	19	48	0	21
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	-
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	65	65	65	60	60	60	70	70	70
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	10	48	2	11	97	26	12	0	32	69	0	30
Major/Minor N	Major1		ľ	Major2		ľ	Minor1		N	/linor2		
Conflicting Flow All	123	0	0	50	0	0	215	213	48	204	189	97
Stage 1	-	-	-	-	-	-	68	68	-	119	119	-
Stage 2	-	-	-	-	-	-	147	145	-	85	70	-
Critical Hdwy	4.1	_	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1477	-	-	1570	-	-	746	688	1027	758	709	965
Stage 1	-	-	-	-	-	-	947	842	-	890	801	-
Stage 2	-	_	-	-	-	-	860	781	-	928	841	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1477	-	-	1570	-	-	715	678	1027	726	698	965
Mov Cap-2 Maneuver	-	-	-	-	-	-	715	678	-	726	698	-
Stage 1	-	_	-	-	-	-	940	836	-	884	795	-
Stage 2	-	-	-	-	-	-	827	775	-	893	835	-
3 2												
Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.3			0.6			9.1			10.2		
HCM LOS							Α			В		
Minor Lane/Major Mvm	t 1	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		919	1477	-	-	1570	-	-	785			
HCM Lane V/C Ratio		0.047		-	-	0.007	-	_	0.126			
HCM Control Delay (s)		9.1	7.5	0	-	7.3	0	-	10.2			
HCM Lane LOS		Α	Α	A	-	Α	A	-	В			
HCM 95th %tile Q(veh)		0.1	0	-	_	0	-	-	0.4			

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
	EDL					SDR
Lane Configurations	E	402	71	17	**	16
Traffic Vol, veh/h	5	103	71	17	50	16
Future Vol, veh/h	5	103	71	17	50	16
Conflicting Peds, #/hr	0	_ 0	0	_ 0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-		-		-	None
Storage Length	-	-	-	125	0	-
Veh in Median Storage	,# -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	65	65	65	65
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	6	120	109	26	77	25
Majaw/Minaw N	10:04		Maia#0		Aire and	
	Major1		Major2		Minor2	400
Conflicting Flow All	135	0	-	0	241	109
Stage 1	-	-	-	-	109	-
Stage 2	-	-	-	-	132	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1462	_	-	-	752	950
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	899	-
Platoon blocked, %		_	-	_		
Mov Cap-1 Maneuver	1462	_	_	_	749	950
Mov Cap-2 Maneuver	- 102	_	_	_	749	-
Stage 1	_			_	917	_
		_	_	_	899	_
Stage 2	-	-	-	_	099	_
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		10.2	
HCM LOS					В	
					_	
Minor Lane/Major Mvm	t	EBL	EBT	WBT	WBR S	
Capacity (veh/h)		1462	-	-	-	
HCM Lane V/C Ratio		0.004	-	-	-	0.129
HCM Control Delay (s)		7.5	0	-	-	
HCM Lane LOS		Α	Α	-	-	В
LICM OF the O/tile O/wale)		0	_	_	_	0.4
HCM 95th %tile Q(veh)		U				0.4

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		सी	₽		, A	
Traffic Vol, veh/h	3	46	66	35	34	3
Future Vol, veh/h	3	46	66	35	34	3
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	e, # -	0	0	-	0	-
Grade, %	_	0	0	-	0	-
Peak Hour Factor	70	70	72	72	55	55
Heavy Vehicles, %	0	1	1	1	1	0
Mvmt Flow	4	66	92	49	62	5
	•		V =		V -	
		_				
	Major1		//ajor2		Minor2	
Conflicting Flow All	141	0	-	0	191	117
Stage 1	-	-	-	-	117	-
Stage 2	-	-	-	-	74	-
Critical Hdwy	4.1	-	-	-	6.41	6.2
Critical Hdwy Stg 1	-	-	-	-	5.41	-
Critical Hdwy Stg 2	-	-	-	-	5.41	-
Follow-up Hdwy	2.2	-	-	-	3.509	3.3
Pot Cap-1 Maneuver	1455	-	_	_	800	941
Stage 1	_	_	-	_	911	_
Stage 2	_	_	_	_	951	_
Platoon blocked, %		_	_	_	001	
Mov Cap-1 Maneuver	1455	_	_	_	798	941
Mov Cap-2 Maneuver	-	_	_	_	798	J+1 -
Stage 1	_	-	_	_	908	_
•		_	_	_	951	_
Stage 2	_	-	-	_	901	_
Approach	EB		WB		SE	
HCM Control Delay, s	0.5		0		9.9	
HCM LOS					Α	
		ED!	EDT	14/57	M/DD	251 4
Minor Lane/Major Mvm	it	EBL	EBT	WBT	WBR S	
Capacity (veh/h)		1455	-	-	-	808
HCM Lane V/C Ratio		0.003	-	-	-	0.083
HCM Control Delay (s)		7.5	0	-	-	9.9
HCM Lane LOS		Α	Α	-	-	Α
HCM 95th %tile Q(veh)		0	-	-	-	0.3
,						

Intersection								
Int Delay, s/veh	19.7							
Movement	EBL	EBR	NBL	NBT	SBT	SBR		
ane Configurations	W		ች	^	1	7		
raffic Vol, veh/h	86	25	43	520	957	156		
uture Vol, veh/h	86	25	43	520	957	156		
onflicting Peds, #/hr	0	0	0	0	0	0		
gn Control	Stop	Stop	Free	Free	Free	Free		
T Channelized	-		-	None	-	None		
orage Length	0	-	325	-	_	275		
eh in Median Storag		_	-	0	0	-		
rade, %	0, # 0	_	_	0	0	_		
eak Hour Factor	85	85	85	85	87	87		
eavy Vehicles, %	1	1	1	7	7	1		
vmt Flow	101	29	51	612	1100	179		
IVIIIT FIOW	101	29	וכ	012	1100	179		
ajor/Minor	Minor2		Major1	N	Major2			
onflicting Flow All	1814		1279	0	- viajuiz	0		
•	1100	1100	12/9		-	-		
Stage 1		-	-	-				
Stage 2	714	6.04	1 11	-	-	-		
tical Hdwy	6.41	6.21	4.11	-	-	-		
tical Hdwy Stg 1	5.41	-	-	-	-	-		
itical Hdwy Stg 2	5.41	-	-	-	-	-		
llow-up Hdwy	3.509		2.209	-	-	-		
t Cap-1 Maneuver	~ 87	259	546	-	-	-		
Stage 1	320	-	-	-	-	-		
Stage 2	487	-	-	-	-	-		
latoon blocked, %				-	-	-		
lov Cap-1 Maneuver		259	546	-	-	-		
lov Cap-2 Maneuver		-	-	-	-	-		
Stage 1	290	-	-	-	-	-		
Stage 2	487	-	-	-	-	-		
pproach	EB		NB		SB			
CM Control Delay, st			0.9		0			
CM LOS	F							
	•							
linor Lane/Major Mvr	nt	NBL	NBT	EBLn1	SBT	SBR		
apacity (veh/h)		546		94	_	_		
CM Lane V/C Ratio		0.093		1.389	_	_		
CM Control Delay (s	1	12.3		308.7	-			
CM Lane LOS	7	12.3 B	-Ψ -	500.7 F				
CM 95th %tile Q(veh	.)	0.3	-	9.6	-	-		
•	1)	0.5	_	3.0				
otes								
Volume exceeds ca	pacity	\$: De	elay exc	eeds 30	00s	+: Comp	outation Not Defined	*: All major volume in platoon

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4	7		4	7		4			4	
Traffic Vol, veh/h	27	49	7	19	82	54	5	0	11	33	0	12
Future Vol, veh/h	27	49	7	19	82	54	5	0	11	33	0	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	125	-	-	125	-	-	-	-	-	-
Veh in Median Storage,	# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	70	70	70	72	72	72	50	50	50	65	65	65
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	39	70	10	26	114	75	10	0	22	51	0	18
Major/Minor N	1ajor1		<u> </u>	Major2			Minor1			/linor2		
Conflicting Flow All	189	0	0	80	0	0	361	389	70	330	324	114
Stage 1	-	-	-	-	-	-	148	148	-	166	166	-
Stage 2	-	-	-	-	-	-	213	241	-	164	158	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1397	-	-	1531	-	-	598	549	998	627	597	944
Stage 1	-	-	-	-	-	-	859	779	-	841	765	-
Stage 2	-	-	-	-	-	-	794	710	-	843	771	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1397	-	-	1531	-	-	565	523	998	591	569	944
Mov Cap-2 Maneuver	-	-	-	-	-	-	565	523	-	591	569	-
Stage 1	-	-	-	-	-	-	834	756	-	817	750	-
Stage 2	-	-	-	-	-	-	764	697	-	801	749	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	2.5			0.9			9.7			11.1		
HCM LOS							Α			В		
Minor Lane/Major Mvmt	<u> </u>	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR S	SBLn1			
Capacity (veh/h)		805	1397	-	-	1531	-	-	656			
HCM Lane V/C Ratio		0.04	0.028	-	-	0.017	-	-	0.106			
HCM Control Delay (s)		9.7	7.7	0	-	7.4	0	-	11.1			
HCM Lane LOS		Α	Α	Α	-	Α	Α	-	В			
HCM 95th %tile Q(veh)		0.1	0.1	-	-	0.1	-	-	0.4			

Intersection						
Int Delay, s/veh	1.8					
	EBL	CDT	WPT	WPD	CDI	CDD
Movement	ERF	EBT	WBT	WBR	SBL	SBR
Lane Configurations	40	4	111	7	24	4.4
Traffic Vol, veh/h	13	80	144	54	31	11
Future Vol, veh/h	13	80	144	54	31	11
Conflicting Peds, #/hr	0	0	0	0	0	0
	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-		-	None
Storage Length	-	-	-	125	0	-
Veh in Median Storage,		0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	72	72	65	65
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	19	114	200	75	48	17
Major/Minor Ma	ajor1	N	//ajor2	N	/linor2	
Conflicting Flow All	275	0	- najoiz	0	352	200
Stage 1	213	_	-	-	200	200
Stage 2			_	_	152	_
Critical Hdwy	4.1	_	-	-	6.4	6.2
Critical Hdwy Stg 1	4.1	_	_	_	5.4	0.2
Critical Hdwy Stg 2	_	-	_	-	5.4	-
Follow-up Hdwy	2.2		_	-	3.5	3.3
	1300	-	-	-	650	3.3 846
	1300	•	-	-	838	040
Stage 1	-	_	_		881	-
Stage 2	-	-	-	-	001	-
Platoon blocked, %	1200	-	-	-	640	0.46
•	1300		-	-	640	846
Mov Cap-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	825	-
Stage 1 Stage 2	-	-	-	-	825 881	-
	-	- -	-	-		
Stage 2	- - EB	-	- - WB	-		
Stage 2 Approach		-	WB 0	-	881 SB	
Stage 2 Approach HCM Control Delay, s	EB 1.1	-	- - WB	-	881 SB 10.8	
Stage 2 Approach		-		-	881 SB	
Stage 2 Approach HCM Control Delay, s HCM LOS		-	0	-	881 SB 10.8 B	
Stage 2 Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt		EBL		WBT	881 SB 10.8	SBLn1
Stage 2 Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h)		1300	0	WBT	\$81 \$B 10.8 B	- SBLn1 684
Stage 2 Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio		1300 0.014	0 EBT -	WBT	SB 10.8 B	SBLn1 684 0.094
Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		1300 0.014 7.8	0 EBT - - 0	-	\$81 \$B 10.8 B	SBLn1 684 0.094 10.8
Stage 2 Approach HCM Control Delay, s HCM LOS Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio		1300 0.014	0 EBT -	-	SB 10.8 B	SBLn1 684 0.094

Appendix E Programmed Transportation Infrastructure Project Sheets	

R-302	Atlanta Region's Plan RTP (2	016) PROJECT FACT SHEET
Short Title	SR 85 OPERATIONAL AND SAFETY IMPROVEMENTS FROM SR 92 IN FAYETTE COUNTY TO SR 16 IN COWETA COUNTY	htree City Love
GDOT Project No.	TBD	
Federal ID No.		
Status	Long Range	
Service Type	Roadway / Operations & Safety	
Sponsor	GDOT	Digbey Newnan Rd
Jurisdiction	Multi-County	© 2010 NAVTEQ © AND © 2015 Microsoft Corporation
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)	2015 MICLOSOIL CORPORATION
Existing Thru Lane	2 LCI	Network Year TBD
Planned Thru Lane		Corridor Length N/A miles
Detailed Description	and Justification	

Phase Status & Funding Status			FISCAL	TOTAL PHASE	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE						
Info	rmation		YEAR	COST	FEDERAL	STATE	BONDS	LOCAL/PRIVATE			
ALL	General Federal Aid 2024-2040		LR 2024- 2030	\$15,000,000	\$12,000,000	\$3,000,000	\$0,000	\$0,000			
				\$15,000,000	\$12,000,000	\$3,000,000	\$0,000	\$0,000			

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

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CW-028	Atlanta Region's Plan RTP (2016) PROJECT FACT SH	EET
Short Title	SR 74/85 BRIDGE REPLACEMENT AT NORFOLK SOUTHERN LINE IN SENOIA	

Short Title	SR 74/85 BRIDGE REPLACEMENT AT NORFOLK SOUTHERN LINE IN SENOIA	Senoia City Park Magnolia 5
GDOT Project No.	333176-	
Federal ID No.		Zeey Rd
Status	Programmed	
Service Type	Roadway / Bridge Upgrade] lucker m
Sponsor	GDOT	
Jurisdiction	Coweta County	© 2010 NAVTEQ © AND © 2015 Microsoft Corporation
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)	Copyright 2005 Aero Surveys of Georgia, Inc. Reproduced by permission of the copyright owner. Contact http://www.aeroatlas.com
Existing Thru Lane	2 LCI	Network Year TBD
Planned Thru Lane	2 Flex	Corridor Length 0.4 miles
Detailed Description a	nd Justification	
	bridge on SR 74/85 at the Central of Georgia Rail Line betw two 12-foot lanes with 2.5-foot curb and gutter and a 10-fo	

Phas	se Status & Funding	Status	FISCAL	TOTAL PHASE	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
Information		YEAR	COST	FEDERAL	STATE	BONDS	LOCAL/PRIVATE	
PE	On-System Bridges	AUTH	2000	\$20,000	\$16,000	\$4,000	\$0,000	\$0,000
PE	STP - Statewide Flexible (GDOT)	AUTH	2014	\$200,000	\$160,000	\$40,000	\$0,000	\$0,000
PE	Transportation Funding Act (HB 170)	AUTH	2017	\$166,000	\$0,000	\$166,000	\$0,000	\$0,000
ROW	Repurposed Earmark	AUTH	2017	\$330,000	\$264,000	\$66,000	\$0,000	\$0,000
ROW	Surface Transportation Block Grant (STBG) Program Flex (GDOT)		2017	\$47,074	\$37,659	\$9,415	\$0,000	\$0,000
UTL	Bridge Bond		2019	\$145,200	\$0,000	\$145,200	\$0,000	\$0,000
CST	Bridge Bond		2019	\$2,691,050	\$0,000	\$2,691,050	\$0,000	\$0,000
CST	Repurposed Earmark		2019	\$1,019,849	\$815,879	\$203,970	\$0,000	\$0,000
				\$4,619,173	\$1,293,538	\$3,325,635	\$0,000	\$0,000

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering OV: Right-of-way Acquistion UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases





CW-075

Atlanta Region's Plan RTP (2016) PROJECT FACT SHEET

Short Title	SR 16 INTERSECTION IMPROVEMENTS AND BRIDGE REPLACEMENT AT PYLANT STREET AND DEAD OAK CREEK BRIDGE ON PYLANT STREET	Willow On Sen Ola Johnson, St.
GDOT Project No.	0012610	CW-075 Vielts
Federal ID No.		10
Status	Programmed	
Service Type	Roadway / Operations & Safety	Sources: Esri, DeLorme,
Sponsor	City of Senoia	NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan,
Jurisdiction	Coweta County	METI, Esri China (Hong Kong), Esri (Thailand),
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)	
Existing Thru Lane	N/A LCI	Network Year TBD
Planned Thru Lane	N/A Flex	Corridor Length 0.5 miles
Detailed Description a	nd Justification	

This project consists of two elements. The first is to make geometric modifications at the intersection of SR 16 and Pylant Street to improve sight distance and safety. Currently, Pylant Street intersects at a severely skewed angle and on a grade. It is a primary route linking downtown Senoia with SR 16, which is a heavily traveled east/west highway corridor across the southern part of the region. The second element involves replacing a load restricted bridge at the outfall for Marimac Lakes. The bridge is narrow and does not meet modern design standards. The project is being funded under the Roadway Operations and Safety Program, a regional program defined in PLAN 2040 to make smaller-scale improvements along existing roadways which are the most critical for cross-jurisdictional travel. With the exception of certain systemwide programs with broad benefits across a defined geographic area, eligibility under this program is limited to facilities on the Regional Strategic Transportation System, with additional priority given to those also identified as a Regional Thoroughfare. SR 16 is designated as a Level 1 Regional Thoroughfare. Although Pylant Street is not on a priority network, it does provide a key connection between SR 16 and downtown Senoia, so a deficient bridge on this last mile facility is also considered eliqible under this program.

Pha	se Status & Funding	Status	FISCAL	TOTAL PHASE	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
Information		YEAR COST		FEDERAL	STATE	BONDS	LOCAL/PRIVATE	
PE	STP - Urban (>200K) (ARC)	AUTH	2014	\$150,000	\$120,000	\$0,000	\$0,000	\$30,000
PE	STP - Urban (>200K) (ARC)	AUTH	2016	\$150,000	\$120,000	\$0,000	\$0,000	\$30,000
ROW	STP - Urban (>200K) (ARC)	AUTH	2017	\$180,000	\$80,000	\$0,000	\$0,000	\$100,000
UTL	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)		2018	\$50,000	\$40,000	\$0,000	\$0,000	\$10,000
CST	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)		2018	\$2,109,463	\$1,360,000	\$0,000	\$0,000	\$749,463
			\$2,639,463	\$1,720,000	\$0,000	\$0,000	\$919,463	

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

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CW-077

Atlanta Region's Plan RTP (2016) PROJECT FACT SHEET

Short Title	SENOIA IVY RIDGE TRAIL	TYRONE A CHATT CHATT CHATT
GDOT Project No.	0012879	We sur of
Federal ID No.		PEACHTREE CITY
Status	Programmed	Peachtree St. City
Service Type	Last Mile Connectivity / Sidepaths and Trails	Falcon Fld
Sponsor	City of Senoia	RPSBURG.
Jurisdiction	Coweta County	TURIN STARKS MILL
Analysis Level	Exempt from Air Quality Analysis (40 CFR 93)	Sovan EVI Dacome (VI PED LISOS NEDA) METI PC TONEO
Existing Thru Lane	N/A LCI	Network Year TBD
Planned Thru Lane	N/A Flex	Corridor Length N/A miles
Detailed Description a	nd Justification	
at Seavy Street, extends alo along the east side of Keg C Creek. The project would re a 20-foot wide permanent e	provide a 10-foot wide asphalt shared-use path on new locing the west side of Keg Creek for approximately 0.75 mile, treek, and ends at Ivy Lane. A minimum 100-foot long prefaquire boardwalks to cross wetlands and/or floodplains associasement. No right-of-way acquisition is anticipated. Easeme oot wide permanent easement. All construction will comply	crosses Keg Creek and extends approximately 0.2 miles bricated pedestrian bridge would be required to cross Keg iated with Keg Creek. The project would be constructed on nts for the construction of slopes would be required as

Phase Status & Funding Status			FISCAL	TOTAL PHASE	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
Information			YEAR	COST	FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	TAP - Urban (>200K) (ARC)	AUTH	2014	\$115,000	\$92,000	\$0,000	\$0,000	\$23,000
PE	TAP - Urban (>200K) (ARC)	AUTH	2016	\$175,000	\$140,000	\$0,000	\$0,000	\$35,000
	Local Jurisdiction/Municipality Funds		2017	\$237,150	\$0,000	\$0,000	\$0,000	\$237,150
	Local Jurisdiction/Municipality Funds		2018	\$1,353,271	\$0,000	\$0,000	\$0,000	\$1,353,271
			\$1,880,421	\$232,000	\$0,000	\$0,000	\$1,648,421	

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

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