DEVELOPING HYBRID MEASURES

OF PERFORMANCE FOR

SIGNALIZED INTERSECTIONS

by

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ABSTRACT

There are two methods for evaluating performance of signalized intersections – a volume based measure using the Critical Movement Summation (CMS) method and a delay based method, such as using simulation software like Synchro or the Highway Capacity Manual. Each method provides different indicators of the intersections performance. In general the two methods are used separately, which does not provide consistency in measuring intersection performance. This research highlights the differences between accepted methods and examines if there is a way to make the outputs from CMS sheets and Synchro models more comparable and preferably, interchangeable.

Chapter 1

INTRODUCTION

In the fall semester of 2010, a partnership began between the University of Delaware, AECOM, and the Delaware Department of Transportation (DelDOT), with the purpose of giving students more practical experience in traffic engineering. Each semester a different corridor was selected based on DelDOT’s needs and the congestion management report from the local Metropolitan Planning Organization (MPO). The main goal of the signal timing project was to optimize signal timings along a corridor to allow the maximum progression of vehicles through the entire corridor, effectively reducing delay and level of service (LOS).

Typically, LOS can be calculated from Critical Movement Summation (CMS) sheets, Synchro, and the Highway Capacity Manual (HCM) method. Both Synchro and HCM use delay-based methods to calculate LOS while CMS sheets use volume-based methods to calculate LOS. Currently, the HCM is the most popular method for analyzing capacity. Only CMS sheets and Synchro were used to analyze the corridors in this project. As more and more corridors were analyzed, it was found that the CMS sheets and Synchro produced different LOS results. However, it was unclear what the correlation was between the two different results.

This research began as a way to examine if there was a method to predicting LOS results from CMS sheets to Synchro. To fix an intersection, there are three different methods: retiming, restriping, or rebuilding. Both retiming and restriping were studied as a part of this research to improve the performance of signalized intersections. Eight different restriping options were investigated to find out what restriping options improve the performance of the intersection. Fixed volumes were set in order to compute CMS sheets to get LOS ratings A-F for a base model and all eight restriping tests. Synchro models were created for the base model and restriping tests to compute splits and analyze retiming options. The results were analyzed to determine the correlation between LOS ratings from the CMS sheets and Synchro. The range of LOS ratings computed from Synchro for each CMS LOS rating was also analyzed. Individual delays and LOS were looked at for each movement in order to find patterns that would be useful to comparing CMS and Synchro LOS ratings.

Chapter 2 will describe the background on previous work that has been published relating to performance measures at signalized intersections. Chapter 3 will discuss the background of the three LOS methods, HCM, Synchro, and CMS sheets, as well as the methodology of this research. Chapter 4 will present the results of the study. Future studies that are recommended based on the results of the studies are in Chapter 5. Appendix A includes traffic counts from the study intersection, Appendix B includes all of the CMS sheets for the different restriping options, Appendix C includes Synchro Outputs, and finally Appendix D includes LOS charts to show the ranges possible from comparing CMS LOS ratings to Synchro LOS ratings.

Chapter 2

LITERATURE REVIEW

2.1 Introduction to Literature Review

This chapter provides a look at previous studies on level of service and performance measures at signalized intersections. It will look at different methods used to determine how well the intersection is performing, the connection between level of service and safety, alternative methods, current projects, and future work.

2.2 Defining Level of Service

Roess does a very good job of describing level of service (LOS) and what the different parameters are. He clearly defines level of service as the "general concept and definition of the existing six-letter scale (A through F), that is used to characterize the quality of service on specific points or segments…." He does not define what made an intersection receive an LOS A. While it may be understood what LOS A-F mean in terms of whether the roadway is failing or not, it is unclear from this paper what that translates to in terms of traffic and congestion (Roess et al. 2010).

Wang defines LOS as the "measure of the operational condition for speed and travel time, freedom to maneuver, traffic interruptions, comfort and convenience." However, they do not define how they calculate LOS either. Whether or not they use delay based LOS or volume based LOS, which are common methods used to calculate LOS, is not stated. They state that they use traffic volumes and peak hour factors for input data, but later state that the “calculated operational measures contain delay…,” meaning that either method could have been used (Wang et al. 2009).

2.3 Accepted Methodologies for Calculating LOS

One of the methods of calculating level of service (LOS) is to use the Highway Capacity Manual (HCM) delay method. As stated by Deshpande, this method is the most widely used and uses average control delay and the volume to capacity (v/c) ratio to determine the LOS. The strengths and weaknesses of this method were look at. It was found that a strength of the HCM method is that it works well for standalone intersections or for intersections with significant spacing. It does not work when intersections are close together, which can affect the arrival patterns of the other intersections (Deshpande et al. 2010).

Andjic and Jacoby look at the Highway Capacity Manual’s method of calculating LOS, as well as how the Area Traffic Control (ATC) system, a term for computerized traffic signal control systems, changes the behavior of the performance measures from cycle to cycle. They believe that because the system was overlooked in the methodology for calculating LOS, in many cases, there was an inconsistency in the field. They found that the system they looked at (SCATS/VISSIM)[1] had improved performance along corridors. The use of this system could help lower the level of service of intersections and corridors; however, they still only looked at level of service in terms of delay and not volume (Andjic and Jacoby 2012).

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[1] SCATS is a computerized traffic signal control system. VISSIM is a microscopic multi-model traffic flow simulation.

Cisco looks at the difference in LOS results based on three different methodologies: Highway Capacity Manual (HCM) 2000 Operations Method, Circular 212 Planning Method, and the Intersection Capacity Utilization (ICU) Method. The HCM method uses delay, while the Circular 212 Planning method uses critical volumes and volume/capacity (v/c) ratio to calculate LOS. The third method, ICU method, is very similar to the Circular 212 Planning method where it uses critical volumes, v/c ratio, and signal loss time to calculate LOS. The difference is that signal loss time is accounted for. All three methods begin with a base saturation flow rate; however, all three methods use different values. HCM begins with a saturation flow rate of 1,900 vehicles per hour (vph), the Circular method begins with a base rate of 1,500, 1,425, or 1,375 vph depending on the number of phases at the intersection, and the ICU method begins with a base rate of 1,600 vph. Cisco looks at both A.M. and P.M. existing conditions and near term conditions (three years in the future) for 76 intersections to evaluate the three methods of calculating LOS. He found that on a whole, the HCM method produced more acceptable LOS results than the other two methods. However, it is unclear what these results indicate, as he has not discussed which method is the most accurate (Cisco 2007).

Prasses and Roess worked to propose a new method of calculating LOS that is based on the 1980 Circular 212 Planning Method. This proposed method adds to the 212 method by adding adjustment factors and the estimation of delay. The difference with this proposed method and the HCM 2000 method is that the proposed method applies adjustments to demand flow rates instead of capacity or saturation flow rates in the HCM. The one flaw from the 212 method that Prasses and Roess mention is that it did not predict delay, but instead assumes that delay ranges can be interpolated from critical lane volumes. However, critical lane flow or v/c ratio does not correlate to delay because low v/c ratios indicate there is excess green time, leading to higher delays. It was found that for v/c ratios less than 1, the CMA method outputs were comparable to the outputs from the HCM method. However, when the v/c ratio was greater than 1, the CMA method tended to produce larger v/c ratios and delay than the HCM 2000. The authors recommended that the CMA could be used with confidence for intersections with a v/c ratio < 1 and used only with care for those intersections with a v/c ratio > 1. However, the CMA output should not be directly compared to the output from the HCM 2000. Comparisons with the CMA and the HCM 2010 have not yet been completed, but are necessary (Prasses and Roess 2010).

2.4 LOS and Oversaturated Intersections

Buckholz looked at level of service at signalized intersections, but specifically for oversaturated conditions. The HCM method uses control delay and any intersection that has more than 80 seconds of control delay is considered to be failing and is given a LOS F. However, that level of service does not distinguish between delays past 80 seconds, meaning that an intersection with 90 seconds of delay is considered to have the same level of service as an intersection with 200 seconds of delay. Buckholz proposes two different LOS rating scales that would account for the excess delay. The first is to continue with the current LOS rating expanding the range of used letters down the alphabet, e.g. G, H, I, J, et cetera.. The second is to keep all of the intersections with a delay > 80 seconds as an LOS F but distinguish what level F the intersection is, e.g. F1, F2, F3, et cetera... They found that users understood more easily the difference between F1 and F6 than LOS G to LOS K (Buckholz 2009).

One of the problems with oversaturated conditions is that queues from one movement tend to mix with the queues from a different movement, particularly the spillback from a left turn into through lanes. Because of this, analysts have found that it is difficult to analyze intersections that are oversaturated, and therefor difficult to produce accurate models of real-time traffic. CORSIM, a computer modeling software, was used to analyze the intersections that were oversaturated and it was found that the cycle length affected the amount of delay at an intersections. For near saturated intersections, shorter cycle lengths were recommended because they tended to minimize control delay. However, for over saturated intersections, longer cycle lengths were recommended because shorter cycle lengths actually produced higher recurring queues. Buckholz recommends the new rating of F1, F2, F3, et cetera…, based on findings, because recurring queues are accounted for and need to be for oversaturated intersections (Buckholz 2009).

2.5 Safety at Signalized Intersections

Almonte and Abdel-Aty created a crash frequency model vs. LOS chart that contained LOS A-F on the vertical axis and the frequency of total crashes, severe crashes, rear-end crashes, sideswipe crashes, head-on crashes, and angle + left-turn crashes on the horizontal axis. They found that LOS is an explicit indicator of crash frequency. However, they found that LOS itself is not an adequate predictor of safety performance, such as volume, geometry, control type and operational features, but performs better when interacting with other factors. They recommended that for desirable safety conditions, it is better to achieve a LOS of C or better (Almonte and Abdel-Aty 2010).

Wang believes that there is coordination between the LOS and crash frequency. Although it was not stated which method for calculating LOS was used, the paper concluded that as LOS improves, crash frequency increases. They found many other relationships between conditions and safety, but overall the findings were that LOS is a "significant factor for predicting crash occurrence at signalized intersections" (Wang et al. 2009).

2.6 Alternative Procedures for Calculating LOS

Deshpande discussed alternative procedures for calculating level of service through improved quality of progression (QOP). The three different alternatives that they looked at to assess the quality of progression are listed below:

1. Using the coordination adjustment factor as a performance measure for the quality of progression
2. Calculating level of service by using average delay for the entire arterial
3. Calculating level of service using average travel speed with cyclic coordination factors

The authors found that the cyclic coordination factors can be more effective than the current LOS calculation in the HCM. While this study determines more effective LOS for intersections, the authors only choose to look at LOS based on delay, not volume (Deshpande et al. 2010).

Gartner discussed new concepts for assessing the performance of signalized intersections. This paper builds off of the papers of Deshpande. They look at how giving preference to one direction over another may decrease the delay and LOS for that direction, but causes delay and LOS to increase in another direction. Progression Potential Frontier, a paradigm for signalized intersections, evaluates the difference in treating the intersection as separate approaches and analyzing each one individually. This concept allows the authors to evaluate the best performance, based on average travel speed, possible for the intersection under review (Gartner et al. 2011).

2.7 Purpose of LOS Future Studies

Roess alludes to the fact that LOS will be eliminated in the future to replace it with numeric performance measures because of two major issues. The two issues are: LOS are discrete ranges, defined in terms of continuous numeric measure, and LOS are the same regardless of the location (small town vs. mega city). This shows that there are holes within the LOS system and can be subject to user perception (Roess 2010).

2.8 Evaluating Accepted Methodologies of Calculating LOS

The Polytechnic Institute of NYC is working with the US Department of Transportation and the Research and Innovative Technology Administration (RITA) to look at the Highway Capacity Manual 2010 methods using the New York City urban environment as a test case. Twenty intersections from dense urban areas will be selected and data from those intersections will be analyzed using the 2010 HCM methodology and used to calibrate the HCM method for other NYC intersections. Since the HCM is not typically used for dense urban environments, research is needed to achieve realistic results for all of NYC (UTRC 2011).

The Multimodal Level of Service Analysis for Urban Streets Project, NCHRP Project 3-70, is working to examine the different factors that influence a user's decision when making trips. The current factors that are being addressed are average speed, number of stops, total delay, and queue length. Typically measuring the systems performance has not been accurate in real time, but different detector and controller technologies have made it more possible. The HCM method for determining level of service typically uses travel speed to determine performance, and while this project is predicting that travel speed will still play a large role, they are anticipating revising it. The project has identified some weaknesses with the HCM procedure for predicting travel speeds, and ultimately predicting the level of service. One main weakness that has been identified is that the HCM method fails to account for factors that influence travel speed such as volume, offsets, access point density, cross-section design, weaving, and platoon dispersion. Two main objectives were developed for this project: (A) development of techniques to measure the performance of automobile traffic on urban streets for real-time applications, (B) development of procedures to predict the performance of automobile traffic on urban streets that will provide a foundation for an update of the HCM (Dowling 2003).

Chapter 3

METHODOLOGY

3.1 Introduction to Methodology

The methodology within this chapter will provide an introductory background of software and analysis methods used, including the traffic analysis software, Synchro, the Highway Capacity Manual (HCM), and Critical Movement Summation (CMS) sheets. This methodology will also test similarities and differences in delay and volume based Level of Service (LOS), determine characteristics for further use, and discuss future study areas. LOS can be defined in many ways but for the purpose of this research it will refer to the effectiveness of the transportation infrastructure at signalized intersections. The LOS rating system is the typical A through F scaled grading system used in practice as well as within academic institutions. Depending on whether delay or volume based LOS was used, different levels of total delay (measured seconds) or critical movement volumes (measured vehicles/hour) correspond to each letter.

Table 1 shows LOS ratings A-F and the corresponding total delay ranges in seconds. Table 2 shows LOS ratings A-F and the corresponding critical movement volumes in vehicles/hour.

Table 1 Delay Based Level of Service

LOS	Total Delay
A	≤10 sec
B	10 sec – 20 sec
C	20 sec – 35 sec
D	35 sec – 55 sec
E	55 sec – 80 sec
F	≥80 sec

Table 2 Volume Based Level of Service

Level	Critical Movement Volume
A	Less than 1,000 veh/hr
B	1,000 to 1,150 veh/hr
C	1,151 to 1,300 veh/hr
D	1,301 to 1,450 veh/hr
E	1,451 to 1,600 veh/hr
F	More than 1,600 veh/hr

The Highway Capacity Manual and Synchro both use delay-based LOS ratings, while Critical Movement Summation (CMS) sheets use volume-based LOS ratings. In all three analysis methods, LOS ratings A and B are preferred, C and D considered acceptable, and E and F are considered failing. While LOS rating E does not mean that the intersection is at complete capacity, the delays and congestion are significant enough to result in failure.

3.2 Methods Background

The three methods that will be covered in this chapter are the Highway Capacity Manual (HCM), Synchro and Intersection Capacity Utilization (ICU), and Critical Movement Summation (CMS).

3.2.1 Highway Capacity Manual (HCM)

The first HCM was published in 1950 and was focused almost solely on quantifying capacity for transportation facilities. The current edition was published in 2010 with the purpose of improving traffic analysis and the effects on transportation related studies. The current objectives were to:

1. Define performance measures and describe survey methods for key traffic characteristics,
2. Provide methodologies for estimating and predicting performance measures, and
3. Explain methodologies at a level of detail that allows readers to understand the factors affecting multimodal operation.

The HCM chapter on Urban Street Facilities (Chapter 16, Volume 3) focuses on evaluating the quality of service of an urban street. Although LOS can be evaluated for transit vehicles, bicyclists, and pedestrians, for the purposes of this paper only vehicle LOS will be considered. The following excerpt from Chapter 16 of the HCM describes what each LOS rating means to vehicles traveling on urban street facilities.

> LOS A describes a primarily free-flow operation. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Control delay at the boundary intersections is minimal. The travel speed exceeds 85% of the base free-flow speed.
>
> LOS B describes reasonably unimpeded operation. The ability to maneuver within the traffic stream is only slightly restricted and control delay at the boundary intersections is not significant. The travel speed is between 67% and 85% of the base free-flow speed.
>
> LOS C describes stable operation. The ability to maneuver and change lanes at midsegment locations may be more restricted than LOS B. Longer queues at the boundary intersections may contribute to lower travel speeds. The travel speed is between 50% and 67% of the base free-flow speed.
>
> LOS D indicates a less stable condition in which small increases in flow may cause substantial increases in delay and decreases in travel speed. This operation may be due to adverse signal progression, high volume, or inappropriate signal timing at the boundary intersections. The travel speed is between 40% and 50% of the base free-flow speed.
>
> LOS E is characterized by unstable operation and significant delay. Such operations may be due to some combination of adverse progression, high volume, and inappropriate signal timing at the boundary intersections. The travel speed is between 30% and 40% of the base free-flow speed.
>
> LOS F is characterized by flow at extremely low speed. Congestion is likely occurring at the boundary intersections, as indicated by high delay and extensive queuing. The travel speed is 30% of less of the base free-flow speed.

In practice, a LOS F also occurs if the volume to capacity (v/c) ratio is greater than 1.00 (TRB 2010).

3.2.2 Synchro

Synchro is a computer application, developed by Trafficware, which analyzes and optimizes intersections macroscopically. It uses the Intersection Capacity Utilization (ICU) 2003 Method to calculate intersection capacity. The ICU Method is similar to calculating LOS based on CMS sheets, discussed later in Section 3.2.3, but also considers minimum timings and calculates how far the intersection is overcapacity. Unlike Synchro or the HCM method, it does not calculate delay. The ICU guarantees that if an ICU LOS rating E or better is achieved, then there is a timing plan that exists that will achieve the following an “acceptable HCM LOS, all minimum timing requirements, acceptable volume to capacity (v/c) ratio for all movements…”. If the results indicate an ICU LOS rating F, the intersection will be over capacity for the 15-minute peak, but there still may be a timing plan that achieves an acceptable HCM LOS by highlighting the highest volume movements. One difference with the ICU method and all other methods is that the LOS ratings range from A-H. Table 3 shows the LOS ranges of the ICU method and how close or over capacity the intersection is.

Table 3 ICU Level of Service

LOS	**ICU**
A	≤ 55.0%
B	> 55% to 64.0%
C	> 64% to 73.0%
D	> 73% to 82.0%
E	> 82% to 91.0%
F	> 91% to 100.0%
G	> 100% to 109.0%
H	> 109%

The ICU shows that for LOS rating A, the intersection is at less than 55% of its capacity, LOS rating B is anywhere from 55% to 64% of capacity, and so forth until LOS rating H corresponds to an intersection more than 9% over capacity and experiencing congestion (ICU 2003).

Synchro calculates individual movements and intersection delay, LOS, and v/c ratios. Multiple intersections can be analyzed at once, as well as the correlation and progression from intersection to intersection. In order to visualize and simulate what is in the field, SimTraffic can be used. SimTraffic, a simulation program that works in conjunction with Synchro, animates vehicle traffic at an intersection providing a visual platform to observe queuing and movement through the intersection. It uses a delay-based LOS and the ranges are found in Table 1. Analyzing SimTraffic and movement splits can create better performing intersections through optimization.

3.2.3 Critical Movement Summation

CMS sheets are another method to calculate intersection LOS based on vehicle demand. The CMS method is a 4-step worksheet based process that results in a volume based LOS rating for the given intersection. The first step is to collect peak hour volumes, lane configuration, and signal phasing to input into the worksheet. The second step is to fill in the worksheet with the movement, phase, volume, lane use factor, lane volume, opposing lefts, left turn credit, and the critical lane volume. Figure 1 shows an example of a blank CMS worksheet.

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: ______________________

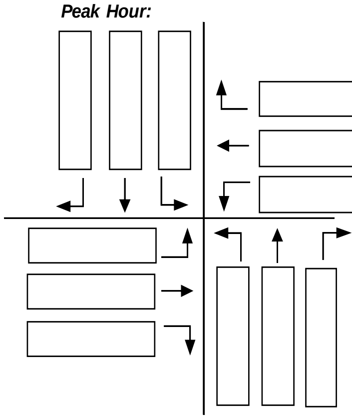
Count Date: __________

Scenario: ______________________

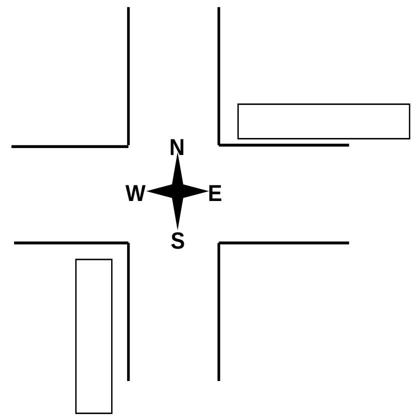
Computed By: __________ Checked By: __________

Date: __________ Date: __________

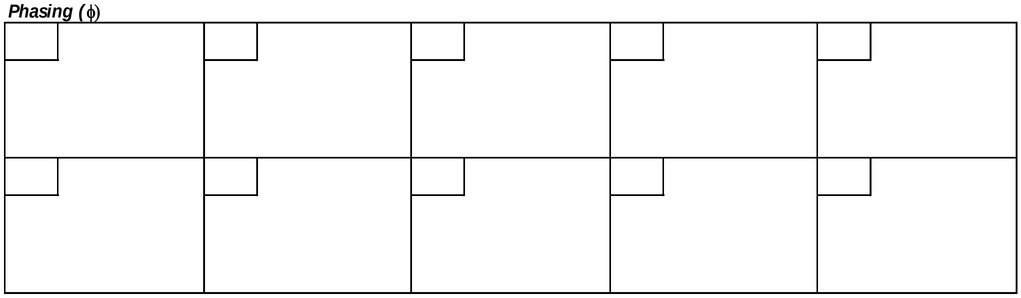
Peak Hour:



Lane Configuration:



Phasing (ϕ)

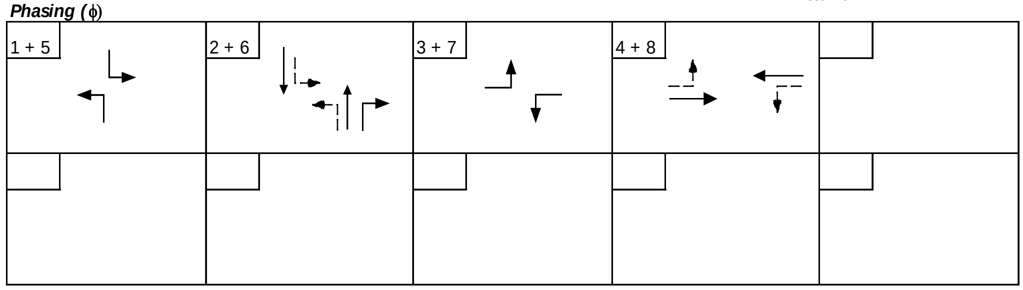


ϕ	Movement	Volume	LU	Lane Volume	OL	LTC	Critical Lane Volume	CM (*)
Remarks:						TOTAL		
						LEVEL OF SERVICE		

Figure 1 Critcal Movement Summation Worksheet

The third step is to determine the critical movements. There is one critical movement per phase group determined by the phase with the highest lane volume. For a standard 8-phase intersection, 4 phases will be considered critical. The last step is to sum the critical movements which will determine the corresponding LOS rating. Figure 2 shows a partial CMS sheet completed for an arbitrary intersection (DelDOT).

Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL	LTC	Critical Lane Volume	CM (*)
1	SB L	121	1.00	121			121	*
5	NB L	86	1.00	86			86	
6	SB T	859	1.00	859		35	824	*
2	NB TR	776	1.00	776			776	
3	EB L	194	1.00	194			194	*
7	WB L	109	1.00	109			109	
8	EB T	136	1.00	136		85	51	
4	WB T	137	1.00	137			137	*
Remarks:	NB R not a critical movement					TOTAL	1276	
						LEVEL OF SERVICE	C	

Figure 2 Critical Movement Summation Completed Worksheet

Neither the CMS sheets nor the ICU method take into account phases, splits, or delay. Since the HCM method uses delay based LOS ratings, there is no comparison between the LOS computed from CMS sheets, ICU, Synchro, or HCM.

3.3 Analysis of an Intersection

An existing standard 8-phase intersection under review for retiming was selected as the study intersection for this paper. The intersection is Kirkwood Highway (DE 2) and St. James Church Rd, located in Wilmington, DE. An image of the intersection, taken from Google Earth, can be seen below in Figure 3.

Figure 3 Google Earth Image: Kirkwood Highway & St. James Church Rd

Traffic counts were conducted at the study intersection by the Delaware Department of Transportation in the fall of 2012 for both AM and PM peak hours and are included in Appendix A. These counts were the basis of the volume distribution for the critical movement summation (CMS) sheets. CMS sheets were completed for the traffic counts during AM and PM peak hours. The base LOS was calculated to examine how the intersection was currently performing.

Three different methods are used to improve intersections: retiming, restriping, or rebuilding. Retiming is usually the first method to improving an intersection as it is the least costly and does not require closing the intersection off to traffic. The second method is to restripe the intersection. This method does require the intersection to be partially closed to traffic to repaint lines, but does not require closing the entire intersection. Rebuilding is the most costly and requires the intersection to be closed to traffic. This is the least desirable of the three options and is used when there is justification for the expenditure and impact on traffic. This research will focus on improving the intersection through retiming and restriping. For retiming the intersection, Synchro was be utilized. For restriping options, CMS sheets was be utilized.

For the purpose of analyzing the intersection, CMS sheets were needed for LOS ratings A-F. In order to obtain data for each rating, the volumes were kept proportional and a multiplication factor was used. The volumes calculated from the CMS sheet for LOS rating A became the base volumes. The multiplication factors were calculated by taking the base volumes and multiplying by X to get the desired LOS rating needed. Each multiplication factor for LOS ratings A-F are listed in Table 4.

Table 4 Multiplication Factors for CMS Volumes

LOS	AM Multiplication Factor	PM Multiplication Factor
A	1.0	1.0
B	1.6	1.35
C	1.8	1.55
D	2.1	1.7
E	2.3	1.9
F	2.5	2.05

Retiming and restriping options were analyzed to observe what improvements could be made. Eight restriping options were analyzed to observe what LOS ratings were achievable with retiming and restriping before rebuilding became the only option. The objective of looking at these eight tests was to determine what restriping options were available without adding lanes and if the LOS improved. If the performance of the intersection did not improve, that restriping test would no longer be a viable option. After analyzing the tests for LOS rating F using CMS worksheets, it was found that three out of the eight restriping plans made the LOS ratings significantly worse and were discarded. For tests 1, 2, 3, 6, 8, CMS sheets were completed for both AM and PM, using the multiplication factors shown in Table 4. The results of these tests can be found in Chapter 4. Complete CMS sheets for the five restriping tests can be found in Appendix B. The CMS sheets for LOS rating F for tests 4, 5, and 7 can also be found in Appendix B.

The current lane configuration of the study intersection is shown in Figure 4. Figure 5 shows the lane configurations of all eight restriping test options.

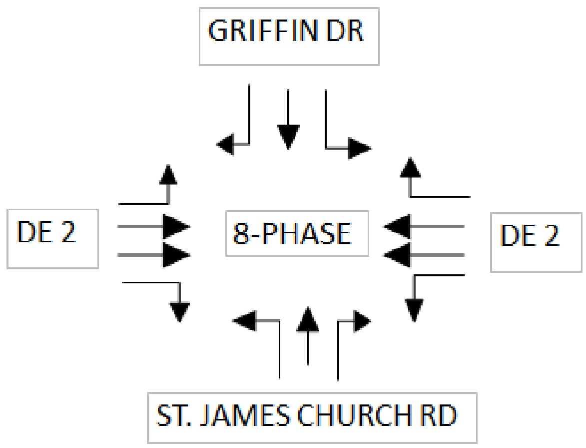


Figure 4 St James Church Rd Base Drawing

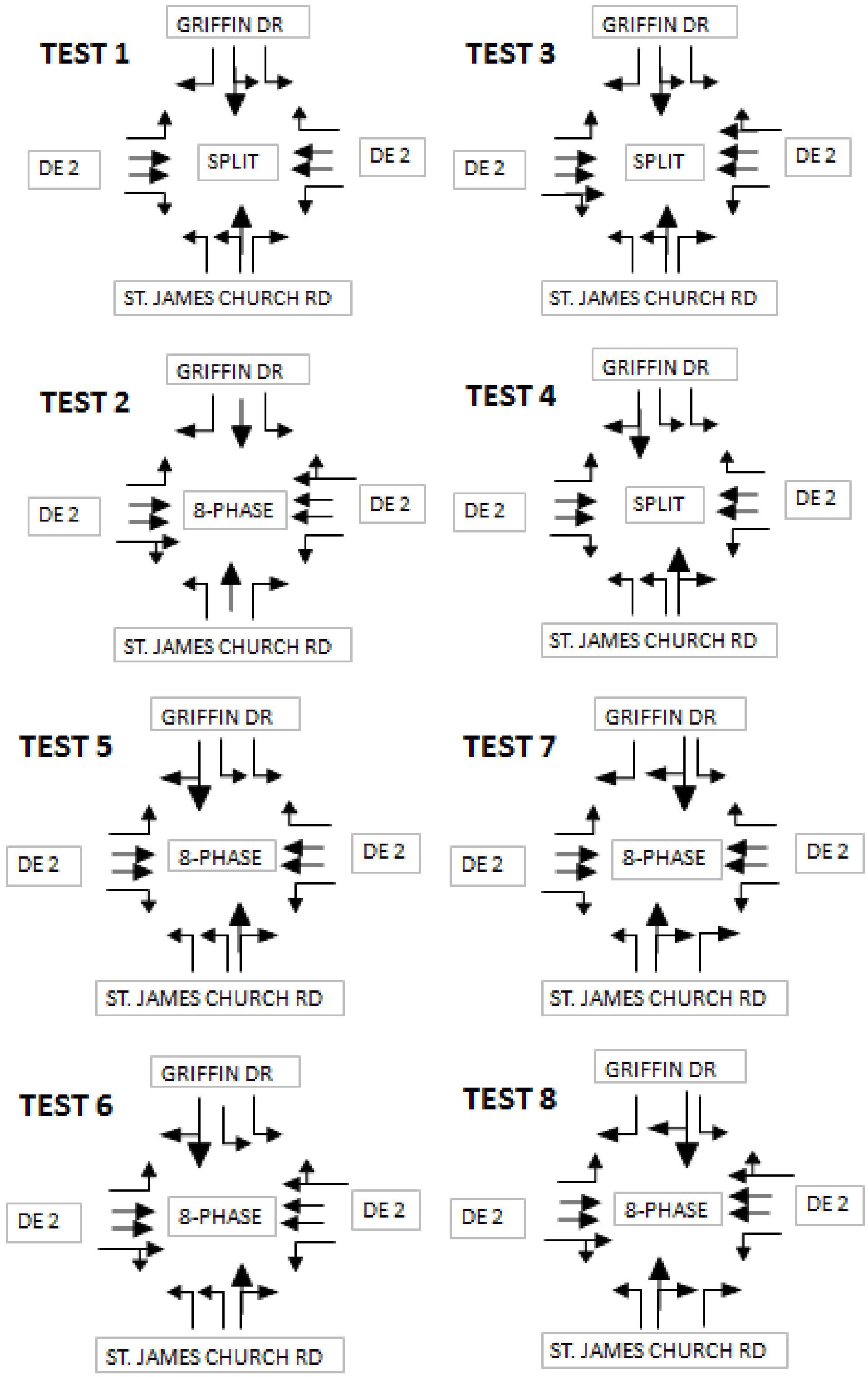


Figure 5 Restriping Test Options

Once the CMS sheets were completed for the five tests, Synchro models were built. Models for LOS ratings A-F were constructed in Synchro to analyze how effective retiming the intersections would be. The minimum timings listed in the tables below were inputted for each Synchro test and each LOS rating. It was necessary for the minimums to remain constant throughout all of the tests. Phase numbers and minimum timings were assumed based on prior knowledge and can be found in Table 5 for an 8-phase intersection and in Table 6 for a 6-phase (split) intersection.

Table 5 8-Phase Intersection Minimums

Phase	Movement	Turn Type	Minimum Green	Yellow	Red
1	EB L	Protected	5 sec	3 sec	2 sec
5	WB L	Protected	5 sec	3 sec	2 sec
2	WB T(R)	-	15 sec	5 sec	2 sec
6	EB T(R)	-	15 sec	5 sec	2 sec
3	SB L	Protected	5 sec	3 sec	2 sec
7	NB L	Protected	5 sec	3 sec	2 sec
4	NB T(R)	-	10 sec	4 sec	2 sec
8	SB T(R)	-	10 sec	4 sec	2 sec

Table 6 6-Phase Intersection (Split) Minimums

Phase	Movement	Turn Type	Minimum Green	Yellow	Red
1	EB L	Protected	5 sec	3 sec	2 sec
5	WB L	Protected	5 sec	3 sec	2 sec
2	WB T(R)	-	15 sec	5 sec	2 sec
6	EB T(R)	-	15 sec	5 sec	2 sec
3	SB LT(R)	Permitted	10 sec	4 sec	2 sec
4	NB LT(R)	Permitted	10 sec	4 sec	2 sec

The minimum timings listed in the tables above were inputted for each Synchro test and each LOS. Three tests were conducted in Synchro for three different cycle lengths, producing a total of 9 results for each LOS rating. Both AM and PM were analyzed for each of the five CMS tests. The cycle lengths that were chosen were 90 seconds, 100 seconds, and 120 seconds. The three tests were optimizing splits based on Synchro's optimization, minimizing all movements except phases 2 and 6 (Main movement), and minimizing delay as much as possible. The results of these tests include splits, delay, level of service, and v/c ratio for each phase, as well as cycle length, intersection delay, level of service, v/c ratio, ICU, and ICU level of service for the entire intersection. The results can be found in Chapter 4.

Chapter 4

RESULTS

CMS sheets and Synchro models were used to analyze the intersection to determine LOS ratings and the results for each test. First, the base model was analyzed to determine the current conditions and the results are shown in Table 7.

Table 7 Base Test Level of Service Results

Test #	**AM CMS LOS**	**AM SYNCHRO LOS**	**PM CMS LOS**	**PM SYNCHRO LOS**
BASE	**A**	**B**	**A**	**C**
	B	**C**	**B**	**D**
	C	**C**	**C**	**D**
	D	**D**	**D**	**D**
	E	**E**	**E**	**E**
	F	**E**	**F**	**F**

AM CMS LOS ratings compared to AM Synchro LOS ratings are consistent and are only one level away for ratings A, B, and F. PM CMS LOS ratings compared to PM Synchro LOS ratings have more of a disconnect between the performance of the intersection. For example, LOS rating A from PM CMS sheets correlates to LOS rating C from the Synchro PM model. This indicates that LOS ratings between Synchro and CMS sheets are not comparable as a whole. Table 8 shows the comparison between CMS and Synchro LOS for Tests 1, 2, 3, 6, and 8. The LOS ratings shown in the chart are the lowest LOS ratings achievable from cycle lengths of 90, 100, and 120 seconds.

Table 8 Restriping Level of Service Results

Test #	AM CMS LOS	AM SYNCHRO LOS	PM CMS LOS	PM SYNCHRO LOS
1	**A**	**C**	**A**	**D**
	B	**D**	**B**	**E**
	C	**D**	**C**	**F**
	D	**E**	**D**	**F**
	E	**F**	**E**	**F**
	F	**F**	**F**	**F**
2	**A**	**C**	**A**	**C**
	B	**C**	**B**	**C**
	C	**C**	**C**	**D**
	D	**D**	**D**	**D**
	E	**D**	**E**	**D**
	F	**E**	**F**	**E**

Table 8 Continued

Test #	AM CMS LOS	AM SYNCHRO LOS	PM CMS LOS	PM SYNCHRO LOS
3	**A**	**C**	**A**	**D**
	B	**D**	**B**	**E**
	C	**D**	**C**	**E**
	D	**E**	**D**	**F**
	E	**E**	**E**	**F**
	F	**F**	**F**	**F**
6	**A**	**B**	**A**	**C**
	B	**C**	**B**	**C**
	C	**C**	**C**	**D**
	D	**D**	**D**	**D**
	E	**D**	**E**	**E**
	F	**D**	**F**	**E**
8	**A**	**C**	**A**	**C**
	B	**C**	**B**	**C**
	C	**C**	**C**	**D**
	D	**D**	**D**	**D**
	E	**D**	**E**	**E**
	F	**E**	**F**	**E**

As a reminder, each test's intersection restriping is different and intersection drawings can be found in Figure 5. Test 1 begins with a LOS rating A from the CMS sheets compared to LOS rating C from Synchro. However, the test intersection results in failure from Synchro at a LOS rating C from the PM CMS sheet. Four levels of service from Test 1 CMS sheets are failing in Synchro, causing the current intersection configuration needing to be looked at in further depth. Tests 2 and 8 range from C-E for LOS ratings in Synchro compared to LOS ratings A-F from the CMS sheets. Both restriping tests show that the intersections do not fail in Synchro; however, the performance is not optimal. Neither test can perform as well as LOS rating A or B.

Test 3 ranges from LOS ratings C-F in Synchro. The intersection also fails and cannot perform optimally at a LOS rating of A and B. Test 6 performs the best in terms of Synchro LOS ratings, ranging from B to E. The intersection does not reach complete failure. While LOS E is still not considered acceptable, the intersection has not reached complete capacity. Test 6 is the only test that performs better than the base model. The intersection is a standard 8-phase and the left turns are considered to be protected movements. It does not allow the Main Street right turns to have dedicated lanes, but instead shares with a third through lane. The restriping test moves the side roads to included two left turn lanes while the right and through share one lane. This restriping test performs the best for this particular study intersection and volume proportions. However, other intersections will have different lane usages, volume proportions, and therefore, different results. For example, Test 6 shows that Main Street through movements and side road left turns are more critical as LOS decreased when more lanes were added in those directions. For an intersection with higher side road through movements, adding left turn lanes would not be an adequate solution.

Three cycle lengths were looked at in terms of performance during the analysis: 90, 100 and 120 seconds. Within the cycle lengths, three combinations of splits were analyzed. The combinations were optimal splits from Synchro, minimizing all movements except Main Street through, and minimizing overall intersection delay. As delay corresponds directly to LOS, minimizing overall intersection delay led to the lowest LOS rating achievable. Figure 6 displays the output of the Synchro model for the base model with volumes from CMS sheet LOS rating A during AM peak with a 90 second cycle length. Each movement includes individual splits, delay, LOS, and v/c ratio. The overall LOS, delay, ICU and ICU LOS are also included for the intersection.

AM					
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	48.1	D	0.46	0.53
WB L	17	48	D	0.55	**ICU LOS**
WB T	43	16.7	B	0.34	A
EB T	46	21.4	C	0.57	
SB L	11	37.1	D	0.14	
NB L	14	46.9	D	0.42	
NB T	16	35.3	D	0.11	
SB T	19	37.5	D	0.13	
Total	**90 sec**	**20.7**	**C**	**0.57**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	82.8	F	0.73	
WB L	10	166.9	F	1.11	
WB T	54	12.1	B	0.29	
EB T	54	14.9	B	0.48	
SB L	10	39.3	D	0.16	
NB L	10	74	E	0.66	
NB T	16	37.7	D	0.12	
SB T	16	38	D	0.15	
Total	**90 sec**	**24.9**	**C**	**1.11**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	48.1	D	0.46	
WB L	16	50	D	0.57	
WB T	48	14.1	B	0.31	
EB T	50	17.6	B	0.51	
SB L	10	39.3	D	0.16	
NB L	10	74	E	0.66	
NB T	16	37.7	D	0.12	
SB T	16	38	D	0.15	
Total	**90 sec**	**19.5**	**B**	**0.66**	

Figure 6 Synchro Output – Scenario Base Model LOS Rating A AM: 90 Second Cycle

Minimizing delay produced optimal LOS ratings, followed by optimal splits, and finally minimums except Main Street produced worse delays and LOS ratings. Charts for AM and PM for all five tests can be found in Appendix C.

In order to show the difference between CMS LOS ratings A-F for each test and the base model, charts were created for each of the following scenarios: Overall optimal LOS, Synchro optimal splits, minimum splits except for Main Street through, and minimized delay. Figure 7 displays the base model chart comparing CMS LOS ratings to Synchro LOS ratings for the overall optimal LOS.

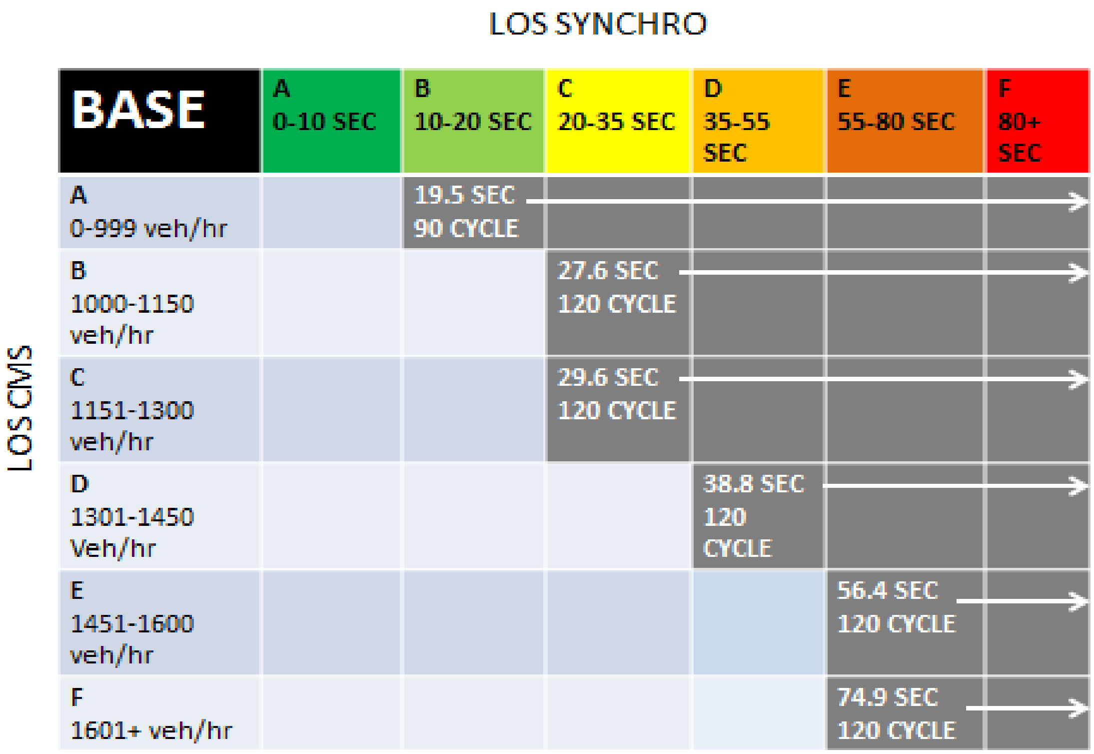


Figure 7 CMS LOS Ratings vs. Synchro LOS Ratings Results

The base model ranges from ratings B-E, the same result that was shown in Table 7. The cycle lengths have been included in Figure 7 to show any patterns. A pattern indicated that as LOS ratings move from A-F, the cycle length tended to increase. For example, CMS LOS rating A mostly showed a 90 second cycle length for the lowest LOS rating while CMS LOS rating F mostly showed a 120 second cycle length. There were no instances where the optimal LOS rating increased to a 120 second cycle length, then decreased to a 100 or 90 second cycle length as the CMS LOS rating moved from A-F. This correlates directly with the work on oversaturated conditions that Buckholz discussed. His findings were that higher cycle lengths should be used for oversaturated intersections, such as LOS rating E or F, and lower cycle lengths should be used for intersections that have lower volumes and better LOS ratings (Buckholz 2009).

A second pattern was found for the scenario of minimizing splits except for Main Street through movements. A majority of the optimal LOS ratings came from a 90 second cycle length, regardless of the CMS LOS rating. This did not follow what the first pattern indicated. However, for a couple of the tests, LOS rating F showed that a 100 or a 120 second cycle length were actually the optimal LOS rating for minimizing splits except for Main Street through movements, instead of the 90 second cycle length. If more cycle lengths were analyzed past 120 seconds, studies would show if at higher cycle lengths the first pattern proved true for minimizing splits. Charts for all tests and the base model are shown in Appendix D.

Chapter 5

FUTURE WORK

For the study intersection, this analysis was not able to achieve a LOS rating A in Synchro, and a LOS rating B occurred only twice. If only LOS ratings C-F are common for results from Synchro, why are LOS ratings A and B even an option? It is recommended that the equation in Synchro for overall delay and calculating LOS rating be analyzed in further detail to understand why LOS ratings A and B are not achievable.

The AM LOS rating A scenario produced an interesting anomaly that would benefit from further study. Under this scenario, two different split timings produced the same intersection delay. Table 9 compares the two different split timings, showing the individual splits and delay.

Table 9 Scenarios Split 1 & Split 2

			LOS A AM 120 MIN DELAY						
Phase	**Movement**	**Splits 1**	**Delay 1**	**LOS 1**	**V/C Ratio 1**	**Splits 2**	**Delay 2**	**LOS 2**	**V/C Ratio 2**
1	EB L	20	62.2	E	0.48	70	62.2	E	0.48
5	WB L	26	63	E	0.58	30	63	E	0.58
2	WB TR	66	11.7	B	0.19	22	11.7	B	0.19
6	EB TR	72	14.8	B	0.39	62	14.8	B	0.39
3	SB L	12	71	E	0.47	12	71	E	0.47
7	NB L	12	83.5	F	0.64	12	83.5	F	0.64
4	NB TR	16	31.4	C	0.29	16	31.4	C	0.29
8	SB TR	16	50	D	0.22	16	50	D	0.22
	Total	**120 sec**	**22.6**	**C**	**0.64**	**120 sec**	**22.6**	**C**	**0.64**

The highlighted splits show the change in phase time between the two timings: splits 1 and splits 2. Both timings splits have a cycle length of 120 seconds. The splits 1 scenario was timed to minimize the AM peak period delay while achieving a LOS rating A. Splits 2 was timed to achieve the same intersection parameters as splits 1 but with an alternative timing plan. For the splits 2 scenario, the eastbound left turn movement (EB L) was increased by 50 seconds, westbound left turn movement (WB L) was increased by 4 seconds, westbound through and right turn movements (WB TR) were decreased by 44 seconds, and eastbound through and right turn movements (EB TR) were decreased by 10 seconds. Despite the change in the split timings, the following outputs for both scenarios remained constant: individual delay, LOS, and v/c ratios for all movements, as well as the delay, LOS, and v/c ratio for the entire intersection. It is unclear why two scenarios with such a difference in the Main Street splits would produce the same results. For this reason, it is recommended that a future study be conducted to analyze calculated delay and LOS and why the results of the two sets of splits were the same.

The tests that were analyzed for restriping and retiming the intersection were considered to be leading lefts. Leading left turn movements cycle through before the through movements are permitted to move through the intersection. On the other hand, lagging left turn movement cycles after the through movements have already moved through the intersection. As a future study, tests with lagging lefts are recommended to be considered. It is unknown whether or not lagging lefts would decrease delay and LOS for the intersection and it is recommended for future study.

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Appendix A

TRAFFIC COUNTS

PASSENGER CAR TURNING MOVEMENT COUNT - SUMMARY

Intersection of: SR 2
and: St James Church Rd
Location: New Castle Co., DE

Counted by: VCU
Date: November 8, 2012
Weather: Cloudy/Warm
Entered by: RB

Day: Thursday

TIME	TRAFFIC FROM NORTH on: St James Church Rd					TRAFFIC FROM SOUTH on: St James Church Rd					TRAFFIC FROM EAST on: SR 2					TRAFFIC FROM WEST on: SR 2					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
6:00-6:15	3	0	4	0	7	6	1	2	0	9	0	53	7	0	60	8	92	3	2	105	181
6:15-6:30	2	3	4	0	9	6	2	0	0	8	2	58	5	1	66	15	178	6	2	201	284
6:30-6:45	5	0	5	0	10	12	1	10	0	23	0	92	9	1	102	25	230	5	5	265	400
6:45-7:00	3	6	6	0	15	18	6	9	0	33	1	104	7	1	113	21	262	6	3	292	453
7:00-7:15	5	7	8	0	20	21	5	17	0	43	0	124	20	4	148	29	286	7	11	333	544
7:15-7:30	6	4	12	0	22	15	6	22	0	43	2	157	22	4	185	41	370	8	11	430	680
7:30-7:45	17	11	7	0	35	23	7	10	0	40	4	205	19	4	232	39	291	12	6	348	655
7:45-8:00	6	7	13	0	26	25	3	13	0	41	3	191	18	4	216	34	277	14	3	328	611
8:00-8:15	6	10	8	0	24	15	5	12	0	32	3	180	18	9	210	26	269	9	2	306	572
8:15-8:30	7	6	10	0	23	14	7	19	0	40	2	188	21	15	226	25	257	8	5	295	584
8:30-8:45	7	3	5	0	15	25	3	22	0	50	4	227	23	7	261	24	308	8	6	346	672
8:45-9:00	19	4	6	0	29	19	4	14	0	37	3	171	17	10	201	35	251	23	5	314	581
3 Hr Totals	86	61	88	0	235	199	50	150	0	399	24	1750	186	60	2020	322	3071	109	61	3563	6217
1 Hr Totals																					
6:00-7:00	13	9	19	0	41	42	10	21	0	73	3	307	28	3	341	69	762	20	12	863	1318
6:15-7:15	15	16	23	0	54	57	14	36	0	107	3	378	41	7	429	90	956	24	21	1091	1681
6:30-7:30	19	17	31	0	67	66	18	58	0	142	3	477	58	10	548	116	1148	26	30	1320	2077
6:45-7:45	31	28	33	0	92	77	24	58	0	159	7	590	68	13	678	130	1209	33	31	1403	2332
7:00-8:00	34	29	40	0	103	84	21	62	0	167	9	677	79	16	781	143	1224	41	31	1439	2490
7:15-8:15	35	32	40	0	107	78	21	57	0	156	12	733	77	21	843	140	1207	43	22	1412	2518
7:30-8:30	36	34	38	0	108	77	22	54	0	153	12	764	76	32	884	124	1094	43	16	1277	2422
7:45-8:45	26	26	36	0	88	79	18	66	0	163	12	786	80	35	913	109	1111	39	16	1275	2439
8:00-9:00	39	23	29	0	91	73	19	67	0	159	12	766	79	41	898	110	1085	48	18	1261	2409
PEAK HOUR																					
7:15-8:15	35	32	40	0	107	78	21	57	0	156	12	733	77	21	843	140	1207	43	22	1412	2518
PM																					
4:00-4:15	27	10	23	0	60	33	7	39	0	79	9	281	30	12	332	31	267	13	8	319	790
4:15-4:30	30	12	16	0	58	22	6	34	0	62	6	294	34	11	345	23	228	15	2	268	733
4:30-4:45	15	11	24	0	50	23	9	39	0	71	9	300	38	12	359	16	237	16	5	274	754
4:45-5:00	21	18	15	0	54	32	7	27	0	66	11	349	35	4	399	20	253	24	7	304	823
5:00-5:15	30	14	27	0	71	23	20	34	0	77	11	330	37	14	392	22	290	21	2	335	875
5:15-5:30	26	14	23	0	63	27	8	43	0	78	9	308	36	11	364	22	297	13	2	334	839
5:30-5:45	29	22	15	0	66	33	13	27	0	73	6	339	24	8	377	23	321	16	3	363	879
5:45-6:00	27	16	20	0	63	33	9	31	0	73	3	362	27	17	409	9	263	20	4	296	841
2 Hr Totals	205	117	163	0	485	226	79	274	0	579	64	2563	261	89	2977	166	2156	138	33	2493	6534
1 Hr Totals																					
4:00-5:00	93	51	78	0	222	110	29	139	0	278	35	1224	137	39	1435	90	985	68	22	1165	3100
4:15-5:15	96	55	82	0	233	100	42	134	0	276	37	1273	144	41	1495	81	1008	76	16	1181	3185
4:30-5:30	92	57	89	0	238	105	44	143	0	292	40	1287	146	41	1514	80	1077	74	16	1247	3291
4:45-5:45	106	68	80	0	254	115	48	131	0	294	37	1326	132	37	1532	87	1161	74	14	1336	3416
5:00-6:00	112	66	85	0	263	116	50	135	0	301	29	1339	124	50	1542	76	1171	70	11	1328	3434
PEAK HOUR																					
5:00-6:00	112	66	85	0	263	116	50	135	0	301	29	1339	124	50	1542	76	1171	70	11	1328	3434

HEAVY TRUCK TURNING MOVEMENT COUNT - SUMMARY

Intersection of: SR 2
and: St James Church Rd
Location: New Castle Co., DE

Counted by: VCU
Date: November 8, 2012
Weather: Cloudy/Warm
Entered by: RB

Day: Thursday

The Traffic Group

TIME	TRAFFIC FROM NORTH on: St James Church Rd					TRAFFIC FROM SOUTH on: St James Church Rd					TRAFFIC FROM EAST on: SR 2					TRAFFIC FROM WEST on: SR 2					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
6:00-6:15	1	0	0	0	1	0	0	0	0	0	0	9	2	0	11	1	3	1	0	5	17
6:15-6:30	0	0	0	0	0	2	0	0	0	2	0	9	0	0	9	1	10	0	0	11	22
6:30-6:45	2	0	0	0	2	1	0	0	0	1	0	7	1	0	8	0	8	0	0	8	19
6:45-7:00	0	0	0	0	0	4	0	0	0	4	0	6	0	0	6	1	10	0	0	11	21
7:00-7:15	2	0	1	0	3	4	1	0	0	5	0	7	0	0	7	1	10	0	0	11	26
7:15-7:30	1	0	0	0	1	1	0	2	0	3	1	6	0	0	7	1	11	0	0	12	23
7:30-7:45	1	0	0	0	1	0	0	1	0	1	0	6	1	0	7	1	7	0	0	8	17
7:45-8:00	0	0	1	0	1	1	0	0	0	1	0	12	1	0	13	0	5	1	0	6	21
8:00-8:15	0	1	2	0	3	0	2	0	0	2	0	11	0	0	11	0	6	0	0	6	22
8:15-8:30	1	0	2	0	3	0	1	2	0	3	0	19	1	0	20	2	3	1	0	6	32
8:30-8:45	1	1	2	0	4	0	0	1	0	1	2	11	0	0	13	2	12	0	0	14	32
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	5	8	0	13	2	9	0	0	11	24
3 Hr Totals	9	2	8	0	19	13	4	6	0	23	3	108	14	0	125	12	94	3	0	109	276
1 Hr Totals																					
6:00-7:00	3	0	0	0	3	7	0	0	0	7	0	31	3	0	34	3	31	1	0	35	79
6:15-7:15	4	0	1	0	5	11	1	0	0	12	0	29	1	0	30	3	38	0	0	41	88
6:30-7:30	5	0	1	0	6	10	1	2	0	13	1	26	1	0	28	3	39	0	0	42	89
6:45-7:45	4	0	1	0	5	9	1	3	0	13	1	25	1	0	27	4	38	0	0	42	87
7:00-8:00	4	0	2	0	6	6	1	3	0	10	1	31	2	0	34	3	33	1	0	37	87
7:15-8:15	2	1	3	0	6	2	2	3	0	7	1	35	2	0	38	2	29	1	0	32	83
7:30-8:30	2	1	5	0	8	1	3	3	0	7	0	48	3	0	51	3	21	2	0	26	92
7:45-8:45	2	2	7	0	11	1	3	3	0	7	2	53	2	0	57	4	26	2	0	32	107
8:00-9:00	2	2	6	0	10	0	3	3	0	6	2	46	9	0	57	6	30	1	0	37	110
PEAK HOUR																					
7:16-8:16	2	1	3	0	6	2	2	3	0	7	1	35	2	0	38	2	29	1	0	32	83
PM																					
4:00-4:15	2	1	1	0	4	2	0	0	0	2	0	6	1	0	7	2	3	0	0	5	18
4:15-4:30	0	1	0	0	1	1	0	0	0	1	0	8	3	0	11	0	4	0	0	4	17
4:30-4:45	0	0	0	0	0	0	0	0	0	0	0	5	1	0	6	0	11	0	0	11	17
4:45-5:00	0	0	1	0	1	0	0	0	0	0	1	6	0	1	8	1	6	0	0	7	16
5:00-5:15	0	0	0	0	0	1	0	0	0	1	0	4	0	0	4	1	3	0	0	4	9
5:15-5:30	0	0	0	0	0	0	0	0	0	0	0	4	1	0	5	0	1	0	0	1	6
5:30-5:45	0	0	0	0	0	0	0	0	0	0	0	2	1	0	3	1	2	0	0	3	6
5:45-6:00	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	2	0	0	2	6
2 Hr Totals	2	2	2	0	6	4	0	0	0	4	1	39	7	1	48	5	32	0	0	37	95
1 Hr Totals																					
4:00-5:00	2	2	2	0	6	3	0	0	0	3	1	25	5	1	32	3	24	0	0	27	68
4:15-5:15	0	1	1	0	2	2	0	0	0	2	1	23	4	1	29	2	24	0	0	26	59
4:30-5:30	0	0	1	0	1	1	0	0	0	1	1	19	2	1	23	2	21	0	0	23	48
4:45-5:45	0	0	1	0	1	1	0	0	0	1	1	16	2	1	20	3	12	0	0	15	37
5:00-6:00	0	0	0	0	0	1	0	0	0	1	0	14	2	0	16	2	8	0	0	10	27
PEAK HOUR																					
5:00-6:00	0	0	0	0	0	1	0	0	0	1	0	14	2	0	16	2	8	0	0	10	27

TOTAL VEHICLE TURNING MOVEMENT COUNT - SUMMARY

Intersection of: SR 2
and: St James Church Rd
Location: New Castle Co., DE

Counted by: VCU
Date: November 8, 2012
Weather: Cloudy/Warm
Entered by: RB

Day: Thursday

The Traffic Group

TIME	TRAFFIC FROM NORTH on: St James Church Rd					TRAFFIC FROM SOUTH on: St James Church Rd					TRAFFIC FROM EAST on: SR 2					TRAFFIC FROM WEST on: SR 2					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
6:00-6:15	4	0	4	0	8	6	1	2	0	9	0	62	9	0	71	9	96	4	2	110	198
6:15-6:30	2	3	4	0	9	8	2	0	0	10	2	67	5	1	75	20	188	6	2	216	310
6:30-6:45	7	0	5	0	12	13	1	10	0	24	0	99	10	1	110	28	238	5	5	276	422
6:45-7:00	3	6	6	0	15	22	6	9	0	37	1	110	7	1	119	28	272	6	3	309	480
7:00-7:15	7	7	9	0	23	25	6	17	0	48	0	131	20	4	155	38	296	7	11	352	578
7:15-7:30	7	4	12	0	23	16	6	24	0	46	4	163	22	4	193	46	381	8	11	446	708
7:30-7:45	18	11	7	0	36	23	7	11	0	41	4	211	20	4	239	58	298	12	6	374	690
7:45-8:00	6	7	14	0	27	26	3	13	0	42	3	203	19	4	229	43	282	15	3	343	641
8:00-8:15	6	11	10	0	27	15	7	12	0	34	3	191	18	9	221	26	275	9	2	312	594
8:15-8:30	8	6	12	0	26	14	8	21	0	43	2	207	22	15	246	27	260	9	5	301	616
8:30-8:45	8	4	7	0	19	25	3	23	0	51	6	238	23	7	274	33	320	8	6	367	711
8:45-9:00	19	4	6	0	29	19	4	14	0	37	3	176	25	10	214	46	260	23	5	334	614
3 Hr Totals	95	63	96	0	254	212	54	156	0	422	28	1858	200	60	2146	402	3165	112	61	3740	6562
1 Hr Totals																					
6:00-7:00	16	9	19	0	44	49	10	21	0	80	3	338	31	3	375	85	793	21	12	911	1410
6:15-7:15	19	16	24	0	59	68	15	36	0	119	3	407	42	7	459	114	994	24	21	1153	1790
6:30-7:30	24	17	32	0	73	76	19	60	0	155	5	503	59	10	577	140	1187	26	30	1383	2188
6:45-7:45	35	28	34	0	97	86	25	61	0	172	9	615	69	13	706	170	1247	33	31	1481	2456
7:00-8:00	38	29	42	0	109	90	22	65	0	177	11	708	81	16	816	185	1257	42	31	1515	2617
7:15-8:15	37	33	43	0	113	80	23	60	0	163	14	768	79	21	882	173	1236	44	22	1475	2633
7:30-8:30	38	35	43	0	116	78	25	57	0	160	12	812	79	32	935	154	1115	45	16	1330	2541
7:45-8:45	28	28	43	0	99	80	21	69	0	170	14	839	82	35	970	129	1137	41	16	1323	2562
8:00-9:00	41	25	35	0	101	73	22	70	0	165	14	812	88	41	955	132	1115	49	18	1314	2535
PEAK HOUR																					
7:15-8:15	37	33	43	0	113	80	23	60	0	163	14	768	79	21	882	173	1236	44	22	1475	2633
PM																					
4:00-4:15	29	11	24	0	64	35	7	39	0	81	9	287	31	12	339	35	270	13	8	326	810
4:15-4:30	30	13	16	0	59	23	6	34	0	63	8	302	37	11	358	23	232	15	2	272	752
4:30-4:45	15	11	24	0	50	23	9	39	0	71	9	305	39	12	365	16	248	16	5	285	771
4:45-5:00	21	18	16	0	55	32	7	27	0	66	13	355	35	5	408	24	259	24	7	314	843
5:00-5:15	30	14	27	0	71	24	20	34	0	78	11	334	37	14	396	24	293	21	2	340	885
5:15-5:30	26	14	23	0	63	27	8	43	0	78	9	312	37	11	369	25	298	13	2	338	848
5:30-5:45	29	22	15	0	66	33	13	27	0	73	6	341	25	8	380	25	323	16	3	367	886
5:45-6:00	27	16	20	0	63	33	9	31	0	73	3	366	27	17	413	9	265	20	4	298	847
2 Hr Totals	207	119	165	0	491	230	79	274	0	583	68	2602	268	90	3028	181	2188	138	33	2540	6642
1 Hr Totals																					
4:00-5:00	95	53	80	0	228	113	29	139	0	281	39	1249	142	40	1470	98	1009	68	22	1197	3176
4:15-5:15	96	56	83	0	235	102	42	134	0	278	41	1296	148	42	1527	87	1032	76	16	1211	3251
4:30-5:30	92	57	90	0	239	106	44	143	0	293	42	1306	148	42	1538	89	1098	74	16	1277	3347
4:45-5:45	106	68	81	0	255	116	48	131	0	295	39	1342	134	38	1553	98	1173	74	14	1359	3462
5:00-6:00	112	66	85	0	263	117	50	135	0	302	29	1353	126	50	1558	83	1179	70	11	1343	3466
PEAK HOUR																					
5:00-6:00	112	66	85	0	263	117	50	135	0	302	29	1353	126	50	1558	83	1179	70	11	1343	3466

Appendix B

CRITICAL MOVEMENT SUMMATION SHEETS

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

DelDOT

Location: SR 2 and St James Church Rd: Base Model

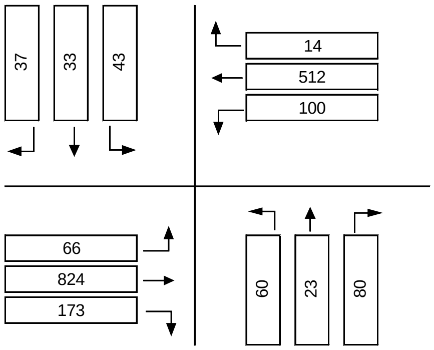
Count Date: 11/8/2012 | Permit # N129

Scenario: AM Peak | Peak Hour: 7:15-8:15

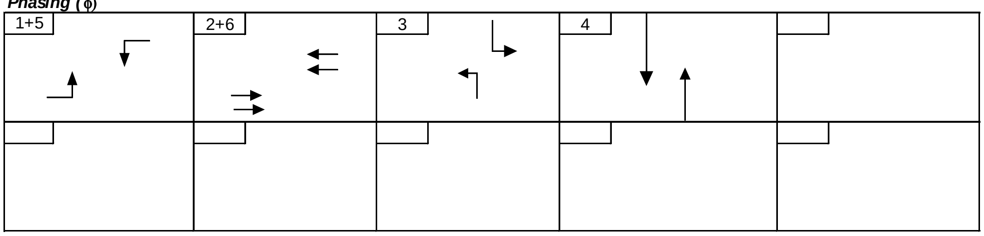
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	66	1.00	66			66	
5	WB L	100	1.00	100			100	*
2	WB T	512	0.55	282		34	248	
6	EB T	824	0.55	454			454	*
3	SB L	43	1.00	43			43	
7	NB L	60	1.00	60			60	*
4	NB T	23	1.00	23		17	6	
8	SB T	33	1.00	33			33	*
Remarks: All rights in dedicated lanes and not included.					TOTAL		647	
					LEVEL OF SERVICE		A	

Level of Service

Level	Critical Movement Volume
A	Less than 1,000 veh/hr
B	1,000 to 1,150 veh/hr
C	1,151 to 1,300 veh/hr
D	1,301 to 1,450 veh/hr
E	1,451 to 1,600 veh/hr
F	More than 1,600 veh/hr

Lane Use Factors

No. of Lanes	Lane Use Factor (LU)
1	1.00
2	0.55
3	0.40
4	0.30

OL = Opposing Lefts
LTC = Left Turn Credit

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Base Model

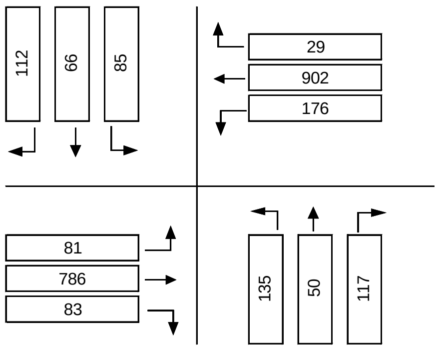
Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

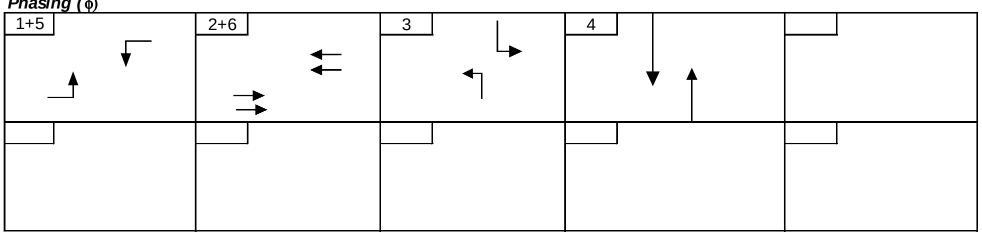
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L		81	1.00	81			81	
5	WB L		176	1.00	176			176	*
2	WB T		902	0.55	497		95	402	
6	EB T		786	0.55	433			433	*
3	SB L		85	1.00	85			85	
7	NB L		135	1.00	135			135	*
4	NB T		50	1.00	50		50	0	
8	SB T		66	1.00	66			66	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		810	
						LEVEL OF SERVICE		A	

Level of Service

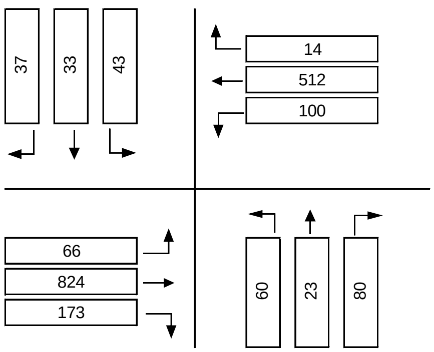
Level	Critical Movement Volume
A	Less than 1,000 veh/hr
B	1,000 to 1,150 veh/hr
C	1,151 to 1,300 veh/hr
D	1,301 to 1,450 veh/hr
E	1,451 to 1,600 veh/hr
F	More than 1,600 veh/hr

Lane Use Factors

No. of Lanes	Lane Use Factor (LU)
1	1.00
2	0.55
3	0.40
4	0.30

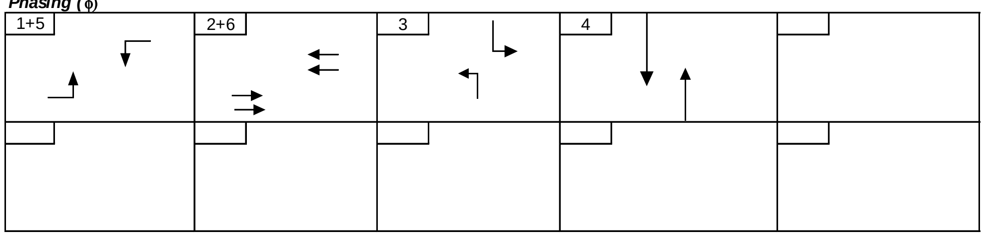
OL = Opposing Lefts
LTC = Left Turn Credit

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Base Model Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:



Lane Configuration:

Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	106		1.00	106			106	
5	WB L	160		1.00	160			160	*
2	WB T	819		0.55	451		54	397	
6	EB T	1318		0.55	726			726	*
3	SB L	69		1.00	69			69	
7	NB L	96		1.00	96			96	*
4	NB T	37		1.00	37		27	10	
8	SB T	53		1.00	53			53	*
Remarks: All rights in dedicated lanes and not included.							TOTAL	1035	
							LEVEL OF SERVICE	B	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Base Model

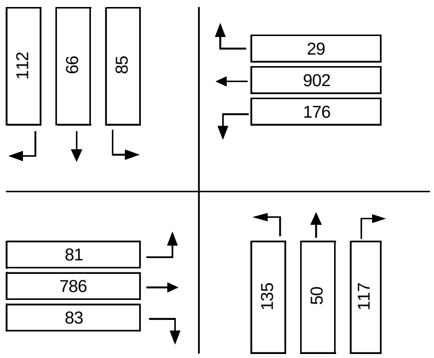
Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

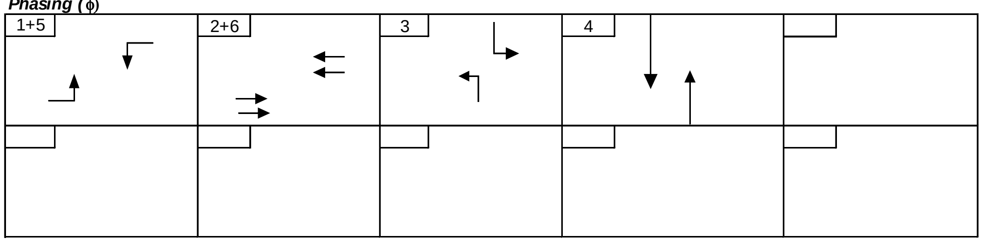
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	109	1.00	110			110	
5	WB L	238	1.00	238			238	*
2	WB T	1218	0.55	670		128	542	
6	EB T	1061	0.55	584			584	*
3	SB L	115	1.00	115			115	
7	NB L	182.25	1.00	183			183	*
4	NB T	68	1.00	68		68	0	
8	SB T	89	1.00	90			90	*
					TOTAL		1095	
					LEVEL OF SERVICE		B	

Remarks: All rights in dedicated lanes and not included.

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Base Model

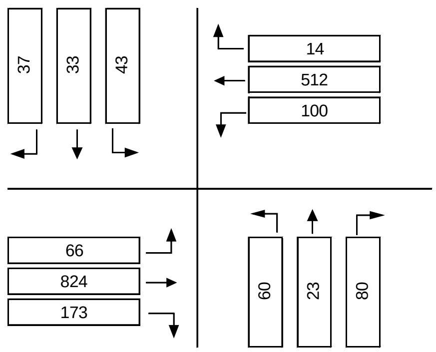
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

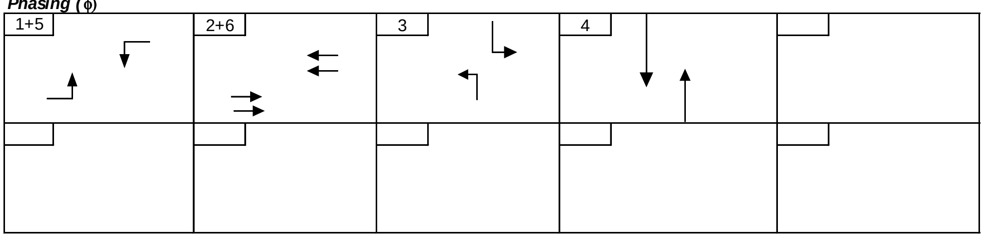
Computed By: MJL Date: 2/18/2013

Checked By: ____________ Date: __________

Lane Configuration:

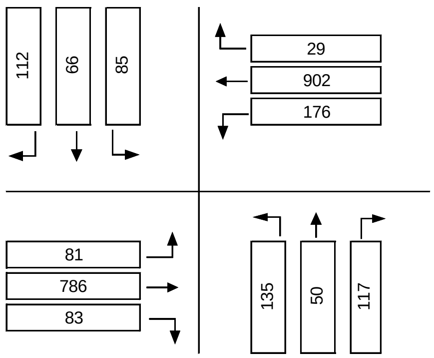


Phasing (ϕ)



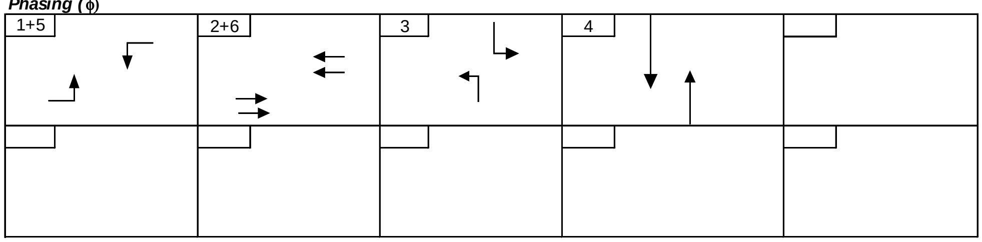
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	119		1.00	119			119	
5	WB L	180		1.00	180			180	*
2	WB T	922		0.55	507		61	446	
6	EB T	1483		0.55	816			816	*
3	SB L	77		1.00	78			78	
7	NB L	108		1.00	108			108	*
4	NB T	41		1.00	42		30	12	
8	SB T	59		1.00	60			60	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		1164	
						LEVEL OF SERVICE		C	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	Location: SR 2 and St James Church Rd: Base Model Count Date: 11/8/2012 Permit # N129 Scenario: PM Peak Peak Hour: 5:00-6:00 Computed By: MJL Date: 2/18/2013 Checked By: Date:



Lane Configuration:

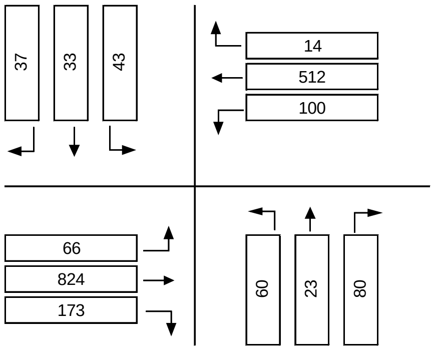
Phasing (ϕ)



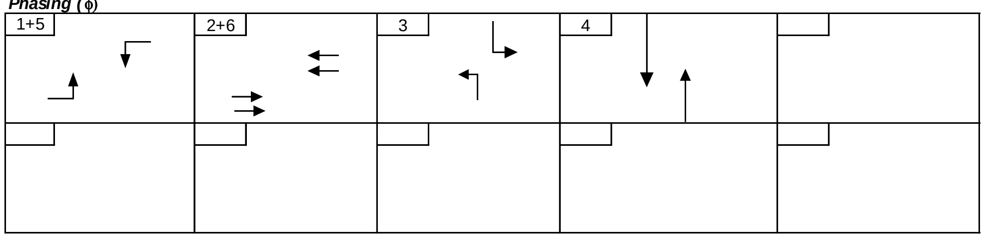
ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	126	1.00	126			126	
5	WB L	273	1.00	273			273	*
2	WB T	1398	0.55	769		128	641	
6	EB T	1218	0.55	671			671	*
3	SB L	132	1.00	132			132	
7	NB L	209.25	1.00	210			210	*
4	NB T	78	1.00	78		68	10	
8	SB T	102	1.00	103			103	*
Remarks: All rights in dedicated lanes and not included.					TOTAL		1257	
					LEVEL OF SERVICE		C	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Base Model Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	139		1.00	139			139	
5	WB L	210		1.00	210			210	*
2	WB T	1075		0.55	592		71	521	
6	EB T	1730		0.55	952			952	*
3	SB L	90		1.00	91			91	
7	NB L	126		1.00	126			126	*
4	NB T	48		1.00	49		37	12	
8	SB T	69		1.00	70			70	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		1358	
						LEVEL OF SERVICE		D	

![DelDOT]

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

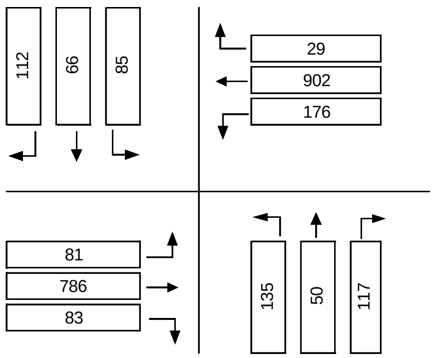
Location: SR 2 and St James Church Rd: Base Model

Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

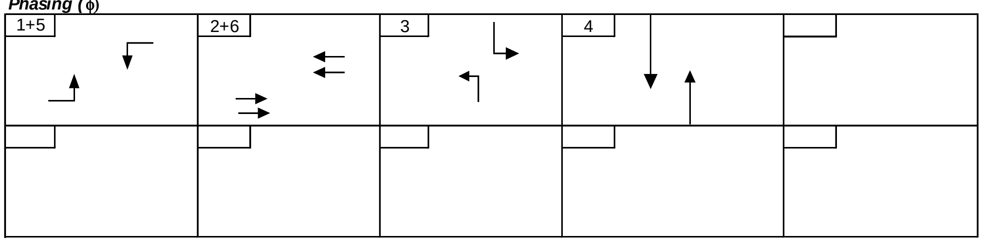
Computed By: MJL Date: 2/18/2013

Checked By: Date:



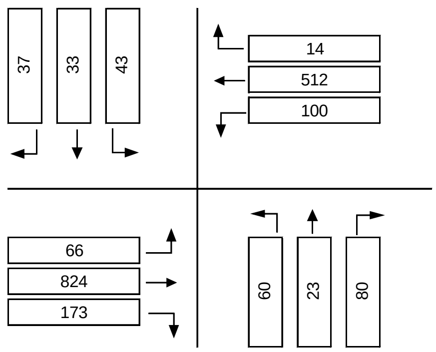
Lane Configuration:

Phasing (ϕ)



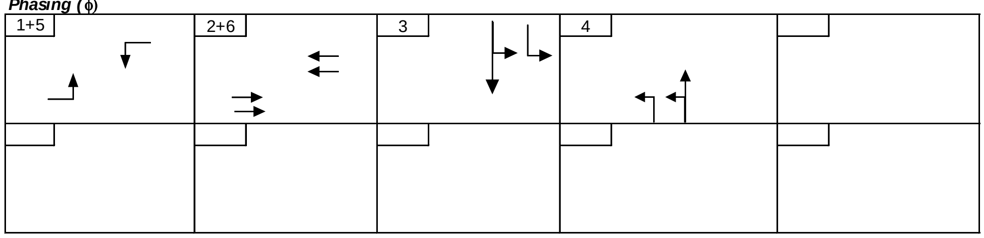
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	138		1.00	138			138	
5	WB L	299		1.00	300			300	*
2	WB T	1533		0.55	844		162	682	
6	EB T	1336		0.55	735			735	*
3	SB L	145		1.00	145			145	
7	NB L	229.5		1.00	230			230	*
4	NB T	85		1.00	85		85	0	
8	SB T	112		1.00	113			113	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		1378	
						LEVEL OF SERVICE		D	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	Location: SR 2 and St James Church Rd: Base Model Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:



Lane Configuration:

Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	152		1.00	152			152	
5	WB L	230		1.00	230			230	*
2	WB T	1178		0.55	648		71	577	
6	EB T	1895		0.55	1043			1043	*
3	SB LT	175		0.55	97			97	*
4	NB LT	190.9		0.55	105			105	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		1475	
						LEVEL OF SERVICE		E	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Base Model

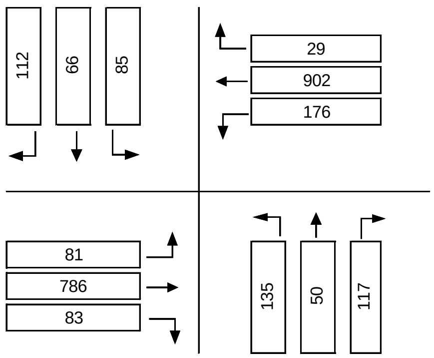
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

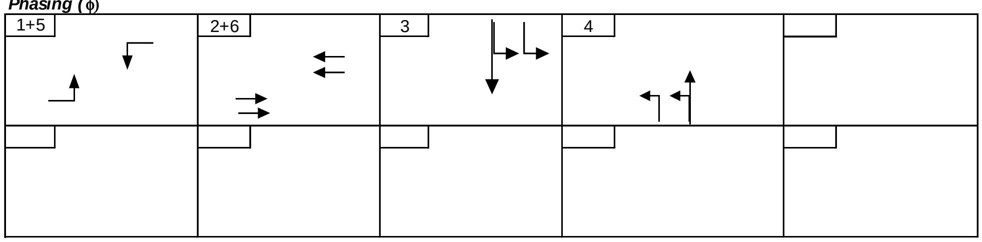
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



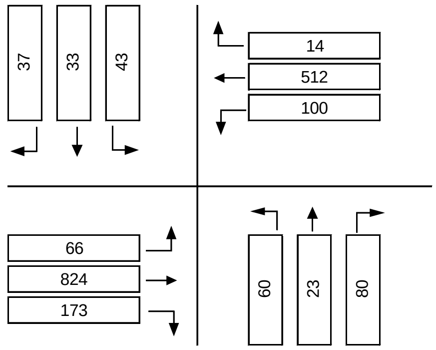
Phasing (ϕ)



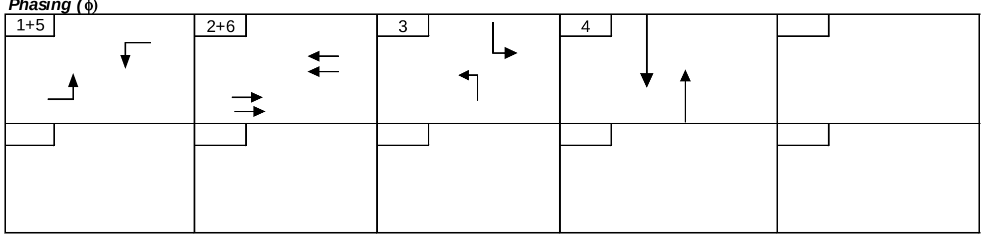
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	154		1.00	154			154	
5	WB L	334		1.00	335			335	*
2	WB T	1714		0.55	943		162	781	
6	EB T	1493		0.55	822			822	*
3	SB LT	287		0.55	158			158	*
4	NB LT	351.5		0.55	194			194	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		1509	
						LEVEL OF SERVICE		E	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	Location: SR 2 and St James Church Rd: Base Model
	Count Date: 11/8/2012 Permit # N129
	Scenario: AM Peak Peak Hour: 7:15-8:15
	Computed By: MJL Date: 2/18/2013
	Checked By: Date:

Lane Configuration:



Phasing (ϕ)

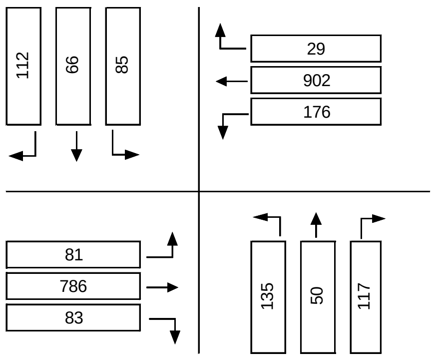


ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	165	1.00	165			165	
5	WB L	250	1.00	250			250	*
2	WB T	1280	0.55	704		85	619	
6	EB T	2060	0.55	1133			1133	*
3	SB L	108	1.00	108			108	
7	NB L	150	1.00	150			150	*
4	NB T	58	1.00	58		42	16	
8	SB T	83	1.00	83			83	*
						TOTAL	1616	
						LEVEL OF SERVICE	F	

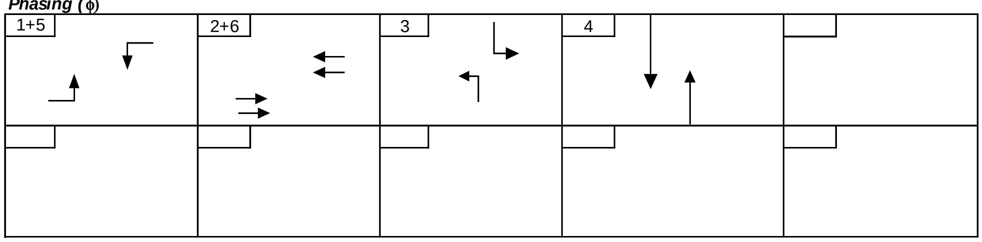
Remarks: All rights in dedicated lanes and not included.

DelDOT	Location: SR 2 and St James Church Rd: Base Model
	Count Date: 11/8/2012 — Permit # N129
	Scenario: PM Peak — Peak Hour: 5:00-6:00
CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	Computed By: MJL — Date: 2/18/2013
	Checked By: — Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	166	1.00	167			167	
5	WB L	361	1.00	361			361	*
2	WB T	1849	0.55	1018		194	824	
6	EB T	1611	0.55	887			887	*
3	SB L	174	1.00	175			175	
7	NB L	277	1.00	277			277	*
4	NB T	103	1.00	103		102	1	
8	SB T	135	1.00	136			136	*
Remarks: All rights in dedicated lanes and not included.					TOTAL		1661	
					LEVEL OF SERVICE		F	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 1

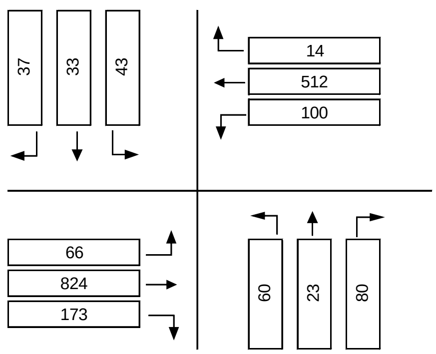
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

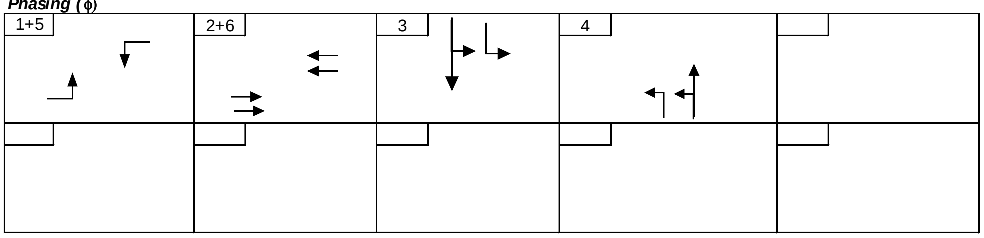
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L		66	1.00	66			66	
5	WB L		100	1.00	100			100	*
2	WB T		512	0.55	282		34	248	
6	EB T		824	0.55	454			454	*
3	SB LT		76	0.55	42			42	*
4	NB LT		83	0.55	46			46	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		642	
						LEVEL OF SERVICE		A	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 1

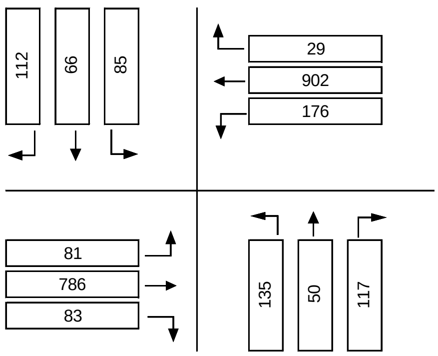
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

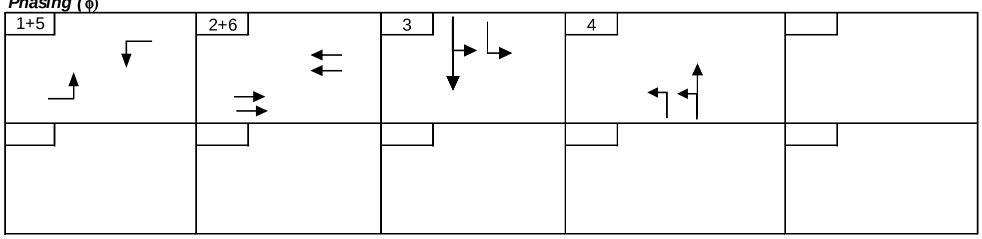
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



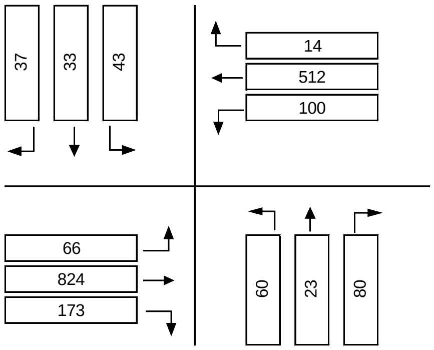
Phasing (ϕ)



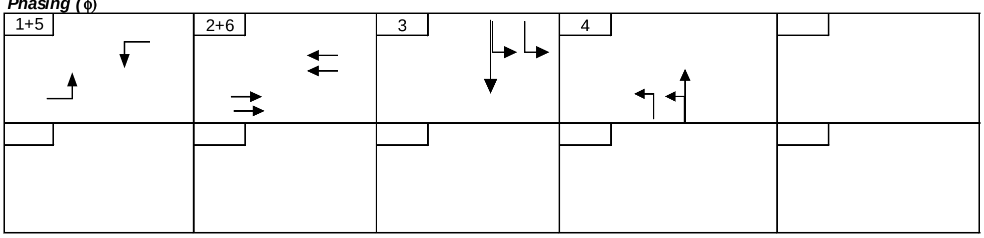
ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	81	1.00	81			81	
5	WB L	176	1.00	176			176	*
2	WB T	902	0.55	497		95	402	
6	EB T	786	0.55	433			433	*
3	SB LT	151	0.55	84			84	*
4	NB LT	185	0.55	102			102	*
Remarks: All rights in dedicated lanes and not included.						TOTAL	795	
						LEVEL OF SERVICE	A	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 1 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	106		1.00	106			106	
5	WB L	160		1.00	160			160	*
2	WB T	819		0.55	451		54	397	
6	EB T	1318		0.55	726			726	*
3	SB LT	122		1.00	122			122	*
4	NB LT	132.8		1.00	133			133	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		1141	
						LEVEL OF SERVICE		B	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 1

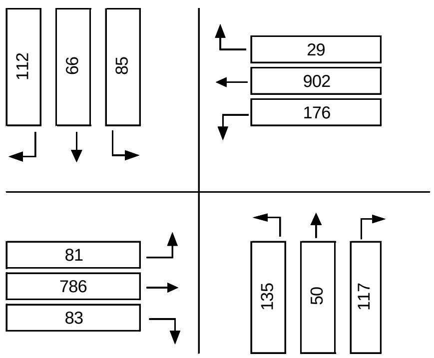
Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

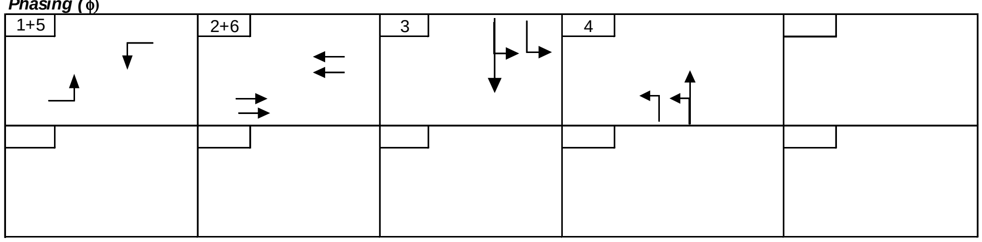
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	109	1.00	110			110	
5	WB L	238	1.00	238			238	*
2	WB T	1218	0.55	670		128	542	
6	EB T	1061	0.55	584			584	*
3	SB LT	204	1.00	204			204	*
4	NB LT	249.75	1.00	250			250	*
Remarks: All rights in dedicated lanes and not included.					TOTAL		1276	
					LEVEL OF SERVICE		C	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

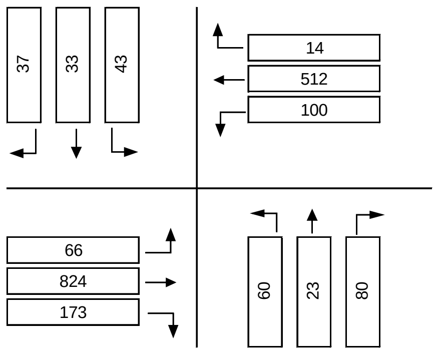
Location: SR 2 and St James Church Rd: Test 1

Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

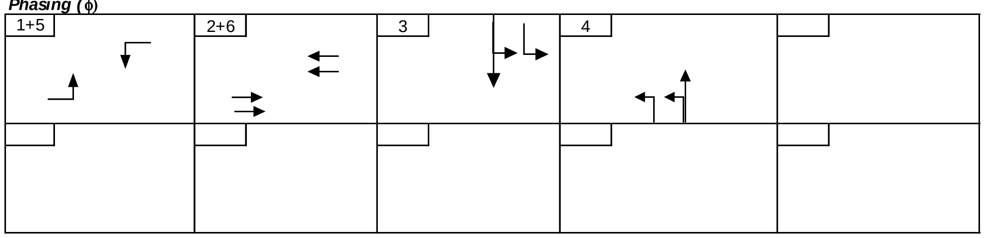
Computed By: MJL Date: 2/18/2013

Checked By: ______ Date: ______



Lane Configuration:

Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	119		1.00	119			119	
5	WB L	180		1.00	180			180	*
2	WB T	922		0.55	507		61	446	
6	EB T	1483		0.55	816			816	*
3	SB LT	137		0.55	76			76	*
4	NB LT	149.4		0.55	83			83	*

Remarks: All rights in dedicated lanes and not included.

TOTAL	1155
LEVEL OF SERVICE	C

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

DelDOT

Location: SR 2 and St James Church Rd: Test 1

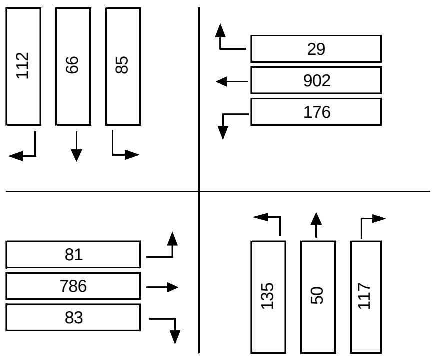
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

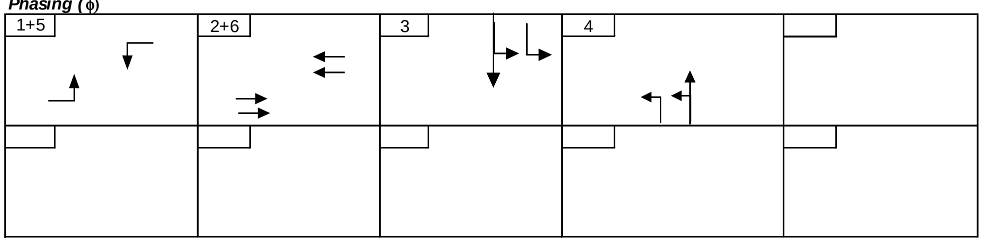
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	126		1.00	126			126	
5	WB L	273		1.00	273			273	*
2	WB T	1398		0.55	769		128	641	
6	EB T	1218		0.55	671			671	*
3	SB LT	234		0.55	129			129	*
4	NB LT	286.75		0.55	158			158	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		1231	
						LEVEL OF SERVICE		C	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

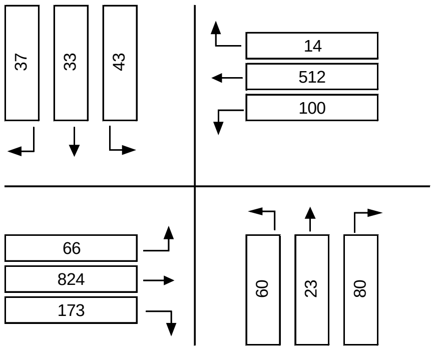
Location: SR 2 and St James Church Rd: Test 1

Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

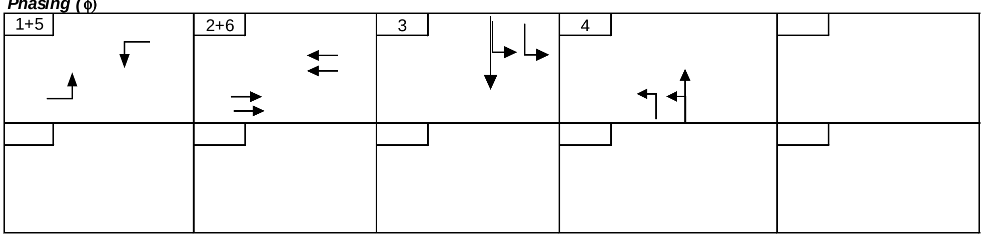
Computed By: MJL Date: 2/18/2013

Checked By: Date:



Lane Configuration:

Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	139		1.00	139			139	
5	WB L	210		1.00	210			210	*
2	WB T	1075		0.55	592		71	521	
6	EB T	1730		0.55	952			952	*
3	SB LT	160		0.55	88			88	*
4	NB LT	174.3		0.55	96			96	*
Remarks: All rights in dedicated lanes and not included.						TOTAL		1346	
						LEVEL OF SERVICE		D	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 1

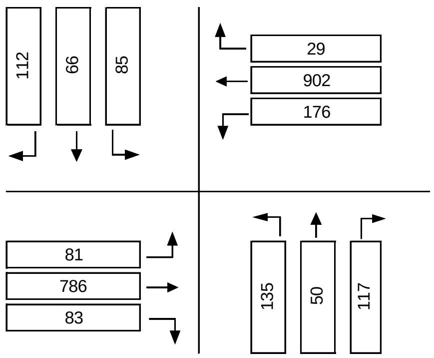
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

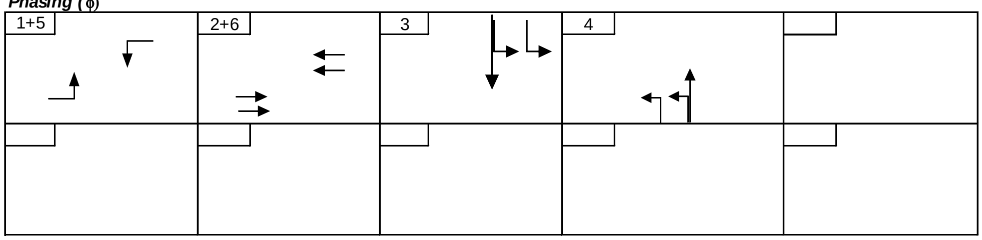
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	138		1.00	138			138	
5	WB L	299		1.00	300			300	*
2	WB T	1533		0.55	844		162	682	
6	EB T	1336		0.55	735			735	*
3	SB LT	257		0.55	142			142	*
4	NB LT	314.5		0.55	173			173	*

Remarks: All rights in dedicated lanes and not included.

TOTAL	1350
LEVEL OF SERVICE	D

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 1

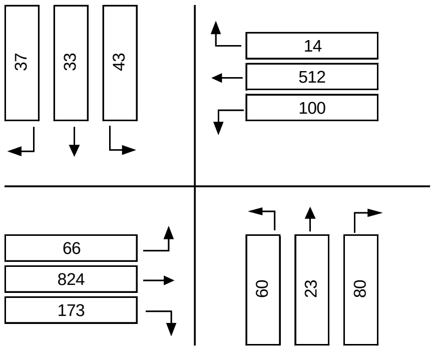
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

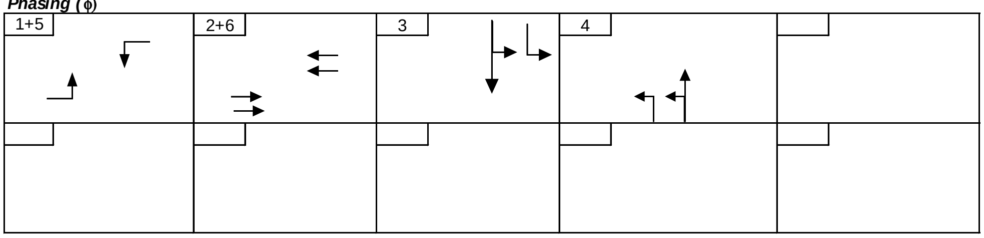
Computed By: MJL Date: 2/18/2013

Checked By: ____ Date: ____

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	152		1.00	152			152	
5	WB L	230		1.00	230			230	*
2	WB T	1178		0.55	648		71	577	
6	EB T	1895		0.55	1043			1043	*
3	SB LT	175		0.55	97			97	*
4	NB LT	190.9		0.55	105			105	*
Remarks: All rights in dedicated lanes and not included.							TOTAL	1475	
							LEVEL OF SERVICE	E	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 1

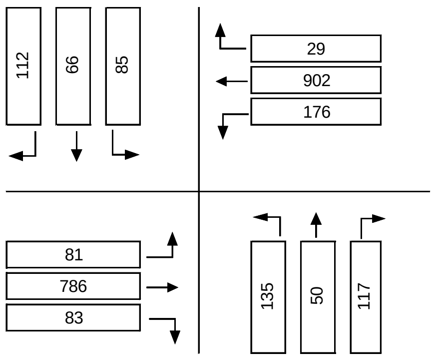
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

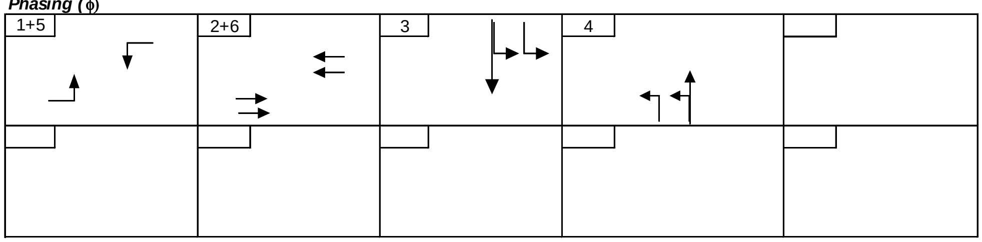
Computed By: MJL Date: 2/18/2013

Checked By: ______ Date: ______

Lane Configuration:



Phasing (ϕ)

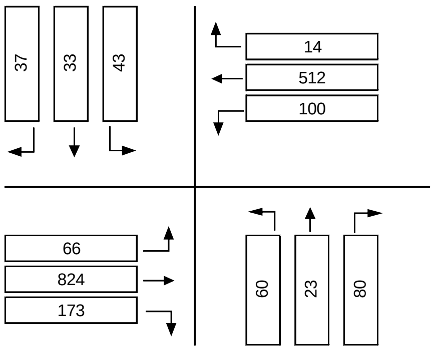


ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	154		1.00	154			154	
5	WB L	334		1.00	335			335	*
2	WB T	1714		0.55	943		162	781	
6	EB T	1493		0.55	822			822	*
3	SB LT	287		0.55	158			158	*
4	NB LT	351.5		0.55	194			194	*

Remarks: All rights in dedicated lanes and not included.

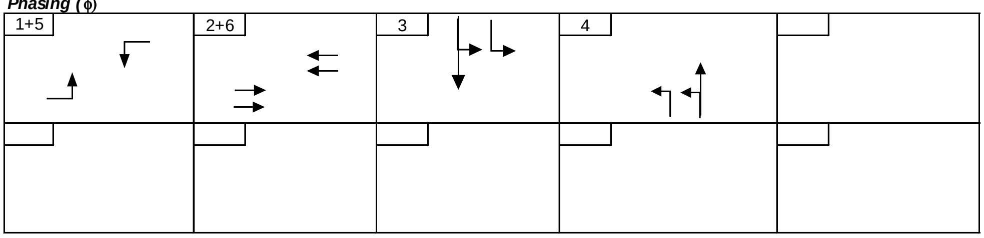
TOTAL	1509
LEVEL OF SERVICE	E

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 1 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:



Lane Configuration:

Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L		165	1.00	165			165	
5	WB L		250	1.00	250			250	*
2	WB T		1280	0.55	704		85	619	
6	EB T		2060	0.55	1133			1133	*
3	SB LT		191	0.55	106			106	*
				1.00	0			0	
4	NB LT		208	0.55	115			115	*
				1.00	0			0	
Remarks: All rights in dedicated lanes and not included.						TOTAL		1604	
						LEVEL OF SERVICE		F	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 1

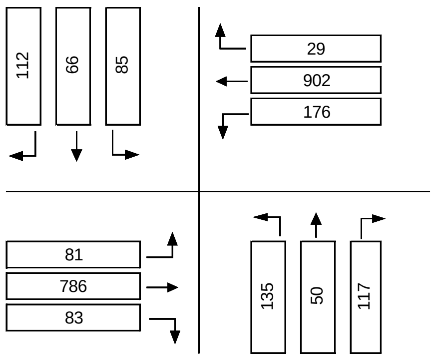
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

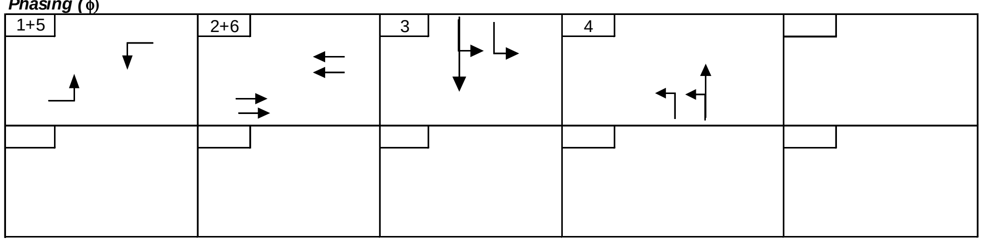
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	166	1.00	166			166	
5	WB L	361	1.00	361			361	*
2	WB T	1849	0.55	1017		195	822	
6	EB T	1611	0.55	887			887	*
3	SB LT	311	0.55	172			172	*
			1.00	0			0	
4	NB LT	380	0.55	209			209	*
			1.00	0			0	
Remarks: All rights in dedicated lanes and not included.						TOTAL	1629	
						LEVEL OF SERVICE	F	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 2

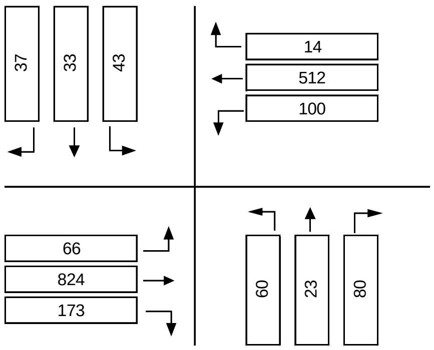
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

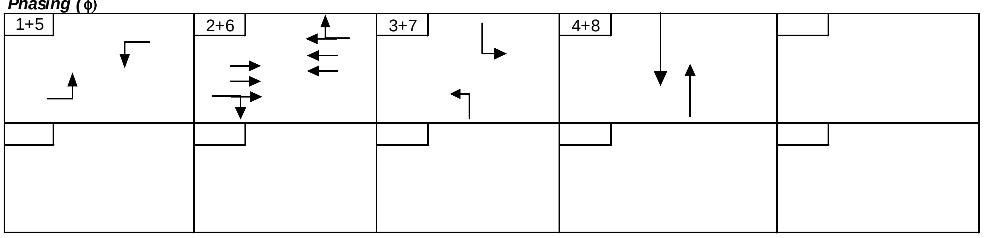
Computed By: MJL Date: 2/18/2013

Checked By: ____________ Date: ________

Lane Configuration:



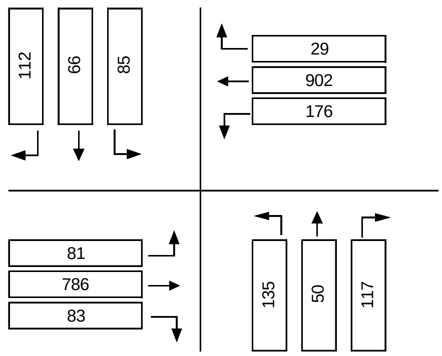
Phasing (ϕ)



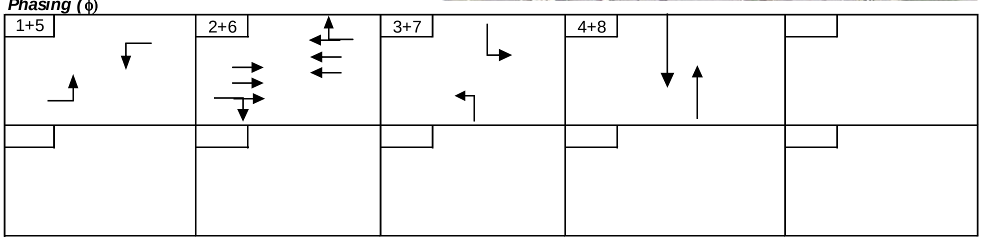
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L		66	1.00	66			66	
5	WB L		100	1.00	100			100	*
2	WB TR		526	0.40	211		34	177	
6	EB TR		997	0.40	399			399	*
3	SB L		43	1.00	43			43	
7	NB L		60	1.00	60			60	*
4	NB T		23	1.00	23			23	
8	SB T		33	1.00	33			33	*
Remarks: EB/WB Rights included.						TOTAL		592	
						LEVEL OF SERVICE		A	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	Location: SR 2 and St James Church Rd: Test 2 Count Date: 11/8/2012 Permit # N129 Scenario: PM Peak Peak Hour: 5:00-6:00 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L		81	1.00	81			81	
5	WB L		176	1.00	176			176	*
2	WB TR		931	0.40	373		95	278	
6	EB TR		869	0.40	348			348	*
3	SB L		85	1.00	85			85	
7	NB L		135	1.00	135			135	*
4	NB T		50	1.00	50			50	
8	SB T		66	1.00	66			66	*
Remarks: EB/WB Rights included.							TOTAL	725	
							LEVEL OF SERVICE	A	

DelDOT

CRITICAL LANE MOVEMENT
SUMMATION AND LEVEL OF SERVICE

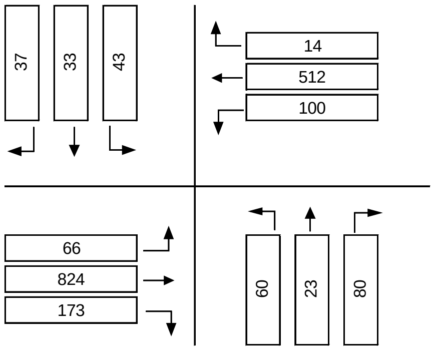
Location: SR 2 and St James Church Rd: Test 2

Count Date: 11/8/2012 Permit # N129

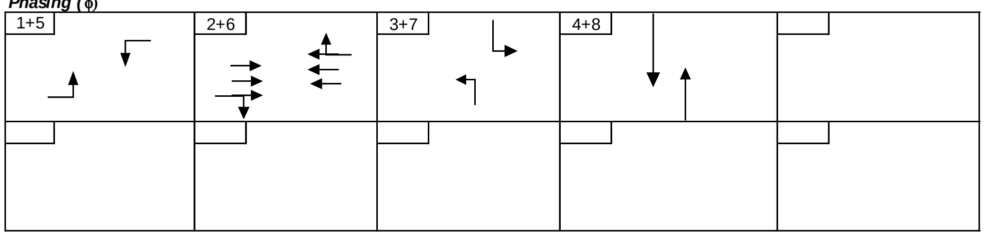
Scenario: AM Peak Peak Hour: 7:15-8:15

Computed By: MJL Date: 2/18/2013
Checked By: Date:

Lane Configuration:



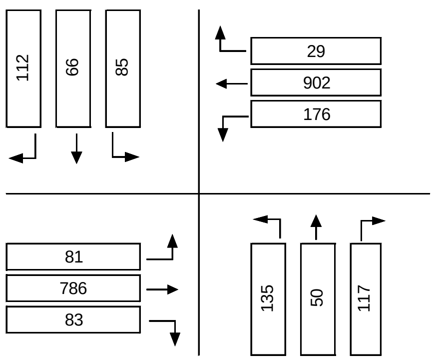
Phasing (ϕ)



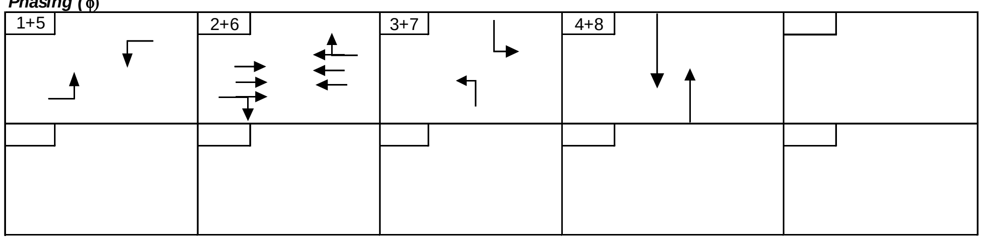
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	106		1.00	106			106	
5	WB L	160		1.00	160			160	*
2	WB TR	842		0.40	337		54	283	
6	EB TR	1595		0.40	639			639	*
3	SB L	69		1.00	69			69	
7	NB L	96		1.00	96			96	*
4	NB T	37		1.00	37			37	
8	SB T	53		1.00	53			53	*
Remarks: EB/WB rights included.						TOTAL		948	
						LEVEL OF SERVICE		A	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 2 Count Date: 11/8/2012 Permit # N129 Scenario: PM Peak Peak Hour: 5:00-6:00 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



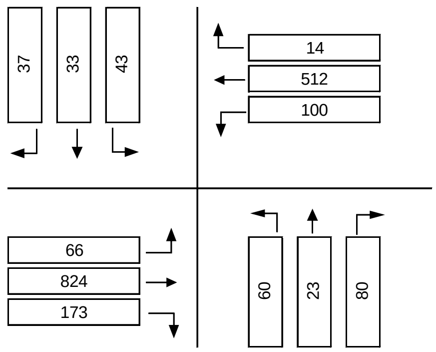
Phasing (ϕ)



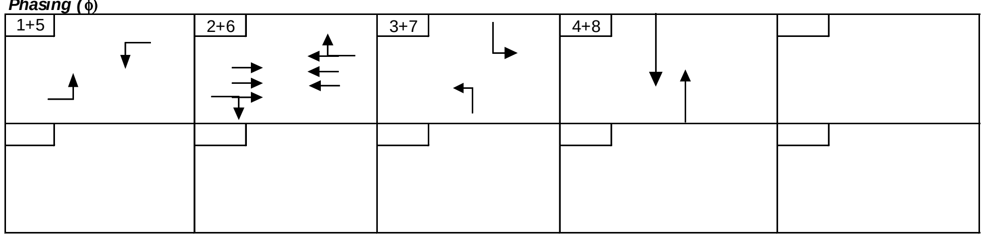
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	109		1.00	110			110	
5	WB L	238		1.00	238			238	*
2	WB TR	1257		0.40	503		128	375	
6	EB TR	1173		0.40	470			470	*
3	SB L	115		1.00	115			115	
7	NB L	182.25		1.00	183			183	*
4	NB T	68		1.00	68			68	
8	SB T	89		1.00	90			90	*
Remarks: EB/WB rights included.						TOTAL		981	
						LEVEL OF SERVICE		A	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE (DelDOT)	Location: SR 2 and St James Church Rd: Test 2 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: ______ Date: ______

Lane Configuration:



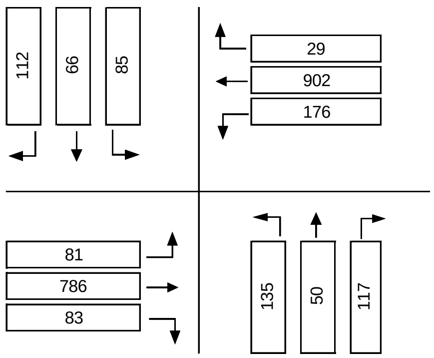
Phasing (ϕ)



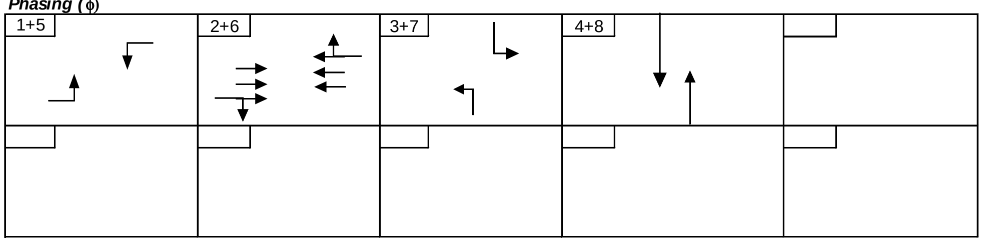
ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	119	1.00	119			119	
5	WB L	180	1.00	180			180	*
2	WB TR	947	0.40	379		61	318	
6	EB TR	1795	0.40	718			718	*
3	SB L	77	1.00	78			78	
7	NB L	108	1.00	108			108	*
4	NB T	41	1.00	42			42	
8	SB T	59	1.00	60			60	*
Remarks: EB/WB rights included.					TOTAL		1066	
					LEVEL OF SERVICE		B	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 2 Count Date: 11/8/2012 Permit # N129 Scenario: PM Peak Peak Hour: 5:00-6:00 Computed By: MJL Date: 2/18/2013 Checked By: ________ Date: ________

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	126	1.00	126			126	
5	WB L	273	1.00	273			273	*
2	WB TR	1443	0.40	578		128	450	
6	EB TR	1347	0.40	539			539	*
3	SB L	132	1.00	132			132	
7	NB L	209.25	1.00	210			210	*
4	NB T	78	1.00	78			78	
8	SB T	102	1.00	103			103	*
Remarks: EB/WB rights included.					TOTAL		1125	
					LEVEL OF SERVICE		B	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

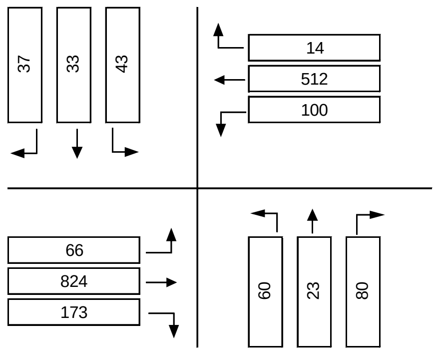
Location: SR 2 and St James Church Rd: Test 2

Count Date: 11/8/2012 Permit # N129

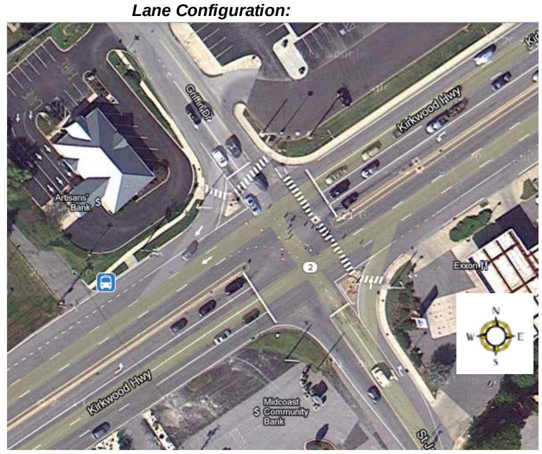
Scenario: AM Peak Peak Hour: 7:15-8:15

Computed By: MJL Date: 2/18/2013

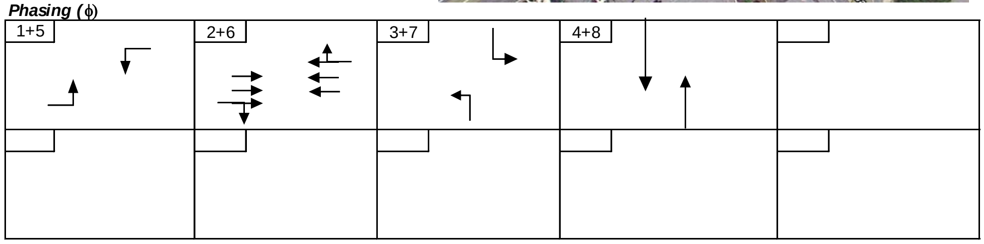
Checked By: Date:



Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	139	1.00	139			139	
5	WB L	210	1.00	210			210	*
2	WB TR	1105	0.40	442		71	371	
6	EB TR	2094	0.40	838			838	*
3	SB L	90	1.00	91			91	
7	NB L	126	1.00	126			126	*
4	NB T	48	1.00	49			49	
8	SB T	69	1.00	70			70	*
Remarks: EB/WB rights included.					TOTAL		1244	
					LEVEL OF SERVICE		C	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 2

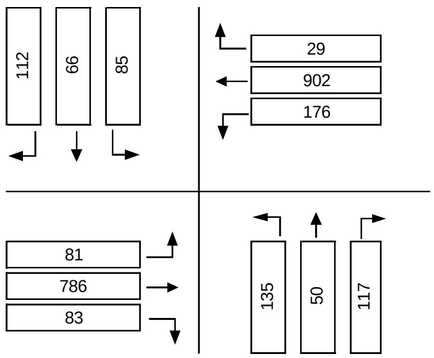
Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

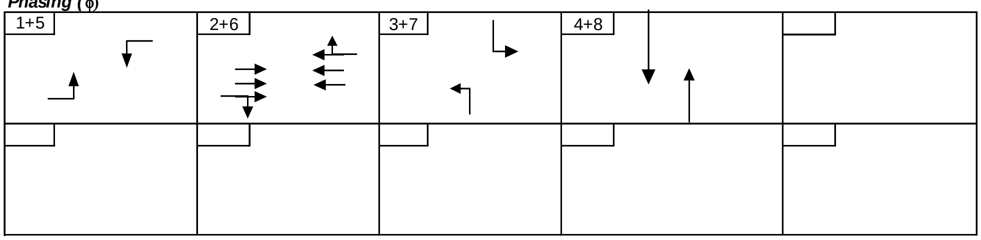
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	138	1.00	138			138	
5	WB L	299	1.00	300			300	*
2	WB TR	1583	0.40	634		162	472	
6	EB TR	1477	0.40	591			591	*
3	SB L	145	1.00	145			145	
7	NB L	229.5	1.00	230			230	*
4	NB T	85	1.00	85			85	
8	SB T	112	1.00	113			113	*
						TOTAL	1234	
						LEVEL OF SERVICE	C	

Remarks: EB/WB rights included.

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 2

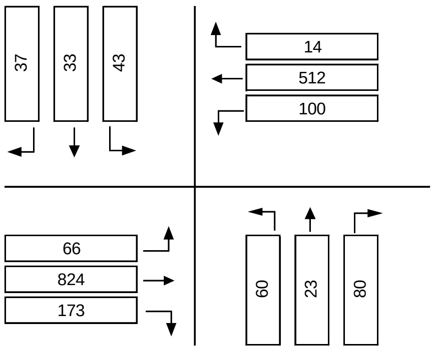
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

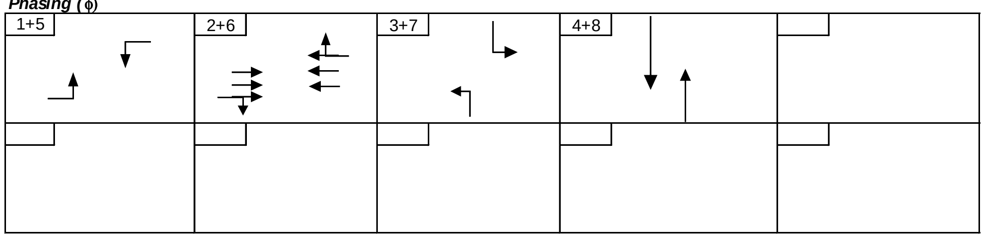
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	152		1.00	152			152	
5	WB L	230		1.00	230			230	*
2	WB TR	1210		0.40	484		71	413	
6	EB TR	2293		0.40	918			918	*
3	SB L	99		1.00	99			99	
7	NB L	138		1.00	138			138	*
4	NB T	53		1.00	53			53	
8	SB T	76		1.00	76			76	*
Remarks: EB/WB rights included.						TOTAL		1362	
						LEVEL OF SERVICE		D	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

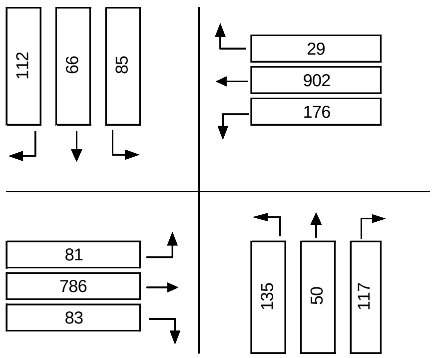
Location: SR 2 and St James Church Rd: Test 2

Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

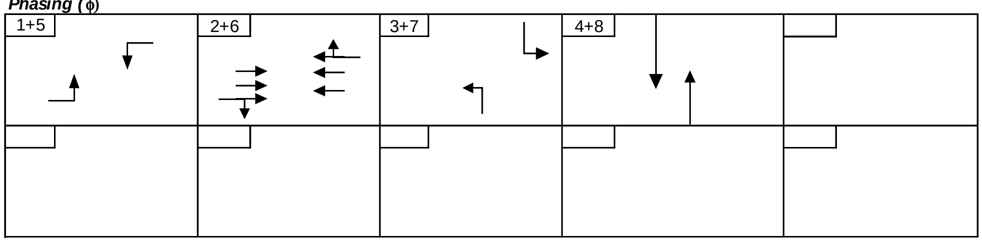
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:



Lane Configuration:

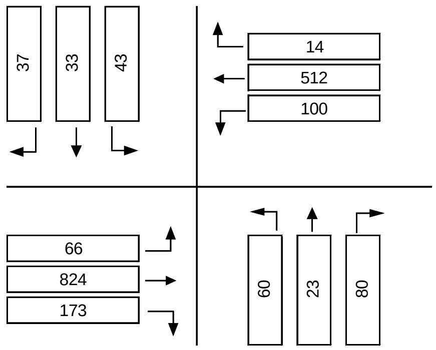
Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	154		1.00	154			154	
5	WB L	334		1.00	335			335	*
2	WB TR	1769		0.40	708		162	546	
6	EB TR	1651		0.40	661			661	*
3	SB L	162		1.00	162			162	
7	NB L	256.5		1.00	257			257	*
4	NB T	95		1.00	95			95	
8	SB T	125		1.00	126			126	*

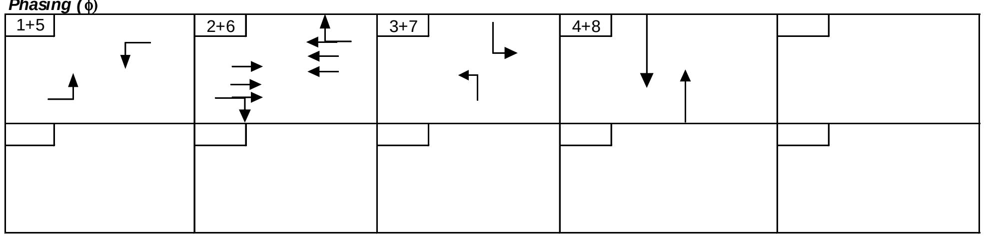
Remarks: EB/WB rights included.	TOTAL	1379
	LEVEL OF SERVICE	D

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 1 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: ______ Date: ______



Lane Configuration:

Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	165		1.00	165			165	
5	WB L	250		1.00	250			250	*
2	WB TR	1315		0.40	526		85	441	
6	EB TR	2493		0.40	998			998	*
3	SB L	108		1.00	108			108	
7	NB L	150		1.00	150			150	*
4	NB T	58		1.00	58		42	16	
8	SB T	83		1.00	83			83	*
Remarks: NB/SB rights in dedicated lanes and not included.						TOTAL		1481	
						LEVEL OF SERVICE		E	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 1

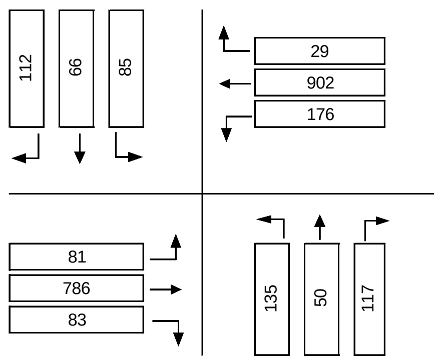
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

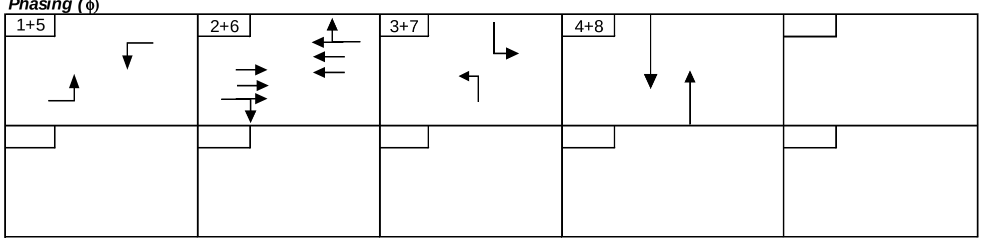
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



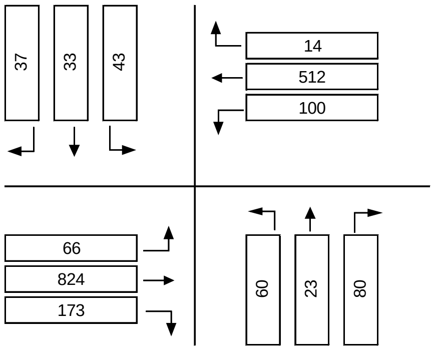
Phasing (ϕ)



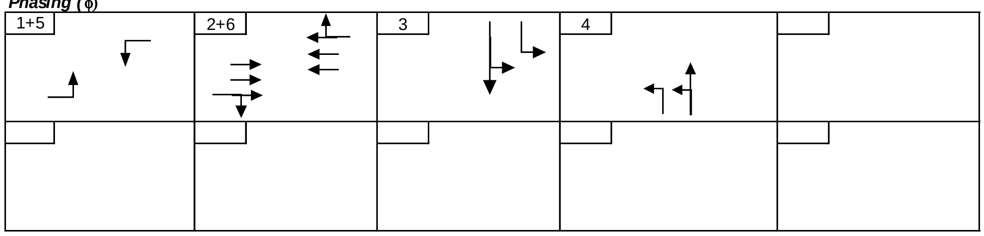
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	166		1.00	167			167	
5	WB L	361		1.00	361			361	*
2	WB TR	1910		0.40	764		194	570	
6	EB TR	1783		0.40	714			714	*
3	SB L	174		1.00	175			175	
7	NB L	277		1.00	277			277	*
4	NB T	103		1.00	103		102	1	
8	SB T	135		1.00	136			136	*
Remarks: NB/SB rights in dedicated lanes and not included.						TOTAL		1488	
						LEVEL OF SERVICE		E	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 3 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



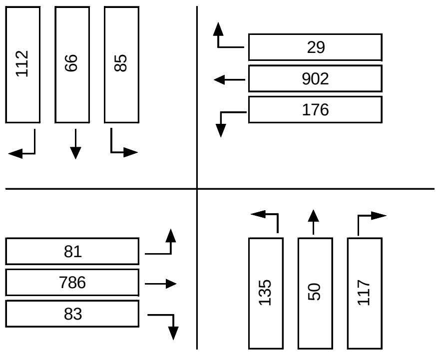
Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	66	1.00	66			66	
5	WB L	100	1.00	100			100	*
2	WB TR	526	0.40	211		34	177	
6	EB TR	997	0.40	399			399	*
3	SB LT	76	0.55	42			42	*
4	NB LT	83	0.55	46			46	*
Remarks: EB/WB Rights included.					TOTAL		587	
					LEVEL OF SERVICE		A	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 3 Count Date: 11/8/2012 Permit # N129 Scenario: PM Peak Peak Hour: 5:00-6:00 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



Phasing (ϕ)

1+5	2+6	3	4	

ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L		81	1.00	81			81	
5	WB L		176	1.00	176			176	*
2	WB TR		931	0.40	373		95	278	
6	EB TR		869	0.40	348			348	*
3	SB LT		151	0.55	84			84	*
4	NB LT		185	0.55	102			102	*
Remarks: EB/WB Rights included.						TOTAL		710	
						LEVEL OF SERVICE		A	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 3

Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

Computed By: MJL Date: 2/18/2013

Checked By: ______ Date: ______

Lane Configuration:

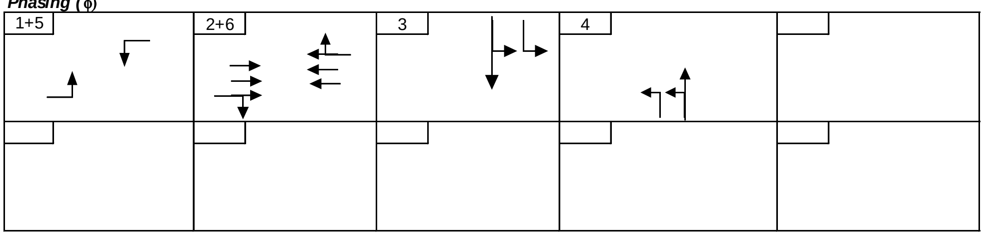
Southbound: 37, 33, 43

Westbound: 14, 512, 100

Eastbound: 66, 824, 173

Northbound: 60, 23, 80

Phasing (ϕ)



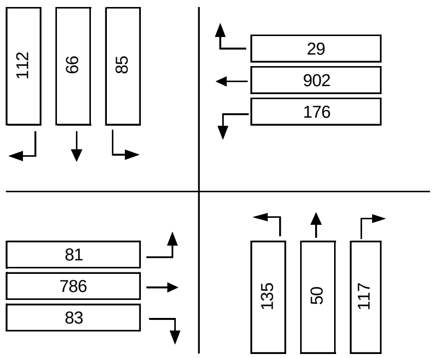
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	106		1.00	106			106	
5	WB L	160		1.00	160			160	*
2	WB TR	842		0.40	337		54	283	
6	EB TR	1595		0.40	639			639	*
3	SB LT	122		0.55	67			67	*
4	NB LT	132.8		0.55	74			74	*

Remarks: EB/WB rights included.

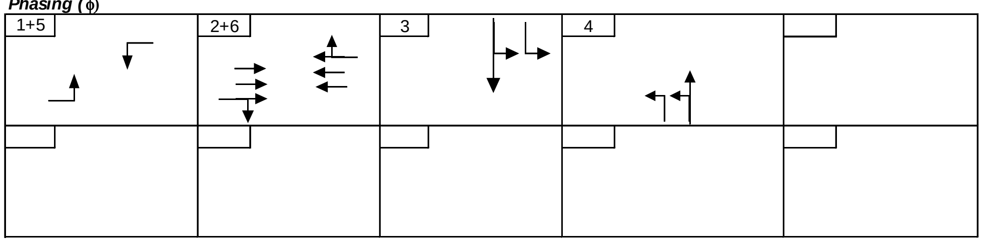
TOTAL	940
LEVEL OF SERVICE	A

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	Location: SR 2 and St James Church Rd: Test 3 Count Date: 11/8/2012 Permit # N129 Scenario: PM Peak Peak Hour: 5:00-6:00 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	109		1.00	110			110	
5	WB L	238		1.00	238			238	*
2	WB TR	1257		0.40	503		128	375	
6	EB TR	1173		0.40	470			470	*
3	SB LT	204		0.55	113			113	*
4	NB LT	249.75		0.55	138			138	*
Remarks: EB/WB rights included.						TOTAL		959	
						LEVEL OF SERVICE		A	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 3

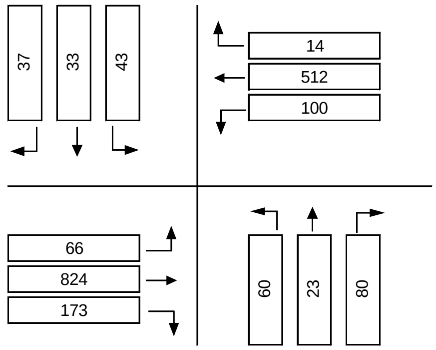
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

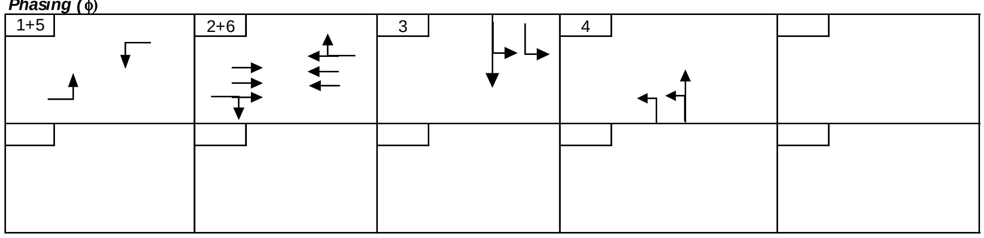
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	119		1.00	119			119	
5	WB L	180		1.00	180			180	*
2	WB TR	947		0.40	379		61	318	
6	EB TR	1795		0.40	718			718	*
3	SB LT	137		0.55	76			76	*
4	NB LT	149.4		0.55	83			83	*
Remarks: EB/WB rights included.						TOTAL		1057	
						LEVEL OF SERVICE		B	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 3

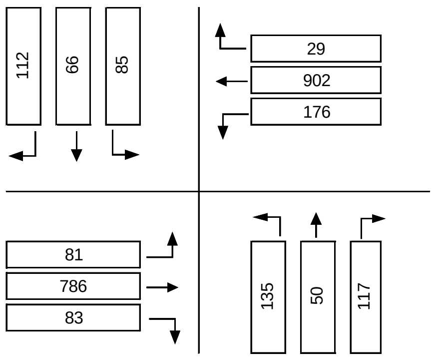
Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

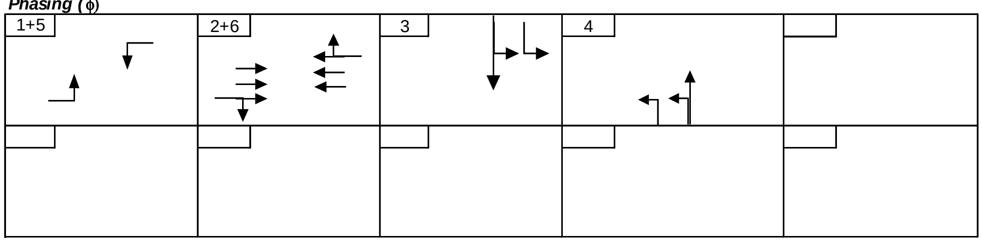
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)

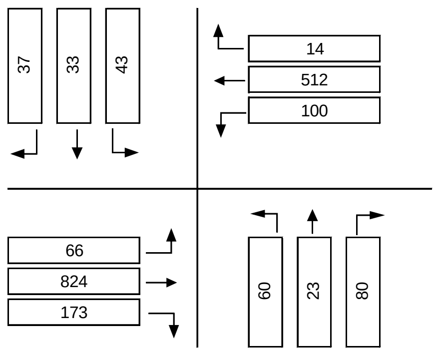


ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	126	1.00	126			126	
5	WB L	273	1.00	273			273	*
2	WB TR	1443	0.40	578		128	450	
6	EB TR	1347	0.40	539			539	*
3	SB LT	234	0.55	129			129	*
4	NB LT	286.75	0.55	158			158	*

Remarks: EB/WB rights included.

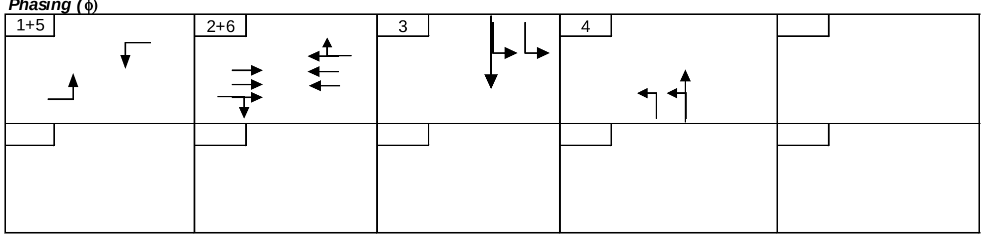
TOTAL	1099
LEVEL OF SERVICE	B

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 3 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:



Lane Configuration:

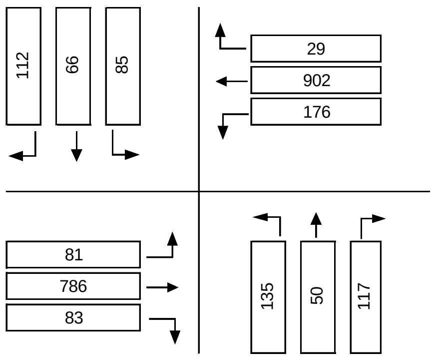
Phasing (ϕ)



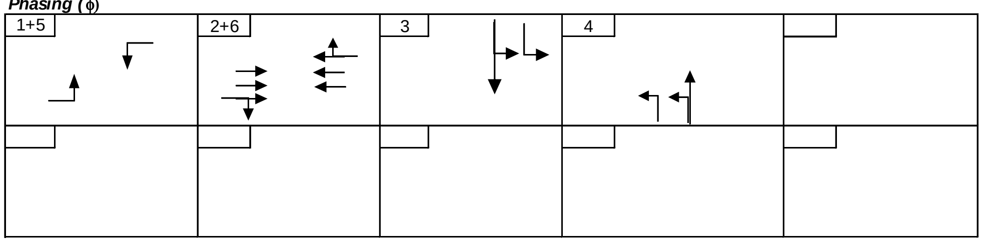
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	139		1.00	139			139	
5	WB L	210		1.00	210			210	*
2	WB TR	1105		0.40	442		71	371	
6	EB TR	2094		0.40	838			838	*
3	SB LT	160		0.55	88			88	*
4	NB LT	174.3		0.55	96			96	*
Remarks: EB/WB rights included.						TOTAL		1232	
						LEVEL OF SERVICE		C	

DelDOT — CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	
Location:	SR 2 and St James Church Rd: Test 3
Count Date:	11/8/2012
Permit #	N129
Scenario:	PM Peak
Peak Hour:	5:00-6:00
Computed By:	MJL
Date:	2/18/2013
Checked By:	
Date:	

Lane Configuration:



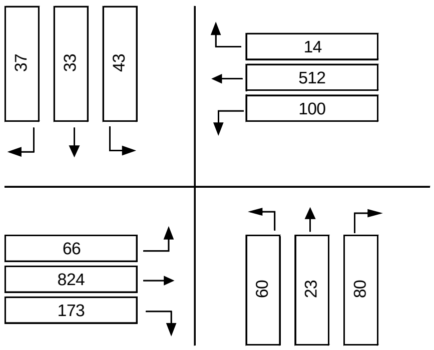
Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	138		1.00	138			138	
5	WB L	299		1.00	300			300	*
2	WB TR	1583		0.40	634		162	472	
6	EB TR	1477		0.40	591			591	*
3	SB LT	257		0.55	142			142	*
4	NB LT	314.5		0.55	173			173	*

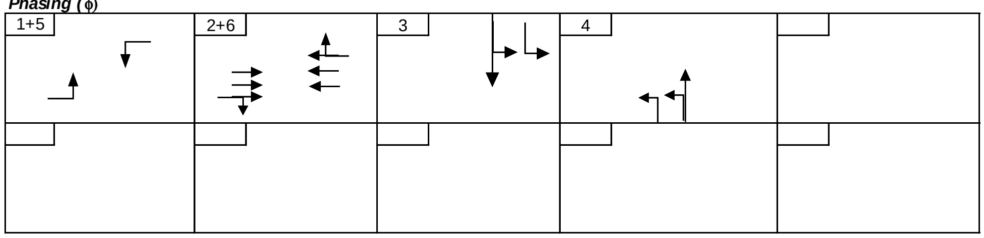
Remarks: EB/WB rights included.		
	TOTAL	1206
	LEVEL OF SERVICE	C

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 3 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:



Lane Configuration:

Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	152		1.00	152			152	
5	WB L	230		1.00	230			230	*
2	WB TR	1210		0.40	484		71	413	
6	EB TR	2293		0.40	918			918	*
3	SB LT	175		0.55	97			97	*
4	NB LT	190.9		0.55	105			105	*

Remarks: EB/WB rights included.

TOTAL	1350
LEVEL OF SERVICE	D

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 3

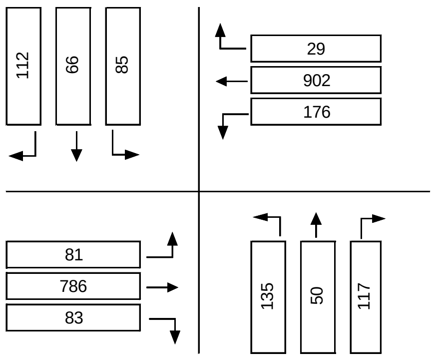
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

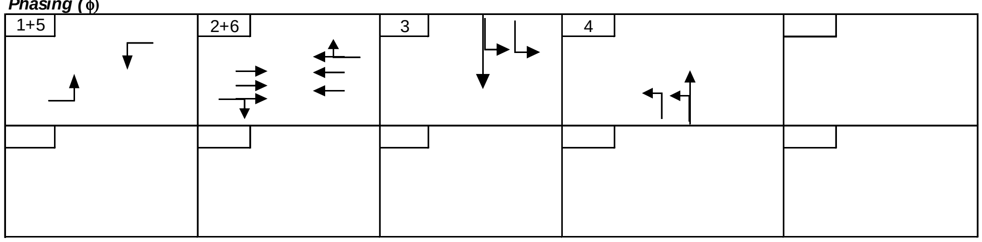
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)

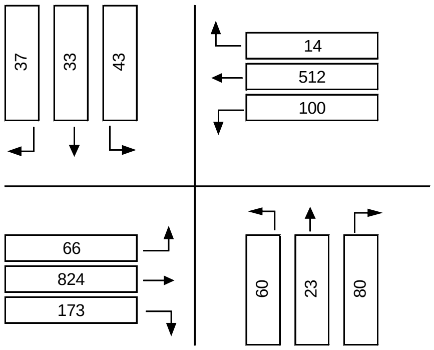


ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	154		1.00	154			154	
5	WB L	334		1.00	335			335	*
2	WB TR	1769		0.40	708		162	546	
6	EB TR	1651		0.40	661			661	*
3	SB LT	287		0.55	158			158	*
4	NB LT	351.5		0.55	194			194	*

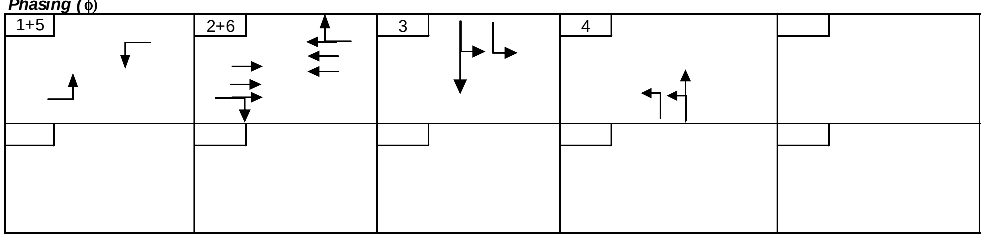
Remarks: EB/WB rights included.		
	TOTAL	1348
	LEVEL OF SERVICE	D

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 3 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: ______ Date: ______

Lane Configuration:



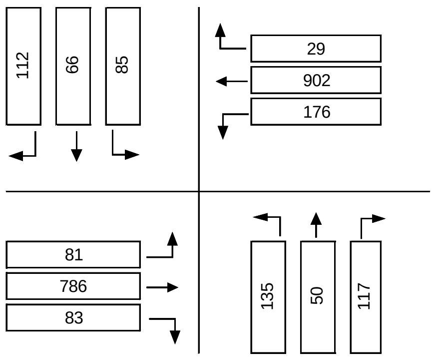
Phasing (ϕ)



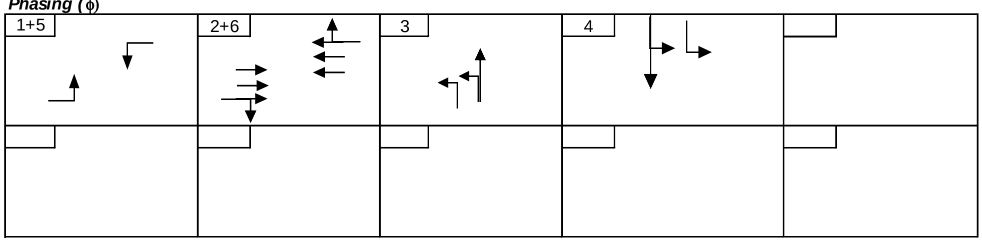
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	165		1.00	165			165	
5	WB L	250		1.00	250			250	*
2	WB TR	1315		0.40	526		85	441	
6	EB TR	2493		0.40	998			998	*
3	SB LT	191		0.55	106			106	*
				1.00	0			0	
4	NB LT	208		0.55	115			115	*
				1.00	0			0	
Remarks: NB/SB rights in dedicated lanes and not included.						TOTAL		1469	
						LEVEL OF SERVICE		E	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 3 Count Date: 11/8/2012 Permit # N129 Scenario: PM Peak Peak Hour: 5:00-6:00 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	166	1.00	167			167	
5	WB L	361	1.00	361			361	*
2	WB TR	1910	0.40	764		194	570	
6	EB TR	1783	0.40	714			714	*
3	SB LT	311	0.55	172			172	*
			1.00	0			0	
4	NB LT	380	0.55	209			209	*
			1.00	0			0	
Remarks: NB/SB rights in dedicated lanes and not included.					TOTAL		1456	
					LEVEL OF SERVICE		E	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 4

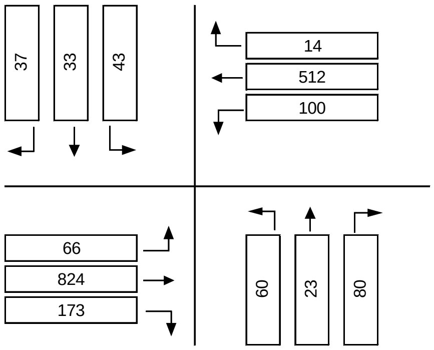
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

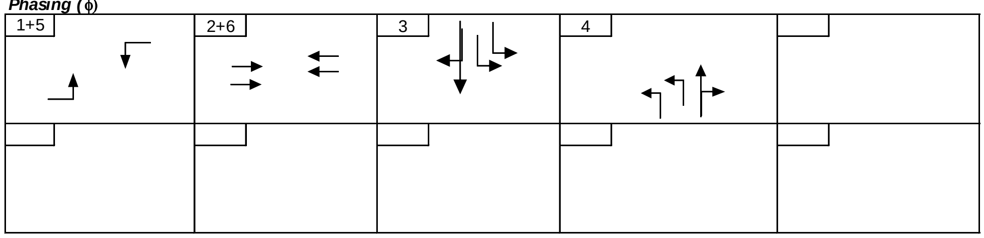
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	165		1.00	165			165	
5	WB L	250		1.00	250			250	*
2	WB T	1280		0.55	704		85	619	
6	EB T	2060		0.55	1133			1133	*
3	SB LTR	284		0.40	114			114	*
				1.00	0			0	
4	NB LTR	408		0.40	164			164	*
				1.00	0			0	
Remarks: WB/EB rights in dedicated lanes and not included.						TOTAL		1661	
						LEVEL OF SERVICE		F	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 4

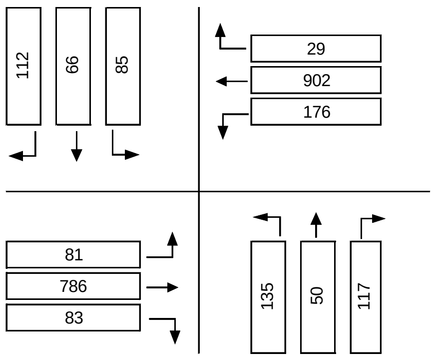
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

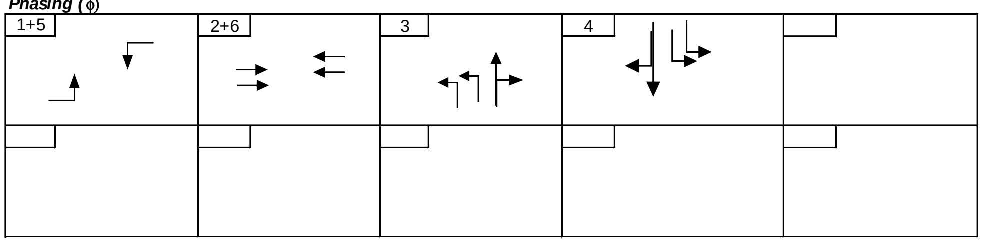
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	166		1.00	167			167	
5	WB L	361		1.00	361			361	*
2	WB T	1850		0.55	1018		194	824	
6	EB T	1612		0.55	887			887	*
3	SB LTR	541		0.40	217			217	*
				1.00	0			0	
4	NB LTR	620		0.40	248			248	*
				1.00	0			0	
Remarks: WB/EB rights in dedicated lanes and not included.							TOTAL	1713	
							LEVEL OF SERVICE	F	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

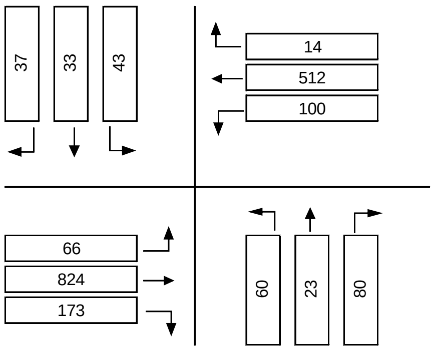
Location: SR 2 and St James Church Rd: Test 5

Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

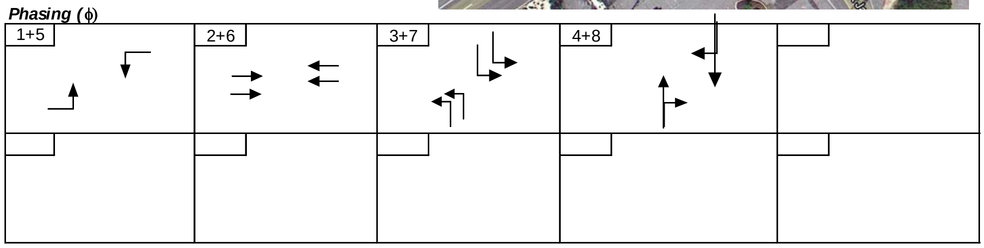
Computed By: MJL Date: 2/18/2013

Checked By: ____________ Date: __________



Lane Configuration:

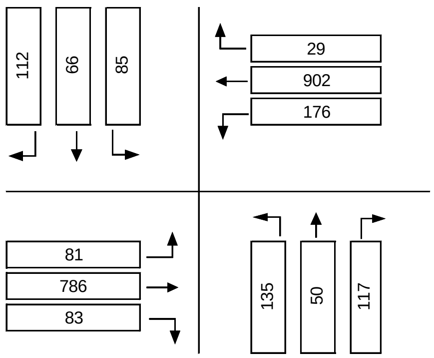
Phasing (ϕ)



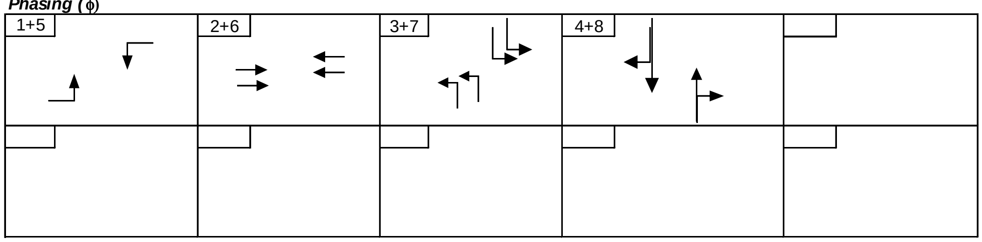
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	165		1.00	165			165	
5	WB L	250		1.00	250			250	*
2	WB T	1280		0.55	704		85	619	
6	EB T	2060		0.55	1133			1133	*
3	SB L	108		0.55	60			60	
7	NB L	150		0.55	83			83	*
4	NB TR	258		1.00	258		23	235	*
8	SB TR	176		1.00	176			176	
Remarks: WB/EB rights in dedicated lanes and not included.							TOTAL	1701	
							LEVEL OF SERVICE	F	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 5 Count Date: 11/8/2012 Permit # N129 Scenario: PM Peak Peak Hour: 5:00-6:00 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



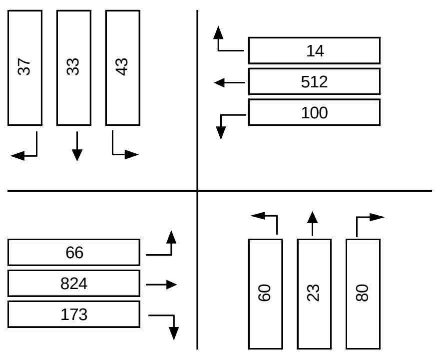
Phasing (ϕ)



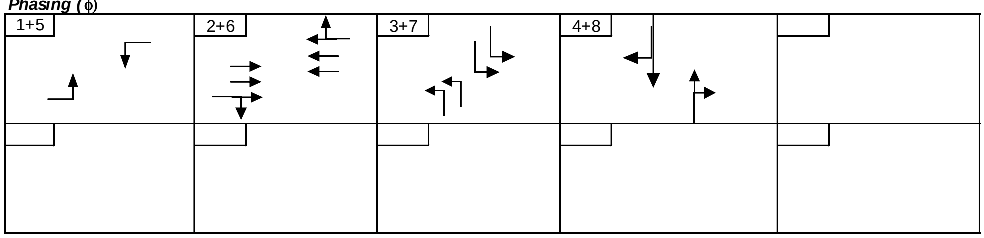
ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	166	1.00	167			167	
5	WB L	361	1.00	361			361	*
2	WB T	1850	0.55	1018		194	824	
6	EB T	1612	0.55	887			887	*
3	SB L	175	0.55	97			97	
7	NB L	277	0.55	153			153	*
4	NB TR	343	1.00	343		56	287	
8	SB TR	366	1.00	366			366	*
Remarks: WB/EB rights in dedicated lanes and not included.					TOTAL		1767	
					LEVEL OF SERVICE		F	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 6 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	66	1.00	66			66	
5	WB L	100	1.00	100			100	*
2	WB TR	526	0.40	211		34	177	
6	EB TR	997	0.40	399			399	*
3	SB L	43	0.55	24			24	
7	NB L	60	0.55	33			33	*
4	NB TR	103	1.00	103			103	*
8	SB TR	70	1.00	70			70	
Remarks: All rights included.					TOTAL		635	
					LEVEL OF SERVICE		A	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

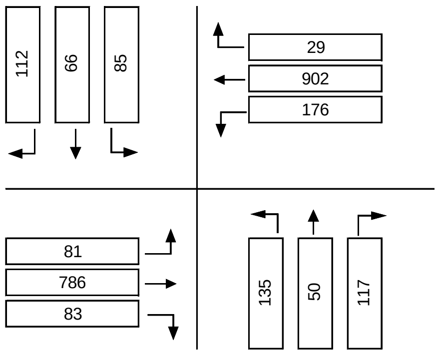
Location: SR 2 and St James Church Rd: Test 6

Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

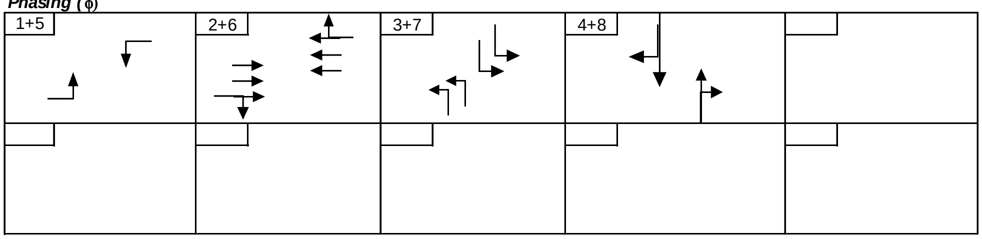
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:



Lane Configuration:

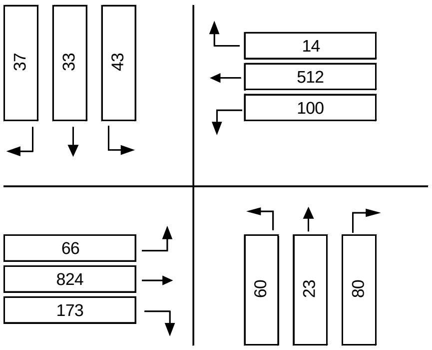
Phasing (ϕ)



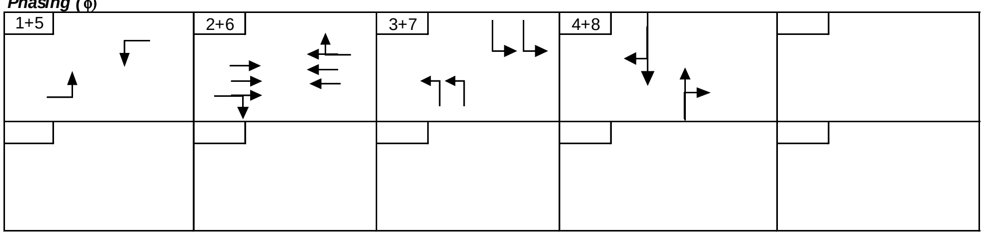
ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	81	1.00	81			81	
5	WB L	176	1.00	176			176	*
2	WB TR	931	0.40	373		95	278	
6	EB TR	869	0.40	348			348	*
3	SB L	85	0.55	47			47	
7	NB L	135	0.55	75			75	*
4	NB TR	167	1.00	167			167	
8	SB TR	178	1.00	178			178	*
Remarks: All rights included.					TOTAL		777	
					LEVEL OF SERVICE		A	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	Location: SR 2 and St James Church Rd: Test 6 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	106	1.00	106			106	
5	WB L	160	1.00	160			160	*
2	WB TR	842	0.40	337		54	283	
6	EB TR	1595	0.40	639			639	*
3	SB L	69	0.55	38			38	
7	NB L	96	0.55	53			53	*
4	NB TR	165	1.00	165			165	*
8	SB TR	112	1.00	112			112	
Remarks: All rights included.					TOTAL		1017	
					LEVEL OF SERVICE		B	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 6

Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

Computed By: MJL Date: 2/18/2013

Checked By: Date:

112 66 85

29
902
176

81
786
83

135 50 117

Lane Configuration:

Phasing (ϕ)

1+5 | 2+6 | 3+7 | 4+8

ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	109		1.00	110			110	
5	WB L	238		1.00	238			238	*
2	WB TR	1257		0.40	503		128	375	
6	EB TR	1173		0.40	470			470	*
3	SB L	204		0.55	113			113	
7	NB L	249.75		0.55	138			138	*
4	NB TR	225		1.00	226			226	
8	SB TR	240		1.00	241			241	*
Remarks: All rights included.						TOTAL		1087	
						LEVEL OF SERVICE		B	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 6

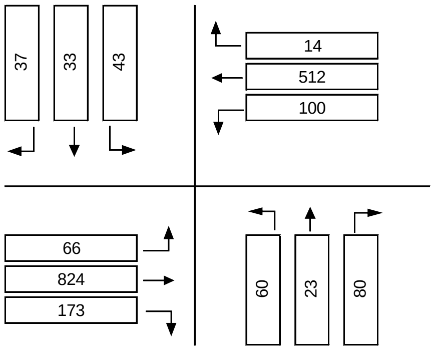
Count Date: 11/8/2012 | Permit # N129

Scenario: AM Peak | Peak Hour: 7:15-8:15

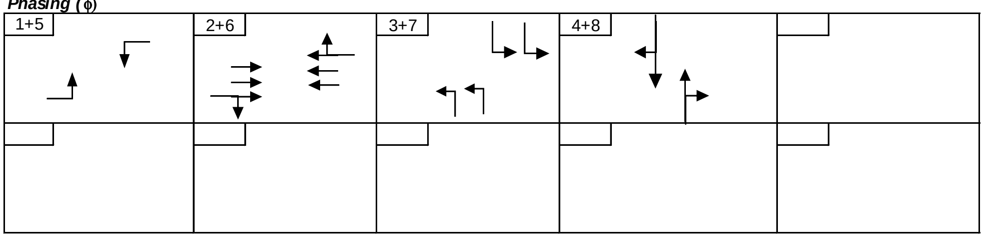
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	119		1.00	119			119	
5	WB L	180		1.00	180			180	*
2	WB TR	947		0.40	379		61	318	
6	EB TR	1795		0.40	718			718	*
3	SB L	77		0.55	43			43	
7	NB L	108		0.55	60			60	*
4	NB TR	185		1.00	186			186	*
8	SB TR	126		1.00	126			126	
Remarks: All rights included.						TOTAL		1144	
						LEVEL OF SERVICE		B	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 6

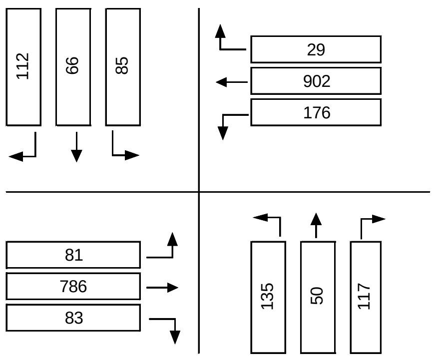
Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

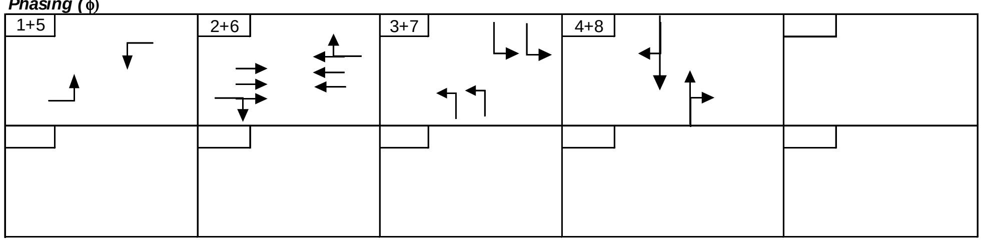
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	126		1.00	126			126	
5	WB L	273		1.00	273			273	*
2	WB TR	1443		0.40	578		128	450	
6	EB TR	1347		0.40	539			539	*
3	SB L	132		0.55	73			73	
7	NB L	209.25		0.55	116			116	*
4	NB TR	259		1.00	259			259	
8	SB TR	276		1.00	276			276	*
Remarks: All rights included.						TOTAL		1204	
						LEVEL OF SERVICE		C	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 6

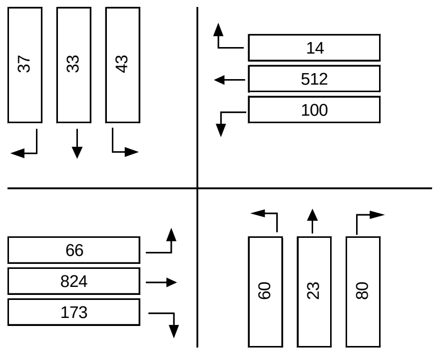
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

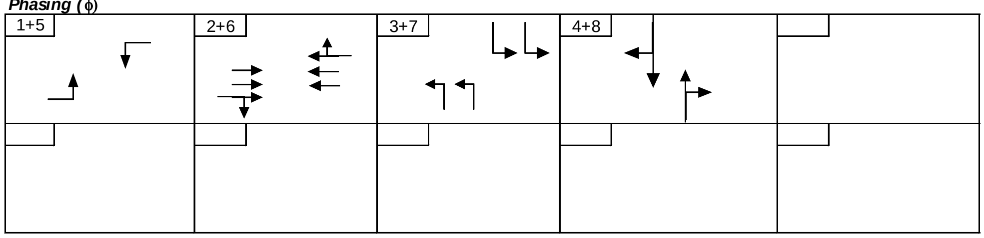
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



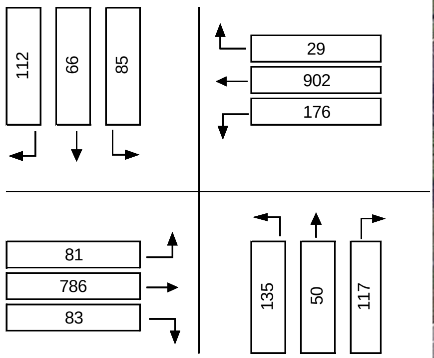
Phasing (ϕ)

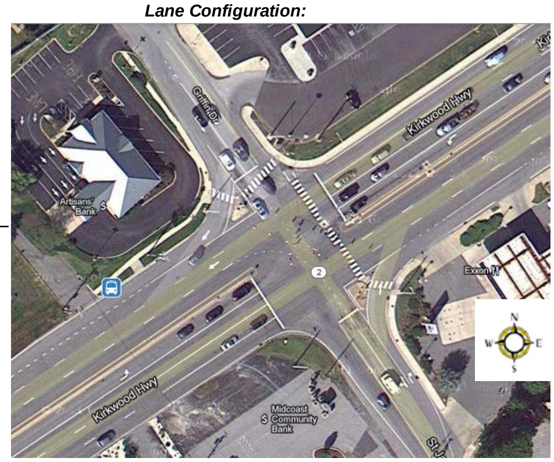


ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	139		1.00	139			139	
5	WB L	210		1.00	210			210	*
2	WB TR	1105		0.40	442		71	371	
6	EB TR	2094		0.40	838			838	*
3	SB L	90		0.55	50			50	
7	NB L	126		0.55	70			70	*
4	NB TR	216		1.00	217			217	*
8	SB TR	147		1.00	147			147	
Remarks: All rights included.						TOTAL		1335	
						LEVEL OF SERVICE		D	

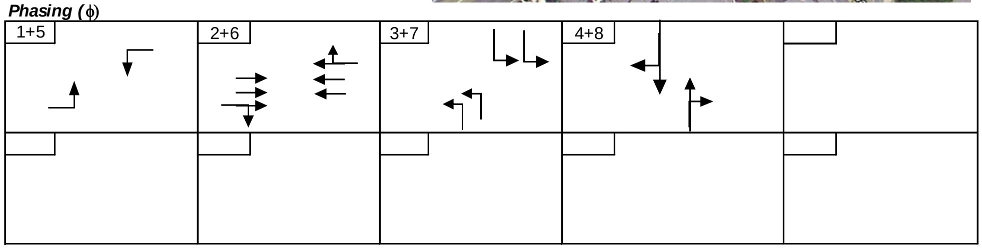
DelDOT	Location: SR 2 and St James Church Rd: Test 6	
	Count Date: 11/8/2012	Permit # N129
	Scenario: PM Peak	Peak Hour: 5:00-6:00
CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	Computed By: MJL	Date: 2/18/2013
	Checked By:	Date:

Lane Configuration:





Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	138		1.00	138			138	
5	WB L	299		1.00	300			300	*
2	WB TR	1583		0.40	634		162	472	
6	EB TR	1477		0.40	591			591	*
3	SB L	145		0.55	80			80	
7	NB L	229.5		0.55	127			127	*
4	NB TR	284		1.00	284			284	
8	SB TR	303		1.00	303			303	*
Remarks: All rights included.						TOTAL		1321	
						LEVEL OF SERVICE		D	

![DelDOT]

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 6

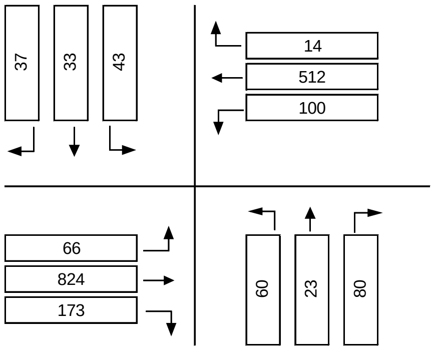
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

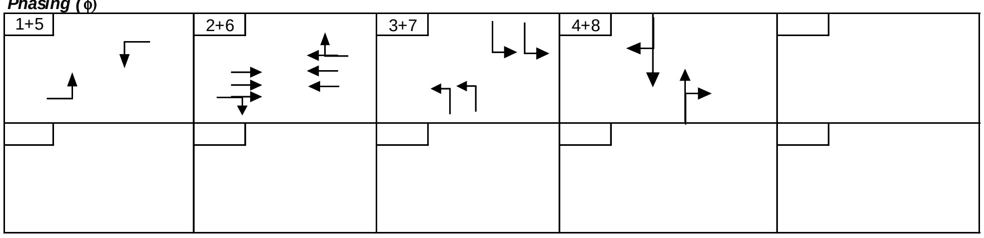
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	152		1.00	152			152	
5	WB L	230		1.00	230			230	*
2	WB TR	1210		0.40	484		71	413	
6	EB TR	2293		0.40	918			918	*
3	SB L	99		0.55	55			55	
7	NB L	138		0.55	76			76	*
4	NB TR	237		1.00	237			237	*
8	SB TR	161		1.00	161			161	
Remarks: All rights included.						TOTAL		1461	
						LEVEL OF SERVICE		E	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 6

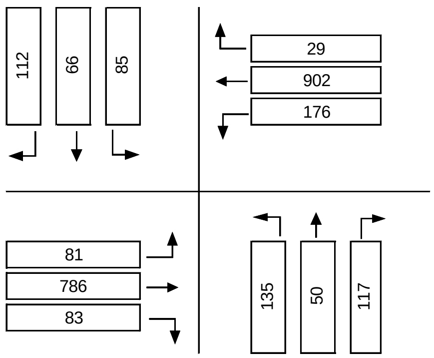
Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

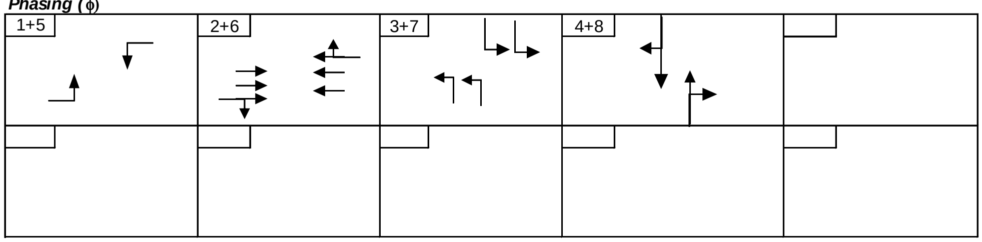
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



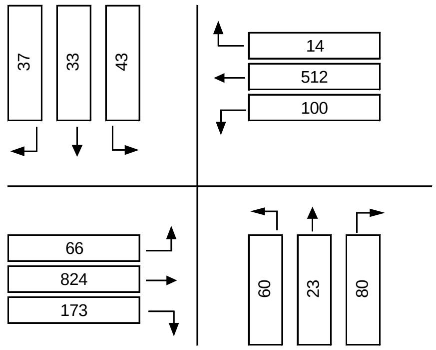
Phasing (ϕ)



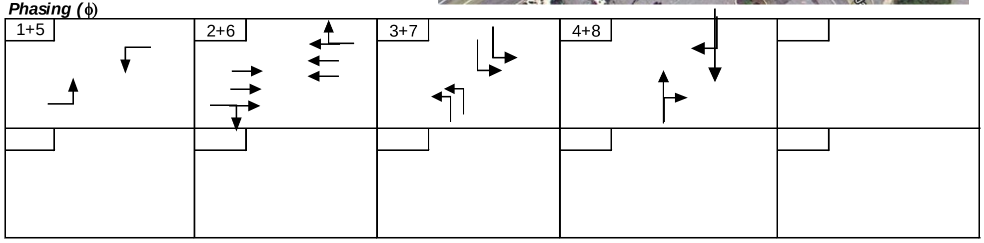
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	154		1.00	154			154	
5	WB L	334		1.00	335			335	*
2	WB TR	1769		0.40	708		162	546	
6	EB TR	1651		0.40	661			661	*
3	SB L	162		0.55	89			89	
7	NB L	256.5		0.55	142			142	*
4	NB TR	317		1.00	318			318	
8	SB TR	338		1.00	339			339	*
Remarks: All rights included.						TOTAL		1477	
						LEVEL OF SERVICE		E	

DelDOT **CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE**	Location: SR 2 and St James Church Rd: Test 6 Count Date: 11/8/2012 Permit # N129 Scenario: AM Peak Peak Hour: 7:15-8:15 Computed By: MJL Date: 2/18/2013 Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	165		1.00	165			165	
5	WB L	250		1.00	250			250	*
2	WB TR	1315		0.40	526		85	441	
6	EB TR	2493		0.40	998			998	*
3	SB L	108		0.55	60			60	
7	NB L	150		0.55	83			83	*
4	NB TR	258		1.00	258		23	235	*
8	SB TR	176		1.00	176			176	
Remarks: All rights included.						TOTAL		1566	
						LEVEL OF SERVICE		E	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 6

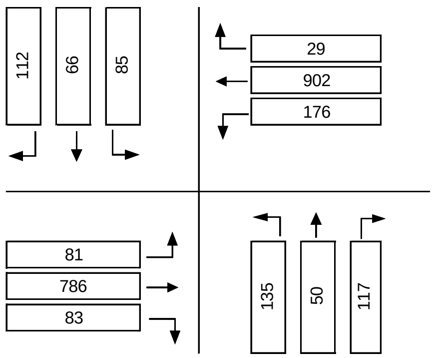
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

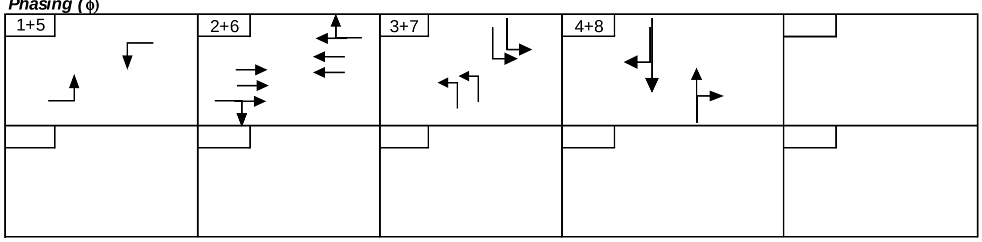
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	166		1.00	167			167	
5	WB L	361		1.00	361			361	*
2	WB TR	1910		0.40	764		194	570	
6	EB TR	1783		0.40	714			714	*
3	SB L	175		0.55	97			97	
7	NB L	277		0.55	153			153	*
4	NB TR	343		1.00	343		56	287	
8	SB TR	366		1.00	366			366	*
Remarks: All rights included.						TOTAL		1594	
						LEVEL OF SERVICE		E	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 7

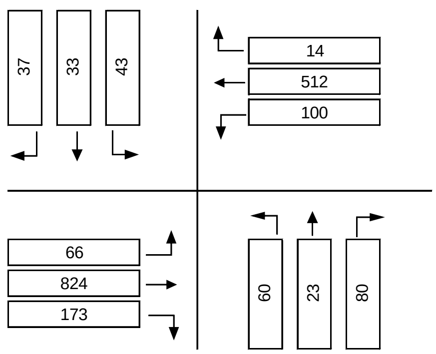
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

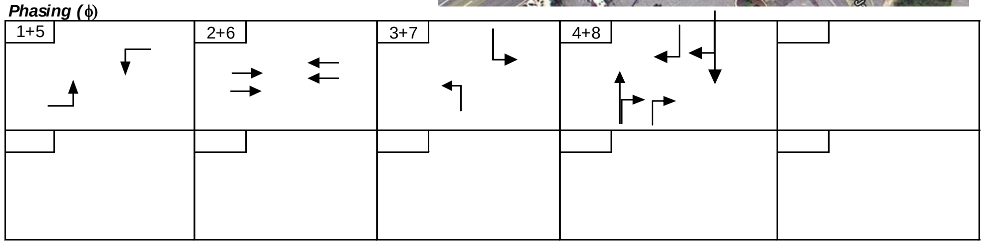
Computed By: MJL Date: 2/18/2013

Checked By: ____________ Date: __________

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	165		1.00	165			165	
5	WB L	250		1.00	250			250	*
2	WB T	1280		0.55	704		85	619	
6	EB T	2060		0.55	1133			1133	*
3	SB L	108		1.00	108			108	
7	NB L	150		1.00	150			150	*
4	NB TR	258		0.55	142		42	100	*
8	SB TR	176		0.55	97			97	
Remarks: WB/EB rights in dedicated lanes and not included.						TOTAL		1633	
						LEVEL OF SERVICE		F	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 7

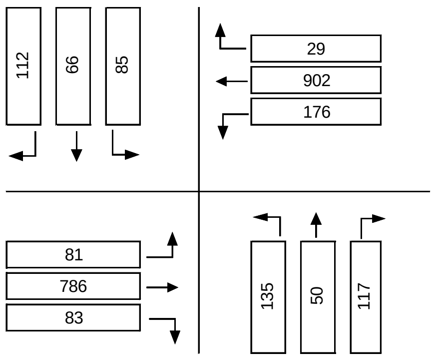
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

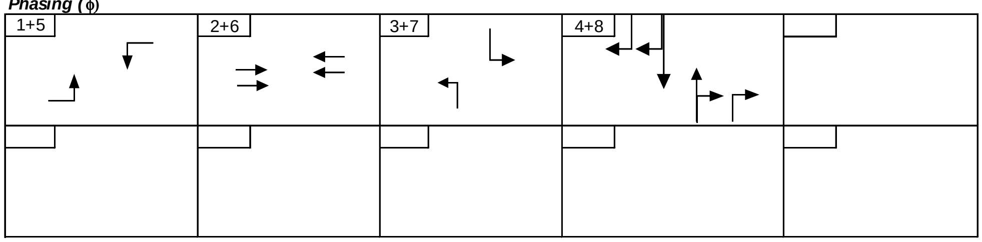
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	166		1.00	167			167	
5	WB L	361		1.00	361			361	*
2	WB T	1850		0.55	1018		194	824	
6	EB T	1612		0.55	887			887	*
3	SB L	175		1.00	175			175	
7	NB L	277		1.00	277			277	*
4	NB TR	343		0.55	189		102	87	
8	SB TR	366		0.55	202			202	*
Remarks: EB/WB rights in dedicated lanes and not included.						TOTAL		1727	
						LEVEL OF SERVICE		F	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 8

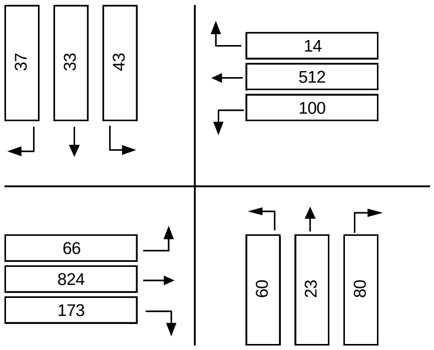
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

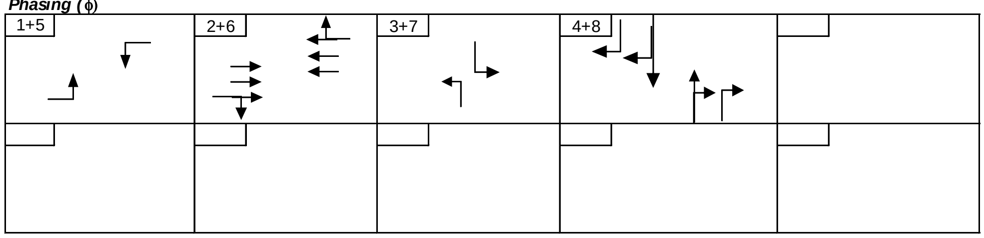
Computed By: MJL Date: 2/18/2013

Checked By: ____________ Date: __________

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L		66	1.00	66			66	
5	WB L		100	1.00	100			100	*
2	WB TR		526	0.40	211		34	177	
6	EB TR		997	0.40	399			399	*
3	SB L		43	1.00	43			43	
7	NB L		60	1.00	60			60	*
4	NB TR		103	0.55	57			57	*
8	SB TR		70	0.55	39			39	
Remarks: All rights included.						TOTAL		616	
						LEVEL OF SERVICE		A	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

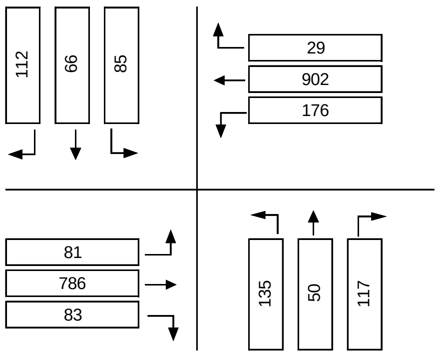
Location: SR 2 and St James Church Rd: Test 8

Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

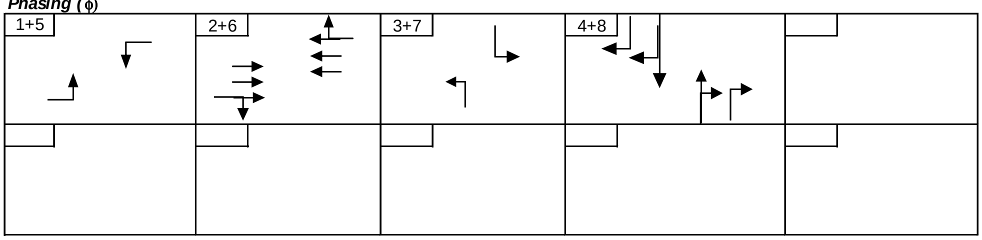
Computed By: MJL | Date: 2/18/2013

Checked By: ______ | Date: ______



Lane Configuration:

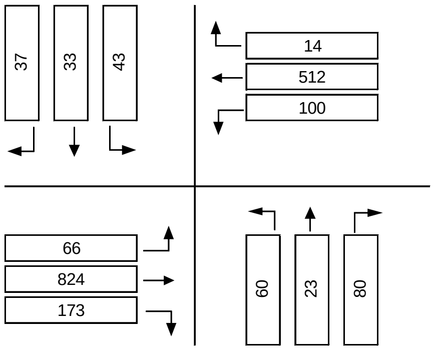
Phasing (ϕ)



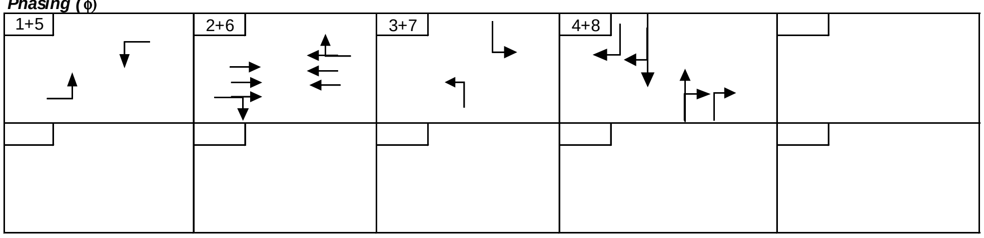
ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L		81	1.00	81			81	
5	WB L		176	1.00	176			176	*
2	WB TR		931	0.40	373		95	278	
6	EB TR		869	0.40	348			348	*
3	SB L		85	1.00	85			85	
7	NB L		135	1.00	135			135	*
4	NB TR		167	0.55	92			92	
8	SB TR		178	0.55	98			98	*
Remarks: All rights included.						TOTAL		757	
						LEVEL OF SERVICE		A	

DelDOT	Location: SR 2 and St James Church Rd: Test 8	
	Count Date: 11/8/2012	Permit # N129
	Scenario: AM Peak	Peak Hour: 7:15-8:15
CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE	Computed By: MJL	Date: 2/18/2013
	Checked By:	Date:

Lane Configuration:



Phasing (ϕ)

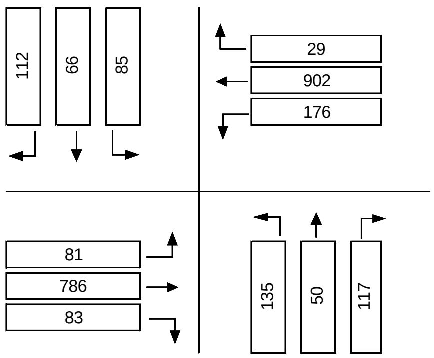


ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	106		1.00	106			106	
5	WB L	160		1.00	160			160	*
2	WB TR	842		0.40	337		54	283	
6	EB TR	1595		0.40	639			639	*
3	SB L	69		1.00	69			69	
7	NB L	96		1.00	96			96	*
4	NB TR	165		0.55	91			91	*
8	SB TR	112		0.55	62			62	
Remarks: All rights included.							TOTAL	986	
							LEVEL OF SERVICE	A	

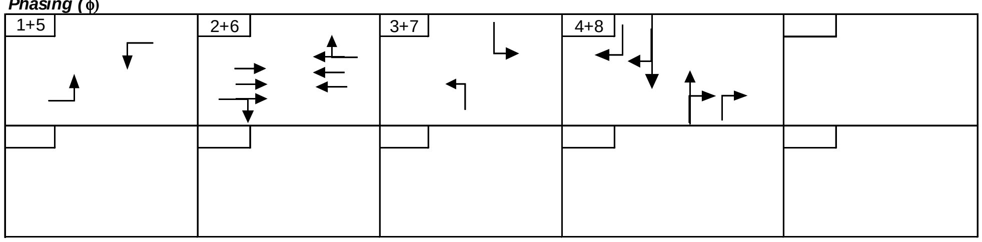
CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location:	SR 2 and St James Church Rd: Test 8
Count Date: 11/8/2012	Permit # N129
Scenario: PM Peak	Peak Hour: 5:00-6:00
Computed By: MJL	Date: 2/18/2013
Checked By:	Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	109		1.00	110			110	
5	WB L	238		1.00	238			238	*
2	WB TR	1257		0.40	503		128	375	
6	EB TR	1173		0.40	470			470	*
3	SB L	204		1.00	204			204	
7	NB L	249.75		1.00	250			250	*
4	NB TR	225		0.55	124			124	
8	SB TR	240		0.55	133			133	*
Remarks: All rights included.						TOTAL		1091	
						LEVEL OF SERVICE		B	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 8

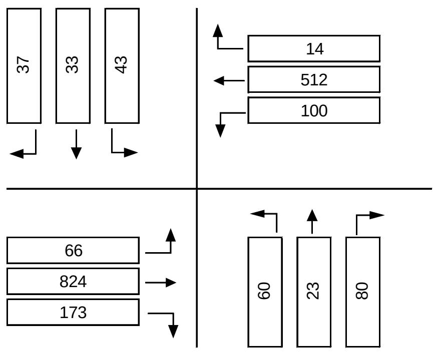
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

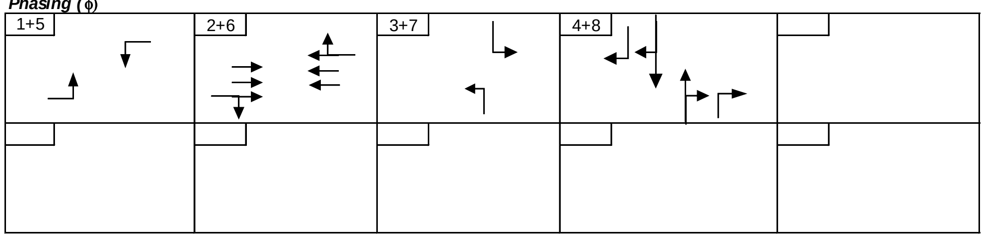
Computed By: MJL Date: 2/18/2013

Checked By: ____________ Date: __________

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	119	1.00	119			119	
5	WB L	180	1.00	180			180	*
2	WB TR	947	0.40	379		61	318	
6	EB TR	1795	0.40	718			718	*
3	SB L	77	1.00	78			78	
7	NB L	108	1.00	108			108	*
4	NB TR	185	0.55	102			102	*
8	SB TR	126	0.55	70			70	
Remarks: All rights included.					TOTAL		1108	
					LEVEL OF SERVICE		B	

Location: SR 2 and St James Church Rd: Test 8

Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

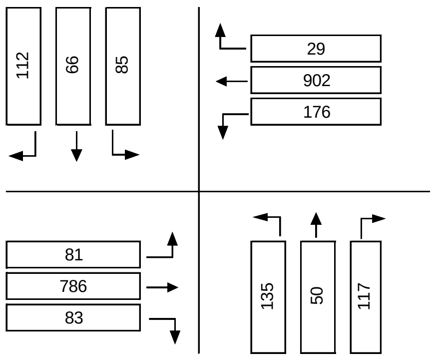
Computed By: MJL Date: 2/18/2013

Checked By: Date:

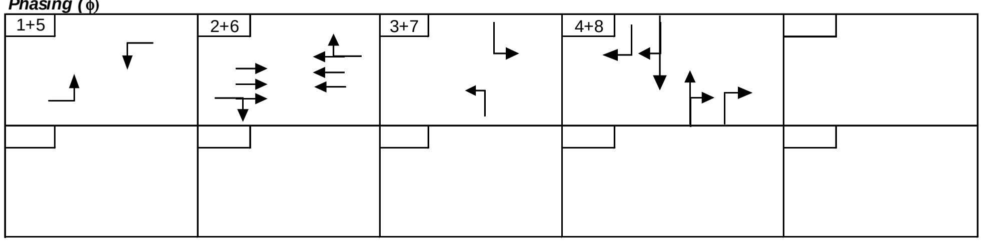
DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	126	1.00	126			126	
5	WB L	273	1.00	273			273	*
2	WB TR	1443	0.40	578		128	450	
6	EB TR	1347	0.40	539			539	*
3	SB L	132	1.00	132			132	
7	NB L	209.25	1.00	210			210	*
4	NB TR	259	0.55	143			143	
8	SB TR	276	0.55	152			152	*
Remarks: All rights included.					TOTAL		1174	
					LEVEL OF SERVICE		C	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

DelDOT

Location: SR 2 and St James Church Rd: Test 8

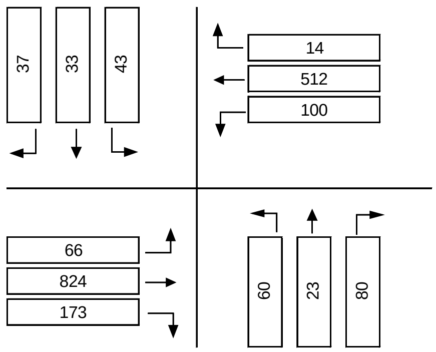
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

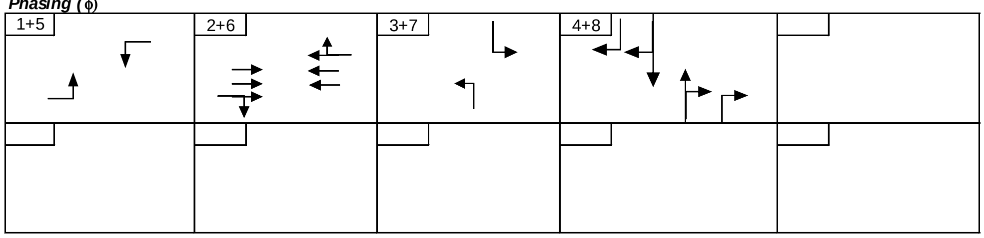
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	139		1.00	139			139	
5	WB L	210		1.00	210			210	*
2	WB TR	1105		0.40	442		71	371	
6	EB TR	2094		0.40	838			838	*
3	SB L	90		1.00	91			91	
7	NB L	126		1.00	126			126	*
4	NB TR	216		0.55	119			119	*
8	SB TR	147		0.55	81			81	
Remarks: All rights included.						TOTAL		1293	
						LEVEL OF SERVICE		C	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 8

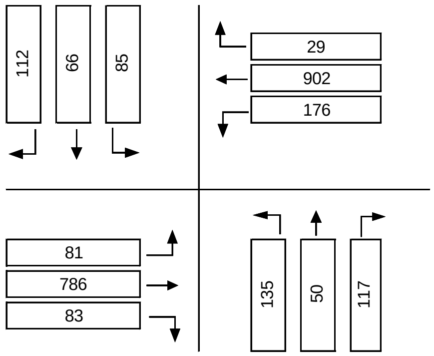
Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

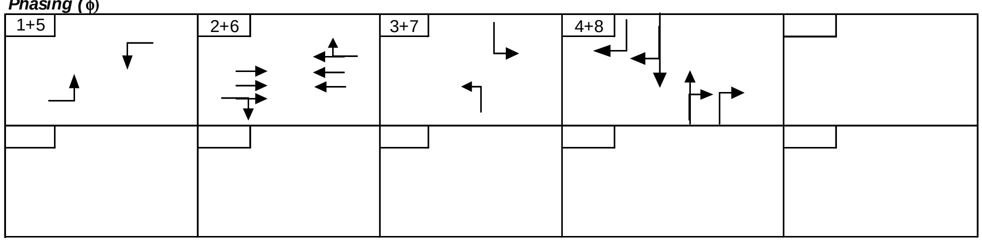
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	138		1.00	138			138	
5	WB L	299		1.00	300			300	*
2	WB TR	1583		0.40	634		162	472	
6	EB TR	1477		0.40	591			591	*
3	SB L	145		1.00	145			145	
7	NB L	229.5		1.00	230			230	*
4	NB TR	284		0.55	157			157	
8	SB TR	303		0.55	167			167	*
Remarks: All rights included.						TOTAL		1288	
						LEVEL OF SERVICE		C	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

DelDOT

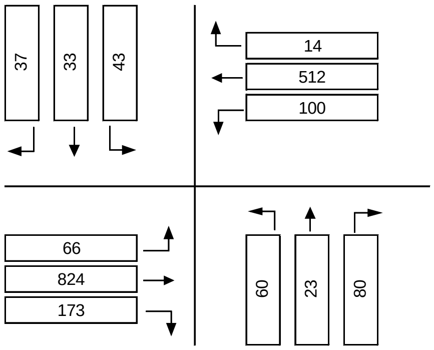
Location: SR 2 and St James Church Rd: Test 8

Count Date: 11/8/2012 | Permit # N129

Scenario: AM Peak | Peak Hour: 7:15-8:15

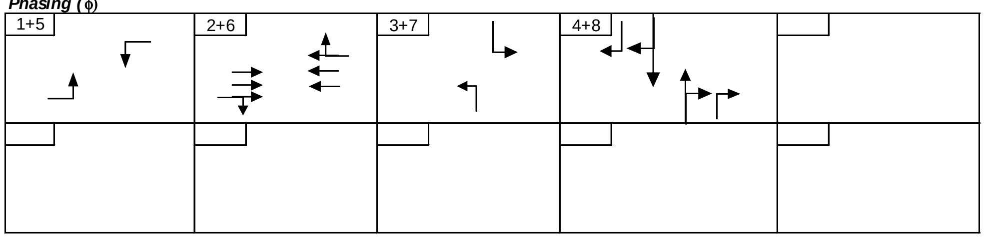
Computed By: MJL | Date: 2/18/2013

Checked By: ____________ | Date: ____________



Lane Configuration:

Phasing (ϕ)



ϕ	Movement	Volume	LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	152	1.00	152			152	
5	WB L	230	1.00	230			230	*
2	WB TR	1210	0.40	484		71	413	
6	EB TR	2293	0.40	918			918	*
3	SB L	99	1.00	99			99	
7	NB L	138	1.00	138			138	*
4	NB TR	237	0.55	131			131	*
8	SB TR	161	0.55	89			89	
Remarks: All rights included.					TOTAL		1417	
					LEVEL OF SERVICE		D	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 8

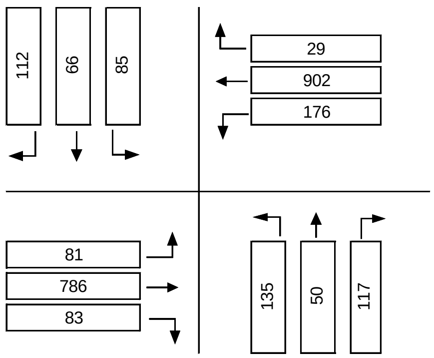
Count Date: 11/8/2012 | Permit # N129

Scenario: PM Peak | Peak Hour: 5:00-6:00

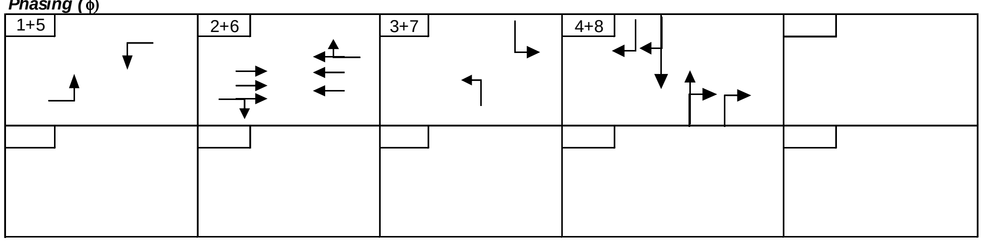
Computed By: MJL | Date: 2/18/2013

Checked By: | Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	154		1.00	154			154	
5	WB L	334		1.00	335			335	*
2	WB TR	1769		0.40	708		162	546	
6	EB TR	1651		0.40	661			661	*
3	SB L	162		1.00	162			162	
7	NB L	256.5		1.00	257			257	*
4	NB TR	317		0.55	175			175	
8	SB TR	338		0.55	187			187	*
Remarks: All rights included.						TOTAL		1440	
						LEVEL OF SERVICE		D	

DelDOT

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 8

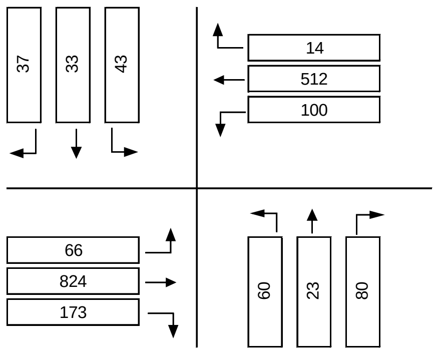
Count Date: 11/8/2012 Permit # N129

Scenario: AM Peak Peak Hour: 7:15-8:15

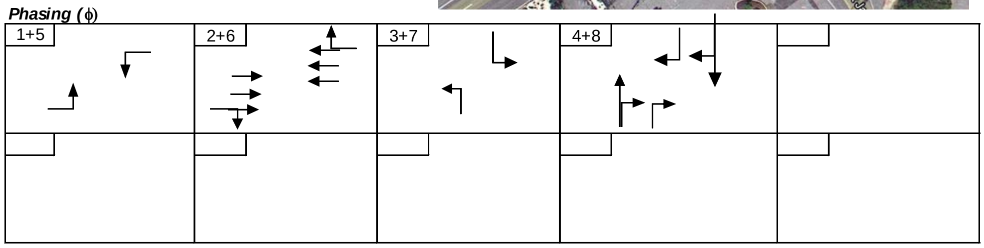
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	165		1.00	165			165	
5	WB L	250		1.00	250			250	*
2	WB TR	1315		0.40	526		85	441	
6	EB TR	2493		0.40	998			998	*
3	SB L	108		1.00	108			108	
7	NB L	150		1.00	150			150	*
4	NB TR	258		0.55	142		42	100	*
8	SB TR	176		0.55	97			97	
Remarks: All rights included.						TOTAL		1498	
						LEVEL OF SERVICE		E	

CRITICAL LANE MOVEMENT SUMMATION AND LEVEL OF SERVICE

Location: SR 2 and St James Church Rd: Test 8

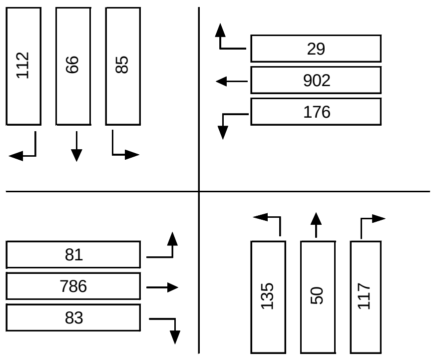
Count Date: 11/8/2012 Permit # N129

Scenario: PM Peak Peak Hour: 5:00-6:00

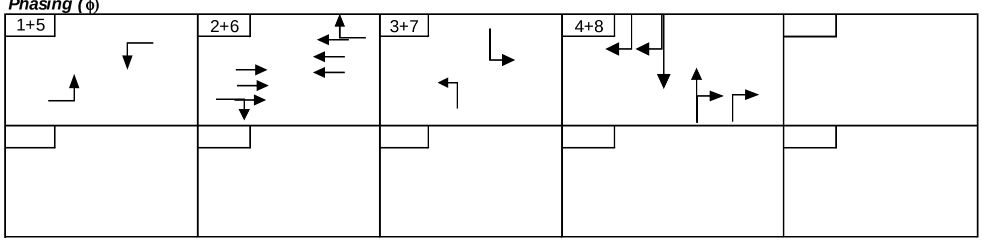
Computed By: MJL Date: 2/18/2013

Checked By: Date:

Lane Configuration:



Phasing (ϕ)



ϕ	Movement	Volume		LU	Lane Volume	OL (Add)	LTC (Subtract)	Critical Lane Volume	CM (*)
1	EB L	166		1.00	167			167	
5	WB L	361		1.00	361			361	*
2	WB TR	1910		0.40	764		194	570	
6	EB TR	1783		0.40	714			714	*
3	SB L	175		1.00	175			175	
7	NB L	277		1.00	277			277	*
4	NB TR	343		0.55	189		102	87	
8	SB TR	366		0.55	202			202	*
Remarks: All rights included.						TOTAL		1554	
						LEVEL OF SERVICE		E	

Appendix C

SYNCHRO OUTPUT

Base Model: LOS A

Cycle Length: 90 seconds					
AM					
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	48.1	D	0.46	0.53
WB L	17	48	D	0.55	**ICU LOS**
WB T	43	16.7	B	0.34	A
EB T	46	21.4	C	0.57	
SB L	11	37.1	D	0.14	
NB L	14	46.9	D	0.42	
NB T	16	35.3	D	0.11	
SB T	19	37.5	D	0.13	
Total	**90 sec**	**20.7**	**C**	**0.57**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	82.8	F	0.73	
WB L	10	166.9	F	1.11	
WB T	54	12.1	B	0.29	
EB T	54	14.9	B	0.48	
SB L	10	39.3	D	0.16	
NB L	10	74	E	0.66	
NB T	16	37.7	D	0.12	
SB T	16	38	D	0.15	
Total	**90 sec**	**24.9**	**C**	**1.11**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	48.1	D	0.46	
WB L	16	50	D	0.57	
WB T	48	14.1	B	0.31	
EB T	50	17.6	B	0.51	
SB L	10	39.3	D	0.16	
NB L	10	74	E	0.66	
NB T	16	37.7	D	0.12	
SB T	16	38	D	0.15	
Total	**90 sec**	**19.5**	**B**	**0.66**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	13	56.2	E	0.59	0.61
WB L	20	52.5	D	0.72	**ICU LOS**
WB T	36	23.6	C	0.65	B
EB T	43	30.2	C	0.71	
SB L	15	37.6	D	0.27	
NB L	18	51.1	D	0.65	
NB T	16	36.8	D	0.22	
SB T	19	40.5	D	0.3	
Total	**90 sec**	**28**	**C**	**0.72**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	111.9	F	0.9	
WB L	10	488.2	F	1.95	
WB T	54	15.5	B	0.53	
EB T	54	14.6	B	0.46	
SB L	10	49.2	D	0.41	
NB L	10	303.7	F	1.5	
NB T	16	40.2	D	0.26	
SB T	16	42.2	D	0.35	
Total	**90 sec**	**65**	**E**	**1.95**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	13	56.2	E	0.59	
WB L	20	52.5	D	0.72	
WB T	39	20.7	C	0.6	
EB T	46	26.5	C	0.65	
SB L	14	39.3	D	0.3	
NB L	15	65.8	E	0.77	
NB T	16	39	D	0.25	
SB T	17	41.9	D	0.34	
Total	**90 sec**	**26.8**	**C**	**0.77**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	51.7	D	0.45
WB L	19	52.6	D	0.56
WB T	49	16.9	B	0.32
EB T	52	22.5	C	0.56
SB L	12	40.9	D	0.14
NB L	16	51	D	0.42
NB T	16	39.9	D	0.12
SB T	20	42.1	D	0.13
Total	**100 sec**	**21.9**	**C**	**0.56**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	102.2	F	0.81
WB L	10	209.5	F	1.22
WB T	64	11.4	B	0.28
EB T	64	13.3	B	0.44
SB L	10	44.8	D	0.18
NB L	10	89.6	F	0.73
NB T	16	43	D	0.13
SB T	16	43.4	D	0.16
Total	**100 sec**	**27.6**	**C**	**1.22**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	51.7	D	0.45
WB L	18	53.8	D	0.57
WB T	55	13.9	B	0.29
EB T	57	18.2	B	0.5
SB L	11	43.2	D	0.17
NB L	11	71.2	E	0.61
NB T	16	43	D	0.13
SB T	16	43.3	D	0.16
Total	**100 sec**	**20.1**	**C**	**0.61**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	56.8	E	0.55
WB L	24	53.6	D	0.7
WB T	40	23.7	C	0.61
EB T	49	30.2	C	0.66
SB L	16	45.4	D	0.35
NB L	20	55.3	E	0.66
NB T	16	40.7	D	0.22
SB T	20	45.5	D	0.31
Total	**100 sec**	**28.8**	**C**	**0.7**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	142.5	F	0.99
WB L	10	576.4	F	2.15
WB T	64	13.8	B	0.49
EB T	64	13	B	0.42
SB L	10	68.9	E	0.63
NB L	10	369.8	F	1.65
NB T	16	46.2	D	0.29
SB T	16	48.8	D	0.39
Total	**100 sec**	**75.1**	**E**	**2.15**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	60.8	E	0.59
WB L	24	53.6	D	0.7
WB T	44	19.7	B	0.56
EB T	54	26	C	0.59
SB L	16	46	D	0.37
NB L	16	71.4	E	0.78
NB T	16	46.2	D	0.29
SB T	16	48.2	D	0.37
Total	**100 sec**	**27.3**	**C**	**0.78**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	64.3	E	0.5
WB L	24	63	E	0.58
WB T	61	16	B	0.29
EB T	68	21.7	C	0.5
SB L	15	52	D	0.18
NB L	17	63	E	0.46
NB T	18	49.6	D	0.13
SB T	20	50.3	D	0.14
Total	**120 sec**	**23.1**	**C**	**0.58**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	155.2	F	0.97
WB L	10	311.7	F	1.47
WB T	84	9.5	A	0.25
EB T	84	10.9	B	0.39
SB L	10	59.7	E	0.28
NB L	10	132.2	F	0.88
NB T	16	53.8	D	0.16
SB T	16	55.5	E	0.23
Total	**120 sec**	**35.1**	**D**	**1.47**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	62.3	E	0.48
WB L	22	63.5	E	0.59
WB T	70	12.6	B	0.26
EB T	73	16.8	B	0.45
SB L	12	56.6	E	0.24
NB L	12	83.5	F	0.64
NB T	16	53.8	D	0.16
SB T	16	54.1	D	0.19
Total	**120 sec**	**21**	**C**	**0.64**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	67.5	E	0.58
WB L	28	64.1	E	0.73
WB T	51	25.2	C	0.59
EB T	62	30.4	C	0.59
SB L	17	55.2	E	0.37
NB L	25	63.9	E	0.66
NB T	16	47.2	D	0.21
SB T	24	53.9	D	0.31
Total	**120 sec**	**31.5**	**C**	**0.73**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	213.2	F	1.19
WB L	10	772.1	F	2.58
WB T	84	11.4	B	0.43
EB T	84	10.7	B	0.38
SB L	10	92.7	F	0.76
NB L	10	518	F	1.99
NB T	16	58.7	E	0.35
SB T	16	62.8	E	0.46
Total	**120 sec**	**97.9**	**F**	**2.58**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	67.5	E	0.58
WB L	27	65.2	E	0.73
WB T	59	19.8	B	0.52
EB T	69	24.2	C	0.51
SB L	18	54.9	D	0.38
NB L	18	82.5	F	0.8
NB T	16	58.7	E	0.35
SB T	16	61.4	E	0.44
Total	**120 sec**	**29.2**	**C**	**0.8**

LOS B

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	17	48.8	D	0.57	0.72
WB L	15	81.3	F	0.88	ICU LOS
WB T	48	18.9	B	0.53	C
EB T	46	31	C	0.89	
SB L	11	44.1	D	0.31	
NB L	11	100.3	F	0.88	
NB T	16	38.9	D	0.19	
SB T	16	40.7	D	0.28	
Total	**90 sec**	**28.9**	**C**	**0.89**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	185.5	F	1.17	
WB L	10	415.5	F	1.78	
WB T	54	14.8	B	0.48	
EB T	54	21	C	0.78	
SB L	10	46.7	D	0.33	
NB L	10	152.6	F	1.06	
NB T	16	38.9	D	0.19	
SB T	16	40.7	D	0.28	
Total	**90 sec**	**46.9**	**D**	**1.78**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	16	51	D	0.6	
WB L	15	81.3	F	0.88	
WB T	48	18.4	B	0.52	
EB T	47	31	C	0.89	
SB L	11	44.1	D	0.31	
NB L	11	100.3	F	0.88	
NB T	16	38.9	D	0.19	
SB T	16	40.7	D	0.28	
Total	**90 sec**	**28.8**	**C**	**0.89**	
			PM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	12	91.7	F	0.87	0.74
WB L	19	81	F	0.94	ICU LOS
WB T	39	30.4	C	0.86	D
EB T	46	40.6	D	0.92	
SB L	14	47.2	D	0.5	
NB L	16	85.2	F	0.92	
NB T	16	39.1	D	0.31	
SB T	18	45.8	D	0.47	
Total	**90 sec**	**38.8**	**D**	**0.94**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	202.2	F	1.22	
WB L	10	787.9	F	2.64	
WB T	54	19.2	B	0.72	
EB T	54	17.1	B	0.62	
SB L	10	77.4	E	0.78	
NB L	10	522.9	F	2.03	
NB T	16	42.4	D	0.36	
SB T	16	45.8	D	0.47	
Total	**90 sec**	**102.4**	**F**	**2.64**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	13	71.8	E	0.77	
WB L	19	81	F	0.94	
WB T	40	30.4	C	0.86	
EB T	46	36.9	D	0.89	
SB L	15	45	D	0.48	
NB L	15	109.3	F	1.01	
NB T	16	42.4	D	0.36	
SB T	16	45.8	D	0.47	
Total	**90 sec**	**38.2**	**D**	**1.01**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	18	54.6	D	0.59
WB L	18	68	E	0.79
WB T	52	20.6	C	0.54
EB T	52	33.5	C	0.89
SB L	14	44.4	D	0.27
NB L	14	67.1	E	0.68
NB T	16	44.6	D	0.22
SB T	16	46.4	D	0.3
Total	**100 sec**	**29**	**C**	**0.89**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	232.5	F	1.29
WB L	10	495.3	F	1.96
WB T	64	13.2	B	0.44
EB T	64	18	B	0.71
SB L	10	52.5	D	0.37
NB L	10	191.5	F	1.17
NB T	16	44.6	D	0.22
SB T	16	46.8	D	0.31
Total	**100 sec**	**52.3**	**D**	**1.96**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	16	60.2	E	0.65
WB L	18	68	E	0.79
WB T	53	18.9	B	0.51
EB T	55	31.4	C	0.87
SB L	13	45.8	D	0.29
NB L	13	75.9	E	0.74
NB T	16	44.6	D	0.22
SB T	16	46.7	D	0.31
Total	**100 sec**	**28.2**	**C**	**0.87**
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	14	75.6	E	0.77
WB L	22	72.1	E	0.89
WB T	43	31.4	C	0.85
EB T	51	40.5	D	0.89
SB L	18	45.2	D	0.43
NB L	19	70.7	E	0.83
NB T	16	47	D	0.37
SB T	17	52.2	D	0.5
Total	**100 sec**	**37.4**	**D**	**0.89**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	252.5	F	1.35
WB L	10	908.5	F	2.91
WB T	64	16.7	B	0.66
EB T	64	15.1	B	0.57
SB L	10	95.4	F	0.86
NB L	10	615	F	2.24
NB T	16	49.1	D	0.4
SB T	16	53.7	D	0.53
Total	**100 sec**	**116.3**	**F**	**2.91**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	16	61.5	E	0.67
WB L	24	62.2	E	0.83
WB T	43	30.4	C	0.83
EB T	51	38.3	D	0.87
SB L	17	47.3	D	0.46
NB L	17	93.1	F	0.94
NB T	16	49.1	D	0.4
SB T	16	53.7	D	0.53
Total	**100 sec**	**36.6**	**D**	**0.94**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	20	66.4	E	0.63
WB L	23	70.2	E	0.75
WB T	65	19.2	B	0.48
EB T	68	29.9	C	0.81
SB L	16	52.9	D	0.29
NB L	16	76.1	E	0.69
NB T	16	56.1	E	0.26
SB T	16	58.3	E	0.35
Total	**120 sec**	**28.5**	**C**	**0.81**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	342.7	F	1.55
WB L	10	672.9	F	2.35
WB T	84	10.9	B	0.39
EB T	84	14.5	B	0.63
SB L	10	63.7	E	0.45
NB L	10	286.7	F	1.41
NB T	16	56.1	E	0.26
SB T	16	59.5	E	0.37
Total	**120 sec**	**66.5**	**E**	**2.35**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	18	71.3	E	0.67
WB L	21	76.2	E	0.79
WB T	69	17.2	B	0.46
EB T	72	26.5	C	0.77
SB L	14	55.8	E	0.33
NB L	14	92.5	F	0.79
NB T	16	56.1	E	0.26
SB T	16	59.3	E	0.37
Total	**120 sec**	**27.6**	**C**	**0.79**
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	16	84	F	0.77
WB L	27	74.1	E	0.86
WB T	55	28	C	0.76
EB T	66	35.9	D	0.79
SB L	21	53	D	0.44
NB L	22	79	E	0.84
NB T	16	60.5	E	0.44
SB T	17	67.4	E	0.58
Total	**120 sec**	**36.6**	**D**	**0.86**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	369.1	F	1.62
WB L	10	ERR	F	3.5
WB T	84	13.6	B	0.58
EB T	84	12.4	B	0.51
SB L	10	146.1	F	1.03
NB L	10	819	F	2.69
NB T	16	63.4	E	0.48
SB T	16	71.9	E	0.63
Total	**120 sec**	**148.9**	**F**	**3.5**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	16	84	F	0.77
WB L	26	77.5	E	0.88
WB T	58	26	C	0.73
EB T	68	32.7	C	0.75
SB L	20	54.9	D	0.47
NB L	20	92.6	F	0.9
NB T	16	63.4	E	0.48
SB T	16	71.5	E	0.63
Total	**120 sec**	**36.1**	**D**	**0.9**

LOS C

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	18	48.7	D	0.59	0.79
WB L	15	82.7	F	0.9	**ICU LOS**
WB T	48	20.8	C	0.6	D
EB T	45	41.4	D	0.97	
SB L	11	50.1	D	0.47	
NB L	11	90	F	0.85	
NB T	16	39.5	D	0.22	
SB T	16	41.4	D	0.31	
Total	**90 sec**	**33.6**	**C**	**0.97**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	91.3	F	0.86	
WB L	10	182.5	F	1.22	
WB T	54	15.4	B	0.54	
EB T	54	25.6	C	0.87	
SB L	10	55.6	E	0.53	
NB L	10	192.1	F	1.19	
NB T	16	39.5	D	0.22	
SB T	16	41.4	D	0.31	
Total	**90 sec**	**35.4**	**D**	**1.22**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	16	51.4	D	0.65	
WB L	12	104.3	F	0.98	
WB T	52	18.5	B	0.56	
EB T	48	30.1	C	0.91	
SB L	10	55.6	E	0.53	
NB L	10	192.1	F	1.19	
NB T	16	39.5	D	0.22	
SB T	16	41.4	D	0.31	
Total	**90 sec**	**32.8**	**C**		
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	12	87.7	F	0.87	0.82
WB L	19	77.1	E	0.94	**ICU LOS**
WB T	39	37.1	D	0.94	E
EB T	46	60	E	1.02	
SB L	15	59.5	E	0.71	
NB L	16	117.2	F	1.06	
NB T	16	41.8	D	0.38	
SB T	17	48.3	D	0.54	
Total	**90 sec**	**48.6**	**D**	**1.06**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	90.9	F	0.87	
WB L	10	431.4	F	1.84	
WB T	54	22.6	C	0.82	
EB T	54	19.2	B	0.72	
SB L	10	287.8	F	1.46	
NB L	10	650.1	F	2.33	
NB T	16	43.8	D	0.41	
SB T	16	48.3	D	0.54	
Total	**90 sec**	**90.2**	**F**	**2.33**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	90.9	F	0.87	
WB L	17	93.2	F	0.99	
WB T	42	32.8	C	0.92	
EB T	49	44.8	D	0.96	
SB L	15	61	E	0.73	
NB L	15	151.3	F	1.16	
NB T	16	43.8	D	0.41	
SB T	16	48.3	D	0.54	
Total	**90 sec**	**45.6**	**D**	**1.16**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	54.7	D	0.62
WB L	17	86	F	0.91
WB T	55	19.7	B	0.56
EB T	53	32.7	C	0.91
SB L	12	53.7	D	0.47
NB L	12	92.2	F	0.85
NB T	16	45.2	D	0.25
SB T	16	47.7	D	0.35
Total	**100 sec**	**30.4**	**C**	**0.91**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	100.4	F	0.88
WB L	10	233.7	F	1.34
WB T	64	14	B	0.5
EB T	64	20.9	C	0.8
SB L	10	64.1	E	0.58
NB L	10	240.4	F	1.31
NB T	16	45.2	D	0.25
SB T	16	47.7	D	0.35
Total	**100 sec**	**37.7**	**D**	**1.34**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	64	E	0.7
WB L	14	90.3	F	0.91
WB T	59	17.2	B	0.53
EB T	57	28	C	0.88
SB L	11	58	E	0.52
NB L	11	163.5	F	1.1
NB T	16	45.2	D	0.25
SB T	16	47.7	D	0.35
Total	**100 sec**	**30.6**	**C**	**1.1**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	114.7	F	0.96
WB L	21	109.2	F	1.05
WB T	45	37.7	D	0.93
EB T	53	52.8	D	0.99
SB L	16	51.6	D	0.55
NB L	18	102.4	F	0.99
NB T	16	46.6	D	0.39
SB T	18	57.5	E	0.6
Total	**100 sec**	**49**	**D**	**1.05**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	325	F	1.54
WB L	10	ERR	F	3.34
WB T	64	19.3	B	0.75
EB T	64	16.8	B	0.66
SB L	10	121.8	F	0.98
NB L	10	756.1	F	2.56
NB T	16	51	D	0.46
SB T	16	57.5	E	0.6
Total	**100 sec**	**140.7**	**F**	**3.34**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	88.7	F	0.86
WB L	22	91.7	F	0.99
WB T	47	32.2	C	0.9
EB T	55	42.4	D	0.94
SB L	15	56	E	0.61
NB L	15	203.4	F	1.29
NB T	16	51	D	0.46
SB T	16	57.5	E	0.6
Total	**100 sec**	**47.7**	**D**	**1.29**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	66.8	E	0.66
WB L	21	83.8	F	0.86
WB T	68	18.8	B	0.51
EB T	68	29.8	C	0.84
SB L	13	84	F	0.7
NB L	15	90.6	F	0.8
NB T	16	53.9	D	0.26
SB T	18	61	E	0.42
Total	**120 sec**	**30.2**	**C**	**0.86**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	154.1	F	1.07
WB L	10	347.9	F	1.62
WB T	84	11.5	B	0.44
EB T	84	16.4	B	0.71
SB L	10	201	F	1.15
NB L	10	353.2	F	1.58
NB T	16	57.2	E	57.2
SB T	16	61	E	61
Total	**120 sec**	**49.7**	**D**	**1.62**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	75.4	E	0.73
WB L	16	101.8	F	0.94
WB T	74	17	B	0.49
EB T	72	25.8	C	0.82
SB L	14	75.9	E	0.64
NB L	14	106.5	F	0.88
NB T	16	57.2	E	0.3
SB T	16	61	E	0.42
Total	**120 sec**	**29.6**	**C**	**0.94**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	78.1	E	0.76
WB L	27	84.3	F	0.93
WB T	55	36.4	D	0.89
EB T	64	46.2	D	0.93
SB L	18	60.6	E	0.57
NB L	22	90.5	F	0.92
NB T	16	56	E	0.41
SB T	20	79.5	E	0.72
Total	**120 sec**	**44.1**	**D**	**0.93**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	461.9	F	1.85
WB L	10	ERR	F	4.01
WB T	84	15.4	B	0.67
EB T	84	13.6	B	0.58
SB L	10	186.8	F	1.18
NB L	10	990.4	F	3.08
NB T	16	66.8	E	0.55
SB T	16	79.5	E	0.72
Total	**120 sec**	**178.2**	**F**	**4.01**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	85.1	F	0.8
WB L	27	84.3	F	0.93
WB T	57	32	C	0.85
EB T	67	41.3	D	0.89
SB L	20	57.9	E	0.55
NB L	20	120.5	F	1.03
NB T	16	64.9	E	0.52
SB T	16	79.5	E	0.72
Total	**120 sec**	**43**	**D**	**1.03**

LOS D

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	16	60.1	E	0.73	0.88
WB L	14	91.1	F	0.95	**ICU LOS**
WB T	50	20.6	C	0.67	E
EB T	48	84.5	F	1.11	
SB L	10	60.8	E	0.61	
NB L	10	264.3	F	1.4	
NB T	16	40.1	D	0.26	
SB T	16	42.7	D	0.37	
Total	**90 sec**	**58**	**E**	**1.4**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	104.8	F	0.94	
WB L	10	255.7	F	1.42	
WB T	54	17.3	B	0.63	
EB T	54	48.4	D	1.02	
SB L	10	60.8	E	0.61	
NB L	10	264.3	F	1.4	
NB T	16	40.1	D	0.26	
SB T	16	42.7	D	0.37	
Total	**90 sec**	**51.9**	**D**	**1.42**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	16	60.1	E	0.73	
WB L	11	192.9	F	1.26	
WB T	53	20.6	C	0.67	
EB T	48	55.8	E	1.04	
SB L	10	60.8	E	0.61	
NB L	10	264.3	F	1.4	
NB T	16	40.1	D	0.26	
SB T	16	42.7	D	0.37	
Total	**90 sec**	**51.2**	**D**	**1.4**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	11	210	F	1.27	0.88
WB L	18	184.4	F	1.27	**ICU LOS**
WB T	41	57.4	E	1.03	E
EB T	48	80.4	F	1.09	
SB L	15	50.2	D	0.61	
NB L	15	190.4	F	1.27	
NB T	16	44.8	D	0.44	
SB T	16	50.9	D	0.59	
Total	**90 sec**	**76.3**	**E**	**1.27**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	315.8	F	1.53	
WB L	10	ERR	F	3.33	
WB T	54	27.9	C	0.9	
EB T	54	21.3	C	0.79	
SB L	10	115.2	F	0.98	
NB L	10	747.8	F	2.55	
NB T	16	44.8	D	0.44	
SB T	16	50.9	D	0.59	
Total	**90 sec**	**143.4**	**F**	**3.33**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	11	210	F	1.27	
WB L	18	184.4	F	1.27	
WB T	43	43.1	D	0.99	
EB T	50	58.9	E	1.03	
SB L	13	61.4	E	0.72	
NB L	13	324.9	F	1.59	
NB T	16	44.8	D	0.44	
SB T	16	50.9	D	0.59	
Total	**90 sec**	**72.2**	**E**	**1.59**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	56	E	0.67
WB L	16	87.6	F	0.93
WB T	56	22.1	C	0.66
EB T	52	72.5	E	1.08
SB L	12	87.5	F	0.8
NB L	12	156.6	F	1.1
NB T	16	46.1	D	0.28
SB T	16	49.4	D	0.41
Total	**100 sec**	**50.6**	**D**	**1.1**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	134.9	F	1.03
WB L	10	319.4	F	1.56
WB T	64	15.3	B	0.58
EB T	64	30	C	0.93
SB L	10	174.7	F	1.11
NB L	10	325	F	1.54
NB T	16	46.1	D	0.28
SB T	16	49.4	D	0.41
Total	**100 sec**	**52.5**	**D**	**1.56**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	73.5	E	0.8
WB L	13	153.1	F	1.15
WB T	61	18.2	B	0.61
EB T	58	40.7	D	0.98
SB L	10	174.7	F	1.11
NB L	10	325	F	1.54
NB T	16	46.1	D	0.28
SB T	16	49.4	D	0.41
Total	**100 sec**	**47.2**	**D**	**1.54**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	137.4	F	1.06
WB L	21	140.3	F	1.15
WB T	46	50	D	1
EB T	54	70.3	E	1.05
SB L	17	51.8	D	0.59
NB L	17	158.8	F	1.18
NB T	16	52.4	D	0.49
SB T	16	61.4	E	0.66
Total	**100 sec**	**64.3**	**E**	**1.18**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	383.5	F	1.69
WB L	10	ERR	F	3.66
WB T	64	22	C	0.83
EB T	64	18.3	B	0.72
SB L	10	147.3	F	1.08
NB L	10	864.1	F	2.81
NB T	16	52.4	D	0.49
SB T	16	61.4	E	0.66
Total	**100 sec**	**160.2**	**F**	**3.66**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	137.4	F	1.06
WB L	20	168	F	1.23
WB T	49	39.6	D	0.96
EB T	56	48	D	0.98
SB L	15	59.9	E	0.68
NB L	15	250.9	F	1.41
NB T	16	52.4	D	0.49
SB T	16	61.4	E	0.66
Total	**100 sec**	**61**	**E**	**1.41**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	23	66.3	E	0.69
WB L	20	95.7	F	0.94
WB T	70	21	C	0.6
EB T	67	45.7	D	0.99
SB L	14	86.1	F	0.74
NB L	14	140.6	F	1.03
NB T	16	58.5	E	0.34
SB T	16	63.9	E	0.49
Total	**120 sec**	**39.7**	**D**	**1.03**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	208.2	F	1.25
WB L	10	456.7	F	1.88
WB T	84	12.5	B	0.52
EB T	84	20.6	C	0.83
SB L	10	262.5	F	1.34
NB L	10	461.9	F	1.85
NB T	16	58.5	E	0.34
SB T	16	63.9	E	0.49
Total	**120 sec**	**63.7**	**E**	**1.88**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	103.9	F	0.9
WB L	15	164.3	F	1.17
WB T	75	17.1	B	0.57
EB T	76	34.7	C	0.94
SB L	14	86.1	F	0.74
NB L	14	140.6	F	1.03
NB T	16	58.5	E	0.34
SB T	16	63.9	E	0.49
Total	**120 sec**	**38.8**	**D**	**1.17**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	108	F	0.93
WB L	27	100	F	1
WB T	55	43.5	D	0.96
EB T	66	66.7	E	1.03
SB L	19	80.4	F	0.8
NB L	22	107.7	F	1
NB T	16	57	E	0.43
SB T	19	87.5	F	0.79
Total	**120 sec**	**56.5**	**E**	**1.03**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	535	F	2.03
WB L	10	ERR	F	4.41
WB T	84	17.1	B	0.73
EB T	84	14.7	B	0.64
SB L	10	580.6	F	2.14
NB L	10	ERR	F	3.38
NB T	16	69.4	E	0.59
SB T	16	87.5	F	0.79
Total	**120 sec**	**213**	**F**	**4.41**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	108	F	0.93
WB L	26	113.2	F	1.05
WB T	59	35.5	D	0.91
EB T	69	46.6	D	0.95
SB L	19	80.4	F	0.8
NB L	19	174.9	F	1.21
NB T	16	66.4	E	0.56
SB T	16	87.5	F	0.79
Total	**120 sec**	**52.2**	**D**	**1.21**

LOS E

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	16	65.5	E	0.79	0.94
WB L	15	90.9	F	0.96	**ICU LOS**
WB T	48	23.5	C	0.75	F
EB T	47	155.5	F	1.28	
SB L	11	107.4	F	0.92	
NB L	11	210	F	1.27	
NB T	16	40.7	D	0.28	
SB T	16	43.6	D	0.4	
Total	**90 sec**	**88.1**	**F**	**1.28**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	125.7	F	1.02	
WB L	10	310.1	F	1.55	
WB T	54	18.6	B	0.69	
EB T	54	83.1	F	1.12	
SB L	10	163.9	F	1.1	
NB L	10	315.8	F	1.53	
NB T	16	40.7	D	0.28	
SB T	16	43.6	D	0.4	
Total	**90 sec**	**74.1**	**E**	**1.55**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	12	87.4	F	0.89	
WB L	10	310.1	F	1.55	
WB T	54	20	C	0.71	
EB T	52	83.1	F	1.12	
SB L	10	163.9	F	1.1	
NB L	10	315.8	F	1.53	
NB T	16	40.7	D	0.28	
SB T	16	43.6	D	0.4	
Total	**90 sec**	**73.2**	**E**	**1.55**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	11	263.4	F	1.42	1.02
WB L	18	243	F	1.42	**ICU LOS**
WB T	41	103	F	1.16	G
EB T	48	131.5	F	1.21	
SB L	15	54.2	D	0.68	
NB L	15	247.3	F	1.42	
NB T	16	46.6	D	0.5	
SB T	16	55.1	E	0.66	
Total	**90 sec**	**116**	**F**	**1.42**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	385.9	F	1.7	
WB L	10	ERR	F	3.71	
WB T	54	45.6	D	1.01	
EB T	54	26	C	0.88	
SB L	10	143.5	F	1.09	
NB L	10	877.4	F	2.85	
NB T	16	46.6	D	0.5	
SB T	16	55.1	E	0.66	
Total	**90 sec**	**172.2**	**F**	**3.71**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	11	263.4	F	1.42	
WB L	17	294.3	F	1.54	
WB T	45	69.9	E	1.08	
EB T	51	77.6	E	1.09	
SB L	12	83.7	F	0.88	
NB L	12	509.4	F	2.02	
NB T	16	46.6	D	0.5	
SB T	16	55.1	E	0.66	
Total	**90 sec**	**106.4**	**F**	**2.02**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	64.9	E	0.76
WB L	16	102.3	F	0.99
WB T	57	22	C	0.7
EB T	55	106.4	F	1.16
SB L	11	141.3	F	1.02
NB L	11	269.6	F	1.42
NB T	16	46.8	D	0.31
SB T	16	50.6	D	0.45
Total	**100 sec**	**70.5**	**E**	**1.42**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	161.1	F	1.13
WB L	10	381.3	F	1.71
WB T	64	16.3	B	0.63
EB T	64	48.2	D	1.02
SB L	10	205.9	F	1.21
NB L	10	383.5	F	1.69
NB T	16	46.8	D	0.31
SB T	16	50.6	D	0.45
Total	**100 sec**	**66.9**	**E**	**1.71**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	91.3	F	0.9
WB L	11	304.6	F	1.53
WB T	61	20.4	C	0.68
EB T	58	69.5	E	1.08
SB L	12	99.9	F	0.87
NB L	12	189.2	F	1.21
NB T	16	46.8	D	0.31
SB T	16	50.6	D	0.45
Total	**100 sec**	**62.4**	**E**	**1.53**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	237.7	F	1.35
WB L	20	222.7	F	1.37
WB T	46	89.8	F	1.12
EB T	54	117.2	F	1.18
SB L	18	51.6	D	0.61
NB L	18	167.8	F	1.21
NB T	16	54.9	D	0.55
SB T	16	67.7	E	0.74
Total	**100 sec**	**101.4**	**F**	**1.37**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	462.1	F	1.88
WB L	10	ERR	F	4.09
WB T	64	28.9	C	0.92
EB T	64	21.1	C	0.81
SB L	10	185	F	1.21
NB L	10	ERR	F	3.13
NB T	16	54.9	D	0.55
SB T	16	67.7	E	0.74
Total	**100 sec**	**187.2**	**F**	**4.09**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	237.2	F	1.35
WB L	20	222.7	F	1.37
WB T	50	55.3	E	1.03
EB T	58	72.2	E	1.07
SB L	14	74.9	E	0.81
NB L	14	393.7	F	1.75
NB T	16	54.9	D	0.55
SB T	16	67.7	E	0.74
Total	**100 sec**	**88.4**	**F**	**1.75**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	25	65.4	E	0.7
WB L	20	94.5	F	0.94
WB T	70	23.3	C	0.66
EB T	65	84.5	F	1.11
SB L	14	95.1	F	0.81
NB L	14	166.4	F	1.13
NB T	16	59.5	E	0.37
SB T	16	66.1	E	0.54
Total	**120 sec**	**57.5**	**E**	**1.13**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	248.9	F	1.36
WB L	10	533.4	F	2.07
WB T	84	13.3	B	0.56
EB T	84	25.8	C	0.91
SB L	10	306.7	F	1.46
NB L	10	535	F	2.03
NB T	16	59.5	E	0.37
SB T	16	66.1	E	0.54
Total	**120 sec**	**74.7**	**E**	**2.07**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	24	66.7	E	0.71
WB L	21	94.1	F	0.94
WB T	70	22.3	C	0.65
EB T	67	77.4	E	1.09
SB L	13	118.6	F	0.92
NB L	13	217.4	F	1.27
NB T	16	59.5	E	0.37
SB T	16	66.1	E	0.54
Total	**120 sec**	**56.4**	**E**	**1.27**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	162.1	F	1.13
WB L	26	150.6	F	1.17
WB T	57	60.7	E	1.04
EB T	68	90.1	F	1.1
SB L	20	81.8	F	0.83
NB L	21	161.9	F	1.18
NB T	16	65.4	E	0.57
SB T	17	101.6	F	0.88
Total	**120 sec**	**77.8**	**E**	**1.02**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	632.4	F	2.26
WB L	10	ERR	F	6.17
WB T	84	20.2	C	0.82
EB T	84	15.7	B	0.71
SB L	10	684.5	F	2.38
NB L	10	ERR	F	3.77
NB T	16	74.3	E	0.66
SB T	16	101.6	F	0.88
Total	**120 sec**	**283.3**	**F**	**6.17**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	162.1	F	1.13
WB L	25	173.2	F	1.23
WB T	61	45.9	D	0.99
EB T	71	60.7	E	1.02
SB L	18	99.7	F	0.92
NB L	18	268.7	F	1.45
NB T	16	74.3	E	0.66
SB T	16	101.6	F	0.88
Total	**120 sec**	**71.7**	**E**	**1.45**

LOS F

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	80.9	F	0.89	1.01
WB L	14	139.6	F	1.13	**ICU LOS**
WB T	49	25.2	C	0.81	G
EB T	48	188.6	F	1.36	
SB L	11	126.1	F	0.99	
NB L	11	250.5	F	1.38	
NB T	16	41.2	D	0.3	
SB T	16	44.5	D	0.43	
Total	**90 sec**	**107.2**	**F**	**1.38**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	148.8	F	1.11	
WB L	10	366.2	F	1.69	
WB T	54	20.2	C	0.75	
EB T	54	123.8	F	1.21	
SB L	10	192.1	F	1.19	
NB L	10	369.2	F	1.66	
NB T	16	41.2	D	0.3	
SB T	16	44.5	D	0.43	
Total	**90 sec**	**97.6**	**F**	**1.69**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	13	85.6	F	0.9	
WB L	10	366.2	F	1.69	
WB T	54	22.9	C	0.79	
EB T	51	123.8	F	1.21	
SB L	10	192.1	F	1.19	
NB L	10	369.2	F	1.66	
NB T	16	41.2	D	0.3	
SB T	16	44.5	D	0.43	
Total	**90 sec**	**96.1**	**F**	**1.69**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	12	221	F	1.32	1.07
WB L	18	288	F	1.53	**ICU LOS**
WB T	41	155.9	F	1.28	G
EB T	47	172.3	F	1.31	
SB L	15	58.1	E	0.73	
NB L	15	292.5	F	1.53	
NB T	16	48.3	D	0.54	
SB T	16	59.1	E	0.71	
Total	**90 sec**	**150.7**	**F**	**1.53**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	449.5	F	1.86	
WB L	10	ERR	F	4	
WB T	54	72.3	E	1.09	
EB T	54	33.1	C	0.95	
SB L	10	170	F	1.18	
NB L	10	976.3	F	3.07	
NB T	16	48.3	D	0.54	
SB T	16	59.1	E	0.71	
Total	**90 sec**	**200**	**F**	**4**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	11	313.5	F	1.54	
WB L	17	344.1	F	1.66	
WB T	45	104.2	F	1.16	
EB T	51	111.7	F	1.17	
SB L	12	97.3	F	0.95	
NB L	12	578.2	F	2.18	
NB T	16	48.3	D	0.54	
SB T	16	59.1	E	0.71	
Total	**90 sec**	**137.5**	**F**	**2.18**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	70.2	E	0.81
WB L	16	124.2	F	1.08
WB T	56	25.1	C	0.77
EB T	54	161.3	F	1.29
SB L	12	115.4	F	0.94
NB L	12	225.8	F	1.31
NB T	16	47.4	D	0.34
SB T	16	52	D	0.48
Total	**100 sec**	**93.7**	**F**	**1.31**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	192	F	1.23
WB L	10	444.5	F	1.86
WB T	64	17.5	B	0.69
EB T	64	80.3	F	1.11
SB L	10	240.4	F	1.31
NB L	10	443.6	F	1.83
NB T	16	47.4	D	0.34
SB T	16	52	D	0.48
Total	**100 sec**	**87.6**	**F**	**1.86**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	91.8	F	91.8
WB L	11	359.9	F	359.9
WB T	63	20.2	C	20.2
EB T	61	88.9	F	88.9
SB L	10	240.4	F	240.4
NB L	10	443.6	F	443.6
NB T	16	47.4	D	47.4
SB T	16	52	D	52
Total	**100 sec**	**84.2**	**F**	**84.2**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	208.8	F	1.28
WB L	21	227.9	F	1.39
WB T	46	126.7	F	1.21
EB T	54	156.1	F	1.27
SB L	17	84.7	F	0.9
NB L	17	248.8	F	1.42
NB T	16	57.5	E	0.6
SB T	16	74.1	E	0.8
Total	**100 sec**	**130.6**	**F**	**1.42**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	533.4	F	2.04
WB L	10	ERR	F	4.4
WB T	64	41.6	D	1
EB T	64	24.3	C	0.87
SB L	10	571.6	F	2.13
NB L	10	ERR	F	3.38
NB T	16	57.5	E	0.6
SB T	16	74.1	E	0.8
Total	**100 sec**	**222.5**	**F**	**4.4**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	389.9	F	1.72
WB L	18	364.4	F	1.7
WB T	52	76.2	E	1.09
EB T	59	83	F	1.1
SB L	14	174.3	F	1.19
NB L	14	452.2	F	1.89
NB T	16	57.5	E	0.6
SB T	16	74.1	E	0.8
Total	**100 sec**	**119.5**	**F**	**1.89**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	77.5	E	0.81
WB L	20	180.7	F	1.23
WB T	70	25.8	C	0.75
EB T	69	125.8	F	1.21
SB L	14	71.3	E	0.65
NB L	14	197	F	1.23
NB T	16	60.6	E	0.41
SB T	16	68.6	E	0.58
Total	**120 sec**	**80.7**	**F**	**1.23**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	702	F	2.42
WB L	10	ERR	F	3.68
WB T	84	14.2	B	0.61
EB T	84	37.3	D	0.99
SB L	10	130.4	F	0.97
NB L	10	609.3	F	2.2
NB T	16	60.6	D	0.41
SB T	16	68.6	D	0.58
Total	**120 sec**	**130**	**F**	**3.68**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	77.5	E	0.81
WB L	16	364.7	F	1.68
WB T	76	23.8	C	0.73
EB T	71	79.4	E	1.1
SB L	12	88.1	F	0.78
NB L	12	339.7	F	1.58
NB T	16	60.6	E	0.41
SB T	16	68.6	E	0.58
Total	**120 sec**	**74.9**	**E**	**1.68**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	194.3	F	1.23
WB L	26	183.2	F	1.26
WB T	56	98.4	F	1.14
EB T	67	135.1	F	1.21
SB L	21	81.2	F	0.84
NB L	22	165.7	F	1.2
NB T	17	67.9	E	0.62
SB T	16	116.4	F	0.95
Total	**120 sec**	**108**	**F**	**1.26**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	719.4	F	2.46
WB L	10	ERR	F	5.3
WB T	84	24	C	0.89
EB T	84	18.3	B	0.77
SB L	10	766.2	F	2.57
NB L	10	ERR	F	4.07
NB T	16	79.5	E	0.72
SB T	16	116.4	F	0.95
Total	**120 sec**	**271.2**	**F**	**5.3**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	318.9	F	1.54
WB L	22	306.3	F	1.56
WB T	64	56.9	E	1.03
EB T	73	65.3	E	1.04
SB L	18	116.2	F	0.99
NB L	18	314.8	F	1.57
NB T	16	79.5	E	0.72
SB T	16	116.4	F	0.95
Total	**120 sec**	**94**	**F**	**1.57**

Test 1: LOS A

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	48.1	D	0.46	0.52
WB L	15	53.1	D	0.61	**ICU LOS**
WB T	38	20.9	C	0.37	A
EB T	39	25.4	C	0.61	
SB LT	21	58.6	E	0.51	
NB LT	16	43.1	D	0.31	
Total	**90 sec**	**24.2**	**C**	**0.61**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	76.4	E	0.69	
WB L	10	90.9	F	0.84	
WB T	48	14.9	B	0.31	
EB T	48	18.7	B	0.54	
SB LT	16	160.3	F	0.93	
NB LT	16	43.1	D	0.31	
Total	**90 sec**	**25.1**	**C**	**0.93**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	15	46.3	D	0.43	
WB L	15	53.1	D	0.61	
WB T	40	19.8	B	0.36	
EB T	40	23.4	C	0.58	
SB LT	19	68.7	E	0.58	
NB LT	16	43.1	D	0.31	
Total	**90 sec**	**23.5**	**C**	**0.61**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	10	111.9	F	0.9	0.58
WB L	15	99.3	F	0.97	**ICU LOS**
WB T	32	35.1	D	0.83	B
EB T	37	42	D	0.87	
SB LT	27	142.4	F	1	
NB LT	16	67.3	E	0.71	
Total	**90 sec**	**44.6**	**D**	**1**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	111.9	F	0.9	
WB L	10	488.2	F	1.95	
WB T	48	20.5	C	0.61	
EB T	48	19.1	B	0.53	
SB LT	16	489.7	F	1.87	
NB LT	16	67.3	E	0.71	
Total	**90 sec**	**72.1**	**E**	**1.95**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	11	69.2	E	0.69	
WB L	17	64.2	E	0.81	
WB T	32	29.6	C	0.74	
EB T	38	39.9	D	0.84	
SB LT	23	139.8	F	0.99	
NB LT	18	56.2	E	0.63	
Total	**90 sec**	**39.4**	**D**	**0.99**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	55.9	E	0.5
WB L	15	62.7	E	0.66
WB T	41	23.7	C	0.38
EB T	42	30.3	C	0.67
SB LT	28	67.5	E	0.56
NB LT	16	49.9	D	0.34
Total	**100 sec**	**28**	**C**	**0.67**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	90.4	F	0.75
WB L	10	97.8	F	0.85
WB T	58	13.9	B	0.29
EB T	58	16.8	B	0.49
SB LT	16	203	F	1.05
NB LT	16	49.9	D	0.34
Total	**100 sec**	**26.2**	**C**	**1.05**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	55.9	E	0.5
WB L	15	62.7	E	0.66
WB T	50	17.3	B	0.31
EB T	51	21.7	C	0.54
SB LT	19	91.4	F	0.68
NB LT	16	49.9	D	0.34
Total	**100 sec**	**23.9**	**C**	**0.68**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	98.7	F	0.83
WB L	16	105.7	F	0.98
WB T	36	36.7	D	0.81
EB T	41	41.7	D	0.83
SB LT	32	175.7	F	1.1
NB LT	16	83.6	F	0.78
Total	**100 sec**	**46.9**	**D**	**1.1**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	142.5	F	0.99
WB L	10	576.4	F	2.15
WB T	58	18	B	0.54
EB T	58	16.9	B	0.47
SB LT	16	592.6	F	2.1
NB LT	16	83.6	F	0.78
Total	**100 sec**	**82.7**	**F**	**2.15**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	63.5	E	0.62
WB L	19	65.9	E	0.8
WB T	36	30.6	C	0.71
EB T	42	37.8	D	0.78
SB LT	25	178	F	1.1
NB LT	20	60.4	E	0.63
Total	**100 sec**	**40**	**D**	**1.1**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	68.7	E	0.55
WB L	17	73.3	E	0.68
WB T	48	27.6	C	0.38
EB T	50	35.5	D	0.67
SB LT	39	91.8	F	0.68
NB LT	16	64.4	E	0.41
Total	**120 sec**	**33.3**	**C**	**0.68**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	112.3	F	0.82
WB L	10	115.6	F	0.9
WB T	78	11.6	B	0.26
EB T	78	14.2	B	0.43
SB LT	16	288.1	F	1.26
NB LT	16	64.4	E	64.4
Total	**120 sec**	**29**	**C**	**1.26**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	66.2	E	0.52
WB L	20	65.6	E	0.61
WB T	63	16.1	B	0.28
EB T	67	21.2	C	0.49
SB LT	21	100.6	F	0.68
NB LT	16	64.4	E	0.41
Total	**120 sec**	**25**	**C**	**0.68**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	112.1	F	0.85
WB L	18	117.5	F	0.99
WB T	38	51.7	D	0.9
EB T	44	61.4	E	0.93
SB LT	48	260.3	F	1.32
NB LT	16	129.3	F	0.94
Total	**120 sec**	**64.1**	**E**	**1.32**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	213.2	F	1.19
WB L	10	772.1	F	2.58
WB T	78	14.8	B	0.47
EB T	78	13.9	B	0.41
SB LT	16	789.8	F	2.53
NB LT	16	129.3	F	0.94
Total	**120 sec**	**107.2**	**F**	**2.58**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	79.5	E	0.68
WB L	18	81.1	F	0.84
WB T	50	31.4	C	0.66
EB T	55	35.4	D	0.67
SB LT	29	265	F	1.32
NB LT	23	72	E	0.66
Total	**120 sec**	**44.1**	**D**	**1.32**

LOS B

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	15	54.5	D	0.63	0.71
WB L	13	85.9	F	0.89	ICU LOS
WB T	41	24.4	C	0.59	C
EB T	39	62.2	E	1.03	
SB LT	20	147.2	F	0.99	
NB LT	16	50.9	D	0.5	
Total	90 sec	45.6	D	1.03	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	91.2	F	0.85	
WB L	10	140	F	1.08	
WB T	48	18.8	B	0.54	
EB T	48	31	C	0.89	
SB LT	16	343.1	F	1.5	
NB LT	16	50.9	D	0.5	
Total	90 sec	39	D	1.5	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	91.2	F	0.85	
WB L	11	105.1	F	0.96	
WB T	47	18.8	B	0.54	
EB T	48	33.7	C	0.91	
SB LT	16	343.1	F	1.5	
NB LT	16	50.9	D	0.5	
Total	90 sec	38.3	D	1.5	
			PM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	10	202.2	F	1.22	0.71
WB L	15	207.6	F	1.31	ICU LOS
WB T	33	82.4	F	1.09	C
EB T	38	102.3	F	1.13	
SB LT	26	245.3	F	1.33	
NB LT	16	117.6	F	0.98	
Total	90 sec	98.1	F	1.33	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	202.2	F	1.22	
WB L	10	787.9	F	2.64	
WB T	48	26.6	C	0.82	
EB T	48	22.9	C	0.72	
SB LT	16	784	F	2.57	
NB LT	16	117.6	F	0.98	
Total	90 sec	113.5	F	2.64	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	12	91.7	F	0.87	
WB L	19	81	F	0.94	
WB T	39	30.4	C	0.86	
EB T	46	40.6	D	0.92	
SB LT	16	784	F	2.57	
NB LT	16	117.6	F	0.98	
Total	90 sec	69.2	E	2.57	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	18	54.6	D	0.59
WB L	15	89.8	F	0.9
WB T	48	25	C	0.58
EB T	45	40.7	D	0.94
SB LT	21	150.1	F	0.99
NB LT	16	60.6	E	0.56
Total	100 sec	37.9	D	0.99
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	97.5	F	0.86
WB L	10	180.5	F	1.19
WB T	58	16.9	B	0.49
EB T	58	24.3	C	0.79
SB LT	16	423.3	F	1.68
NB LT	16	60.6	E	0.56
Total	100 sec	40.5	D	1.68
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	15	64.8	E	0.68
WB L	12	107.9	F	0.96
WB T	51	23.4	C	0.56
EB T	48	37.5	D	0.92
SB LT	21	150.1	F	0.99
NB LT	16	60.6	E	0.56
Total	100 sec	37.4	D	0.99
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	10	252.5	F	1.35
WB L	17	173.5	F	1.22
WB T	36	68.4	E	1.04
EB T	43	103.2	F	1.12
SB LT	31	307.9	F	1.48
NB LT	16	153.1	F	1.09
Total	100 sec	94.8	F	1.48
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	252.5	F	1.35
WB L	10	908.5	F	2.91
WB T	58	22.2	C	0.73
EB T	58	19.9	B	0.64
SB LT	16	926.8	F	2.88
NB LT	16	153.1	F	1.09
Total	100 sec	129.2	F	2.91
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	12	121.3	F	0.97
WB L	18	138.7	F	1.13
WB T	41	42.3	D	0.94
EB T	47	51	D	0.96
SB LT	25	309.6	F	1.49
NB LT	16	153.1	F	0.19
Total	100 sec	72.1	E	1.49

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	20	66.4	E	0.63
WB L	17	117.7	F	0.98
WB T	59	28.5	C	0.59
EB T	56	44.8	D	0.93
SB LT	28	190.2	F	1.08
NB LT	16	83.2	F	0.67
Total	120 sec	42.7	D	1.08
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	342.7	F	1.55
WB L	10	672.9	F	2.35
WB T	78	14.2	B	0.43
EB T	78	19	B	0.68
SB LT	16	579.4	F	2.03
NB LT	16	83.2	F	0.67
Total	120 sec	76.1	E	2.35
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	20	66.4	E	0.63
WB L	19	88.2	F	0.86
WB T	62	24.3	C	0.53
EB T	61	37	D	0.88
SB LT	23	156.5	F	1.08
NB LT	16	83.2	F	0.67
Total	120 sec	38.6	D	1.08
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	11	257	F	1.35
WB L	18	228.4	F	1.35
WB T	40	104.1	F	1.12
EB T	47	133	F	1.19
SB LT	46	438.1	F	1.78
NB LT	16	237.2	F	1.31
Total	120 sec	127.7	F	1.78
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	369.1	F	1.62
WB L	10	ERR	F	3.5
WB T	78	17.7	B	0.63
EB T	78	16.1	B	0.55
SB LT	16	ERR	F	3.37
NB LT	16	237.2	F	1.31
Total	120 sec	164.1	F	3.5
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	14	110.9	F	0.9
WB L	22	115.8	F	1.03
WB T	48	44.7	D	0.92
EB T	56	56	E	0.95
SB LT	31	440.3	F	1.78
NB LT	19	134.7	F	1.01
Total	120 sec	69.7	E	1.78

LOS C

Cycle Length: 90 seconds						Cycle Length: 100 seconds					Cycle Length: 120 seconds				
			AM						AM					AM	
Optimizing Splits						**Optimizing Splits**					**Optimizing Splits**				
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**		**Splits**	**Delay**	**LOS**	**V/C Ratio**		**Splits**	**Delay**	**LOS**	**V/C Ratio**
EB L	14	66.6	E	0.75	0.77	**EB L**	15	71.2	E	0.75	**EB L**	21	66.8	E	0.66
WB L	13	85.5	F	0.9	**ICU LOS**	**WB L**	14	187.2	F	1.23	**WB L**	18	123.4	F	1.02
WB T	41	26.7	C	0.7	D	**WB T**	48	28.2	C	0.7	**WB T**	59	30.2	C	0.66
EB T	40	125.6	F	1.2		**EB T**	47	90	F	1.11	**EB T**	56	71.5	E	1.05
SB LT	20	266.8	F	1.34		**SB LT**	22	188.6	F	1.13	**SB LT**	27	225.9	F	1.2
NB LT	16	55.1	E	0.57		**NB LT**	16	66.6	E	0.63	**NB LT**	16	93.4	F	0.75
Total	**90 sec**	**76.1**	**E**	**1.34**		**Total**	**100 sec**	**66.4**	**E**	**1.23**	**Total**	**120 sec**	**56.5**	**E**	**1.2**
Minimums except Main St						**Minimums except Main St**					**Minimums except Main St**				
	Splits	**Delay**	**LOS**	**V/C Ratio**			**Splits**	**Delay**	**LOS**	**V/C Ratio**		**Splits**	**Delay**	**LOS**	**V/C Ratio**
EB L	10	91.3	F	0.86		**EB L**	10	290.2	F	1.45	**EB L**	10	417.7	F	1.74
WB L	10	182.5	F	1.22		**WB L**	10	600.5	F	2.2	**WB L**	10	801.4	F	2.65
WB T	48	20.4	C	0.61		**WB T**	58	18.2	B	0.56	**WB T**	78	14.9	B	0.48
EB T	48	48.2	D	1		**EB T**	58	30	C	0.89	**EB T**	78	21.6	C	0.77
SB LT	16	427.9	F	1.72		**SB LT**	16	501.3	F	1.88	**SB LT**	16	672.2	F	2.26
NB LT	16	55.1	E	0.57		**NB LT**	16	66.6	E	0.63	**NB LT**	16	93.4	F	0.75
Total	**90 sec**	**51.1**	**D**	**1.72**		**Total**	**100 sec**	**73.5**	**E**	**2.2**	**Total**	**120 sec**	**89.5**	**F**	**2.65**
Minimzed Delay						**Minimzed Delay**					**Minimized Delay**				
	Splits	**Delay**	**LOS**	**V/C Ratio**			**Splits**	**Delay**	**LOS**	**V/C Ratio**		**Splits**	**Delay**	**LOS**	**V/C Ratio**
EB L	10	91.3	F	0.86		**EB L**	16	64	E	0.7	**EB L**	19	71.7	E	0.7
WB L	10	182.5	F	1.22		**WB L**	15	86.1	F	0.9	**WB L**	20	91.4	F	0.9
WB T	48	20.4	C	0.61		**WB T**	52	21.8	C	0.59	**WB T**	68	20.1	C	0.54
EB T	48	48.2	D	1		**EB T**	51	46.7	D	0.98	**EB T**	69	34.4	C	0.89
SB LT	16	427.9	F	1.72		**SB LT**	16	501.3	F	1.88	**SB LT**	16	672.2	F	2.26
NB LT	16	55.1	E	0.57		**NB LT**	17	61.7	E	0.59	**NB LT**	16	93.4	F	0.75
Total	**90 sec**	**51.1**	**D**	**1.72**		**Total**	**100 sec**	**47.4**	**D**	**1.88**	**Total**	**120 sec**	**48.5**	**D**	**2.26**
			PM						PM					PM	
Optimizing Splits						**Optimizing Splits**					**Optimizing Splits**				
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**		**Splits**	**Delay**	**LOS**	**V/C Ratio**		**Splits**	**Delay**	**LOS**	**V/C Ratio**
EB L	10	264.3	F	1.4	0.78	**EB L**	11	224.5	F	1.29	**EB L**	12	243.9	F	1.33
WB L	15	284.2	F	1.51	**ICU LOS**	**WB L**	16	292.6	F	1.52	**WB L**	18	306.3	F	1.55
WB T	33	147	F	1.25	D	**WB T**	37	140.4	F	1.23	**WB T**	39	200.4	F	1.36
EB T	38	170.3	F	1.3		**EB T**	42	151.5	F	1.25	**EB T**	45	222.7	F	1.4
SB LT	26	317.5	F	1.52		**SB LT**	31	391.8	F	1.69	**SB LT**	45	543.9	F	2.03
NB LT	16	162.1	F	1.15		**NB LT**	16	211.4	F	1.27	**NB LT**	18	216.2	F	1.27
Total	**90 sec**	**155.9**	**F**	**1.52**		**Total**	**100 sec**	**148.8**	**F**	**1.69**	**Total**	**120 sec**	**194.2**	**F**	**2.03**
Minimums except Main St						**Minimums except Main St**					**Minimums except Main St**				
	Splits	**Delay**	**LOS**	**V/C Ratio**			**Splits**	**Delay**	**LOS**	**V/C Ratio**		**Splits**	**Delay**	**LOS**	**V/C Ratio**
EB L	10	264.3	F	1.4		**EB L**	10	325	F	1.54	**EB L**	10	461.9	F	1.85
WB L	10	958.3	F	3.03		**WB L**	10	ERR	F	3.34	**WB L**	10	ERR	F	4.01
WB T	48	36.9	D	0.94		**WB T**	58	26.6	C	0.84	**WB T**	78	20.1	C	0.73
EB T	48	26.7	C	0.82		**EB T**	58	22.3	C	0.73	**EB T**	78	17.7	B	0.63
SB LT	16	944.6	F	2.93		**SB LT**	16	ERR	F	3.29	**SB LT**	16	ERR	F	3.86
NB LT	16	319.5	F	1.15		**NB LT**	16	211.4	F	1.27	**NB LT**	16	320.5	F	1.53
Total	**90 sec**	**141.1**	**F**	**3.03**		**Total**	**100 sec**	**157.6**	**F**	**3.34**	**Total**	**120 sec**	**198.1**	**F**	**4.01**
Minimzed Delay						**Minimzed Delay**					**Minimized Delay**				
	Splits	**Delay**	**LOS**	**V/C Ratio**			**Splits**	**Delay**	**LOS**	**V/C Ratio**		**Splits**	**Delay**	**LOS**	**V/C Ratio**
EB L	11	172.9	F	1.16		**EB L**	14	88.7	F	0.86	**EB L**	17	85.1	F	0.8
WB L	18	143.4	F	1.16		**WB L**	21	109.2	F	1.05	**WB L**	29	75.1	E	0.89
WB T	40	41.5	D	0.97		**WB T**	46	37.7	D	0.93	**WB T**	54	33.6	C	0.87
EB T	47	59.9	E	1.02		**EB T**	53	47	D	0.96	**EB T**	66	47.1	D	0.93
SB LT	16	944.6	F	2.93		**SB LT**	16	ERR	F	3.29	**SB LT**	16	ERR	F	3.86
NB LT	16	162.1	F	1.15		**NB LT**	17	167.9	F	1.15	**NB LT**	21	131.8	F	1.02
Total	**90 sec**	**95.1**	**F**	**2.93**		**Total**	**100 sec**	**92.5**	**F**	**3.29**	**Total**	**120 sec**	**98.4**	**F**	**3.86**

LOS D

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	13	106.2	F	0.96	0.86
WB L	12	353.3	F	1.65	**ICU LOS**
WB T	41	38.1	D	0.9	E
EB T	40	214.4	F	1.41	
SB LT	21	298	F	1.44	
NB LT	16	64.3	E	0.98	
Total	**90 sec**	**132.8**	**F**	**1.65**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	319.8	F	1.54	
WB L	10	650.1	F	2.33	
WB T	48	23.2	C	0.73	
EB T	48	107.9	F	1.17	
SB LT	16	543.6	F	2	
NB LT	16	64.3	E	0.68	
Total	**90 sec**	**111.7**	**F**	**2.33**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	15	67.6	E	0.79	
WB L	12	253.3	F	1.65	
WB T	46	30	C	0.82	
EB T	43	134.1	F	1.23	
SB LT	16	543.6	F	2	
NB LT	16	64.3	E	0.68	
Total	**90 sec**	**100.8**	**F**	**2**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	11	210	F	1.27	0.84
WB L	14	426.7	F	1.84	**ICU LOS**
WB T	34	218.2	F	1.41	E
EB T	37	200.4	F	1.37	
SB LT	26	432.6	F	1.81	
NB LT	16	199.8	F	1.26	
Total	**90 sec**	**206.7**	**F**	**1.84**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	315.8	F	1.53	
WB L	10	ERR	F	3.33	
WB T	48	57.4	E	1.03	
EB T	48	32	C	0.9	
SB LT	16	ERR	F	3.26	
NB LT	16	199.8	F	1.26	
Total	**90 sec**	**169.1**	**F**	**3.33**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	11	210	F	1.27	
WB L	17	228.7	F	1.38	
WB T	41	66.5	E	1.06	
EB T	47	80.4	F	1.09	
SB LT	16	ERR	F	3.26	
NB LT	16	199.8	F	1.26	
Total	**90 sec**	**125.6**	**F**	**3.26**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	106.4	F	0.95
WB L	14	262.5	F	1.43
WB T	48	31.3	C	0.81
EB T	48	167	F	1.3
SB LT	22	309.1	F	1.46
NB LT	16	79.2	E	0.75
Total	**100 sec**	**108.2**	**F**	**1.46**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	388.1	F	1.7
WB L	10	756.1	F	2.56
WB T	58	20.1	C	0.65
EB T	58	58.7	E	1.04
SB LT	16	630.1	F	2.19
NB LT	16	202.1	E	0.75
Total	**100 sec**	**101**	**F**	**2.56**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	61.5	E	0.72
WB L	13	334.9	F	1.61
WB T	55	27.4	C	0.75
EB T	50	84.3	F	1.11
SB LT	16	630.1	F	2.19
NB LT	16	79.2	E	0.75
Total	**100 sec**	**81.3**	**F**	**2.19**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	269.6	F	1.42
WB L	16	354.1	F	1.67
WB T	36	208	F	1.39
EB T	41	223.2	F	1.42
SB LT	31	455.6	F	1.85
NB LT	16	206	F	1.27
Total	**100 sec**	**203.9**	**F**	**1.85**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	383.5	F	1.69
WB L	10	ERR	F	3.66
WB T	58	35.9	D	0.94
EB T	58	26.1	C	0.82
SB LT	16	ERR	F	3.57
NB LT	16	206	F	1.27
Total	**100 sec**	**179.4**	**F**	**3.66**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	189.2	F	1.21
WB L	20	168	F	1.23
WB T	47	44.2	D	0.98
EB T	55	61.5	E	1.03
SB LT	16	ERR	F	3.57
NB LT	16	206	F	1.27
Total	**100 sec**	**114.7**	**F**	**3.57**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	84.5	F	0.82
WB L	17	208.4	F	1.29
WB T	58	34.9	C	0.79
EB T	57	150.4	F	1.25
SB LT	29	295.3	F	1.41
NB LT	16	120.6	F	0.9
Total	**120 sec**	**98**	**F**	**1.41**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	540.7	F	2.04
WB L	10	990.4	F	3.08
WB T	78	16.2	B	0.56
EB T	78	28.6	C	0.9
SB LT	16	830.3	F	2.63
NB LT	16	120.6	F	0.9
Total	**120 sec**	**111.9**	**F**	**3.08**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	73.8	E	0.75
WB L	18	170.6	F	1.19
WB T	70	23	C	0.64
EB T	68	52.9	D	1.01
SB LT	16	830.3	F	2.63
NB LT	16	120.6	F	0.9
Total	**120 sec**	**66.5**	**E**	**2.63**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	290.6	F	1.46
WB L	18	368.5	F	1.7
WB T	40	239.3	F	1.45
EB T	46	260.2	F	1.49
SB LT	44	623.2	F	2.22
NB LT	18	262.3	F	1.4
Total	**120 sec**	**231**	**F**	**2.22**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	535	F	2.03
WB L	10	ERR	F	4.41
WB T	78	22.6	C	0.8
EB T	78	19.2	B	0.69
SB LT	16	ERR	F	4.29
NB LT	16	376.4	F	1.67
Total	**120 sec**	**226.3**	**F**	**4.41**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	92.7	F	0.86
WB L	28	88.7	F	0.96
WB T	55	43	D	0.96
EB T	66	66.7	E	1.03
SB LT	16	ERR	F	4.29
NB LT	21	157.7	F	1.12
Total	**120 sec**	**118.9**	**F**	**4.29**

LOS E

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	13	128.4	F	1.05	0.92
WB L	13	324.9	F	1.59	**ICU LOS**
WB T	40	51.3	D	0.99	F
EB T	40	293.5	F	1.59	
SB LT	21	379.2	F	1.64	
NB LT	16	71.3	E	0.74	
Total	**90 sec**	**171.2**	**F**	**1.64**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	377.6	F	1.68	
WB L	10	747.8	F	2.55	
WB T	48	25.5	C	0.79	
EB T	48	155.5	F	1.28	
SB LT	16	616.7	F	2.17	
NB LT	16	71.3	E	0.74	
Total	**90 sec**	**141.4**	**F**	**2.55**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	15	74.2	E	0.84	
WB L	12	419.9	F	1.81	
WB T	46	35.9	D	0.9	
EB T	43	184.6	F	1.34	
SB LT	16	616.7	F	2.17	
NB LT	16	71.3	E	0.74	
Total	**90 sec**	**129.4**	**F**	**2.17**	
			PM		
Optimizing SplitS					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	10	385.9	F	1.7	0.98
WB L	14	519	F	2.06	**ICU LOS**
WB T	33	290.5	F	1.58	F
EB T	37	296.4	F	1.59	
SB LT	27	518.8	F	1.43	
NB LT	16	263.7	F	2.01	
Total	**90 sec**	**281.2**	**F**	**2.06**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	385.9	F	1.7	
WB L	10	ERR	F	3.71	
WB T	48	103	F	1.16	
EB T	48	49.9	D	1.01	
SB LT	16	ERR	F	3.63	
NB LT	16	263.7	F	1.43	
Total	**90 sec**	**215**	**F**	**3.71**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	385.9	F	1.7	
WB L	16	356	F	1.69	
WB T	42	103	F	1.16	
EB T	48	116.5	F	1.18	
SB LT	16	ERR	F	3.63	
NB LT	16	263.7	F	1.43	
Total	**90 sec**	**174.2**	**F**	**3.63**	

Cycle Length: 100 seconds				
			AM	
Optimizing SplitS				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	98.4	F	0.93
WB L	14	318	F	1.57
WB T	47	42	D	0.93
EB T	46	236	F	1.46
SB LT	23	291.2	F	1.43
NB LT	16	89.9	F	0.82
Total	**100 sec**	**143.2**	**F**	**1.57**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	452.9	F	1.85
WB L	10	864.1	F	2.81
WB T	58	21.6	C	0.71
EB T	58	96.5	F	1.14
SB LT	16	737.2	F	2.44
NB LT	16	89.9	F	0.82
Total	**100 sec**	**128.2**	**F**	**2.81**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	72	E	0.8
WB L	13	399.1	F	1.76
WB T	55	29.5	C	0.81
EB T	51	127.9	F	1.21
SB LT	16	737.2	F	2.44
NB LT	16	89.9	F	0.82
Total	**100 sec**	**107**	**F**	**2.44**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	332.4	F	1.58
WB L	15	520.1	F	2.06
WB T	36	299	F	1.6
EB T	40	295.1	F	1.58
SB LT	32	544.3	F	2.06
NB LT	17	270.3	F	1.44
Total	**100 sec**	**278.5**	**F**	**2.06**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	462.3	F	1.88
WB L	10	ERR	F	4.09
WB T	58	62.6	E	1.05
EB T	58	32.9	C	0.92
SB LT	16	ERR	F	3.98
NB LT	16	270.3	F	1.44
Total	**100 sec**	**217.6**	**F**	**4.09**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	332.4	F	1.58
WB L	19	264.3	F	1.47
WB T	48	71	E	1.07
EB T	56	92.9	F	1.12
SB LT	16	ERR	F	3.98
NB LT	16	270.3	F	1.44
Total	**100 sec**	**156.1**	**F**	**3.98**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	105.9	F	0.93
WB L	17	255.1	F	1.41
WB T	57	39.6	D	0.87
EB T	57	213.1	F	1.4
SB LT	30	346.2	F	1.54
NB LT	16	139.5	F	0.98
Total	**120 sec**	**130.6**	**F**	**1.54**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	620.8	F	2.23
WB L	10	ERR	F	3.38
WB T	78	17.3	B	0.61
EB T	78	40.7	D	0.98
SB LT	16	928.9	F	2.86
NB LT	16	139.5	F	0.98
Total	**120 sec**	**130.2**	**F**	**3.38**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	77.9	E	0.79
WB L	16	309.3	F	1.54
WB T	72	24.9	C	0.7
EB T	68	71.9	E	1.08
SB LT	16	928.9	F	2.86
NB LT	16	348.9	F	0.98
Total	**120 sec**	**85.8**	**F**	**2.86**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	355.2	F	1.62
WB L	17	522.2	F	2.06
WB T	40	331.1	F	1.66
EB T	45	335.6	F	1.67
SB LT	44	732.5	F	2.47
NB LT	19	283.8	F	1.46
Total	**120 sec**	**303.5**	**F**	**2.47**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	632.4	F	2.26
WB L	10	ERR	F	4.92
WB T	78	27.9	C	0.89
EB T	78	21.8	C	0.78
SB LT	16	ERR	F	4.77
NB LT	16	474.1	F	1.91
Total	**120 sec**	**262.8**	**F**	**4.92**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	162.1	F	1.13
WB L	26	150.6	F	1.17
WB T	62	38.7	D	0.96
EB T	73	55.4	E	1
SB LT	16	ERR	F	4.77
NB LT	16	474.1	F	1.91
Total	**120 sec**	**151**	**F**	**4.77**

LOS F

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	11	303.3	F	1.52	0.98
WB L	13	383.2	F	1.73	**ICU LOS**
WB T	39	64.7	E	1.04	F
EB T	41	378.1	F	1.78	
SB LT	22	379.8	F	1.65	
NB LT	16	81.7	F	0.81	
Total	**90 sec**	**219.9**	**F**	**1.78**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	436.7	F	1.83	
WB L	10	846.1	F	2.78	
WB T	48	29	C	0.86	
EB T	48	203.7	F	1.39	
SB LT	16	699.9	F	2.37	
NB LT	16	81.7	F	0.81	
Total	**90 sec**	**172.1**	**F**	**2.78**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	113.7	F	1.01	
WB L	12	487.7	F	1.97	
WB T	46	42	D	0.96	
EB T	44	235.4	F	1.46	
SB LT	16	699.9	F	2.37	
NB LT	16	81.7	F	0.81	
Total	**90 sec**	**159.7**	**F**	**2.37**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	10	449.5	F	1.86	1.03
WB L	14	587.7	F	2.21	**ICU LOS**
WB T	36	371.9	F	1.76	G
EB T	32	381.2	F	1.78	
SB LT	27	746.4	F	2.53	
NB LT	17	258.8	F	1.42	
Total	**90 sec**	**349.3**	**F**	**2.53**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	449.5	F	1.86	
WB L	10	ERR	F	4	
WB T	48	142	F	1.25	
EB T	48	75.5	E	1.09	
SB LT	16	ERR	F	3.87	
NB LT	16	321.2	F	1.57	
Total	**90 sec**	**255.1**	**F**	**4**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	449.5	F	1.86	
WB L	16	411.2	F	1.81	
WB T	41	155.9	F	2.28	
EB T	47	172.3	F	1.31	
SB LT	16	ERR	F	3.87	
NB LT	16	258.8	F	1.42	
Total	**90 sec**	**219.4**	**F**	**3.87**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	152.2	F	1.13
WB L	14	375.2	F	1.71
WB T	46	57.5	E	1.01
EB T	46	309.2	F	1.62
SB LT	24	313.4	F	1.49
NB LT	16	105.4	F	0.9
Total	**100 sec**	**184.3**	**F**	**1.71**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	519.1	F	2.01
WB L	10	972.7	F	3.06
WB T	58	23.4	C	0.77
EB T	58	138.4	F	1.24
SB LT	16	802.9	F	2.6
NB LT	16	105.4	F	0.9
Total	**100 sec**	**156.6**	**F**	**3.06**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	91.8	F	0.92
WB L	13	464.5	F	1.92
WB T	55	32.5	C	0.87
EB T	52	173.2	F	1.32
SB LT	16	802.9	F	2.6
NB LT	16	105.4	F	0.9
Total	**100 sec**	**133.3**	**F**	**2.6**
			PM	
Optimizing SplitS				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	389.9	F	1.72
WB L	15	588.6	F	2.21
WB T	35	378.6	F	1.78
EB T	39	376	F	1.77
SB LT	32	604.4	F	2.2
NB LT	18	273.8	F	1.45
Total	**100 sec**	**343.3**	**F**	**2.21**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	533.4	F	2.04
WB L	10	ERR	F	4.4
WB T	58	85.2	F	1.11
EB T	58	39.9	D	0.97
SB LT	16	ERR	F	4.33
NB LT	16	394.4	F	1.73
Total	**100 sec**	**254.1**	**F**	**4.4**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	389.9	F	1.72
WB L	18	364.4	F	1.7
WB T	50	94.6	F	1.14
EB T	57	104.5	F	1.15
SB LT	16	ERR	F	4.33
NB LT	16	394.4	F	1.73
Total	**100 sec**	**191.4**	**F**	**4.33**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	124.5	F	1.01
WB L	16	364.7	F	1.68
WB T	57	51.3	D	0.96
EB T	56	265.3	F	1.52
SB LT	31	392.6	F	1.66
NB LT	16	164.3	F	1.08
Total	**120 sec**	**163.9**	**F**	**1.68**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	702	F	2.42
WB L	10	ERR	F	3.68
WB T	78	18.5	B	0.66
EB T	78	66.4	E	1.07
SB LT	16	ERR	F	3.11
NB LT	16	164.3	F	1.08
Total	**120 sec**	**154.9**	**F**	**3.68**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	77.5	E	0.81
WB L	16	364.7	F	1.68
WB T	70	27.9	C	0.77
EB T	67	109.2	F	1.17
SB LT	16	ERR	F	3.11
NB LT	16	138.7	F	1.08
Total	**120 sec**	**109.1**	**F**	**3.11**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	414.4	F	1.77
WB L	17	590.4	F	2.21
WB T	40	388.4	F	1.79
EB T	45	392.6	F	1.8
SB LT	44	806	F	2.64
NB LT	19	342.5	F	1.61
Total	**120 sec**	**355.2**	**F**	**2.64**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	719.4	F	2.46
WB L	10	ERR	F	5.3
WB T	78	47.2	D	1
EB T	78	28.5	C	0.87
SB LT	16	ERR	F	5.2
NB LT	16	342.5	F	1.61
Total	**120 sec**	**284.6**	**F**	**5.3**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	247.7	F	1.37
WB L	23	269	F	1.47
WB T	62	69	E	1.07
EB T	71	79.5	E	1.08
SB LT	16	ERR	F	5.2
NB LT	16	342.5	F	1.51
Total	**120 sec**	**182.2**	**F**	**5.2**

Test 2: LOS A

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	46.3	D	0.43	0.5
WB L	19	45.8	D	0.52	**ICU LOS**
WB TR	40	16.3	B	0.25	A
EB TR	44	19.7	B	0.5	
SB L	11	51.1	D	0.41	
NB L	15	45.3	D	0.4	
NB T	16	32.7	C	0.07	
SB T	20	37.2	D	0.13	
Total	**90 sec**	**21.8**	**C**	**0.52**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	82.8	F	0.73	
WB L	10	166.9	F	1.11	
WB TR	54	11.1	B	0.21	
EB TR	54	12.7	B	0.41	
SB L	10	58.1	E	0.48	
NB L	10	74	E	0.66	
NB T	16	36.6	D	0.09	
SB T	16	38	D	0.15	
Total	**90 sec**	**25.3**	**C**	**1.11**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	48.1	D	0.46	
WB L	19	45.8	D	0.52	
WB TR	44	13.5	B	0.23	
EB TR	49	16.7	B	0.45	
SB L	11	51.1	D	0.41	
NB L	11	59.9	E	0.56	
NB T	16	36.5	D	0.08	
SB T	16	37.9	D	0.14	
Total	**90 sec**	**20.1**	**C**	**0.56**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	48.6	D	0.51	0.56
WB L	23	47.3	D	0.67	**ICU LOS**
WB TR	31	22.6	C	0.51	B
EB TR	39	28.7	C	0.61	
SB L	15	49.3	D	0.53	
NB L	20	47.4	D	0.61	
NB T	16	33.3	C	0.14	
SB T	21	39.1	D	0.27	
Total	**90 sec**	**27.9**	**C**	**0.67**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	111.9	F	0.9	
WB L	10	488.2	F	1.95	
WB TR	54	13.3	B	0.38	
EB TR	54	12.7	B	0.36	
SB L	10	121.4	F	0.94	
NB L	10	303.7	F	1.5	
NB T	16	40.2	D	0.26	
SB T	16	42.2	D	0.35	
Total	**90 sec**	**66.5**	**E**	**1.95**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	12	63.5	E	0.65	
WB L	23	47.3	D	0.67	
WB TR	36	16.9	B	0.42	
EB TR	47	23.8	C	0.52	
SB L	14	52.7	D	0.56	
NB L	15	65.8	E	0.77	
NB T	16	37.6	D	0.19	
SB T	17	41.9	D	0.34	
Total	**90 sec**	**25.9**	**C**	**0.77**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	51.7	D	0.45
WB L	21	51	D	0.54
WB TR	45	16.8	B	0.24
EB TR	50	21.4	C	0.51
SB L	14	50.5	D	0.35
NB L	16	51	D	0.42
NB T	18	37.4	D	0.07
SB T	20	40	D	0.12
Total	**100 sec**	**23.5**	**C**	**0.54**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	102.2	F	0.81
WB L	10	209.5	F	1.22
WB TR	64	10.5	B	0.2
EB TR	64	11.3	B	0.38
SB L	10	68.1	E	0.53
NB L	10	89.6	F	0.73
NB T	16	42.5	D	0.11
SB T	16	43.4	D	0.16
Total	**100 sec**	**28.2**	**C**	**1.22**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	59.5	E	0.54
WB L	21	51	D	0.54
WB TR	52	11.8	B	0.2
EB TR	60	16.3	B	0.44
SB L	11	59.5	E	0.45
NB L	11	71.2	E	0.61
NB T	16	41.6	D	0.09
SB T	16	43.3	D	0.16
Total	**100 sec**	**20.7**	**C**	**0.61**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	56.8	E	0.55
WB L	26	51.7	D	0.68
WB TR	37	20.9	C	0.45
EB TR	48	27.4	C	0.53
SB L	16	55	D	0.54
NB L	21	53.7	D	0.64
NB T	16	38.4	D	0.15
SB T	21	44.7	D	0.3
Total	**100 sec**	**28.1**	**C**	**0.68**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	142.5	F	0.99
WB L	10	576.4	F	2.15
WB TR	64	11.9	B	0.35
EB TR	64	11.4	B	0.33
SB L	10	153.6	F	1.03
NB L	10	369.8	F	1.65
NB T	16	46.2	D	0.29
SB T	16	48.8	D	0.39
Total	**100 sec**	**77.2**	**E**	**2.15**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	60.8	E	0.59
WB L	26	51.7	D	0.68
WB TR	42	16.9	B	0.4
EB TR	54	23.1	C	0.47
SB L	16	55	D	0.54
NB L	16	41.7	E	0.78
NB T	16	43.9	D	0.21
SB T	16	48.2	D	0.37
Total	**100 sec**	**26.5**	**C**	**0.78**

Cycle Length: 120 seconds				
			AM	
Optimizing SplitS				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	62.3	E	0.48
WB L	26	63	E	0.58
WB TR	57	16.2	B	0.21
EB TR	64	20.4	C	0.45
SB L	17	60.6	E	0.37
NB L	19	61.6	E	0.45
NB T	18	46.9	D	0.08
SB T	20	48.8	D	0.13
Total	**120 sec**	**24.6**	**C**	**0.58**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	155.2	F	0.97
WB L	10	311.7	F	1.47
WB TR	84	8.7	A	0.18
EB TR	84	9.4	A	0.34
SB L	10	92.2	F	0.64
NB L	10	132.2	F	0.88
NB T	16	53.1	D	0.13
SB T	16	55.5	E	0.23
Total	**120 sec**	**35.8**	**D**	**1.47**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	63.3	E	0.49
WB L	24	63	E	0.58
WB TR	68	11.5	B	0.19
EB TR	74	14.8	B	0.39
SB L	12	71	E	0.47
NB L	12	83.5	F	0.64
NB T	16	53	D	0.13
SB T	16	54.1	D	0.19
Total	**120 sec**	**21.6**	**C**	**0.64**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	64.1	E	0.54
WB L	30	62.7	E	0.71
WB TR	45	25.1	C	0.46
EB TR	56	30.3	C	0.5
SB L	19	64.6	E	0.56
NB L	27	63.2	E	0.66
NB T	18	43.3	D	0.15
SB T	26	49	D	0.25
Total	**120 sec**	**32.6**	**C**	**0.71**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	213.2	F	1.19
WB L	10	772.1	F	2.58
WB TR	84	9.8	A	0.31
EB TR	84	9.4	A	0.29
SB L	10	230.4	F	1.24
NB L	10	518	F	1.99
NB T	16	58.7	E	0.35
SB T	16	62.8	E	0.46
Total	**120 sec**	**101.8**	**F**	**2.58**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	65.2	E	0.55
WB L	30	62.7	E	0.71
WB TR	53	19.4	B	0.4
EB TR	65	24.1	C	0.43
SB L	19	64.6	E	0.56
NB L	19	76.5	E	0.76
NB T	18	51.9	D	0.23
SB T	18	56	E	0.36
Total	**120 sec**	**29.5**	**C**	**0.76**

LOS B

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	17	48.8	D	0.57	0.68
WB L	17	61.4	E	0.77	**ICU LOS**
WB TR	44	17.7	B	0.4	C
EB TR	44	26.8	C	0.83	
SB L	13	51.9	D	0.51	
NB L	13	63.1	E	0.68	
NB T	16	38.1	D	0.15	
SB T	16	39.3	D	0.22	
Total	**90 sec**	**27.3**	**C**	**0.83**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	185.5	F	1.17	
WB L	10	415.5	F	1.78	
WB TR	54	12.9	B	0.35	
EB TR	54	16.4	B	0.66	
SB L	10	87.3	F	0.77	
NB L	10	152.6	F	1.06	
NB T	16	38.2	D	0.16	
SB T	16	40.7	D	0.28	
Total	**90 sec**	**46.9**	**D**	**1.78**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	17	48.8	D	0.57	
WB L	16	69.1	E	0.82	
WB TR	46	17	B	0.39	
EB TR	45	24.3	C	0.79	
SB L	12	57.1	E	0.56	
NB L	12	73.9	E	0.75	
NB T	16	38.2	D	0.16	
SB T	16	40.7	D	0.28	
Total	**90 sec**	**26.7**	**C**	**0.82**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	55.8	E	0.65	0.68
WB L	22	57.9	E	0.82	**ICU LOS**
WB TR	34	25.7	C	0.7	C
EB TR	41	33.4	C	0.81	
SB L	17	50.2	D	0.6	
NB L	18	63.1	E	0.81	
NB T	16	39.1	D	0.29	
SB T	17	44.7	D	0.45	
Total	**90 sec**	**32.6**	**C**	**0.82**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	202.2	F	1.22	
WB L	10	787.9	F	2.64	
WB TR	54	14.8	B	0.52	
EB TR	54	14.2	B	0.48	
SB L	10	219.7	F	1.28	
NB L	10	522.9	F	2.03	
NB T	16	42.4	D	0.36	
SB T	16	45.8	D	0.47	
Total	**90 sec**	**105.3**	**F**	**2.64**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	15	55.8	E	0.65	
WB L	22	57.9	E	0.82	
WB TR	36	23.6	C	0.66	
EB TR	43	30	C	0.76	
SB L	16	53.2	D	0.64	
NB L	16	85.2	F	0.92	
NB T	16	41.2	D	0.32	
SB T	16	45.8	D	0.47	
Total	**90 sec**	**32**	**C**	**0.92**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	54.6	D	0.59
WB L	20	59.3	E	0.73
WB TR	49	18.6	B	0.39
EB TR	51	27.2	C	0.79
SB L	14	56.8	E	0.52
NB L	15	61.2	E	0.63
NB T	16	42.2	D	0.15
SB T	17	46	D	0.29
Total	**100 sec**	**28**	**C**	**0.79**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	232.5	F	1.29
WB L	10	495.3	F	1.96
WB TR	64	11.6	B	0.32
EB TR	64	14.5	B	0.61
SB L	10	108.5	F	0.84
NB L	10	191.5	F	1.17
NB T	16	44.6	D	0.22
SB T	16	46.8	D	0.31
Total	**100 sec**	**53**	**D**	**1.96**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	52.1	D	0.56
WB L	18	68	E	0.79
WB TR	53	17.7	B	0.38
EB TR	51	23.5	C	0.74
SB L	13	60.7	E	0.56
NB L	13	75.9	E	0.74
NB T	16	43.5	D	0.17
SB T	16	46.7	D	0.31
Total	**100 sec**	**26.8**	**C**	**0.79**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	55.6	E	0.61
WB L	25	58.8	E	0.81
WB TR	38	27	C	0.68
EB TR	45	33.9	C	0.77
SB L	18	56.2	E	0.63
NB L	21	61	E	0.77
NB T	16	41.9	D	0.27
SB T	19	50.1	D	0.46
Total	**100 sec**	**33.5**	**C**	**0.81**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	252.5	F	1.35
WB L	10	908.5	F	2.91
WB TR	64	13.3	B	0.47
EB TR	64	12.7	B	0.44
SB L	10	273.2	F	1.4
NB L	10	615	F	2.24
NB T	16	49.1	D	0.4
SB T	16	53.7	D	0.53
Total	**100 sec**	**120.7**	**F**	**2.91**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	61.5	E	0.67
WB L	25	58.8	E	0.81
WB TR	41	23.2	C	0.62
EB TR	50	30.1	C	0.71
SB L	18	56.2	E	0.63
NB L	18	79.1	E	0.88
NB T	16	46.5	D	0.34
SB T	16	53.1	D	0.52
Total	**100 sec**	**32.2**	**C**	**0.88**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	66.4	E	0.63
WB L	25	66.2	E	0.72
WB TR	61	18.1	B	0.35
EB TR	66	26.7	C	0.72
SB L	16	66.8	E	0.54
NB L	18	68.8	E	0.63
NB T	16	51.4	D	0.16
SB T	18	56.7	E	0.32
Total	**120 sec**	**29.1**	**C**	**0.72**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	342.7	F	1.55
WB L	10	672.9	F	2.35
WB TR	84	9.6	A	0.28
EB TR	84	12	B	0.54
SB L	10	165.6	F	1.01
NB L	10	286.7	F	1.41
NB T	16	56.1	E	0.26
SB T	16	59.5	E	0.37
Total	**120 sec**	**68.4**	**E**	**2.35**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	66.4	E	0.63
WB L	25	66.2	E	0.72
WB TR	65	15.7	B	0.33
EB TR	70	23.1	C	0.68
SB L	13	81.2	F	0.66
NB L	14	92.5	F	0.79
NB T	16	53.2	D	0.19
SB T	17	59.3	E	0.37
Total	**120 sec**	**27.7**	**C**	**0.79**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	67.3	E	0.65
WB L	32	64.4	E	0.8
WB TR	44	28.7	C	0.63
EB TR	56	37.2	D	0.72
SB L	21	66.3	E	0.65
NB L	27	65.8	E	0.75
NB T	17	47.2	D	0.24
SB T	23	56.4	E	0.42
Total	**120 sec**	**36.8**	**D**	**0.8**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	369.1	F	1.62
WB L	10	ERR	F	3.5
WB TR	84	11	B	0.42
EB TR	84	10.5	B	0.4
SB L	10	396	F	1.69
NB L	10	819	F	2.69
NB T	16	63.4	E	0.48
SB T	16	71.9	E	0.63
Total	**120 sec**	**155.9**	**F**	**3.5**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	84	F	0.77
WB L	31	65.5	E	0.8
WB TR	51	21.9	C	0.54
EB TR	66	30.7	C	0.63
SB L	21	66.3	E	0.65
NB L	21	85	F	0.87
NB T	17	55.3	E	0.34
SB T	17	64.5	E	0.55
Total	**120 sec**	**34.2**	**C**	**0.87**

LOS C

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	18	48.7	D	0.59	0.73
WB L	16	82.5	F	0.91	**ICU LOS**
WB TR	46	19.3	B	0.47	D
EB TR	44	29.5	C	0.89	
SB L	12	62	E	0.63	
NB L	12	87.8	F	0.85	
NB T	16	38.5	D	0.18	
SB T	16	41.4	D	0.31	
Total	**90 sec**	**31.1**	**C**	**0.91**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	234.2	F	1.32	
WB L	10	509.9	F	2	
WB TR	54	13.3	B	0.39	
EB TR	54	18.3	B	0.74	
SB L	10	105.4	F	0.87	
NB L	10	192.1	F	1.19	
NB T	16	39.5	D	0.22	
SB T	16	41.4	D	0.31	
Total	**90 sec**	**56**	**E**	**2**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	18	48.7	D	0.59	
WB L	16	82.5	F	0.91	
WB TR	46	19.3	B	0.47	
EB TR	44	29.5	C	0.89	
SB L	12	62	E	0.63	
NB L	12	87.8	F	0.85	
NB T	16	38.5	D	0.18	
SB T	16	41.4	D	0.31	
Total	**90 sec**	**31.1**	**C**	**0.91**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	61.5	E	0.72	0.75
WB L	21	76.8	E	0.94	**ICU LOS**
WB TR	36	27.5	C	0.79	D
EB TR	42	37.6	D	0.9	
SB L	15	64.1	E	0.75	
NB L	17	91.8	F	0.97	
NB T	16	39.5	D	0.33	
SB T	18	48.3	D	0.54	
Total	**90 sec**	**38.1**	**D**	**0.97**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	264.3	F	1.4	
WB L	10	958.3	F	3.03	
WB TR	54	16	B	0.59	
EB TR	54	15.1	B	0.56	
SB L	10	287.8	F	1.46	
NB L	10	650.1	F	2.33	
NB T	16	43.8	D	0.41	
SB T	16	48.3	D	0.54	
Total	**90 sec**	**128.1**	**F**	**3.03**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	70.3	E	0.78	
WB L	21	76.8	E	0.94	
WB TR	36	26.5	C	0.77	
EB TR	43	37.6	D	0.9	
SB L	17	53.4	D	0.67	
NB L	17	91.8	F	0.97	
NB T	16	42.2	D	0.37	
SB T	16	48.3	D	0.54	
Total	**90 sec**	**37.7**	**D**	**0.97**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	54.7	D	0.62
WB L	19	69.6	E	0.82
WB TR	51	19.1	B	0.44
EB TR	51	29.9	C	0.87
SB L	14	59.7	E	0.58
NB L	14	74.1	E	0.75
NB T	16	43.8	D	0.19
SB T	16	47.4	D	0.34
Total	**100 sec**	**30.6**	**C**	**0.87**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	290.2	F	1.45
WB L	10	600.5	F	2.2
WB TR	64	11.9	B	0.36
EB TR	64	16	B	0.68
SB L	10	133.7	F	0.96
NB L	10	240.4	F	1.31
NB T	16	45.2	D	0.25
SB T	16	47.7	D	0.35
Total	**100 sec**	**63.2**	**E**	**2.2**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	54.7	D	0.62
WB L	18	77.4	E	0.87
WB TR	53	18.4	B	0.43
EB TR	52	27.1	C	0.84
SB L	13	65.2	E	0.62
NB L	13	86.6	F	0.82
NB T	16	44	D	0.2
SB T	16	47.7	D	0.35
Total	**100 sec**	**29.9**	**C**	**0.87**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	67	E	0.74
WB L	25	65.6	E	0.88
WB TR	39	27.5	C	0.75
EB TR	48	39.3	D	0.88
SB L	20	54.7	D	0.64
NB L	20	74.6	E	0.88
NB T	16	46.6	D	0.37
SB T	16	56	E	0.58
Total	**100 sec**	**37.2**	**D**	**0.88**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	325	F	1.54
WB L	10	ERR	F	3.34
WB TR	64	14.2	B	0.54
EB TR	64	13.5	B	0.51
SB L	10	351.8	F	1.61
NB L	10	756.1	F	2.56
NB T	16	51	D	0.46
SB T	16	57.5	E	0.6
Total	**100 sec**	**146**	**F**	**3.34**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	67	E	0.74
WB L	24	72	E	0.91
WB TR	41	26.4	C	0.73
EB TR	49	35.4	D	0.84
SB L	19	56.9	E	0.67
NB L	19	83.7	F	0.92
NB T	16	47.5	D	0.39
SB T	16	57.5	E	0.6
Total	**100 sec**	**36.5**	**D**	**0.92**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	66.8	E	0.66
WB L	24	71	E	0.78
WB TR	62	19.2	B	0.4
EB TR	65	30.3	C	0.82
SB L	17	66.8	E	0.56
NB L	18	71.8	E	0.68
NB T	16	52.8	D	0.2
SB T	17	58.5	E	0.37
Total	**120 sec**	**31.7**	**C**	**0.82**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	417.7	F	1.74
WB L	10	801.4	F	2.65
WB TR	84	9.9	A	0.32
EB TR	84	13.1	B	0.61
SB L	10	201	F	1.15
NB L	10	353.2	F	1.58
NB T	16	57.2	E	0.3
SB T	16	61	E	0.42
Total	**120 sec**	**81**	**F**	**2.65**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	22	65.4	E	0.65
WB L	22	78.1	E	0.83
WB TR	67	17.5	B	0.38
EB TR	67	25.8	C	0.77
SB L	15	73.6	E	0.62
NB L	15	90.6	F	0.8
NB T	16	54.8	D	0.23
SB T	16	60.7	E	0.41
Total	**120 sec**	**30**	**C**	**0.83**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	22	66.2	E	0.67
WB L	30	71.8	E	0.87
WB TR	50	28.6	C	0.69
EB TR	58	36.7	D	0.78
SB L	22	66.9	E	0.68
NB L	24	78.1	E	0.86
NB T	16	54.9	D	0.37
SB T	18	72.3	E	0.66
Total	**120 sec**	**38.2**	**D**	**0.87**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	461.9	F	1.85
WB L	10	ERR	F	4.01
WB TR	84	11.7	B	0.48
EB TR	84	11.2	B	0.45
SB L	10	495.5	F	1.93
NB L	10	990.4	F	3.08
NB T	16	66.8	E	0.55
SB T	16	79.5	E	0.72
Total	**120 sec**	**186.7**	**F**	**4.01**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	68.3	E	0.69
WB L	31	68.8	E	0.85
WB TR	51	26.4	C	0.66
EB TR	61	34.9	C	0.75
SB L	21	69.3	E	0.7
NB L	22	90.5	F	0.92
NB T	16	57.7	E	0.41
SB T	17	78	E	0.71
Total	**120 sec**	**37.6**	**D**	**0.92**

LOS D

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	20	47.7	D	0.62	0.82
WB L	17	91.8	F	0.97	ICU LOS
WB TR	45	21.6	C	0.57	D
EB TR	42	67.6	E	1.07	
SB L	12	70	E	0.72	
NB L	12	119.5	F	0.99	
NB T	16	40.1	D	0.26	
SB T	16	42.7	D	0.37	
Total	**90 sec**	**52.7**	**D**	**1.07**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	319.8	F	1.54	
WB L	10	650.1	F	2.33	
WB TR	54	14.1	B	0.45	
EB TR	54	22.8	C	0.87	
SB L	10	139.6	F	1.01	
NB L	10	264.3	F	1.4	
NB T	16	40.1	D	0.26	
SB T	16	42.7	D	0.37	
Total	**90 sec**	**71.4**	**E**	**2.33**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	22	45.9	D	0.6	
WB L	15	151.3	F	1.16	
WB TR	49	20.4	C	0.54	
EB TR	42	36.3	D	0.97	
SB L	10	139.6	F	1.01	
NB L	10	264.3	F	1.4	
NB T	16	40.1	D	0.26	
SB T	16	42.7	D	0.37	
Total	**90 sec**	**45.4**	**D**	**1.4**	
			PM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	14	78.9	E	0.85	0.8
WB L	21	98.5	F	1.03	ICU LOS
WB TR	35	31.5	C	0.87	D
EB TR	42	59.5	E	1.02	
SB L	16	62.6	E	0.76	
NB L	18	91.4	F	0.98	
NB T	16	40	D	0.36	
SB T	18	50.9	D	0.59	
Total	**90 sec**	**48.8**	**D**	**1.03**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	315.8	F	1.53	
WB L	10	ERR	F	3.33	
WB TR	54	16.9	B	0.65	
EB TR	54	16	B	0.61	
SB L	10	348.5	F	1.61	
NB L	10	747.8	F	2.55	
NB T	16	44.8	D	0.44	
SB T	16	50.9	D	0.59	
Total	**90 sec**	**146.3**	**F**	**3.33**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	14	78.9	E	0.85	
WB L	20	120.9	F	1.11	
WB TR	38	27.8	C	0.83	
EB TR	44	38.3	D	0.92	
SB L	16	62.6	E	0.76	
NB L	16	148.1	F	1.16	
NB T	16	44	D	0.43	
SB T	16	50.9	D	0.59	
Total	**90 sec**	**44.9**	**D**	**1.16**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	21	54	D	0.65
WB L	19	83.7	F	0.92
WB TR	52	20.6	C	0.52
EB TR	50	48.2	D	1.01
SB L	13	73	E	0.71
NB L	13	114.7	F	0.96
NB T	16	45.9	D	0.28
SB T	16	49.4	D	0.41
Total	**100 sec**	**42.5**	**D**	**1.01**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	388.1	F	1.7
WB L	10	756.1	F	2.56
WB TR	64	12.6	B	0.42
EB TR	64	19	B	0.8
SB L	10	174.7	F	1.11
NB L	10	325	F	1.54
NB T	16	46.1	D	0.28
SB T	16	49.4	D	0.41
Total	**100 sec**	**79.6**	**E**	**2.56**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	23	52.1	D	0.63
WB L	17	126.6	F	1.08
WB TR	55	20.2	C	0.51
EB TR	49	34	C	0.95
SB L	12	87.5	F	0.8
NB L	12	156.6	F	1.1
NB T	16	46.1	D	0.28
SB T	16	49.4	D	0.41
Total	**100 sec**	**38.9**	**D**	**1.1**
			PM	
Optimizing SplitS				
	Splits	Delay	LOS	V/C Ratio
EB L	17	65.6	E	0.75
WB L	24	83.9	F	0.97
WB TR	40	31.3	C	0.84
EB TR	47	48.2	D	0.96
SB L	17	69	E	0.78
NB L	20	85.4	F	0.94
NB T	16	44.4	D	0.37
SB T	19	61.4	E	0.66
Total	**100 sec**	**43.8**	**D**	**0.97**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	383.5	F	1.69
WB L	10	ERR	F	3.66
WB TR	64	15	B	0.6
EB TR	64	14.2	B	0.56
SB L	10	420.3	F	1.78
NB L	10	864.1	F	2.81
NB T	16	52.4	D	0.49
SB T	16	61.4	E	0.66
Total	**100 sec**	**166.1**	**F**	**3.66**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	16	72.8	E	0.79
WB L	24	83.9	F	0.97
WB TR	42	27.5	C	0.78
EB TR	50	39.5	D	0.91
SB L	18	63.2	E	0.74
NB L	18	126.9	F	1.09
NB T	16	50.2	D	0.45
SB T	16	61.4	E	0.66
Total	**100 sec**	**41.8**	**D**	**1.09**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	23	66.3	E	0.69
WB L	22	90.5	F	0.92
WB TR	66	20	B	0.47
EB TR	65	35.2	D	0.92
SB L	15	79.5	E	0.7
NB L	16	94.5	F	0.85
NB T	16	55.8	E	0.3
SB T	17	63.7	E	0.49
Total	**120 sec**	**36.4**	**D**	**0.92**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	540.7	F	2.04
WB L	10	990.4	F	3.08
WB TR	84	10.4	B	0.37
EB TR	84	15.2	B	0.71
SB L	10	262.5	F	1.34
NB L	10	461.9	F	1.85
NB T	16	58.5	E	0.34
SB T	16	63.9	E	0.49
Total	**120 sec**	**100.6**	**F**	**3.08**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	25	64.1	E	0.67
WB L	21	102.7	F	0.97
WB TR	68	19.7	B	0.46
EB TR	64	31.7	C	0.9
SB L	15	79.5	E	0.7
NB L	15	111.5	F	0.93
NB T	16	57.8	E	0.33
SB T	16	63.9	E	0.49
Total	**120 sec**	**35.6**	**D**	**0.97**
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	21	70.8	E	0.72
WB L	31	73.9	E	0.9
WB TR	48	31.5	C	0.77
EB TR	58	45	D	0.9
SB L	22	69.8	E	0.73
NB L	25	79.7	E	0.88
NB T	16	54.6	D	0.39
SB T	19	79.3	E	0.74
Total	**120 sec**	**42.7**	**D**	**0.9**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	535	F	2.03
WB L	10	ERR	F	4.41
WB TR	84	12.3	B	0.53
EB TR	84	11.7	B	0.5
SB L	10	580.6	F	2.14
NB L	10	ERR	F	3.38
NB T	16	69.4	E	0.59
SB T	16	87.5	F	0.79
Total	**120 sec**	**211**	**F**	**4.41**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	21	70.8	E	0.72
WB L	31	73.9	E	0.9
WB TR	51	28.4	C	0.73
EB TR	61	39	D	0.84
SB L	21	71.3	E	0.75
NB L	22	107.7	F	1
NB T	16	60.1	E	0.47
SB T	17	87.5	F	0.79
Total	**120 sec**	**41.4**	**D**	**1**

LOS E

Cycle Length: 90 seconds					
			AM		
Optimizing SplitS					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	20	49.2	D	0.66	0.8
WB L	11	109.4	F	0.92	**ICU LOS**
WB TR	50	18.8	B	1.04	D
EB TR	41	53.1	D	0.28	
SB L	13	65.1	E	0.7	
NB L	13	104.7	F	0.96	
NB T	16	40.5	D	0.27	
SB T	16	43.6	D	0.4	
Total	**90 sec**	**47.6**	**D**	**1.04**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	377.6	F	1.68	
WB L	10	166.9	F	1.11	
WB TR	54	11.7	B	0.22	
EB TR	54	29.9	C	0.95	
SB L	10	163.9	F	1.1	
NB L	10	315.8	F	1.53	
NB T	16	40.7	D	0.28	
SB T	16	43.6	D	0.4	
Total	**90 sec**	**57.7**	**E**	**1.68**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	21	47.6	D	0.64	
WB L	10	166.9	F	1.11	
WB TR	53	17.7	B	0.27	
EB TR	42	33.7	C	0.97	
SB L	11	107.4	F	0.92	
NB L	11	210	F	1.27	
NB T	16	40.7	D	0.28	
SB T	16	43.6	D	0.4	
Total	**90 sec**	**42**	**D**	**1.27**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	97.3	F	0.94	0.93
WB L	21	135.5	F	1.16	**ICU LOS**
WB TR	36	37.9	D	0.95	F
EB TR	43	85.8	F	1.1	
SB L	17	62.1	E	0.78	
NB L	17	153.6	F	1.18	
NB T	16	45.4	D	0.47	
SB T	16	55.1	D	0.66	
Total	**90 sec**	**66.2**	**E**	**1.18**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	385.9	F	1.7	
WB L	10	ERR	F	3.71	
WB TR	54	18.5	B	0.73	
EB TR	54	17.3	B	0.68	
SB L	10	423.9	F	1.8	
NB L	10	877.4	F	2.85	
NB T	16	46.6	D	0.5	
SB T	16	55.1	E	0.66	
Total	**90 sec**	**170.1**	**F**	**3.71**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	97.3	F	0.94	
WB L	20	165.6	F	1.23	
WB TR	39	31.2	C	0.9	
EB TR	45	50.7	D	1	
SB L	15	83.1	F	0.89	
NB L	15	247.3	F	1.42	
NB T	16	46.6	D	0.5	
SB T	16	55.1	E	0.66	
Total	**90 sec**	**59.7**	**E**	**1.42**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	22	54	D	0.67
WB L	12	101.5	F	0.88
WB TR	58	18.3	B	0.26
EB TR	48	36.7	D	0.97
SB L	14	69.1	E	0.71
NB L	14	105	F	0.94
NB T	16	46.4	D	0.3
SB T	16	50.6	D	0.45
Total	**100 sec**	**37.7**	**D**	**0.97**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	452.9	F	1.85
WB L	10	209.5	F	1.22
WB TR	64	10.5	B	0.2
EB TR	64	22.3	C	0.87
SB L	10	205.9	F	1.21
NB L	10	383.5	F	1.69
NB T	16	46.8	D	0.31
SB T	16	50.6	D	0.45
Total	**100 sec**	**61**	**E**	**1.85**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	23	53	D	0.66
WB L	11	143.5	F	1.03
WB TR	60	17.9	B	0.25
EB TR	48	29.9	C	0.94
SB L	13	78.5	E	0.77
NB L	13	137.4	F	1.06
NB T	16	46.7	D	0.31
SB T	16	50.6	D	0.45
Total	**100 sec**	**36**	**D**	**1.06**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	100.9	F	0.94
WB L	24	112.9	F	1.08
WB TR	40	34.4	C	0.9
EB TR	49	78.9	E	1.08
SB L	18	68.9	E	0.8
NB L	20	111.2	F	1.05
NB T	16	47.4	D	0.44
SB T	18	67.7	E	0.74
Total	**100 sec**	**59.6**	**E**	**1.08**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	462.3	F	1.88
WB L	10	ERR	F	4.09
WB TR	64	16.3	B	0.67
EB TR	64	15.3	B	0.63
SB L	10	504.8	F	1.98
NB L	10	ERR	F	3.13
NB T	16	54.9	D	0.55
SB T	16	67.7	E	0.74
Total	**100 sec**	**192.2**	**F**	**4.09**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	81.5	F	0.86
WB L	23	133	F	1.14
WB TR	44	30.2	C	0.86
EB TR	51	44.6	D	0.96
SB L	17	76.8	E	0.85
NB L	17	208.3	F	1.32
NB T	16	54.1	D	0.54
SB T	16	67.7	E	0.74
Total	**100 sec**	**52.9**	**D**	**1.32**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	25	65.4	E	0.7
WB L	15	85.6	F	0.76
WB TR	70	19.3	B	0.24
EB TR	60	35.1	D	0.94
SB L	18	69.6	E	0.64
NB L	19	77.6	E	0.77
NB T	16	55.1	E	0.3
SB T	17	63.2	E	0.49
Total	**120 sec**	**36.3**	**D**	**0.94**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	620.8	F	2.23
WB L	10	311.7	F	1.47
WB TR	84	8.7	A	0.18
EB TR	84	17	B	0.78
SB L	10	306.7	F	1.46
NB L	10	535	F	2.03
NB T	16	59.5	E	0.37
SB T	16	66.1	E	0.54
Total	**120 sec**	**76**	**E**	**2.23**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	26	64.4	E	0.69
WB L	13	120.5	F	0.92
WB TR	75	17.7	B	0.23
EB TR	62	26.6	C	0.88
SB L	16	77.5	E	0.71
NB L	16	108	F	0.93
NB T	16	58.5	E	0.35
SB T	16	66.1	E	0.54
Total	**120 sec**	**33.1**	**C**	**0.93**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	78.4	E	0.8
WB L	30	91.4	F	0.99
WB TR	49	35.5	D	0.86
EB TR	59	64.4	E	1.02
SB L	20	81.8	F	0.83
NB L	25	90.2	F	0.95
NB T	16	54.5	D	0.42
SB T	21	101.6	F	0.88
Total	**120 sec**	**53.4**	**D**	**1.02**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	632.4	F	2.26
WB L	10	ERR	F	4.92
WB TR	84	13.3	B	0.59
EB TR	84	12.6	B	0.56
SB L	10	684.5	F	2.38
NB L	10	ERR	F	3.77
NB T	16	74.3	E	0.66
SB T	16	101.6	F	0.88
Total	**120 sec**	**242.5**	**F**	**4.92**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	84.6	F	0.83
WB L	29	102.6	F	1.03
WB TR	23	30.5	C	0.81
EB TR	63	44.8	D	0.93
SB L	22	72.6	E	0.77
NB L	22	137.3	F	1.11
NB T	16	66.1	E	0.58
SB T	16	101.6	F	0.88
Total	**120 sec**	**48.5**	**D**	**1.11**

LOS F

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	20	50.9	D	0.7	0.93
WB L	16	183.9	F	1.26	**ICU LOS**
WB TR	47	23.2	C	0.67	F
EB TR	43	124.7	F	1.21	
SB L	11	126.1	F	0.99	
NB L	11	250.5	F	1.38	
NB T	16	41.2	D	0.3	
SB T	16	44.5	D	0.43	
Total	**90 sec**	**92.2**	**F**	**1.38**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	436.7	F	1.83	
WB L	10	846.1	F	2.78	
WB TR	54	15.2	B	0.54	
EB TR	54	48.8	D	1.03	
SB L	10	192.1	F	1.19	
NB L	10	369.2	F	1.66	
NB T	16	41.2	D	0.3	
SB T	16	44.5	D	0.43	
Total	**90 sec**	**103.3**	**F**	**2.78**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	20	50.9	D	0.7	
WB L	12	487.7	F	1.97	
WB TR	52	22.2	C	0.65	
EB TR	44	66.4	E	1.08	
SB L	10	192.1	F	1.19	
NB L	10	369.2	F	1.66	
NB T	16	41.2	D	0.3	
SB T	16	44.5	D	0.43	
Total	**90 sec**	**82.9**	**F**	**1.97**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	117.8	F	1.03	0.98
WB L	20	202.3	F	1.33	**ICU LOS**
WB TR	37	54	D	1.02	F
EB TR	43	104.3	F	1.15	
SB L	17	67.3	E	0.83	
NB L	17	187.4	F	1.28	
NB T	16	47.4	D	0.52	
SB T	16	59.1	E	0.71	
Total	**90 sec**	**85.2**	**F**	**1.33**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	449.5	F	1.86	
WB L	10	ERR	F	4	
WB TR	54	20	C	0.78	
EB TR	54	18.5	B	0.74	
SB L	10	483.9	F	1.94	
NB L	10	976.3	F	3.07	
NB T	16	48.3	D	0.54	
SB T	16	59.1	E	0.71	
Total	**90 sec**	**188.6**	**F**	**4**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	117.8	F	1.03	
WB L	19	242.8	F	1.43	
WB TR	41	35.1	D	0.94	
EB TR	46	53.1	D	1.02	
SB L	14	129.7	F	1.07	
NB L	14	366.9	F	1.7	
NB T	16	48.3	D	0.54	
SB T	16	59.1	E	0.71	
Total	**90 sec**	**75.5**	**E**	**1.7**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	23	53.9	D	0.69
WB L	17	195.8	F	1.28
WB TR	55	22.7	C	0.62
EB TR	49	88.1	F	1.12
SB L	12	115.4	F	0.94
NB L	12	225.8	F	1.31
NB T	16	47.4	D	0.34
SB T	16	52	D	0.48
Total	**100 sec**	**73.4**	**E**	**1.31**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	519.1	F	2.01
WB L	10	972.7	F	3.06
WB TR	64	13.5	B	0.49
EB TR	64	28.7	C	0.95
SB L	10	240.4	F	1.31
NB L	10	443.6	F	1.83
NB T	16	47.4	D	0.34
SB T	16	52	D	0.48
Total	**100 sec**	**105.4**	**F**	**3.06**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	23	53.9	D	0.69
WB L	14	375.2	F	1.71
WB TR	59	21.9	C	0.61
EB TR	50	53	D	1.04
SB L	11	163.5	F	1.1
NB L	11	317.3	F	1.54
NB T	16	47.4	D	0.34
SB T	16	52	D	0.48
Total	**100 sec**	**68.4**	**E**	**1.71**
			PM	
Optimizing SplitS				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	121.2	F	1.03
WB L	24	140.1	F	1.17
WB TR	41	39	D	0.95
EB TR	50	97.8	F	1.13
SB L	19	67.4	E	0.81
NB L	19	165.8	F	1.21
NB T	16	54.9	D	0.57
SB T	16	74.1	E	0.8
Total	**100 sec**	**73.1**	**E**	**1.21**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	533.4	F	2.04
WB L	10	ERR	F	4.4
WB TR	64	17.4	B	0.72
EB TR	64	16.2	B	0.68
SB L	10	571.6	F	2.13
NB L	10	ERR	F	3.38
NB T	16	57.5	E	0.6
SB T	16	74.1	E	0.8
Total	**100 sec**	**212.4**	**F**	**4.4**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	95	F	0.93
WB L	22	193.7	F	1.3
WB TR	46	32.9	C	0.91
EB TR	52	47.5	F	0.98
SB L	16	104.4	F	0.97
NB L	16	301	F	1.54
NB T	16	57.5	E	0.6
SB T	16	74.1	E	0.8
Total	**100 sec**	**65.2**	**E**	**1.54**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	25	66.6	E	0.73
WB L	22	129.3	F	1.08
WB TR	66	22.8	C	0.57
EB TR	63	81.9	F	1.1
SB L	16	82.2	F	0.75
NB L	16	126.9	F	1.01
NB T	16	59.7	E	0.39
SB T	16	68.6	E	0.58
Total	**120 sec**	**64**	**E**	**1.1**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	702	F	2.42
WB L	10	ERR	F	3.68
WB TR	84	11.2	B	0.44
EB TR	84	19.6	B	0.85
SB L	10	353.2	F	1.58
NB L	10	609.3	F	2.2
NB T	16	60.6	E	0.41
SB T	16	68.6	E	0.58
Total	**120 sec**	**128.5**	**F**	**3.68**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	27	64.5	E	0.71
WB L	19	213	F	1.31
WB TR	72	21	C	0.55
EB TR	64	44.5	D	1
SB L	13	137	F	0.99
NB L	13	257	F	1.38
NB T	16	60.6	E	0.41
SB T	16	68.6	R	0.58
Total	**120 sec**	**53.9**	**D**	**1.38**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	92.4	F	0.89
WB L	30	110	F	1.06
WB TR	50	37.6	D	0.91
EB TR	61	80.4	F	1.07
SB L	21	81.2	F	0.84
NB L	24	123	F	1.07
NB T	16	60.3	E	0.53
SB T	19	116.4	F	0.95
Total	**120 sec**	**63.3**	**E**	**1.07**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	719.4	F	2.46
WB L	10	ERR	F	5.3
WB TR	84	14.1	B	0.64
EB TR	84	13.3	B	0.6
SB L	10	766.2	F	2.57
NB L	10	ERR	F	4.07
NB T	16	79.5	E	0.72
SB T	16	116.4	F	0.95
Total	**120 sec**	**266.9**	**F**	**5.3**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	92.4	F	0.89
WB L	29	124.6	F	1.11
WB TR	55	31.1	C	0.85
EB TR	65	47.8	D	0.96
SB L	20	88.7	F	0.88
NB L	20	229.3	F	1.36
NB T	16	76.5	E	0.7
SB T	16	116.4	F	0.95
Total	**120 sec**	**57.2**	**E**	**1.36**

Test 3: LOS A

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	48.1	D	0.46	0.49
WB L	15	53.1	D	0.61	**ICU LOS**
WB TR	33	24	C	0.34	A
EB TR	34	28.1	C	0.66	
SB LT	26	55.8	E	0.51	
NB LT	16	43.1	D	0.31	
Total	**90 sec**	**28.5**	**C**	**0.66**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	82.8	F	0.73	
WB L	10	166.9	F	1.11	
WB TR	48	14.5	B	0.24	
EB TR	48	16.7	B	0.47	
SB LT	16	160.3	F	0.93	
NB LT	16	43.1	D	0.31	
Total	**90 sec**	**29.8**	**C**	**1.11**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	13	51.1	D	0.49	
WB L	15	53.1	D	0.61	
WB TR	43	16.2	B	0.25	
EB TR	45	19	B	0.49	
SB LT	16	160.3	F	0.93	
NB LT	16	43.1	D	0.31	
Total	**90 sec**	**24.5**	**C**	**0.93**	
			PM		
Optimizing SplitS					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	10	111.9	F	0.9	0.54
WB L	15	99.3	F	0.97	**ICU LOS**
WB TR	27	32.6	C	0.72	A
EB TR	32	40.7	D	0.84	
SB LT	32	136.2	F	0.99	
NB LT	16	67.3	E	0.71	
Total	**90 sec**	**44.4**	**D**	**0.99**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	111.9	F	0.9	
WB L	10	488.2	F	1.95	
WB TR	48	17.3	B	0.44	
EB TR	48	16.6	B	0.41	
SB LT	16	489.7	F	1.87	
NB LT	16	67.3	E	0.71	
Total	**90 sec**	**71**	**E**	**1.95**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	12	63.5	E	0.65	
WB L	18	60.4	E	0.78	
WB TR	32	24.1	C	0.54	
EB TR	38	30.4	C	0.66	
SB LT	24	139.4	F	0.99	
NB LT	16	67.3	E	0.71	
Total	**90 sec**	**35.4**	**D**	**0.99**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	55.9	E	0.5
WB L	15	62.7	E	0.66
WB TR	35	27.5	C	0.35
EB TR	36	35	D	0.75
SB LT	34	64.3	E	0.56
NB LT	16	49.9	D	0.34
Total	**100 sec**	**34.1**	**C**	**0.75**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	102.2	F	0.81
WB L	10	209.5	F	1.22
WB TR	58	13.7	B	0.22
EB TR	58	14.9	B	0.42
SB LT	16	203	F	1.05
NB LT	16	49.9	D	0.34
Total	**100 sec**	**32.9**	**C**	**1.22**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	55.9	E	0.5
WB L	16	58.6	E	0.62
WB TR	48	17.4	B	0.25
EB TR	50	21.4	C	0.51
SB LT	20	71.7	E	0.57
NB LT	16	49.9	D	0.34
Total	**100 sec**	**25.2**	**C**	**0.62**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	76.4	E	0.71
WB L	17	85.6	F	0.9
WB TR	28	38.6	D	0.77
EB TR	33	49	D	0.89
SB LT	39	173.4	F	1.1
NB LT	16	83.6	F	0.78
Total	**100 sec**	**49.2**	**D**	**1.1**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	142.5	F	0.99
WB L	10	576.4	F	2.15
WB TR	58	15.4	B	0.39
EB TR	58	14.8	B	0.37
SB LT	16	592.6	F	2.1
NB LT	16	83.6	F	0.78
Total	**100 sec**	**81.8**	**F**	**2.15**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	66.6	E	0.64
WB L	21	59.5	E	0.75
WB TR	32	28	C	0.56
EB TR	40	36.2	D	0.7
SB LT	28	177	F	1.1
NB LT	19	58	E	0.6
Total	**100 sec**	**38.5**	**D**	**1.1**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	68.7	E	0.55
WB L	18	69.8	E	0.64
WB TR	42	30.5	C	0.33
EB TR	45	38.9	D	0.71
SB LT	44	89.4	F	0.68
NB LT	16	64.4	E	0.41
Total	**120 sec**	**38.7**	**D**	**0.71**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	155.2	F	0.97
WB L	10	311.7	F	1.47
WB TR	78	11.3	B	0.19
EB TR	78	12.3	B	0.37
SB LT	16	288.1	F	1.26
NB LT	16	64.4	E	0.41
Total	**120 sec**	**40.8**	**D**	**1.47**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	66.2	E	0.52
WB L	19	67.3	E	0.62
WB TR	64	15.6	B	0.21
EB TR	67	19.6	B	0.44
SB LT	21	100.6	F	0.68
NB LT	16	64.4	E	0.41
Total	**120 sec**	**26.1**	**C**	**0.68**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	90.9	F	0.75
WB L	19	98.2	F	0.92
WB TR	30	49.5	D	0.82
EB TR	36	70.4	E	0.97
SB LT	54	258.8	F	1.32
NB LT	17	107.3	F	0.86
Total	**120 sec**	**65.3**	**E**	**1.32**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	213.2	F	1.19
WB L	10	772.1	F	2.58
WB TR	78	12.8	B	0.34
EB TR	78	12.3	B	0.32
SB LT	16	789.8	F	2.53
NB LT	16	129.3	F	0.94
Total	**120 sec**	**106.6**	**F**	**2.58**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	80.9	F	0.69
WB L	24	70.6	E	0.78
WB TR	48	25.4	C	0.47
EB TR	58	31.3	C	0.52
SB LT	28	265.2	F	1.32
NB LT	20	74.2	E	0.67
Total	**120 sec**	**42**	**D**	**1.32**

LOS B

Cycle Length: 90 seconds					
			AM		
Optimizing SplitS					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	17	48.8	D	0.57	0.66
WB L	14	106.7	F	0.98	**ICU LOS**
WB TR	40	23.2	C	0.48	C
EB TR	37	37.8	D	0.94	
SB LT	20	147.2	F	0.99	
NB LT	16	50.9	D	0.5	
Total	**90 sec**	**39.3**	**D**	**0.99**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	185.5	F	1.17	
WB L	10	415.5	F	1.78	
WB TR	48	16.8	B	0.4	
EB TR	48	22.2	C	0.76	
SB LT	16	343.1	F	1.5	
NB LT	16	50.9	D	0.5	
Total	**90 sec**	**54**	**D**	**1.78**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	17	48.8	D	0.57	
WB L	14	106.7	F	0.95	
WB TR	41	22.3	C	0.46	
EB TR	38	34.2	C	0.91	
SB LT	19	233.4	F	1.23	
NB LT	16	50.9	D	0.5	
Total	**90 sec**	**39**	**D**	**1.23**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	11	132.4	F	1.02	0.65
WB L	16	162.3	F	1.2	**ICU LOS**
WB TR	29	39.4	D	0.9	C
EB TR	34	67.6	E	1.03	
SB LT	29	244.6	F	1.33	
NB LT	16	177.6	F	0.98	
Total	**90 sec**	**67.9**	**E**	**1.33**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	202.2	F	1.22	
WB L	10	787.9	F	2.64	
WB TR	48	19.5	B	0.59	
EB TR	48	18.6	B	0.56	
SB LT	16	784	F	2.57	
NB LT	16	117.6	F	0.98	
Total	**90 sec**	**110.5**	**F**	**2.64**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	13	71.8	E	0.77	
WB L	17	126	F	1.1	
WB TR	32	33.7	C	0.84	
EB TR	36	41.6	D	0.91	
SB LT	25	245.6	F	1.33	
NB LT	16	117.6	F	0.98	
Total	**90 sec**	**56.8**	**E**	**1.33**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	54.6	D	0.59
WB L	16	87	F	0.89
WB TR	44	25.6	C	0.49
EB TR	42	39.7	D	0.93
SB LT	24	126.3	F	0.9
NB LT	16	60.6	E	0.56
Total	**100 sec**	**39.4**	**D**	**0.93**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	232.5	F	1.29
WB L	10	495.3	F	1.96
WB TR	58	15	B	0.35
EB TR	58	19.2	B	0.68
SB LT	16	423.3	F	1.68
NB LT	16	60.6	E	0.56
Total	**100 sec**	**60.2**	**E**	**1.96**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	53	D	0.57
WB L	16	87	F	0.89
WB TR	47	23.4	C	0.46
EB TR	44	32.1	C	0.86
SB LT	21	150.1	F	0.99
NB LT	16	60.6	E	0.56
Total	**100 sec**	**36.6**	**D**	**0.99**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	121.3	F	0.97
WB L	17	173.5	F	1.22
WB TR	29	60.9	E	1
EB TR	34	112	F	1.14
SB LT	38	306.5	F	1.48
NB LT	16	153.1	F	1.09
Total	**100 sec**	**93.7**	**F**	**1.48**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	252.5	F	1.35
WB L	10	908.5	F	2.91
WB TR	58	17.3	B	0.53
EB TR	58	16.5	B	0.5
SB LT	16	926.8	F	2.88
NB LT	16	153.1	F	1.09
Total	**100 sec**	**127.3**	**F**	**2.91**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	14	75.6	E	0.77
WB L	19	112.6	F	1.04
WB TR	35	35.2	D	0.81
EB TR	40	44.2	D	0.9
SB LT	28	308.5	F	1.48
NB LT	18	99.8	F	0.91
Total	**100 sec**	**56.5**	**E**	**1.48**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	66.4	E	0.63
WB L	18	97.7	F	0.91
WB TR	51	30.3	C	0.49
EB TR	49	47.2	D	0.94
SB LT	35	187.7	F	1.08
NB LT	16	83.2	F	0.67
Total	**120 sec**	**47**	**D**	**1.08**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	342.7	F	1.55
WB L	10	672.9	F	2.35
WB TR	78	12.5	B	0.31
EB TR	78	15.6	B	0.59
SB LT	16	579.4	F	2.03
NB LT	16	83.2	F	0.67
Total	**120 sec**	**75.7**	**E**	**2.35**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	65.2	E	0.61
WB L	20	81.2	F	0.82
WB TR	60	22.2	C	0.39
EB TR	59	30.3	C	0.77
SB LT	24	191.6	F	1.08
NB LT	16	83.2	F	0.67
Total	**120 sec**	**36.9**	**D**	**1.08**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	188.9	F	1.17
WB L	18	228.4	F	1.35
WB TR	34	63.2	E	0.98
EB TR	40	108.9	F	1.12
SB LT	52	437.2	F	1.78
NB LT	16	237.2	F	1.31
Total	**120 sec**	**108.1**	**F**	**1.78**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	369.1	F	1.62
WB L	10	ERR	F	3.5
WB TR	78	14.2	B	0.46
EB TR	78	13.6	B	0.43
SB LT	16	ERR	F	3.37
NB LT	16	237.2	F	1.31
Total	**120 sec**	**162.8**	**F**	**3.5**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	84	F	0.77
WB L	25	83.2	F	0.91
WB TR	43	34.2	C	0.71
EB TR	52	44.1	D	0.83
SB LT	32	440.2	F	1.78
NB LT	20	113.8	F	0.94
Total	**120 sec**	**59.1**	**E**	**1.78**

LOS C

Cycle Length: 90 seconds					
			AM		
Optimizing SplitS					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	17	50.7	D	0.62	0.71
WB L	15	105.6	F	0.99	**ICU LOS**
WB TR	38	26.7	C	0.6	C
EB TR	36	91.3	F	1.12	
SB LT	21	180.6	F	1.11	
NB LT	16	55.1	E	0.57	
Total	**90 sec**	**68.6**	**E**	**1.12**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	234.2	F	1.32	
WB L	10	509.9	F	2	
WB TR	48	17.4	B	0.45	
EB TR	48	25.6	C	0.85	
SB LT	16	427.9	F	1.72	
NB LT	16	55.1	E	0.57	
Total	**90 sec**	**64.7**	**E**	**2**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	16	54.1	D	0.65	
WB L	14	139.5	F	1.11	
WB TR	44	21.6	C	0.51	
EB TR	42	35.5	D	0.94	
SB LT	16	427.9	F	1.72	
NB LT	16	55.1	E	0.57	
Total	**90 sec**	**45.9**	**D**	**1.72**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	10	264.3	F	1.4	0.71
WB L	15	284.2	F	1.51	**ICU LOS**
WB TR	30	53.3	D	0.99	C
EB TR	35	101.2	F	1.13	
SB LT	29	316.9	F	1.52	
NB LT	16	162.1	F	1.15	
Total	**90 sec**	**102.6**	**F**	**1.52**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	264.3	F	1.4	
WB L	10	958.3	F	3.03	
WB TR	48	21.1	C	0.68	
EB TR	48	20	B	0.64	
SB LT	16	944.6	F	2.93	
NB LT	16	162.1	F	1.15	
Total	**90 sec**	**134.5**	**F**	**3.03**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	12	119.5	F	0.99	
WB L	16	228.4	F	1.38	
WB TR	33	40	D	0.93	
EB TR	37	56.5	E	1	
SB LT	25	334.1	F	1.57	
NB LT	16	162.1	F	1.15	
Total	**90 sec**	**81.1**	**F**	**1.57**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	54.7	D	0.62
WB L	16	112.1	F	1.01
WB TR	45	26.3	C	0.55
EB TR	42	56.4	E	1.02
SB LT	23	152.6	F	1
NB LT	16	66.6	E	0.63
Total	**100 sec**	**51.5**	**D**	**1.02**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	290.2	F	1.45
WB L	10	600.5	F	2.2
WB TR	58	15.5	B	0.4
EB TR	58	21.4	C	0.76
SB LT	16	501.3	F	1.88
NB LT	16	66.6	E	0.63
Total	**100 sec**	**71.1**	**E**	**2.2**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	56.9	E	0.64
WB L	15	142.6	F	1.11
WB TR	48	24.2	C	0.51
EB TR	45	38.8	D	0.95
SB LT	21	268.5	F	1.34
NB LT	16	66.6	E	0.63
Total	**100 sec**	**46.4**	**D**	**1.34**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	224.5	F	1.29
WB L	16	292.6	F	1.52
WB TR	32	66.7	E	1.03
EB TR	37	114.8	F	1.16
SB LT	36	391	F	1.69
NB LT	16	211.4	F	1.27
Total	**100 sec**	**114.4**	**F**	**1.69**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	325	F	1.54
WB L	10	ERR	F	3.34
WB TR	58	18.6	B	0.61
EB TR	58	17.7	B	0.57
SB LT	16	ERR	F	3.29
NB LT	16	211.4	F	1.27
Total	**100 sec**	**154.3**	**F**	**3.34**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	114.7	F	0.96
WB L	18	196.5	F	1.29
WB TR	37	37.8	D	0.89
EB TR	42	51	D	0.97
SB LT	27	392.5	F	1.69
NB LT	18	138	F	1.06
Total	**100 sec**	**76.3**	**E**	**1.69**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	66.8	E	0.66
WB L	19	103.2	F	0.95
WB TR	52	30.4	C	0.53
EB TR	50	67	E	1.04
SB LT	33	224.1	F	1.2
NB LT	16	93.4	F	0.75
Total	**120 sec**	**58.6**	**E**	**1.2**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	417.7	F	1.74
WB L	10	801.4	F	2.65
WB TR	78	12.9	B	0.34
EB TR	78	17.1	B	0.66
SB LT	16	672.2	F	2.26
NB LT	16	93.4	F	0.75
Total	**120 sec**	**88.7**	**F**	**2.65**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	71.7	E	0.7
WB L	19	103.2	F	0.95
WB TR	61	22.6	C	0.44
EB TR	61	34	C	0.87
SB LT	24	226.7	F	1.2
NB LT	16	93.4	F	0.75
Total	**120 sec**	**43.2**	**D**	**1.2**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	243.9	F	1.33
WB L	17	362.1	F	1.68
WB TR	34	120.8	F	1.16
EB TR	39	173.7	F	1.29
SB LT	51	543.2	F	2.03
NB LT	18	216.2	F	1.27
Total	**120 sec**	**162.3**	**F**	**2.03**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	461.9	F	1.85
WB L	10	ERR	F	4.01
WB TR	78	15.2	B	0.52
EB TR	78	14.5	B	0.49
SB LT	16	ERR	F	3.86
NB LT	16	320.5	F	1.53
Total	**120 sec**	**196.1**	**F**	**4.01**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	111.5	F	0.93
WB L	22	160.3	F	1.18
WB TR	43	37	D	0.81
EB TR	53	46.3	D	0.89
SB LT	31	545.6	F	2.03
NB LT	21	131.8	F	1.02
Total	**120 sec**	**75.4**	**E**	**2.03**

LOS D

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	67.6	E	0.79	0.8
WB L	14	201	F	1.29	**ICU LOS**
WB TR	39	27.5	C	0.68	D
EB TR	38	152.5	F	1.27	
SB LT	21	298	F	1.44	
NB LT	16	64.3	E	0.68	
Total	**90 sec**	**108.7**	**F**	**1.44**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	319.8	F	1.54	
WB L	10	650.1	F	2.33	
WB TR	48	18.4	B	0.52	
EB TR	48	42	D	0.99	
SB LT	16	543.6	F	2	
NB LT	16	64.3	E	0.68	
Total	**90 sec**	**86.6**	**F**	**2.33**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	17	55.1	E	0.7	
WB L	12	353.3	F	1.65	
WB TR	46	23.8	C	0.61	
EB TR	41	57.5	E	1.04	
SB LT	16	543.6	F	2	
NB LT	16	64.3	E	0.68	
Total	**90 sec**	**71.9**	**E**	**2**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	11	210	F	1.27	0.76
WB L	15	345.2	F	1.65	**ICU LOS**
WB TR	32	68.4	E	1.05	D
EB TR	36	104.3	F	1.14	
SB LT	27	382.3	F	1.68	
NB LT	16	199.8	F	1.26	
Total	**90 sec**	**122.7**	**F**	**1.68**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	315.8	F	1.53	
WB L	10	ERR	F	3.33	
WB TR	48	22.6	C	0.75	
EB TR	48	21.3	C	0.7	
SB LT	16	ERR	F	3.26	
NB LT	16	199.8	F	1.26	
Total	**90 sec**	**154.8**	**F**	**3.33**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	78.9	E	0.85	
WB L	20	120.9	F	1.11	
WB TR	37	29.5	C	0.85	
EB TR	43	43.1	D	0.95	
SB LT	16	ERR	F	3.26	
NB LT	17	157.2	F	1.14	
Total	**90 sec**	**89.3**	**F**	**3.26**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	56	E	0.67
WB L	15	203.4	F	1.29
WB TR	46	29	C	0.65
EB TR	41	107.3	F	1.16
SB LT	23	228.2	F	1.26
NB LT	16	79.2	E	0.75
Total	**100 sec**	**85.9**	**F**	**1.29**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	388.1	F	1.7
WB L	10	756.1	F	2.56
WB TR	58	16.4	B	0.47
EB TR	58	26.9	C	0.89
SB LT	16	630.1	F	2.09
NB LT	16	79.2	E	0.75
Total	**100 sec**	**89.2**	**F**	**2.56**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	61.5	E	0.72
WB L	15	203.4	F	1.29
WB TR	53	21.7	C	0.54
EB TR	50	42.3	D	0.99
SB LT	16	630.1	F	2.19
NB LT	16	79.2	E	0.75
Total	**100 sec**	**59.4**	**E**	**2.19**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	269.6	F	1.42
WB L	16	354.1	F	1.67
WB TR	32	101.3	F	1.13
EB TR	37	160.5	F	1.27
SB LT	35	455	F	1.85
NB LT	17	206	F	1.27
Total	**100 sec**	**151**	**F**	**1.85**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	383.5	F	1.69
WB L	10	ERR	F	3.66
WB TR	58	19.7	B	0.67
EB TR	58	18.6	B	0.63
SB LT	16	ERR	F	3.57
NB LT	16	258.1	F	1.4
Total	**100 sec**	**175.8**	**F**	**3.66**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	13	137.4	F	1.06
WB L	18	245.7	F	1.42
WB TR	39	39.1	D	0.92
EB TR	44	55.2	E	0.99
SB LT	26	625.3	F	2.24
NB LT	17	206	F	1.27
Total	**100 sec**	**98.2**	**F**	**2.24**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	23	66.3	E	0.69
WB L	18	170.6	F	1.19
WB TR	53	33.8	C	0.64
EB TR	48	121.6	F	1.18
SB LT	33	294.4	F	1.41
NB LT	16	120.6	F	0.9
Total	**120 sec**	**93.1**	**F**	**1.41**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	540.7	F	2.04
WB L	10	990.4	F	3.08
WB TR	78	13.5	B	0.4
EB TR	78	20	C	0.77
SB LT	16	830.3	F	2.63
NB LT	16	120.6	F	0.9
Total	**120 sec**	**109.4**	**F**	**3.08**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	73.8	E	0.75
WB L	20	120.5	F	1.03
WB TR	67	19.7	B	0.46
EB TR	67	33.5	C	0.91
SB LT	16	830.3	F	2.63
NB LT	17	99.7	F	0.81
Total	**120 sec**	**57.3**	**E**	**2.63**
			PM	
Optimizing SplitS				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	386.6	F	1.69
WB L	17	430.7	F	1.84
WB TR	35	134.1	F	1.2
EB TR	41	204.1	F	1.36
SB LT	50	622.5	F	2.22
NB LT	18	262.3	F	1.4
Total	**120 sec**	**192**	**F**	**2.22**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	535	F	2.03
WB L	10	ERR	F	4.41
WB TR	78	16	B	0.57
EB TR	78	15.2	B	0.54
SB LT	16	ERR	F	4.29
NB LT	16	376.4	F	1.67
Total	**120 sec**	**223.5**	**F**	**4.41**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	108	F	0.93
WB L	23	173.2	F	1.23
WB TR	46	41.2	D	0.89
EB TR	53	57.9	E	0.98
SB LT	31	624.5	F	2.22
NB LT	20	183.3	F	1.19
Total	**120 sec**	**93.5**	**F**	**2.22**

LOS E

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	16	65.5	E	0.79	0.85
WB L	13	324.9	F	1.59	**ICU LOS**
WB TR	39	31.9	C	0.8	E
EB TR	36	204.7	F	1.39	
SB LT	22	273.1	F	1.39	
NB LT	16	71.3	E	0.74	
Total	**90 sec**	**142.9**	**F**	**1.59**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	377.6	F	1.68	
WB L	10	747.8	F	2.55	
WB TR	48	19.1	B	0.57	
EB TR	48	72.5	E	1.09	
SB LT	16	616.7	F	2.17	
NB LT	16	71.3	E	0.74	
Total	**90 sec**	**111.4**	**F**	**2.55**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	17	58.4	E	0.74	
WB L	12	419.9	F	1.81	
WB TR	46	25.2	C	0.67	
EB TR	41	95.8	F	1.14	
SB LT	16	616.7	F	2.17	
NB LT	16	71.3	E	0.74	
Total	**90 sec**	**97.5**	**F**	**2.17**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	11	263.4	F	1.42	0.89
WB L	15	427.1	F	1.85	**ICU LOS**
WB TR	30	153.8	F	1.26	E
EB TR	34	207.7	F	1.39	
SB LT	28	451.4	F	1.85	
NB LT	17	209.9	F	1.29	
Total	**90 sec**	**199.1**	**F**	**1.85**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	385.9	F	1.7	
WB L	10	ERR	F	3.71	
WB TR	48	25.5	C	0.83	
EB TR	48	23.4	C	0.78	
SB LT	16	ERR	F	3.63	
NB LT	16	263.7	F	1.43	
Total	**90 sec**	**181.4**	**F**	**3.71**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	12	182.4	F	1.21	
WB L	17	294.3	F	1.54	
WB TR	38	37.9	D	0.95	
EB TR	43	60	E	1.03	
SB LT	16	ERR	F	3.63	
NB LT	19	137.4	F	1.1	
Total	**90 sec**	**118.3**	**F**	**3.63**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	61	E	0.73
WB L	15	250.9	F	1.41
WB TR	45	31.5	C	0.74
EB TR	41	168.7	F	1.3
SB LT	24	236.9	F	1.28
NB LT	16	89.9	F	0.82
Total	**100 sec**	**121.2**	**F**	**1.41**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	452.9	F	1.85
WB L	10	864.1	F	2.81
WB TR	58	17	B	0.51
EB TR	58	36.7	D	0.97
SB LT	16	737.2	F	2.44
NB LT	16	89.9	F	0.82
Total	**100 sec**	**105.2**	**F**	**2.81**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	64.9	E	0.76
WB L	14	318	F	1.57
WB TR	54	22.8	C	0.59
EB TR	50	62.1	E	1.06
SB LT	16	737.2	F	2.44
NB LT	16	89.9	F	0.82
Total	**100 sec**	**78.9**	**E**	**2.44**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	332.4	F	1.58
WB L	16	436.7	F	1.87
WB TR	33	138.6	F	1.22
EB TR	38	200.4	F	1.36
SB LT	34	544.1	F	2.06
NB LT	17	270.3	F	1.44
Total	**100 sec**	**194.7**	**F**	**2.06**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	462.3	F	1.88
WB L	10	ERR	F	4.09
WB TR	58	21.5	C	0.74
EB TR	58	20.2	C	0.7
SB LT	16	ERR	F	3.98
NB LT	16	334	F	1.59
Total	**100 sec**	**204.8**	**F**	**4.09**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	100.9	F	0.94
WB L	20	222.7	F	1.37
WB TR	43	37.1	D	0.93
EB TR	48	50.5	D	0.99
SB LT	16	ERR	F	3.98
NB LT	21	128	F	1.06
Total	**100 sec**	**114.4**	**F**	**3.98**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	77.9	E	0.79
WB L	17	255.1	F	1.41
WB TR	53	35.3	D	0.71
EB TR	50	168.8	F	1.29
SB LT	34	345.4	F	1.54
NB LT	16	139.5	F	0.98
Total	**120 sec**	**123.9**	**F**	**1.54**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	620.8	F	2.23
WB L	10	ERR	F	3.38
WB TR	78	14	B	0.44
EB TR	78	22.9	C	0.84
SB LT	16	928.9	F	2.86
NB LT	16	139.5	F	0.98
Total	**120 sec**	**124**	**F**	**3.38**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	77.9	E	0.79
WB L	19	174.9	F	1.21
WB TR	69	19.9	B	0.5
EB TR	68	38.8	D	0.96
SB LT	16	928.9	F	2.86
NB LT	16	139.5	F	0.98
Total	**120 sec**	**67.3**	**E**	**2.86**
			PM	
Optimizing SplitS				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	355.2	F	1.62
WB L	17	522.2	F	2.06
WB TR	35	210.4	F	1.38
EB TR	40	271.9	F	1.52
SB LT	50	732	F	2.47
NB LT	18	337.3	F	1.59
Total	**120 sec**	**255.3**	**F**	**2.47**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	632.4	F	2.26
WB L	10	ERR	F	4.92
WB TR	78	17.3	B	0.64
EB TR	78	16.4	B	0.6
SB LT	16	ERR	F	4.77
NB LT	16	474.1	F	1.91
Total	**120 sec**	**258.2**	**F**	**4.92**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	93.3	F	0.88
WB L	27	131.3	F	1.12
WB TR	53	32.1	C	0.83
EB TR	62	44.8	D	0.93
SB LT	16	ERR	F	4.77
NB LT	24	134.3	F	1.06
Total	**120 sec**	**121.1**	**F**	**4.77**

LOS F

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	86	F	0.91	0.91
WB L	14	298.9	F	1.54	**ICU LOS**
WB TR	38	33.5	C	0.84	E
EB TR	37	278.5	F	1.56	
SB LT	22	379.8	F	1.65	
NB LT	16	81.7	F	0.81	
Total	**90 sec**	**183.2**	**F**	**1.65**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	436.7	F	1.83	
WB L	10	846.1	F	2.78	
WB TR	48	19.9	B	0.62	
EB TR	48	111.7	F	1.18	
SB LT	16	699.9	F	2.37	
NB LT	16	81.7	F	0.81	
Total	**90 sec**	**141.2**	**F**	**2.78**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	17	63.2	E	0.79	
WB L	12	487.7	F	1.97	
WB TR	46	26.7	C	0.74	
EB TR	41	138.2	F	1.24	
SB LT	16	699.9	F	2.37	
NB LT	16	81.7	F	0.81	
Total	**90 sec**	**125.6**	**F**	**2.37**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	11	313.5	F	1.54	0.94
WB L	14	587.7	F	2.21	**ICU LOS**
WB TR	31	196.7	F	1.36	F
EB TR	34	228.3	F	1.43	
SB LT	28	620.3	F	2.25	
NB LT	17	258.8	F	1.42	
Total	**90 sec**	**244.3**	**F**	**2.25**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	449.5	F	1.86	
WB L	10	ERR	F	4	
WB TR	48	29.2	C	0.9	
EB TR	48	25.7	C	0.84	
SB LT	16	ERR	F	3.87	
NB LT	16	321.2	F	1.57	
Total	**90 sec**	**202.5**	**F**	**4**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	13	160.3	F	1.16	
WB L	18	288	F	1.53	
WB TR	40	39.8	D	0.97	
EB TR	45	63.1	E	1.05	
SB LT	16	ERR	F	3.87	
NB LT	16	321.2	F	1.57	
Total	**90 sec**	**136**	**F**	**3.87**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	70.2	E	0.81
WB L	15	300.6	F	1.54
WB TR	45	33	C	0.79
EB TR	42	217.8	F	1.42
SB LT	24	313.4	F	1.49
NB LT	16	105.4	F	0.9
Total	**100 sec**	**152.4**	**F**	**1.54**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	519.1	F	2.01
WB L	10	972.7	F	3.06
WB TR	58	17.7	B	0.55
EB TR	58	60.7	E	1.06
SB LT	16	802.9	F	2.6
NB LT	16	105.4	F	0.9
Total	**100 sec**	**127.9**	**F**	**3.06**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	64.3	E	0.77
WB L	13	464.5	F	1.92
WB TR	55	24.6	C	0.66
EB TR	49	88.1	F	1.12
SB LT	16	802.9	F	2.6
NB LT	16	105.4	F	0.9
Total	**100 sec**	**102.6**	**F**	**2.6**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	11	389.9	F	1.72
WB L	16	498.3	F	2.01
WB TR	32	198.6	F	1.36
EB TR	37	272.3	F	1.53
SB LT	34	604.2	F	2.2
NB LT	18	273.8	F	1.45
Total	**100 sec**	**251.4**	**F**	**2.2**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	533.4	F	2.04
WB L	10	ERR	F	4.4
WB TR	58	23.3	C	0.8
EB TR	58	21.6	C	0.75
SB LT	16	ERR	F	4.33
NB LT	16	394.4	F	1.73
Total	**100 sec**	**228.3**	**F**	**4.4**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	95	F	0.93
WB L	22	193.7	F	1.3
WB TR	45	35.5	D	0.93
EB TR	51	54.4	D	1.01
SB LT	16	ERR	F	4.33
NB LT	17	328.2	F	1.58
Total	**100 sec**	**133.1**	**F**	**4.33**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	77.5	E	0.81
WB L	17	304.3	F	1.54
WB TR	53	38.3	D	0.79
EB TR	49	217	F	1.41
SB LT	34	392	F	1.66
NB LT	16	164.3	F	1.08
Total	**120 sec**	**153.9**	**F**	**1.66**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	702	F	2.42
WB L	10	ERR	F	3.68
WB TR	78	14.5	B	0.48
EB TR	78	27.5	C	0.92
SB LT	16	ERR	F	3.11
NB LT	16	164.3	F	1.08
Total	**120 sec**	**140.1**	**F**	**3.68**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	22	73.3	E	0.78
WB L	17	304.3	F	1.54
WB TR	71	21.8	C	0.56
EB TR	66	49	D	1.02
SB LT	16	ERR	F	3.11
NB LT	16	164.3	F	1.08
Total	**120 sec**	**83.5**	**F**	**3.11**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	12	414.4	F	1.77
WB L	17	590.4	F	2.21
WB TR	35	256.8	F	1.49
EB TR	40	323.5	F	1.64
SB LT	49	805.6	F	2.64
NB LT	19	342.5	F	1.61
Total	**120 sec**	**299.3**	**F**	**2.64**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	719.4	F	2.46
WB L	10	ERR	F	5.3
WB TR	78	18.4	B	0.69
EB TR	78	17.3	B	0.65
SB LT	16	ERR	F	5.2
NB LT	16	550.3	F	2.09
Total	**120 sec**	**286.2**	**F**	**5.3**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	92.4	F	0.89
WB L	28	141.8	F	1.16
WB TR	55	32.5	C	0.86
EB TR	64	47.8	D	0.96
SB LT	16	ERR	F	5.2
NB LT	21	252.4	F	1.39
Total	**120 sec**	**138.9**	**F**	**5.2**

Test 6: LOS A

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	16	45.2	D	0.42	0.49
WB L	19	45.8	D	0.52	ICU LOS
WB TR	42	15.3	B	0.24	A
EB TR	45	18.1	B	0.48	
SB L	10	44.1	D	0.25	
NB L	11	43.5	D	0.29	
NB TR	18	14.1	B	0.29	
SB TR	19	22	C	0.25	
Total	**90 sec**	**21**	**C**	**0.52**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	82.8	F	0.73	
WB L	10	166.9	F	1.11	
WB TR	54	11.1	B	0.21	
EB TR	54	12.7	B	0.41	
SB L	10	44.1	D	0.25	
NB L	10	46	D	0.34	
NB TR	16	16	B	0.34	
SB TR	16	23.9	C	0.29	
Total	**90 sec**	**24.7**	**C**	**1.11**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	13	51.1	D	0.49	
WB L	15	53.1	D	0.61	
WB TR	49	12.5	B	0.22	
EB TR	51	14.7	B	0.43	
SB L	10	44.1	D	0.25	
NB L	10	46	D	0.34	
NB TR	16	16	B	0.34	
SB TR	16	23.9	C	0.29	
Total	**90 sec**	**19.3**	**B**	**0.61**	
			PM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	15	48.6	D	0.51	0.6
WB L	23	47.3	D	0.67	ICU LOS
WB TR	33	20.9	C	0.48	B
EB TR	41	26.6	C	0.57	
SB L	10	50.1	C	0.48	
NB L	13	45.4	C	0.5	
NB TR	21	15	B	0.39	
SB TR	24	26.3	C	0.55	
Total	**90 sec**	**27.6**	**C**	**0.67**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	111.9	F	0.9	
WB L	10	488.2	F	1.95	
WB TR	54	13.3	B	0.38	
EB TR	54	12.7	B	0.36	
SB L	10	50.1	D	0.48	
NB L	10	68.7	E	0.77	
NB TR	16	25.3	C	0.58	
SB TR	16	44	D	0.76	
Total	**90 sec**	**54.9**	**D**	**1.95**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	15	48.6	D	0.51	
WB L	23	47.3	D	0.67	
WB TR	37	17.9	B	0.43	
EB TR	45	22.9	C	0.5	
SB L	10	50.1	D	0.48	
NB L	12	48.5	D	0.55	
NB TR	18	19.1	B	0.47	
SB TR	20	33.9	C	0.66	
Total	**90 sec**	**26.2**	**C**	**0.67**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	17	50.8	D	0.44
WB L	21	51	D	0.54
WB TR	46	16.4	B	0.24
EB TR	50	20.6	C	0.5
SB L	12	46.4	D	0.21
NB L	12	47.6	D	0.29
NB TR	21	14.6	B	0.28
SB TR	21	22.6	C	0.23
Total	**100 sec**	**23.2**	**C**	**0.54**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	102.2	F	0.81
WB L	10	209.5	F	1.22
WB TR	64	10.5	B	0.2
EB TR	64	11.3	B	0.38
SB L	10	50	D	0.27
NB L	10	52.6	D	0.38
NB TR	16	17.8	B	0.37
SB TR	16	26.9	C	0.32
Total	**100 sec**	**27.3**	**C**	**1.22**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	16	51.7	D	0.45
WB L	17	55.9	E	0.59
WB TR	57	12.2	B	0.2
EB TR	58	14.8	B	0.42
SB L	10	50	D	0.27
NB L	10	52.6	D	0.38
NB TR	16	17.8	B	0.37
SB TR	16	26.9	C	0.32
Total	**100 sec**	**19.9**	**B**	**0.59**
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	15	56.8	E	0.55
WB L	26	51.7	D	0.68
WB TR	37	20.9	C	0.45
EB TR	48	27.4	C	0.53
SB L	11	52.6	D	0.45
NB L	13	52.5	D	0.55
NB TR	24	18.2	B	0.4
SB TR	26	28.5	C	0.53
Total	**100 sec**	**29.2**	**C**	**0.68**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	142.5	F	0.99
WB L	10	576.4	F	2.15
WB TR	64	11.9	B	0.35
EB TR	64	11.4	B	0.33
SB L	10	58.2	E	0.53
NB L	10	87.2	F	0.85
NB TR	16	33.1	C	0.64
SB TR	16	59.7	E	0.84
Total	**100 sec**	**63.6**	**E**	**2.15**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	15	56.8	E	0.55
WB L	26	51.7	D	0.68
WB TR	42	17.3	B	0.41
EB TR	53	23.1	C	0.47
SB L	11	52.6	D	0.45
NB L	12	56.7	E	0.61
NB TR	20	23.2	C	0.49
SB TR	21	36.9	D	0.65
Total	**100 sec**	**27.6**	**C**	**0.68**

Cycle Length: 120 seconds				
			AM	
Optimizing SplitS				
	Splits	Delay	LOS	V/C Ratio
EB L	19	62.3	E	0.48
WB L	26	63	E	0.58
WB TR	57	16.2	B	0.21
EB TR	64	20.4	C	0.45
SB L	12	57.5	E	0.25
NB L	12	59.4	E	0.34
NB TR	25	16.4	B	0.31
SB TR	25	25.5	C	0.22
Total	**120 sec**	**24.9**	**C**	**0.58**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	155.2	F	0.97
WB L	10	311.7	F	1.47
WB TR	84	8.7	A	0.18
EB TR	84	9.4	A	0.34
SB L	10	62.3	E	0.33
NB L	10	66.6	E	0.45
NB TR	16	23.1	C	0.46
SB TR	16	35.8	D	0.37
Total	**120 sec**	**34.1**	**C**	**1.47**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	17	64.3	E	0.5
WB L	21	64.4	E	0.6
WB TR	73	10.5	B	0.18
EB TR	77	13.4	B	0.37
SB L	10	62.3	E	0.33
NB L	10	66.6	E	0.45
NB TR	16	23.1	C	0.46
SB TR	16	35.8	D	0.37
Total	**120 sec**	**20.9**	**C**	**0.6**
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	19	64.1	E	0.54
WB L	30	62.7	E	0.71
WB TR	44	25.9	C	0.47
EB TR	55	31.2	C	0.51
SB L	14	58.5	E	0.4
NB L	16	59.4	E	0.52
NB TR	30	23.1	C	0.41
SB TR	32	32.4	C	0.48
Total	**120 sec**	**34.3**	**C**	**0.71**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	213.2	F	1.19
WB L	10	772.1	F	2.58
WB TR	84	9.8	A	0.31
EB TR	84	9.4	A	0.29
SB L	10	77.1	E	0.64
NB L	10	139	F	1.03
NB TR	16	66.1	E	0.86
SB TR	16	108.5	F	1.02
Total	**120 sec**	**86.2**	**F**	**2.58**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	19	64.1	E	0.54
WB L	30	62.7	E	0.71
WB TR	51	20.9	C	0.41
EB TR	62	25.5	C	0.44
SB L	11	67.4	E	0.53
NB L	13	68.5	E	0.65
NB TR	26	27.4	C	0.48
SB TR	28	39.1	D	0.58
Total	**120 sec**	**32.2**	**C**	**0.71**

LOS B

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	17	48.8	D	0.57	0.74
WB L	19	52.8	D	0.71	**ICU LOS**
WB TR	44	16.3	B	0.38	D
EB TR	46	25.6	C	0.81	
SB L	10	47.3	D	0.39	
NB L	10	52.5	D	0.54	
NB TR	17	16.4	B	0.5	
SB TR	17	27.4	C	0.42	
Total	**90 sec**	**26.2**	**C**	**0.81**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	185.5	F	1.17	
WB L	10	415.5	F	1.78	
WB TR	54	12.9	B	0.35	
EB TR	54	16.4	B	0.66	
SB L	10	47.3	D	0.39	
NB L	10	52.5	D	0.54	
NB TR	16	18.4	B	0.53	
SB TR	16	29.1	C	0.45	
Total	**90 sec**	**43.8**	**D**	**1.78**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	16	51	D	0.6	
WB L	16	69.1	E	0.82	
WB TR	48	15.3	B	0.6	
EB TR	48	22	C	0.75	
SB L	10	47.3	D	0.39	
NB L	10	52.5	D	0.54	
NB TR	16	17.4	C	0.53	
SB TR	16	29.1	B	0.45	
Total	**90 sec**	**25.1**	**C**	**0.82**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	62.2	E	0.7	0.75
WB L	22	57.9	E	0.82	**ICU LOS**
WB TR	36	22.9	C	0.65	D
EB TR	44	30	C	0.76	
SB L	10	58.8	E	0.65	
NB L	12	58.8	E	0.75	
NB TR	20	26.4	C	0.63	
SB TR	22	44.6	D	0.8	
Total	**90 sec**	**33.5**	**C**	**0.82**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	202.2	F	1.22	
WB L	10	787.9	F	2.64	
WB TR	54	14.8	B	0.52	
EB TR	54	14.2	B	0.48	
SB L	10	58.8	E	0.65	
NB L	10	120.3	F	1.04	
NB TR	16	55	D	0.88	
SB TR	16	95.1	F	1.03	
Total	**90 sec**	**87.3**	**F**	**2.64**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	15	55.8	E	0.65	
WB L	22	57.9	E	0.82	
WB TR	38	21.7	C	0.63	
EB TR	45	27.4	C	0.71	
SB L	11	50.1	D	0.55	
NB L	12	58.8	E	0.75	
NB TR	18	34.9	C	0.74	
SB TR	19	60.8	E	0.9	
Total	**90 sec**	**33.4**	**C**	**0.9**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	54.6	D	0.59
WB L	21	57	E	0.71
WB TR	52	15.9	B	0.36
EB TR	55	23.2	C	0.73
SB L	10	54.3	D	0.44
NB L	10	61.9	E	0.6
NB TR	17	18.6	B	0.53
SB TR	17	36.3	D	0.54
Total	**100 sec**	**26.1**	**C**	**0.73**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	232.5	F	1.29
WB L	10	495.3	F	1.96
WB TR	64	11.6	B	0.32
EB TR	64	14.5	B	0.61
SB L	10	54.3	D	0.44
NB L	10	61.9	E	0.6
NB TR	16	23.8	C	0.58
SB TR	16	39.2	D	0.58
Total	**100 sec**	**49.2**	**D**	**1.96**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	54.6	D	0.59
WB L	18	68	E	0.79
WB TR	56	15.3	B	0.35
EB TR	56	20.6	C	0.7
SB L	10	54.3	D	0.44
NB L	10	61.9	E	0.6
NB TR	16	19.8	B	0.56
SB TR	16	39.2	D	0.58
Total	**100 sec**	**25.4**	**C**	**0.79**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	55.6	E	0.61
WB L	25	58.8	E	0.81
WB TR	38	27	C	0.68
EB TR	45	33.9	C	0.77
SB L	11	58.9	E	0.61
NB L	13	60.9	E	0.72
NB TR	24	26.9	C	0.59
SB TR	26	40	D	0.72
Total	**100 sec**	**36**	**D**	**0.81**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	252.5	F	1.35
WB L	10	908.5	F	2.91
WB TR	64	13.3	B	0.47
EB TR	64	12.7	B	0.44
SB L	10	71.2	E	0.73
NB L	10	160.6	F	1.16
NB TR	16	82.7	F	0.98
SB TR	16	137.1	F	1.15
Total	**100 sec**	**103**	**F**	**2.91**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	66.9	E	0.71
WB L	25	58.8	E	0.81
WB TR	40	23.4	C	0.62
EB TR	50	31.2	C	0.73
SB L	12	53.4	D	0.53
NB L	13	60.9	E	0.72
NB TR	22	32.4	C	0.67
SB TR	23	47.9	D	0.79
Total	**100 sec**	**34.9**	**C**	**0.81**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	66.4	E	0.63
WB L	25	66.2	E	0.72
WB TR	61	18.1	B	0.35
EB TR	66	26.7	C	0.72
SB L	11	63.7	E	0.44
NB L	12	65	E	0.53
NB TR	22	22	C	0.49
SB TR	23	38.9	D	0.47
Total	**120 sec**	**29.9**	**C**	**0.72**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	342.7	F	1.55
WB L	10	672.9	F	2.35
WB TR	84	9.6	A	0.28
EB TR	84	12	B	0.54
SB L	10	69.8	E	0.52
NB L	10	84.6	F	0.73
NB TR	16	34.1	C	0.67
SB TR	16	58.1	E	0.69
Total	**120 sec**	**62.3**	**E**	**2.35**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	68.6	E	0.65
WB L	21	76.2	E	0.79
WB TR	72	13.8	B	0.31
EB TR	74	19.2	B	0.63
SB L	11	63.7	E	0.44
NB L	11	71	E	0.6
NB TR	16	33.7	C	0.66
SB TR	16	58.1	E	0.69
Total	**120 sec**	**27**	**C**	**0.79**
			PM	
Optimizing SplitS				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	67.3	E	0.65
WB L	31	65.5	E	0.8
WB TR	45	28.7	C	0.63
EB TR	56	36.9	D	0.72
SB L	13	64.5	E	0.56
NB L	15	68.2	E	0.71
NB TR	29	33.4	C	0.59
SB TR	31	45.2	D	0.7
Total	**120 sec**	**39.7**	**D**	**0.8**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	369.1	F	1.62
WB L	10	ERR	F	3.5
WB TR	84	11	B	0.42
EB TR	84	10.5	B	0.4
SB L	10	105	F	0.87
NB L	10	255	F	1.39
NB TR	16	151.3	F	1.18
SB TR	16	231.6	F	1.38
Total	**120 sec**	**139.8**	**F**	**3.5**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	69.6	E	0.67
WB L	31	65.5	E	0.8
WB TR	49	24.9	C	0.58
EB TR	61	32.7	C	0.66
SB L	13	64.5	E	0.56
NB L	14	74.9	E	0.77
NB TR	26	40.1	D	0.67
SB TR	27	54.8	D	0.79
Total	**120 sec**	**38.5**	**D**	**0.8**

LOS C

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	18	48.7	D	0.59	0.8
WB L	18	62.1	E	0.8	**ICU LOS**
WB TR	46	17.7	B	0.45	D
EB TR	46	28.5	C	0.88	
SB L	10	48.9	D	0.45	
NB L	10	56.1	E	0.61	
NB TR	16	18.6	B	0.58	
SB TR	16	35	D	0.58	
Total	**90 sec**	**29**	**C**	**0.88**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	234.2	F	1.32	
WB L	10	509.9	F	2	
WB TR	54	13.3	B	0.39	
EB TR	54	18.3	B	0.74	
SB L	10	48.9	D	0.45	
NB L	10	56.1	E	0.61	
NB TR	16	26.2	C	0.62	
SB TR	16	35	D	0.58	
Total	**90 sec**	**52.1**	**D**	**2**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	18	48.7	D	0.59	
WB L	16	82.5	F	0.91	
WB TR	48	17.7	B	0.85	
EB TR	46	25.6	C	0.45	
SB L	10	48.9	D	0.45	
NB L	10	56.1	E	0.61	
NB TR	16	18.6	B	0.58	
SB TR	16	35	D	0.58	
Total	**90 sec**	**28.6**	**C**	**0.91**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	61.5	E	0.72	0.83
WB L	22	68.3	E	0.91	**ICU LOS**
WB TR	36	26.2	C	0.77	E
EB TR	43	36.7	D	0.89	
SB L	11	53.7	D	0.62	
NB L	12	70.3	E	0.85	
NB TR	20	36.3	D	0.76	
SB TR	21	60.9	E	0.91	
Total	**90 sec**	**39.7**	**D**	**0.91**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	264.3	F	1.4	
WB L	10	958.3	F	3.03	
WB TR	54	16	B	0.59	
EB TR	54	15.1	B	0.56	
SB L	10	66.5	E	0.75	
NB L	10	166.2	F	1.19	
NB TR	16	85	F	1.01	
SB TR	16	143	F	1.18	
Total	**90 sec**	**109.1**	**F**	**3.03**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	70.3	E	0.78	
WB L	21	76.8	E	0.94	
WB TR	37	25.3	C	0.75	
EB TR	44	34.6	C	0.87	
SB L	11	53.7	D	0.62	
NB L	12	70.3	E	0.85	
NB TR	20	36.3	D	0.76	
SB TR	21	60.9	E	0.91	
Total	**90 sec**	**39.6**	**D**	**0.94**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	54.7	D	0.62
WB L	20	64.2	E	0.79
WB TR	53	17	B	0.41
EB TR	54	26.3	C	0.83
SB L	10	56.4	E	0.49
NB L	10	67.1	E	0.68
NB TR	17	23.9	C	0.61
SB TR	17	40.2	D	0.6
Total	**100 sec**	**29**	**C**	**0.83**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	290.2	F	1.45
WB L	10	600.5	F	2.2
WB TR	64	11.9	B	0.36
EB TR	64	16	B	0.68
SB L	10	56.4	E	0.49
NB L	10	67.1	E	0.68
NB TR	16	34.1	C	0.69
SB TR	16	44.4	D	0.65
Total	**100 sec**	**58.3**	**E**	**2.2**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	56.9	E	0.64
WB L	18	77.4	E	0.87
WB TR	56	16	B	0.4
EB TR	56	23.3	C	0.79
SB L	10	56.4	E	0.49
NB L	10	67.1	E	0.68
NB TR	16	26	C	0.64
SB TR	16	44.4	D	0.65
Total	**100 sec**	**28.2**	**C**	**0.87**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	67	E	0.74
WB L	24	72	E	0.91
WB TR	42	25.4	C	0.71
EB TR	50	33.6	C	0.82
SB L	11	64.5	E	0.69
NB L	12	94.3	F	0.95
NB TR	22	40.7	D	0.77
SB TR	23	63.8	E	0.91
Total	**100 sec**	**40.9**	**D**	**0.95**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	325	F	1.54
WB L	10	ERR	F	3.34
WB TR	64	14.2	B	0.54
EB TR	64	13.5	B	0.51
SB L	10	83.6	F	0.83
NB L	10	219.6	F	1.33
NB TR	16	126.3	F	1.13
SB TR	16	196.3	F	1.31
Total	**100 sec**	**128.7**	**F**	**3.34**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	67	E	0.74
WB L	24	72	E	0.91
WB TR	41	26.4	C	0.73
EB TR	49	35.4	D	0.84
SB L	12	56	E	0.6
NB L	13	70.4	E	0.83
NB TR	22	40.6	D	0.77
SB TR	23	63.8	E	0.91
Total	**100 sec**	**40.4**	**D**	**0.91**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	66.8	E	0.66
WB L	25	69.2	E	0.77
WB TR	62	18.6	B	0.4
EB TR	66	29.6	C	0.81
SB L	10	73.8	E	0.59
NB L	12	67.6	E	0.59
NB TR	21	28.7	C	0.61
SB TR	23	44.3	D	0.55
Total	**120 sec**	**32.5**	**C**	**0.81**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	417.7	F	1.74
WB L	10	801.4	F	2.65
WB TR	84	9.9	A	0.32
EB TR	84	13.1	B	0.61
SB L	10	73.8	E	0.59
NB L	10	95.9	F	0.82
NB TR	16	65.1	E	0.89
SB TR	16	68	E	0.78
Total	**120 sec**	**74.5**	**E**	**2.65**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	66.8	E	0.66
WB L	21	83.8	F	0.86
WB TR	69	16.7	B	0.38
EB TR	69	24.2	C	0.75
SB L	12	61.9	E	0.44
NB L	12	67.6	E	0.59
NB TR	18	35.9	D	0.68
SB TR	18	54.7	D	0.67
Total	**120 sec**	**30.5**	**C**	**0.86**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	70.8	E	0.71
WB L	30	71.8	E	0.87
WB TR	47	30.6	C	0.72
EB TR	57	40.9	D	0.83
SB L	12	75.5	E	0.71
NB L	15	74.6	E	0.8
NB TR	28	39	D	0.68
SB TR	31	58.1	E	0.84
Total	**120 sec**	**44.2**	**D**	**0.87**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	461.9	F	1.85
WB L	10	ERR	F	4.01
WB TR	84	11.7	B	0.48
EB TR	84	11.2	B	0.45
SB L	10	132.9	F	1
NB L	10	334.4	F	1.59
NB TR	16	218.1	F	1.35
SB TR	16	312.5	F	1.58
Total	**120 sec**	**173.1**	**F**	**4.01**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	85.1	F	0.8
WB L	28	79	E	0.91
WB TR	51	27	C	0.67
EB TR	62	36.5	D	0.78
SB L	13	67.6	E	0.63
NB L	15	74.6	E	0.8
NB TR	26	45.5	D	0.75
SB TR	28	70.1	E	0.91
Total	**120 sec**	**43.3**	**D**	**0.91**

LOS D

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	20	47.7	D	0.62	0.89
WB L	17	91.8	F	0.97	**ICU LOS**
WB TR	47	19.9	B	0.54	E
EB TR	44	49	D	1.02	
SB L	10	51.4	D	0.52	
NB L	10	63.6	E	0.72	
NB TR	16	25.1	C	0.67	
SB TR	16	42.6	D	0.69	
Total	**90 sec**	**42.3**	**D**	**1.02**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	319.8	F	1.54	
WB L	10	650.1	F	2.33	
WB TR	54	14.1	B	0.45	
EB TR	54	22.8	C	0.87	
SB L	10	51.4	D	0.52	
NB L	10	63.6	E	0.72	
NB TR	16	37.2	D	0.75	
SB TR	16	42.6	D	0.69	
Total	**90 sec**	**65.6**	**E**	**2.33**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	19	49.5	D	0.64	
WB L	15	151.3	F	1.16	
WB TR	49	19.5	B	0.53	
EB TR	45	36.3	D	0.97	
SB L	10	51.4	D	0.52	
NB L	10	63.6	E	0.72	
NB TR	16	25.1	C	0.67	
SB TR	16	42.6	D	0.69	
Total	**90 sec**	**38.9**	**D**	**1.16**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	16	59.6	E	0.73	0.89
WB L	22	82.1	F	0.98	**ICU LOS**
WB TR	36	30.6	C	0.86	E
EB TR	42	50.1	D	0.99	
SB L	10	75.8	E	0.83	
NB L	12	84.1	F	0.94	
NB TR	20	38.3	D	0.79	
SB TR	22	81.4	F	1	
Total	**90 sec**	**49.6**	**D**	**1**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	315.8	F	1.53	
WB L	10	ERR	F	3.33	
WB TR	54	16.9	B	0.65	
EB TR	54	16	B	0.61	
SB L	10	75.8	E	0.83	
NB L	10	207.7	F	1.31	
NB TR	16	111.6	F	1.1	
SB TR	16	187.7	F	1.3	
Total	**90 sec**	**127.3**	**F**	**3.33**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	78.9	E	0.85	
WB L	21	98.5	F	1.03	
WB TR	38	26.3	C	0.8	
EB TR	45	38.3	D	0.92	
SB L	11	57.8	E	0.69	
NB L	12	84.1	F	0.94	
NB TR	19	49.7	D	0.87	
SB TR	20	99.6	F	1.06	
Total	**90 sec**	**47.2**	**D**	**1.06**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	21	54	D	0.65
WB L	19	83.7	F	0.92
WB TR	55	18.3	B	0.49
EB TR	53	34	C	0.95
SB L	10	60.2	E	0.58
NB L	10	78.8	E	0.8
NB TR	16	34.2	C	0.74
SB TR	16	54.9	D	0.76
Total	**100 sec**	**35.7**	**D**	**0.95**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	388.1	F	1.7
WB L	10	756.1	F	2.56
WB TR	64	12.6	B	0.42
EB TR	64	19	B	0.8
SB L	10	60.2	E	0.58
NB L	10	78.8	E	0.8
NB TR	16	51.9	D	0.83
SB TR	16	54.9	D	0.76
Total	**100 sec**	**72.8**	**E**	**2.56**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	58.4	E	0.69
WB L	18	102.4	F	0.99
WB TR	56	17.6	B	0.48
EB TR	55	31.1	C	0.93
SB L	10	60.2	E	0.58
NB L	10	78.8	E	0.8
NB TR	16	34.2	C	0.74
SB TR	16	54.9	D	0.76
Total	**100 sec**	**35.1**	**D**	**0.99**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	65.6	E	0.75
WB L	24	83.9	F	0.97
WB TR	41	29.8	C	0.82
EB TR	48	43.2	D	0.94
SB L	11	70.8	E	0.77
NB L	13	82.1	F	0.91
NB TR	22	42.8	D	0.8
SB TR	24	84	F	1
Total	**100 sec**	**47.5**	**D**	**1**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	383.5	F	1.69
WB L	10	ERR	F	3.66
WB TR	64	15	B	0.6
EB TR	64	14.2	B	0.56
SB L	10	98.9	F	0.92
NB L	10	269	F	1.45
NB TR	16	160.4	F	1.23
SB TR	16	248.8	F	1.44
Total	**100 sec**	**149.5**	**F**	**3.66**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	72.8	E	0.79
WB L	23	98.1	F	1.02
WB TR	42	28.7	C	0.8
EB TR	49	39.5	D	0.91
SB L	12	59.2	E	0.66
NB L	13	82.1	F	0.91
NB TR	22	47.6	D	0.84
SB TR	23	84	F	1
Total	**100 sec**	**47**	**D**	**1.02**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	23	66.3	E	0.69
WB L	24	78.1	E	0.86
WB TR	65	19.3	B	0.46
EB TR	66	35.9	D	0.93
SB L	10	81.2	F	0.69
NB L	12	73.2	E	0.69
NB TR	19	42	D	0.76
SB TR	21	59.3	E	0.73
Total	**120 sec**	**37.9**	**D**	**0.93**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	540.7	F	2.04
WB L	10	990.4	F	3.08
WB TR	84	10.4	B	0.37
EB TR	84	15.2	B	0.71
SB L	10	81.2	F	0.69
NB L	10	122.4	F	0.96
NB TR	16	126.4	F	1.11
SB TR	16	89.8	F	0.91
Total	**120 sec**	**94.3**	**F**	**3.08**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	22	68.4	E	0.71
WB L	22	90.5	F	0.92
WB TR	70	17.1	B	0.43
EB TR	70	28.5	C	0.86
SB L	10	81.2	F	0.69
NB L	11	87.4	F	0.8
NB TR	17	59.1	E	0.88
SB TR	18	75.9	E	0.84
Total	**120 sec**	**36.2**	**D**	**0.92**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	77.6	E	0.77
WB L	30	77.4	E	0.91
WB TR	48	31.5	C	0.77
EB TR	59	46.3	D	0.91
SB L	13	70.9	E	0.69
NB L	14	105.2	F	0.97
NB TR	28	48.5	D	0.79
SB TR	29	70.5	E	0.92
Total	**120 sec**	**49.7**	**D**	**0.97**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	535	F	2.03
WB L	10	ERR	F	4.41
WB TR	84	12.3	B	0.53
EB TR	84	11.7	B	0.5
SB L	10	158.5	F	1.1
NB L	10	397.4	F	1.75
NB TR	16	263.4	F	1.47
SB TR	16	378.5	F	1.73
Total	**120 sec**	**199**	**F**	**4.41**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	83.9	F	0.81
WB L	28	88.7	F	0.96
WB TR	51	29.6	C	0.75
EB TR	61	41.1	D	0.87
SB L	13	70.9	E	0.69
NB L	15	83.6	F	0.87
NB TR	26	52.2	D	0.82
SB TR	28	89.9	F	1
Total	**120 sec**	**48.8**	**D**	**1**

LOS E

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	20	49.2	D	0.66	0.96
WB L	17	115	F	1.06	**ICU LOS**
WB TR	47	21	C	0.59	F
EB TR	44	83.8	F	1.11	
SB L	10	53.4	D	0.57	
NB L	10	70.4	E	0.79	
NB TR	16	29.9	C	0.73	
SB TR	16	48.6	D	0.75	
Total	**90 sec**	**62.3**	**E**	**1.11**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	377.6	F	1.68	
WB L	10	747.8	F	2.55	
WB TR	54	14.6	B	0.5	
EB TR	54	29.9	C	0.95	
SB L	10	53.4	D	0.57	
NB L	10	70.4	E	0.79	
NB TR	16	46.7	D	0.83	
SB TR	16	48.6	D	0.75	
Total	**90 sec**	**77.3**	**E**	**2.55**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	17	58.4	E	0.74	
WB L	13	324.9	F	1.59	
WB TR	51	19.6	B	0.57	
EB TR	47	45.3	D	1.02	
SB L	10	53.4	D	0.57	
NB L	10	70.4	E	0.79	
NB TR	16	29.9	C	0.73	
SB TR	16	48.6	D	0.75	
Total	**90 sec**	**53.3**	**D**	**1.59**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	97.3	F	0.94	0.97
WB L	22	112.1	F	1.09	**ICU LOS**
WB TR	37	31.2	C	0.9	F
EB TR	45	71.9	E	1.07	
SB L	10	91.9	F	0.92	
NB L	12	109.6	F	1.04	
NB TR	19	58.2	E	0.93	
SB TR	21	140.8	F	1.19	
Total	**90 sec**	**67.4**	**E**	**1.19**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	385.9	F	1.7	
WB L	10	ERR	F	3.71	
WB TR	54	18.5	B	0.73	
EB TR	54	17.3	B	0.68	
SB L	10	91.9	F	0.92	
NB L	10	267.1	F	1.46	
NB TR	16	159.6	F	1.24	
SB TR	16	248.4	F	1.45	
Total	**90 sec**	**152.7**	**F**	**3.71**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	97.3	F	0.94	
WB L	20	165.6	F	1.23	
WB TR	40	28.9	C	0.88	
EB TR	46	43.4	D	0.97	
SB L	11	64.2	E	0.77	
NB L	12	109.6	F	1.04	
NB TR	18	85.2	F	1.03	
SB TR	19	169.8	F	1.26	
Total	**90 sec**	**63.5**	**E**	**1.26**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	22	54	D	0.67
WB L	19	103.8	F	1.01
WB TR	55	19.6	B	0.54
EB TR	52	54.1	D	1.03
SB L	10	63.4	E	0.63
NB L	10	90.1	F	0.87
NB TR	16	53.6	D	0.89
SB TR	16	64	E	0.83
Total	**100 sec**	**49**	**D**	**1.03**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	452.9	F	1.85
WB L	10	864.1	F	2.81
WB TR	64	13	B	0.46
EB TR	64	22.3	C	0.87
SB L	10	63.4	E	0.63
NB L	10	90.1	F	0.87
NB TR	16	98	F	1.04
SB TR	16	64	E	0.83
Total	**100 sec**	**85.5**	**F**	**2.81**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	61	E	0.73
WB L	16	198	F	1.28
WB TR	58	18.5	B	0.53
EB TR	55	36.7	D	0.97
SB L	10	63.4	E	0.63
NB L	10	90.1	F	0.87
NB TR	16	53.6	D	0.89
SB TR	16	64	E	0.83
Total	**100 sec**	**44.9**	**D**	**1.28**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	100.9	F	0.94
WB L	24	112.9	F	1.08
WB TR	40	34.4	C	0.9
EB TR	49	78.9	E	1.08
SB L	11	81.6	F	0.85
NB L	13	105	F	1.01
NB TR	23	49.2	D	0.86
SB TR	25	98.6	F	1.06
Total	**100 sec**	**66.9**	**E**	**1.08**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	462.3	F	1.88
WB L	10	ERR	F	4.09
WB TR	64	16.3	B	0.67
EB TR	64	15.3	B	0.63
SB L	10	123.2	F	1.02
NB L	10	337.3	F	1.62
NB TR	16	218.7	F	1.37
SB TR	16	317.8	F	1.6
Total	**100 sec**	**178.1**	**F**	**4.09**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	81.5	F	0.86
WB L	23	133	F	1.14
WB TR	44	30.2	C	0.86
EB TR	51	44.6	D	0.96
SB L	11	81.6	F	0.85
NB L	13	105	F	1.01
NB TR	20	74.4	E	0.98
SB TR	22	165.3	F	1.24
Total	**100 sec**	**61**	**E**	**1.24**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	25	65.4	E	0.7
WB L	23	92.7	F	0.94
WB TR	68	19.4	B	0.49
EB TR	66	42.3	D	0.98
SB L	10	87.7	F	0.76
NB L	11	98.4	F	0.91
NB TR	18	65.2	E	0.87
SB TR	19	77.1	E	0.86
Total	**120 sec**	**44.7**	**D**	**0.98**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	620.8	F	2.23
WB L	10	ERR	F	3.38
WB TR	84	12.4	B	0.42
EB TR	84	19.8	B	0.81
SB L	10	87.7	F	0.76
NB L	10	98.4	F	0.87
NB TR	16	105.9	F	1.04
SB TR	16	77.1	E	0.86
Total	**120 sec**	**104.4**	**F**	**3.38**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	23	68.6	E	0.73
WB L	20	147.7	F	1.13
WB TR	71	18.9	B	0.49
EB TR	68	33.5	C	0.93
SB L	10	87.7	F	0.76
NB L	11	98.4	F	0.87
NB TR	18	65.2	E	0.91
SB TR	19	77.1	E	0.86
Total	**120 sec**	**42.9**	**D**	**1.13**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	78.4	E	0.8
WB L	29	102.6	F	1.03
WB TR	49	37.1	D	0.88
EB TR	58	64.4	E	1.02
SB L	12	94.9	F	0.88
NB L	15	102.4	F	0.98
NB TR	27	54.9	D	0.85
SB TR	30	105.7	F	1.06
Total	**120 sec**	**62.9**	**E**	**1.06**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	632.4	F	2.26
WB L	10	ERR	F	4.92
WB TR	84	13.3	B	0.59
EB TR	84	12.6	B	0.56
SB L	10	197.4	F	1.23
NB L	10	482.5	F	1.95
NB TR	16	336.9	F	1.64
SB TR	16	463.5	F	1.93
Total	**120 sec**	**233.9**	**F**	**4.92**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	93.3	F	0.88
WB L	27	131.3	F	1.12
WB TR	53	32.1	C	0.83
EB TR	62	44.8	D	0.93
SB L	13	77.1	E	0.77
NB L	15	102.4	F	0.98
NB TR	25	74.2	E	0.95
SB TR	27	139	F	1.16
Total	**120 sec**	**59.9**	**E**	**1.16**

LOS F

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	21	48.8	E	0.68	1.02
WB L	16	183.9	F	1.26	**ICU LOS**
WB TR	48	22.7	C	0.66	G
EB TR	43	111.7	F	1.18	
SB L	10	56.1	E	0.61	
NB L	10	79.7	E	0.85	
NB TR	16	45.8	D	0.87	
SB TR	16	56	E	0.81	
Total	**90 sec**	**81.8**	**F**	**1.26**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	436.7	F	1.83	
WB L	10	846.1	F	2.78	
WB TR	54	15.2	B	0.54	
EB TR	54	48.8	D	1.03	
SB L	10	56.1	E	0.61	
NB L	10	79.7	F	0.85	
NB TR	16	86.4	E	1.02	
SB TR	16	56	E	0.81	
Total	**90 sec**	**96.8**	**F**	**2.78**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	18	57.3	E	0.75	
WB L	13	383.2	F	1.73	
WB TR	51	21.2	C	0.64	
EB TR	46	76.6	E	1.1	
SB L	10	56.1	E	0.61	
NB L	10	79.7	E	0.85	
NB TR	16	45.8	D	0.87	
SB TR	16	56	E	0.81	
Total	**90 sec**	**74**	**E**	**1.73**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	117.8	F	1.03	1.03
WB L	20	202.3	F	1.33	**ICU LOS**
WB TR	40	35.1	D	0.94	G
EB TR	46	63.1	E	1.05	
SB L	10	108.9	F	0.99	
NB L	11	204.8	F	1.31	
NB TR	19	92.7	F	1.06	
SB TR	20	176.6	F	1.28	
Total	**90 sec**	**82.6**	**F**	**1.33**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	449.5	F	1.86	
WB L	10	ERR	F	4	
WB TR	54	20	C	0.78	
EB TR	54	18.5	B	0.74	
SB L	10	108.9	F	0.99	
NB L	10	314	F	1.58	
NB TR	16	199.6	F	1.34	
SB TR	16	296.1	F	1.56	
Total	**90 sec**	**172.8**	**F**	**4**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	117.8	F	1.03	
WB L	19	242.8	F	1.43	
WB TR	41	35.1	D	0.94	
EB TR	46	53.1	D	1.02	
SB L	11	71.1	E	0.83	
NB L	12	133.7	F	1.13	
NB TR	18	112.2	F	1.12	
SB TR	19	209.4	F	1.36	
Total	**90 sec**	**80.6**	**F**	**1.43**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	23	53.9	E	0.69
WB L	19	127.2	F	1.1
WB TR	55	21	C	0.6
EB TR	51	88.1	F	1.12
SB L	10	67.1	E	0.68
NB L	10	105.1	F	0.95
NB TR	16	70	E	0.97
SB TR	16	76.1	E	0.9
Total	**100 sec**	**69.7**	**E**	**1.12**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	519.1	F	2.01
WB L	10	972.7	F	3.06
WB TR	64	13.5	B	0.49
EB TR	64	28.7	C	0.95
SB L	10	67.1	E	0.68
NB L	10	105.1	F	0.95
NB TR	16	130.9	F	1.14
SB TR	16	76.1	E	0.9
Total	**100 sec**	**99.4**	**F**	**3.06**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	60.2	E	0.74
WB L	15	300.6	F	1.54
WB TR	59	19.9	B	0.58
EB TR	54	53	D	1.04
SB L	10	67.1	E	0.68
NB L	10	105.1	F	0.95
NB TR	16	70	E	0.97
SB TR	16	76.1	E	0.9
Total	**100 sec**	**60.6**	**E**	**1.54**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	121.2	F	1.03
WB L	24	140.1	F	1.17
WB TR	43	32.9	C	0.91
EB TR	52	72.9	E	1.07
SB L	11	93.5	F	0.92
NB L	12	183.5	F	1.25
NB TR	21	96.7	F	1.06
SB TR	22	173.9	F	1.27
Total	**100 sec**	**79.4**	**E**	**1.27**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	533.4	F	2.04
WB L	10	ERR	F	4.4
WB TR	64	17.4	B	0.72
EB TR	64	16.2	B	0.68
SB L	10	144.7	F	1.1
NB L	10	390.6	F	1.75
NB TR	16	267.5	F	1.49
SB TR	16	371.5	F	1.73
Total	**100 sec**	**200.5**	**F**	**4.4**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	95	F	0.93
WB L	22	193.7	F	1.3
WB TR	46	32.9	C	0.91
EB TR	52	47.5	D	0.98
SB L	11	93.5	F	0.92
NB L	13	126	F	1.09
NB TR	19	115	F	1.12
SB TR	21	238.1	F	1.42
Total	**100 sec**	**76.4**	**E**	**1.42**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	25	66.6	E	0.73
WB L	23	111.6	F	1.02
WB TR	68	20.6	C	0.54
EB TR	66	67	E	1.06
SB L	10	95.9	F	0.82
NB L	11	113.1	F	0.95
NB TR	18	83.6	F	0.99
SB TR	19	90.9	F	0.93
Total	**120 sec**	**60.6**	**E**	**1.06**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	702	F	2.42
WB L	10	ERR	F	3.68
WB TR	84	11.2	B	0.44
EB TR	84	19.6	B	0.85
SB L	10	95.9	F	0.82
NB L	10	168.5	F	1.14
NB TR	16	229.1	F	1.38
SB TR	16	132	F	1.08
Total	**120 sec**	**124.2**	**F**	**3.68**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	22	73.3	E	0.78
WB L	20	180.7	F	1.23
WB TR	74	17.6	B	0.51
EB TR	72	36.8	D	0.97
SB L	10	95.9	F	0.82
NB L	10	168.5	F	1.14
NB TR	16	137.7	F	1.16
SB TR	16	132	F	1.08
Total	**120 sec**	**54.2**	**D**	**1.23**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	92.4	F	0.89
WB L	30	110	F	1.06
WB TR	48	42.5	D	0.94
EB TR	59	101	F	1.12
SB L	12	108.3	F	0.95
NB L	15	120.3	F	1.05
NB TR	27	66.2	E	0.93
SB TR	30	133.5	F	1.15
Total	**120 sec**	**81.8**	**F**	**1.15**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	719.4	F	2.46
WB L	10	ERR	F	5.3
WB TR	84	14.1	B	0.64
EB TR	84	13.3	B	0.6
SB L	10	231.7	F	1.33
NB L	10	548.1	F	2.1
NB TR	16	397.5	F	1.78
SB TR	16	529.2	F	2.08
Total	**120 sec**	**261.2**	**F**	**5.3**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	92.4	F	0.89
WB L	27	160.5	F	1.21
WB TR	55	34	C	0.88
EB TR	63	47.8	D	0.96
SB L	12	108.3	F	0.95
NB L	14	158.4	F	1.17
NB TR	24	105.7	F	1.07
SB TR	26	195.6	F	1.31
Total	**120 sec**	**73.3**	**E**	**1.31**

Test 8: LOS A

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	46.3	D	0.43	0.5
WB L	19	45.8	D	0.52	**ICU LOS**
WB TR	40	16.3	B	0.25	A
EB TR	44	19.7	B	0.5	
SB L	11	51.1	D	0.41	
NB L	15	45.3	D	0.4	
NB TR	16	19.4	B	0.16	
SB TR	20	34.3	C	0.15	
Total	**90 sec**	**22.4**	**C**	**0.52**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	82.8	F	0.73	
WB L	10	166.9	F	1.11	
WB TR	54	11.1	B	0.21	
EB TR	54	12.7	B	0.41	
SB L	10	58.1	E	0.48	
NB L	10	74	E	0.66	
NB TR	16	22.1	C	0.21	
SB TR	16	35.1	D	0.17	
Total	**90 sec**	**26.1**	**C**	**1.11**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	15	46.3	D	0.43	
WB L	19	45.8	D	0.52	
WB TR	44	13.8	B	0.23	
EB TR	48	16.7	B	0.45	
SB L	11	51.1	D	0.41	
NB L	11	59.9	E	0.56	
NB TR	16	22	C	0.2	
SB TR	16	35	C	0.17	
Total	**90 sec**	**20.8**	**C**	**0.56**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	48.6	D	0.51	0.56
WB L	23	47.3	D	0.67	**ICU LOS**
WB TR	31	22.6	C	0.51	B
EB TR	39	28.7	C	0.61	
SB L	15	49.3	D	0.53	
NB L	20	47.4	D	0.61	
NB TR	16	23.7	C	0.26	
SB TR	21	35.1	D	0.4	
Total	**90 sec**	**29**	**C**	**0.67**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	111.9	F	0.9	
WB L	10	488.2	F	1.95	
WB TR	54	13.3	B	0.38	
EB TR	54	12.7	B	0.36	
SB L	10	121.4	F	0.94	
NB L	10	303.7	F	1.5	
NB TR	16	32.3	C	0.44	
SB TR	16	39.8	D	0.5	
Total	**90 sec**	**68**	**E**	**1.95**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	14	51.6	D	0.54	
WB L	22	48.3	D	0.68	
WB TR	37	18.1	B	0.44	
EB TR	45	23.5	C	0.51	
SB L	15	49.3	D	0.53	
NB L	15	65.8	E	0.77	
NB TR	16	29.2	C	0.35	
SB TR	16	39.2	D	0.49	
Total	**90 sec**	**27.2**	**C**	**0.77**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	16	51.7	D	0.45
WB L	20	51.7	D	0.55
WB TR	46	16.8	B	0.24
EB TR	50	21.2	C	0.5
SB L	14	50.5	D	0.35
NB L	16	51	D	0.42
NB TR	18	22	C	0.17
SB TR	20	36.7	D	0.14
Total	**100 sec**	**24.1**	**C**	**0.55**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	102.2	F	0.81
WB L	10	209.5	F	1.22
WB TR	64	10.5	B	0.2
EB TR	64	11.3	B	0.38
SB L	10	68.1	E	0.53
NB L	10	89.6	F	0.73
NB TR	16	25.8	C	0.26
SB TR	16	40.1	D	0.19
Total	**100 sec**	**29**	**C**	**1.22**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	53.5	D	0.47
WB L	17	55.9	E	0.59
WB TR	56	12.5	B	0.21
EB TR	58	15.4	B	0.43
SB L	11	59.5	E	0.45
NB L	11	71.2	E	0.61
NB TR	16	25	C	0.22
SB TR	16	40	D	0.19
Total	**100 sec**	**21.4**	**C**	**0.61**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	56.8	E	0.55
WB L	25	52.6	D	0.69
WB TR	37	21.6	C	0.46
EB TR	47	28	C	0.54
SB L	16	55	D	0.54
NB L	20	55.3	E	0.66
NB TR	18	27.3	C	0.28
SB TR	22	38.3	D	0.4
Total	**100 sec**	**29.9**	**C**	**0.69**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	142.5	F	0.99
WB L	10	576.4	F	2.15
WB TR	64	11.9	B	0.35
EB TR	64	11.4	B	0.33
SB L	10	153.6	F	1.03
NB L	10	369.8	F	1.65
NB TR	16	39.2	D	0.49
SB TR	16	48.2	D	0.56
Total	**100 sec**	**79**	**E**	**2.15**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	17	52.5	D	0.51
WB L	22	57.4	E	0.73
WB TR	45	18.7	B	0.42
EB TR	50	22.7	C	0.46
SB L	17	53.1	D	0.52
NB L	17	64.7	E	0.73
NB TR	16	33.9	C	0.36
SB TR	16	46.1	D	0.53
Total	**100 sec**	**28.3**	**C**	**0.73**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	62.3	E	0.48
WB L	26	63	E	0.58
WB TR	56	16.8	B	0.22
EB TR	63	21.1	C	0.45
SB L	17	60.6	E	0.37
NB L	19	61.6	E	0.45
NB TR	19	25.9	C	0.19
SB TR	21	43.8	D	0.14
Total	**120 sec**	**25.9**	**C**	**0.58**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	155.2	F	0.97
WB L	10	311.7	F	1.47
WB TR	84	8.7	A	0.18
EB TR	84	9.4	A	0.34
SB L	10	92.2	F	0.64
NB L	10	132.2	F	0.88
NB TR	16	31.6	C	0.3
SB TR	16	51.7	D	0.28
Total	**120 sec**	**36.9**	**D**	**1.47**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	62.2	E	0.48
WB L	26	63	E	0.58
WB TR	66	11.7	B	0.19
EB TR	72	14.8	B	0.39
SB L	12	71	E	0.47
NB L	12	83.5	F	0.64
NB TR	16	31.4	C	0.29
SB TR	16	50	D	0.22
Total	**120 sec**	**22.6**	**C**	**0.64**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	64.1	E	0.54
WB L	30	62.7	E	0.71
WB TR	44	25.9	C	0.47
EB TR	55	31.2	C	0.51
SB L	19	64.6	E	0.56
NB L	25	63.9	E	0.66
NB TR	21	32	C	0.27
SB TR	27	43.2	D	0.35
Total	**120 sec**	**34.4**	**C**	**0.71**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	213.2	F	1.19
WB L	10	772.1	F	2.58
WB TR	84	9.8	A	0.31
EB TR	84	9.4	A	0.29
SB L	10	230.4	F	1.24
NB L	10	518	F	1.99
NB TR	16	54.5	D	0.59
SB TR	16	67.5	E	0.67
Total	**120 sec**	**104.5**	**F**	**2.58**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	63.2	E	0.53
WB L	28	64.1	E	0.73
WB TR	55	19.7	B	0.4
EB TR	63	23.7	C	0.42
SB L	16	71.9	E	0.63
NB L	18	82.5	F	0.8
NB TR	19	40.1	D	0.39
SB TR	21	52.9	D	0.5
Total	**120 sec**	**31.8**	**C**	**0.8**

LOS B

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	17	48.8	D	0.57	0.68
WB L	17	61.4	E	0.77	**ICU LOS**
WB TR	44	17.7	B	0.4	C
EB TR	44	26.8	C	0.83	
SB L	13	51.9	D	0.51	
NB L	13	63.1	E	0.68	
NB TR	16	22.6	C	0.34	
SB TR	16	37.4	D	0.27	
Total	**90 sec**	**28**	**C**	**0.83**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	185.5	F	1.17	
WB L	10	415.5	F	1.78	
WB TR	54	12.9	B	0.35	
EB TR	54	16.4	B	0.66	
SB L	10	87.3	F	0.77	
NB L	10	152.6	F	1.06	
NB TR	16	23	C	0.35	
SB TR	16	39.3	D	0.33	
Total	**90 sec**	**47.6**	**D**	**1.78**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	16	51	D	0.6	
WB L	16	69.1	E	0.82	
WB TR	46	16.6	B	0.38	
EB TR	46	24.3	C	0.79	
SB L	12	57.1	E	0.56	
NB L	12	73.9	E	0.75	
NB TR	16	22.8	C	0.35	
SB TR	16	39.3	D	0.33	
Total	**90 sec**	**27.4**	**C**	**0.82**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	15	55.8	E	0.65	0.74
WB L	22	57.9	E	0.82	**ICU LOS**
WB TR	34	25.7	C	0.7	D
EB TR	41	33.4	C	0.81	
SB L	14	64.6	E	0.73	
NB L	18	63.1	E	0.81	
NB TR	16	30.3	C	0.44	
SB TR	20	48.6	D	0.65	
Total	**90 sec**	**34.6**	**C**	**0.82**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	202.2	F	1.22	
WB L	10	787.9	F	2.64	
WB TR	54	14.8	B	0.52	
EB TR	54	14.2	B	0.48	
SB L	10	219.7	F	1.28	
NB L	10	522.9	F	2.03	
NB TR	16	41.2	D	0.61	
SB TR	16	51.1	D	0.68	
Total	**90 sec**	**107.3**	**F**	**2.64**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	15	55.8	E	0.65	
WB L	21	62.6	E	0.85	
WB TR	36	24.7	C	0.68	
EB TR	42	30.5	C	0.77	
SB L	17	50.2	D	0.6	
NB L	17	71.3	E	0.86	
NB TR	16	37.2	D	0.54	
SB TR	16	50.1	D	0.67	
Total	**90 sec**	**33.9**	**C**	**0.86**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	54.6	D	0.59
WB L	20	59.3	E	0.73
WB TR	49	18.6	B	0.39
EB TR	51	27.2	C	0.79
SB L	14	56.8	E	0.52
NB L	15	61.2	E	0.63
NB TR	16	24.4	C	0.34
SB TR	17	43.9	D	0.34
Total	**100 sec**	**28.8**	**C**	**0.79**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	232.5	F	1.29
WB L	10	495.3	F	1.96
WB TR	64	11.6	B	0.32
EB TR	64	14.5	B	0.61
SB L	10	108.5	F	0.84
NB L	10	191.5	F	1.17
NB TR	16	28.2	C	0.44
SB TR	16	44.9	D	0.37
Total	**100 sec**	**53.9**	**D**	**1.96**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	54.6	D	0.59
WB L	18	68	E	0.79
WB TR	53	17.3	B	0.38
EB TR	53	23.5	C	0.74
SB L	13	60.7	E	0.56
NB L	13	75.9	E	0.74
NB TR	16	25.7	C	0.37
SB TR	16	44.7	D	0.36
Total	**100 sec**	**27.6**	**C**	**0.79**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	55.6	E	0.61
WB L	25	58.8	E	0.81
WB TR	38	27	C	0.68
EB TR	45	33.9	C	0.77
SB L	17	59	E	0.65
NB L	21	61	E	0.77
NB TR	16	35.9	D	0.46
SB TR	20	55.1	E	0.67
Total	**100 sec**	**35.5**	**D**	**0.81**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	252.5	F	1.35
WB L	10	908.5	F	2.91
WB TR	64	13.3	B	0.47
EB TR	64	12.7	B	0.44
SB L	10	273.2	F	1.4
NB L	10	615	F	2.24
NB TR	16	51.1	D	0.67
SB TR	16	63.9	E	0.75
Total	**100 sec**	**123.3**	**F**	**2.91**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	18	55.6	E	0.61
WB L	24	62.2	E	0.83
WB TR	41	25.1	C	0.64
EB TR	47	30.6	C	0.72
SB L	16	62.9	E	0.69
NB L	19	70.7	E	0.83
NB TR	16	38.4	D	0.51
SB TR	19	60	E	0.72
Total	**100 sec**	**34.8**	**C**	**0.83**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	66.4	E	0.63
WB L	25	66.2	E	0.72
WB TR	61	18.1	B	0.35
EB TR	66	26.7	C	0.72
SB L	16	66.8	E	0.54
NB L	18	68.8	E	0.63
NB TR	16	33.2	C	0.37
SB TR	18	54.7	D	0.38
Total	**120 sec**	**30.1**	**C**	**0.72**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	342.7	F	1.55
WB L	10	672.9	F	2.35
WB TR	84	9.6	A	0.28
EB TR	84	12	B	0.54
SB L	10	165.6	F	1.01
NB L	10	286.7	F	1.41
NB TR	16	42	D	0.53
SB TR	16	58.3	E	0.44
Total	**120 sec**	**69.7**	**E**	**2.35**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	68.6	E	0.65
WB L	21	76.2	E	0.79
WB TR	69	15.4	B	0.33
EB TR	71	21.6	C	0.66
SB L	14	74.2	E	0.6
NB L	14	92.5	F	0.79
NB TR	16	37.3	D	0.44
SB TR	16	58	E	0.44
Total	**120 sec**	**28.5**	**C**	**0.79**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	67.3	E	0.65
WB L	29	68.8	E	0.82
WB TR	48	27.8	C	0.62
EB TR	57	34.9	C	0.69
SB L	21	66.3	E	0.65
NB L	24	71.4	E	0.79
NB TR	19	43.4	D	0.46
SB TR	21	59	E	0.63
Total	**120 sec**	**38.3**	**D**	**0.82**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	369.1	F	1.62
WB L	10	ERR	F	3.5
WB TR	84	11	B	0.42
EB TR	84	10.5	B	0.4
SB L	10	396	F	1.69
NB L	10	819	F	2.69
NB TR	16	78.3	E	0.81
SB TR	16	100	F	0.9
Total	**120 sec**	**160.2**	**F**	**3.5**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	69.6	E	0.67
WB L	28	70.8	E	0.84
WB TR	52	24.9	C	0.58
EB TR	61	31.5	C	0.65
SB L	20	68.4	E	0.66
NB L	21	85	F	0.87
NB TR	19	48.2	D	0.52
SB TR	20	64.3	E	0.68
Total	**120 sec**	**37.6**	**D**	**0.87**

LOS C

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	18	48.7	D	0.59	0.73
WB L	16	82.5	F	0.91	ICU LOS
WB TR	46	19.3	B	0.47	D
EB TR	44	29.5	C	0.89	
SB L	12	62	E	0.63	
NB L	12	87.8	F	0.85	
NB TR	16	23.5	C	0.39	
SB TR	16	40.2	D	0.37	
Total	**90 sec**	**31.9**	**C**	**0.91**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	234.2	F	1.32	
WB L	10	509.9	F	2	
WB TR	54	13.3	B	0.39	
EB TR	54	18.3	B	0.74	
SB L	10	105.4	F	0.87	
NB L	10	192.1	F	1.19	
NB TR	16	25.7	C	0.46	
SB TR	16	40.2	D	0.37	
Total	**90 sec**	**56.9**	**E**	**2**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	18	48.7	D	0.59	
WB L	16	82.5	F	0.91	
WB TR	46	19.3	B	0.47	
EB TR	44	29.5	C	0.89	
SB L	12	62	E	0.63	
NB L	12	87.8	F	0.85	
NB TR	16	23.5	C	0.39	
SB TR	16	40.2	D	0.37	
Total	**90 sec**	**31.9**	**C**	**0.91**	
			PM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	15	61.5	E	0.72	0.81
WB L	21	76.8	E	0.94	ICU LOS
WB TR	36	27.5	C	0.79	D
EB TR	42	37.6	D	0.9	
SB L	15	64.1	E	0.75	
NB L	17	91.8	F	0.97	
NB TR	16	37.9	D	0.58	
SB TR	18	60.4	E	0.78	
Total	**90 sec**	**40.3**	**D**	**0.81**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	264.3	F	1.4	
WB L	10	958.3	F	3.03	
WB TR	54	16	B	0.59	
EB TR	54	15.1	B	0.56	
SB L	10	287.8	F	1.46	
NB L	10	650.1	F	2.33	
NB TR	16	48.3	D	0.69	
SB TR	16	60.4	E	0.78	
Total	**90 sec**	**130.9**	**F**	**3.03**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	14	70.3	E	0.78	
WB L	21	76.8	E	0.94	
WB TR	36	26.5	C	0.77	
EB TR	43	37.6	D	0.9	
SB L	17	53.4	D	0.67	
NB L	17	91.8	F	0.97	
NB TR	16	43.4	D	0.64	
SB TR	16	60.4	E	0.78	
Total	**90 sec**	**40**	**D**	**0.81**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	19	54.7	D	0.62
WB L	19	69.6	E	0.82
WB TR	51	19.1	B	0.44
EB TR	51	29.9	C	0.87
SB L	12	74.2	E	0.69
NB L	14	74.1	E	0.75
NB TR	16	26.6	C	0.38
SB TR	18	46	D	0.4
Total	**100 sec**	**31.7**	**C**	**0.87**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	290.2	F	1.45
WB L	10	600.5	F	2.2
WB TR	64	11.9	B	0.36
EB TR	64	16	B	0.68
SB L	10	133.7	F	0.96
NB L	10	240.4	F	1.31
NB TR	16	32.6	C	0.51
SB TR	16	46.4	D	0.41
Total	**100 sec**	**64.3**	**E**	**2.2**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	17	60.1	E	0.67
WB L	18	77.4	E	0.87
WB TR	53	17.7	B	0.42
EB TR	54	27.1	C	0.84
SB L	13	65.2	E	0.62
NB L	13	86.6	F	0.82
NB TR	16	29.2	C	0.42
SB TR	16	46.4	D	0.41
Total	**100 sec**	**30.8**	**C**	**0.87**
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	16	67	E	0.74
WB L	24	72	E	0.91
WB TR	41	26.4	C	0.73
EB TR	49	35.4	D	0.84
SB L	16	69.7	E	0.76
NB L	19	83.7	F	0.92
NB TR	16	43	D	0.59
SB TR	19	78.6	E	0.86
Total	**100 sec**	**39.7**	**D**	**0.92**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	325	F	1.54
WB L	10	ERR	F	3.34
WB TR	64	14.2	B	0.54
EB TR	64	13.5	B	0.51
SB L	10	351.8	F	1.61
NB L	10	756.1	F	2.56
NB TR	16	61	E	0.77
SB TR	16	78.6	E	0.86
Total	**100 sec**	**149.7**	**F**	**3.34**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	16	67	E	0.74
WB L	24	72	E	0.91
WB TR	41	26.4	C	0.73
EB TR	49	35.4	D	0.84
SB L	19	56.9	E	0.67
NB L	19	83.7	F	0.92
NB TR	16	50.3	D	0.66
SB TR	16	78.6	E	0.86
Total	**100 sec**	**39.5**	**D**	**0.92**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	21	66.8	E	0.66
WB L	24	71	E	0.78
WB TR	62	19.2	B	0.4
EB TR	65	30.3	C	0.82
SB L	15	73.6	E	0.62
NB L	18	71.8	E	0.68
NB TR	16	35.5	D	0.41
SB TR	19	57.5	E	0.44
Total	**120 sec**	**32.9**	**C**	**0.82**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	417.7	F	1.74
WB L	10	801.4	F	2.65
WB TR	84	9.9	A	0.32
EB TR	84	13.1	B	0.61
SB L	10	201	F	1.15
NB L	10	353.2	F	1.58
NB TR	16	47.7	D	0.61
SB TR	16	61	E	0.5
Total	**120 sec**	**82.5**	**F**	**2.65**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	21	66.8	E	0.66
WB L	21	83.8	F	0.86
WB TR	68	17.3	B	0.38
EB TR	68	25.1	C	0.76
SB L	15	73.6	E	0.62
NB L	15	90.6	F	0.8
NB TR	16	40.7	D	0.49
SB TR	16	60.5	E	0.49
Total	**120 sec**	**31.2**	**C**	**0.86**
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	21	68.3	E	0.69
WB L	30	71.8	E	0.87
WB TR	47	31.1	C	0.72
EB TR	56	40.9	D	0.83
SB L	18	80.5	F	0.78
NB L	24	78.1	E	0.86
NB TR	19	44.6	D	0.51
SB TR	25	70.6	E	0.76
Total	**120 sec**	**42.9**	**D**	**0.81**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	461.9	F	1.85
WB L	10	ERR	F	4.01
WB TR	84	11.7	B	0.48
EB TR	84	11.2	B	0.45
SB L	10	495.5	F	1.93
NB L	10	990.4	F	3.08
NB TR	16	99.9	F	0.93
SB TR	16	130.5	F	1.03
Total	**120 sec**	**193.1**	**F**	**4.01**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	19	73.7	E	0.73
WB L	29	75.1	E	0.89
WB TR	50	28.2	C	0.69
EB TR	60	37.3	D	0.79
SB L	20	71.6	E	0.72
NB L	22	90.5	F	0.92
NB TR	19	51.5	D	0.59
SB TR	21	76.3	E	0.8
Total	**120 sec**	**41.9**	**D**	**0.92**

LOS D

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	20	47.7	E	0.62	0.82
WB L	17	91.8	F	0.97	ICU LOS
WB TR	45	21.6	C	0.57	D
EB TR	42	67.6	E	1.07	
SB L	12	70	E	0.72	
NB L	12	119.5	F	0.99	
NB TR	16	29.9	C	0.53	
SB TR	16	42.1	D	0.43	
Total	**90 sec**	**53.7**	**D**	**1.07**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	319.8	F	1.54	
WB L	10	650.1	F	2.33	
WB TR	54	14.1	B	0.45	
EB TR	54	22.8	C	0.87	
SB L	10	139.6	F	1.01	
NB L	10	264.3	F	1.4	
NB TR	16	30	C	0.53	
SB TR	16	42.1	D	0.43	
Total	**90 sec**	**72.4**	**E**	**2.33**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	20	47.7	E	0.62	
WB L	15	151.3	F	1.16	
WB TR	49	19.9	B	0.54	
EB TR	44	36.3	D	0.97	
SB L	10	139.6	F	1.01	
NB L	10	264.3	F	1.4	
NB TR	16	30	C	0.53	
SB TR	16	42.1	D	0.43	
Total	**90 sec**	**46.3**	**D**	**1.4**	
			PM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	ICU
EB L	14	78.9	E	0.85	0.87
WB L	21	98.5	F	1.03	ICU LOS
WB TR	35	31.5	C	0.87	E
EB TR	42	59.5	E	1.02	
SB L	16	62.6	E	0.76	
NB L	18	91.4	F	0.98	
NB TR	16	40.4	D	0.62	
SB TR	18	71	E	0.85	
Total	**90 sec**	**51.4**	**D**	**1.03**	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	315.8	F	1.53	
WB L	10	ERR	F	3.33	
WB TR	54	16.9	B	0.65	
EB TR	54	16	B	0.61	
SB L	10	348.5	F	1.61	
NB L	10	747.8	F	2.55	
NB TR	16	53.5	D	0.75	
SB TR	16	71	E	0.85	
Total	**90 sec**	**149.8**	**F**	**3.33**	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	14	78.9	E	0.85	
WB L	20	120.9	F	1.11	
WB TR	38	27.8	C	0.83	
EB TR	44	38.3	D	0.92	
SB L	16	62.6	E	0.76	
NB L	16	148.1	F	1.16	
NB TR	16	50.6	D	0.73	
SB TR	16	71	E	0.85	
Total	**90 sec**	**47.8**	**D**	**1.16**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	21	54	D	0.65
WB L	19	83.7	F	0.92
WB TR	52	20.6	C	0.52
EB TR	50	48.2	D	1.01
SB L	13	73	E	0.71
NB L	13	114.7	F	0.96
NB TR	16	36.9	D	0.58
SB TR	16	49.7	D	0.48
Total	**100 sec**	**43.7**	**D**	**1.01**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	388.1	F	1.7
WB L	10	756.1	F	2.56
WB TR	64	12.6	B	0.42
EB TR	64	19	B	0.8
SB L	10	174.7	F	1.11
NB L	10	325	F	1.54
NB TR	16	37.3	D	0.59
SB TR	16	49.7	D	0.48
Total	**100 sec**	**80.9**	**F**	**2.56**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	21	54	E	0.65
WB L	17	126.6	F	1.08
WB TR	55	19.8	B	0.51
EB TR	51	34	C	0.95
SB L	12	87.5	F	0.8
NB L	12	156.6	F	1.1
NB TR	16	37.3	D	0.59
SB TR	16	49.7	D	0.48
Total	**100 sec**	**40**	**D**	**1.1**
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	17	65.6	E	0.75
WB L	24	83.9	F	0.97
WB TR	40	31.3	C	0.84
EB TR	47	48.2	D	0.96
SB L	17	69	E	0.78
NB L	20	85.4	F	0.94
NB TR	16	46.1	D	0.64
SB TR	19	97	F	0.95
Total	**100 sec**	**47.2**	**D**	**0.97**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	383.5	F	1.69
WB L	10	ERR	F	3.66
WB TR	64	15	B	0.6
EB TR	64	14.2	B	0.56
SB L	10	420.3	F	1.78
NB L	10	864.1	F	2.81
NB TR	16	70.1	E	0.83
SB TR	16	97	F	0.95
Total	**100 sec**	**171.1**	**F**	**3.66**
Minimzed Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	16	72.8	E	0.79
WB L	24	83.9	F	0.97
WB TR	42	27.5	C	0.78
EB TR	50	39.5	D	0.91
SB L	18	63.2	E	0.74
NB L	18	126.9	F	1.09
NB TR	16	61.5	E	0.78
SB TR	16	97	F	0.95
Total	**100 sec**	**45.7**	**D**	**1.09**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	23	66.3	E	0.69
WB L	22	90.5	F	0.92
WB TR	66	20	B	0.47
EB TR	65	35.2	D	0.92
SB L	14	88.6	F	0.76
NB L	16	94.5	F	0.85
NB TR	16	46.2	D	0.6
SB TR	18	66.2	E	0.57
Total	**120 sec**	**38.1**	**D**	**0.92**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	540.7	F	2.04
WB L	10	990.4	F	3.08
WB TR	84	10.4	B	0.37
EB TR	84	15.2	B	0.71
SB L	10	262.5	F	1.34
NB L	10	461.9	F	1.85
NB TR	16	56.8	E	0.71
SB TR	16	66.5	E	0.58
Total	**120 sec**	**102.6**	**F**	**3.08**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	22	68.4	E	0.71
WB L	21	102.7	F	0.97
WB TR	68	19	B	0.46
EB TR	67	31.7	C	0.9
SB L	14	88.6	F	0.76
NB L	15	111.5	F	0.93
NB TR	16	50	D	0.65
SB TR	17	66.5	E	0.58
Total	**120 sec**	**37.4**	**D**	**0.97**
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	19	77.6	E	0.77
WB L	30	77.4	E	0.91
WB TR	48	31.5	C	0.77
EB TR	59	46.3	D	0.91
SB L	19	80.4	F	0.8
NB L	24	86.3	F	0.91
NB TR	18	50.9	D	0.61
SB TR	23	99.7	F	0.93
Total	**120 sec**	**47.3**	**D**	**0.93**
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	535	F	2.03
WB L	10	ERR	F	4.41
WB TR	84	12.3	B	0.53
EB TR	84	11.7	B	0.5
SB L	10	580.6	F	2.14
NB L	10	ERR	F	3.38
NB TR	16	177.8	F	1
SB TR	16	159.1	F	1.14
Total	**120 sec**	**219.5**	**F**	**4.41**
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	17	92.7	F	0.86
WB L	28	88.7	F	0.96
WB TR	52	27.9	C	0.73
EB TR	63	39.4	D	0.85
SB L	20	75.8	E	0.77
NB L	22	107.7	F	1
NB TR	18	59.8	E	0.7
SB TR	20	107.3	F	0.96
Total	**120 sec**	**46.5**	**D**	**1**

LOS E

Cycle Length: 90 seconds					
			AM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	20	49.2	D	0.66	0.88
WB L	15	190.4	F	1.27	**ICU LOS**
WB TR	48	21.9	C	0.61	E
EB TR	43	72.5	E	1.09	
SB L	11	107.4	F	0.92	
NB L	11	210	F	1.27	
NB TR	16	32.8	C	0.58	
SB TR	16	43.7	D	0.47	
Total	**90 sec**	**65**	**E**	**1.27**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	377.6	F	1.68	
WB L	10	747.8	F	2.55	
WB TR	54	14.6	B	0.5	
EB TR	54	29.9	C	0.95	
SB L	10	163.9	F	1.1	
NB L	10	315.8	F	1.53	
NB TR	16	32.8	C	0.58	
SB TR	16	43.7	D	0.47	
Total	**90 sec**	**85.4**	**F**	**2.55**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	18	54.4	D	0.71	
WB L	13	324.9	F	1.59	
WB TR	50	20.9	C	0.6	
EB TR	45	53.1	D	1.04	
SB L	11	107.4	F	0.92	
NB L	11	210	F	1.27	
NB TR	16	32.8	C	0.58	
SB TR	16	43.7	D	0.47	
Total	**90 sec**	**61.9**	**E**	**1.59**	
			PM		
Optimizing Splits					
	Splits	**Delay**	**LOS**	**V/C Ratio**	**ICU**
EB L	14	97.3	F	0.94	0.95
WB L	21	135.5	F	1.16	**ICU LOS**
WB TR	36	37.9	D	0.95	F
EB TR	43	85.8	F	1.1	
SB L	16	70.2	E	0.83	
NB L	17	153.6	F	1.18	
NB TR	16	53.3	D	0.76	
SB TR	17	89.8	F	0.95	
Total	**90 sec**	**69.9**	**E**	**1.18**	
Minimums except Main St					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	10	385.9	F	1.7	
WB L	10	ERR	F	3.71	
WB TR	54	18.5	B	0.73	
EB TR	54	17.3	B	0.68	
SB L	10	423.9	F	1.8	
NB L	10	877.4	F	2.85	
NB TR	16	64.8	E	0.84	
SB TR	16	89.8	F	0.95	
Total	**90 sec**	**175**	**F**	**3.71**	
Minimzed Delay					
	Splits	**Delay**	**LOS**	**V/C Ratio**	
EB L	13	131.8	F	1.06	
WB L	18	243	F	1.42	
WB TR	40	31.2	C	0.9	
EB TR	45	43.4	D	0.97	
SB L	16	70.2	E	0.83	
NB L	16	196.1	F	1.29	
NB TR	16	62.6	E	0.83	
SB TR	16	89.8	F	0.95	
Total	**90 sec**	**64.3**	**E**	**1.42**	

Cycle Length: 100 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	22	54	D	0.67
WB L	18	126.9	F	1.09
WB TR	53	22	C	0.58
EB TR	49	71.1	E	1.08
SB L	13	78.5	E	0.77
NB L	13	137.4	F	1.06
NB TR	16	41.6	D	0.64
SB TR	16	51.9	D	0.53
Total	**100 sec**	**58.8**	**E**	**1.09**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	452.9	F	1.85
WB L	10	864.1	F	2.81
WB TR	64	13	B	0.46
EB TR	64	22.3	C	0.87
SB L	10	205.9	F	1.21
NB L	10	383.5	F	1.69
NB TR	16	41.7	D	0.64
SB TR	16	51.9	D	0.53
Total	**100 sec**	**93.1**	**F**	**2.81**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	58	E	0.71
WB L	15	250.9	F	1.41
WB TR	57	20.4	C	0.55
EB TR	52	41.5	D	0.99
SB L	12	99.9	F	0.87
NB L	12	189.2	F	1.21
NB TR	16	41.7	D	0.64
SB TR	16	51.9	D	0.53
Total	**100 sec**	**51.9**	**D**	**1.41**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	100.9	F	0.94
WB L	24	112.9	F	1.08
WB TR	40	34.4	C	0.9
EB TR	49	78.9	E	1.08
SB L	18	68.9	E	0.8
NB L	20	111.2	F	1.05
NB TR	16	57.4	E	0.77
SB TR	18	124.2	F	1.06
Total	**100 sec**	**64.2**	**E**	**1.08**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	462.3	F	1.88
WB L	10	ERR	F	4.09
WB TR	64	16.3	B	0.67
EB TR	64	15.3	B	0.63
SB L	10	504.8	F	1.98
NB L	10	ERR	F	3.13
NB TR	16	88.3	F	0.93
SB TR	16	124.2	F	1.06
Total	**100 sec**	**199.2**	**F**	**4.09**
Minimzed Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	15	100.9	F	0.94
WB L	21	189	F	1.29
WB TR	45	30.3	C	0.86
EB TR	51	40.2	D	0.94
SB L	18	68.9	E	0.8
NB L	18	167.8	F	1.21
NB TR	16	79	E	0.89
SB TR	16	124.2	F	1.06
Total	**100 sec**	**58.7**	**E**	**1.29**

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	25	65.4	E	0.7
WB L	23	92.7	F	0.94
WB TR	65	21.5	C	0.52
EB TR	63	57	E	1.03
SB L	15	85.1	F	0.76
NB L	16	108	F	0.93
NB TR	16	55.6	E	0.7
SB TR	17	70.2	E	0.63
Total	**120 sec**	**50.3**	**D**	**1.03**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	620.8	F	2.23
WB L	10	ERR	F	3.38
WB TR	84	10.8	B	0.4
EB TR	84	17	B	0.78
SB L	10	306.7	F	1.46
NB L	10	535	F	2.03
NB TR	16	64.5	E	0.77
SB TR	16	70.2	E	0.63
Total	**120 sec**	**116.8**	**F**	**3.38**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	24	66.7	E	0.71
WB L	19	174.9	F	1.21
WB TR	71	19.9	B	0.5
EB TR	66	33.5	C	0.93
SB L	14	95.1	F	0.81
NB L	14	166.4	F	1.13
NB TR	16	64.5	E	0.77
SB TR	16	70.2	E	0.63
Total	**120 sec**	**44.4**	**D**	**1.21**
			PM	
Optimizing Splits				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	20	78.4	E	0.8
WB L	29	102.6	F	1.03
WB TR	58	37.1	D	0.88
EB TR	49	64.4	E	1.02
SB L	20	81.8	F	0.83
NB L	24	103.8	F	1
NB TR	18	59.2	E	0.72
SB TR	22	134.4	F	1.07
Total	**120 sec**	**59.5**	**E**	**1.07**
Minimums except Main St				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	10	632.4	F	2.26
WB L	10	ERR	F	4.92
WB TR	84	13.3	B	0.59
EB TR	84	12.6	B	0.56
SB L	10	684.5	F	2.38
NB L	10	ERR	F	3.77
NB TR	16	151.7	F	1.12
SB TR	16	202.4	F	1.27
Total	**120 sec**	**254.4**	**F**	**4.92**
Minimized Delay				
	Splits	**Delay**	**LOS**	**V/C Ratio**
EB L	19	84.6	F	0.83
WB L	28	116	F	1.07
WB TR	53	31.7	C	0.82
EB TR	62	44.8	D	0.93
SB L	20	81.8	F	0.83
NB L	22	137.3	F	1.11
NB TR	17	79.3	E	0.86
SB TR	19	163.7	F	1.16
Total	**120 sec**	**55.7**	**E**	**1.16**

LOS F

Cycle Length: 90 seconds						
			AM			
Optimizing Splits						
	Splits	Delay	LOS	V/C Ratio	ICU	
EB L	20	50.9	D	0.7	0.99	
WB L	16	183.9	F	1.26	ICU LOS	
WB TR	47	23.2	C	0.67	F	
EB TR	43	124.7	F	1.21		
SB L	11	126.1	F	0.99		
NB L	11	250.5	F	1.38		
NB TR	16	36	D	0.62		
SB TR	16	45.4	D	0.52		
Total	90 sec	93.4	F	1.38		
Minimums except Main St						
	Splits	Delay	LOS	V/C Ratio		
EB L	10	436.7	F	1.83		
WB L	10	846.1	F	2.78		
WB TR	54	15.2	B	0.54		
EB TR	54	48.8	D	1.03		
SB L	10	192.1	F	1.19		
NB L	10	369.2	F	1.66		
NB TR	16	36	D	0.62		
SB TR	16	45.4	D	0.52		
Total	90 sec	104.6	F	2.78		
Minimzed Delay						
	Splits	Delay	LOS	V/C Ratio		
EB L	18	57.3	E	0.75		
WB L	13	383.2	F	1.73		
WB TR	51	21.2	C	0.64		
EB TR	46	76.6	E	1.1		
SB L	10	192.1	F	1.19		
NB L	10	369.2	F	1.66		
NB TR	16	36	D	0.62		
SB TR	16	45.4	D	0.52		
Total	90 sec	83.8	F	1.73		
			PM			
Optimizing Splits						
	Splits	Delay	LOS	V/C Ratio	ICU	
EB L	14	117.8	F	1.03	1.01	
WB L	20	202.3	F	1.33	ICU LOS	
WB TR	37	54	D	1.02	G	
EB TR	43	104.3	F	1.15		
SB L	15	98	F	0.96		
NB L	17	187.4	F	1.28		
NB TR	16	53.5	D	0.78		
SB TR	18	109.1	F	1.03		
Total	90 sec	94.8	F	1.33		
Minimums except Main St						
	Splits	Delay	LOS	V/C Ratio		
EB L	10	449.5	F	1.86		
WB L	10	ERR	F	4		
WB TR	54	20	C	0.78		
EB TR	54	18.5	B	0.74		
SB L	10	483.9	F	1.94		
NB L	10	976.3	F	3.07		
NB TR	16	78	E	0.92		
SB TR	16	109.1	F	1.03		
Total	90 sec	194.9	F	4		
Minimzed Delay						
	Splits	Delay	LOS	V/C Ratio		
EB L	14	117.8	F	1.03		
WB L	19	242.8	F	1.43		
WB TR	41	35.1	D	0.94		
EB TR	46	53.1	D	1.02		
SB L	14	129.7	F	1.07		
NB L	14	366.9	F	1.7		
NB TR	16	78	E	0.92		
SB TR	16	109.1	F	1.03		
Total	90 sec	80.5	F	1.7		

Cycle Length: 100 seconds					
			AM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	
EB L	23	53.9	D	0.69	
WB L	17	195.8	F	1.28	
WB TR	55	22.7	C	0.62	
EB TR	49	88.1	F	1.12	
SB L	12	115.4	F	0.94	
NB L	12	225.8	F	1.31	
NB TR	16	46.2	D	0.69	
SB TR	16	54.3	D	0.57	
Total	100 sec	74.9	E	1.31	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	519.1	F	2.01	
WB L	10	972.7	F	3.06	
WB TR	64	13.5	B	0.49	
EB TR	64	28.7	C	0.95	
SB L	10	240.4	F	1.31	
NB L	10	443.6	F	1.83	
NB TR	16	46.2	D	0.69	
SB TR	16	54.3	D	0.57	
Total	100 sec	107.2	F	3.06	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	20	60.2	E	0.74	
WB L	14	375.2	F	1.71	
WB TR	59	20.7	C	0.59	
EB TR	53	53	D	1.04	
SB L	11	163.5	F	1.1	
NB L	11	317.3	F	1.54	
NB TR	16	46.2	D	0.69	
SB TR	16	54.3	D	0.57	
Total	100 sec	69.7	E	1.71	
			PM		
Optimizing Splits					
	Splits	Delay	LOS	V/C Ratio	
EB L	15	121.2	F	1.03	
WB L	24	140.1	F	1.17	
WB TR	41	39	D	0.95	
EB TR	50	97.8	F	1.13	
SB L	16	104.4	F	0.97	
NB L	19	165.8	F	1.21	
NB TR	16	61.4	E	0.81	
SB TR	19	150.1	F	1.15	
Total	100 sec	79.6	E	1.21	
Minimums except Main St					
	Splits	Delay	LOS	V/C Ratio	
EB L	10	533.4	F	2.04	
WB L	10	ERR	F	4.4	
WB TR	64	17.4	B	0.72	
EB TR	64	16.2	B	0.68	
SB L	10	571.6	F	2.13	
NB L	10	ERR	F	3.38	
NB TR	16	108.5	F	1.02	
SB TR	16	150.1	F	1.15	
Total	100 sec	221.3	F	4.4	
Minimzed Delay					
	Splits	Delay	LOS	V/C Ratio	
EB L	16	95	F	0.93	
WB L	22	193.7	F	1.3	
WB TR	46	32.9	C	0.91	
EB TR	52	47.5	D	0.98	
SB L	16	104.4	F	0.97	
NB L	16	301	F	1.54	
NB TR	16	108.5	F	1.02	
SB TR	16	150.1	F	1.15	
Total	100 sec	72.2	E	1.54	

Cycle Length: 120 seconds				
			AM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	25	66.6	E	0.73
WB L	22	129.3	F	1.08
WB TR	66	22.8	C	0.57
EB TR	63	81.9	F	1.1
SB L	14	106.5	F	0.88
NB L	16	126.9	F	1.01
NB TR	16	57.4	E	0.72
SB TR	18	74.7	E	0.68
Total	120 sec	66.3	E	1.1
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	702	F	2.42
WB L	10	ERR	F	3.68
WB TR	84	11.2	B	0.44
EB TR	84	19.6	B	0.85
SB L	10	353.2	F	1.58
NB L	10	609.3	F	2.2
NB TR	16	73.8	E	0.83
SB TR	16	74.7	E	0.68
Total	120 sec	131.5	F	3.68
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	24	68.7	E	0.75
WB L	17	304.3	F	1.54
WB TR	73	21	C	0.55
EB TR	66	40.2	D	0.99
SB L	14	106.5	F	0.88
NB L	14	197	F	1.23
NB TR	16	73.8	E	0.83
SB TR	16	74.7	E	0.68
Total	120 sec	56.3	E	1.54
			PM	
Optimizing Splits				
	Splits	Delay	LOS	V/C Ratio
EB L	18	106.3	F	0.95
WB L	30	110	F	1.06
WB TR	48	40.2	D	0.93
EB TR	60	101	F	1.12
SB L	20	88.7	F	0.88
NB L	24	123	F	1.07
NB TR	18	66.6	E	0.79
SB TR	22	160.5	F	1.16
Total	120 sec	76.5	E	1.16
Minimums except Main St				
	Splits	Delay	LOS	V/C Ratio
EB L	10	719.4	F	2.46
WB L	10	ERR	F	5.3
WB TR	84	14.1	B	0.64
EB TR	84	13.3	B	0.6
SB L	10	766.2	F	2.57
NB L	10	ERR	F	4.07
NB TR	16	181.5	F	1.22
SB TR	16	240.7	F	1.37
Total	120 sec	281.9	F	5.3
Minimized Delay				
	Splits	Delay	LOS	V/C Ratio
EB L	19	92.4	F	0.89
WB L	28	141.8	F	1.16
WB TR	55	32.5	C	0.86
EB TR	64	47.8	D	0.96
SB L	18	116.2	F	0.99
NB L	20	229.3	F	1.36
NB TR	17	103	F	0.97
SB TR	19	195.9	F	1.26
Total	120 sec	66.8	E	1.36

Appendix D

LOS CHARTS

LOS SYNCHRO

LOS CMS

BASE	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr		19.5 SEC 90 CYCLE				
B 1000-1150 veh/hr			27.6 SEC 120 CYCLE			
C 1151-1300 veh/hr			29.6 SEC 120 CYCLE			
D 1301-1450 Veh/hr				38.8 SEC 120 CYCLE		
E 1451-1600 veh/hr					56.4 SEC 120 CYCLE	
F 1601+ veh/hr					74.9 SEC 120 CYCLE	

LOS SYNCHRO

LOS CMS

BASE Optimal	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			20.7 SEC 90 CYCLE			
B 1000-1150 veh/hr			28.5 SEC 120 CYCLE			
C 1151-1300 veh/hr			30.2 SEC 120 CYCLE			
D 1301-1450 Veh/hr				39.7 SEC 120 CYCLE		
E 1451-1600 veh/hr					57.5 SEC 120 CYCLE	
F 1601+ veh/hr						80.7 SEC 120 CYCLE

LOS SYNCHRO

LOS CMS

BASE Mins.	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			24.9 SEC 90 CYCLE			
B 1000-1150 veh/hr				46.9 SEC 90 CYCLE		
C 1151-1300 veh/hr				35.4 SEC 90 CYCLE		
D 1301-1450 Veh/hr				51.9 SEC 90 CYCLE		
E 1451-1600 veh/hr					66.9 SEC 100 CYCLE	
F 1601+ veh/hr						87.6 SEC 100 CYCLE

LOS SYNCHRO

LOS CMS

BASE Min Delay	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr		19.5 SEC 90 CYCLE				
B 1000-1150 veh/hr			27.6 SEC 120 CYCLE			
C 1151-1300 veh/hr			29.6 SEC 120 CYCLE			
D 1301-1450 Veh/hr				38.8 SEC 120 CYCLE		
E 1451-1600 veh/hr					56.4 SEC 120 CYCLE	
F 1601+ veh/hr					74.9 SEC 120 CYCLE	

LOS SYNCHRO

LOS CMS

Test 1	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			23.5 SEC 90 CYCLE			
B 1000-1150 veh/hr				37.4 SEC 100 CYCLE		
C 1151-1300 veh/hr				47.4 SEC 100 CYCLE		
D 1301-1450 Veh/hr					66.5 SEC 120 CYCLE	
E 1451-1600 veh/hr						85.8 SEC 120 CYCLE
F 1601+ veh/hr						109.1 SEC 120 CYCLE

LOS SYNCHRO

LOS CMS

Test 1 Optimal	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			24.2 SEC 90 CYCLE			
B 1000-1150 veh/hr				37.9 SEC 100 CYCLE		
C 1151-1300 veh/hr					56.5 SEC 120 CYCLE	
D 1301-1450 Veh/hr						98 SEC 120 CYCLE
E 1451-1600 veh/hr						130.6 SEC 120 CYCLE
F 1601+ veh/hr						163.9 SEC 120 CYCLE

LOS SYNCHRO

LOS CMS

Test 1 Mins.	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			25.1 SEC 90 CYCLE			
B 1000-1150 veh/hr				39 SEC 90 CYCLE		
C 1151-1300 veh/hr				51.1 SEC 90 CYCLE		
D 1301-1450 Veh/hr						101 SEC 100 CYCLE
E 1451-1600 veh/hr						128.2 SEC 100 CYCLE
F 1601+ veh/hr						157.9 SEC 120 CYCLE

LOS SYNCHRO

LOS CMS

Test 1 Min Delay	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			23.5 SEC 90 CYCLE			
B 1000-1150 veh/hr				37.4 SEC 100 CYCLE		
C 1151-1300 veh/hr				47.4 SEC 100 CYCLE		
D 1301-1450 Veh/hr					66.5 SEC 120 CYCLE	
E 1451-1600 veh/hr						85.8 SEC 120 CYCLE
F 1601+ veh/hr						109.1 SEC 120 CYCLE

LOS SYNCHRO

LOS CMS

Test 2	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			20.1 SEC 90 CYCLE			
B 1000-1150 veh/hr			26.7 SEC 90 CYCLE			
C 1151-1300 veh/hr			29.9 SEC 100 CYCLE			
D 1301-1450 Veh/hr				35.6 SEC 120 CYCLE		
E 1451-1600 veh/hr			33.1 SEC 120 CYCLE			
F 1601+ veh/hr				53.9 SEC 120 CYCLE		

LOS SYNCHRO

LOS CMS

Test 2 Optimal	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			21.8 SEC 90 CYCLE			
B 1000-1150 veh/hr			27.3 SEC 90 CYCLE			
C 1151-1300 veh/hr			30.6 SEC 100 CYCLE			
D 1301-1450 Veh/hr				36.4 SEC 120 CYCLE		
E 1451-1600 veh/hr				36.3 SEC 120 CYCLE		
F 1601+ veh/hr					63.3 SEC 120 CYCLE	

LOS SYNCHRO

LOS CMS

Test 2 Mins.	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			25.3 SEC 90 CYCLE			
B 1000-1150 veh/hr				46.9 SEC 90 CYCLE		
C 1151-1300 veh/hr					56 SEC 90 CYCLE	
D 1301-1450 Veh/hr					71.4 SEC 90 CYCLE	
E 1451-1600 veh/hr					57.7 SEC 90 CYCLE	
F 1601+ veh/hr						103.3 SEC 90 CYCLE

LOS SYNCHRO

LOS CMS

Test 2 Min Delay	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			20.1 SEC 90 CYCLE			
B 1000-1150 veh/hr			26.7 SEC 90 CYCLE			
C 1151-1300 veh/hr			29.9 SEC 100 CYCLE			
D 1301-1450 Veh/hr				35.6 SEC 120 CYCLE		
E 1451-1600 veh/hr			33.1 SEC 120 CYCLE			
F 1601+ veh/hr				53.9 SEC 120 CYCLE		

LOS SYNCHRO

LOS CMS

Test 3	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			24.5 SEC 90 CYCLE			
B 1000-1150 veh/hr				36.6 SEC 100 CYCLE		
C 1151-1300 veh/hr				43.2 SEC 120 CYCLE		
D 1301-1450 Veh/hr					57.3 SEC 120 CYCLE	
E 1451-1600 veh/hr					67.3 SEC 120 CYCLE	
F 1601+ veh/hr						83.5 SEC 120 CYCLE

LOS SYNCHRO

LOS CMS

Test 3 Optimal	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			28.5 SEC 90 CYCLE			
B 1000-1150 veh/hr				39.3 SEC 90 CYCLE		
C 1151-1300 veh/hr				51.5 SEC 100 CYCLE		
D 1301-1450 Veh/hr						85.9 SEC 100 CYCLE
E 1451-1600 veh/hr						121.2 SEC 100 CYCLE
F 1601+ veh/hr						152.4 SEC 100 CYCLE

LOS SYNCHRO

LOS CMS

Test 3 Mins.	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			29.8 SEC 90 CYCLE			
B 1000-1150 veh/hr				54 SEC 90 CYCLE		
C 1151-1300 veh/hr					64.7 SEC 90 CYCLE	
D 1301-1450 Veh/hr						86.6 SEC 90 CYCLE
E 1451-1600 veh/hr						105.2 SEC 100 CYCLE
F 1601+ veh/hr						127.9 SEC 100 CYCLE

LOS SYNCHRO

LOS CMS

Test 3 Min Delay	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			24.5 SEC 90 CYCLE			
B 1000-1150 veh/hr				36.6 SEC 100 CYCLE		
C 1151-1300 veh/hr				43.2 SEC 120 CYCLE		
D 1301-1450 Veh/hr					57.3 SEC 120 CYCLE	
E 1451-1600 veh/hr					67.3 SEC 120 CYCLE	
F 1601+ veh/hr						83.5 SEC 120 CYCLE

LOS SYNCHRO

LOS CMS

Test 6	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr		19.3 SEC 90 CYCLE				
B 1000-1150 veh/hr			25.1 SEC 90 CYCLE			
C 1151-1300 veh/hr			28.2 SEC 100 CYCLE			
D 1301-1450 Veh/hr				35.1 SEC 100 CYCLE		
E 1451-1600 veh/hr				42.9 SEC 120 CYCLE		
F 1601+ veh/hr				54.2 SEC 120 CYCLE		

LOS SYNCHRO

LOS CMS

Test 6 Optimal	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			21 SEC 90 CYCLE			
B 1000-1150 veh/hr			26.1 SEC 100 CYCLE			
C 1151-1300 veh/hr			29 SEC 100 CYCLE			
D 1301-1450 Veh/hr				35.7 SEC 100 CYCLE		
E 1451-1600 veh/hr				44.7 SEC 120 CYCLE		
F 1601+ veh/hr					60.6 SEC 120 CYCLE	

LOS SYNCHRO

LOS CMS

Test 6 Mins.	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			24.7 SEC 90 CYCLE			
B 1000-1150 veh/hr				43.8 SEC 90 CYCLE		
C 1151-1300 veh/hr				52.1 SEC 90 CYCLE		
D 1301-1450 Veh/hr					65.6 SEC 90 CYCLE	
E 1451-1600 veh/hr					77.3 SEC 90 CYCLE	
F 1601+ veh/hr						96.8 SEC 90 CYCLE

LOS SYNCHRO

LOS CMS

Test 6 Min Delay	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr		19.3 SEC 90 CYCLE				
B 1000-1150 veh/hr			25.1 SEC 90 CYCLE			
C 1151-1300 veh/hr			28.2 SEC 100 CYCLE			
D 1301-1450 Veh/hr				35.1 SEC 100 CYCLE		
E 1451-1600 veh/hr				42.9 SEC 120 CYCLE		
F 1601+ veh/hr				54.2 SEC 120 CYCLE		

LOS SYNCHRO

LOS CMS / Test 8	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			20.8 SEC 90 CYCLE			
B 1000-1150 veh/hr			27.4 SEC 90 CYCLE			
C 1151-1300 veh/hr			30.8 SEC 100 CYCLE			
D 1301-1450 Veh/hr				37.4 SEC 120 CYCLE		
E 1451-1600 veh/hr				44.5 SEC 120 CYCLE		
F 1601+ veh/hr					56.3 SEC 120 CYCLE	

LOS SYNCHRO

LOS CMS / Test 8 Optimal	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			22.4 SEC 90 CYCLE			
B 1000-1150 veh/hr			28 SEC 90 CYCLE			
C 1151-1300 veh/hr			31.7 SEC 100 CYCLE			
D 1301-1450 Veh/hr				38.1 SEC 120 CYCLE		
E 1451-1600 veh/hr				50.3 SEC 120 CYCLE		
F 1601+ veh/hr					66.3 SEC 120 CYCLE	

LOS SYNCHRO

Test 8 Mins.	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			26.1 SEC 90 CYCLE	→	→	→
B 1000-1150 veh/hr				46.7 SEC 90 CYCLE	→	→
C 1151-1300 veh/hr					56.9 SEC 90 CYCLE	→
D 1301-1450 Veh/hr					72.4 SEC 90 CYCLE	→
E 1451-1600 veh/hr						85.4 SEC 90 CYCLE →
F 1601+ veh/hr						104.6 SEC 90 CYCLE →

LOS CMS

LOS SYNCHRO

Test 8 Min Delay	A 0-10 SEC	B 10-20 SEC	C 20-35 SEC	D 35-55 SEC	E 55-80 SEC	F 80+ SEC
A 0-999 veh/hr			20.8 SEC 90 CYCLE	→	→	→
B 1000-1150 veh/hr			27.4 SEC 90 CYCLE	→	→	→
C 1151-1300 veh/hr			30.8 SEC 100 CYCLE	→	→	→
D 1301-1450 Veh/hr				37.4 SEC 120 CYCLE	→	→
E 1451-1600 veh/hr				44.4 SEC 120 CYCLE	→	→
F 1601+ veh/hr					56.3 SEC 120 CYCLE	→

LOS CMS