Traffic Impact Analysis

TRI-COUNTY COUNCIL MULTI-PURPOSE CENTER

Wicomico County, Maryland

October 26, 2010

Prepared for:

Salisbury-Wicomico Metropolitan Planning Organization

Merging Innovation and Excellence®



Corporate Office Baltimore, MD

Suite H 9900 Franklin Square Drive Baltimore, Maryland 21236 410.931.6600 fax: 410.931.6601 1.800.583.8411

TABLE OF CONTENTS & EXHIBITS

•	INTRODUCTION and SUMMARY OF FINDINGS	1
•	EXISTING TRAFFIC CONDITIONS	4
	1 Site Location Map 2 Existing Lane Use	6 7
	3 Existing Peak Hour Traffic Volumes	8
•	TOTAL TRAFFIC CONDITIONS	9
	4 Trip Generation for Subject Site	11
	5 Trip Assignment for Subject Site (Office)	
	5A Trip Assignment for Subject Site (Buses)	
	6 Total Peak Hour Traffic Volumes	14
	7 Results of Intersection Capacity Analyses	
	8 Summary of Queue Lengths (HCM Analysis)	
	9 Summary of Queue Lengths (SHA Queuing Analysis)	
	RESULTS, RECOMMENDATIONS, AND CONCLUSIONS	18

APPENDICES

APPENDIX A - Intersection Turning Movement Counts, Condition Diagrams and Photos

APPENDIX B - Intersection Capacity Analysis; CLV Methodology, HCM Methodology

Prepared by:

Betty Tustin, P.E., P.T.O.E.

Ming-Yu Chien

BHT/clg

(F:\2010\2010-0603\wp\Report.doc)

INTRODUCTION AND SUMMARY OF FINDINGS

Traffic Impact Analysis

TRI-COUNTY COUNCIL MULTI-PURPOSE CENTER

Wicomico County, Maryland

Prepared for Salisbury-Wicomico Department of Planning and Zoning

STUDY PURPOSE

The Traffic Group, Inc. has conducted a Traffic Impact Analysis for the Salisbury/Wicomico County Metropolitan Organization to determine the impact on the surrounding road system of the proposed relocation of the Tri-County Council, Shore Transit, One Stop, and other agencies to a multi-purpose center located in the northwest quadrant of the intersection of US Route 50

and Walston Switch Road in Wicomico County, Maryland.

For the purpose of this Traffic Impact Analysis, the Tri-County Council Multi-Purpose Center will consist of a 72,670 square foot facility. It was assumed that Shore Transit will operate eleven bus routes during the weekdays from this facility. Greyhound will also utilize the facility. Access will be via the existing Comteck Drive on Walston Switch Road.

STUDY CRITERIA/METHODOLOGY

This study was conducted in accordance with the requirements established by the Maryland State Highway Administration, specifically as outlined in the <u>State Highway Access Manual</u>, Engineering Access Permits Division dated January 2004. The parameters of this study were identified and adhere to the criteria stated in the Maryland State Highway Administration Guidelines.

SCOPE OF SERVICES

The principal scope of services undertaken as part of this study was as follows.

- CONDUCT A FIELD INSPECTION TO COLLECT PHYSICAL INFORMATION CONCERNING THE NEARBY ROAD SYSTEM, INCLUDING CONDITION DIAGRAMS AND PHOTO SURVEYS AT THE FOLLOWING STUDY INTERSECTIONS.
 - WALSTON SWITCH ROAD AND COMTEK LANE/BEAVER RUN DRIVE
 - O WALSTON SWITCH ROAD AND US 50



Traffic Impact Analysis Tri-County Council Multi-Purpose Center Wicomico County, Maryland

> TRAFFIC COUNTS

- OBTAIN TURNING MOVEMENT COUNTS BETWEEN THE HOURS OF 7 AM AND 7 PM FOR THE INTERSECTION OF US 50 AND WALSTON SWITCH ROAD FROM THE MARYLAND STATE HIGHWAY ADMINISTRATION WHICH WERE COLLECTED BY SHA ON APRIL 30, 2009.
- FROM THESE COUNTS, DETERMINE THE PEAK HOURS OF STUDY WHICH WILL CAPTURE PEAK HOURS ASSOCIATED WITH WOR-WIC COMMUNITY COLLEGE AND THOSE ASSOCIATED WITH THE TRI-COUNTY COUNCIL/SHORE TRANSIT.
- CONDUCT TURNING MOVEMENT COUNTS AT THE INTERSECTION OF WALSTON SWITCH ROAD AND BEAVER RUN DRIVE DURING THE SELECTED PEAK HOURS OF STUDY.
- ► OBTAIN INFORMATION FROM SHA REGARDING TRAFFIC SIGNAL TIMING AND PHASING AT THE INTERSECTION OF US 50 AND WALSTON SWITCH ROAD.
- ► IDENTIFY APPROVED DEVELOPMENTS IN THE AREA TO BE INCLUDED IN THE ANALYSIS OF BACKGROUND CONDITIONS.
- CONDUCT TRIP GENERATION AND TRIP DISTRIBUTION ANALYSES FOR THE APPROVED DEVELOPMENTS AND FOR THE PROPOSED FACILITY.
- DEVELOP TOTAL FUTURE TRAFFIC VOLUME FORECASTS FOR THE STUDY INTERSECTIONS.
- CONDUCT INTERSECTION CAPACITY ANALYSES FOR THE SELECTED PEAK HOURS OF STUDY.
- CONDUCT QUEUING ANALYSES FOR THE FOLLOWING MOVEMENTS
 - EASTBOUND US ROUTE 50 LEFT TURN ONTO NORTHBOUND WALSTON SWITCH ROAD
 - NORTHBOUND WALSTON SWITCH ROAD LEFT TURN INTO THE SITE.
- **EVALUATE THE EXISTING TRAFFIC SIGNAL TIMING AND PHASING**
- ➤ IDENTIFY AND EVALUATE NEEDED IMPROVEMENTS TO ADDRESS LEVEL OF SERVICE DEFICIENCIES AND QUEUING DEFICIENCIES, IF ANY.
- PREPARE A REPORT DETAILING THE STUDY METHODOLOGY, FINDINGS, RECOMMENDATIONS, AND CONCLUSIONS.



SUMMARY OF FINDINGS AND RECOMMENDATIONS

Utilizing the Critical Lane Methodology (CLV) all of the study intersections have and are projected to have sufficient capacity for morning and evening peak hour traffic conditions. Utilizing the Highway Capacity Manual Methodology (HCM), which provides results by approach and movement, all of the study intersections operate and are projected to operate at acceptable Levels of Service for the morning and evening peak hour periods.

Queuing analyses were conducted for the left turns on US Route 50 and for the northbound left from Walston Switch Road into the site. In the field, excessive queuing was noted in the median at US Route 50; therefore, queuing analyses were conducted for the northbound and southbound left turns as well.

The results of the queuing analyses indicate that sufficient storage capacity exists and is projected for the eastbound and westbound left turns on US Route 50 for morning and evening peak hour traffic conditions. The queuing analysis for the northbound left turn from Walston Switch Road into the site indicates that less than one vehicle will be in the queue during the morning and evening total peak hour traffic conditions.

Excessive queuing was observed in the field for the northbound movement in the median on Walston Switch Road. The 95th percentile queue for this movement is presently greater than the storage capacity provided in the median, utilizing the HCM methodology and SHA methodology. There is sufficient capacity on the south leg of Walston Switch Road. However, both the northbound and southbound movements receive a green at the same time. When the queue exceeds the length of the median, vehicles may wait behind the stop bar on Walston Switch Road. An opposing left turning vehicle is either delayed unnecessarily or makes the turn in front of the vehicle waiting behind the stop bar for the queue to be reduced, while having a green indication,. Or, when the queue exceeds the length of the median, vehicles may queue into the through lanes of US Route 50, which is, of course, undesirable.

To resolve this situation, it is recommended that the northbound and southbound movements be split. A CLV analysis was conducted to determine the effect of this recommendation on capacity and sufficient capacity will be realized even if these movements are split for existing traffic volumes and for projected traffic volumes to include those generated by the Tri-County Council Multi-Purpose Center.

The data and methodology used to undertake this study is detailed in the sections that follow.



EXISTING TRAFFIC CONDITIONS

SITE INFORMATION

The Traffic Group, Inc. has conducted a Traffic Impact Analysis for the Salisbury/Wicomico County Metropolitan Organization to determine the impact on the surrounding road system of the proposed relocation of the Tri-County Council, Shore Transit, One Stop, and other agencies to a multi-purpose center located in the northwest quadrant of the intersection of US Route 50 and Walston Switch Road in Wicomico County, Maryland. The site location is provided in Exhibit 1.

STUDY AREA

The following intersections were identified to be evaluated in this study.

- US Route 50 and Walston Switch Road
- Walston Switch Road and Comtek Lane/Beaver Run Drive

<u>US Route 50 and Walston Switch Road:</u> US Route 50 is a divided highway consisting of two through lanes, one left turn lane, and one right turn lane in each direction. The speed limit on US Route 50 is 55 mph. Northbound Walston Switch Road consists of a left turn lane, a through lane, and a right turn lane. Southbound Walston Switch Road consists of a shared left/through lane and a right turn lane.

Walston Switch Road and Comtek Lane/Beaver Run Drive: This intersection is STOP controlled with the free movement on Walston Switch Road. The Northbound Walston Switch Road consists of a single lane and southbound Walston Switch Road, at this intersection, consists of a shared left/thru and a right turn lane. Both Comteck Lane and Beaver Run Drive consist of 2 lanes with a median separating the eastbound and westbound traffic.

The existing lane use and intersection control is depicted on Exhibit 2.

TRAFFIC VOLUMES

Intersection turning movement counts were collected by the Maryland State Highway Administration at the intersection of US 50 and Walston Switch Road on a weekday in April, 2009 when Wor-Wic Community College was in session. From this 12 hour count (between the hours of 7 AM and 7 PM) it was determined that the morning peak hour is between 7:15 and 8:15 AM and the evening peak hour is between 4:45 and 5:45 PM. Therefore, turning movement counts were collected at the intersection of Walston Switch Road and Comteck Lane/Beaver Run Drive during these time periods. These

Traffic Impact Analysis
Tri-County Council Multi-Purpose Center
Wicomico County, Maryland



peak hour traffic volumes are depicted on Exhibit 3. Condition diagrams and photo surveys are included in Appendix A of this report.

ANALYSIS OF EXISTING TRAFFIC CONDITIONS

Utilizing the Critical Lane Methodology (CLV) all of the study intersections have sufficient capacity. Utilizing the Highway Capacity Manual Methodology (HCM), which provides results by approach and movement, all of the study intersections are operating at acceptable Levels of Service for the morning and evening peak hour periods. The results of the capacity analyses are summarized in Exhibit 7.

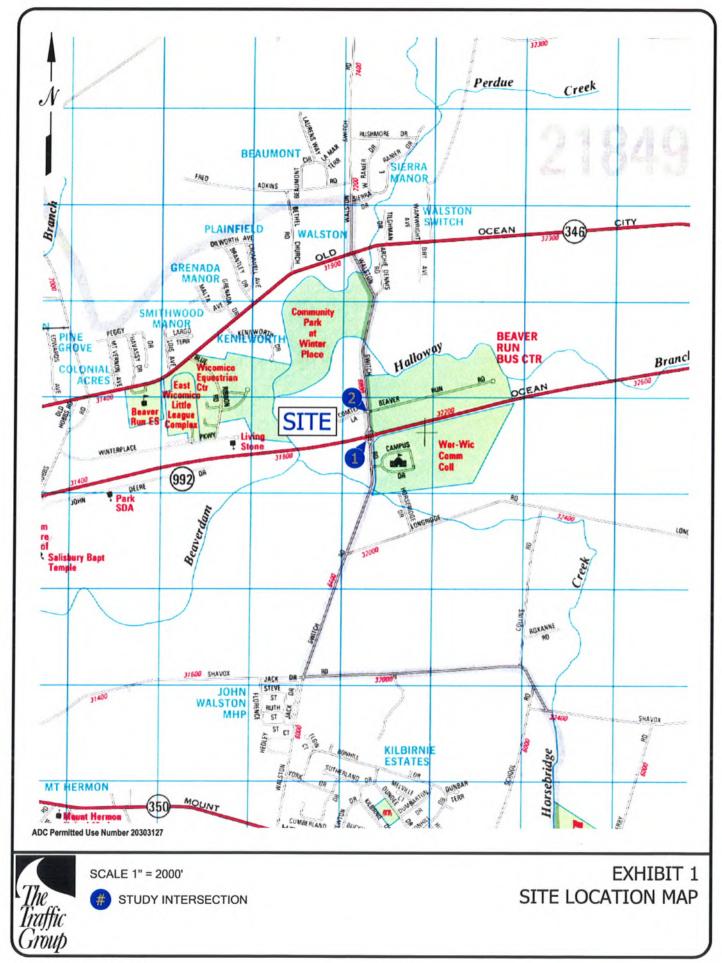
Queuing analyses were conducted for the left turns on US Route 50 and for the northbound left from Walston Switch Road into the site. In the field, excessive queuing was noted on Walston Switch Road at US Route 50; therefore, queuing analyses were conducted for the northbound and southbound left turns as well.

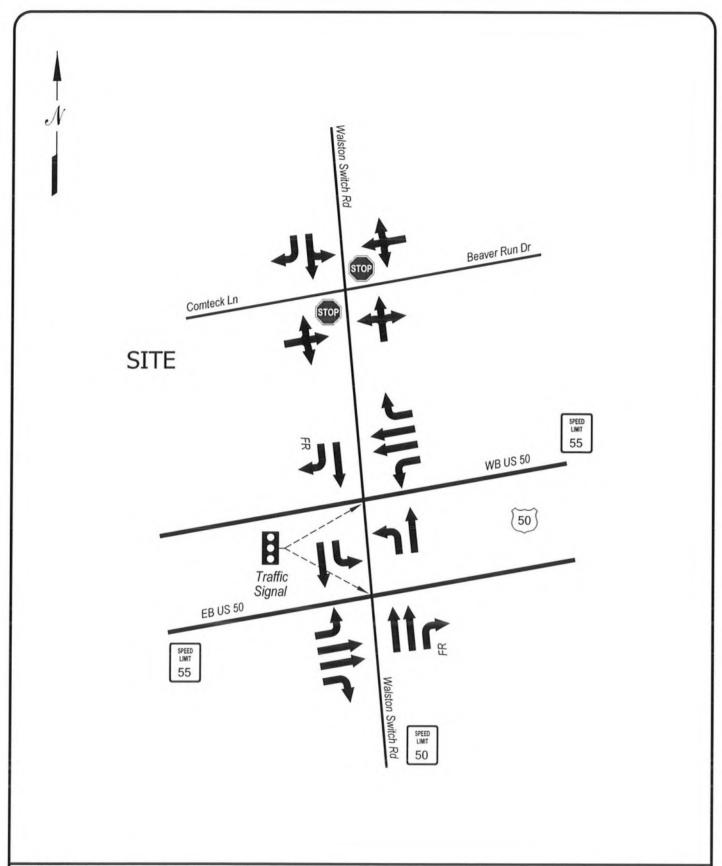
The results of the queuing analyses are provided in Exhibit 8, utilizing the HCM Methodology, and in Exhibit 9, utilizing SHA methodology for signalized intersections. Sufficient storage capacity exists for the eastbound and westbound left turns on US Route 50 for morning and evening existing peak hour traffic conditions.

However, the northbound 95th percentile queues are greater than the storage capacity provided in the median, utilizing the HCM methodology and the SHA methodology. There is sufficient capacity on the south leg of Walston Switch Road to meet the entire queue. However, both the northbound and southbound movements receive a green at the same time. When the queue exceeds the length of the median, vehicles may wait behind the stop bar on Walston Switch Road. An opposing left turning vehicle is either delayed unnecessarily or makes the turn in front of the vehicle waiting behind the stop bar for the queue to be reduced. Or, when the queue exceeds the length of the median, vehicles may queue into the through lanes of US Route 50, which is, of course, undesirable.

To resolve this situation, it is recommended that the northbound and southbound movements be split. A CLV analysis was conducted to determine the effect of this recommendation on capacity. As can be seen in Exhibit 7, sufficient capacity remains even if these movements are split.



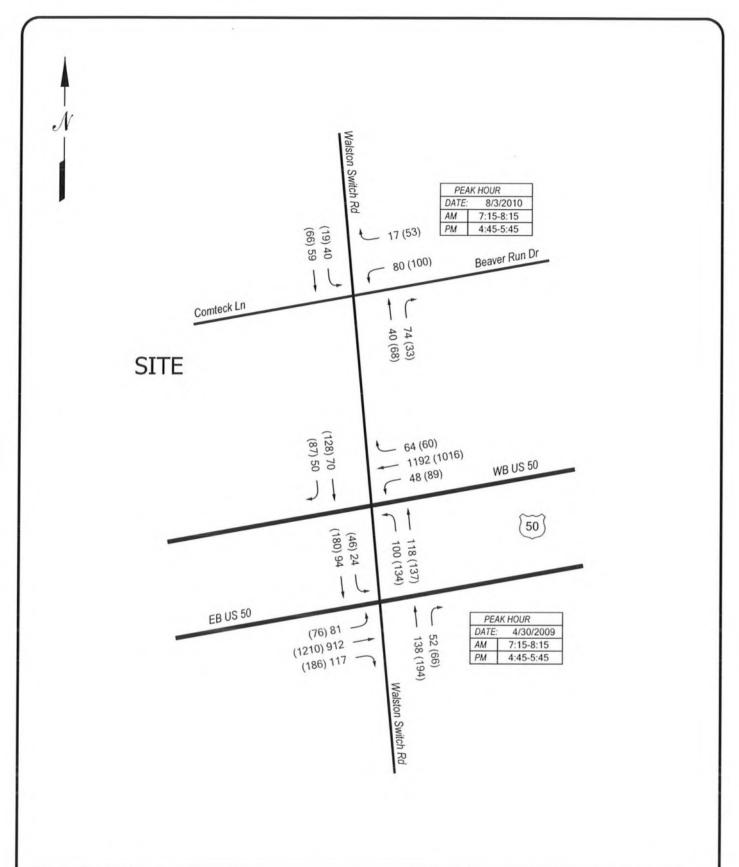






NOT TO SCALE

EXHIBIT 2 EXISTING LANE USE





NOT TO SCALE

00 - MORNING PEAK HOUR (00) - EVENING PEAK HOUR EXHIBIT 3 EXISTING PEAK HOUR TRAFFIC VOLUMES

TOTAL TRAFFIC CONDITIONS

SITE INFORMATION

The Traffic Group, Inc. has conducted a Traffic Impact Analysis for the Salisbury/Wicomico County Metropolitan Organization to determine the impact on the surrounding road system of the proposed relocation of the Tri-County Council, Shore Transit, One Stop, and other agencies to a multi-purpose center located in the northwest quadrant of the intersection of US Route 50 and Walston Switch Road in Wicomico County, Maryland..

For the purpose of this Traffic Impact Analysis, the Tri-County Council Multi-Purpose Center will consist of a 72,670 square foot facility. It was assumed that Shore Transit will operate eleven bus routes during the weekdays from this facility. Greyhound will also utilize the facility. Access will be via the existing Comteck Drive on Walston Switch Road.

TRIP GENERATION/DISTRIBUTION

It is anticipated that the various agencies will move into the facility within one year. Therefore, no regional growth was applied to the traffic volumes. There are no known approved developments in the area.

Various agencies will occupy the 72,670 square foot facility. Utilizing information from the Institute of Transportation Engineer's (ITE) Trip Generation, 8th Edition, trip generation rates were selected for the general office land use category, ITE-710. It is likely that some employees will arrive at the facility via transit; however, it was assumed that all will arrive by private vehicle, thus generating a "worse-case scenario" for analysis.

It was assumed that Shore Transit will operate eleven bus routes during the weekdays and that one bus would arrive and depart for each route during both the morning and evening peak hour periods. Given that this is a transfer facility and our knowledge of the surrounding area, it was assumed that all Shore Transit passengers would arrive by bus. Greyhound will also operate from this facility, however, none of the buses will arrive nor depart during the morning or evening peak hour period.

The peak hour traffic volumes generated by the site are summarized in Exhibit 4. These volumes were distributed to the roadway network as shown in Exhibit 5 and 5A. The peak hour traffic volumes generated by the site were then added to the existing peak hour traffic volumes to obtain the total peak hour traffic volumes as shown in Exhibit 6.

Traffic Impact Analysis Tri-County Council Multi-Purpose Center Wicomico County, Maryland



ANALYSIS OF TOTAL TRAFFIC CONDITIONS

Utilizing the Critical Lane Methodology (CLV) all of the study intersections have sufficient capacity. Utilizing the Highway Capacity Manual Methodology (HCM), which provides results by approach and movement, all of the study intersections are projected to operate at acceptable Levels of Service for the morning and evening peak hour periods. The results of the capacity analyses are summarized in Exhibit 7.

The results of the queuing analyses are provided in Exhibit 8, utilizing the HCM Methodology, and in Exhibit 9, utilizing SHA methodology for signalized intersections. For total traffic conditions, sufficient storage capacity is projected for the eastbound and westbound left turns on US Route 50 for morning and evening total peak hour traffic conditions. As discussed in the analysis for Existing Traffic Conditions, the excessive queuing in the northbound direction would be resolved by modifying the signal phasing to provide for a split phase in these directions.

A queuing analysis was also conducted for the northbound left turn from Walston Switch Road into the site. As can be seen in Exhibit 8, the HCM methodology projects that less than one vehicle will be in the queue during the morning and evening total peak hour traffic conditions. The SHA queuing analysis methodology applies only to signalized intersections.



TRIP GENERATION FOR SUBJECT SITE

TRIP RATES / FORMULAE

IN/OUT

General Office (ksf, ITE-710)

Morning Trips = $1.55 \times \text{ksf}$ Evening Trips = $1.49 \times \text{ksf}$ 88/12

17/83

TRIP TOTALS

MORN	ING PEA	K HOUR	EVEN	ING PEAK	HOUR
IN	OUT	TOTAL	IN	OUT	TOTAL

Tri-County Council/Shore Transit

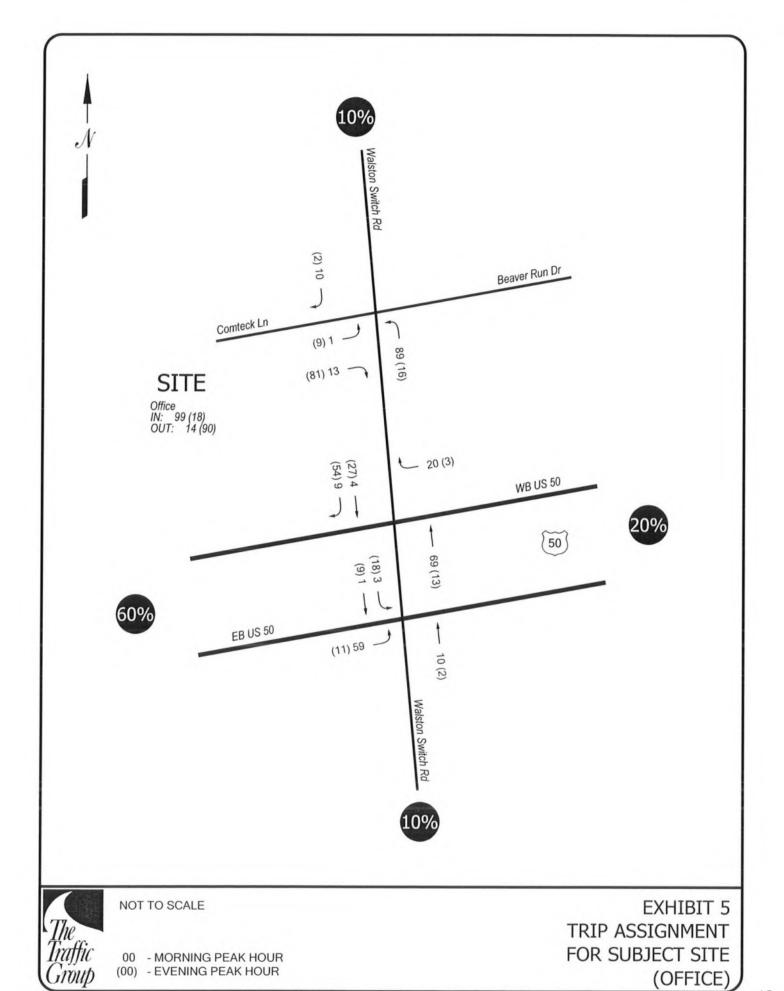
General Office (ksf, ITE-710)

72,670 sq.ft. 99 14 113 18 90 108

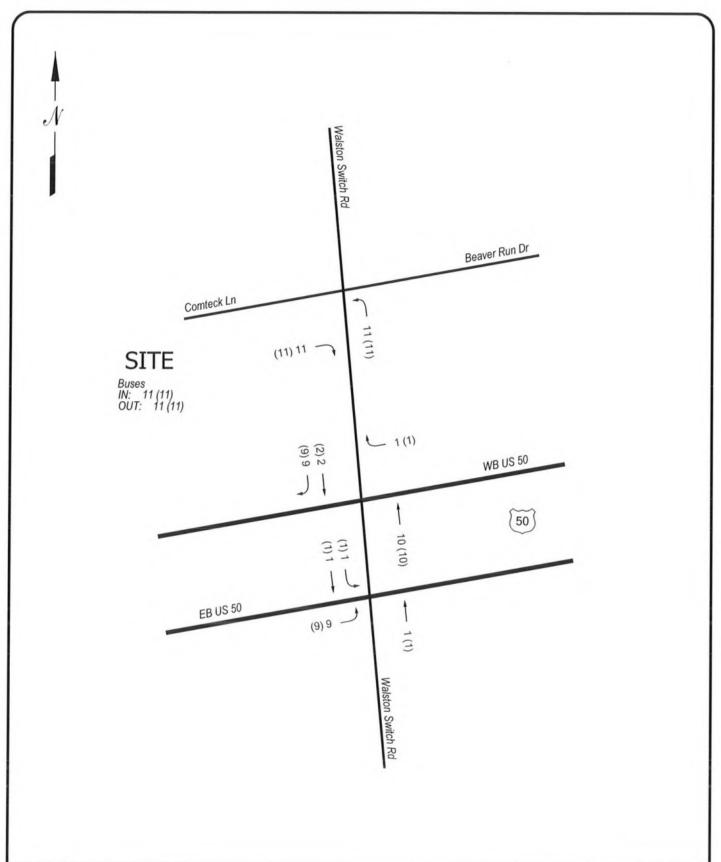
Buses 11 11 22 11 11 22



EXHIBIT 4
TRIP GENERATION FOR
SUBJECT SITE



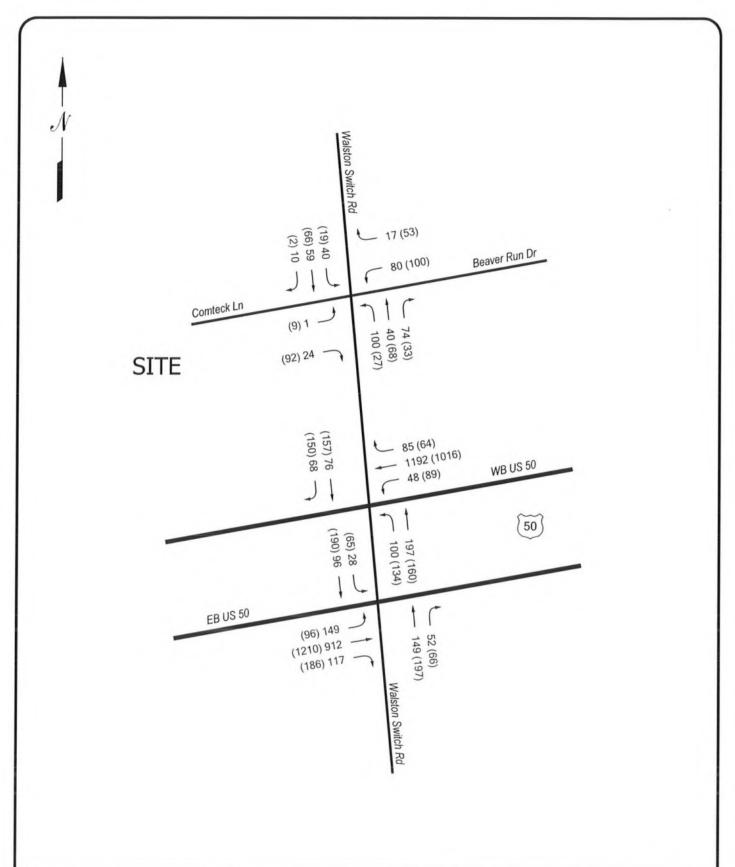
12





NOT TO SCALE

00 - MORNING PEAK HOUR (00) - EVENING PEAK HOUR EXHIBIT 5A TRIP ASSIGNMENT FOR SUBJECT SITE (BUSES)





NOT TO SCALE

00 - MORNING PEAK HOUR (00) - EVENING PEAK HOUR EXHIBIT 6 TOTAL PEAK HOUR TRAFFIC VOLUMES

	Existin	g Traffic	Total	Traffic
	AM	PM	AM	PM
CLV Analysis	LOS / CLV	LOS / CLV	LOS / CLV	LOS / CLV
US 50 & Walston Switch Rd - Change to N/S Split Phasing Walston Switch Rd & Beaver Run Dr	A / 878 - A / 251	A / 970 - A / 273	A / 948 A / 948 A / 370	A / 980 A / 980 A / 352
HCM Analysis	LOS / Delay (sec)	LOS / Delay (sec)	LOS / Delay (sec)	LOS / Delay (sec)
1. US 50 & Walston Switch Rd	B / 16.7	C / 20.5	B / 19.4	C / 21.3
2. Walston Switch Rd & Beaver Run Dr				
NB LTR	A / 7.4	A / 7.4	A / 7.6	A / 7.4
SB LT	A / 7.6	A / 7.5	A / 7.6	A / 7.5
WB LTR	B / 11.0	B / 10.6	C / 15.5	B / 12.3
EB LTR	-	-	A / 8.9	A / 9.3



EXHIBIT 7 RESULTS OF INTERSECTION CAPACITY ANALYSES

		L. Unit	Ex	cistin	g Traf	ffic			1	Γotal	Traffi	С	1182	
		Fige	AN		102	PN	П	Medi	ΑN	1		PN	1	
	Storage	torage 95% Queue Length 95% Queue									ue Ler	e Length		
Intersection	Length (ft)	No. of Veh.	1	Feet	No. of Veh.	1	Feet	No. of Veh.	1	Feet	No. of Veh.	f /	Feet	
1. US 50 & Walston Switch Rd														
EB US 50 Left	365	5.9	1	148	5.4	1	135	10.5	1	263	7.1	1	178	
WB US 50 Left	402	3.6	1	90	6.8	1	170	3.6	1	90	6.8	I	170	
NB Walston Switch Rd Left	100 ¹	7.0	1	175	9.0	1	225	7.0	1	175	9.1	1	228	
SB Walston Switch Rd Left	100 ¹	1.6	1	40	3.0	1	75	1.8	1	45	4.2	1	105	
2. Walston Switch Rd & Beaver Run Dr														
NB Walston Switch Rd LTR	-					-		0.26	1	<25	0.06	1	<25	

Note:

- 1. The 100 feet storage length for both the NB and SB left turn reflect the length of the left turn lanes at the median. For NB left turn, there is another 220 feet of storage length on Walston Switch Rd.
- 2. The distance between the stop line on north leg Walston Switch Rd and Comtek Dr is 370 feet.
- 3. An average vehicle length of 25 feet was assumed to obtain the 95% queue length.



EXHIBIT 8 SUMMARY OF QUEUE LENGTHS (HCM ANALYSIS)

		Existin	g Traffic	Total	Traffic
		AM	PM	AM	PM
Intersection	Storage Length (ft)		95% Queue	Length (ft)	
1. US 50 & Walston Switch Rd					
EB US 50 Left	365	87	81	159	103
WB US 50 Left	402	51	95	51	95
NB Walston Switch Rd Left	100	102	133	102	133
SB Walston Switch Rd Left	100	26	49	30	70

Note:

- 1. The 100 feet storage length for both the NB and SB left turn reflect the length of the left turn lanes at the median. For NB left turn, there is another 220 feet of storage length on Walston Switch Rd.
- 2. The distance between the stop line on north leg Walston Switch Rd and Comtek Dr is 370 feet.



EXHIBIT 9 SUMMARY OF QUEUE LENGTHS (SHA QUEUING ANALYSIS)

RESULTS, RECOMMENDATIONS, and CONCLUSIONS

The Traffic Group, Inc. has conducted a Traffic Impact Analysis for the Salisbury/Wicomico County Metropolitan Organization to determine the impact on the surrounding road system of the proposed relocation of the Tri-County Council, Shore Transit, One Stop, and other agencies to a multi-purpose center located in the northwest quadrant of the intersection of US Route 50 and Walston Switch Road in Wicomico County, Maryland.

For the purpose of this Traffic Impact Analysis, the Tri-County Council Multi-Purpose Center will operate out of a 72,670 square foot facility. It was assumed that Shore Transit will operate eleven bus routes during the weekdays from this facility. Greyhound will also utilize the facility. Access will be via the existing Comteck Drive on Walston Switch Road.

Utilizing the Critical Lane Methodology (CLV) all of the study intersections have and are projected to have sufficient capacity for morning and evening peak hour traffic conditions. Utilizing the Highway Capacity Manual Methodology (HCM), which provides results by approach and movement, all of the study intersections operate and are projected to operate at acceptable Levels of Service for the morning and evening peak hour periods.

Queuing analyses were conducted for the left turns on US Route 50 and for the northbound left from Walston Switch Road into the site. In the field, excessive queuing was noted in the median on Walston Switch Road at US Route 50; therefore, queuing analyses were conducted for the northbound and southbound left turns as well.

The results of the queuing analyses indicate that sufficient storage capacity exists and is projected for the eastbound and westbound left turns on US Route 50 for morning and evening peak hour traffic conditions. The queuing analysis for the northbound left turn from Walston Switch Road into the site indicates that less than one vehicle will be in the queue during the morning and evening total peak hour traffic conditions.

Excessive queuing was observed in the field for the northbound movement on Walston Switch Road. The 95th percentile queue for this movement is presently greater than the storage capacity provided in the median, utilizing the HCM methodology and SHA methodology. There is sufficient capacity on the south leg of Walston Switch Road to meet the left turn storage demand. However, both the northbound and southbound movements receive a green at the same time. When the queue exceeds the length of the median, vehicles may wait behind the stop bar on Walston Switch Road. An opposing left turning vehicle is either delayed unnecessarily or makes the turn in front of the vehicle waiting behind the stop bar for the queue to be reduced, which has a green indication,. Or, when the queue exceeds the length of the median, vehicles may queue into the through lanes of US Route 50, which is, of course, undesirable.

Traffic Impact Analysis
Tri-County Council Multi-Purpose Center
Wicomico County, Maryland



To resolve this situation, it is recommended that the northbound and southbound movements be split. A CLV analysis was conducted to determine the effect of this recommendation on capacity and sufficient capacity will be realized even if these movements are split for existing traffic volumes and for projected traffic volumes to include those generated by the Tri-County Council Multi-Purpose Center.

Please be aware the road improvements that are detailed above have not been designed. Our recommendation for these road improvements are conceptual in nature and are based upon the mathematical computations/capacity analyses that are provided in this report. It is unlikely, at this point in the process, that The Traffic Group, Inc. has undertaken sufficient field work/design to determine the impact of the recommended road improvements on either above ground or below ground utilities, drainage conditions, or right-of-way conditions that would impact the feasibility or cost of making the improvements that we have recommended. The feasibility and cost of making these improvements will be undertaken in the next phase of our studies.



APPENDIX A

Intersection Turning Movement Counts, Condition Diagrams and Photos

Maryland State Highway Administration Highway Information Services Division Turning Movement Count Study - Field Sheet

Station ID:

S2002220013

County: Wicomico

Comments: LOS AM:A PM:A

Date:

Thursday 04/30/2009

Town: none

Location:

US 50 at WALSTON SWITCH RD (EASTBOUND)

Weather:

Interval (dd): 15 min

Volume Begin End PM PERIOD 12:00PM-19:00PM Begin End Volume PEAK AM PERIOD HOURS 6:00AM-12:00PM 07:15 08:15 1418 16:45 17:45 1958

Hour			Switch R	oad			Switch Ro m South	oad			50 East			US !		
Begin	L	Т	R	тот	L	Т	R	тот	L	т	R	тот	L	Т	R	тот
7:00	5	9	0	14	0	18	11	29	0	0	0	0	15	176	8	199
7:15	5	22	0	27	0	21	11	32	0	0	0	0	22	286	12	320
7:30	6	17	0	23	0	51	17	68	0	0	0	0	18	235	27	280
7:45	8	29	0	37	0	37	9	46	0	0	0	0	26	188	48	262
8:00	5	26	0	31	0	29	15	44	0	0	0	0	15	203	30	248
8:15	7	22	0	29	0	19	16	35	0	0	0	0	17	177	23	217
8:30	6	23	0	29	0	25	11	36	0	0	0	0	21	207	33	261
8:45	6	28	0	34	0	19	11	30	0	0	0	0	27	168	33	228
9:00	5	26	0	31	0	26	14	40	0	0	0	0	13	150	36	199
9:15	7	21	0	28	0	26	11	37	0	0	0	0	15	171	41	227
9:30	3	54	0	57	0	29	16	45	0	0	0	0	10	140	93	243
9:45	2	69	0	71	0	35	10	45	0	0	0	0.	13	126	139	278
10:00	7	21	0	28	0	28	11	39	0	0	0	0	14	124	34	172
10:15	5	11	0	16	0	30	8	38	0	0	0	0	14	135	16	165
10:30	3	16	0	19	0	68	6	74	0	0	0	0	20	129	24	173
10:45	5	11	0	16	0	99	21	120	0	0	0	0	6	160	11	177
11:00	3	15	0	18	0	75	11	86	0	0	0	0	15	115	18	148
11:15	7	15	0	22	0	81	8	89	0	0	0	0	16	139	13	168
11:30	9	15	0	24	0	60	10	70	0	0	0	0	12	158	18	188
11:45	6	15	0	21	0	66	10	76	0	0	0	0	23	143	26	192
12:00	3	16	0	19	0	47	9	56	0	0	0	0	15	156	31	202
12:15	6	15	0	21	0	43	12	55	0	0	0	0	19	186	25	230
12:30	5	12	0	17	0	40	5	45	0	0	0	0	11	168	24	203
12:45	6	20	0	26	0	31	15	46	0	0	0	0	16	172	32	220
13:00 13:15	3	13 16	0	16 19	0	36 25	8	44	0	0	0	0	18	188	31	237
13:15	9	33	0			30		27		0	0	0	23	150	40	213
13:30	2	22	0	42	0	37	7	36 44	0	0	0	0	13	122	62	197
14:00	5	14	0	19	0	23	6	29	0	0	0	0	17	197 178	69	275
14:15	1	12	0	13	0	25	2	27	0	0	0	0	11	209	29 25	224 245
14:30	7	10	0	17	0	53	19	72	0	0	0	0	10	195	15	220
14:45	4	19	0	23	0	63	12	75	0	0	0	0	16	229	22	267
15:00	5	13	0	18	0	58	9	67	0	0	0	0	15	217	20	252
15:15	9	23	0	32	0	46	18	64	0	0	0	0	16	253	19	288
15:30	4	21	0	25	0	40	9	49	0	0	0	0	19	247	24	290
15:45	3	22	0	25	0	29	10	39	0	0	0	0	12	244	14	270
16:00	3	27	0	30	0	39	14	53	0	0	0	0	34	276	33	343
16:15	6	31	0	37	0	47	12	59	0	0	0	0	14	303	34	351
16:30	12	36	0	48	0	68	24	92	0	0	0	0	23	213	31	267
16:45	11	34	0	45	0	53	24	77	0	0	0	0	24	306	37	367
17:00	9	55	0	64	0	43	13	56	0	0	0	0	12	331	46	389
17:15	14	52	0	66	0	54	12	66	0	0	0	0	24	302	55	381
17:30	12	39	0	51	0	44	17	61	0	0	0	0	16	271	48	335
17:45	6	34	0	40	0	44	11	55	0	0	0	0	15	220	52	287
18:00	4	36	0	40	0	34	12	46	0	0	0	0	9	202	50	261
18:15	3	23	0	26	0	33	15	48	0	0	0	0	7	218	54	279
18:30	5	23	0	28	0	39	2	41	0	0	0	0	16	167	14	197
18:45	1	19	0	20	0	42	18	60	0	0	0	0	6	159	21	186
TOTAL	271	1155	0	1426	0	2008	560	2568	0	0	0	0	772	9409	1640	11821
AM Peak	24	94	0	118	0	138	52	190	0	0	0	0	81	912	117	1110
PM Peak	46	180	0	226	0	194	66	260	0	0	0	0	76	1210	186	1472

242 379 371 345 323 281 326 292 270 292 345 394 239 219 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815		Grand Total
326 292 270 292 345 394 239 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815	ŀ	242
326 292 270 292 345 394 239 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815	H	379
326 292 270 292 345 394 239 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815	+	371
326 292 270 292 345 394 239 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815	H	345
326 292 270 292 345 394 239 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815	H	323
326 292 270 292 345 394 239 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815	H	281
292 270 292 345 394 239 219 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815	H	
270 292 345 394 239 219 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	H	
292 345 394 239 219 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	H	
345 394 239 219 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	H	
394 239 219 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	H	
239 219 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	H	
219 266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 464 407 489 509 513 447 382 347 353 266 15815	H	
266 313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	H	
313 252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	H	
252 279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	1	
279 282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	H	
282 289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 426 447 407 489 509 513 447 382 347 353 266 15815	H	
289 277 306 265 292 297 259 275 343 272 285 309 365 337 384 464 447 407 489 509 513 447 382 347 353 266 15815	H	
277 306 265 292 297 259 275 343 272 285 309 365 337 384 364 447 407 489 509 513 447 382 347 353 266 15815	H	
306 265 292 297 259 275 343 272 285 309 365 337 384 364 447 407 489 509 513 447 382 347 353 266 15815	H	
265 292 297 259 275 343 272 285 309 365 337 384 364 447 407 489 509 513 447 382 347 353 266 15815	H	
292 297 259 275 343 272 285 309 365 337 384 364 447 407 489 509 513 447 382 347 353 266 15815	H	
297 259 275 343 272 285 309 365 337 384 364 447 407 489 509 513 447 382 347 353 266 15815	H	
259 275 343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815	F	
275 343 272 285 309 365 337 384 364 426 447 407 489 509 513 447 382 347 353 266 266 15815	F	
343 272 285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 266 15815	L	
272 285 309 365 337 384 364 426 447 407 489 509 513 447 382 347 353 266 266	L	
285 309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 15815	L	
309 365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 266 15815	L	
365 337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 266	L	
337 384 364 334 426 447 407 489 509 513 447 382 347 353 266 266 15815	L	
384 364 334 426 447 407 489 509 513 447 382 347 353 266 266	L	
364 334 426 447 407 489 509 513 447 382 347 353 266 266	L	
334 426 447 407 489 509 513 447 382 347 353 266 266	L	
426 447 407 489 509 513 447 382 347 353 266 266	Ĺ	
447 407 489 509 513 447 382 347 353 266 266	Ĺ	
407 489 509 513 447 382 347 353 266 266 15815	Ĺ	426
489 509 513 447 382 347 353 266 266 15815		447
347 353 266 266 15815		407
347 353 266 266 15815	Γ	489
347 353 266 266 15815	Г	509
347 353 266 266 15815	Г	513
347 353 266 266 15815		447
353 266 266 15815	_	
266 266 15815	F	382
266 15815		
15815		347
15815		347 353
		347 353 266
		347 353 266 266

Station ID:

Date:

S2002220013

Thursday 04/30/2009

County: Town:

Wicomico

none

Comments: LOS AM:A PM:A

Location:

US 50 at WALSTON SWITCH RD (EASTBOUND)

Weather:

PEAK	AM PERIOD	Begin	End	Volume	PM PERIOD	Begin	End	Volume
HOURS	6:00AM-12:00PM	07:15	08:15	1418	12:00PM-19:00PM	16:45	17:45	1958

Hour		ton Switch I North Leg	Road		on Switch R South Leg	oad			US 50 East Leg				US 50 West Leg	
Ending	s.c.	PED.	U.T.	s.c.	PED.	U.T.		s.c.	PED.	U.T.		s.c.	PED.	U.T.
7:00	0	0	0	0	0	0		0	0	0		0	0	
7:15	0	0	0	0	0	0		0	0	0		0	0	
7:30	0	0	0	0	0	0		0	0	0		0	0	
7:45	0	0	0	0	0	0		0	0	0		0	0	
8:00	0	0	0	0	0	0		0	0	0		0	0	
8:15	0	0	0	0	0	0		0	0	0		0	0	
8:30	0	0	0	0	0	0		0	0	0		0	0	
8:45	0	0	0	0	0	0	- 1	0	0	0		0	0	
9:00	0	0	0	0	0	0	- 1	0	0	0		0	0	
9:15	0	0	0	0	0	0	- 1	0	0	0		0	0	
9:30	0	0	0	0	0	0	- 1	0	0	0		0	0	
9:45	0	0	0	0	0	0	- 1	0	0	0		0	0	
10:00	0	0	0	0	0	0	- [0	0	0		0	0	
10:15	0	0	0	0	0	0	1	0	0	0		0	0	
10:30	0	0	0	0	0	0	1	0	0	0		0	0	
10:45	0	0	0	0	0	0	[0	0	0		0	0	
11:00	0	0	0	0	0	0	1	0	0	0		0	0	
11:15	0	0	0	0	0	0	- 1	0	0	0		0	0	
11:30	0	0	0	0	0	0	- 1	0	0	0		0	0	
11:45	0	0	0	0	1	0	- 1	0	0	0	- 1	0	0	
12:00	0	0	0	0	0	0	1	0	0	0		0	0	
12:15	0	0	0	0	0	0	- 1	0	0	0	- 1	0	0	
12:30	0	0	0	0	0	0	1	0	0	0	- 1	0	0	
12:45	0	0	0	0	0	0	1	0	0	0		0	0	
13:00	0	0	0	0	0	0	1	0	0	0	- 1	0	0	
13:15	0	0	0	0	0	0	- 1	0	0	0	- 1	0	0	
13:30	0	0	0	0	0	0	- 1	0	0	0	- 1	0	0	
13:45	0	0	0	0	0	0	1	0	0	0		0	0	
14:00	0	0	0	0	0	0	1	0	0	0		0	0	
14:15	0	0	0	0	0	0	1	0	0	0	- 1	0	0	
14:30	0	0	0	0	0	0		0	0	0	- 1	0	0	
14:45	0	0	0	0	0	0	1	0	0	0	- 1	0	0	
15:00	0	0	0	0	0	0	1	0	0	0	- 1	0	0	
15:15	0	0	0	0	0	0	1	0	0	0	- 1	0	0	
15:30	0	0	0	0	0	0	1	0	0	0		0	0	
15:45	0	0	0	0	0	0	1	0	0	0	-	0	0	
16:00	0	0	0	0	0	0	1	0	0	0	-	0	0	
16:15	0	0	0	0	0	0	1	0	0	0	-	0	0	
16:30	0	0	0	0	0	0	1	0	0	0	-	0	0	
16:45	0	0	0	0	0	0	1	0	0	0	1	0	0	
17:00	0	0	0	0	0	0	1	0	0	0	-	0	0	
17:15	0	0	0	0	0	0	+	0	0	0	-	0	0	
17:30	0	0	0	0	0	0	1	0	0	0	-	0	0	
17:45	0	0	0	0	0	0	+	0	0	0	-	0	0	
18:00	0	0	0	0	0	0	1	0	0	0	-	0	0	
18:15	0	0	0	0	0	0	-	0	0	0	-	0	0	
18:30	0	0	0	0	0	0	1	0	0	0	-	0	0	
18:45	0	0	0	0	0	0		0	0	0	L	0	0	
Total AM Book	0	0	0	0	1	0	-	0	0	0	-	0	0	
AM Peak PM Peak	0	0	0	0	0	0	L	0	0	0	L	0	0	

Station ID:

Date:

Location:

S2002220013 Thursday 04/30/2009

US 50 at WALSTON SWITCH RD (EASTBOUND)

County:

Weather:

Wicomico

Town:

Comments: LOS AM:A PM:A

Interval (dd): 15 min Begin End Volume Begin End Volume PEAK AM PERIOD PM PERIOD 6:00AM-12:00PM 07:15 08:15 1418 16:45 17:45 1958 HOURS 12:00PM-19:00PM 4206 † 1426 2780 **Turning Movement Summary** LEG 1 **Walston Switch Road** Quadrant 772 R τ ↓ UIT 271 Quadrant 1155 271 0 0 0 0 772 0 _ T Sn US 50 LEG 3 11821 10240 0 9409 L U 11821 10240 1640 0 0 2008 560 0 Quadrant 1640 U t L т R P 560 Quadrant † Walston Switch Road LEG 2 2795 2568 † 5363 337 **AM Peak Hour** 118 219 LEG 1 **Walston Switch Road** UIT Quadrant 81 Т L L 24 Quadrant 0 94 24 0 0 0 0 0 81 US 50 0 US 50 LEG LEG 3 988 1110 912 0 1110 988 117 0 0 0 138 52 n t Quadrant T Quadrant 117 R -52 **Walston Switch Road** LEG 2 190 211 401 496 † PM Peak Hour 226 270 LEG 1 Walston Switch Road Quadrant 76 Т L ULT 46 Quadrant 180 46 0 0 0 0 0 76 0 _ T LEG 4 US 50 S LEG 3 1472 1322 50 0 - L 1210 .U 1472 R 186 0 1322 194 66 Quadrant 186 U Quadrant t L -66 T 1 R -Walston Switch Road LEG 2 1 366 260

626

Maryland State Highway Administration **Highway Information Services Division Turning Movement Count Study - Field Sheet**

Comments: LOS AM:A PM:A (no pedestrians)

Station ID:

S2002220014

County: Thursday 04/30/2009

Wicomico Town: none

Date: Location:

US 50 at WALSTON SWITCH RD (WESTBOUND

Weather:

Interval (dd): 15 min

AM PERIOD 6:00AM-12:00PM Begin End Volume Begin End Volume PM PERIOD PEAK 1642 12:00PM-19:00PM 07:15 08:15 16:30 17:30 HOURS 1664

	_	Walsto	n Switch R		T T T T T T T T T T T T T T T T T T T		Switch Ro	08:15 ad	1642		M-19:00P	M 16:3	17:30	US	50	_	
Hour			om North				m South				n East			From \			Grand Total
Begin	L	Т	R	тот	L	т	R	тот	L	Т	R	тот	L	Т	R	тот	
7:00	0	10	6	16	13	20	0	33	4	171	6	181	0	0	0	0	230
7:15	0	19	14	33	12	30	0	42	8	267	13	288	0	0	0	0	363
7:30	0	15	9	24	37	32	0	69	9	328	19	356	0	0	0	0	449
7:45	0	19	16	35	27	36	0	63	17	341	18	376	0	0	0	0	474
8:00	0	17	11	28	24	20	0	44	14	256	14	284	0	0	0	0	356
8:15	0	15	7	22	13	23	0	36	14	236	19	269	0	0	0	0	327
8:30	0	20	14	34	15	31	0	46	9	231	9	249	0	0	0	0	329
8:45	0	21	25	46	17	29	0	46	13	223	8	244	0	0	0	0	336
9:00	0	15	13	28	19	20	0	39	16	193	9	218	0	0	0	0	285
9:15	0	15	21	36	20	21	0	41	13	201	7	221	0	0	0	0	298
9:30	0	16	11	27	21	18	0	39	41	183	10	234	0	0	0	0	300
9:45	0	25	8	33	25	24	0	49	46	178	9	233	0	0	0	0	315
10:00	0	11	15	26	23	19	0	42	17	178	5	200	0	0	0	0	268
10:15	0	6	15	21	25	19	0	44	5	188	7	200	0	0	0	0	265
10:30	0	14	17	31	52	36	0	88	5	198	6	209	0	0	0	0	328
10:45	0	10	20	30	81	24	0	105	6	181	9	196	0	0	0	0	331
11:00	0	12	18	30	62	28	0	90	6	157	9	172	0	0	0	0	292
11:15	0	16	18	34	52	43	0	95	6	176	9	191	0	0	0	0	320
11:30	0	17	18	35	47	26	0	73	7	170	4	181	0	0	0	0	289
11:45	0	12	23	35	56	33	0	89	9	159	7	175	0	0	0	0	299
12:00	0	11	29	40	36	26	0	62	8	189	12	209	0	0	0	0	311
12:15	0	16	20	36	32	30	0	62	5	185	9	199	0	0	0	0	297
12:30	0	13	23	36	31	20	0	51	5	211	8	224	0	0	0	0	311
12:45	0	15	15	30	28	19	0	47	10	190	6	206	0	0	0	0	283
13:00	0	7	19	26	25	29	0	54	6	175	13	194	0	0	0	0	274
13:15	0	13	13	26	20	28	0	48	6	158	8	172	0	0	0	0	246
13:30	0	27	21	48	24	19	0	43	14	186	6	206	0	0	0	0	297
13:45	0	15	17	32	32	14	0	46	9	172	11	192	0	0	0	0	270
14:00	0	11	18	29	17	23	0	40	8	165	5	178	0	0	0	0	247
14:15	0	7	23	30	21	15	0	36	6	199	7	212	0	0	0	0	278
14:30	0	9	13	22	45	18	0	63	5	195	5	205	0	0	0	0	290
14:45	0	13	12	25	53	26	0	79	10	189	12	211	0	0	0	0	315
15:00	0	15	21	36	56	18	0	74	4	231	11	246	0	0	0	0	356
15:15	0	20	19	39	37	26	0	63	12	219	5	236	0	0	0	0	338
15:30	0	14	13	27	29	30	0	59	11	236	10	257	0	0	0	0	343
15:45	0	11	19	30	22	19	0	41	14	255	8	277	0	0	0	0	348
16:00	0	19	28	47	31	42	0	73	11	241	5	257	0	0	0	0	377
16:15	0	20	20	40	32	29	0	61	19	257	20	296	0	0	0	0	397
16:30	0	28	27	55	56	35	0	91	20	234	17	271	0	0	0	0	417
16:45	0	26	14	40	32	45	0	77	17	263	17	297	0	0	0	0	414
17:00	0	32	32	64	30	25	0	55	24	237	15	276	0	0	0	0	395
17:15	0	41	25	66	38	41	0	79	26	254	13	293	0	0	0	0	438
17:30	0	29	16	45	34	26	0	60	22	262	15	299	0	0	0	0	404
17:45	0	23	22	45	33	24	0	57	16	215	7	238	0	0	0	0	340
18:00	0	19	11	30	27	16	0	43	21	141	10	172	0	0	0	0	245
18:15	0	9	8	17	23	17	0	40	17	184	14	215	0	0	0	0	272
18:30	0	15	19	34	20	35	0	55	14	159	10	183	0	0	0	0	
18:45	0	10	9	19	31	17	0	48	10				0	0	0	0	272
TOTAL	0	793	825	1618	1536	1244	0	2780	615	9961	10 486	11062	0	0	0	0	231
AM Peak	0	70	50	120	100	118	0	218	48	1192	64	1304			_	_	15460
PM Peak	0	127	98	225	156	146	0	302	87	988	62	1137	0	0	0	0	1642 1664
	0 1	14/	70	443	130	140	0	302	0/	700	02	113/	U	0 1	U	U	1004

Station ID:

S2002220014 Thursday 04/30/2009

15 min

County:

Wicomico

Comments: LOS AM:A PM:A (no pedestrians)

Date: Location:

US 50 at WALSTON SWITCH RD (WESTBOUND

Town:

Interval (dd):

Weather:

PEAK HOURS	AM PERIOD	Begin End Volume PM PERIOD Begi				Begin	End	Volume
	6:00AM-12:00PM	07:15	08:15	1642	12:00PM-19:00PM	16:30	17:30	1664
Switch Road	T West	ston Switch I	2	7	US 50		$\overline{}$	

Hour		ton Switch I North Leg	Road	Wals	ton Switch R South Leg	oad			US 50 East Leg									
Ending	s.c.	PED.	U.T.	S.C.	PED.	U.T.		s.c.	PED.	U.T.	l t	s.c.	PED.	U.T.				
7:00	0	0	0	0	0	0		0	0	0	1	0	0	0				
7:15	0	0	0	0	0	0		0	0	0	1	. 0	0	0				
7:30	0	0	0	0	0	0		0	0	0		0	0	. 0				
7:45	0	0	0	0	0	0		0	0	0		0	0	0				
8:00	0	0	0	0	0	0		0	0	0		0	0	0				
8:15	0	0	0	0	0	0		0	0	0		0	0	0				
8:30	0	0	0	0	0	0		0	0	0		0	0	0				
8:45	0	0	0	0	0	0		0	0	0		0	0	0				
9:00	0	0	0	0	0	0		0	0	0		0	0	0				
9:15	0	0	0	0	0	0	1	0	0	0		0	0	0				
9:30	0	0	0	0	0	0	1	0	0	0		0	0	0				
9:45	0	0	0	0	0	0		0	0	0		0	0	0				
10:00	0	0	0	0	0	0	1	0	0	0		0	0	0				
10:15	0	0	0	0	0	0 -	ļ	0	0	0		0	0	0				
10:30	0	0	0	0	0	0	1	0	0	0		0	0	0				
10:45	0	0	0	0	0	0	1	0	0	0		0	0	0				
11:00	0	0	0	0	0	0	1	0	0	0		0	0	0				
11:15	0	0	0	0	0	0	1	0	0	0		0	0	0				
11:30	0	0	0	0	0	0	1	0	0	0	-	0	0	0				
11:45	0	0	0	0	0	0	- 1	0	0	0	-	0	0	0				
12:00	0	0	0	0	0	0	-	0	0	0	-	0	0	0				
12:15	0	0	0	0	0	0	- 1	0	0	0	-	0	0	0				
12:30	0	0	0	0	0	0	- 1	0	0	0	-	0	0	0				
12:45	0	0	0	0	0	0		0	0	0	-	0	0	0				
13:00	0	0	0	0	0	0	- 1	0	0	0	-	0	0	0				
13:15	0	0	0	0	0	0	- 1	0	0	0	H	0	0	0				
13:30	0	0	0	0	0	0	-	0	0	0	-	0	0	0				
13:45	0	0	0	0	0	0	1	0	0	0	-	0	0	0				
14:00	0	0	0	0	0	0	- +	0	0	0	-	0	0	0				
14:15	0	0	0	0	0	0	- +	0	0	0	-	0	0	0				
14:30 14:45	0	0	0	0	0	0	- 1	0	0	0	- 1	0	0	0				
15:00	0	0	0	0	0	0	1	0	0	0	- 1	0	0	0				
15:15	0	0	0	0	0	0	+	0	0	0	-	0	0	0				
15:30	0	0	0	0	0	0	1	0	0	0	-	0	0	0				
15:45	0	0	0	0	0	0	+	0	0	0	-	0	0	0				
16:00	0	0	0	0	0	0	H	0	0	0	-	0	0	0				
16:15	0	0	0	0	0	0	1	0	0	0	-	0	0	0				
16:30	0	0	0	0	0	0	t	0	0	0	-	0	0	0				
16:45	0	0	0	0	0	0	1	0	0	0	-	0	0	0				
17:00	0	0	0	0	0	0	t	0	0	0	- 1	0	0	0				
17:15	0	0	0	0	0	0	t	0	0	0	-	0	0	0				
17:30	0	0	0	0	0	0	t	0	0	0	1	0	0	0				
17:45	0	0	0	0	0	0	- t	0	0	0	_ h	0	0	0				
18:00	0	0	0	0	0	0	t	0	0	0	1	0	0	0				
18:15	0	0	0	0	0	0	1	0	0	0	r	0	0	0				
18:30	0	0	0	0	0	0	t	0	0	0		0	0	0				
18:45	0	0	0	0	0	0	t	0	0	0	T	0	0	0				
Total	0	0	0	0	0	0	- 1	0	0	0		0	0	0				
AM Peak	0	0	0	0	0	0		0	0	0		0	0	0				
PM Peak	0	0	0	0	0	0		0	0	0		0	0	0				

Station ID: S2002220014

15 min

12322

0

Location:

Interval (dd):

12322

AM Peak Hour

1342

PM Peak Hour

1242

1342

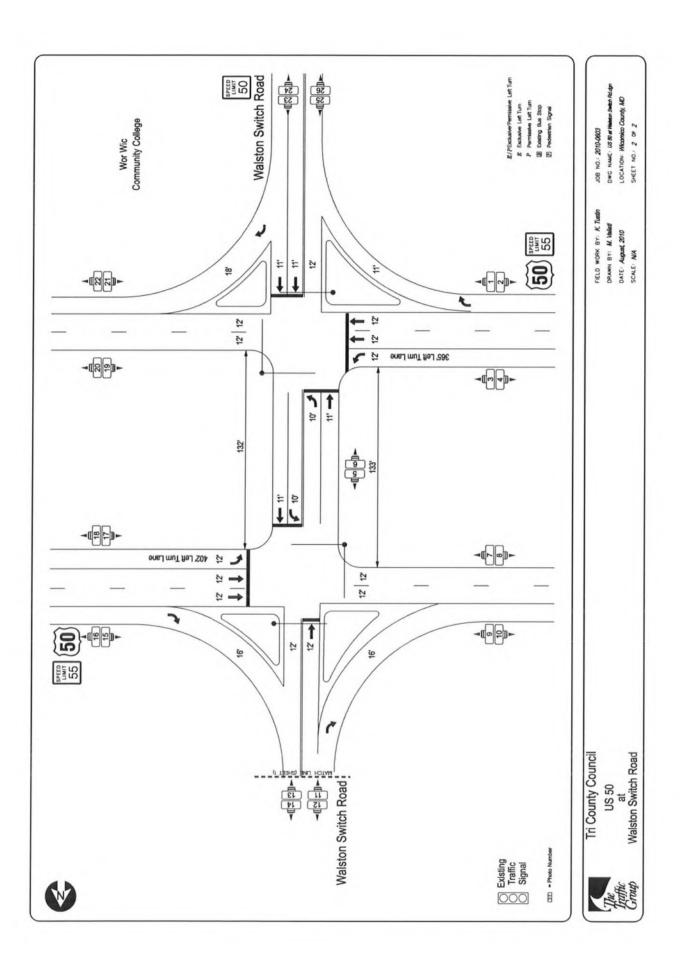
0

1242

0

County: Wicomico Comments: LOS AM:A PM:A (no pedestrians) Thursday 04/30/2009 none US 50 at WALSTON SWITCH RD (WESTBOUND Weather: Begin End Volume Begin End Volume PEAK AM PERIOD PM PERIOD HOURS 6:00AM-12:00PM 07:15 08:15 1642 12:00PM-19:00PM 16:30 17:30 1664 3348 1 **Turning Movement Summary** 1618 1730 LEG 1 **Walston Switch Road** Quadrant 825 R 🗻 UIT 486 Quadrant 825 793 0 0 0 486 11062 9961 0 _ T LEG 4 US 50 LEG 3 Sn 11062 T 0 615 U 0 0 0 0 1536 1244 0 Quadrant 1536 U t L -Т 615 Quadrant R P † Walston Switch Road LEG 2 1408 2780 † 4188 302 120 182 LEG 1 **Walston Switch Road** Quadrant R Т L 64 UIT Quadrant 50 70 50 0 0 1304 R 64 0 1192 US 50 US 50 LEG 4 LEG 3 1304 0 48 0 0 0 100 118 0 0 Quadrant 100 nt т R F 48 Quadrant **Walston Switch Road** LEG 2 118 218 336 433 † 225 208 LEG 1 Walston Switch Road Quadrant 98 UIT 62 Quadrant R Т L 127 98 0 0 0 1137 0 988

1137























































VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: Walston Switch Road and: Beaver Run Drive Location: Wicomico County, MD Counted by: EL Date: August 3

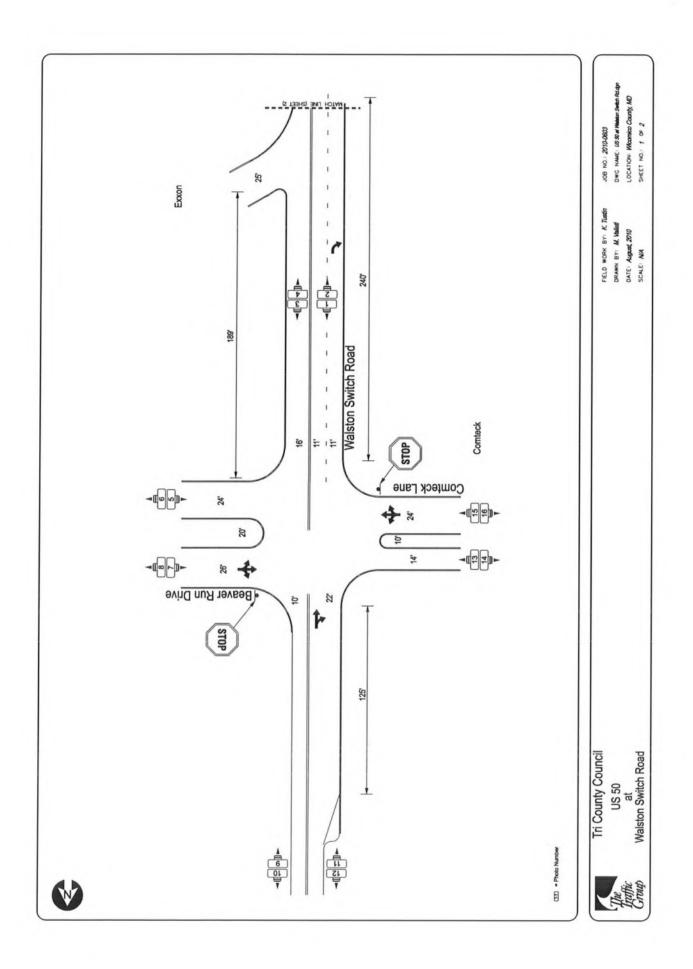
Date: August 3, 2010 Weather: Clear, 70s to 90s

Entered by: KT

Day: Tuesday



TIME		TRAFF	IC FROM	TRAFFIC FROM SOUTH						TRAFFIC FROM EAST						TRAFFIC FROM WEST					
	on: Walston Switch Road					on: Walston Switch Road					on: Beaver Run Drive					on: Beaver Run Drive					N+:
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	E+
AM																					
07:0-15					0					0					0					0	0
15-30	0	12	9	0	21	22	5	0	0	27	5	0	19	0	24	0	0	0	0	0	7
30-45	0	9	8	0	17	10	13	0	0	23	6	0	24	0	30	0	0	0	0	0	7
45-00	0	23	14	0	37	23	12	0	0	35	4	0	17	0	21	0	0	0	0	0	9
08:0-15	0	15	9	0	24	19	10	0	0	29	2	0	20	0	22	0	0	0	0	0	1 7
15-30					0					0					0					0	
30-45					0					0					0					0	
45-00					0					0					0					0	
2 Hr Totals	0	59	40	0	99	74	40	0	0	114	17	0	80	0	97	0	0	0	0	0	3
1 Hr Totals																					
07-08																					
715-815	0	59	40	0	99	74	40	0	0	114	17	0	80	0	97	0	0	0	0	0	3
730-830																					
745-845																					
08-09																					
PEAK HOUR																					'
715-815	0	59	40	0	99	74	40	0	0	114	17	0	80	0	97	0	0	0	0	0	31
PM																					
04:0-15					0					0					0					0	
15-30					0					0					0					0	1
30-45					0					0					0					0	(
45-00	0	11	6	0	17	12	5	0	0	17	11	0	30	0	41	0	0	0	0	0	7
05:0-15	0	14	2	0	16	7	17	0	0	24	19	0	24	0	43	0	0	0	0	0	8
15-30	0	22	5	0	27	10	19	0	0	29	12	0	24	0	36	0	0	0	0	0	9
30-45	0	19	6	0	25	4	27	0	0	31	11	0	22	0	33	0	0	0	0	0	8
45-00					0					0					0					0	
2 Hr Totals	0	66	19	0	85	33	68	0	0	101	53	0	100	0	153	0	0	0	0	0	33
1 Hr Totals																					
04-05																					
415-515																					
430-530																					
445-545	0	66	19	0	85	33	68	0	0	101	53	0	100	0	153	0	0	0	0	0	33
05-06																					
EAK HOUR																					
445-545	0	66	19	0	85	33	68	0	0	101	53	0	100	0	153	0	0	0	0	0	33



































APPENDIX B

Intersection Capacity Analysis
CLV Methodology
HCM Methodology

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: US 50

N/S Road: Walston Switch Rd

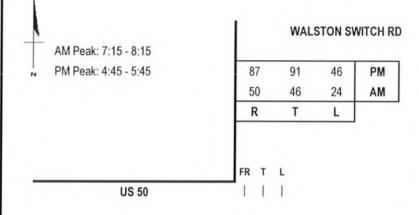
Conditions: Existing Traffic

Date of Count: 4/30/2009

Day of Count: Thursday

Analyst: Ming-Yu Chien





— R	R	64	60
— T	Т	1192	1016
— T	L	48	89
— L	7.7	AM	PM

US 50

PM	AM		L —
76	81	L	T —
1210	912	Т	T —
186	117	R	R —

L T FR

L T R

AM 95 43 52

PM 124 71 66

WALSTON SWITCH RD

Dir

NB

VOL

71

Capacity Analysis

			Mornin	g Peak Ho	ur		
		Thru Volu	mes	+(pposing	Lefts	AM
Dir	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	43	1.00	43	24	1.00	24	141
SB	46	1.00	46	95	1.00	95	141
EB	912	0.55	502	48	1.00	48	707
WB	1192	0.55	656	81	1.00	81	737

CLV TOTAL= 878
Level of Service (LOS)= A

AM V/C =0.55

SB	91	1.00	91	124	1.00	12
EB	1210	0.55	666	89	1.00	8
WB	1016	0.55	559	76	1.00	7
					CLV TOT	AL=

Thru Volumes

1.00

x LUF = Total

71

Evening Peak Hour

VOL

46

Level of Service (LOS)=

+ Opposing Lefts

1.00

x LUF = Total

46

124

76

PM V/C = 0.61

970

PM CLV

215

755

myc, 100603\clv\1.xls-total, f08/27/10

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: US 50

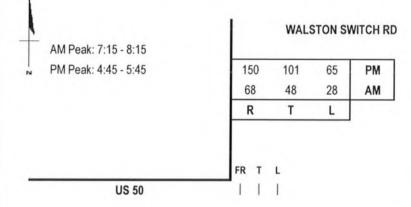
N/S Road: Walston Switch Rd

Conditions: Total Traffic

Date of Count: 4/30/2009 Day of Count: Thursday

Analyst: Ming-Yu Chien





I I	L	48 AM	89 PM
_ T		1192	1016
— R	R	85	64

US 50

	PM	AM		L —
	96	149	L	т —
1	210	912	Т	т —
1	86	117	R	R —

L T FR

L T R

AM 95 54 52

PM 124 74 66

WALSTON SWITCH RD

Capacity Analysis

			Mornin	g Peak Ho	ur		
Dir		Thru Volumes			umes + Opposing Lefts		
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	54	1.00	54	28	1.00	28	440
SB	48	1.00	48	95	1.00	95	143
EB	912	0.55	502	48	1.00	48	
WB	1192	0.55	656	149	1.00	149	805

CLV TOTAL=	948
Level of Service (LOS)=	Α
	AM V/C =0.59

Evening Peak Hour								
Dir	Т	Thru Volumes			+ Opposing Lefts			
	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV	
NB	74	1.00	74	65	1.00	65	225	
SB	101	1.00	101	124	1.00	124	220	
EB	1210	0.55	666	89	1.00	89		
WB	1016	0.55	559	96	1.00	96	755	

CLV TOTAL= 980

Level of Service (LOS)= A

PM V/C = 0.61

CRITICAL LANE VOLUME (CLV) METHODOLOGY

for Prince Georges County

E/W Road: US 50

N/S Road: Walston Switch Rd

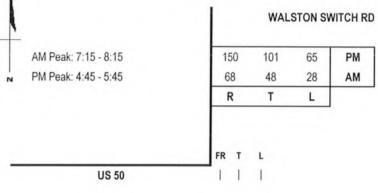
Conditions: Total Traffic

Date of Count: 4/30/2009 Day of Count: Thursday

Analyst: Ming-Yu Chien

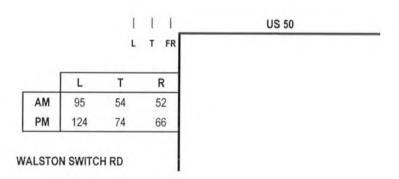


- change to N/S Split phasing



_ L		AM	PM
_T	L	48	89
_ T	Т	1192	1016
— R	R	85	64

L		AM	PM
Т	L	149	96
Т	Т	912	1210
R	R	117	186



Capacity Analysis - North/South Split

			Morning	g Peak Ho	our		
	Thru Volumes			+	+ Opposing Lefts		
Dir	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	95	1.00	95				95
SB	48	1.00	48				48
EB	912	0.55	502	48	1.00	48	805
WB	1192	0.55	656	149	1.00	149	

CLV TOTAL= 948

Level of Service (LOS)= A

AM V/C =0.59

			Evening	g Peak Ho	our		
	Т	hru Volur	nes	+	Opposing	Lefts	PM
Dir	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	124	1.00	124				124
SB	101	1.00	101				101
EB	1210	0.55	666	89	1.00	89	
							755
WB	1016	0.55	559	96	1.00	96	

CLV TOTAL= 980

Level of Service (LOS)= A

PM V/C =0.61

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: Beaver Run Dr/Comteck Ln

N/S Road: Walston Switch Rd

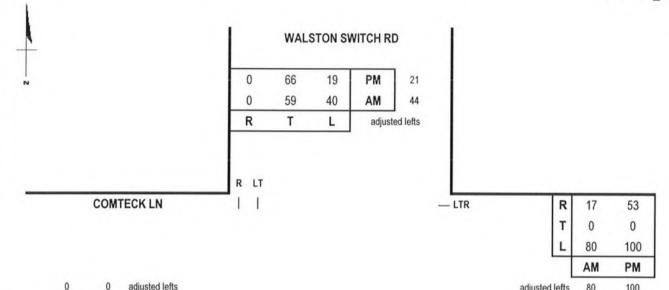
Conditions: Existing Traffic

Date of Count: 8/3/2010 Day of Count: Tuesday

Analyst: Ming-Yu Chien



100



	7			
	PM	AM]	
	0	0	L	
-	0	0	Т	
-	0	0	R	LTR -

BEAVER RUN DR

adjusted lefts

LTR adjusted lefts T R 74 0 AM 0 40 PM 68 33 WALSTON SWITCH RD

Capacity Analysis

Scenario ID - EXIST3

			Mornin	g Peak Ho	ur		
		Thru Volu	mes	+0	pposing	Lefts	AM
Dir	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	114	1.00	114	40	1.00	40	154
SB	103	1.00	103	0	1.00	0	
EB	0	1.00	0	80	1.00	80	97
WB	97	1.00	97	0	1.00	0	

CLV TOTAL= Level of Service (LOS)=

AM V//C =0.16
AMA \//C -0.16

			Evening	g Peak Ho	ur		
	T	hru Volur	nes	+(pposing	Lefts	PM
Dir	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	101	1.00	101	19	1.00	19	120
SB	87	1.00	87	0	1.00	0	
EB	0	1.00	0	100	1.00	100	153
WB	153	1.00	153	0	1.00	0	

CLV TOTAL= 273 Level of Service (LOS)=

PM V/C = 0.17

CRITICAL LANE VOLUME (CLV) METHODOLOGY for MSHA

E/W Road: Beaver Run Dr/Comteck Ln

N/S Road: Walston Switch Rd

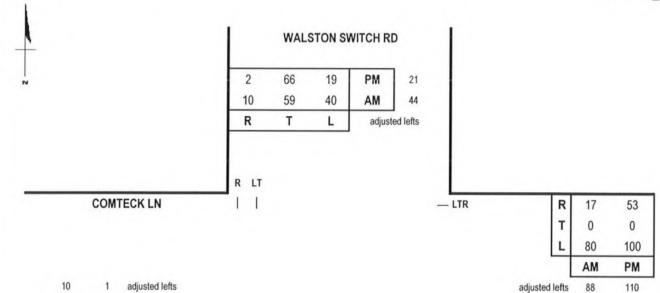
Conditions: Total Traffic

Date of Count: 8/3/2010 Day of Count: Tuesday

Analyst: Ming-Yu Chien



110



			aajaataa
	PM	AM	
1	9	1	L
-	0	0	Т
-	92	24	R

LTR

adjusted lefts L T R 74 110 AM 100 40 30 PM 27 68 33

WALSTON SWITCH RD

Capacity Analysis

LTR -

			Mornin	g Peak Ho	our		
		Thru Volu	mes	+(pposing	Lefts	AM
Dir	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	224	1.00	224	40	1.00	40	264
SB	103	1.00	103	100	1.00	100	
EB	25	1.00	25	80	1.00	80	106
WB	105	1.00	105	1	1.00	1	100

CLV TOTAL= 370 Level of Service (LOS)=

AM V/C =0.23 Scenario ID - TOT3

			Evening	g Peak Ho	ur		
	Т	hru Volur	nes	+0	opposing l	Lefts	PM
Dir	VOL	x LUF	= Total	VOL	x LUF	= Total	CLV
NB	131	1.00	131	19	1.00	19	
SB	87	1.00	87	27	1.00	27	150
EB	102	1.00	102	100	1.00	100	
WB	163	1.00	163	9	1.00	9	202
_							12.000

CLV TOTAL= 352 Level of Service (LOS)= A

BEAVER RUN DR

PM V/C = 0.22

	S and the second second	Day Bank	TOTAL		HCS	+ L)ET/	AILE	-				ACAD PRO-		N COLUM				
Analyst Agency or Co Date Perform Time Period	MYC TTG								Inters Area Juris	Typ diction	e on Year	US All Wi Ex Tri	othe comi	Walsto r areas co Coun nty Cou	ty, I	MD			
Volume and	Timing Input											450			int				
					EB	,			WB					NB				SB	
			LT		TH	RT		LT	TH		RT	_	LT	TH		RT	LT	TH	R
Number of La	ines, N ₁		1	_	2	1	_	1	2	_	1	_	1	1	+		1	1	_
Lane Group	-1->		L	-	T	R	-	L	T	_	R	_	<u>L</u>	T	+		L	T	-
Volume, V (vp			81	-	912 8	117	$\overline{}$	48	119	2	64	_	95	43	+		24	46	-
% Heavy Veh Peak-Hour Fa			0.93		.93	0.93	,	0.93	0.93		2 0.93	_	2	2	+		2	2	-
	or Actuated (A)		0.93 A	_	A	0.93	, 10		0.93	-		0.	93	0.93	+		0.93	0.93	+
Start-up Lost			2.0	_	2.0	2.0	\dashv	A 2.0	2.0	-	A 2.0	_	.0	2.0	+		A 2.0	2.0	+
	Effective Green	е	2.0	_	2.0	2.0	$\overline{}$	2.0	2.0	-	2.0	_	.0	2.0	+		2.0	2.0	+
Arrival Type,		, •	3		3	3	+	3	3	+	3	-	3	3	+		3	3	+
Unit Extension			3.0	1	3.0	3.0	\dashv	3.0	3.0	\dashv	3.0	3		3.0	+		3.0	3.0	+
Filtering/Mete			1.00	_	.000	1.00	_	1.000	1.00	_	1.000		000	1.000	1		1.000	1.000	
Initial Unmet I			0.0	(0.0	0.0		0.0	0.0		0.0	0	.0	0.0	T		0.0	0.0	
Ped / Bike / R	TOR Volumes		0		0	0		0	0		0	-)	0	T		0	0	1
Lane Width			12.0	1	2.0	12.0		12.0	12.0		12.0	10	0.0	11.0			10.0	11.0	
Parking / Grad	de / Parking		N		0	N		Ν	0		N	1	V	0	1	V	N	0	N
Parking Mane	uvers, Nm																		
Buses Stoppin	ng, Nв		0		0	0		0	0		0		0	0			0	0	
Min. Time for	Pedestrians, G	р			3.2				3.2					3.2				3.2	
Phasing	EB Only	Thru	& R1		WB (Only		04		N	S Pe	rm		06			07	0	8
Timing	G = 9.0	G = .			G = 6		_	3 = 0.	0	-	= 13	.0		= 0.0			0.0	G =	
	Y = 7.5	Y = 7	7.5		Y = 6		Y	r' = 0		Υ:	= 6		_	= 0		Y =		Y = ()
	nalysis, T = 0.2												Cy	cle Len	gth,	C =	110.0		
Lane Group (Capacity, Cont	rol De	lay,			etern	ninat	tion				10.01			100				
			т —	E		DT	1.	T [WB	LD	т	LT	-	NB		T	1.7	SB	T D7
Adjusted Flow	Pate V		.T	TH		RT	L.		TH	R		LT		TH	R	1	LT	TH	RT
•	1007775		37	98	_	126	52		1282	-	9	102	-	46			26	49	_
Lane Group C	apacity, c	14	45	217	7 1	029	9	7 2	2086	98	36	149		213			149	213	
v/c Ratio, X		0.6	60	0.45	0.	12	0.5	4 0	.61	0.0	7	0.68		0.22			0.17	0.23	
Total Green R	atio, g/C	0.0	08	0.65	0.	65	0.0	5 0	.62	0.6	2	0.12	(0.12			0.12	0.12	
Uniform Delay	, d ₁	48.	.8	9.5	7	.3	50.	6 1	2.7	8.2	2	46.5	1	13.9			43.7	44.0	
Progression F	actor, PF	1.0	000	1.00	0 1.	000	1.0	00 1	.000	1.0	000	1.00	0	1.000			1.000	1.000	
Delay Calibrat	ion, k	0.1	9	0.11	0.	11	0.1	4 0	.20	0.1	1	0.25	1	0.11			0.11	0.11	
Incremental D	elay, d ₂	6.	7	0.1	(0.1	5.	8	0.5	0.	0	12.3		0.5			0.6	0.6	
Initial Queue [Delay, d ₃	0.0	0	0.0	0	.0	0.0) (0.0	0.0)	0.0		0.0			0.0	0.0	
Control Delay		55	5.5	9.7	7	7.4	56.	.4	13.2	8.	2	58.8		44.4			44.2	44.5	
Lane Group Lo	os	E		А	/	4	E		В	A		E		D			D	D	
Approach Dela	ay		12.	8				14.6		-			54.3	}			-	14.4	1
Approach LOS	3		В					В					D					D	
ntersection De	pproach LOS B Itersection Delay 16.7					X	$C_{c} = 0.0$	62			Inter	secti	on LOS				В		
	A						1	C											

0		Interaction	V.S. WOLLSON		HUS	o+ L	/E	TAILE	-				0.45	-	(Index day	15.00				Aug.	
Analyst Agency or Co Date Perform Time Period	MYC . TTG								Into Are Jur An	erso ea risd alys	ection Type iction sis Yea	I Ir Ir	US 5 All ot Wico Existi	her mic ing oun	Walston areas o Count	'y, Λ	ИD			Med ex	
Volume and	Timing Input	15-61					Min					HI.			dien.		100		36 A. 11		
				-	EB	1				VB	1				NB				SB		
Number of Le	noo Ni		LT	-	TH 2	RT		LT	\rightarrow	TH	R		LT	_	TH	1	RT	LT	TH	R1	
Number of La Lane Group	nes, in		1 L	\dashv	T	1 R	_	1 L	-	2 T	1 R		1 L	_	1 T	+		1 L	1 T	-	
Volume, V (vp	oh)		76		1210	186	6	89		016	_)	124	1	71	+		46	91	+	
% Heavy Veh			2	\dashv	8	2	_	2	_	8	2	,	2	_	2	+		2	2	+	
Peak-Hour Fa			0.94	1	0.94	0.94	1	0.94		94	0.94	1	0.94		0.94	+		0.94	0.94	1	
	or Actuated (A))	A		A	A		A	1	_	A	_	A		A	1		A	A		
Start-up Lost			2.0		2.0	2.0		2.0	_	.0	2.0		2.0		2.0			2.0	2.0		
	Effective Green	п, е	2.0	_	2.0	2.0		2.0	_	.0	2.0		2.0		2.0			2.0	2.0		
Arrival Type,			3		3	3		3	3	3	3		3		3			3	3		
Unit Extension	n, UE		3.0		3.0	3.0		3.0	_	.0	3.0		3.0		3.0			3.0	3.0		
Filtering/Mete			1.00	_	.000	1.00	00	1.000		000			1.00	0	1.000			1.000	1.000		
Initial Unmet I			0.0		0.0	0.0		0.0	_	.0	0.0		0.0		0.0	_		0.0	0.0		
	TOR Volumes		0	_	0	0		0		0	0		0		0	_		0	0		
Lane Width			12.0	1	2.0	12.0		12.0	\neg	2.0	12.0)	10.0		11.0	_		10.0	11.0		
Parking / Grad			N	_	0	N		N	(0	N		Ν		0	1	V	N	0	N	
Parking Mane			_	_		-										_					
Buses Stoppir			0		0	0		0		0	0		0		0			0	0		
	Pedestrians, G				3.2					3.2					3.2				3.2		
Phasing	EB Only		& R1	-	WB		\dashv	04		_	NS P		-	_	06		_	07	0		
Timing	G = 9.0 Y = 7.5		50.0	\rightarrow	G = 8 Y = 6		_	G = 0			G = 1				0.0			0.0	G = (
Duration of Ar	alysis, T = 0.2	Y =	7.5	\dashv	Y = 0)		Y = 0		_	Y = 6		_	Y =		46	Y =		Y = 0)	
	Capacity, Con		olav	and	000	otorn	nin	otion		31-19		Na.	E 08 8	Сус	cle Leng	jui,	C =	110.0		me Will	
Lane Group (зарасну, соп	uoi De	elay,	El		etern		auon	WB	2		T	CYn. II		NB			and the second	SB		
			LT	TH		RT	1	LT	TH		RT	+	Т.		TH	R	Т	LT	TH	RT	
Adjusted Flow	Rate, v		81	128		198	1		1081		64	1	32		76		-	49	97		
•		_		-			+					-		+		_					
Lane Group C	apacity, c		45	202		957	1	29	1995)	943	1	76	1	262			179	262		
//c Ratio, X		0.	56	0.64	0	.21	0.	74	0.54		0.07	0.7	75	0	.29			0.27	0.37		
Total Green R	atio, g/C	0.0	08	0.60	0	.60	0.0	07	0.60		0.60	0.1	15	0	.15			0.15	0.15		
Uniform Delay	, d,	48	3.6	14.0) (9.8	50	0.0	13.3	-	9.4	45		+	1.9			41.8	42.4		
		_	000	1.00		.000	+		1.000	-	1.000	-	000	+	.000			1.000	1.000		
Delay Calibrat	niform Delay, d ₁ rogression Factor, PF elay Calibration, k		16	0.22		.11	0.2	_	0.14	-	0.11	0.3	_	-	.11			0.11	0.11		
ncremental D	elay, d ₂	_	1.8	0.7	_	0.1	+	9.7	0.3	-	0.0	+	5.3	+	0.6			0.8	0.9		
nitial Queue D	Delay, d ₂	0.	0	0.0	0	0.0	+	_	0.0		0.0	0.		+	0.0			0.0	0.0		
Control Delay			3.4	14.		9.9	+		13.6		9.4	-	1.4	-	12.5			42.7	43.3		
ane Group Lo	os			В	_	A	E		В		Α	E		+	D			D	D		
Approach Dela	ay		16.	0				17.						4.5					13.1		
Approach LOS	3		В					В				1		D					D		
ntersection De	elay		20.						.67			Int			n LOS				С		
ntersection Delay		All Right						$X_C = 0.67$ In								-	(Generated: 8/27/2010 11:4			

0		Hall cook	No. of Local	No. Company	103	T D	ובי	AILE					1,879.00		0.5-	lactive.		A Marriero	esher
Analyst Agency or Co Date Perforn Time Period	MYC								Inters Area Juris Analy Proje	Type diction	e on Year	US & All o Wice Tota	thei omid I Coul	Walston r areas co Count nty Coun	y, I	MD			
Volume and	Timing Input					438													
					В	,			WE					NB	,			SB	,
			LT	_	Ή	RT		LT	TH		RT	L.	Γ	TH		RT	LT	TH	R
Number of La	anes, N1		1	2		1	_	1	2	_	1	1		1	+		1	1	_
Lane Group			L	T		R	7	L	T		R	L		T	+		L	T	-
Volume, V (v			149		12	117		48	119	2	85	95)	54	╀		28	48	-
% Heavy Vel			2	8		2		2	8		2	2		2	╀		2	2	
Peak-Hour F		`	0.93	_		0.93		0.93	0.93		0.93	0.9	3	0.93	╀		0.93	0.93	-
	or Actuated (A)	A 2.0	A		A 2.0	_	A 2.0	A 2.0	-	A 2.0	A	_	A	+		A	A	
Start-up Lost		2.0	2.0	2.		2.0		2.0	2.0	$\overline{}$	2.0	2.0		2.0	+		2.0	2.0	-
	Effective Green	ı, e	2.0	2.		2.0		2.0	2.0	-	2.0	2.0		2.0	+		2.0	2.0	-
Arrival Type,			3.0	3.		3.0		3.0	3.0	+	3.0	3.0		3.0	+		3	3	-
Unit Extension Filtering/Meters			1.00		000	1.00	0	1.000	1.00	_	1.000				+		3.0	3.0	-
			0.0	0.		0.0	U	0.0	0.0	_	0.0	0.0		1.000	+		0.0	1.000	-
	d / Bike / RTOR Volumes ne Width 1 king / Grade / Parking king Maneuvers, Nm		0.0	0.		0.0		0.0	0.0	\dashv	0.0	0.0		0.0	╁		0.0	0.0	-
	d / Bike / RTOR Volumes ne Width rking / Grade / Parking rking Maneuvers, Nm ses Stopping, NB		12.0	12		12.0		12.0	12.0		12.0	10.0	2	11.0	╁		10.0	11.0	-
	de / Parking		N	0		N		N	0		N	N N	_	0	+,	V	N	0	N
			10			10		10	10	-	74	10	_	0	'	V	//	0	10
			0	0		0	_	0	0	\dashv	0			-	╀			-	-
	ses Stopping, NB n. Time for Pedestrians, Gp		0			2		0	3.2		U	0		3.2			0	0	
		-	0 07) l	_	0.4	3.2	_	0.0						07	3.2	
Phasing	asing EB Only Thr					Only 6.0		04		_	S Per		_	06	G =		07	0	
Timing	Y = 7.5	Y =			= 6			G = 0.0 $Y = 0$	0		= 13. = 6	U	_	= 0.0		Y =		G = (
Duration of A	nalysis, T = 0.2		7.5	1	- 0			1 - 0		Ι .	- 0		_		th			Y = 0	,
			lov	and I (20.0	o to vm	inc	tion		herele i		Selection	Су	cle Leng	ııı,	C =	110.0	SISSIN CONTRACT	Was and
Larie Group	Capacity, Con	uoi De	elay, e	EB	ט פו	etern	IIIIa	шоп	WB		1			NB		4.1	STEE SHIPS	SB	11.50
			T	TH	1	RT	1	T	TH	R	т	LT	Т	TH	R	Т	LT	TH	RT
Adjusted Flov	v Rate v		60	981	\neg	26							\dashv		- '				IXI
•		_			_				1282	9		102	4	58			30	52	
ane Group (Capacity, c	2.	25	2177	10	029	9	97 1	1934	91	14	149		213			148	213	
//c Ratio, X		0.7	71	0.45	0.	12	0.5	54 0	0.66	0.1	0	0.68	(0.27			0.20	0.24	
Total Green F	Ratio a/C	0.1		0.65	_	65	-			+	_		+		_				
					_		0.0	_	.58	0.5	_	0.12	-	0.12			0.12	0.12	
Jniform Dela		46		9.5	_	.3	50		5.9	10.		46.5	-	14.2			43.8	44.0	_
	77777		000	1.000	_	000	-		.000	1.0	-	1.000	+	1.000			1.000	1.000	
Delay Calibra			27	0.11	0.	11	0.1	14 0	.24	0.1	1	0.25	0	0.11			0.11	0.11	
	cremental Delay, d ₂		0.0	0.1	0).1	5	.8	0.9	0.	0	12.3		0.7			0.7	0.6	
nitial Queue	Delay, d ₃	0.	0	0.0	0.	0	0.	0 0	0.0	0.0)	0.0		0.0			0.0	0.0	
Control Delay		56	6.1	9.7	7	.4	56	6.4	16.8	10	.5	58.8		44.9			44.5	44.6	
ane Group L	OS	E		Α	1	A	E		В	В		E		D			D	D	
Approach Del	ay		15.	3				17.8		-		5	3.7	,			4	4.6	
	S		В					В			1		D					D	
Approach LO	Intersection Delay 19.4			I	_				Intersection LOS										
Approach LO				1			,	$X_{c} = 0.0$	67			Intore	octi	on LOC				В	

Conoral luf	rmation		600.00	PENN	1103	, · L	, ,	AILE		_	PORT	tia-	7/10	n lan						
Analyst Agency or C Date Perforn Time Period	MYC								Ir A Ji	nters Area urisd	nforma ection Type liction sis Yea	V r 7	JS 5 All ot Vico Total	her a	Walston areas Count	у, Л	ИD			
Volume and	Timing Input						V.							100	he lade			(All III.)		
					EB					WB					NB	_			SB	,
12 1			LT		TH	RT	Γ	LT	4	TH	R		LT		TH	F	RT	LT	TH	R
Number of L	anes, N1		1	_	2	1		1	4	2	1		1		1	_		1	1	
Lane Group			L		T	R	_	L	-	T	R		L		T	╄		L	T	-
Volume, V (v			96		1210	186	6	89	4	1016	_		124	1	74	+		65	101	-
% Heavy Vel			2		8	2		2	4	8	2	.	2		2	1		2	2	
Peak-Hour F			0.94		0.94	0.94	1	0.94	_	0.94	0.94	1	0.94		0.94	+		0.94	0.94	-
	or Actuated (A)		A		A 2.0	A		A	_	A	A		A		A	-		A	A	-
Start-up Lost		•	2.0	_	2.0	2.0	_	2.0	_	2.0	2.0		2.0		2.0	-		2.0	2.0	-
	Effective Green,	е	2.0	_	2.0	2.0	_	2.0	-	2.0	2.0	_	2.0		2.0	+		2.0	2.0	-
Arrival Type,			3	_	3	3	_	3	-	3	3	_	3		3	+		3	3	-
Unit Extension		_	3.0	0	3.0	3.0	00	3.0	_	3.0	3.0	_	3.0	0	3.0	-		3.0	3.0	-
Filtering/Mete	Demand, Qb		1.00 0.0	U	1.000	1.00		1.000	_	1.000		_	1.00	U	1.000	-		1.000	1.000	-
	RTOR Volumes	_	0.0	\dashv	0.0	0.0	_	0.0	+	0.0	0.0	-	0.0		0.0	-		0.0	0.0	-
Lane Width	RTOR Volumes		12.0	\dashv	12.0	_)	12.0	-	12.0					11.0	+		-		-
	de / Parkina		12.0 N	-	0	12.0		N	-1	0	12.0		10.0 N			-	,	10.0	11.0	1 41
Parking / Gra			IV	\dashv	U	IV	_	//	+	U	- N	-	IV	_	0	1	V	N	0	N
Parking Man		_	_	-	_	+-			+	_		_		_	_	-			-	_
Buses Stopp	<u> </u>		0		0	0		0		0	0	-	0		0	_		0	0	
	Pedestrians, Gp			_	3.2		_			3.2					3.2				3.2	
Phasing	EB Only	Thru			WB		-	04			NS P		_		06			07		8
Timing	G = 9.0	G =			G = 8		-	G = 0			G = 1		_		0.0			0.0	G = (
D :: (A	Y = 7.5	Y =	7.5	_	Y = 6)		Y = 0			Y = 6		\rightarrow	Y =			Y =		Y = ()
	nalysis, T = 0.25													Сус	le Leng	th,	C =	110.0		
Lane Group	Capacity, Conti	rol De	lay,			etern	nina	ation	14.	<u></u>	Carlo.	_	Per							
		-	T		В	DT	+	I T	W		DT	+-	т		NB	-	т	1.7	SB	
Adjusted Elec	y Poto y			T		RT	\neg	LT	Th		RT		.T		TH	R	1	LT	TH	R
Adjusted Flov		10	02	12	8/	198	1	95	108	81	68	13	32		79			69	107	
Lane Group (Capacity, c	1.	45	20	25	957	1	29	199	95	943	17	74	2	262			178	262	
v/c Ratio, X		0.7	70	0.6	4 0	.21	0.	74	0.54	4	0.07	0.7	76	0.	30			0.39	0.41	
Total Green F	Ratio, g/C	0.0	08	0.6	0 0	.60	0.	07	0.60	0	0.60	0.1	15	0.	15			0.15	0.15	
Jniform Dela	y, d ₁	49.	2	14.	0 9	9.8	50	_	13.3		9.4	45.		-	2.0			42.6	42.7	
Progression F	Factor, PF	1.0	000	1.0	00 1	.000	1.	000	1.00	00	1.000	-	000	-	000			1.000	1.000	
Delay Calibra	tion, k	0.2	27	0.2	2 0	.11	0.	29	0.14	4	0.11	0.3	31	0.	11			0.11	0.11	
ncremental [elay Calibration, k cremental Delay, d ₂		1.3	0.	-	0.1	1	9.7	0.3	_	0.0	-	7.5		0.7			1.4	1.0	
		0.0	0	0.0	_	0.0	+	.0	0.0		0.0	0.0		_	.0			0.0	0.0	
Control Delay		63	3.5	14.	6	9.9	6	9.7	13.	.6	9.4	62	2.6	4	2.7			44.0	43.7	
ane Group L	.OS	E		В		A	E	=	В		Α	E						D	D	
Approach De	ay		17.	2			1	17.	6					5.1					13.8	
	S		В				1	В				\vdash	_	E					D	
Approach LO							_					-							757	
Approach LO ntersection D	elav		21.	3				$X_{c} = 0$	67			Int	orce	otio	LOS				C	

Canaval Information		NO-WAY STOP						last a const
General Information	1		Site II	nformati	on	HERBERT PLAN	W	
Analyst Agency/Co. Date Performed Analysis Time Period	MYC TTG 8/27/2010 AM Peak		Jurisdi Analys			Run	Switch Rd o	
Project Description Tri-	-County Council/	Shore Transit						
East/West Street: Beave			North/S	South Stree	et: Walston	Switch Rd		
Intersection Orientation:	North-South		Study F	Period (hrs): 0.25			
Vehicle Volumes an	d Adjustmen	ts	A STANISH OF	a de la co		10 S. S. S.	SAN ALL	the kein.
Major Street	1	Northbound			THE RESERVE OF THE PARTY OF THE	Southbo	und	
Movement	1	2	3		4	5		6
	L	Т	R		L	Т		R
Volume (veh/h)	0	40	74		40	59		0
Peak-Hour Factor, PHF	0.83	0.83	0.83	3	0.83	0.83		0.83
Hourly Flow Rate, HFR (veh/h)	0	48	89		48	71		0
Percent Heavy Vehicles	2				2			
Median Type				Undivide	ed			
RT Channelized			0					0
Lanes	0	1	0		0	1		1
Configuration	LTR				LT			R
Jpstream Signal		0				0		
Minor Street		Eastbound				Westboo	und	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume (veh/h)	0	0	0		80	0		17
Peak-Hour Factor, PHF	0.83	0.83	0.83		0.83	0.83		0.83
Hourly Flow Rate, HFR (veh/h)	0	0	0		96	0		20
Percent Heavy Vehicles	2	2	2		2	2		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration		LTR				LTR		
Delay, Queue Length, ar	nd Level of Serv	ice	Westhound				Light miles	
Approach	Northbound	Southbound		Westboun	d		Eastbound	
Movement	1	4	7	8	9	10	11	12
ane Configuration	LTR	LT	1 8 LTR 116			1	LTR	1
(veh/h)	0	48					0	
C (m) (veh/h)	1529	1447		713				
/c	0.00	0.03		0.16				
95% queue length	0.00	0.10		0.78				
								-
Control Delay (s/veh)	7.4	7.6		11.0				-
.08	Α	Α		В				
Approach Delay (s/veh)				11.0				
Approach LOS				В				

Generated: 8/27/2010 11:59 AM

	T\	NO-WAY STOP	CONTRO	OL SUM	MARY			
General Information	1	Lead Sale	Site In	formati	on			Alte See
Analyst Agency/Co. Date Performed Analysis Time Period	MYC TTG 8/27/2010 PM Peak		Intersed Jurisdic Analysi	ction		Run	Switch Rd &	
Project Description Tri-	-County Council/	Shore Transit						
East/West Street: Beave		Shore Transit	North/S	outh Stree	et: Walstor	Switch Rd		
Intersection Orientation:				eriod (hrs		· omon na		
Vehicle Volumes an	d Adjustmen	ts	Tagair di			RESERVED KATANIA	America (
Major Street	- La rajaoanon	Northbound	AMERICA CARE	TOTAL PROPERTY.	BI BILLEYCKIN	Southbou	ınd	Objection (Sec
Movement	1	2	3		4	5		6
	Ĺ	T	R		L	T		R
Volume (veh/h)	0	68	33		19	66		0
Peak-Hour Factor, PHF	0.92	0.92	0.92		0.92	0.92		0.92
Hourly Flow Rate, HFR (veh/h)	0	73	35		20	71		0
Percent Heavy Vehicles	2				2			
Median Type				Undivide	ed			
RT Channelized			0					0
Lanes	0	1	0		0	1		1
Configuration	Pent Heavy Vehicles 2		LT			R		
Upstream Signal	LTR					0		
Minor Street		Eastbound				Westbou	nd	
Movement	7	Eastbound 7 8			10	11		12
	Eastbound 7 8 L T		R	R L		Т		R
Volume (veh/h)	0	0	0			0		53
Peak-Hour Factor, PHF	0.92	0.92	0.92			0.92		0.92
Hourly Flow Rate, HFR (veh/h)	0	0	0		108	0		57
Percent Heavy Vehicles	2	2	2		2	2		2
Percent Grade (%)	2 2 0				0			
Flared Approach	2 2 0 N O				N			
Storage	N 0				0			
RT Channelized		0 1 LTR	0					0
Lanes	, and Level of Service Northbound Southbound	0		0	1		0	
Configuration		LTR				LTR		
Delay, Queue Length, ar	nd Level of Serv	ice	Salar Salar		gin portro	Salar Salar		MA PA
Approach			V	Vestboun	d		Eastbound	
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LT		LTR			LTR	1
v (veh/h)	0	20		165			0	
C (m) (veh/h)	1529	1483		813				1
v/c	0.00	0.01		0.20	1			
95% queue length	0.00	0.04		0.76				
					-			
Control Delay (s/veh)	7.4	7.5		10.6				
LOS	Α	Α		В				
Approach Delay (s/veh)				10.6				

Approach LOS

В

General Information	1	A	Site I	nformati	on	4584	bak T. P	e div	
Analyst Agency/Co. Date Performed Analysis Time Period	MYC TTG 8/27/2010 AM Peak		Interse	ection	<u></u>	Run	Switch Rd o		
Project Description Tri-	County Council/	Shore Transit							
East/West Street: Beave		Shore Transit	North/S	South Stree	et: Walston	Switch Rd			
Intersection Orientation:				Period (hrs					
Vehicle Volumes an	d Adjustmen	ts		r Hara		et a superior	principal d	ile rep	
Major Street	1	Northbound	- 1			Southbou	und		
Movement	1	2	3		4	5		6	
	L	Т	R		L	Т		R	
Volume (veh/h)	100	40	74		40	59		10	
Peak-Hour Factor, PHF	0.83	0.83	0.83	3	0.83	0.83		0.83	
Hourly Flow Rate, HFR (veh/h)	120	48	89		48	71		12	
Percent Heavy Vehicles	2				2				
Median Type				Undivide	ed				
RT Channelized			0					0	
Lanes	0	1	0		0	1		1	
Configuration	LTR				LT			R	
Upstream Signal		0				0			
Minor Street		Eastbound				Westbou	ınd		
Movement	7	8	9		10	11		12	
	L	Т	R		L	Т		R	
Volume (veh/h)	1	0	24		80	0		17	
Peak-Hour Factor, PHF	0.83	0.83	0.83		0.83	0.83		0.83	
Hourly Flow Rate, HFR (veh/h)	1	0	28		96	0		20	
Percent Heavy Vehicles	2	2	2		2	2		2	
Percent Grade (%)		0				0			
Flared Approach		N				N			
Storage		0				0			
RT Channelized			0					0	
anes	0	1	0		0	1		0	
Configuration		LTR				LTR			
Delay, Queue Length, ar	d Level of Serv	ice		31.00		Her W. H.	na Sa	Contract of	
Approach	Northbound	Southbound		Westbound	d		Eastbound		
Movement	1	4	7	8	9	10	11	12	
ane Configuration	LTR	LT		LTR			LTR		
(veh/h)	120	48		116			29		
C (m) (veh/h)	1514	1447		458			947		
//c	0.08	0.03		0.25			0.03		
95% queue length	0.26	0.10		0.99			0.09		
Control Delay (s/veh)	7.6	7.6		15.5			8.9		
OS	7.0 A	A A		C				1	
							A		
Approach Delay (s/veh)				15.5			8.9		

General Information		18-16 - T. 16 - 17 - 18	Cito Is	-f		ALL PROPERTY OF THE PARTY OF TH		
Analyst Agency/Co. Date Performed Analysis Time Period	MYC TTG 8/27/2010 PM Peak		Interse		on	Run	Switch Rd &	
	County Council/	Shore Transit						
East/West Street: Beave					et: Walston	Switch Rd		
Intersection Orientation:			Study F	Period (hrs): 0.25	1000		
Vehicle Volumes an	d Adjustmen							ek. II
Major Street	+ 4	Northbound	1 0			Southbou	und	
Movement	1 L	2 T	3 R		4 L	5 T		6
Volume (veh/h)	27	68	33		19	66		R 2
Peak-Hour Factor, PHF	0.92	0.92	0.92		0.92	0.92		0.92
Hourly Flow Rate, HFR								
(veh/h)	29	73	35		20	71		2
Percent Heavy Vehicles	2				2			
Median Type				Undivide	ed	,		
RT Channelized			0					0
Lanes	0	1	0		0	1		1
Configuration	LTR				LT			R
Upstream Signal		0				0		
Minor Street		Eastbound	,			Westbou	nd	
Movement	7	8	9		10	11		12
	L	Т	R		L	Т		R
Volume (veh/h)	9	0	92		100	0		53
Peak-Hour Factor, PHF	0.92	0.92	0.92		0.92	0.92		0.92
Hourly Flow Rate, HFR (veh/h)	9	0	99		108	0		57
Percent Heavy Vehicles	2	2	2		2	2		2
Percent Grade (%)		0				0		
Flared Approach		N				N		
Storage		0				0		
RT Channelized			0					0
anes	0	1	0		0	1		0
Configuration		LTR				LTR		
Delay, Queue Length, ar	d Level of Serv	ice	A 1 1 12 12 12 12 12 12 12 12 12 12 12 12	Trible B			W 24.25	Market Land
Approach	Northbound	Southbound	1	Westboun	d		Eastbound	
Movement	1	4	7	8	9	10	11	12
ane Configuration	LTR LT LTR 29 20 165			LTR				
/ (veh/h)	29	20		165			108	
C (m) (veh/h)	1527	1483		658			942	
ı/c	0.02	0.01		0.25			0.11	
95% queue length	0.06	0.04		0.99			0.39	
Control Delay (s/veh)	7.4	7.5		12.3			9.3	
.OS	A A	A A		B			9.3 A	
Approach Delay (s/veh)				12.3			9.3	
				12.5			9.3	

General Information

Project Description Tri-County Council - US 50 & Walston Switch Rd - Existing AM

Average Back of Queue									10-11-			
		EB	,		WB	,		NB	,		SB	
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	L	T	R	L	T	R	L	T		L	T	
Initial Queue/Lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow Rate/Lane Group	87	981	126	52	1282	69	102	46		26	49	
Satflow/Lane	1770	1759	1583	1770	1759	1583	1261	1801		1264	1801	
Capacity/Lane Group	145	2177	1029	97	2086	986	149	213		149	213	
Flow Ratio	0.0	0.3	0.1	0.0	0.4	0.0	0.1	0.0		0.0	0.0	
v/c Ratio	0.60	0.45	0.12	0.54	0.61	0.07	0.68	0.22		0.17	0.23	
I Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival Type	3	3	3	3	3	3	3	3		3	3	
Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
PF Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Q1	2.6	7.8	1.5	1.5	12.6	0.8	3.0	1.3		0.7	1.4	
kв	0.2	0.8	0.8	0.2	0.8	0.8	0.2	0.3		0.2	0.3	
Q2	0.3	0.7	0.1	0.2	1.3	0.1	0.5	0.1		0.1	0.1	
Q Average	2.9	8.5	1.6	1.8	13.8	0.9	3.5	1.4		0.8	1.4	
Percentile Back of Queue	(95th p	ercen	tile)					A SEL	Y		A.	
fB%	2.0	1.9	2.0	2.0	1.8	2.1	2.0	2.1		2.1	2.1	
Back of Queue	5.9	15.9	3.2	3.6	24.6	1.8	7.0	2.8		1.6	3.0	
Queue Storage Ratio			Hank									
Queue Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Queue Storage	0	0	0	0	0	0	0	0		0	0	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

Copyright © 2008 University of Florida, All Rights Reserved

HCS+TM Version 5.4

Generated: 8/31/2010 2:06 PM

General Information

Project Description Tri-County Council - US 50 & Walston Switch Rd - Existing PM

Average Back of Queue							A Bla	Venue la				
		EB			WB	,		NB			SB	
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	L	T	R	L	T	R	L	T		L	T	
Initial Queue/Lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow Rate/Lane Group	81	1287	198	95	1081	64	132	76		49	97	
Satflow/Lane	1770	1759	1583	1770	1759	1583	1207	1801		1230	1801	
Capacity/Lane Group	145	2025	957	129	1995	943	176	262		179	262	
Flow Ratio	0.0	0.4	0.1	0.1	0.3	0.0	0.1	0.0		0.0	0.1	
v/c Ratio	0.56	0.64	0.21	0.74	0.54	0.07	0.75	0.29		0.27	0.37	
I Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival Type	3	3	3	3	3	3	3	3		3	3	
Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
PF Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Q1	2.4	13.2	2.7	2.8	10.3	0.8	3.9	2.1		1.3	2.7	
kв	0.2	0.8	0.8	0.2	0.8	0.8	0.3	0.3		0.3	0.3	
Q2	0.3	1.4	0.2	0.6	0.9	0.1	0.7	0.1		0.1	0.2	
Q Average	2.7	14.6	2.9	3.4	11.3	0.9	4.6	2.2		1.4	2.9	
Percentile Back of Queue	(95th p	ercen	tile)				OMER					W. Sys
fB%	2.0	1.8	2.0	2.0	1.8	2.1	2.0	2.0		2.1	2.0	
Back of Queue	5.4	25.8	5.9	6.8	20.5	1.8	9.0	4.5		3.0	5.8	
Queue Storage Ratio												
Queue Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Queue Storage	0	0	0	0	0	0	0	0		0	0	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

Copyright © 2008 University of Florida, All Rights Reserved

HCS+TM Version 5.4

Generated: 8/31/2010 2:19 PM

General Information

Project Description Tri-County Council - US 50 & Walston Switch Rd - Total AM

Average Back of Queue				S-15-7								
		EB			WB			NB			SB	
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	L	T	R	L	T	R	L	T		L	T	
Initial Queue/Lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow Rate/Lane Group	160	981	126	52	1282	91	102	58		30	52	
Satflow/Lane	1770	1759	1583	1770	1759	1583	1257	1801		1250	1801	
Capacity/Lane Group	225	2177	1029	97	1934	914	149	213		148	213	
Flow Ratio	0.1	0.3	0.1	0.0	0.4	0.1	0.1	0.0		0.0	0.0	
v/c Ratio	0.71	0.45	0.12	0.54	0.66	0.10	0.68	0.27		0.20	0.24	
I Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival Type	3	3	3	3	3	3	3	3		3	3	
Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
PF Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Q1	4.7	7.8	1.5	1.5	14.1	1.2	3.0	1.6		0.8	1.4	
kв	0.3	0.8	0.8	0.2	0.8	0.7	0.2	0.3		0.2	0.3	
Q2	0.7	0.7	0.1	0.2	1.5	0.1	0.5	0.1		0.1	0.1	
Q Average	5.4	8.5	1.6	1.8	15.6	1.3	3.5	1.7		0.9	1.5	
Percentile Back of Queue	(95th p	ercen	tile)						in his		144	
fB%	1.9	1.9	2.0	2.0	1.8	2.1	2.0	2.0		2.1	2.1	
Back of Queue	10.5	15.9	3.2	3.6	27.3	2.7	7.0	3.5		1.8	3.2	
Queue Storage Ratio	. New								and i			
Queue Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Queue Storage	0	0	0	0	0	0	0	0		0	0	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

Copyright © 2008 University of Florida, All Rights Reserved

HCS+TM Version 5.4

Generated: 8/31/2010 2:05 PM

General Information

Project Description Tri-County Council - US 50 & Walston Switch Rd - Total PM

Average Back of Queue												
		EB			WB	,		NB			SB	
	LT	TH	RT	LT	TH	RT	LT	TH	RT	LT	TH	RT
Lane Group	L	T	R	L	T	R	L	T		L	T	
Initial Queue/Lane	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Flow Rate/Lane Group	102	1287	198	95	1081	68	132	79		69	107	
Satflow/Lane	1770	1759	1583	1770	1759	1583	1196	1801		1227	1801	
Capacity/Lane Group	145	2025	957	129	1995	943	174	262		178	262	
Flow Ratio	0.1	0.4	0.1	0.1	0.3	0.0	0.1	0.0		0.1	0.1	
v/c Ratio	0.70	0.64	0.21	0.74	0.54	0.07	0.76	0.30		0.39	0.41	
I Factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000		1.000	1.000	
Arrival Type	3	3	3	3	3	3	3	3		3	3	
Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
PF Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	
Q1	3.0	13.2	2.7	2.8	10.3	0.9	3.9	2.2		1.9	3.0	
кв	0.2	0.8	0.8	0.2	0.8	0.8	0.3	0.3		0.3	0.3	
Q2	0.5	1.4	0.2	0.6	0.9	0.1	0.7	0.1		0.2	0.2	
Q Average	3.6	14.6	2.9	3.4	11.3	0.9	4.6	2.3		2.1	3.2	
Percentile Back of Queue	(95th)	ercen	tile)				V SAL					
fB%	2.0	1.8	2.0	2.0	1.8	2.1	2.0	2.0		2.0	2.0	
Back of Queue	7.1	25.8	5.9	6.8	20.5	1.9	9.1	4.7		4.2	6.4	
Queue Storage Ratio									1			
Queue Spacing	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0		25.0	25.0	
Queue Storage	0	0	0	0	0	0	0	0		0	0	
Average Queue Storage Ratio												
95% Queue Storage Ratio												

Copyright © 2008 University of Florida, All Rights Reserved

HCS+TM Version 5.4

Generated: 8/31/2010 2:20 PM

	Maximum Calculated Cueue (Feet)						The Local port 1700	A A Cina	- total
			3600	3600 (Seconds per hour)	hour)		a variable ver	x zo reet per venicie x 1.4 surge ractor	actor
1. US 50 & Walston Sw	alston Switch Rd	Available Storage	Maximum Queue	Veh / Hour	Lane Use Factor	Cycle Length (seconds)	Seconds / Hour	Feet / Vehicle	Surge Fac
Existing AM									
	EB US 50 Left	400	87	18	-	110	3600	25	1.4
	WB US 50 Left	440	51	48	-	110	3600	25	1.4
	NB Walston Switch Rd Left	210	102	92	-	110	3600	25	1.4
	SB Walston Switch Rd Left		26	24	-	110	3600	25	1.4
Existing PM									
	EB US 50 Left	400	18	92	1	110	3600	25	1.4
	WB US 50 Left	440	92	88	-	110	3600	25	1.4
	NB Walston Switch Rd Left	210	133	124	-	110	3600	25	1.4
	SB Walston Switch Rd Left		49	46	-	110	3600	25	1.4
Total AM									
	EB US 50 Left	400	159	149	-	110	3600	25	1.4
	WB US 50 Left	440	51	48	-	110	3600	25	1.4
	NB Walston Switch Rd Left	210	102	98	-	110	3600	25	1.4
	SB Walston Switch Rd Left		30	28	-	110	3600	25	1.4
Existing PM									
	EB US 50 Left	400	103	96	-	110	3600	25	1.4
	WB US 50 Left	440	96	68	-	110	3600	25	4.1
	NB Walston Switch Rd Left	210	133	124	-	110	3600	25	1.4
	SB Walston Switch Rd Left		70	99	-	110	3600	25	4.

