Corridor Study

RIVERSIDE DRIVE CORRIDOR STUDY

Wicomico County, Maryland

October 18, 2010

Prepared for:

Salisbury/Wicomico Metropolitan Planning Organization

Merging Innovation and Excellence*

Prepared in cooperation with the United States Department of Transportation, Federal Highway Administration and Federal Transit Administration.

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INTRODUCTION AND SUMMARY OF FINDINGS

Traffic Impact Analysis

RIVERSIDE DRIVE
Wicomico County, Maryland

Prepared for
Salisbury/Wicomico County
Metropolitan Planning Organization

STUDY PURPOSE

The Traffic Group, Inc. has conducted a Corridor Study to evaluate the operational and safety characteristics of the Riverside Drive Corridor under existing conditions as well as for the identified target years of 2015 and 2030. The purpose of this study is to analyze current conditions; to project future conditions and needs; and to develop recommended prioritized improvements based upon realistic assumptions regarding available resources.

Riverside Drive is located both in Salisbury, Maryland and Wicomico County, Maryland. It runs east - west from its eastern terminus at its intersection with Mill Street/Camden Ave./W. Carroll Street to its western terminus at Campground Road. For the purposes of this study, the Riverside Drive Corridor includes Riverside Drive in its entirety, the portion of Mill Street from its intersection with Riverside Drive to its intersection with US Route 50, and the portion of Campground Road from its intersection with Riverside Drive to Upper Ferry Road.

STUDY CRITERIA/METHODOLOGY

The Salisbury-Wicomico Metropolitan Planning Organization (S/WMPO) was officially established in the fall of 2003, with its primary mission to perform transportation planning and to coordinate those efforts within the region. The S/WMPO was established under Title 23, Section 134 of the United States Code which defines a Metropolitan Planning Organization (MPO) as an urbanized area with a population of more than 50,000 persons and having a density of at least 1,000 persons per square mile. As a result of the 2000 Census, the S/WMPO was formed which includes the Cities of Salisbury and Fruitland, the Towns of Delmar, MD and Delmar, DE and portions of the adjacent unincorporated areas of Wicomico County.

The primary governing body of the S/WMPO is the Council which consists of the following governments and agencies.

- Maryland Department of Transportation
- Wicomico County, MD
- The City of Salisbury, MD
- The City of Fruitland, MD
- The Town of Delmar, MD
- Tri-County Council for the Lower Eastern Shore of Maryland

- Delaware Department of Transportation (non-voting)
- The Town of Delmar, DE (non-voting)

SCOPE OF SERVICES

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

- *CONDUCT A MEETING WITH REPRESENTATIVES FROM THE S/WMPO TO CONFIRM THE SCOPE AND IDENTIFY SOURCES OF NEEDED DATA AND INFORMATION*

- *CONDUCT FIELD INSPECTIONS TO IDENTIFY THE ROADWAY SEGMENTS COMPRISING THE RIVERSIDE DRIVE CORRIDOR AND THE KEY INTERSECTIONS WHICH SERVE AS NODES FOR THESE SEGMENTS.*

- *COLLECT PHYSICAL INFORMATION FOR EACH ROADWAY SEGMENT AND KEY INTERSECTCIONS, INCLUDING CONDTION DIAGRAMS AND PHOTO SURVEYS*

- *CONDUCT INTERSECTION TURNING MOVEMENT COUNTS BETWEEN THE HOURS OF 6 AND 9 AM AND 4 AND 7 PM ON A WEEKDAY WHILE SCHOOL IS IN SESSION AT THE KEY INTERSECTIONS*

- *OBTAIN INFORMATION FROM THE CITY OF SALISBURY, WICOMICO COUNTY, AND SHA REGARDING ROAD RIGHTS-OF-WAY AND SIGNAL TIMING FOR ANY EXISTING AND PROPOSED SIGNAL ON THE CORRIDOR*

- *DEVELOP AND INCORPORATE THE FIELD DATA INTO A COMPUTER SIMULATED MODEL*

- *CONDUCT CAPACITY ANALYSES FOR EACH ROADWAY SEGMENT AND KEY INTERSECTION WITHIN THE STUDY AREA TO DETERMINE THE EXISTING LEVELS OF SERVICE. CONDUCT SIDRA ANALYSES FOR THE PROPOSED ROUNDABOUT AT MILL STREET & RIVERSIDE DRIVE INTERSECTION.*

- *IDENTIFY EXISTING AREAS OF "HIGH CONGESTION AND/OR FORCED FLOW CONDITIONS"*

- *OBTAIN AND EVALUATE THE MOST RECENT THREE (3) YEARS OF ACCIDENT DATA FOR EACH ROADWAY SEGMENT AND INTERSECTION. IDENTIFY HIGH ACCIDENT SEGMENTS AND INTERSECTIONS*

- *IDENTIFY AND EVALUTE ANY EXISTING FACTORS THAT MAY BE PRESENTLY CONTRIBUTING TO POOR LEVELS OF SERVICE AND HIGH ACCIDENT RATES WITHIN THE STUDY AREA. IDENTIFY AND EVALUTE SPECIFIC ROADWAY SEGMENTS WHERE THESE LOCAL FACTORS PLAY A SIGNIFICANT ROLE*

- *Identify Approved and potentional development likely to be built on or before the target years of 2010, 2020, and 2030 (The target years were subsequently changed to 2015 and 2030 by the S/W MPO.)*

- *Conduct trip generation and trip distribution analyses for potential development and determine weekday traffic volume projections and Average Daily Traffic projections for the target years for each roadway segment and intersection*

- *Identify any planned improvements that will be constructed prior to any of the target years for inclusion in the analysis*

- *Conduct capacity analyses for each key intersection within the study area to determine the Levels of Service for each target year.*

- *identify existing areas of "high congestion and/or forced flow conditions" for each target year*

- *Identify and evaluate factors that most likely will contribute to projected poor Levels of Service and increased accident rates wtihin the study area.*

- *Provide a preliminary assessment of the feasiblity of providing a future Wicomico River crossing.*

- *Prepare an interim report on the project Levels of Service for the key intersections for the target years along with discussions of factors that are contributing to the poor Levels of Service*

- *Identify recommended improvement alternatives and associated costs to alleviate poor Levels of Service and high accdient rates for existing conditions as well as for each of the target years*

- *Prioritize the recommended improvements and develop an implementation plan for each target year.*

- *Prepare a final report summarizing the recommended improvements*

Summary of Findings and Recommendations

Computer simulation models of the Riverside Drive Corridor were developed using Synchro and Simtraf. The Synchro model utilizes the Highway Capacity Manual (HCM) methodology to assess capacity and operations at the study intersections and roadway segments. The results of the Synchro analyses for the Riverside Drive Corridor

indicate that traffic is projected to operate smoothly throughout most of the Corridor under existing conditions and under projected 2030 conditions.

Through the use of the Simtraf portion of the traffic model, excessive queuing was identified in the portion of the Corridor along Mill Street and its intersections. The simulation effectively mimics the congestion known to be occurring under existing conditions. This is due primarily to high traffic volumes in the southeast - west direction which is represented as northbound left turns from Mill Street onto Main Street and US Route 50 and as eastbound right turns from Main Street and US Route 50 onto Mill Street.

Four alternatives were identified which would alleviate congestion along Mill Street. While each of these alternatives provide some measure of success in improving traffic operations, our analyses were confined to traffic volumes realized along the Riverside Drive Corridor only and do not reflect other traffic volumes in the S/W MPO which may benefit from a third bridge crossing of the Wicomico County River. While one of the new bridges identified in the above alternatives may ultimately provide the optimum solution, it is our recommendation that a comprehensive study, taking in the needs of the entire area, be conducted to determine the appropriate location of another bridge crossing of the Wicomico River.

Finally, an analysis was conducted to determine if it would be operationally feasible to convert the Riverside Drive/Mill Street/Carroll Street intersection (now signalized) to a roundabout. Using Sidra software to evaluate the roundabout, it was determined that, under all projected (2030 Total and the 4 alternative) traffic conditions, 2 circulating lanes would be necessary. The roundabout was projected to operate at LOS "B" under each traffic conditions and all "v/c" calculations were shown to be less than 0.85[1/]. Based on these analyses, a roundabout is operationally feasible.

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

[1/] The FHWA document Roundabouts; An Information Guide states that for acceptable roundabout operation, many sources advise that the volume-to-capacity ratio on any leg of a roundabout not exceed 0.85

EXISTING TRAFFIC CONDITIONS

SITE INFORMATION

The Traffic Group, Inc. has conducted a Corridor Study to evaluate the operational and safety characteristics of the Riverside Drive Corridor under existing conditions as well as for the identified target years of 2015 and 2030.[2] The purpose of this study is to analyze current conditions; to project future conditions and needs; and to develop recommended prioritized improvements based upon realistic assumptions regarding available resources.

STUDY AREA

Riverside Drive is located both in Salisbury, Maryland and Wicomico County, Maryland. It runs east - west from its eastern terminus at its intersection with Mill Street/Camden Ave./W. Carroll Street to its western terminus at Campground Road. For the purposes of this study, the Riverside Drive Corridor includes Riverside Drive in its entirety, the portion of Mill Street from its intersection with Riverside Drive to its intersection with US Route 50, and the portion of Campground Road from its intersection with Riverside Drive to Upper Ferry Road. The following intersections were identified to be included in the corridor analysis.

- US 50 and Mill Street
- Mill Street and Main Street
- Mill Street and Riverside Drive
- Riverside Drive and Wicomico Street
- Riverside Drive and South Boulevard
- Riverside Drive and W. College Avenue
- Riverside Drive and Loblolly Lane
- Riverside Drive and Pine Bluff Road
- Riverside Drive and Shad Point Road
- Campground Road and S. Upper Ferry Road

The Riverside Drive Study Corridor Area is depicted in Exhibit 1.

[2/] The original Scope of Services indicated three target years, 2010, 2020, and 2030. However, due to the delay in beginning the study, the S/W MPO subsequently changed the target years to 2015 and 2030.

Riverside Drive follows the Wicomico River which acts as a natural barrier between the west and southeast portions of the City. There are only two bridge crossings of the Wicomico River, all within the metro core: Main Street and US 50. The bridge on Isabella Street crosses the northern tributary of the Wicomico River. All traffic traveling east - west must funnel into one of the bridge crossings within the Metro Core, utilize the free ferry located in Wicomico County on Upper Ferry Road to the south, or utilize the US 50 Bypass or Naylor Mill Road to the north. Much of the traffic traveling to/from the southeast - west portions of the City and County utilize the portion of Mill Street which is included in the Riverside Drive Corridor and cross the Wicomico River via the Main Street or US 50 bridges.

The bridge crossings on US Route 50 and Main Street are drawbridges. The Maryland State Highway Administration provided information on the operation of these drawbridges which are opened upon request. The operators prefer that requests be made four hours in advance. The drawbridges may NOT be opened during peak times, which are from 7 to 9 AM, noon to 1 PM, and 4 to 6 PM, seven days a week. The operators alert local emergency services whenever the drawbridges are opened.

For the six month period from January 2010 through June 2010, the number of drawbridge openings has averaged 17 per month. There are fewer requests during the winter months.

Portions of the Riverside Drive Corridor are classified as an Urban Collector, an Urban Minor Arterial, and a Rural Minor Collector. Existing lane use, intersection traffic control, and posted speed limits are provided in Exhibit 2.

From the intersection with Wicomico Street, westward, the Riverside Drive Corridor consists of two lanes, one lane in each direction. Travel lanes range from twelve to sixteen feet in width within the City limits and, within the County limits, travel lane widths range from nine to twelve feet. A four to five foot bike path is provided along both sides of the roadway within the City limits.

There are no known planned improvements to the Riverside Drive Corridor.

TRAFFIC VOLUMES

The existing morning and evening peak hour traffic volumes on a weekday when school is in session were collected and are summarized in Exhibit 3. Average Daily Traffic Volumes (ADT) are also shown on Exhibit 3. These turning movement counts were collected during April and May in 2008 when school was in session. Condition diagrams and photo surveys were also prepared. These, along with the turning movement count summaries, are provided in Appendix A.

ANALYSIS OF EXISTING TRAFFIC CONDITIONS

A computer simulation model of the Riverside Drive Corridor was developed using Synchro and SimTraffic. These models utilize the Highway Capacity Manual (HCM) methodology to assess capacity and operations at the study intersections. The results are summarized in terms of Levels of Service which are based on the amount of delay anticipated at each intersection. The results are based on calculations for individual intersections and do not necessarily reflect the effect of traffic operating through several intersections in close proximity to one another. However, the simulation models do demonstrate the effect of neighboring intersections on traffic operations. These effects can best be summarized through queuing analyses which identify locations where traffic may interfere with operations at an adjacent intersection.

The results of these analyses for the Riverside Drive Corridor indicate that traffic is operating smoothly throughout most of the Corridor. Not surprisingly, excessive queuing was identified in the portion of the Corridor along Mill Street and its intersections. This is due primarily to high traffic volumes in the southeast to west direction which is represented as northbound left turns from Mill Street onto Main Street and onto US Route 50 and as eastbound right turns from Main Street and from US Route 50 onto Mill Street.

The results of the intersection capacity analyses are presented in Exhibit 11 and the results of the queuing analyses are presented in Exhibit 12. Copies of the SYNCHRO/Simtraf worksheets can be found in Appendix D. These results are discussed by intersection below.

US Route 50 and Mill Street: This signalized intersection is presently operating at Levels of Service C during both the morning and evening weekday peak periods. The queuing analyses reveals that the 95th percentile queues exceed the available storage length for the westbound US 50 left turn movement for both the morning and evening weekday peak periods. The 95th percentile queue for the northbound Mill Street left turn exceeds the available storage length for the evening weekday peak period.

Mill Street and Main Street: This signalized intersection is presently operating at Levels of Service C during both the morning and evening weekday peak periods. The queuing analysis reveals that the 95th percentile queues for the eastbound Main Street right turn exceed the available storage length for the morning weekday peak period. The 95th percentile queues for the eastbound Main Street left/thru, the westbound Main Street approach, and the northbound Mill Street left turn exceed the available storage length for the evening weekday peak period.

Mill Street and Riverside Drive: This signalized intersection is presently operating at Levels of Service C during both the morning and evening weekday peak periods. The queuing analysis reveals that the 95th percentile queues for the eastbound Riverside Drive left turn exceed the available storage length for both the morning and evening weekday peak periods. The 95th percentile queue for the westbound Carroll Street right turn exceeds the available storage length, the distance from Mill Street to Circle Avenue, for the evening weekday peak period.

Riverside Drive and Wicomico Street: This intersection, which is controlled with a 2-way STOP on Wicomico Street, is presently experiencing significant delay on the eastbound Wicomico Street approach during the morning weekday peak period. However, only 22 vehicles were observed during this peak period. The other approaches are presently experiencing acceptable Levels of Service, LOS D or better, for both the morning and evening weekday peak periods. The queuing analysis reveals that the 95th percentile queues can be accommodated within the existing storage length for both the morning and evening weekday peak hour periods.

Riverside Drive and South Boulevard: This intersection, which is controlled with a 2-way STOP on South Boulevard, is presently operating at acceptable Levels of Service, LOS C or better, for all approaches during both the morning and evening weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

Riverside Drive and W. College Avenue: This T-intersection, which is controlled with a STOP sign on W. College Avenue, is presently operating at acceptable Levels of Service, (LOS B or better), for all approaches during both the morning and evening weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

Riverside Drive and Loblolly Lane: This T-intersection, which is controlled with a STOP sign on Loblolly Lane, is presently operating at acceptable Levels of Service, B or better, for all approaches during both the morning and evening weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

Riverside Drive and Pine Bluff Road: This intersection, which is controlled with a 2-way STOP sign on Pine Bluff Road, is presently operating at acceptable Levels of Service, LOS B or better, for all approaches during both the morning and evening weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

Riverside Drive and Shad Point Road: This intersection, which is controlled with a 2-way STOP on Shad Point Road, is presently operating at acceptable Levels of Service, LOS B or better, for all approaches during both the morning and evening weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

Campground Road and S. Upper Ferry Road: This intersection, which is controlled with a 2-way STOP on Campground Road, is presently operating at acceptable Levels of Service, LOS A, for all approaches during both the morning and evening weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

ANALYSIS OF THREE YEAR COLLISION DATA

The SHA Collision data base was consulted to identify the number of collisions occurring along the Riverside Drive Corridor during the past three years for which data has been compiled. These three years are 2006, 2007, and 2008.

Exhibit 4A summarizes crash data for the roadway segments comprising the Riverside Drive Corridor. Exhibit 4B summarizes crash data for the study intersections.

During the three years, there were 19 accidents on Mill Street (0.14 miles):

- 11 intersection related
- 2 with injuries
- 1 single vehicle accident
- 0 with wet pavement
- 0 at night time

During the three years, there were 49 accidents on Riverside Drive (6.02 miles):

- 15 intersection related
- 22 with injuries
- 19 single vehicle accidents
- 9 with wet pavement
- 8 at night time

Exhibits contained in Appendix C provide more information on these collisions.

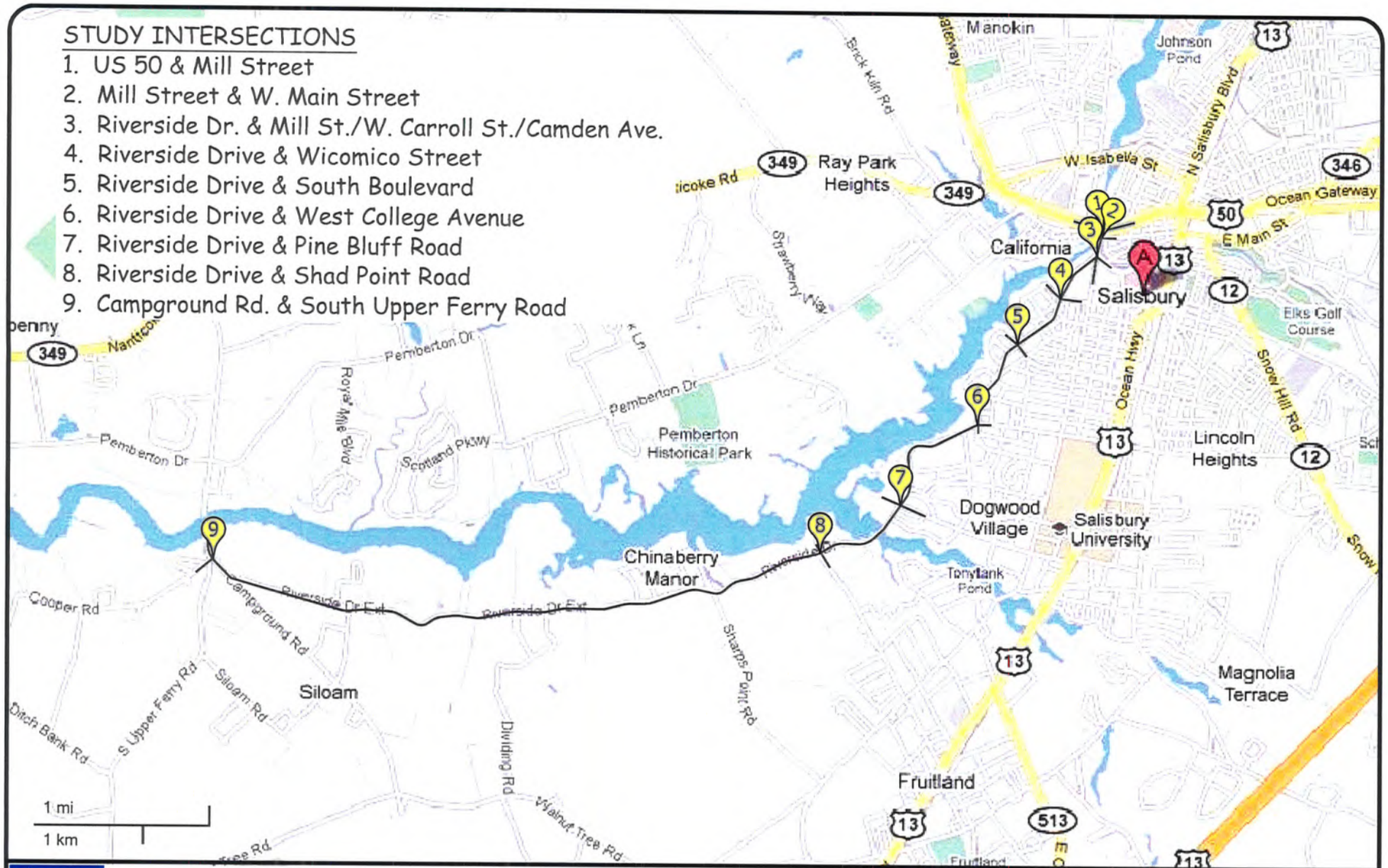

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EXHIBIT 1
STUDY INTERSECTIONS

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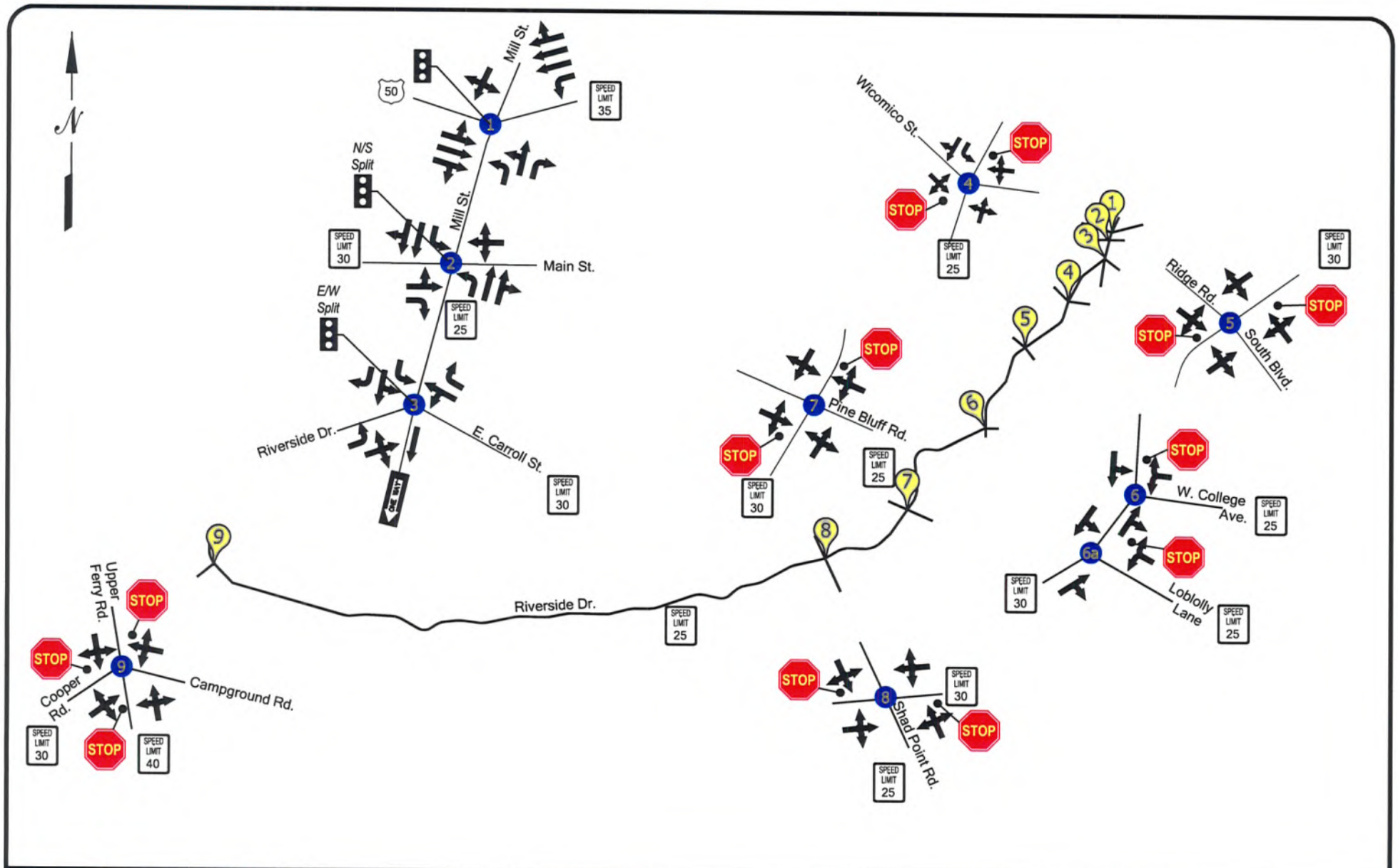

NOT TO SCALE

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EXHIBIT 2
EXISTING LANE USE

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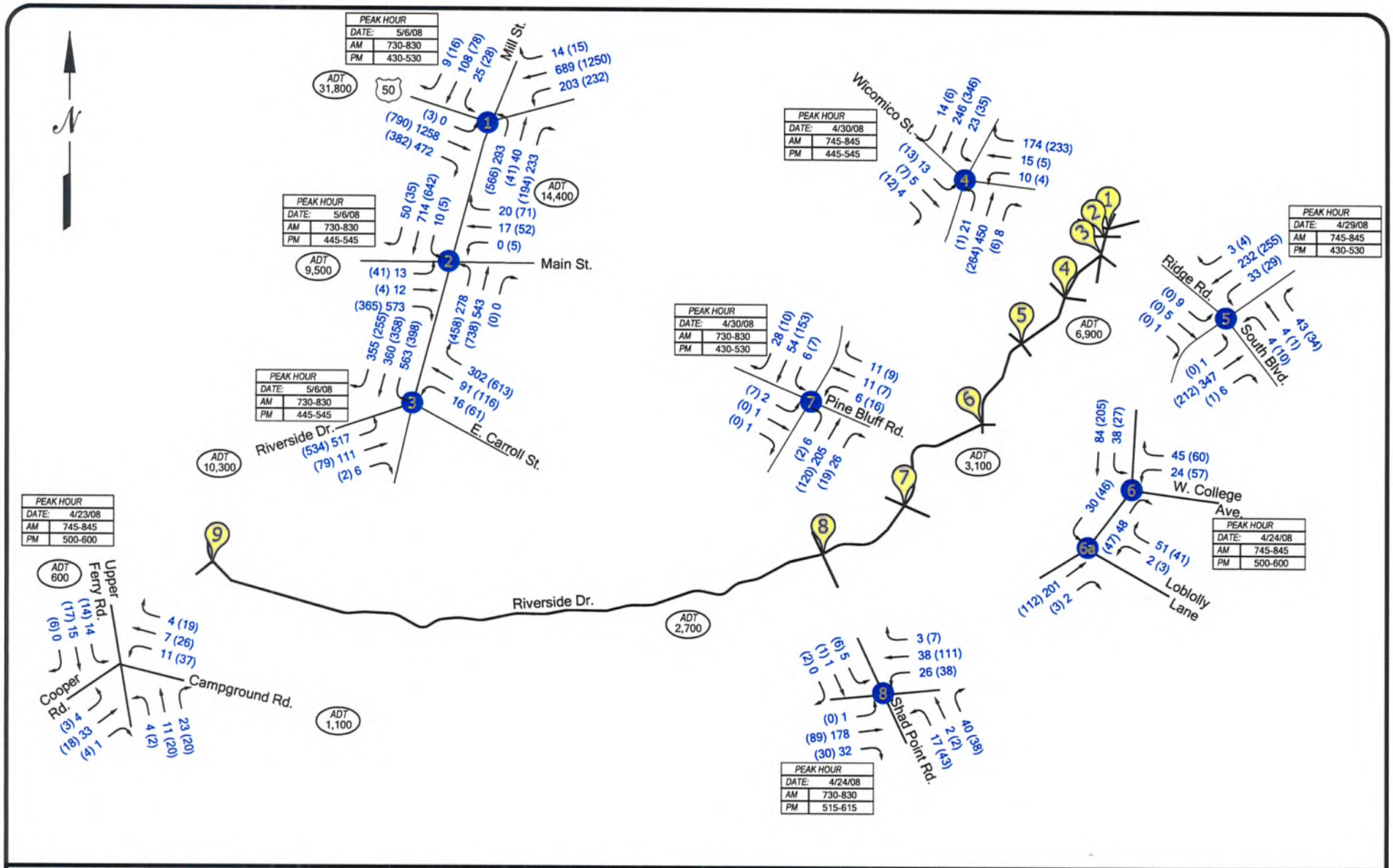

NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

NOTE:
ALL INTERSECTIONS MAY NOT HAVE SIMULTANEOUS PEAK HOURS.

EXHIBIT 3
EXISTING PEAK HOUR TRAFFIC VOLUMES

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Links	Link Length (Mile)	2006	2007	2008	3 Years Total	1 Year Average
Mill Street						
From US 50 to Riverside Drive	0.14	5	9	5	19	6
Riverside Drive						
From Mill Street to Shad Point Road	2.55	11	11	12	34	11
From Shad Point Road to Campground Rd	3.47	6	6	3	15	5
Campground Rd						
From Riverside Dr to South Upper Ferry Rd	0.17	1	0	0	1	0

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EXHIBIT 4A
SUMMARY OF CRASH DATA FOR
MILL ST/RIVERSIDE DR/CAMPGROUND RD (2006-2008)
FROM US 50 TO SOUTH UPPER FERRY ROAD

rh, 060629\accident\accsum.xls-result, f08/18/10

Intersections	2006	2007	2008	3 Years Total	1 Year Average
1. US 50 & Mill Street	2	0	5	7	2
2. Mill Street & W. Main Street	1	7	1	9	3
3. Riverside Dr & Mill St/W.Carroll St/Camden Ave	2	1	3	6	2
4. Riverside Drive & Wicomico Street	3	0	1	4	1
5. Riverside Drive & South Boulevard	0	1	0	1	0
6. Riverside Drive & West College Avenue	1	0	1	2	1
7. Riverside Drive & Pine Bluff Road	0	1	0	1	0
8. Riverside Drive & Shad Point Road	2	3	1	6	2
9. Campground Rd & South Upper Ferry Road	0	0	1	1	0

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EXHIBIT 4B
SUMMARY OF CRASH DATA FOR
ALL STUDY INTERSECTIONS ALONG
MILL ST/RIVERSIDE DR/CAMPGROUND RD (2006-2008)

rh, 060629\accident\accsum.xls-result (2), f08/18/10

FUTURE TRAFFIC CONDITIONS

ANTICIPATED DEVELOPMENT

Traffic volumes along US Route 50 are anticipated to grow due to development activity outside of the study area. To account for that development activity, a regional growth rate of 1 percent per annum was applied to traffic volumes on US Route 50 as shown in Exhibits 5A (regional growth to 2015) and 5B (regional growth to 2030).

Information was obtained from the Salisbury/Wicomico County Department of Planning on anticipated development along the Riverside Drive Corridor for the target years of 2015 and 2030. This data, presented in Exhibit 6, consists of 2 tables.

Table 1 lists developments along the corridor for which plans have been submitted. Table 2 provides information on the type of development that may occur, based on existing zoning, on properties along the Riverside Drive Corridor. None of these development areas are anticipated to be built by the target year of 2015.

The anticipated developments are located on the site map provided in Exhibit 7. The anticipated development for which plans have been submitted (Table 1 in Exhibit 5) are identified by blue stars and the anticipated development for the other development areas (Table 2 in Exhibit 5) are identified by green stars on Exhibit 7.

The Institute of Transportation Engineers' (ITE's) Trip Generation Report, Seventh Edition, 2003 was consulted to determine the trip generation rates and totals for these developments. The resulting trip generation rates and totals are provided in Exhibit 8.

The trip generation totals for the anticipated developments were assigned to the key intersections utilizing the trip distributions depicted in the Exhibits contained in Appendix B. These trips were assigned to each intersection in combination as shown in Exhibit 9A for the target year of 2015 and in Exhibit 9B for the target year of 2030.

The total 2015 and 2030 peak hour traffic volumes are provided in Exhibits 10A and 10B respectively. Exhibit 10B also provides projected ADT's for the target year of 2030.

ANALYSIS OF FUTURE TRAFFIC CONDITIONS - 2015

As before, a computer simulation model of the Riverside Drive Corridor was developed using Synchro and SimTraffic. The results of the intersection capacity analyses are presented in Exhibit 11 and the results of the queuing analyses are presented in Exhibit 12.

The results of the analyses for the Study Year 2015 are similar to the results for existing traffic conditions. While the delays and queues are projected to increase, the Levels of Services remain the same with the following exception.

Riverside Drive and Wicomico Street: This intersection is projected to continue to experience significant delay on the eastbound approach during the morning weekday peak period. The projected delay increased 2.7 seconds which is sufficient, in this case to change the Level of Service from LOS E to LOS F. However, only 22 vehicles are anticipated to experience this delay.

ANALYSIS OF FUTURE TRAFFIC CONDITIONS - 2030

The computer simulation model of the Riverside Drive Corridor was updated to reflect peak hour traffic conditions for the study year of 2030. The results of the intersection capacity analyses are presented in Exhibit 11 and the results of the queuing analyses are presented in Exhibit 12. These results are discussed below.

US Route 50 and Mill Street: This signalized intersection is projected to operate at Levels of Service D during both the morning and evening 2030 weekday peak periods. The queuing analyses reveals that the 95th percentile queues continue to exceed the available storage length for the westbound left turn movement for both the morning and evening 2030 weekday peak periods. The 95th percentile queue for the northbound left turn is projected to exceed the available storage length for the both the morning and evening 2030 weekday peak period.

Mill Street and Main Street: For the study year 2030, this signalized intersection is projected to continue to operate at similar Levels of Service as was projected for the study year 2015.

Mill Street and Riverside Drive: This signalized intersection is projected to continue to operate at Level of Service C during the evening 2030 weekday peak period and at a Level of Service D during the morning 2030 weekday peak period. The queuing analysis reveals that the 95th percentile queues for the eastbound left turn continue to exceed the available storage length for both the morning and evening 2030 weekday peak periods. The 95th percentile queue for the westbound right turn continues to exceed the available storage length, the distance from Mill Street to Circle Avenue, for the evening 2030 weekday peak period. The 95th percentile queue for the southbound left turn is projected to exceed the available storage length for the morning 2030 weekday peak period.

Riverside Drive and Wicomico Street: This intersection projected to continue to experience significant delay on the eastbound approach during both the morning and evening weekday peak period. The westbound approach is projected to experience a Level of Service E during the morning 2030 weekday peak period. The other approaches are projected to experience acceptable Levels of Service, LOS C or better, for both the morning and evening 2030 weekday peak periods.

Riverside Drive and South Boulevard: No significant change is projected for the study year 2030.

Riverside Drive and W. College Avenue: No significant change is projected for the study year 2030.

Riverside Drive and Loblolly Lane: This intersection is projected to continue to operate at acceptable Levels of Service, B or better, for all approaches during both the morning and evening 2030 weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

Riverside Drive and Pine Bluff Road: This intersection is projected to continue to operate at acceptable Levels of Service, LOS C or better, for all approaches during both the morning and evening 2030 weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

Riverside Drive and Shad Point Road: This intersection is projected to continue to operate at acceptable Levels of Service, LOS C or better, for all approaches during both the morning and evening 2030 weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

Campground Road and S. Upper Ferry Road: This intersection is projected to operate at acceptable Levels of Service, LOS B or better, for all approaches during both the morning and evening 2030 weekday peak periods. The queuing analysis reveals that the 95th percentile queues are insignificant.

ANALYSIS OF ALTERNATIVES

As discussed above, the Mill Street intersections are projected to operate at acceptable levels of service up through the study year 2030. However HCM capacity analyses assume that the intersections are isolated and thus no interaction between other intersections is expected. With over 600 vehicles (under existing conditions) in the southbound direction at Main Street for both the morning peak hour and the evening peak hour, and with only 200 feet of 2-lane stacking available, it is not surprising that the traffic movements feeding those volumes (i.e. eastbound US 50 right turns and westbound US 50 left turns) experience excessive queuing.

Four Alternative solutions have been prepared to divert traffic away from the congestion being experienced on Mill Street:

- Alternate 1 - Eastbound US 50 right turn traffic (over 400 vehicles per hour during both peak hours) is diverted upstream with a right turn at Lake Street, left turn onto W. Main Street, over the bridge and returned to Mill Street. This significantly reduces the amount of traffic on the short link between US 50 and E. Main Street. To ensure free flow of the diverted traffic onto Mill Street, we recommend restricting the traffic along W. Main Street to right-turn-only traffic. No changes to the bridge would be necessary with this alternate.

- Alternate 2 - In addition to diverting the eastbound US 50 right turn traffic, the reverse movement, i.e. northbound left turn at US 50, is diverted upstream with a left turn at Main Street, over the bridge, right turn onto Lake Street, and returning with a left turn at US 50. Because of the large volume of traffic that would be turning left at the bridge, this improvement would require double left turn lanes along northbound Mill Street and thus necessitating a widening of the Main Street Bridge to provide four (4) lanes of traffic.

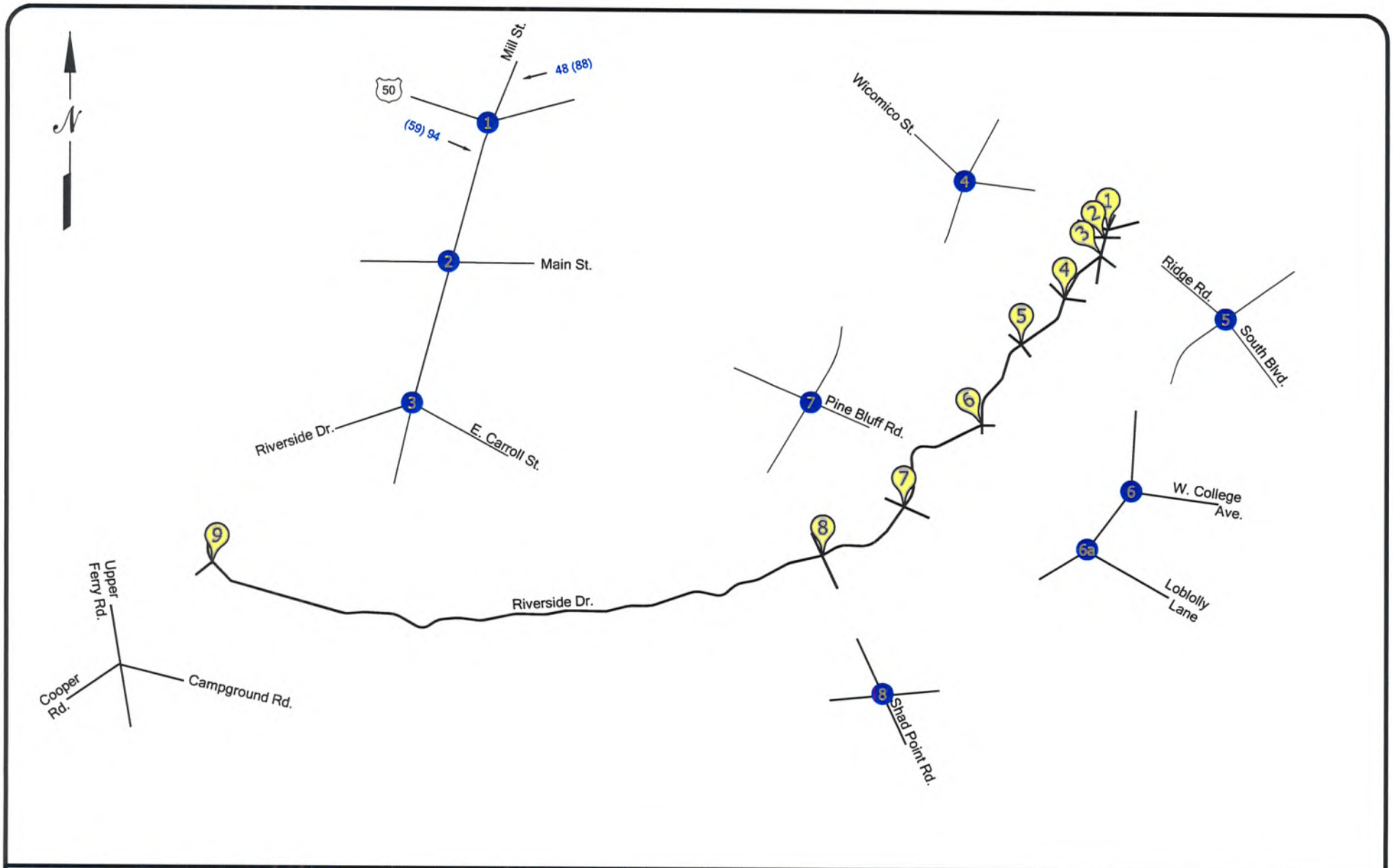
- Alternate 3 - This alternate calls for a new one-way bridge (southeast bound) to connect Lake Street and the diverted right turn traffic with Carroll Street. The existing Main Street Bridge would become one-way westbound.

- Alternate 4 - This alternate would have the Carroll Street Bridge as a two-way bridge and the Main Street Bridge would no longer be needed - perhaps used as a pedestrian bridge.

All four of these alternatives would remove traffic from Mill Street to a roadway better able to handle the large volume of traffic. Exhibits in Appendix E are provided to illustrate the projected diversion of traffic. Exhibit 13 shows the projected levels of service for each alternate.

In addition, the Mill Street & Riverside Drive intersection was evaluated for capacity as a 2-lane roundabout under the 2030 total traffic conditions and under the four alternative conditions using Sidra software. The roundabout was projected to operate at LOS "B" under each traffic condition and to have all "v/c" calculations less than 0.85[3/]. The Sidra worksheets can be found in Appendix D.

[3/] The FHWA document (Roundabouts; An Information Guide states that for acceptable roundabout operation, many sources advise that the volume-to-capacity ratio on any leg of a roundabout not exceed 0.85



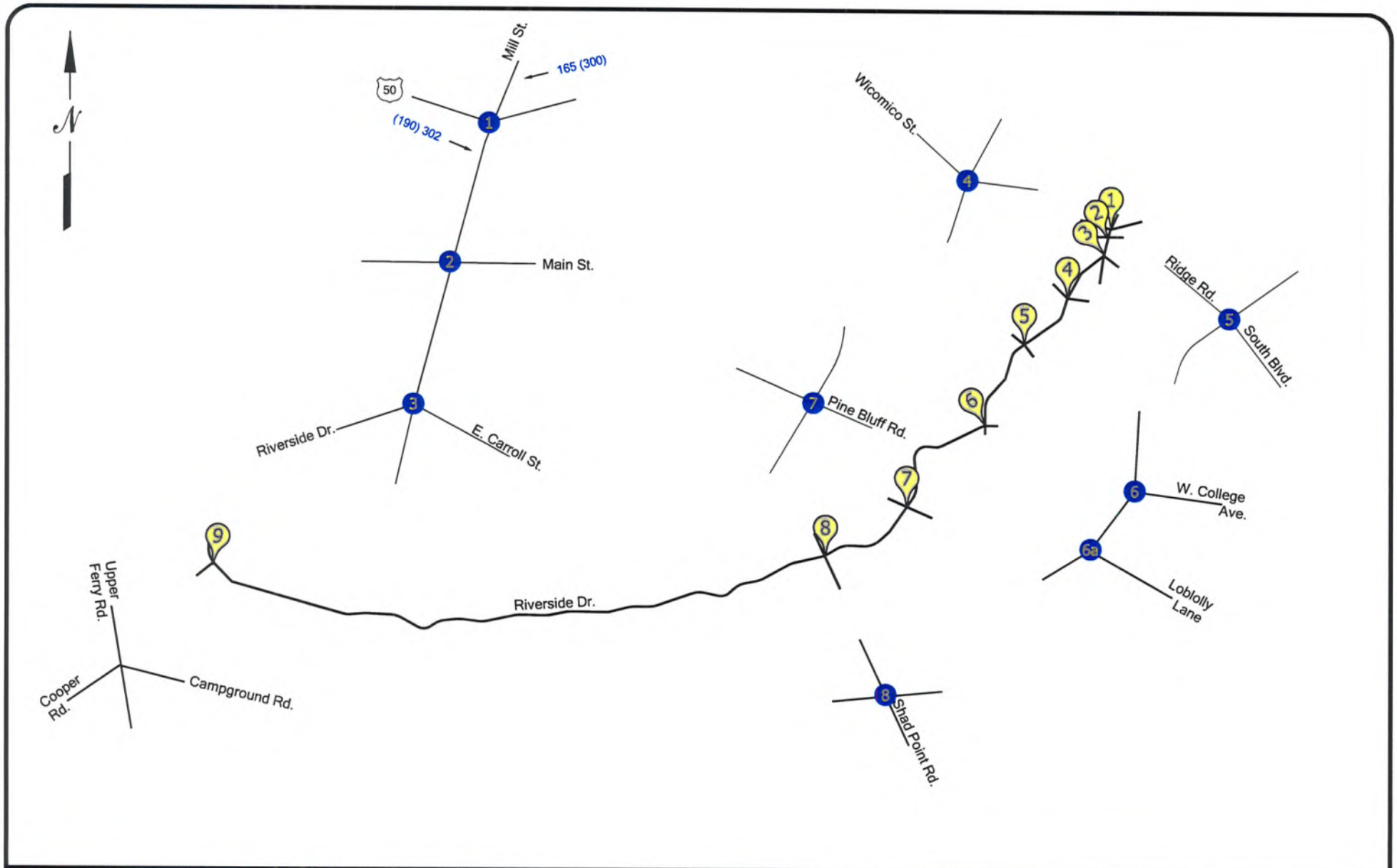
NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

NOTE:
TRAFFIC GROWTH BASED ON 1% ANNUAL RATE FOR 7 YEARS.

EXHIBIT 5A
PROJECTED 2015 REGIONAL GROWTH ALONG US 50

dj, 051629\acad\riverside.dwg-grow15, f09/29/10



NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

NOTE:
TRAFFIC GROWTH BASED ON 1% ANNUAL RATE FOR 22 YEARS.

EXHIBIT 5B
PROJECTED 2030 REGIONAL GROWTH ALONG US 50

dj, 090629\acad\riverside.dwg-grow30, f09/29/10

Table 1 - Proposed Developments (Plans Have Been Submitted)

#	NAME	DESCRIPTION	BUILDOUT	AS OF 2015	AS OF 2030
1	Bryer Estates	SF Residential	27 Res. Units	13 Res. Units	27 Res. Units
2	Boylston	SF Residential	11 Res. Units	5 Res. Units	11 Res. Units
3	Walnut Acres	SF Residential	22 Res. Units	11 Res. Units	22 Res. Units
4	Estates at White Creek Acres	SF Residential	6 Res. Units	3 Res. Units	6 Res. Units
5	Village Down River	SF Residential	49 Res. Units	24 Res. Units	49 Res. Units
6	Admiral's Club	MF Residential	20 Res. Units	---	20 Res. Units
7	River Place*	MF Residential	42 Res. Units	42 Res. Units	42 Res. Units
8	500 Riverside	MF Residential	90 Res. Units	---	90 Res. Units
TOTAL			**267 Res. Units**	**98 Res. Units**	**267 Res. Units**

NOTES: *Although completely built, as of 2/2010 only nine of the 42 units appeared to be occupied. Estimates for 2015 and 2030 assume a higher occupancy rate.

Table 2 - Other Development Areas (No Plans Have Been Submitted)

#	NAME	DESCRIPTION	BUILDOUT	AS OF 2015	AS OF 2030
1	N/A	East of Upper Ferry Rd., south of Wicomico River	23 Res. Units	---	5 Res. Units
2	N/A	East of Campground Rd., south of Riverside Dr.	5 Res. Units	---	1 Res. Unit
3	N/A	North of Upper Ferry Rd., south of Wicomico River	19 Res. Units	---	4 Res. Units
4	N/A	South of Riverside Dr., north of Walnut Tree Rd.	115 Res. Units	---	28 Res. Units
5	N/A	South of Riverside Dr., west of Fruitland City Limits	255 Res. Units	---	63 Res. Units
6	N/A	West of Sharps Point Rd. in the City of Fruitland	240 Res. Units	---	60 Res. Units
7	N/A	East of Sharps Point Rd. in the City of Fruitland	20 Res. Units	---	5 Res. Units
8	N/A	East of Sharps Point Rd., west of Sharps Creek	300 Res. Units	---	75 Res. Units
9	N/A	Both sides of Sharps Creek in the City of Fruitland	287 Res. Units	---	71 Res. Units
10	N/A	South of Riverside Dr., east of Sharps Creek	48 Res. Units	---	12 Res. Units
TOTAL			**1,312 Res. Units**	**---**	**324 Res. Units**

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EXHIBIT 6
TABLES OF BACKGROUND DEVELOPMENTS

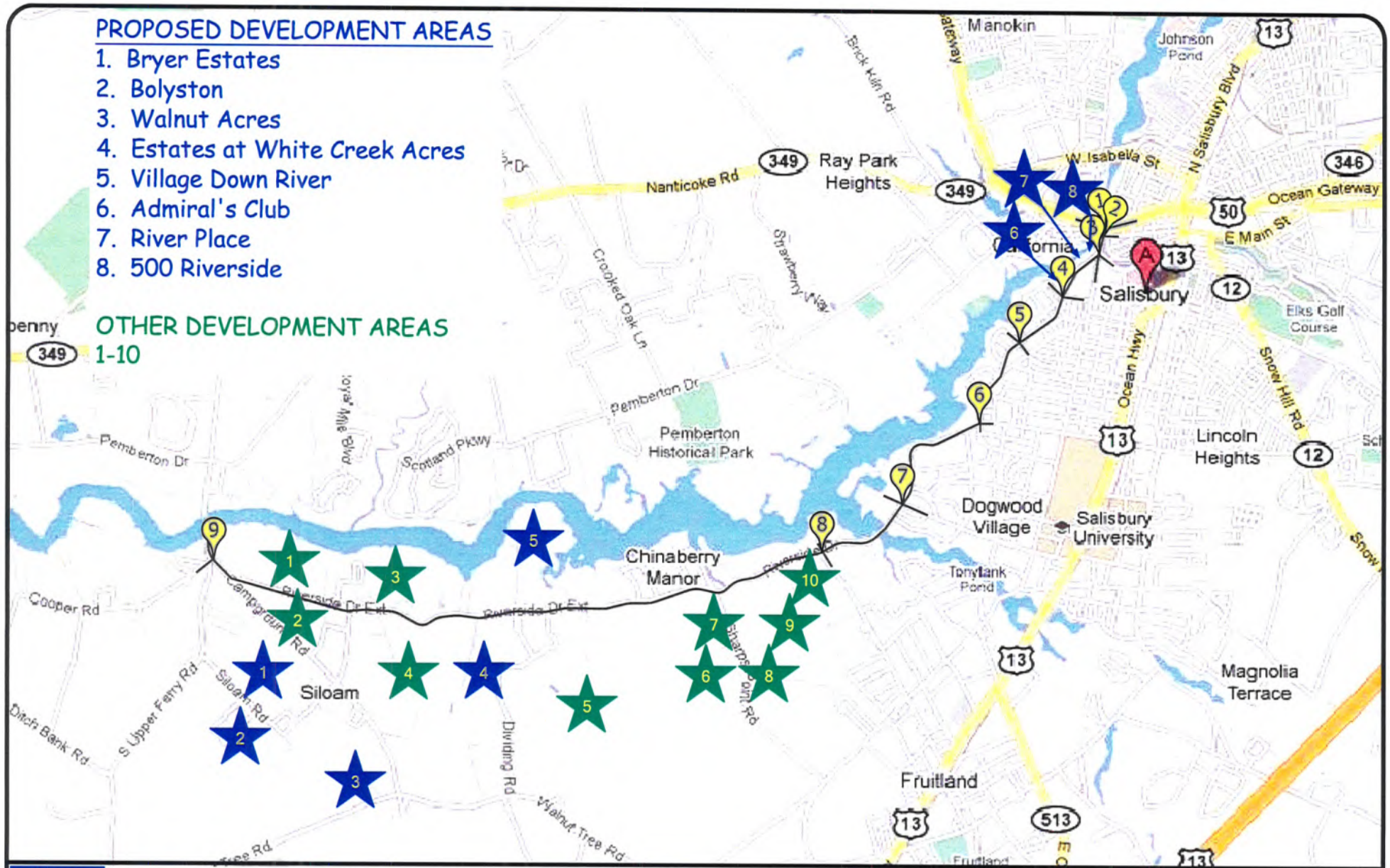

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EXHIBIT 7
LOCATION MAP FOR
PROJECTED DEVELOPMENTS

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TRIP GENERATION RATES

LAND USE	FORMULA	IN/OUT
Single-Family Detached (ITE-210, Units)		
Morning Trips = 0.75 x (Uni		25/75
Evening Trips = 1.01 x (Un		63/37
Townhouse Units (ITE-230, Units)		
Morning Trips = 0.44 x (Uni		17/83
Evening Trips = 0.52 x (Un		67/33

TRIP GENERATION TOTALS

TABLE #1		Table 1 Developments - 2015							Table 1 Developments - 2030					
		AM\ Peak Hour			PM Peak Hour				AM\ Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total		In	Out	Total	In	Out	Total
1. Bryer Estates	13 SFUs	2	8	10	8	5	13	27 SFUs	5	15	20	17	10	27
2. Boylston	5 SFUs	1	3	4	3	2	5	11 SFUs	2	6	8	7	4	11
3. Walnut Acres	11 SFUs	2	6	8	7	4	11	22 SFUs	4	13	17	14	8	22
4. Est. at White Creek Acres	3 SFUs	0	2	2	2	1	3	6 SFUs	1	4	5	4	2	6
5. Village Down River	24 SFUs	4	14	18	15	9	24	49 SFUs	9	28	37	31	18	49
6. Admiral's Club	0 TUs	0	0	0	0	0	0	20 TUs	2	7	9	7	3	10
7. River Place	33 TUs	3	12	15	11	6	17	33 TUs	3	12	15	11	6	17
8. 500 Riverside	0 TUs	0	0	0	0	0	0	90 TUs	7	33	40	31	16	47
	151 122	12	45	57	46	27	73	258 Units	33	118	151	122	67	189

TABLE #2	Table 2 Developments - 2030					
	AM\ Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
1. - 5 SFUs	1	3	4	3	2	5
2. - 1 SFUs	0	1	1	1	0	1
3. - 4 SFUs	1	2	3	3	1	4
4. - 28 SFUs	5	16	21	18	10	28
5. - 63 SFUs	12	35	47	40	24	64
6. - 60 SFUs	11	34	45	38	23	61
7. - 5 SFUs	1	3	4	3	2	5
8. - 75 SFUs	14	42	56	48	28	76
9. - 71 SFUs	13	40	53	45	27	72
10. - 48 SFUs	9	27	36	30	18	48
324 SFUs	67	203	270	229	135	364

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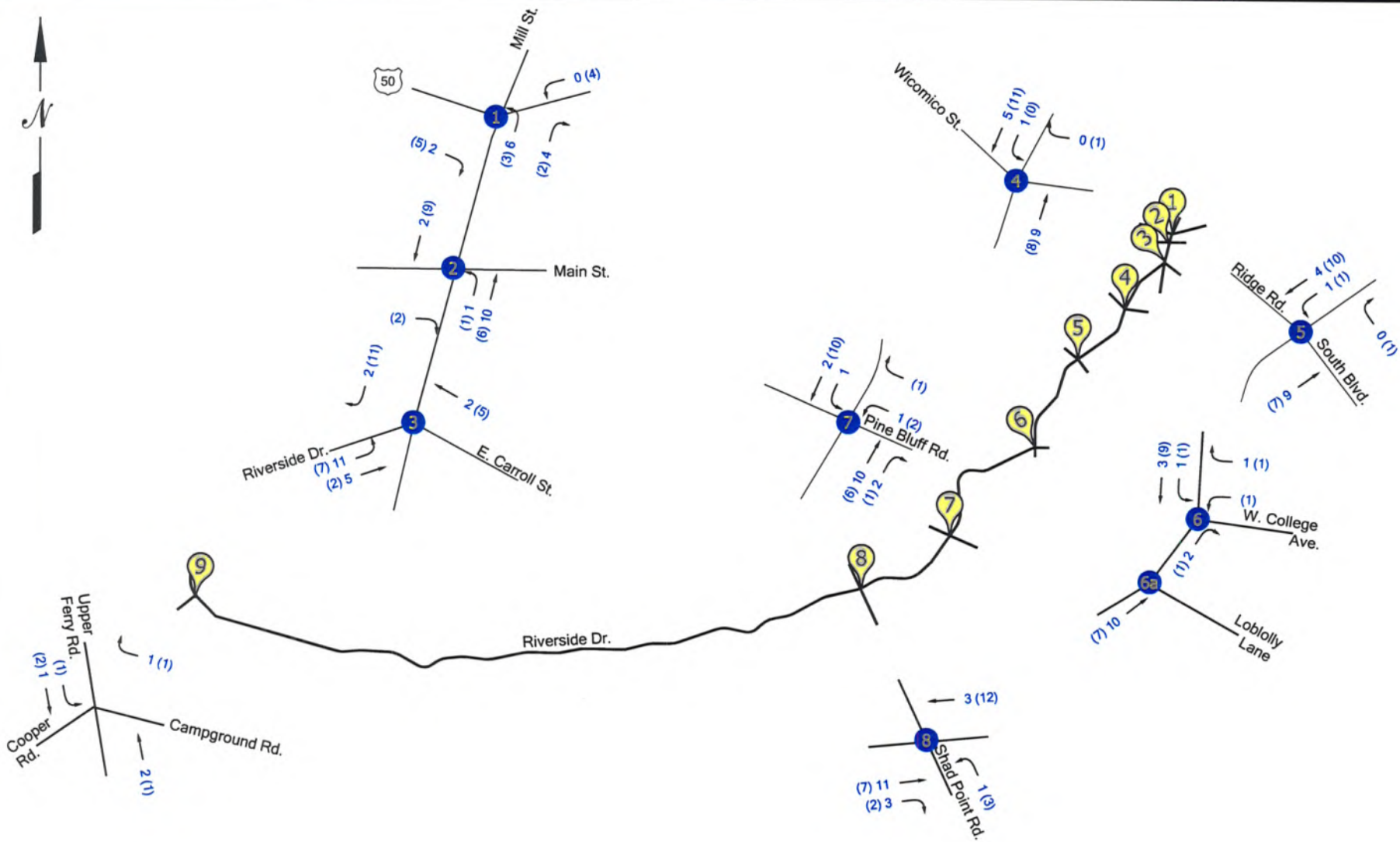
EXHIBIT 8
TRIP GENERATION RATES AND TOTALS
FOR PROJECTED DEVELOPMENT

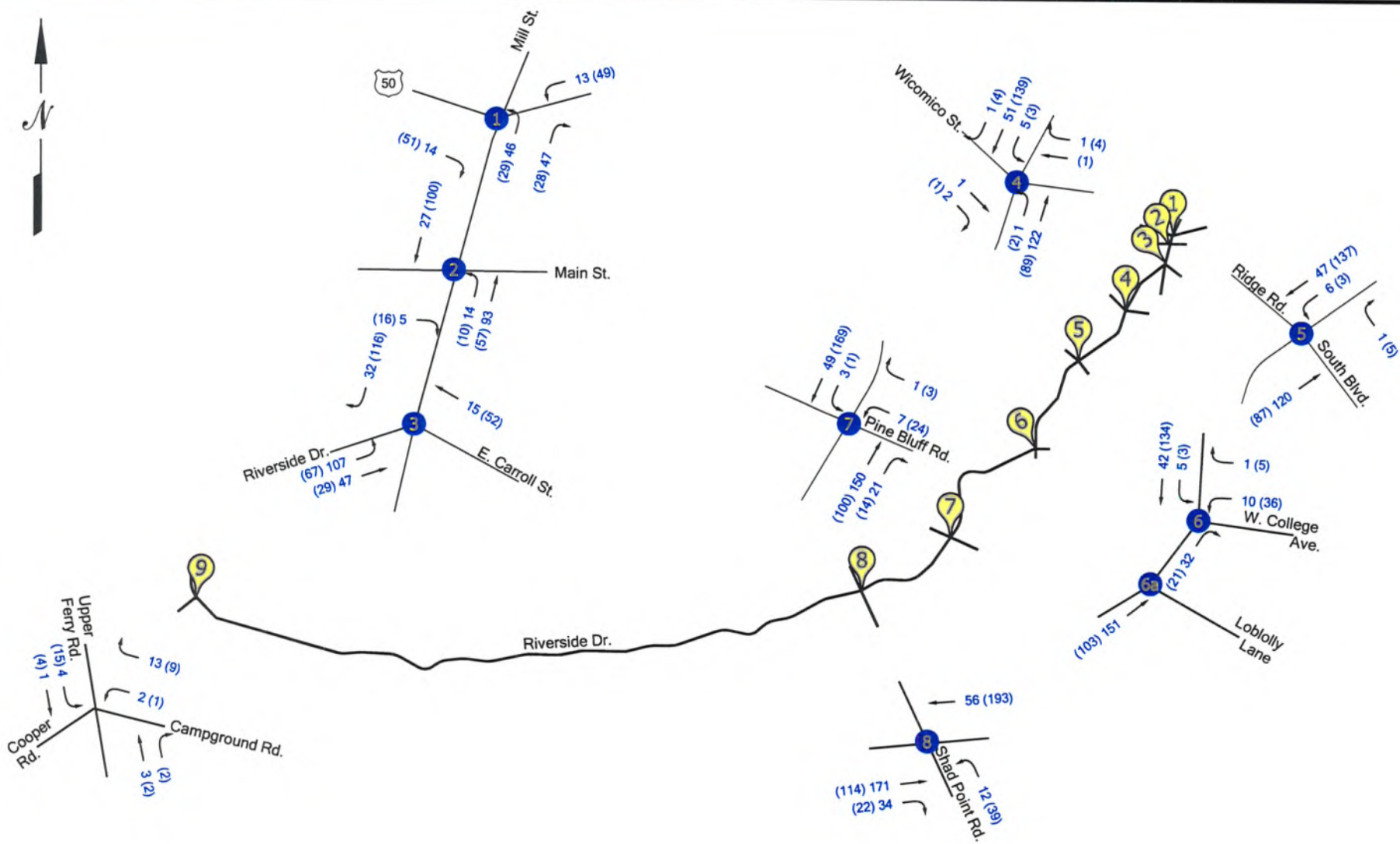


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT 9A
COMBINED TRIPS GENERATED
BY PROJECTED 2015 DEVELOPMENTS

dj, 0[illegible]629\acad\riverside.dwg-comb15, f09/29/10

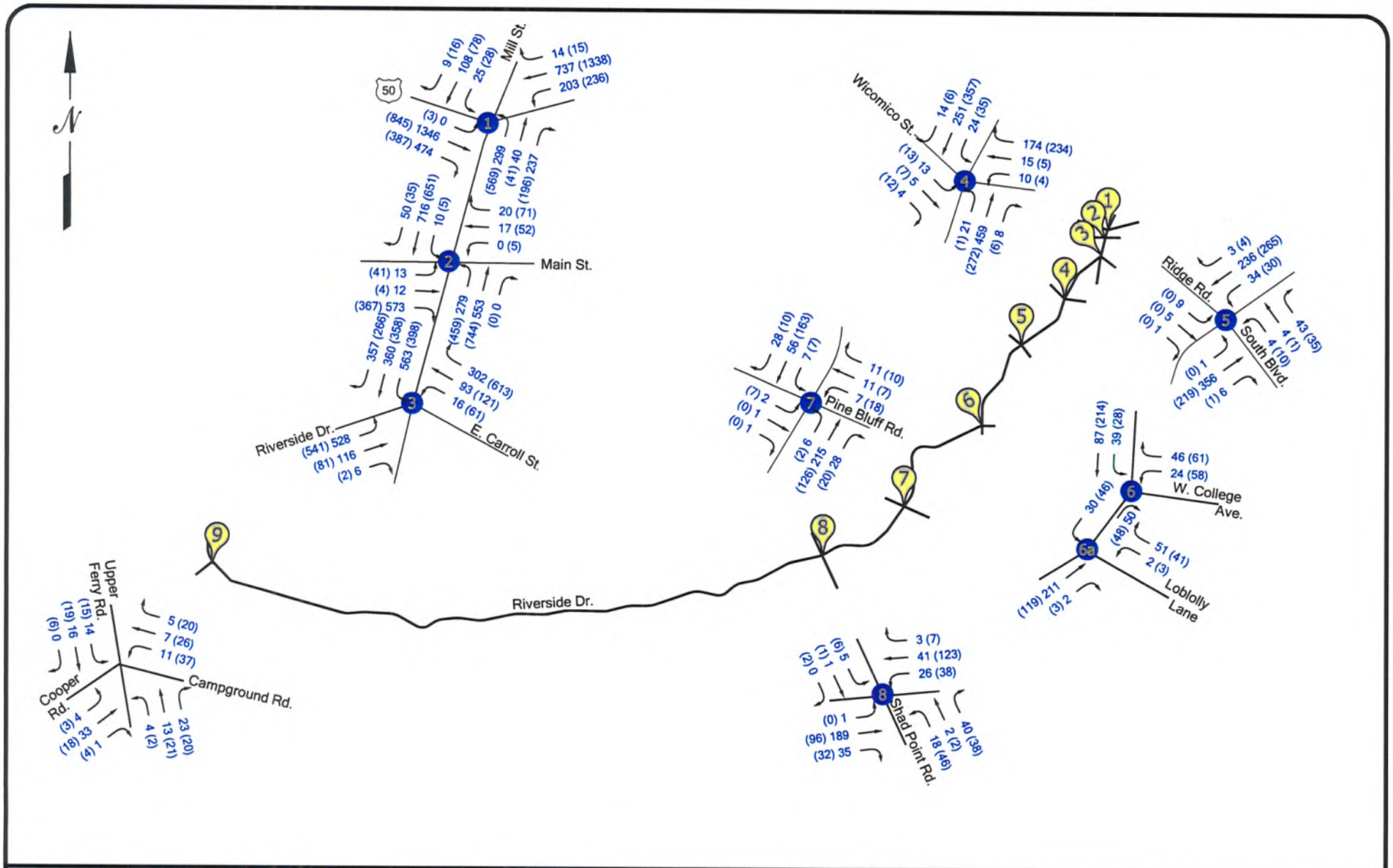


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT 9B
COMBINED TRIPS GENERATED
BY PROJECTED 2030 DEVELOPMENTS

dj, 080629\acad\riverside.dwg-comb30, f09/29/10



NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT 10A
2015 TOTAL PEAK HOUR
TRAFFIC VOLUMES

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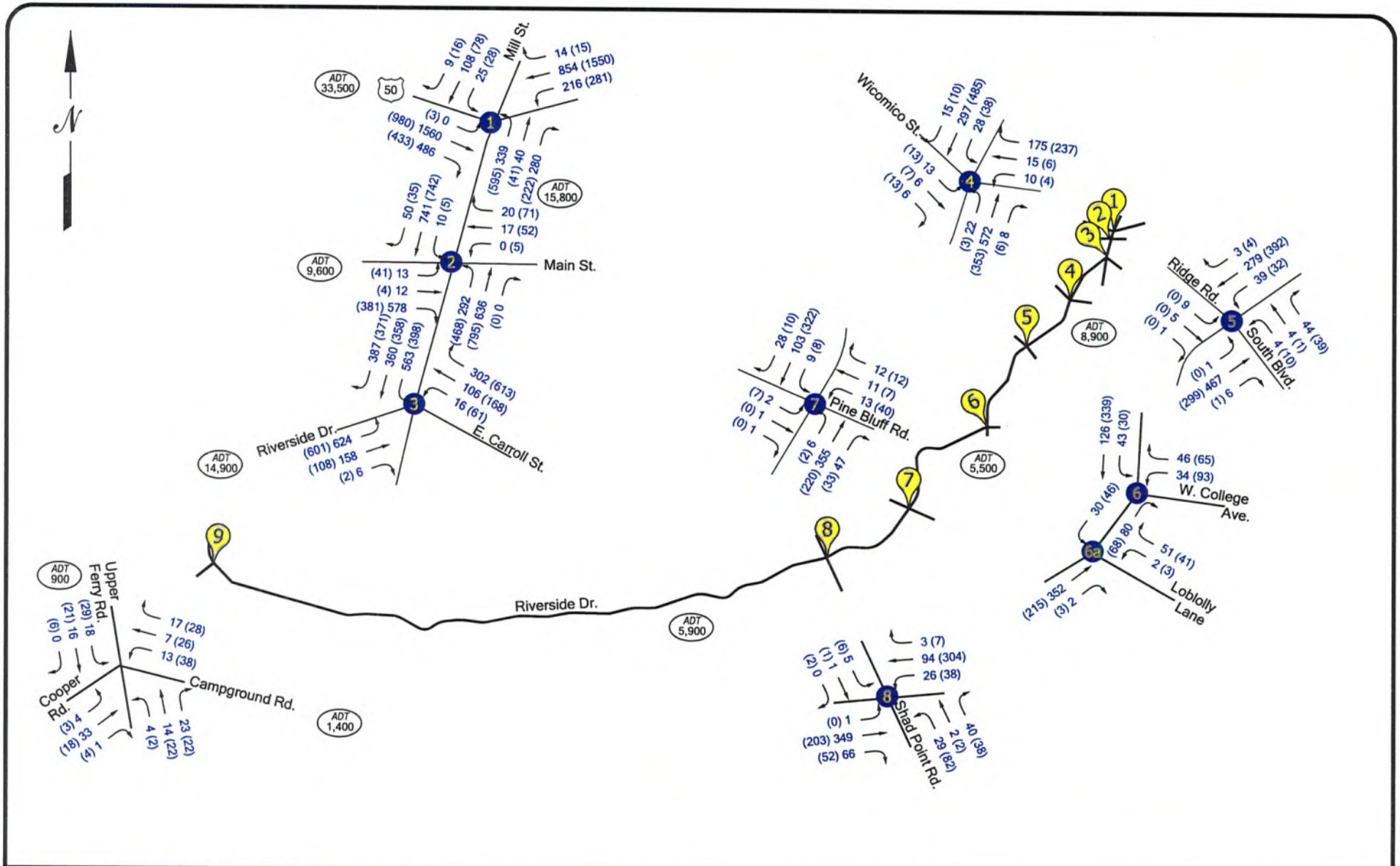

NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT 10B
2030 TOTAL PEAK HOUR TRAFFIC VOLUMES

060629\acad\riverside.dwg-tot30, f09/30/10

Synchro Analysis	Morning Peak Hour Traffic			Evening Peak Hour Traffic		
	Existing Traffic	2015 Total Traffic	2030 Total Traffic	Existing Traffic	2015 Total Traffic	2030 Total Traffic
	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)
1. US 50 & Mill Street [1/]	***C/28.1***	***C/29.7***	***D/40.0***	***C/30.7***	***C/32.2***	***D/38.4***
Eastbound Approach	D/35.7	D/38.4	E/56.1	D/38.7	D/40.6	D/53.1
Westbound Approach	C/21.1	C/21.8	C/26.5	C/24.6	C/26.8	C/30.3
Northbound Approach	B/14.6	B/14.0	B/13.9	C/31.0	C/30.9	C/34.0
Southbound Approach	D/37.3	D/37.3	D/37.4	C/32.7	C/32.5	C/33.8
2. Mill Street & Main Street [1/]	***C/24.6***	***C/24.7***	***C/25.5***	***C/28.0***	***C/28.1***	***C/29.8***
Eastbound Approach	D/41.6	D/41.2	D/44.5	C/24.4	C/24.4	C/26.2
Westbound Approach	D/50.8	D/50.5	D/50.8	E/56.3	E/56.3	E/56.3
Northbound Approach	B/20.0	B/19.9	C/20.3	C/28.8	C/29.1	C/33.8
Southbound Approach	B/14.8	B/15.7	B/15.7	C/22.2	C/22.3	B/19.9
3. Mill Street & Riverside Drive [1/3/]	***C/31.9***	***C/33.4***	***D/38.9***	***C/31.3***	***C/31.6***	***C/33.8***
Eastbound Approach	E/66.0	E/69.6	E/72.7	E/59.1	E/59.4	E/59.3
Westbound Approach	C/24.2	C/24.5	C/27.3	C/29.9	C/30.4	D/35.3
Southbound Approach	B/17.3	B/17.6	C/22.0	B/15.1	B/15.3	B/16.6
4. Riverside Drive & Wicomico St [2/]						
Eastbound Approach	E/47.4	F/50.1	F/96.2	D/25.4	D/26.6	E/44.7
Westbound Approach	D/25.2	D/26.2	E/45.0	B/13.8	B/14.1	C/17.6
Northbound Approach	A/0.6	A/0.6	A/0.7	A/0.0	A/0.0	A/.1
Southbound Left Turn	A/8.8	A/8.9	A/9.5	A/8.1	A/8.1	A/8.4
5. Riverside Drive & South Blvd [2/]						
Eastbound Approach	A/0.0	A/0.0	A/0.0	A/0.0	A/0.0	A/0.0
Westbound Approach	A/1.6	A/1.7	A/1.8	A/1.1	A/1.1	A/1.0
Northbound Approach	B/12.5	B/12.7	B/14.8	B/11.4	B/11.6	B/13.5
Southbound Approach	C/17.9	C/18.4	C/23.6	A/0.0	A/0.0	A/0.0
6. Riverside Drive & W. College Ave. [2/]						
Westbound Approach	B/11.5	B/11.6	B/13.8	B/11.3	B/11.5	B/15.0
Southbound Approach	A/2.6	A/2.6	A/2.4	A/1.3	A/1.3	A/1.0
6a. Riverside Drive & Loblolly Lane [2/]						
Westbound Approach	B/10.1	B/10.2	B/11.7	A/9.5	A/9.6	B/10.7
Southbound Approach	A/2.4	A/2.3	A/1.8	A/1.7	A/1.6	A/1.3
7. Riverside Drive & Pine Bluff Road [2/]						
Eastbound Approach	B/11.2	B/11.3	B/14.1	B/11.7	B/12.0	C/16.9
Westbound Approach	B/11.5	B/11.7	B/15.0	B/11.1	B/11.3	C/16.9
Northbound Approach	A/0.3	A/0.2	A/0.2	A/0.1	A/0.1	A/0.1
Southbound Approach	A/0.6	A/0.7	A/0.6	A/0.4	A/0.4	A/0.3
8. Riverside Drive & Shad Point Road [2/]						
Eastbound Approach	A/0.0	A/0.0	A/0.0	A/0.0	A/0.0	A/0.0
Westbound Approach	A/2.8	A/2.6	A/1.7	A/2.0	A/1.9	A/1.2
Northbound Approach	B/10.6	B/10.8	B/14.6	B/11.1	B/11.4	C/20.3
Southbound Approach	B/12.1	B/12.3	C/16.6	B/11.6	B/11.8	C/17.2
9. Campground Rd & S. Upper Ferry Rd [2/]						
Eastbound Approach	A/10.0	A/10.0	B/10.2	A/9.7	A/9.8	B/10.1
Westbound Approach	A/9.6	A/9.6	A/9.5	A/9.9	A/9.9	B/10.2
Southbound Approach	A/3.6	A/3.5	A/4.0	A/2.8	A/2.8	A/3.9

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NOTE: [1/] Signalized intersection
[2/] Unsignalized intresection
[3/] The Mill Street & Riverside Drive intersection was evaluated additionally as a 2-lane roundabout under 2030 conditions and is projected to operate at LOS "B" during both AM and PM peak hours.

EXHIBIT 11
RESULTS OF INTERSECTION CAPACITY ANALYSES (SYNCHRO)

Synchro Analysis	Avail. Queue Length	Morning Peak Hour Traffic			Evening Peak Hour Traffic		
		Existing Traffic	2015 Total Traffic	2030 Total Traffic	Existing Traffic	2015 Total Traffic	2030 Total Traffic
		95th percentile queue length (ft)			95th percentile queue length (ft)		
1. US 50 & Mill Street							
Westbound left turn	180 ft	232	244	292	244	278	354
Northbound left turn	200 ft	60	46	267	373	428	487
Northbound right turn	225 ft	<25	<25	<25	41	43	51
2. Mill Street & Main Street							
Eastbound left/thru	40 ft	39	39	39	89	89	89
Eastbound right turn	350 ft	396	396	412	197	204	228
Westbound approach	110 ft	36	36	36	133	133	133
Northbound left turn	155 ft	107	104	114	387	418	481
Southbound left turn	105 ft	<25	<25	<25	<25	<25	<25
3. Mill Street & Riverside Drive							
Eastbound left turn	312 ft	425	442	543	386	391	450
Westbound right turn [1/]	310 ft	142	143	162	484	485	514
Southbound left turn	380 ft	354	355	397	225	228	228
Southbound right turn	500 ft	<25	<25	<25	<25	<25	<25
4. Riverside Drive & Wicomico St							
Eastbound Approach	375 ft	<25	<25	46	<25	<25	32
Westbound Approach	180 ft	97	101	159	44	46	62
Southbound Left Turn	100 ft	<25	<25	<25	<25	<25	<25
5. Riverside Drive & South Blvd							
Northbound Approach	100 ft	<25	<25	<25	<25	<25	<25
Southbound Approach	100 ft	<25	<25	<25	<25	<25	<25
6. Riverside Drive & W. College Ave.							
Westbound Approach	100 ft	<25	<25	<25	<25	<25	36
6a. Riverside Drive & Loblolly Lane							
Westbound Approach	100 ft	<25	<25	<25	<25	<25	<25
7. Riverside Drive & Pine Bluff Road							
Eastbound Approach	100 ft	<25	<25	<25	<25	<25	<25
Westbound Approach	100 ft	<25	<25	<25	<25	<25	<25
8. Riverside Drive & Shad Point Road							
Northbound Approach	100 ft	<25	<25	<25	<25	<25	48
Southbound Approach	100 ft	<25	<25	<25	<25	<25	<25
9. Campground Rd & S. Upper Ferry Rd							
Eastbound Approach	100 ft	<25	<25	<25	<25	<25	<25
Westbound Approach	100 ft	<25	<25	<25	<25	<25	<25
Southbound Approach	100 ft	<25	<25	<25	<25	<25	<25

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EXHIBIT 12
RESULTS OF INTERSECTION
QUEUING ANALYSIS (SYNCHRO)

dj, 060629\los.xls-results, f04/20/10

Synchro Analysis	Morning Peak Hour Traffic					Evening Peak Hour Traffic				
	2030 Total Traffic	Alternate 1	Alternate 2	Alternate 3	Alternate 4	2030 Total Traffic	Alternate 1	Alternate 2	Alternate 3	Alternate 4
	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)	LOS/delay (sec.)
1. US 50 & Mill Street	***D/40.0***	***C/28.9***	***B/18.4***	***B/14.3***	***B/14.3***	***D/38.4***	***D/35.9***	***C/27.2***	***B/10.3***	***A/9.9***
Eastbound Approach	E/56.1	C/34.3	B/14.7	A/7.9	A/7.9	D/53.1	D/49.6	C/21.3	A/4.0	A/4.6
Westbound Approach	C/26.5	C/20.9	B/19.9	B/10.3	B/10.3	C/30.3	C/31.5	C/31.5	A/6.1	A/6.0
Northbound Approach	B/13.9	C/27.3	C/22.9	D/41.0	D/41.2	C/34.0	C/31.7	C/20.1	D/49.0	D/40.4
Southbound Approach	D/37.4	D/36.4	D/37.0	C/29.6	E/59.6	C/33.8	C/24.5	C/24.0	E/57.8	E/57.7
2. Mill Street & Main Street	***C/25.5***	***A/7.9***	***C/25.1***	***C/26.4***		***C/29.8***	***B/13.4***	***C/24.0***	***C/31.4***	
Eastbound Approach	D/44.5	A/2.6	D/37.5	----		C/26.2	A/1.3	C/22.7	----	
Westbound Approach	D/50.8	E/56.2	E/56.8	E/56.1	***NA***	E/56.3	E/58.9	E/60.9	E/56.9	***NA***
Northbound Approach	C/20.3	B/12.5	B/15.3	C/31.5		C/33.8	B/15.5	C/22.2	C/29.2	
Southbound Approach	B/15.7	A/5.5	A/8.0	A/7.8		B/19.9	B/13.3	B/18.2	C/29.7	
3. Mill Street & Riverside Drive	***D/38.9***	***C/33.6***	***C/34.5***	***B/12.6 1/***	***B/13.4 1/***	***C/33.8***	***C/32.3***	***C/33.4***	***B/14.5 1/***	***C/30.8 1/***
Eastbound Approach	E/72.7	E/55.8	E/55.8	B/18.0	B/19.5	E/59.3	D/54.3	D/54.3	B/16.3	B/18.1
Westbound Approach	C/27.3	C/29.7	C/29.7	B/11.4	B/11.1	D/35.3	C/32.9	C/32.9	B/17.6	E/63.8
Southbound Approach	C/22.0	C/21.5	C/23.2	A/8.7	B/11.7	B/16.6	B/18.0	C/20.5	A/9.1	C/21.8
New bridge Approach	----	----	----	A/10.0	B/10.2	----	----	----	B/12.0	B/12.0

1/ Analysed as a roundabout using Sidra software.

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EXHIBIT 13
RESULTS OF INTERSECTION CAPACITY ANALYSES (SYNCHRO) FOR ALTERNATES

dj, 060629\los.xls-results, f04/29/10

Sidra Analysis

Morning Peak Hour Traffic	2030 Total Traffic LOS/delay/"v/c"	Alternate 3 LOS/delay/"v/c"	Alternate 4 LOS/delay/"v/c"
3. Mill Street & Riverside Drive	***B/12.1/0.70***	***B/12.1/0.70***	***B/12.8/0.70***
Carroll Street Approach	A/8.4/0.23	A/8.4/0.12	A/8.8/0.25
Mill Street Approach	A/9.2/0.58	A/8.7/0.58	B/10.9/0.20
Riverside Drive Approach	B/18.9/0.68	B/18.0/0.68	B/19.4/0.68
New bridge Approach	----	B/10.0/0.68	A/9.9/0.68

Evening Peak Hour Traffic	2030 Total Traffic LOS/delay/"v/c"	Alternate 3 LOS/delay/"v/c"	Alternate 4 LOS/delay/"v/c"
3. Mill Street & Riverside Drive	***B/11.1/0.60***	***B/11.7/0.70***	***B/13.2/0.70***
Carroll Street Approach	A/8.5/0.42	A/8.5/0.42	B/10.6/0.56
Mill Street Approach	B/9.5/0.58	B/9.1/0.17	B/13.6/0.38
Riverside Drive Approach	B/16.9/0.59	B/16.3/0.57	B/18.2/0.57
New bridge Approach	----	B/12.0/0.70	B/11.4/0.70

Note:

1. The analysis determined that 2 circulating lanes were needed for the roundabout under 2030 Total Traffic conditions and under each alternative condition.
2. The traffic volume condition and the LOS/delay/"v/c" under Alternates 1 and 2 are the same as 2030 Total Traffic conditions and thus were not shown.
3. A continuous slip lane was used for the right turn lane movement along the E. Carroll St. approach under all base and alternative traffic conditions.

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EXHIBIT 14
RESULTS OF ROUNDABOUT
ANALYSIS - SIDRA

dj, 060629\los.xls-results (4), f10/11/10

RESULTS and RECOMMENDATIONS

A computer simulation model of the Riverside Drive Corridor was developed using Synchro and Simtraf. These models utilize the Highway Capacity Manual (HCM) methodology to assess capacity and operations at the study intersections and roadway segments.

The results of the Synchro analyses for the Riverside Drive Corridor indicate that traffic is projected to operate smoothly throughout most of the Corridor. Not surprisingly, however, Simtraf simulation model identified excessive queuing in the portion of the Corridor along Mill Street and its intersections. This is due primarily to high traffic volumes in the southeast to west direction which is represented as northbound left turns from Mill Street onto Main Street and US Route 50 and as eastbound right turns from Main Street and US Route 50 onto Mill Street.

As previously discussed, Riverside Drive follows the Wicomico River which acts as a natural barrier between the west and southeast portions of the City. There are only two bridge crossings of the Wicomico River, all within the metro core: Main Street and US 50. The bridge on Isabella Street crosses the northern tributary of the Wicomico River. All traffic traveling east - west must funnel into one of the bridge crossings within the Metro Core, utilize the free ferry located in Wicomico County on Upper Ferry Road to the south, or utilize the US 50 Bypass or Naylor Mill Road to the north. Much of the traffic traveling to/from the southeast - west portions of the City and County utilize the portion of Mill Street which is included in the Riverside Drive Corridor and cross the Wicomico River via the Main Street or US 50 bridges.

Four alternates were identified which would alleviate congestion along Mill Street, yet remain within the study area. While each of these alternates provide some measure of success in improving traffic operations, our analyses were confined to traffic volumes realized along the Riverside Drive Corridor only and do not reflect other traffic volumes in the S/W MPO which may benefit from a third bridge crossing of the Wicomico County River.

Therefore, it is our recommendation that further study be conducted to determine the appropriate location of another bridge crossing of the Wicomico River. This study should be based on a comprehensive study of the needs of the entire area and not based on the localized needs on one corridor study.

Finally, an analysis was conducted to determine if it would be operationally feasible to convert the Riverside Drive/Mill Street/Carroll Street intersection (now signalized) to a roundabout. Using Sidra software to evaluate the roundabout, it was determined that, under 2030 total and alternate traffic conditions, 2 circulating lanes would be necessary. The roundabout was projected to operate at LOS "B" under each traffic

conditions and all "v/c" calculations were shown to be less than 0.85. Based on these analyses, a roundabout should be considered operationally feasible.

APPENDIX A

Turning Movement Counts and Condition Diagrams

TOTAL VEHICLE TURNING MOVEMENT COUNT - SUMMARY

INTERSECTION: US 50 Bus.
Mill St.
LOCATION: Wicomico Co., MD
PROJECT NUMBER: 2006-0629

Counted by: VCU
Date: May 6, 2008
Weather: Fair, Warm
Entered by: TT

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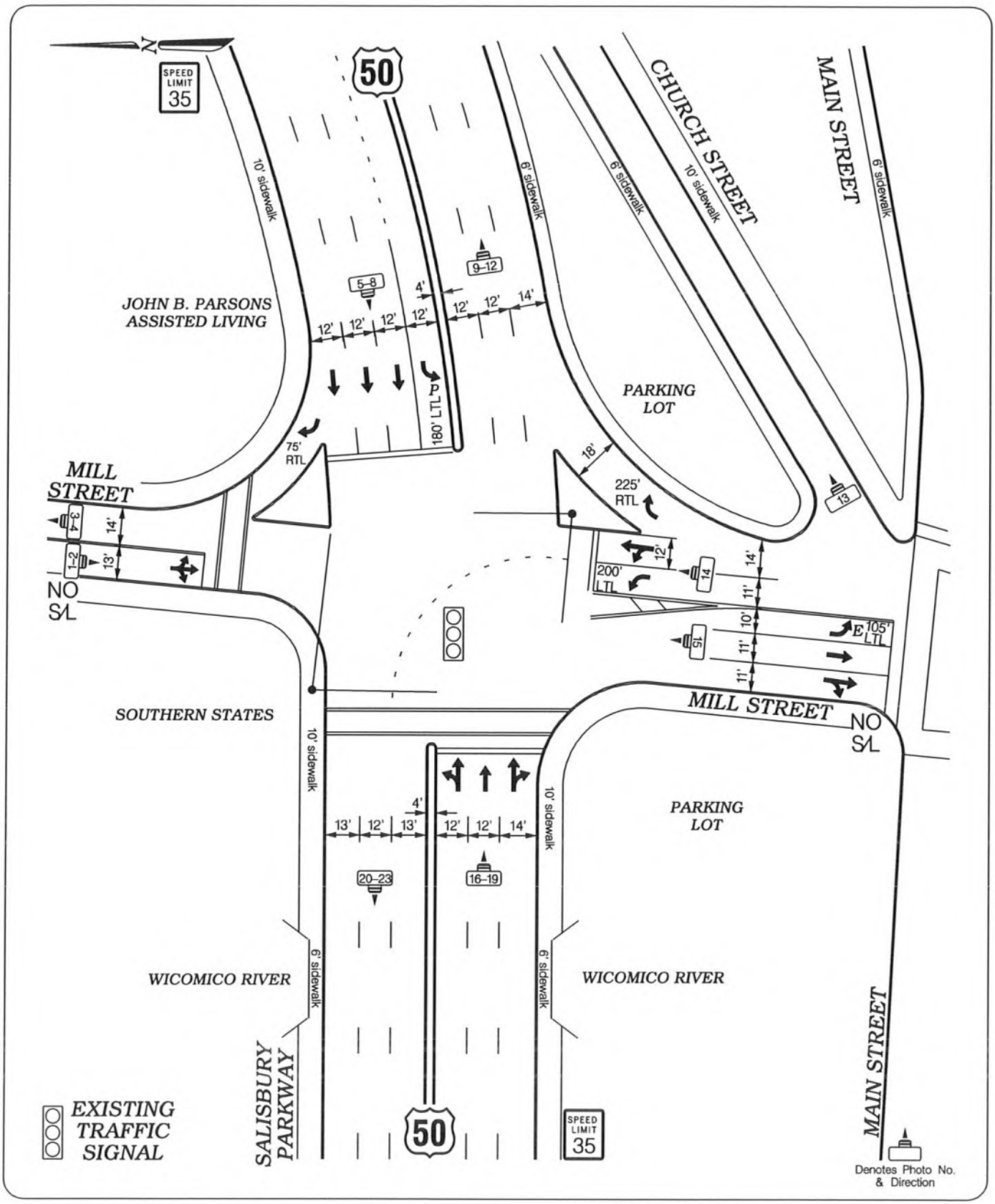
TIME	TRAFFIC FROM NORTH on: Mill St.					TRAFFIC FROM SOUTH on: Mill St.					TRAFFIC FROM EAST on: US 50 Bus.					TRAFFIC FROM WEST on: US 50 Bus.					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
06:0-15	0	3	3	0	6	13	4	28	0	45	2	65	13	0	80	34	90	1	0	125	256
15-30	0	6	1	0	7	23	3	31	0	57	0	105	22	0	127	47	84	1	0	132	323
30-45	2	0	2	0	4	23	3	42	0	68	0	116	24	0	140	88	120	0	0	208	420
45-00	0	9	2	0	11	29	7	69	0	105	5	145	44	0	194	95	203	1	0	299	609
07:0-15	1	7	1	0	9	40	5	65	0	110	2	126	34	0	162	84	176	0	0	260	541
15-30	2	11	6	0	19	44	7	80	0	131	1	136	28	0	165	102	276	1	0	379	694
30-45	0	27	6	0	33	69	8	73	0	150	3	161	39	0	203	127	332	0	0	459	845
45-00	2	29	9	0	40	47	15	81	0	143	5	176	57	0	238	123	349	0	0	472	893
08:0-15	5	29	5	0	39	56	11	66	0	133	3	186	58	0	247	116	316	0	0	432	851
15-30	2	23	5	0	30	61	6	73	0	140	3	166	49	0	218	106	261	0	0	367	755
30-45	3	15	3	0	21	56	8	66	0	130	6	174	66	0	246	102	251	4	0	357	754
45-00	3	18	5	0	26	43	9	74	0	126	4	148	41	0	193	126	273	2	0	401	746
3 Hr Totals	20	177	48	0	245	504	86	748	0	1338	34	1704	475	0	2213	1150	2731	10	0	3891	7687
1 Hr Totals																					
06-07	2	18	8	0	28	88	17	170	0	275	7	431	103	0	541	264	497	3	0	764	1608
615-715	3	22	6	0	31	115	18	207	0	340	7	492	124	0	623	314	583	2	0	899	1893
630-730	5	27	11	0	43	136	22	256	0	414	8	523	130	0	661	369	775	2	0	1146	2264
645-745	3	54	15	0	72	182	27	287	0	496	11	568	145	0	724	408	987	2	0	1397	2689
07-08	5	74	22	0	101	200	35	299	0	534	11	599	158	0	768	436	1133	1	0	1570	2973
715-815	9	96	26	0	131	216	41	300	0	557	12	659	182	0	853	468	1273	1	0	1742	3283
730-830	9	108	25	0	142	233	40	293	0	566	14	689	203	0	906	472	1258	0	0	1730	3344
745-845	12	96	22	0	130	220	40	286	0	546	17	702	230	0	949	447	1177	4	0	1628	3253
08-09	13	85	18	0	116	216	34	279	0	529	16	674	214	0	904	450	1101	6	0	1557	3106
PEAK HOUR																					
730-830	9	108	25	0	142	233	40	293	0	566	14	689	203	0	906	472	1258	0	0	1730	3344
PM																					
04:0-15	1	17	10	0	28	48	18	129	0	195	2	279	50	1	332	113	209	2	0	324	879
15-30	1	16	10	0	27	31	16	132	0	179	2	273	41	0	316	108	247	0	0	355	877
30-45	2	28	9	0	39	49	10	105	0	164	2	276	53	0	331	87	189	0	0	276	810
45-00	0	18	4	0	22	59	10	142	0	211	4	288	48	0	340	96	218	2	0	316	889
05:0-15	12	19	5	0	36	49	12	161	0	222	5	360	70	1	436	97	187	0	0	284	978
15-30	2	13	10	0	25	37	9	158	0	204	4	326	60	0	390	102	196	1	0	299	918
30-45	2	11	2	0	15	40	8	127	0	175	2	259	62	1	324	93	151	0	0	244	758
45-00	1	11	2	0	14	24	5	109	0	138	2	225	44	0	271	108	207	0	0	315	738
06:0-15	1	14	2	0	17	23	2	100	0	125	0	203	33	0	236	71	170	0	0	241	619
15-30	0	7	3	0	10	26	12	86	0	124	1	205	38	0	244	63	204	0	0	267	645
30-45	0	8	1	0	9	30	6	88	0	124	0	191	46	0	237	102	140	0	0	242	612
45-00	0	7	2	0	9	33	3	75	0	111	1	183	38	0	222	94	151	0	0	245	587
3 Hr Totals	22	169	60	0	251	449	111	1412	0	1972	25	3068	583	3	3679	1134	2269	5	0	3408	9310
1 Hr Totals																					
04-05	4	79	33	0	116	187	54	508	0	749	10	1116	192	1	1319	404	863	4	0	1271	3455
415-515	15	81	28	0	124	188	48	540	0	776	13	1197	212	1	1423	388	841	2	0	1231	3554
430-530	16	78	28	0	122	194	41	566	0	801	15	1250	231	1	1497	382	790	3	0	1175	3595
445-545	16	61	21	0	98	185	39	588	0	812	15	1233	240	2	1490	388	752	3	0	1143	3543
05-06	17	54	19	0	90	150	34	555	0	739	13	1170	236	2	1421	400	741	1	0	1142	3392
515-615	6	49	16	0	71	124	24	494	0	642	8	1013	199	1	1221	374	724	1	0	1099	3033
530-630	4	43	9	0	56	113	27	422	0	562	5	892	177	1	1075	335	732	0	0	1067	2760
545-645	2	40	8	0	50	103	25	383	0	511	3	824	161	0	988	344	721	0	0	1065	2614
06-07	1	36	8	0	45	112	23	349	0	484	2	782	155	0	939	330	665	0	0	995	2463
PEAK HOUR																					
430-530	16	78	28	0	122	194	41	566	0	801	15	1250	231	1	1497	382	790	3	0	1175	3595
AM PHF	0.75	0.93	0.75		0.89	0.84	0.75	0.90		0.94	0.75	0.93	0.88		0.92	0.93	0.90			0.92	0.94
%T	44%	3%	4%		6%	1%	3%	3%		2%	7%	8%	2%		7%	4%	6%			5%	5%
PM PHF	0.75	0.75	0.75		0.78	0.82	0.85	0.88		0.90	0.75	0.87	0.83	0.75	0.86	0.94	0.91	0.75		0.93	0.92
%T	6%	3%	4%		3%	2%	0%	1%		1%	7%	2%	0%	0%	2%	2%	3%	33%		3%	2%



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US 50 (SALISBURY PARKWAY) At MILL STREET

FIELD WORK BY: G. Ashton
DRAWN BY: S. Langley
DATE: March 2010
SCALE: N/A

JOB NO.: 2006-0629
DWG NAME: 01_US50@MainSt-ChurchSt.DGN
LOCATION: Wicomico Co., MD
SHEET NO.: 1 OF 9

TOTAL VEHICLE TURNING MOVEMENT COUNT - SUMMARY

INTERSECTION: Mill St.
Main St.
LOCATION: Wicomico Co., MD
PROJECT NUMBER: 2006-0629

Counted by: VCU
Date: May 6, 2008
Weather: Fair, Warm
Entered by: TT

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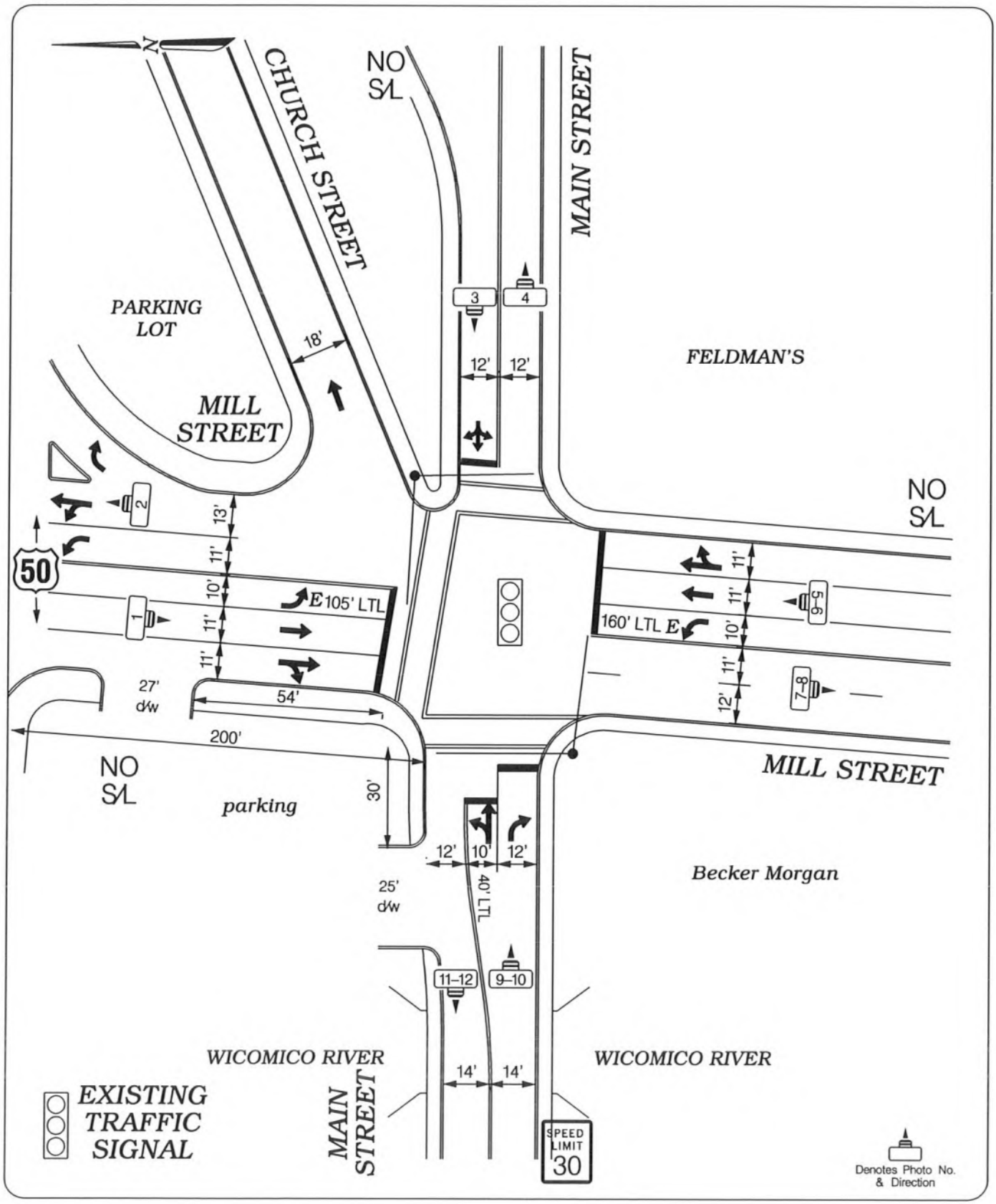
TIME	TRAFFIC FROM NORTH on: Mill St.					TRAFFIC FROM SOUTH on: Mill St.					TRAFFIC FROM EAST on: Main St.					TRAFFIC FROM WEST on: Main St.					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
06:0-15	9	43	0	0	52	0	41	21	0	62	1	0	1	0	2	26	0	0	0	26	142
15-30	17	60	0	0	77	0	58	36	0	94	1	0	0	0	1	41	0	2	0	43	215
30-45	19	95	1	0	115	0	64	27	0	91	1	0	0	0	1	64	0	2	0	66	273
45-00	17	127	1	0	145	0	108	47	0	155	3	2	0	0	5	92	0	2	0	94	399
07:0-15	17	107	3	0	127	0	98	33	0	131	3	0	0	0	3	90	0	1	0	91	352
15-30	15	122	2	0	139	0	135	44	0	179	3	2	0	0	5	124	0	3	0	127	450
30-45	14	184	2	0	200	0	144	54	0	198	1	3	0	0	4	133	1	2	0	136	538
45-00	12	181	0	0	193	0	138	77	0	215	5	7	0	0	12	154	4	2	0	160	580
08:0-15	13	192	6	0	211	0	120	72	0	192	8	5	0	0	13	137	2	6	0	145	561
15-30	11	157	2	0	170	0	141	75	0	216	6	2	0	0	8	149	5	3	0	157	551
30-45	9	167	4	0	180	1	122	62	0	185	5	3	1	0	9	114	4	7	0	125	499
45-00	4	162	6	0	172	0	126	68	0	194	4	4	1	0	9	128	4	7	0	139	514
3 Hr Totals	157	1597	27	0	1781	1	1295	616	0	1912	41	28	3	0	72	1252	20	37	0	1309	5074
1 Hr Totals																					
06-07	62	325	2	0	389	0	271	131	0	402	6	2	1	0	9	223	0	6	0	229	1029
615-715	70	389	5	0	464	0	328	143	0	471	8	2	0	0	10	287	0	7	0	294	1239
630-730	68	451	7	0	526	0	405	151	0	556	10	4	0	0	14	370	0	8	0	378	1474
645-745	63	540	8	0	611	0	485	178	0	663	10	7	0	0	17	439	1	8	0	448	1739
07-08	58	594	7	0	659	0	515	208	0	723	12	12	0	0	24	501	5	8	0	514	1920
715-815	54	679	10	0	743	0	537	247	0	784	17	17	0	0	34	548	7	13	0	568	2129
730-830	50	714	10	0	774	0	543	278	0	821	20	17	0	0	37	573	12	13	0	598	2230
745-845	45	697	12	0	754	1	521	286	0	808	24	17	1	0	42	554	15	18	0	587	2191
08-09	37	678	18	0	733	1	509	277	0	787	23	14	2	0	39	528	15	23	0	566	2125
PEAK HOUR																					
730-830	50	714	10	0	774	0	543	278	0	821	20	17	0	0	37	573	12	13	0	598	2230
PM																					
04:0-15	15	182	1	0	198	0	155	87	0	242	15	8	2	0	25	111	0	10	0	121	586
15-30	10	127	5	0	142	1	185	126	0	312	10	11	1	0	22	113	0	10	0	123	599
30-45	10	172	2	0	184	0	117	95	0	212	19	15	2	0	36	72	0	16	0	88	520
45-00	6	134	2	0	142	0	214	104	0	318	15	20	1	0	36	96	1	7	0	104	600
05:0-15	10	183	3	0	196	0	180	107	0	287	31	13	0	0	44	82	1	10	0	93	620
15-30	9	149	0	0	158	0	195	136	0	331	17	9	4	0	30	98	1	13	0	112	631
30-45	10	176	0	0	186	0	149	111	0	260	8	10	0	0	18	89	1	11	0	101	565
45-00	8	134	0	0	142	0	137	105	0	242	10	12	0	0	22	93	1	7	0	101	507
06:0-15	5	123	3	0	131	1	99	103	0	203	6	9	1	0	16	82	0	10	0	92	442
15-30	11	92	3	0	106	0	113	110	0	223	8	5	3	0	16	41	1	6	0	48	393
30-45	11	151	3	0	165	0	102	75	0	177	5	13	0	0	18	71	0	12	0	83	443
45-00	7	119	1	0	127	1	106	92	0	199	5	3	4	0	12	77	0	10	0	87	425
3 Hr Totals	112	1742	23	0	1877	3	1752	1251	0	3006	149	128	18	0	295	1025	6	122	0	1153	6331
1 Hr Totals																					
04-05	41	615	10	0	666	1	671	412	0	1084	59	54	6	0	119	392	1	43	0	436	2305
415-515	36	616	12	0	664	1	696	432	0	1129	75	59	4	0	138	363	2	43	0	408	2339
430-530	35	638	7	0	680	0	706	442	0	1148	82	57	7	0	146	348	3	46	0	397	2371
445-545	35	642	5	0	682	0	738	458	0	1196	71	52	5	0	128	365	4	41	0	410	2416
05-06	37	642	3	0	682	0	661	459	0	1120	66	44	4	0	114	362	4	41	0	407	2323
515-615	32	582	3	0	617	1	580	455	0	1036	41	40	5	0	86	362	3	41	0	406	2145
530-630	34	525	6	0	565	1	498	429	0	928	32	36	4	0	72	305	3	34	0	342	1907
545-645	35	500	9	0	544	1	451	393	0	845	29	39	4	0	72	287	2	35	0	324	1785
06-07	34	485	10	0	529	2	420	380	0	802	24	30	8	0	62	271	1	38	0	310	1703
PEAK HOUR																					
445-545	35	642	5	0	682	0	738	458	0	1196	71	52	5	0	128	365	4	41	0	410	2416
AM PHF	0.89	0.93	0.75		0.92		0.94	0.90		0.95	0.75	0.75			0.75	0.93	0.75	0.75		0.93	0.96
%T	2%	4%	0%		3%		2%	3%		2%	0%	0%			0%	1%	0%	0%		1%	2%
PM PHF	0.88	0.88	0.75		0.87		0.86	0.84		0.90	0.75	0.75	0.75		0.75	0.93	1.00	0.79		0.92	0.96
%T	0%	1%	0%		1%		1%	0%		1%	0%	0%	0%		0%	0%	0%	0%		0%	1%



The Traffic Group

MILL STREET AT MAIN STREET

FIELD WORK BY: G. Ashton
DRAWN BY: S. Langley
DATE: March 2010
SCALE: N/A

JOB NO.: 2006-0629
DWG NAME: 02_MillSt@MainSt-ChurchSt.DGN
LOCATION: Wicomico Co., MD
SHEET NO.: 2 OF 9

TOTAL VEHICLE TURNING MOVEMENT COUNT - SUMMARY

INTERSECTION: Mill St. / Camden Ave.
Carroll St. / Riverside Dr.

LOCATION: Wicomico Co., MD

PROJECT NUMBER: 2006-0629

Counted by: VCU

Date: May 6, 2008

Weather: Fair, Warm

Entered by: TT

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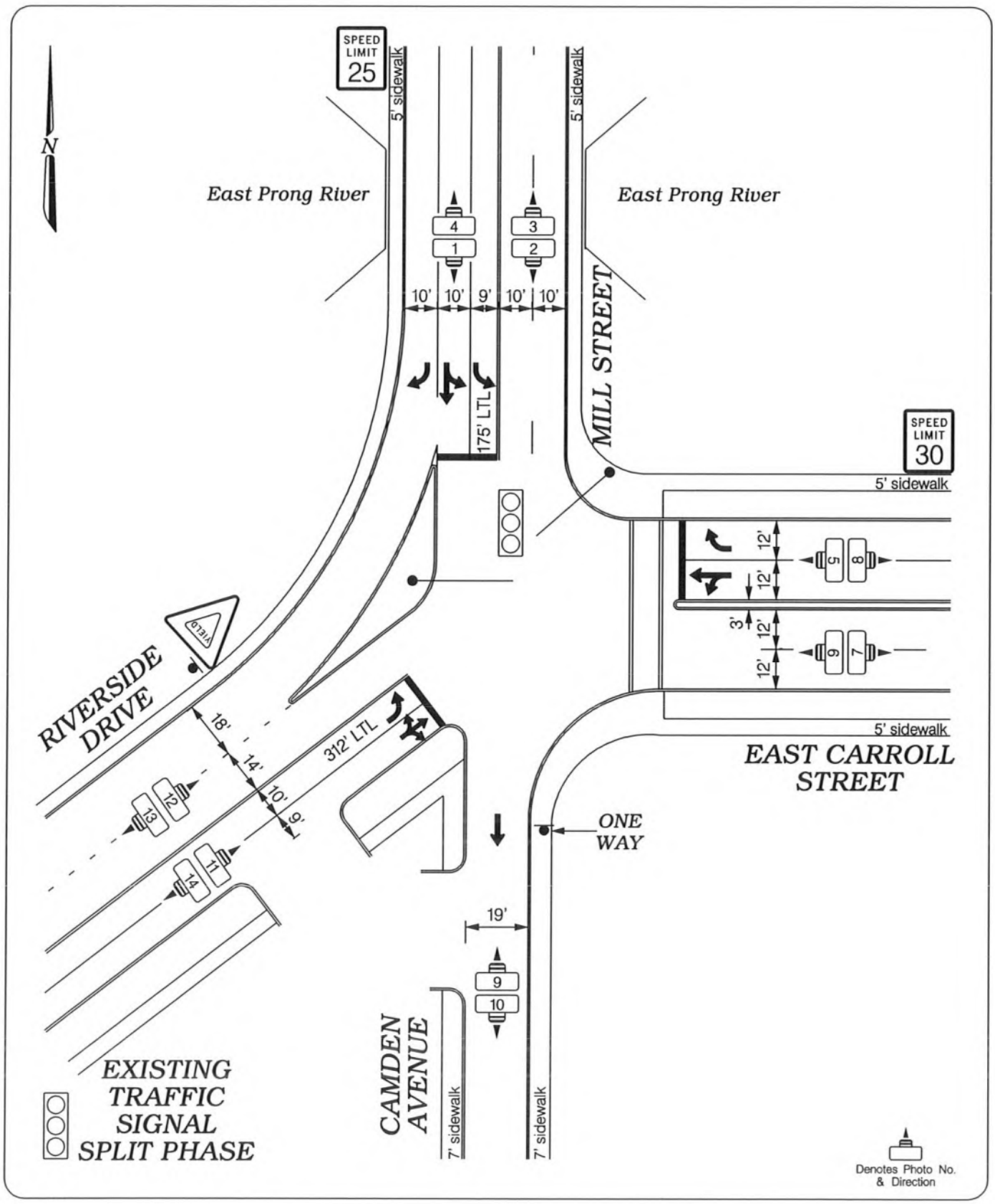
TIME	TRAFFIC FROM NORTH on: Mill St.					TRAFFIC FROM SOUTH on: Camden Ave.					TRAFFIC FROM EAST on: Carroll St.					TRAFFIC FROM WEST on: Riverside Dr.					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
06:0-15	9	22	39	0	70					0	38	1	1	0	40	0	5	35	0	40	150
15-30	14	21	65	0	100					0	42	7	3	0	52	0	13	43	0	56	208
30-45	20	39	110	0	169					0	39	6	2	0	47	1	19	51	0	71	287
45-00	40	49	125	0	214					0	61	13	0	0	74	0	13	96	0	109	397
07:0-15	37	61	96	0	194					0	51	6	1	0	58	0	13	84	0	97	349
15-30	49	71	133	0	253					0	70	6	2	0	78	0	9	107	0	116	447
30-45	52	82	177	0	311					0	69	16	1	0	86	1	23	154	0	178	575
45-00	100	95	150	0	345					0	82	25	5	0	112	3	36	111	0	150	607
08:0-15	115	92	101	0	308					0	83	23	7	0	113	1	21	120	0	142	563
15-30	88	91	135	0	314					0	68	27	3	0	98	1	31	132	0	164	576
30-45	80	84	109	0	273					0	71	16	5	0	92	2	34	131	0	167	532
45-00	74	98	129	0	301					0	76	14	7	0	97	1	33	96	0	130	528
3 Hr Totals	678	805	1369	0	2852	0	0	0	0	0	750	160	37	0	947	10	250	1160	0	1420	5219
1 Hr Totals																					
06-07	83	131	339	0	553	0	0	0	0	0	180	27	6	0	213	1	50	225	0	276	1042
615-715	111	170	396	0	677	0	0	0	0	0	193	32	6	0	231	1	58	274	0	333	1241
630-730	146	220	464	0	830	0	0	0	0	0	221	31	5	0	257	1	54	338	0	393	1480
645-745	178	263	531	0	972	0	0	0	0	0	251	41	4	0	296	1	58	441	0	500	1768
07-08	238	309	556	0	1103	0	0	0	0	0	272	53	9	0	334	4	81	456	0	541	1978
715-815	316	340	561	0	1217	0	0	0	0	0	304	70	15	0	389	5	89	492	0	586	2192
730-830	355	360	563	0	1278	0	0	0	0	0	302	91	16	0	409	6	111	517	0	634	2321
745-845	383	362	495	0	1240	0	0	0	0	0	304	91	20	0	415	7	122	494	0	623	2278
08-09	357	365	474	0	1196	0	0	0	0	0	298	80	22	0	400	5	119	479	0	603	2199
PEAK HOUR																					
730-830	355	360	563	0	1278	0	0	0	0	0	302	91	16	0	409	6	111	517	0	634	2321
PM																					
04:0-15	72	69	126	0	267					0	133	19	8	0	160	0	20	132	0	152	579
15-30	55	96	108	0	259					0	155	25	13	0	193	0	13	125	0	138	590
30-45	74	78	80	0	232					0	125	20	11	0	156	1	24	133	0	158	546
45-00	59	83	104	0	246					0	144	34	12	0	190	1	23	123	0	147	583
05:0-15	55	96	97	0	248					0	162	39	25	0	226	0	22	152	0	174	648
15-30	74	102	96	0	272					0	160	24	12	0	196	1	20	140	0	161	629
30-45	67	77	101	0	245					0	147	19	12	0	178	0	14	119	0	133	556
45-00	56	73	118	0	247					0	148	17	9	0	174	0	16	69	0	85	506
06:0-15	43	62	85	0	190					0	132	13	9	0	154	3	17	91	0	111	455
15-30	32	52	59	0	143					0	109	21	7	0	137	3	12	91	0	106	386
30-45	48	66	92	0	206					0	114	13	9	0	136	0	18	77	0	95	437
45-00	47	70	89	0	206					0	96	9	10	0	115	0	14	91	0	105	426
3 Hr Totals	682	924	1155	0	2761	0	0	0	0	0	1625	253	137	0	2015	9	213	1343	0	1565	6341
1 Hr Totals																					
04-05	260	326	418	0	1004	0	0	0	0	0	557	98	44	0	699	2	80	513	0	595	2298
415-515	243	353	389	0	985	0	0	0	0	0	586	118	61	0	765	2	82	533	0	617	2367
430-530	262	359	377	0	998	0	0	0	0	0	591	117	60	0	768	3	89	548	0	640	2406
445-545	255	358	398	0	1011	0	0	0	0	0	613	116	61	0	790	2	79	534	0	615	2416
05-06	252	348	412	0	1012	0	0	0	0	0	617	99	58	0	774	1	72	480	0	553	2339
515-615	240	314	400	0	954	0	0	0	0	0	587	73	42	0	702	4	67	419	0	490	2146
530-630	198	264	363	0	825	0	0	0	0	0	536	70	37	0	643	6	59	370	0	435	1903
545-645	179	253	354	0	786	0	0	0	0	0	503	64	34	0	601	6	63	328	0	397	1784
06-07	170	250	325	0	745	0	0	0	0	0	451	56	35	0	542	6	61	350	0	417	1704
PEAK HOUR																					
445-545	255	358	398	0	1011	0	0	0	0	0	613	116	61	0	790	2	79	534	0	615	2416
AM PHF	0.77	0.95	0.80		0.93						0.91	0.84	0.75		0.90	0.75	0.77	0.84		0.89	0.96
%T	3%	2%	2%		2%						3%	3%	0%		3%	0%	1%	2%		2%	2%
PM PHF	0.86	0.88	0.96		0.93						0.95	0.75	0.75		0.87	0.75	0.86	0.88		0.88	0.93
%T	1%	1%	1%		1%						0%	0%	2%		0%	0%	1%	1%		1%	1%



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RIVERSIDE DRIVE AT MILL STREET/ EAST CARROLL STREET/ CAMDEN AVENUE

FIELD WORK BY: G. Ashton
DRAWN BY: S. Langley
DATE: March 2010
SCALE: N/A

JOB NO.: 2006-0629
DWG NAME: 03_RiversideDr@MillSt-CamdenAve-EastCarrollSt
LOCATION: Wicomico Co., MD
SHEET NO.: 3 OF 9

TOTAL VEHICLES TURNING MOVEMENT COUNT - SUMMARY

INTERSECTION: Riverside Drive
Wicomico Street

LOCATION: Wicomico County, MD

PROJECT NUMBER: 2006-0629

Counted by: BT/KT/EL

Date: April 30, May1, 2008

Weather: Partly cloudy, 50-70's

Entered by: GA

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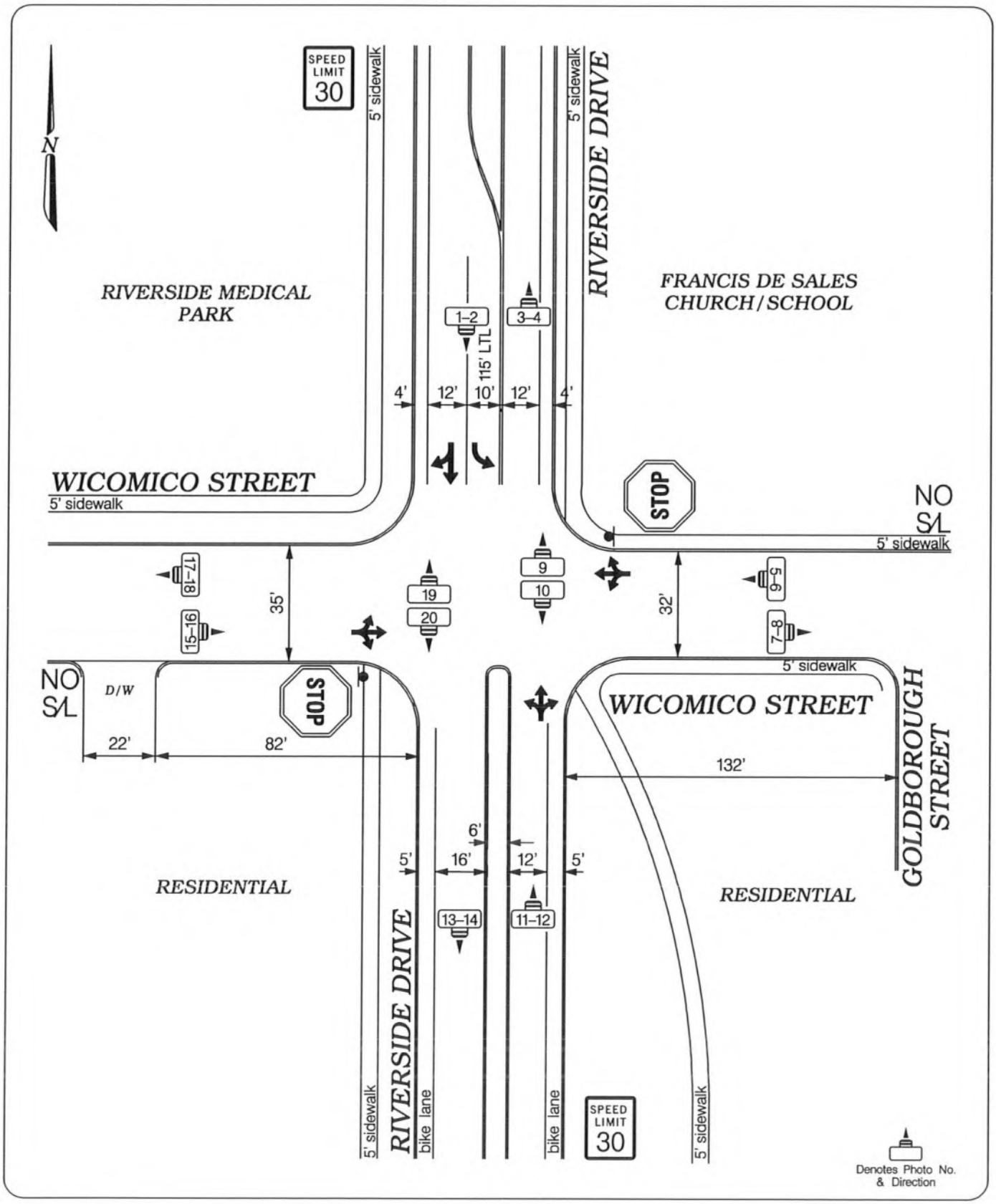
TIME	TRAFFIC FROM NORTH on: Riverside Drive					TRAFFIC FROM SOUTH on: Riverside Drive					TRAFFIC FROM EAST on: Wicomico Street					TRAFFIC FROM WEST on: Wicomico Street					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
06:0-15	2	9	0	0	11	0	21	0	0	21	7	0	0	0	7	0	1	1	0	2	41
15-30	0	10	1	0	11	1	35	0	0	36	11	0	0	0	11	0	0	2	0	2	60
30-45	0	9	5	0	14	2	42	1	0	45	30	0	0	0	30	0	0	2	0	2	91
45-00	1	24	2	0	27	0	62	1	0	63	32	1	0	0	33	0	0	3	0	3	126
07:0-15	3	25	2	0	30	1	59	1	0	61	18	3	0	0	21	1	1	2	0	4	116
15-30	1	34	5	0	40	0	93	0	0	93	29	0	1	0	30	0	0	2	0	2	165
30-45	4	38	1	0	43	2	90	4	0	96	38	1	0	0	39	1	0	3	0	4	182
45-00	2	42	3	0	47	2	148	4	0	154	57	1	0	0	58	1	2	3	0	6	265
08:0-15	3	68	7	0	78	1	123	4	0	128	47	5	3	0	55	0	3	2	0	5	266
15-30	4	71	7	0	82	3	91	7	0	101	34	4	3	0	41	0	0	4	0	4	228
30-45	5	65	6	0	76	2	88	6	0	96	36	5	4	0	45	3	0	4	0	7	224
45-00	9	71	5	0	85	1	66	2	0	69	38	2	2	0	42	1	1	3	0	5	201
3 Hr Totals	34	466	44	0	544	15	918	30	0	963	377	22	13	0	412	7	8	31	0	46	1965
1 Hr Totals																					
06-07	3	52	8	0	63	3	160	2	0	165	80	1	0	0	81	0	1	8	0	9	318
615-715	4	68	10	0	82	4	198	3	0	205	91	4	0	0	95	1	1	9	0	11	393
630-730	5	92	14	0	111	3	256	3	0	262	109	4	1	0	114	1	1	9	0	11	498
645-745	9	121	10	0	140	3	304	6	0	313	117	5	1	0	123	2	1	10	0	13	589
07-08	10	139	11	0	160	5	390	9	0	404	142	5	1	0	148	3	3	10	0	16	728
715-815	10	182	16	0	208	5	454	12	0	471	171	7	4	0	182	2	5	10	0	17	878
730-830	13	219	18	0	250	8	452	19	0	479	176	11	6	0	193	2	5	12	0	19	941
745-845	14	246	23	0	283	8	450	21	0	479	174	15	10	0	199	4	5	13	0	22	983
08-09	21	275	25	0	321	7	368	19	0	394	155	16	12	0	183	4	4	13	0	21	919
PEAK HOUR																					
745-845	14	246	23	0	283	8	450	21	0	479	174	15	10	0	199	4	5	13	0	22	983
PM																					
04:0-15	0	68	0	0	68	5	81	11	0	97	64	0	0	0	64	3	4	7	0	14	243
15-30	1	64	2	0	67	2	78	10	0	90	64	0	1	0	65	2	1	7	0	10	232
30-45	0	75	1	0	76	3	81	7	0	91	60	1	3	0	64	3	1	5	0	9	240
45-00	0	59	0	0	59	1	71	6	0	78	58	1	0	0	59	1	2	2	0	5	201
05:0-15	2	58	0	0	60	3	96	8	0	107	57	1	3	0	61	7	2	5	0	14	242
15-30	2	80	0	0	82	2	68	14	0	84	59	1	1	0	61	3	2	1	0	6	233
30-45	2	67	1	0	70	0	111	7	0	118	59	2	0	0	61	1	1	5	0	7	256
45-00	2	60	1	0	63	3	66	5	0	74	48	0	0	0	48	2	1	3	0	6	191
06:0-15	2	66	1	0	69	1	62	2	0	65	63	0	0	0	63	0	1	0	0	1	198
15-30	1	48	0	0	49	0	52	5	0	57	58	2	1	0	61	0	3	5	0	8	175
30-45	2	60	0	0	62	4	43	9	0	56	34	1	2	0	37	0	2	2	0	4	159
45-00	0	63	1	0	64	1	39	5	0	45	57	1	0	0	58	0	3	1	0	4	171
3 Hr Totals	14	768	7	0	789	25	848	89	0	962	681	10	11	0	702	22	23	43	0	88	2541
1 Hr Totals																					
04-05	1	266	3	0	270	11	311	34	0	356	246	2	4	0	252	9	8	21	0	38	916
415-515	3	256	3	0	262	9	326	31	0	366	239	3	7	0	249	13	6	19	0	38	915
430-530	4	272	1	0	277	9	316	35	0	360	234	4	7	0	245	14	7	13	0	34	916
445-545	6	264	1	0	271	6	346	35	0	387	233	5	4	0	242	12	7	13	0	32	932
05-06	8	265	2	0	275	8	341	34	0	383	223	4	4	0	231	13	6	14	0	33	922
515-615	8	273	3	0	284	6	307	28	0	341	229	3	1	0	233	6	5	9	0	20	878
530-630	7	241	3	0	251	4	291	19	0	314	228	4	1	0	233	3	6	13	0	22	820
545-645	7	234	2	0	243	8	223	21	0	252	203	3	3	0	209	2	7	10	0	19	723
06-07	5	237	2	0	244	6	196	21	0	223	212	4	3	0	219	0	9	8	0	17	703
PEAK HOUR																					
445-545	6	264	1	0	271	6	346	35	0	387	233	5	4	0	242	12	7	13	0	32	932
AM PHF	0.75	0.87	0.82		0.86	0.75	0.76	0.75		0.78	0.76	0.75	0.75		0.86	0.75	0.75	0.81		0.79	0.92
%T	0%	4%	4%		4%	0%	3%	5%		3%	1%	0%	0%		1%	0%	0%	0%		0%	3%
PM PHF	0.75	0.83	0.75		0.83	0.75	0.78	0.75		0.82	0.99	0.75	0.75		0.99	0.75	0.88	0.75		0.75	0.91
%T	0%	2%	0%		1%	0%	1%	0%		1%	0%	0%	0%		0%	0%	0%	0%		0%	1%



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RIVERSIDE DRIVE AT WICOMICO STREET

FIELD WORK BY: G. Ashton
DRAWN BY: S. Langley
DATE: March 2010
SCALE: N/A

JOB NO.: 2006-0629
DWG NAME: 04_RiversideDr@WicomicoSt.DGN
LOCATION: Wicomico Co., MD
SHEET NO.: 4 OF 9

TOTAL VEHICLES TURNING MOVEMENT COUNT - SUMMARY

INTERSECTION: Riverside Drive
South Blvd./ Ridge Road
LOCATION: Wicomico County, MD
PROJECT NUMBER: 2006-0629

Counted by: DE
Date: April 29, 2008
Weather: Rain, 50-70's
Entered by: GA

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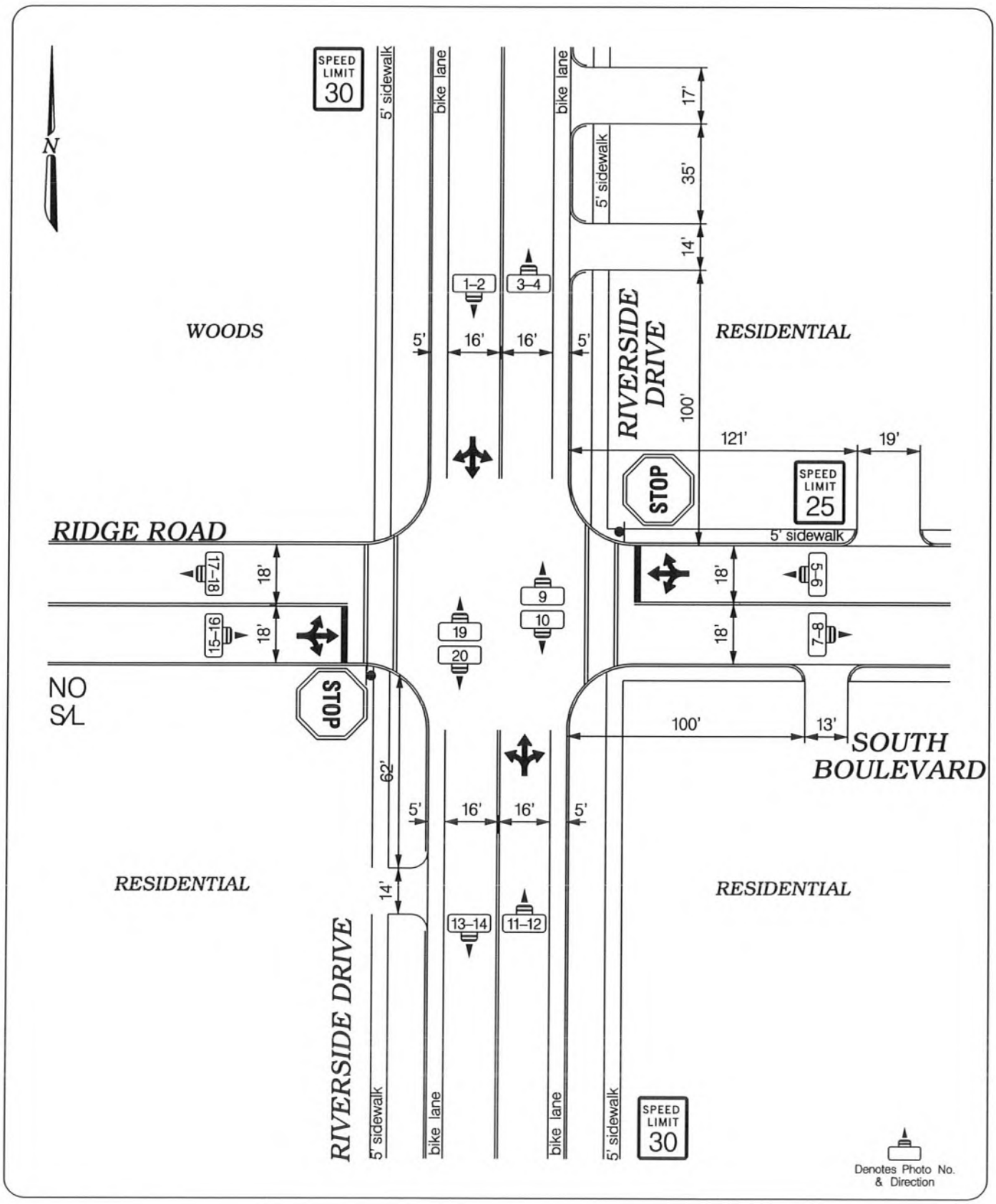
TIME	TRAFFIC FROM NORTH on: Riverside Drive					TRAFFIC FROM SOUTH on: Riverside Drive					TRAFFIC FROM EAST on: South Blvd.					TRAFFIC FROM WEST on: Ridge Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
06:0-15	1	6	2	0	9	0	8	0	0	8	3	0	0	0	3	0	0	0	0	0	20
15-30	1	8	2	0	11	1	17	0	0	18	2	0	0	0	2	0	0	1	0	1	32
30-45	0	15	1	0	16	0	32	0	0	32	3	0	0	0	3	0	0	0	0	0	51
45-00	0	13	3	0	16	1	46	0	0	47	1	0	1	0	2	0	1	1	0	2	67
07:0-15	0	21	0	0	21	2	53	0	0	55	6	0	0	0	6	0	0	1	0	1	83
15-30	0	25	8	0	33	0	64	0	0	64	6	1	0	0	7	0	0	1	0	1	105
30-45	0	37	5	0	42	1	66	0	0	67	5	0	0	0	5	0	0	1	0	1	115
45-00	0	31	7	0	38	2	103	0	0	105	14	2	1	0	17	0	2	2	0	4	164
08:0-15	2	55	13	0	70	2	102	0	0	104	15	1	1	0	17	0	0	2	0	2	193
15-30	1	79	10	0	90	2	80	1	0	83	11	1	0	0	12	0	1	2	0	3	188
30-45	0	67	3	0	70	0	62	0	0	62	3	0	2	0	5	1	2	3	0	6	143
45-00	1	53	3	0	57	0	66	2	0	68	10	0	3	0	13	0	2	3	0	5	143
3 Hr Totals	6	410	57	0	473	11	699	3	0	713	79	5	8	0	92	1	8	17	0	26	1304
1 Hr Totals																					
06-07	2	42	8	0	52	2	103	0	0	105	9	0	1	0	10	0	1	2	0	3	170
615-715	1	57	6	0	64	4	148	0	0	152	12	0	1	0	13	0	1	3	0	4	233
630-730	0	74	12	0	86	3	195	0	0	198	16	1	1	0	18	0	1	3	0	4	306
645-745	0	96	16	0	112	4	229	0	0	233	18	1	1	0	20	0	1	4	0	5	370
07-08	0	114	20	0	134	5	286	0	0	291	31	3	1	0	35	0	2	5	0	7	467
715-815	2	148	33	0	183	5	335	0	0	340	40	4	2	0	46	0	2	6	0	8	577
730-830	3	202	35	0	240	7	351	1	0	359	45	4	2	0	51	0	3	7	0	10	660
745-845	3	232	33	0	268	6	347	1	0	354	43	4	4	0	51	1	5	9	0	15	688
08-09	4	254	29	0	287	4	310	3	0	317	39	2	6	0	47	1	5	10	0	16	667
PEAK HOUR																					
745-845	3	232	33	0	268	6	347	1	0	354	43	4	4	0	51	1	5	9	0	15	688
PM																					
04:0-15	0	53	4	0	57	1	64	0	0	65	9	0	4	0	13	0	0	0	0	0	135
15-30	0	52	4	0	56	0	37	0	0	37	7	4	2	0	13	0	0	0	0	0	106
30-45	3	59	7	0	69	0	55	0	0	55	8	1	2	0	11	0	0	0	0	0	135
45-00	1	60	6	0	67	1	40	0	0	41	9	0	4	0	13	0	0	0	0	0	121
05:0-15	0	62	11	0	73	0	64	0	0	64	10	0	3	0	13	0	0	0	0	0	150
15-30	0	74	5	0	79	0	53	0	0	53	7	0	1	0	8	0	0	0	0	0	140
30-45	0	69	5	0	74	0	48	0	0	48	6	0	4	0	10	0	0	0	0	0	132
45-00	0	50	4	0	54	0	45	0	0	45	5	1	2	0	8	0	0	0	0	0	107
06:0-15	3	55	5	0	63	0	44	0	0	44	6	0	3	0	9	0	0	0	0	0	116
15-30	1	44	2	0	47	1	47	0	0	48	9	0	3	0	12	0	1	1	0	2	109
30-45	0	33	4	0	37	0	37	1	0	38	9	2	2	0	13	1	1	2	0	4	92
45-00	0	58	6	0	64	0	24	0	0	24	10	0	2	0	12	0	0	0	0	0	100
3 Hr Totals	8	669	63	0	740	3	558	1	0	562	95	8	32	0	135	1	2	3	0	6	1443
1 Hr Totals																					
04-05	4	224	21	0	249	2	196	0	0	198	33	5	12	0	50	0	0	0	0	0	497
415-515	4	233	28	0	265	1	196	0	0	197	34	5	11	0	50	0	0	0	0	0	512
430-530	4	255	29	0	288	1	212	0	0	213	34	1	10	0	45	0	0	0	0	0	546
445-545	1	265	27	0	293	1	205	0	0	206	32	0	12	0	44	0	0	0	0	0	543
05-06	0	255	25	0	280	0	210	0	0	210	28	1	10	0	39	0	0	0	0	0	529
515-615	3	248	19	0	270	0	190	0	0	190	24	1	10	0	35	0	0	0	0	0	495
530-630	4	218	16	0	238	1	184	0	0	185	26	1	12	0	39	0	1	1	0	2	464
545-645	4	182	15	0	201	1	173	1	0	175	29	3	10	0	42	1	2	3	0	6	424
06-07	4	190	17	0	211	1	152	1	0	154	34	2	10	0	46	1	2	3	0	6	417
PEAK HOUR																					
430-530	4	255	29	0	288	1	212	0	0	213	34	1	10	0	45	0	0	0	0	0	546
AM PHF	0.75	0.75	0.75		0.75	0.75	0.84	0.75		0.84	0.75	0.75	0.75		0.75	0.75	0.75	0.75		0.75	0.89
%T	0%	5%	0%		4%	0%	4%	0%		4%	2%	25%	0%		4%	0%	0%	0%		0%	4%
PM PHF	0.75	0.86	0.75		0.91	0.75	0.83			0.83	0.85	0.75	0.75		0.87						0.91
%T	0%	2%	0%		2%	0%	3%			3%	3%	0%	0%		2%						2%



The Traffic Group

RIVERSIDE DRIVE AT RIDGE ROAD/ SOUTH BOULEVARD

FIELD WORK BY: G. Ashton
DRAWN BY: S. Langley
DATE: March 2010
SCALE: N/A

JOB NO.: 2006-0629
DWG NAME: 05_RiversideDr@RidgeRd-SouthBlvd.DGN
LOCATION: Wicomico Co., MD
SHEET NO.: 5 OF 9

TOTAL VEHICLES TURNING MOVEMENT COUNT - SUMMARY

INTERSECTION: Riverside Drive
W. College Ave.
LOCATION: Wicomico County, MD
PROJECT NUMBER: 2006-0629

Counted by: BT/SC
Date: April 24, 28, 2008
Weather: Partly cloudy, 70-90's
Entered by: GA

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TIME	TRAFFIC FROM NORTH on: Riverside Drive					TRAFFIC FROM SOUTH on: Riverside Drive					TRAFFIC FROM EAST on: W. College Avenue					TRAFFIC FROM WEST on: #VALUE!					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																					
06:0-15	0	1	0	0	1	2	2	0	0	4	1	0	0	0	1	0	0	0	0	0	6
15-30	0	5	3	0	8	2	16	0	0	18	1	0	1	0	2	0	0	0	0	0	28
30-45	0	8	4	0	12	4	31	0	0	35	4	0	0	0	4	0	0	0	0	0	51
45-00	0	10	2	0	12	9	47	0	0	56	4	0	2	0	6	0	0	0	0	0	74
07:0-15	0	10	5	0	15	9	47	0	0	56	4	0	0	0	4	0	0	0	0	0	75
15-30	0	12	6	0	18	13	41	0	0	54	4	0	4	0	8	0	0	0	0	0	80
30-45	0	16	3	0	19	29	44	0	0	73	8	0	3	0	11	0	0	0	0	0	103
45-00	0	10	12	0	22	16	63	0	0	79	9	0	5	0	14	0	0	0	0	0	115
08:0-15	0	25	11	0	36	7	57	0	0	64	17	0	9	0	26	0	0	0	0	0	126
15-30	0	21	5	0	26	13	38	0	0	51	10	0	5	0	15	0	0	0	0	0	92
30-45	0	28	10	0	38	12	46	0	0	58	9	0	5	0	14	0	0	0	0	0	110
45-00	0	22	16	0	38	5	30	0	0	35	10	0	9	0	19	0	0	0	0	0	92
3 Hr Totals	0	168	77	0	245	121	462	0	0	583	81	0	43	0	124	0	0	0	0	0	952
1 Hr Totals																					
06-07	0	24	9	0	33	17	96	0	0	113	10	0	3	0	13	0	0	0	0	0	159
615-715	0	33	14	0	47	24	141	0	0	165	13	0	3	0	16	0	0	0	0	0	228
630-730	0	40	17	0	57	35	166	0	0	201	16	0	6	0	22	0	0	0	0	0	280
645-745	0	48	16	0	64	60	179	0	0	239	20	0	9	0	29	0	0	0	0	0	332
07-08	0	48	26	0	74	67	195	0	0	262	25	0	12	0	37	0	0	0	0	0	373
715-815	0	63	32	0	95	65	205	0	0	270	38	0	21	0	59	0	0	0	0	0	424
730-830	0	72	31	0	103	65	202	0	0	267	44	0	22	0	66	0	0	0	0	0	436
745-845	0	84	38	0	122	48	204	0	0	252	45	0	24	0	69	0	0	0	0	0	443
08-09	0	96	42	0	138	37	171	0	0	208	46	0	28	0	74	0	0	0	0	0	420
PEAK HOUR																					
745-845	0	84	38	0	122	48	204	0	0	252	45	0	24	0	69	0	0	0	0	0	443
PM																					
04:0-15	0	41	5	0	46	11	33	0	0	44	20	0	15	0	35	0	0	0	0	0	125
15-30	0	50	7	0	57	8	29	0	0	37	12	0	10	0	22	0	0	0	0	0	116
30-45	0	52	9	0	61	5	27	0	0	32	16	0	20	0	36	0	0	0	0	0	129
45-00	0	54	12	0	66	7	27	0	0	34	10	0	9	0	19	0	0	0	0	0	119
05:0-15	0	50	15	0	65	5	27	0	0	32	18	0	13	0	31	0	0	0	0	0	128
15-30	0	52	2	0	54	10	27	0	0	37	15	0	10	0	25	0	0	0	0	0	116
30-45	0	55	4	0	59	12	29	0	0	41	14	0	17	0	31	0	0	0	0	0	131
45-00	0	48	6	0	54	20	23	0	0	43	13	0	17	0	30	0	0	0	0	0	127
06:0-15	0	55	7	0	62	13	21	0	0	34	14	0	15	0	29	0	0	0	0	0	125
15-30	0	33	6	0	39	12	27	0	0	39	8	0	11	0	19	0	0	0	0	0	97
30-45	0	30	9	0	39	11	33	0	0	44	10	0	10	0	20	0	0	0	0	0	103
45-00	0	31	6	0	37	8	29	0	0	37	11	0	16	0	27	0	0	0	0	0	101
3 Hr Totals	0	551	88	0	639	122	332	0	0	454	161	0	163	0	324	0	0	0	0	0	1417
1 Hr Totals																					
04-05	0	197	33	0	230	31	116	0	0	147	58	0	54	0	112	0	0	0	0	0	489
415-515	0	206	43	0	249	25	110	0	0	135	56	0	52	0	108	0	0	0	0	0	492
430-530	0	208	38	0	246	27	108	0	0	135	59	0	52	0	111	0	0	0	0	0	492
445-545	0	211	33	0	244	34	110	0	0	144	57	0	49	0	106	0	0	0	0	0	494
05-06	0	205	27	0	232	47	106	0	0	153	60	0	57	0	117	0	0	0	0	0	502
515-615	0	210	19	0	229	55	100	0	0	155	56	0	59	0	115	0	0	0	0	0	499
530-630	0	191	23	0	214	57	100	0	0	157	49	0	60	0	109	0	0	0	0	0	480
545-645	0	166	28	0	194	56	104	0	0	160	45	0	53	0	98	0	0	0	0	0	452
06-07	0	149	28	0	177	44	110	0	0	154	43	0	52	0	95	0	0	0	0	0	426
PEAK HOUR																					
05-06	0	205	27	0	232	47	106	0	0	153	60	0	57	0	117	0	0	0	0	0	502
AM PHF		0.75	0.79		0.80	0.75	0.81			0.80	0.75		0.75		0.75						0.88
%T		6%	5%		6%	4%	4%			4%	4%		0%		3%						5%
PM PHF		0.93	0.75		0.89	0.75	0.91			0.89	0.83		0.84		0.94						0.96
%T		4%	0%		3%	0%	2%			1%	2%		4%		3%						3%

TOTAL VEHICLES TURNING MOVEMENT COUNT - SUMMARY

6a

INTERSECTION: Riverside Drive
Loblolly Lane

LOCATION: Wicomico County, MD

PROJECT NUMBER: 2006-0629

Counted by: BT/SC

Date: April 24, 29, 2008

Weather: Partly cloudy, 70-90's, Rain,30-50'

Entered by: GA

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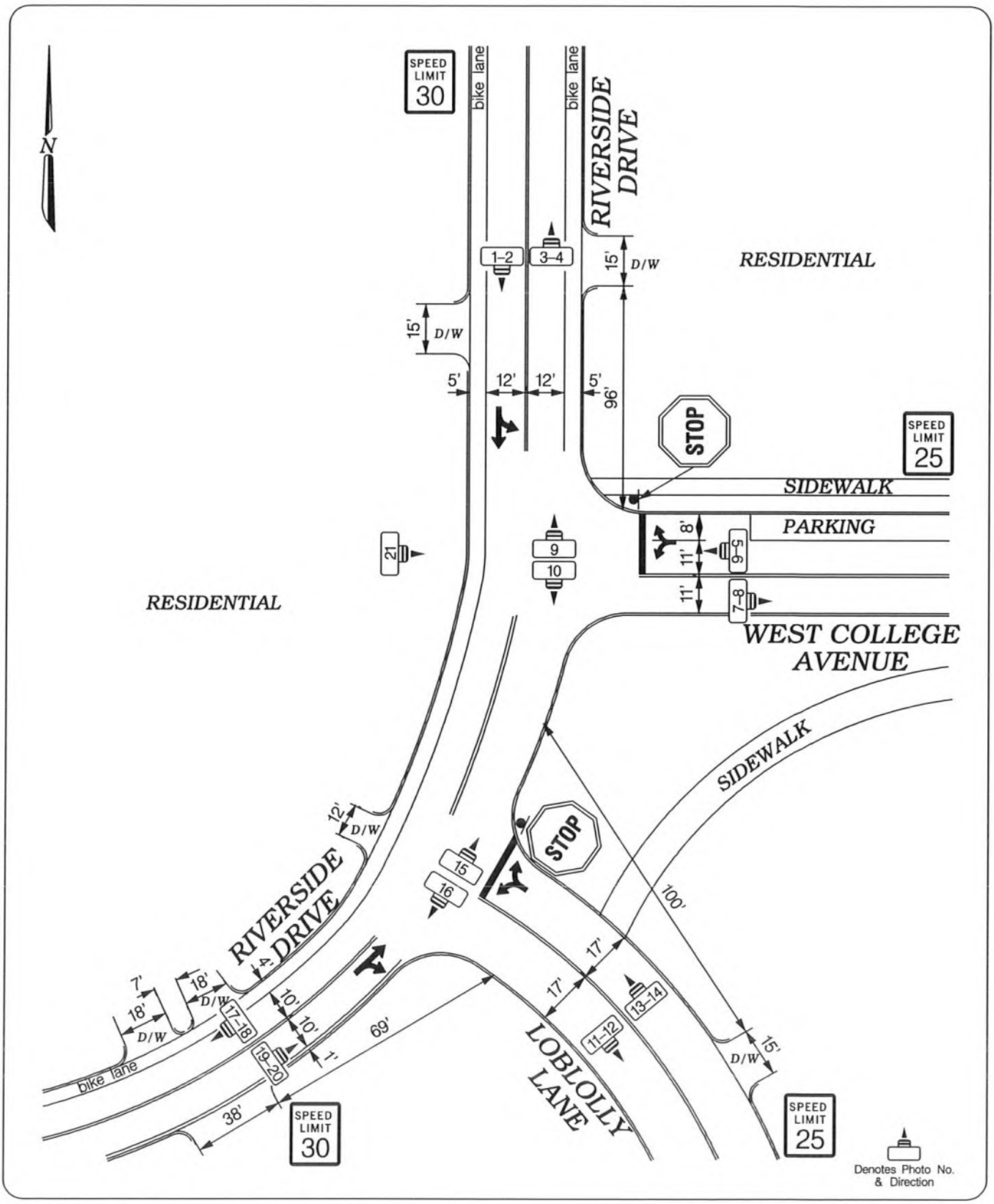
TIME	TRAFFIC FROM NORTH on: Riverside Drive					TRAFFIC FROM SOUTH on: Riverside Drive					TRAFFIC FROM EAST on: Loblolly Lane					TRAFFIC FROM WEST on: #VALUE!					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
06:0-15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15-30	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
30-45	0	0	2	0	2	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	4
45-00	0	0	2	0	2	0	0	0	0	0	7	0	0	0	7	0	0	0	0	0	9
07:0-15	0	0	7	0	7	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	15
15-30	0	0	4	0	4	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	12
30-45	0	0	11	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
45-00	0	0	4	0	4	0	0	0	0	0	17	0	1	0	18	0	0	0	0	0	22
08:0-15	0	0	11	0	11	1	0	0	0	1	17	0	0	0	17	0	0	0	0	0	29
15-30	0	0	7	0	7	1	0	0	0	1	17	0	1	0	18	0	0	0	0	0	26
30-45	0	0	5	0	5	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	8
45-00	0	0	5	0	5	0	0	0	0	0	8	0	1	0	9	0	0	0	0	0	14
3 Hr Totals	0	0	60	0	60	2	0	0	0	2	87	0	3	0	90	0	0	0	0	0	152
1 Hr Totals																					
06-07	0	0	6	0	6	0	0	0	0	0	9	0	0	0	9	0	0	0	0	0	15
615-715	0	0	13	0	13	0	0	0	0	0	17	0	0	0	17	0	0	0	0	0	30
630-730	0	0	15	0	15	0	0	0	0	0	25	0	0	0	25	0	0	0	0	0	40
645-745	0	0	24	0	24	0	0	0	0	0	23	0	0	0	23	0	0	0	0	0	47
07-08	0	0	26	0	26	0	0	0	0	0	33	0	1	0	34	0	0	0	0	0	60
715-815	0	0	30	0	30	1	0	0	0	1	42	0	1	0	43	0	0	0	0	0	74
730-830	0	0	33	0	33	2	0	0	0	2	51	0	2	0	53	0	0	0	0	0	88
745-845	0	0	27	0	27	2	0	0	0	2	54	0	2	0	56	0	0	0	0	0	85
08-09	0	0	28	0	28	2	0	0	0	2	45	0	2	0	47	0	0	0	0	0	77
PEAK HOUR																					
730-830	0	0	33	0	33	2	0	0	0	2	51	0	2	0	53	0	0	0	0	0	88
PM																					
04:0-15	0	0	7	0	7	0	0	0	0	0	12	0	0	0	12	0	0	0	0	0	19
15-30	0	0	13	0	13	1	0	0	0	1	8	0	0	0	8	0	0	0	0	0	22
30-45	0	0	13	0	13	0	0	0	0	0	7	0	1	0	8	0	0	0	0	0	21
45-00	0	0	11	0	11	1	0	0	0	1	6	0	0	0	6	0	0	0	0	0	18
05:0-15	0	0	13	0	13	1	0	0	0	1	9	0	1	0	10	0	0	0	0	0	24
15-30	0	0	9	0	9	1	0	0	0	1	19	0	1	0	20	0	0	0	0	0	30
30-45	0	0	8	0	8	1	0	0	0	1	8	0	1	0	9	0	0	0	0	0	18
45-00	0	0	6	0	6	1	0	0	0	1	4	0	0	0	4	0	0	0	0	0	11
06:0-15	0	0	7	0	7	1	0	0	0	1	8	0	0	0	8	0	0	0	0	0	16
15-30	0	0	7	0	7	1	0	0	0	1	6	0	0	0	6	0	0	0	0	0	14
30-45	0	0	1	0	1	3	0	0	0	3	5	0	0	0	5	0	0	0	0	0	9
45-00	0	0	4	0	4	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	6
3 Hr Totals	0	0	99	0	99	11	0	0	0	11	94	0	4	0	98	0	0	0	0	0	208
1 Hr Totals																					
04-05	0	0	44	0	44	2	0	0	0	2	33	0	1	0	34	0	0	0	0	0	80
415-515	0	0	50	0	50	3	0	0	0	3	30	0	2	0	32	0	0	0	0	0	85
430-530	0	0	46	0	46	3	0	0	0	3	41	0	3	0	44	0	0	0	0	0	93
445-545	0	0	41	0	41	4	0	0	0	4	42	0	3	0	45	0	0	0	0	0	90
05-06	0	0	36	0	36	4	0	0	0	4	40	0	3	0	43	0	0	0	0	0	83
515-615	0	0	30	0	30	4	0	0	0	4	39	0	2	0	41	0	0	0	0	0	75
530-630	0	0	28	0	28	4	0	0	0	4	26	0	1	0	27	0	0	0	0	0	59
545-645	0	0	21	0	21	6	0	0	0	6	23	0	0	0	23	0	0	0	0	0	50
06-07	0	0	19	0	19	5	0	0	0	5	21	0	0	0	21	0	0	0	0	0	45
PEAK HOUR																					
430-530	0	0	46	0	46	3	0	0	0	3	41	0	3	0	44	0	0	0	0	0	93
AM PHF			0.75		0.75	0.75				0.75	0.75		0.75		0.75						0.76
%T			9%		9%	0%				0%	0%		0%		0%						3%
PM PHF			0.88		0.88	0.75				0.75	0.75		0.75		0.75						0.78
%T			0%		0%	0%				0%	2%		0%		2%						1%



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RIVERSIDE DRIVE AT WEST COLLEGE AVENUE/ LOBLOLLY LANE

FIELD WORK BY: G. Ashton
DRAWN BY: S. Langley
DATE: March 2010
SCALE: N/A

JOB NO.: 2006-0629
DWG NAME: 06_RiversideDr@WestCollege Ave-LoblollyLa.DGN
LOCATION: Wicomico Co., MD
SHEET NO.: 6 OF 9

TOTAL VEHICLES TURNING MOVEMENT COUNT - SUMMARY

7

INTERSECTION: Riverside Drive
Pine Bluff Road
LOCATION: Wicomico County, MD
PROJECT NUMBER: 2006-0629

Counted by: GA/EP
Date: April 30, 2008
Weather: Partly cloudy, 50's-70's
Entered by: GA

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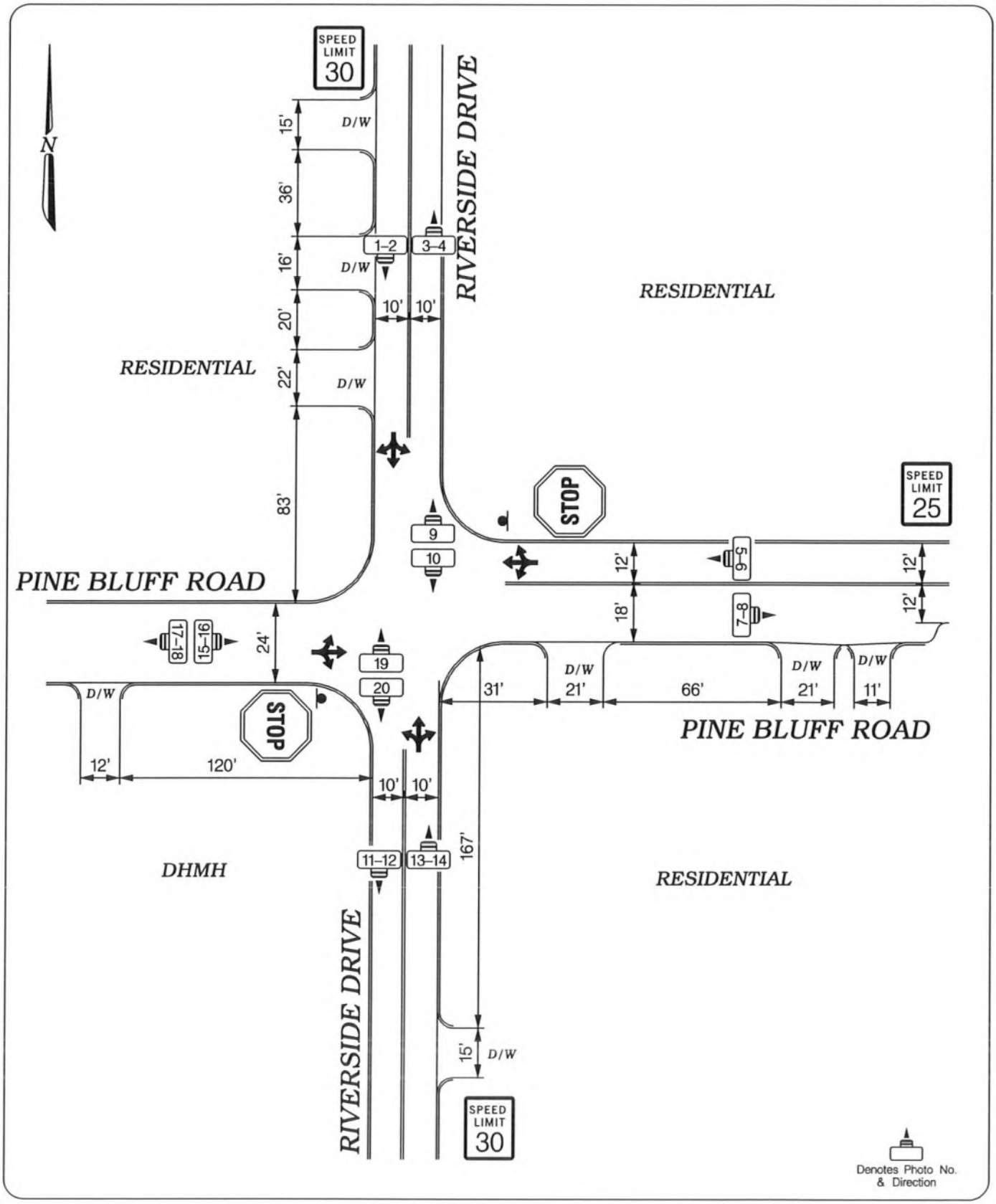
TIME	TRAFFIC FROM NORTH on: Riverside Drive					TRAFFIC FROM SOUTH on: Riverside Drive					TRAFFIC FROM EAST on: Pine Bluff Road					TRAFFIC FROM WEST on: Pine Bluff Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
06:0-15	1	6	0	0	7	0	13	0	0	13	1	0	1	0	2	0	0	0	0	0	22
15-30	0	6	0	0	6	2	19	0	0	21	1	0	0	0	1	0	0	1	0	1	29
30-45	2	8	1	0	11	8	38	0	0	46	1	1	0	0	2	0	0	0	0	0	59
45-00	3	12	0	0	15	1	36	0	0	37	2	1	0	0	3	0	0	0	0	0	55
07:0-15	2	6	2	0	10	3	37	1	0	41	0	1	0	0	1	0	0	1	0	1	53
15-30	6	6	0	0	12	8	58	4	0	70	5	1	0	0	6	0	1	0	0	1	89
30-45	3	9	0	0	12	7	63	1	0	71	1	1	2	0	4	0	0	0	0	0	87
45-00	6	12	3	0	21	5	65	3	0	73	4	1	2	0	7	0	0	0	0	0	101
08:0-15	9	14	1	0	24	8	42	1	0	51	2	2	0	0	4	0	0	0	0	0	79
15-30	10	19	2	0	31	6	35	1	0	42	4	7	2	0	13	1	1	2	0	4	90
30-45	7	15	0	0	22	3	29	2	0	34	0	1	0	0	1	0	0	2	0	2	59
45-00	6	12	5	0	23	8	38	3	0	49	1	2	2	0	5	0	1	0	0	1	78
3 Hr Totals	55	125	14	0	194	59	473	16	0	548	22	18	9	0	49	1	3	6	0	10	801
1 Hr Totals																					
06-07	6	32	1	0	39	11	106	0	0	117	5	2	1	0	8	0	0	1	0	1	165
615-715	7	32	3	0	42	14	130	1	0	145	4	3	0	0	7	0	0	2	0	2	196
630-730	13	32	3	0	48	20	169	5	0	194	8	4	0	0	12	0	1	1	0	2	256
645-745	14	33	2	0	49	19	194	6	0	219	8	4	2	0	14	0	1	1	0	2	284
07-08	17	33	5	0	55	23	223	9	0	255	10	4	4	0	18	0	1	1	0	2	330
715-815	24	41	4	0	69	28	228	9	0	265	12	5	4	0	21	0	1	0	0	1	356
730-830	28	54	6	0	88	26	205	6	0	237	11	11	6	0	28	1	1	2	0	4	357
745-845	32	60	6	0	98	22	171	7	0	200	10	11	4	0	25	1	1	4	0	6	329
08-09	32	60	8	0	100	25	144	7	0	176	7	12	4	0	23	1	2	4	0	7	306
PEAK HOUR																					
730-830	28	54	6	0	88	26	205	6	0	237	11	11	6	0	28	1	1	2	0	4	357
PM																					
04:0-15	0	31	3	0	34	5	32	2	0	39	1	2	2	0	5	0	0	0	0	0	78
15-30	2	29	1	0	32	1	18	0	0	19	1	2	3	0	6	0	0	2	0	2	59
30-45	1	32	1	0	34	5	38	0	0	43	1	2	3	0	6	0	0	3	0	3	86
45-00	3	47	2	0	52	7	27	0	0	34	5	1	8	0	14	0	0	0	0	0	100
05:0-15	3	44	0	0	47	3	31	2	0	36	2	1	3	0	6	0	0	4	0	4	93
15-30	3	30	4	0	37	4	24	0	0	28	1	3	2	0	6	0	0	0	0	0	71
30-45	3	27	5	0	35	4	22	0	0	26	2	0	6	0	8	0	0	0	0	0	69
45-00	1	13	0	0	14	2	14	0	0	16	0	1	1	0	2	0	0	0	0	0	32
06:0-15	2	24	0	0	26	5	18	0	0	23	3	1	5	0	9	0	0	0	0	0	58
15-30	3	23	1	0	27	3	26	2	0	31	1	0	3	0	4	0	1	0	0	1	63
30-45	2	23	0	0	25	1	16	0	0	17	1	1	2	0	4	0	0	0	0	0	46
45-00	1	23	1	0	25	0	22	0	0	22	1	3	3	0	7	0	0	1	0	1	55
3 Hr Totals	24	346	18	0	388	40	288	6	0	334	19	17	41	0	77	0	1	10	0	11	810
1 Hr Totals																					
04-05	6	139	7	0	152	18	115	2	0	135	8	7	16	0	31	0	0	5	0	5	323
415-515	9	152	4	0	165	16	114	2	0	132	9	6	17	0	32	0	0	9	0	9	338
430-530	10	153	7	0	170	19	120	2	0	141	9	7	16	0	32	0	0	7	0	7	350
445-545	12	148	11	0	171	18	104	2	0	124	10	5	19	0	34	0	0	4	0	4	333
05-06	10	114	9	0	133	13	91	2	0	106	5	5	12	0	22	0	0	4	0	4	265
515-615	9	94	9	0	112	15	78	0	0	93	6	5	14	0	25	0	0	0	0	0	230
530-630	9	87	6	0	102	14	80	2	0	96	6	2	15	0	23	0	1	0	0	1	222
545-645	8	83	1	0	92	11	74	2	0	87	5	3	11	0	19	0	1	0	0	1	199
06-07	8	93	2	0	103	9	82	2	0	93	6	5	13	0	24	0	1	1	0	2	222
PEAK HOUR																					
430-530	10	153	7	0	170	19	120	2	0	141	9	7	16	0	32	0	0	7	0	7	350
AM PHF	0.75	0.75	0.75		0.75	0.81	0.79	0.75		0.81	0.75	0.75	0.75		0.75	0.75	0.75	0.75		0.75	0.88
%T	4%	4%	0%		3%	4%	1%	17%		2%	18%	9%	0%		11%	0%	0%	0%		0%	3%
PM PHF	0.83	0.81	0.75		0.82	0.75	0.79	0.75		0.82	0.75	0.75	0.75		0.75			0.75		0.75	0.88
%T	0%	1%	14%		2%	5%	0%	0%		1%	0%	0%	0%		0%			0%		0%	1%



The Traffic Group

RIVERSIDE DRIVE AT PINE BLUFF ROAD

FIELD WORK BY: G. Ashton
DRAWN BY: S. Langley
DATE: March 2010
SCALE: N/A

JOB NO.: 2006-0629
DWG NAME: 07_RiversideDr@ Pine BluffRd.DGN
LOCATION: Wicomico Co., MD
SHEET NO.: 7 OF 9

TOTAL VEHICLES TURNING MOVEMENT COUNT - SUMMARY

INTERSECTION: Riverside Drive
Shad Point Road/Cherry Hill Road

LOCATION: Wicomico County, MD

PROJECT NUMBER: 2006-0629

Counted by: KT/EL/DP

Date: April 24,29, 2008

Weather: Partly cloudy, 70-90's

Entered by: GA

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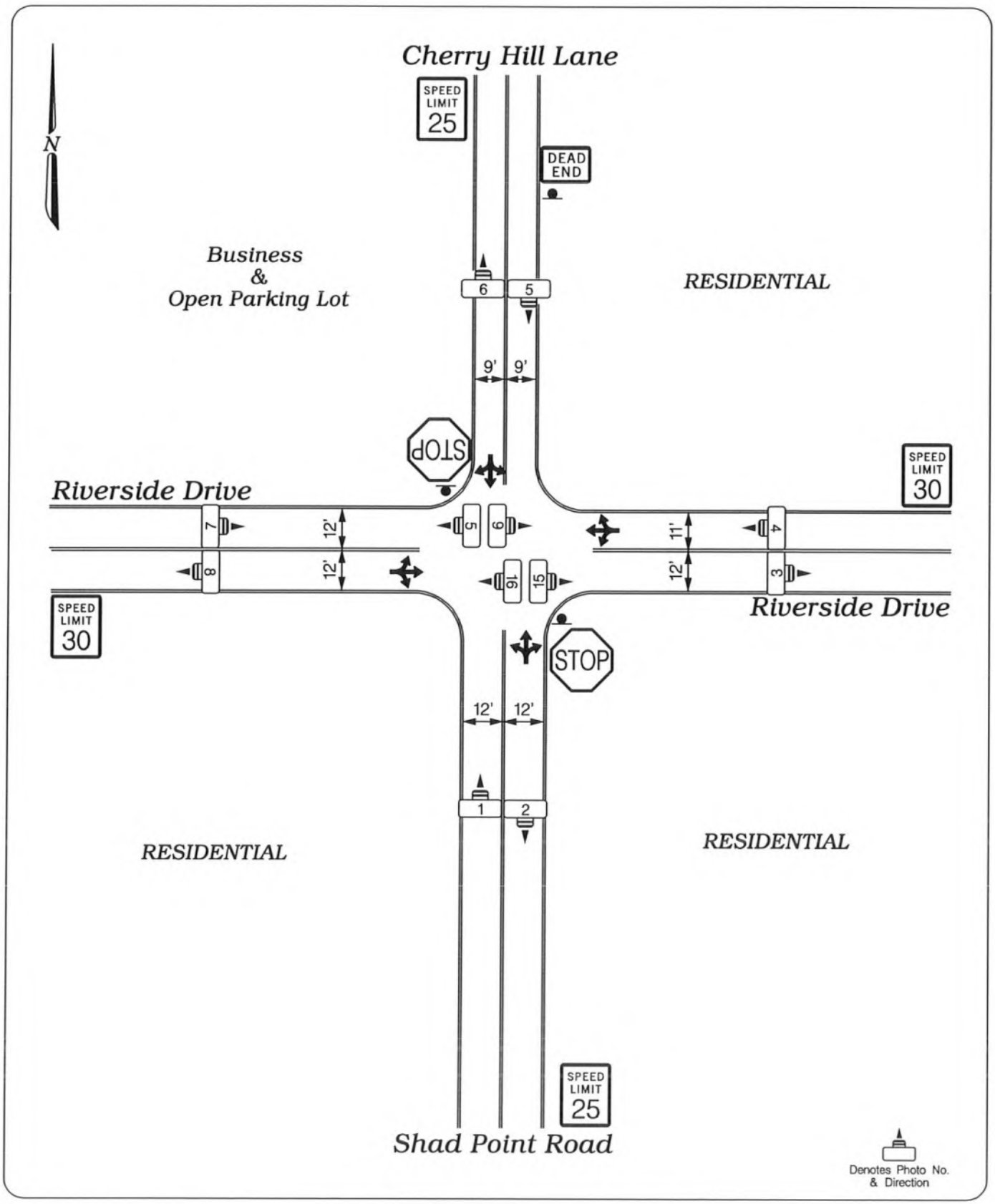
TIME	TRAFFIC FROM NORTH on: Cherry Hill					TRAFFIC FROM SOUTH on: Shad Point					TRAFFIC FROM EAST on: Riverside Drive					TRAFFIC FROM WEST on: Riverside Drive					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
06:0-15	0	0	0	0	0	5	0	2	0	7	0	1	1	0	2	0	9	0	0	9	18
15-30	0	0	1	0	1	1	0	0	0	1	0	6	1	0	7	0	19	0	0	19	28
30-45	0	0	0	0	0	6	0	0	0	6	0	3	0	0	3	2	23	0	0	25	34
45-00	0	1	2	0	3	5	0	2	0	7	0	6	2	0	8	3	25	0	0	28	46
07:0-15	0	2	0	0	2	7	0	3	0	10	0	4	4	0	8	3	29	0	0	32	52
15-30	0	0	0	0	0	8	0	2	0	10	0	3	3	0	6	3	26	0	0	29	45
30-45	0	0	1	0	1	12	2	4	0	18	2	5	7	0	14	7	54	0	0	61	94
45-00	0	0	2	0	2	15	0	8	0	23	0	8	5	0	13	11	51	1	0	63	101
08:0-15	0	0	0	0	0	6	0	4	0	10	0	14	7	0	21	7	32	0	0	39	70
15-30	0	1	2	0	3	7	0	1	0	8	1	11	7	0	19	7	41	0	0	48	78
30-45	0	0	1	0	1	8	1	4	0	13	0	12	5	0	17	9	29	0	0	38	69
45-00	0	1	1	0	2	4	1	1	0	6	1	10	3	0	14	7	23	1	0	31	53
3 Hr Totals	0	5	10	0	15	84	4	31	0	119	4	83	45	0	132	59	361	2	0	422	688
1 Hr Totals																					
06-07	0	1	3	0	4	17	0	4	0	21	0	16	4	0	20	5	76	0	0	81	126
615-715	0	3	3	0	6	19	0	5	0	24	0	19	7	0	26	8	96	0	0	104	160
630-730	0	3	2	0	5	26	0	7	0	33	0	16	9	0	25	11	103	0	0	114	177
645-745	0	3	3	0	6	32	2	11	0	45	2	18	16	0	36	16	134	0	0	150	237
07-08	0	2	3	0	5	42	2	17	0	61	2	20	19	0	41	24	160	1	0	185	292
715-815	0	0	3	0	3	41	2	18	0	61	2	30	22	0	54	28	163	1	0	192	310
730-830	0	1	5	0	6	40	2	17	0	59	3	38	26	0	67	32	178	1	0	211	343
745-845	0	1	5	0	6	36	1	17	0	54	1	45	24	0	70	34	153	1	0	188	318
08-09	0	2	4	0	6	25	2	10	0	37	2	47	22	0	71	30	125	1	0	156	270
PEAK HOUR																					
730-830	0	1	5	0	6	40	2	17	0	59	3	38	26	0	67	32	178	1	0	211	343
PM																					
04:0-15	0	1	2	0	3	7	3	6	0	16	1	24	10	0	35	7	19	0	0	26	80
15-30	0	1	0	0	1	7	0	9	0	16	2	17	11	0	30	12	13	0	0	25	72
30-45	0	2	1	0	3	7	1	4	0	12	1	45	13	0	59	6	18	1	0	25	99
45-00	1	0	1	0	2	3	0	13	0	16	1	28	9	0	38	6	9	1	0	16	72
05:0-15	0	3	1	0	4	6	1	9	0	16	1	32	14	0	47	7	11	0	0	18	85
15-30	1	0	0	0	1	12	0	9	0	21	2	35	9	0	46	11	20	0	0	31	99
30-45	0	0	1	0	1	9	0	15	0	24	3	24	8	0	35	9	24	0	0	33	93
45-00	0	0	4	0	4	7	1	10	0	18	0	23	9	0	32	4	23	0	0	27	81
06:0-15	1	1	1	0	3	10	1	9	0	20	2	29	12	0	43	6	22	0	0	28	94
15-30	1	1	0	0	2	1	1	8	0	10	2	27	6	0	35	5	21	0	0	26	73
30-45	0	0	0	0	0	3	0	7	0	10	0	26	2	0	28	4	18	0	0	22	60
45-00	0	1	2	0	3	6	0	4	0	10	0	23	2	0	25	8	20	0	0	28	66
3 Hr Totals	4	10	13	0	27	78	8	103	0	189	15	333	105	0	453	85	218	2	0	305	974
1 Hr Totals																					
04-05	1	4	4	0	9	24	4	32	0	60	5	114	43	0	162	31	59	2	0	92	323
415-515	1	6	3	0	10	23	2	35	0	60	5	122	47	0	174	31	51	2	0	84	328
430-530	2	5	3	0	10	28	2	35	0	65	5	140	45	0	190	30	58	2	0	90	355
445-545	2	3	3	0	8	30	1	46	0	77	7	119	40	0	166	33	64	1	0	98	349
05-06	1	3	6	0	10	34	2	43	0	79	6	114	40	0	160	31	78	0	0	109	358
515-615	2	1	6	0	9	38	2	43	0	83	7	111	38	0	156	30	89	0	0	119	367
530-630	2	2	6	0	10	27	3	42	0	72	7	103	35	0	145	24	90	0	0	114	341
545-645	2	2	5	0	9	21	3	34	0	58	4	105	29	0	138	19	84	0	0	103	308
06-07	2	3	3	0	8	20	2	28	0	50	4	105	22	0	131	23	81	0	0	104	293
PEAK HOUR																					
515-615	2	1	6	0	9	38	2	43	0	83	7	111	38	0	156	30	89	0	0	119	367
AM PHF		0.75	0.75		0.75	0.75	0.75	0.75		0.75	0.75	0.75	0.93		0.80	0.75	0.82	0.75		0.84	0.85
%T		0%	0%		0%	3%	0%	0%		2%	0%	11%	0%		6%	6%	3%	0%		3%	3%
PM PHF	0.75	0.75	0.75		0.75	0.79	0.75	0.75		0.86	0.75	0.79	0.79		0.85	0.75	0.93			0.90	0.93
%T	50%	0%	0%		11%	5%	0%	0%		2%	0%	2%	0%		1%	0%	1%			1%	2%



The Traffic Group

RIVERSIDE DRIVE AT SHAD POINT ROAD

FIELD WORK BY: G.Ashton
DRAWN BY: K. Hurley
DATE: March 2010
SCALE: N/A

JOB NO.: 2006-0629
DWG NAME: 08_Riverside Drive@ Shad Point Road.dgn
LOCATION: Wicomico Co., MD
REQUEST NO: 8 OF: 9

TOTAL VEHICLES TURNING MOVEMENT COUNT - SUMMARY

INTERSECTION: S. Upper Ferry Road
Campground Road/Cooper Road

LOCATION: Wicomic County, MD

PROJECT NUMBER: 2006-0629

Counted by: GA/GS

Date: April 23, 2008

Weather: Cloudy, 50-70's

Entered by: GA

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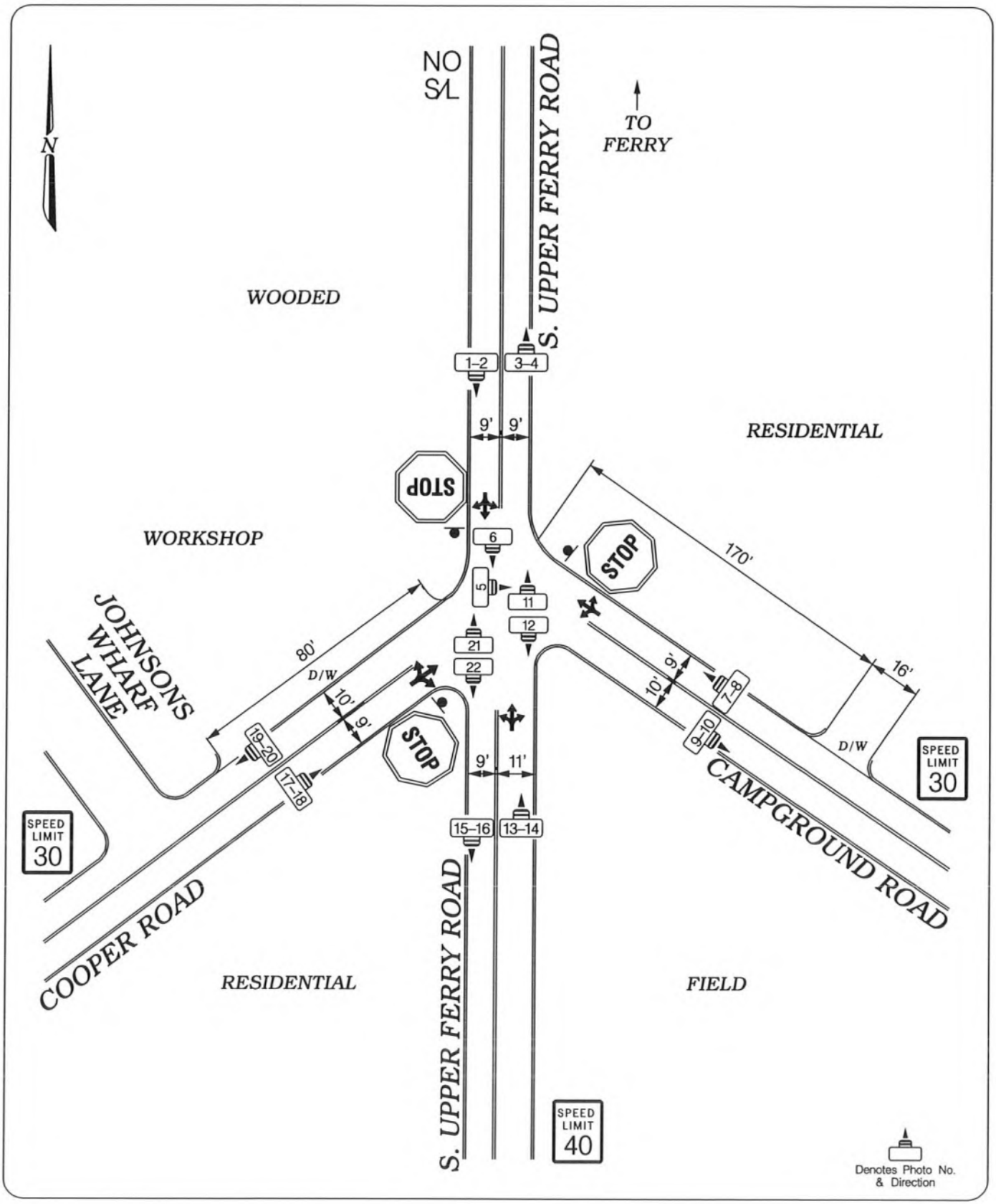
TIME	TRAFFIC FROM NORTH on: S. Upper Ferry					TRAFFIC FROM SOUTH on: S. Upper Ferry					TRAFFIC FROM EAST on: Campground Road					TRAFFIC FROM WEST on: Cooper Road					TOTAL N + S + E + W
	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	RIGHT	THRU	LEFT	U-TN	TOTAL	
AM																					
06:0-15	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	1	1	0	0	2	5
15-30	0	0	0	0	0	3	2	0	0	5	0	1	1	0	2	0	2	0	0	2	9
30-45	0	0	0	0	0	12	2	0	0	14	0	1	0	0	1	2	5	0	0	7	22
45-00	0	2	2	0	4	6	3	1	0	10	0	1	1	0	2	1	4	0	0	5	21
07:0-15	1	5	1	0	7	6	1	0	0	7	0	1	1	0	2	0	8	1	0	9	25
15-30	0	0	1	0	1	12	0	0	0	12	2	1	0	0	3	0	9	0	0	9	25
30-45	0	1	0	0	1	9	3	0	0	12	3	2	1	0	6	1	12	1	0	14	33
45-00	0	2	0	0	2	7	0	2	0	9	0	2	3	0	5	0	8	2	0	10	26
08:0-15	0	5	3	0	8	6	1	0	0	7	2	2	0	0	4	1	9	0	0	10	29
15-30	0	7	2	0	9	7	5	0	0	12	1	1	6	0	8	0	3	1	0	4	33
30-45	0	1	9	0	10	3	5	2	0	10	1	2	2	0	5	0	13	1	0	14	39
45-00	1	3	4	0	8	6	3	0	0	9	1	1	1	0	3	0	2	2	0	4	24
3 Hr Totals	2	26	22	0	50	80	25	5	0	110	10	15	16	0	41	6	76	8	0	90	291
1 Hr Totals																					
06-07	0	2	2	0	4	24	7	1	0	32	0	3	2	0	5	4	12	0	0	16	57
615-715	1	7	3	0	11	27	8	1	0	36	0	4	3	0	7	3	19	1	0	23	77
630-730	1	7	4	0	12	36	6	1	0	43	2	4	2	0	8	3	26	1	0	30	93
645-745	1	8	4	0	13	33	7	1	0	41	5	5	3	0	13	2	33	2	0	37	104
07-08	1	8	2	0	11	34	4	2	0	40	5	6	5	0	16	1	37	4	0	42	109
715-815	0	8	4	0	12	34	4	2	0	40	7	7	4	0	18	2	38	3	0	43	113
730-830	0	15	5	0	20	29	9	2	0	40	6	7	10	0	23	2	32	4	0	38	121
745-845	0	15	14	0	29	23	11	4	0	38	4	7	11	0	22	1	33	4	0	38	127
08-09	1	16	18	0	35	22	14	2	0	38	5	6	9	0	20	1	27	4	0	32	125
PEAK HOUR																					
745-845	0	15	14	0	29	23	11	4	0	38	4	7	11	0	22	1	33	4	0	38	127
PM																					
04:0-15	2	4	6	0	12	2	8	1	0	11	4	7	3	0	14	3	3	0	0	6	43
15-30	1	4	4	0	9	4	6	0	0	10	5	5	4	0	14	2	5	2	0	9	42
30-45	3	4	2	0	9	5	5	0	0	10	5	8	7	0	20	1	1	0	0	2	41
45-00	1	3	8	0	12	3	8	0	0	11	2	4	3	0	9	0	2	0	0	2	34
05:0-15	1	4	4	0	9	5	8	1	0	14	5	8	10	0	23	1	5	0	0	6	52
15-30	3	6	3	0	12	4	2	1	0	7	5	7	6	0	18	0	4	0	0	4	41
30-45	2	4	2	0	8	3	7	0	0	10	3	2	10	0	15	1	6	1	0	8	41
45-00	0	3	5	0	8	8	3	0	0	11	6	9	11	0	26	2	3	2	0	7	52
06:0-15	3	1	5	0	9	4	1	4	0	9	3	5	3	0	11	0	2	0	0	2	31
15-30	0	0	1	0	1	3	0	0	0	3	0	5	4	0	9	2	5	0	0	7	20
30-45	0	0	1	0	1	2	0	0	0	2	1	4	11	0	16	0	3	0	0	3	22
45-00	2	1	2	0	5	1	0	2	0	3	0	3	6	0	9	1	1	0	0	2	19
3 Hr Totals	18	34	43	0	95	44	48	9	0	101	39	67	78	0	184	13	40	5	0	58	438
1 Hr Totals																					
04-05	7	15	20	0	42	14	27	1	0	42	16	24	17	0	57	6	11	2	0	19	160
415-515	6	15	18	0	39	17	27	1	0	45	17	25	24	0	66	4	13	2	0	19	169
430-530	8	17	17	0	42	17	23	2	0	42	17	27	26	0	70	2	12	0	0	14	168
445-545	7	17	17	0	41	15	25	2	0	42	15	21	29	0	65	2	17	1	0	20	168
05-06	6	17	14	0	37	20	20	2	0	42	19	26	37	0	82	4	18	3	0	25	186
515-615	8	14	15	0	37	19	13	5	0	37	17	23	30	0	70	3	15	3	0	21	165
530-630	5	8	13	0	26	18	11	4	0	33	12	21	28	0	61	5	16	3	0	24	144
545-645	3	4	12	0	19	17	4	4	0	25	10	23	29	0	62	4	13	2	0	19	125
06-07	5	2	9	0	16	10	1	6	0	17	4	17	24	0	45	3	11	0	0	14	92
PEAK HOUR																					
05-06	6	17	14	0	37	20	20	2	0	42	19	26	37	0	82	4	18	3	0	25	186
AM PHF		0.75	0.75		0.75	0.82	0.75	0.75		0.79	0.75	0.88	0.75		0.75	0.75	0.75	0.75		0.75	0.81
%T		0%	7%		3%	4%	9%	25%		8%	25%	29%	9%		18%	0%	9%	0%		8%	9%
PM PHF	0.75	0.75	0.75		0.77	0.75	0.75	0.75		0.75	0.79	0.75	0.84		0.79	0.75	0.75	0.75		0.78	0.89
%T	0%	0%	0%		0%	0%	0%	0%		0%	0%	0%	3%		1%	0%	0%	0%		0%	1%



The Traffic Group

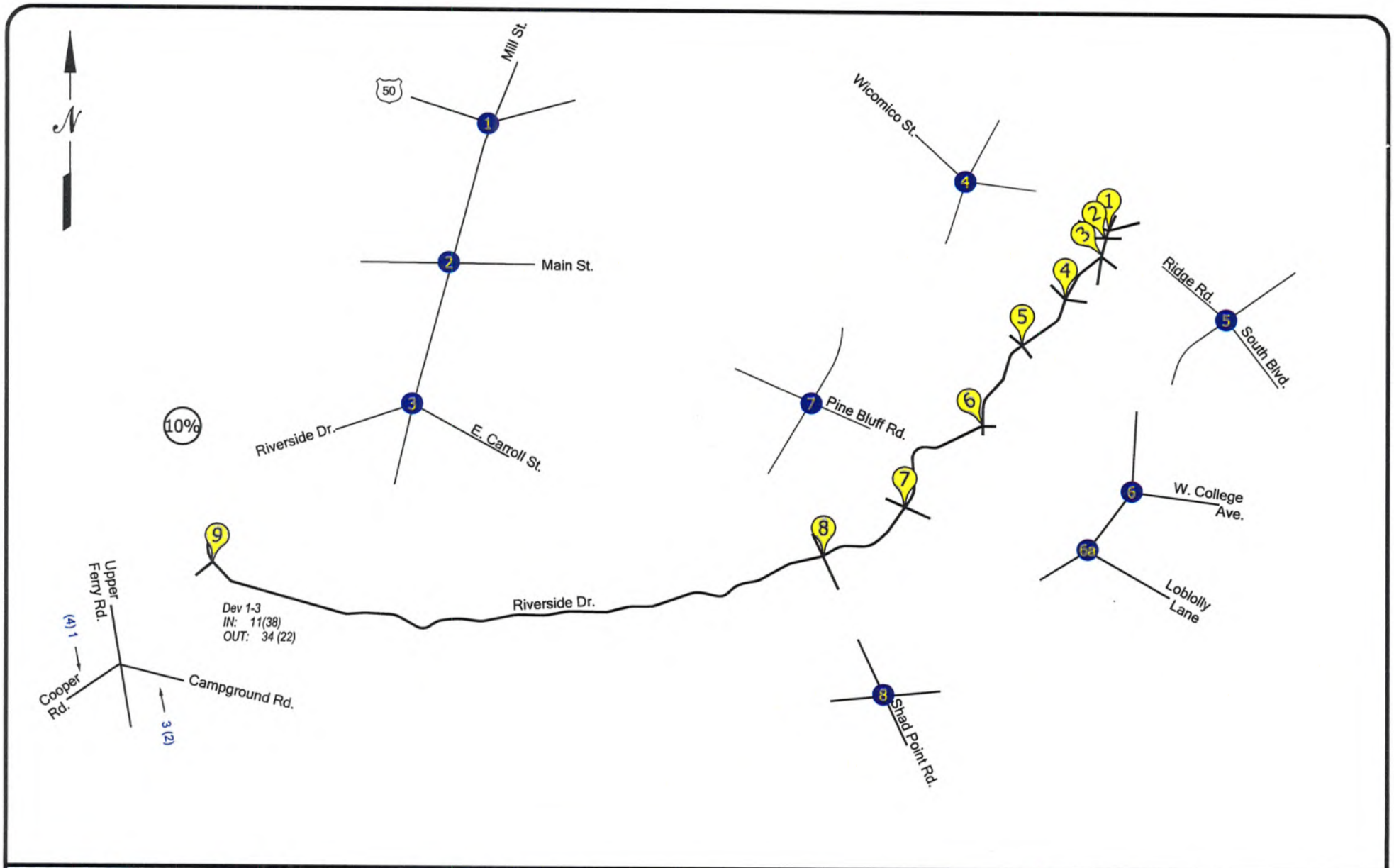
UPPER FERRY ROAD AT COOPER ROAD/ CAMPGROUND ROAD

FIELD WORK BY: G.Ashton
DRAWN BY: S. Langley
DATE: May, 2008
SCALE: N/A

JOB NO.: 2006-0629
DWG NAME: 09_UpperFerryRd@CooperRd -CampgroundRd.DGN
LOCATION: Wicomico Co., MD
SHEET NO.: 9 OF 9

APPENDIX B

Trip Assignments for Background Developments; Traffic Growth Projection; Trip Assignments for Alternates

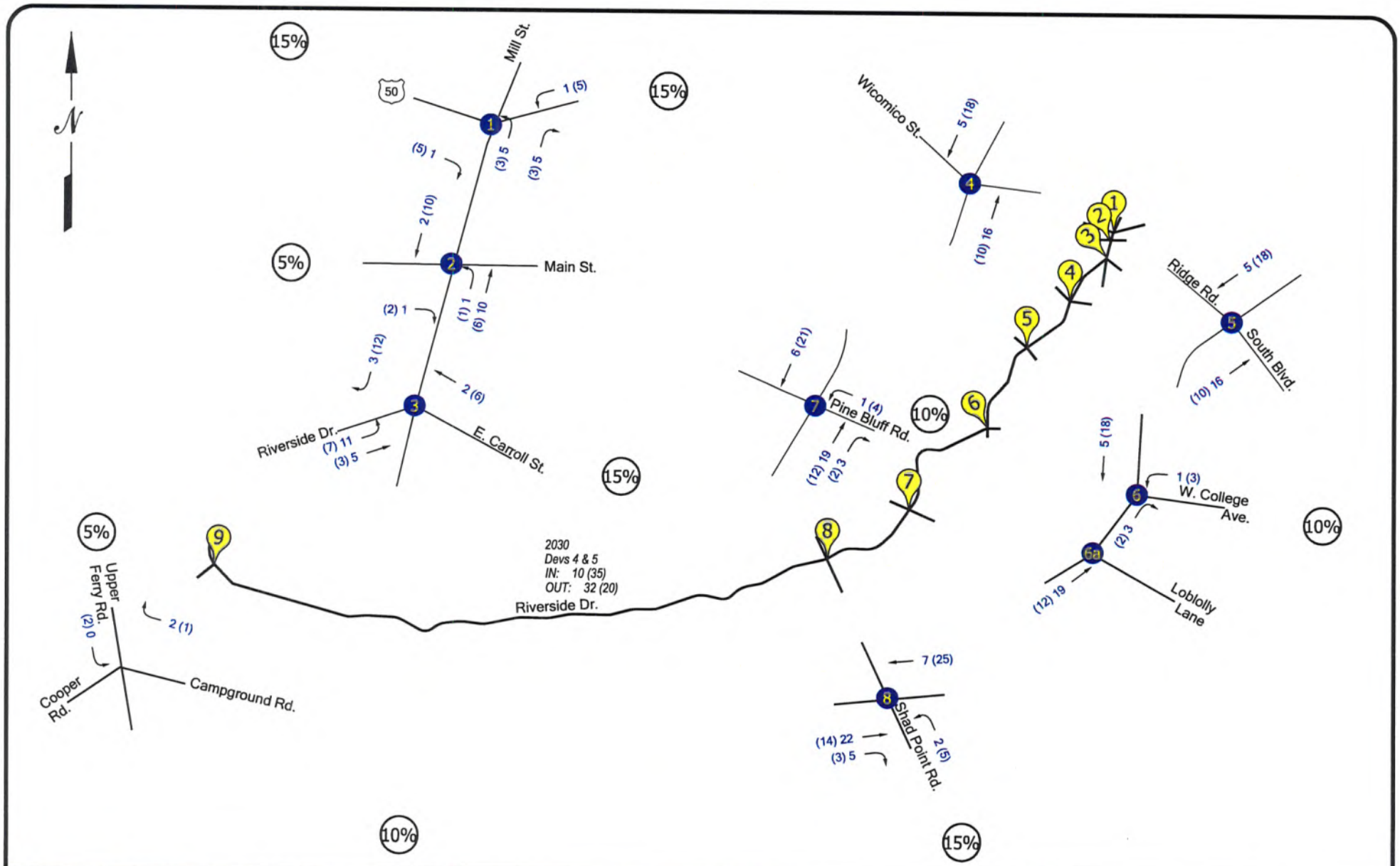


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-1
2030 TRIP ASSIGNMENT FOR
TABLE 1 DEVELOPMENTS #1-3

dj_Q60629\acad\riverside.dwg-1d, f09/30/10

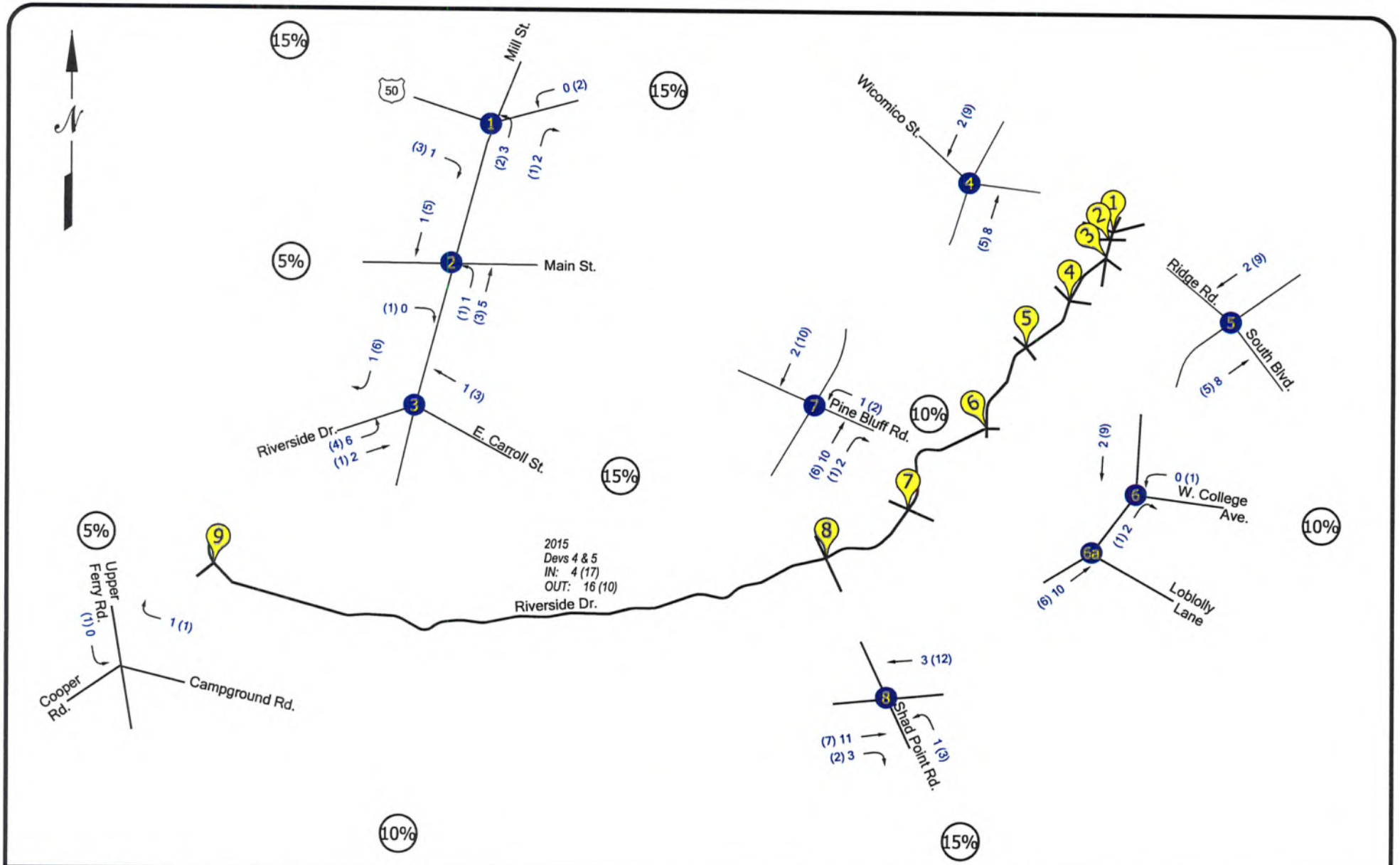


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-2
2030 TRIP ASSIGNMENT FOR
TABLE 1 DEVELOPMENTS 4-5

dj_060629\acad\riverside.dwg-2d, f09/30/10

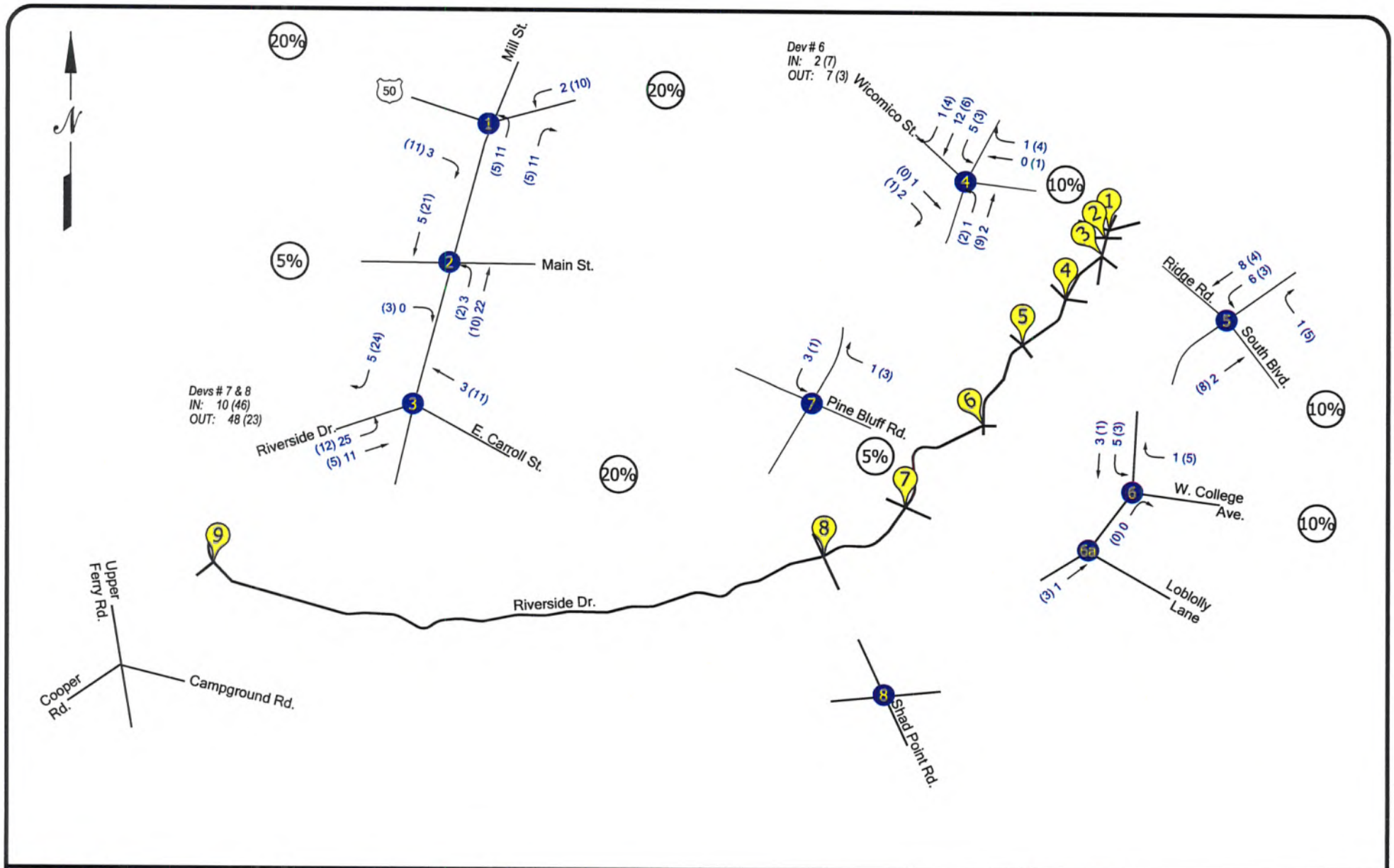


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-2a
2015 TRIP ASSIGNMENT FOR
TABLE 1 DEVELOPMENTS 4-5

dj, 060629\acad\riverside.dwg-2d15, f09/30/10

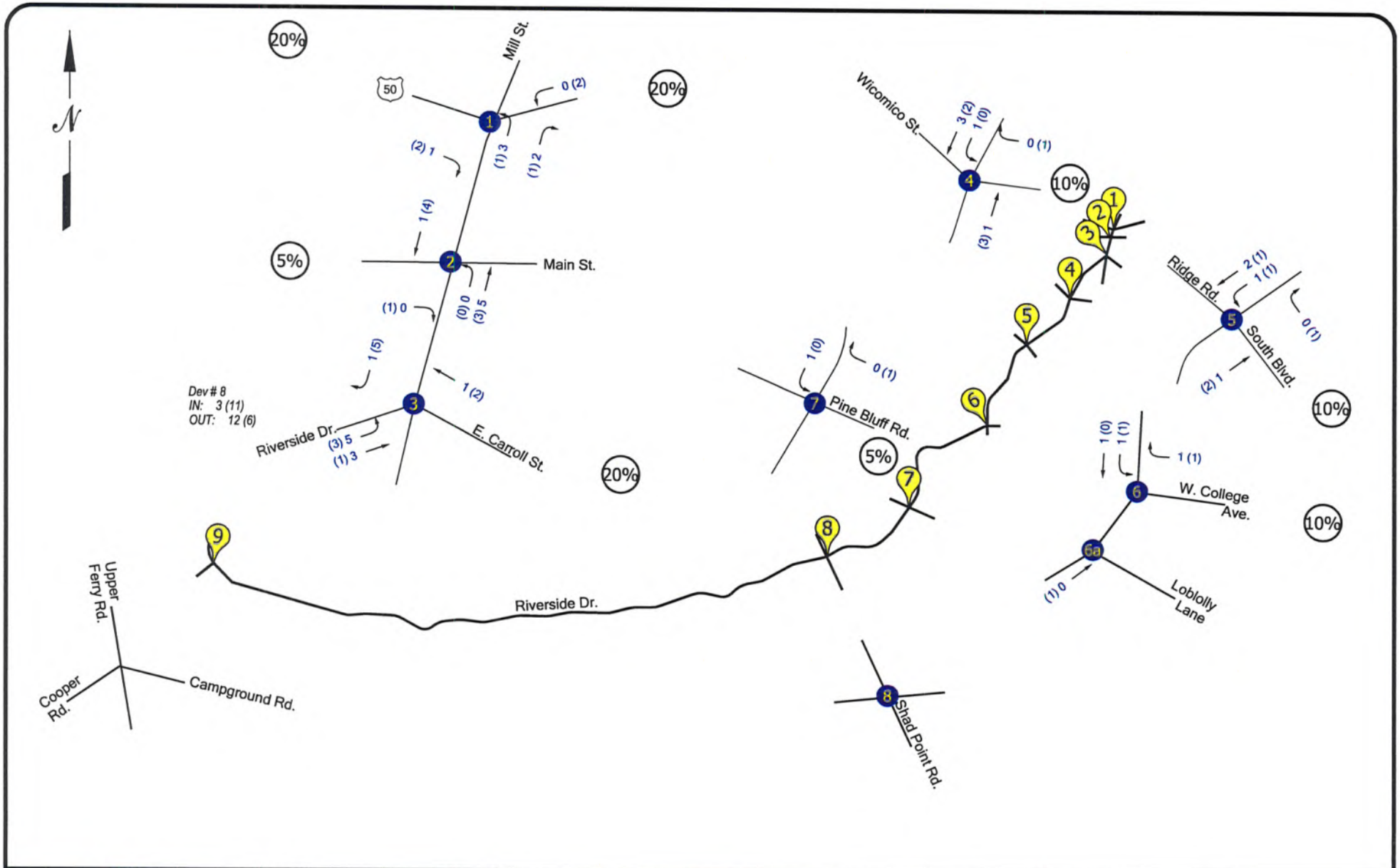


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-3
2030 TRIP ASSIGNMENT FOR TABLE 1 DEVELOPMENTS #6-8

dir 060629\acad\riverside.dwg-3d, f09/30/10

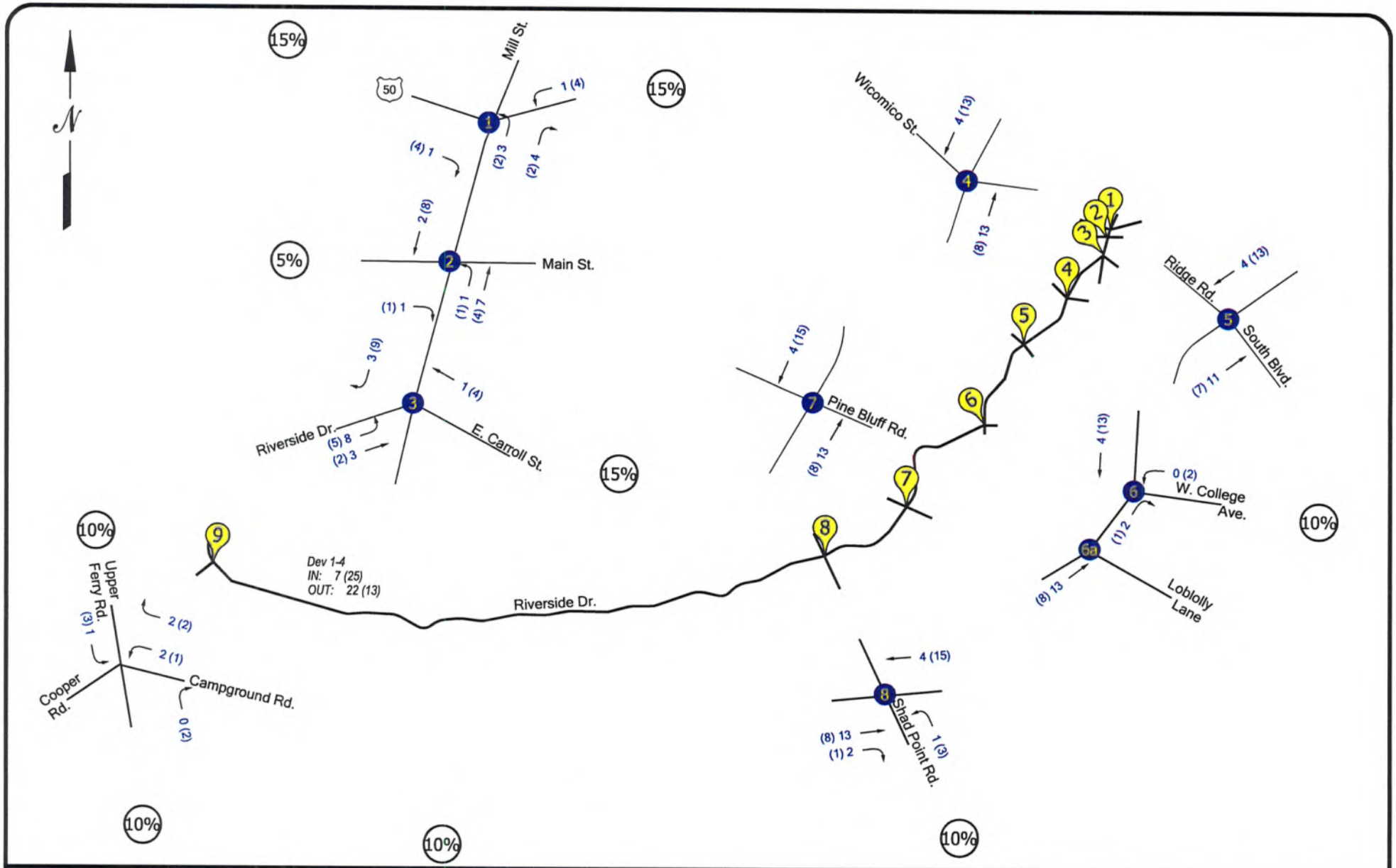


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B3a
2015 TRIP ASSIGNMENT FOR
TABLE 1 DEVELOPMENTS #6-8

dj 060629\acad\riverside.dwg-3d15, f09/30/10

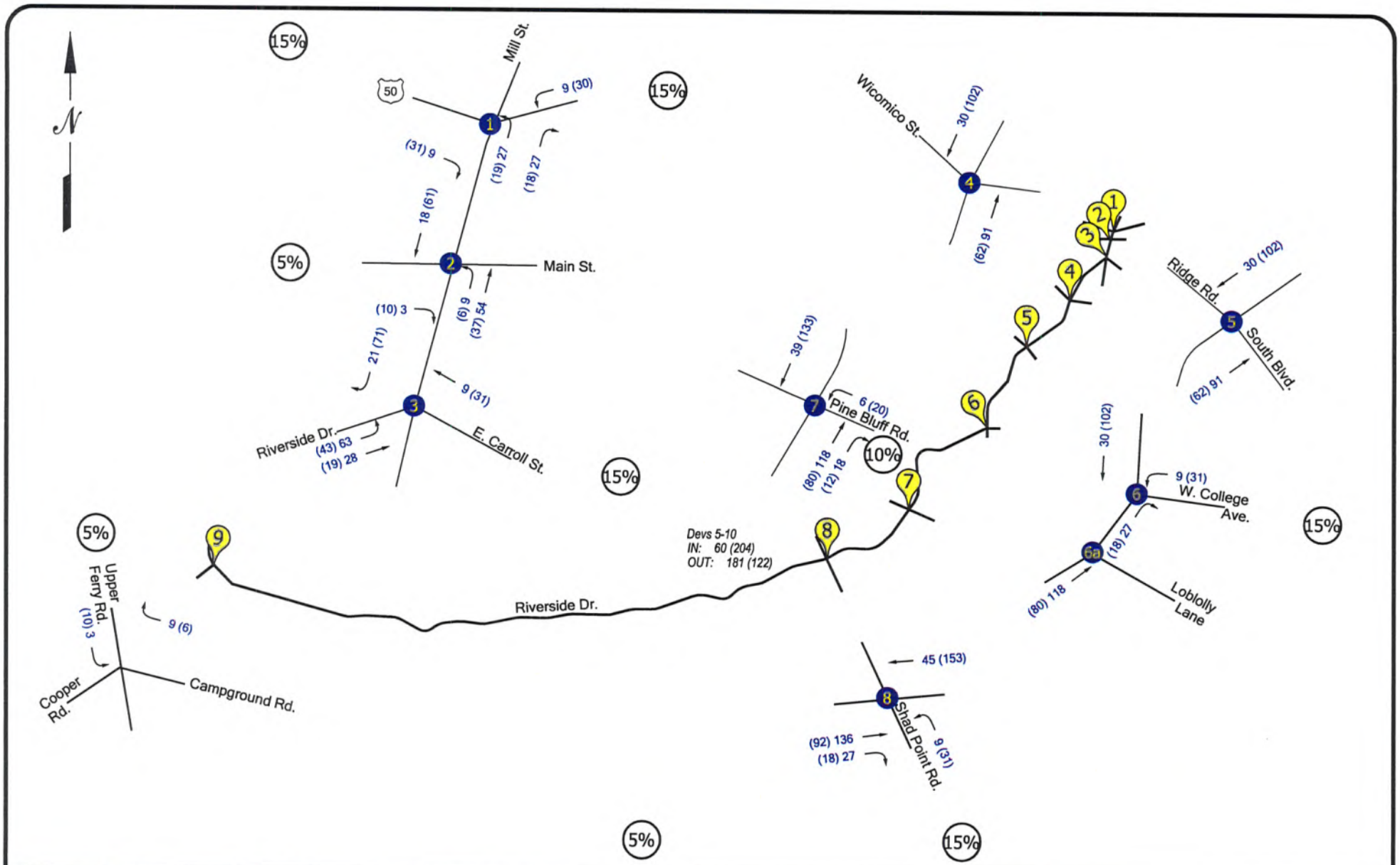


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-4
2030 TRIP ASSIGNMENT FOR TABLE 2 DEVELOPMENTS #1-4

dj-060629\acad\riverside.dwg-4d, f09/30/10



NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-5
2030 TRIP ASSIGNMENT FOR
TABLE 2 DEVELOPMENTS #5-10

dj 060629\acad\riverside.dwg-5d, f09/30/10

TRAFFIC GROWTH PROJECTION

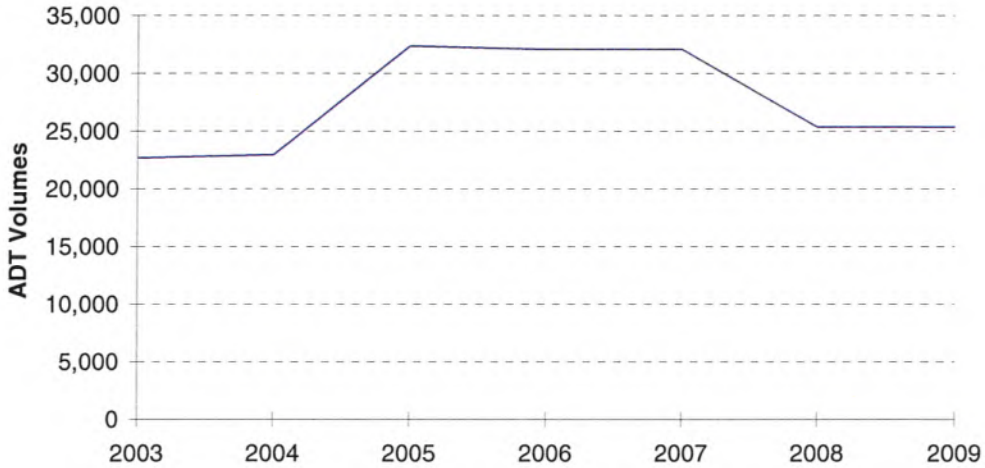
LOCATION: US 50; south of MD 349

REPORT DATE: 30-Sep-10

AVERAGE GROWTH: 3.39%

MATHEMATICAL GROWTH: 1.86%

Year	ADT Volume	Vol. increase	% increase	Average %
2003	22,675			
2004	22,950	275	1.21%	1.21%
2005	32,375	9,425	41.07%	21.14%
2006	32,051	-324	-1.00%	13.76%
2007	32,052	1	0.00%	10.32%
2008	25,330	-6,722	-20.97%	4.06%
2009	25,331	1	0.00%	3.39%



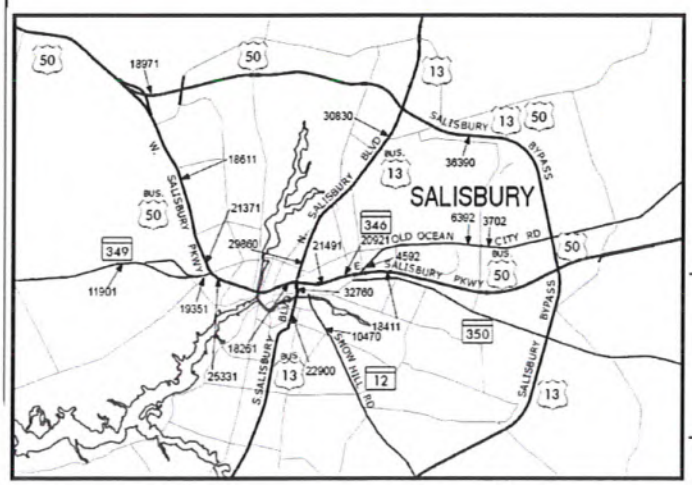
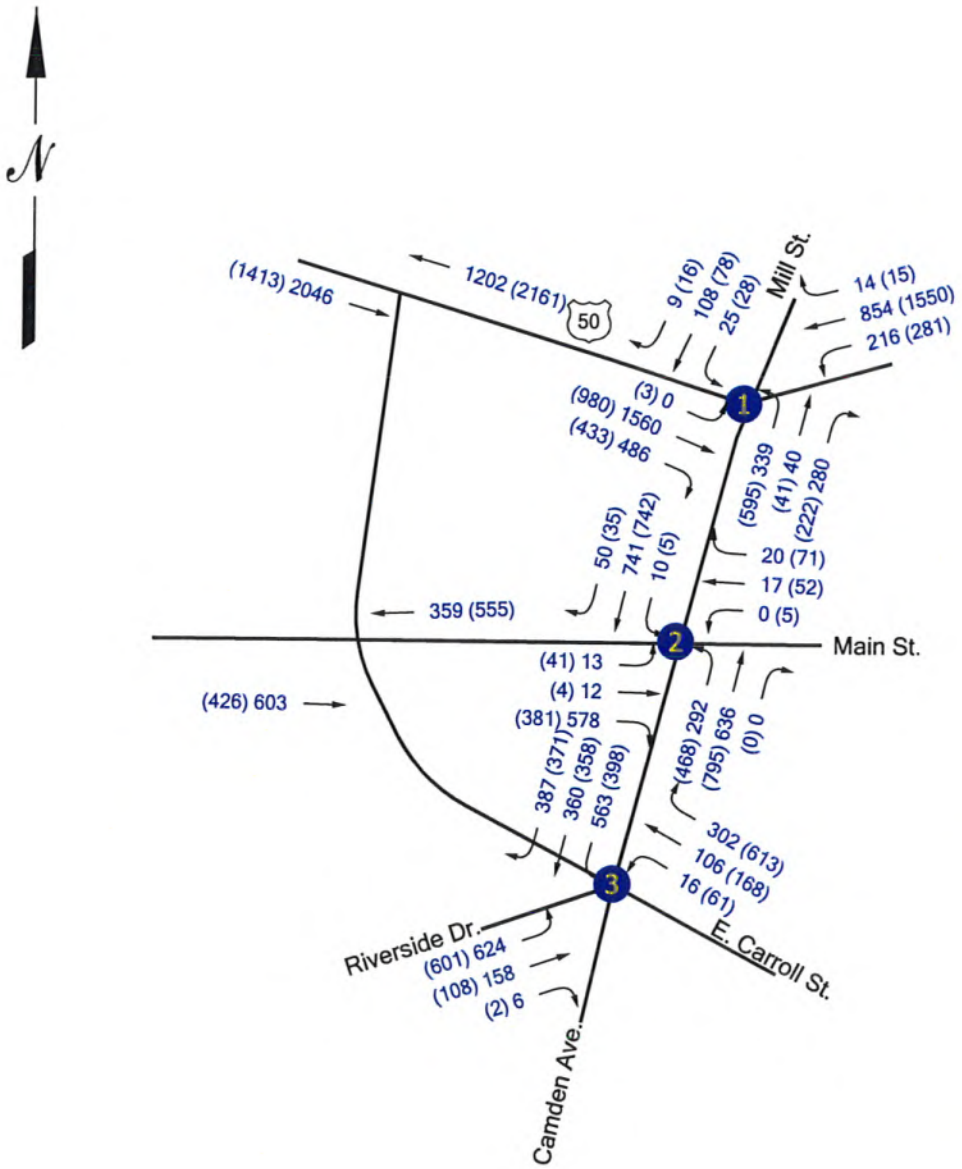


EXHIBIT B-6
TRAFFIC GROWTH
ALONG US 50; SOUTH OF MD 349

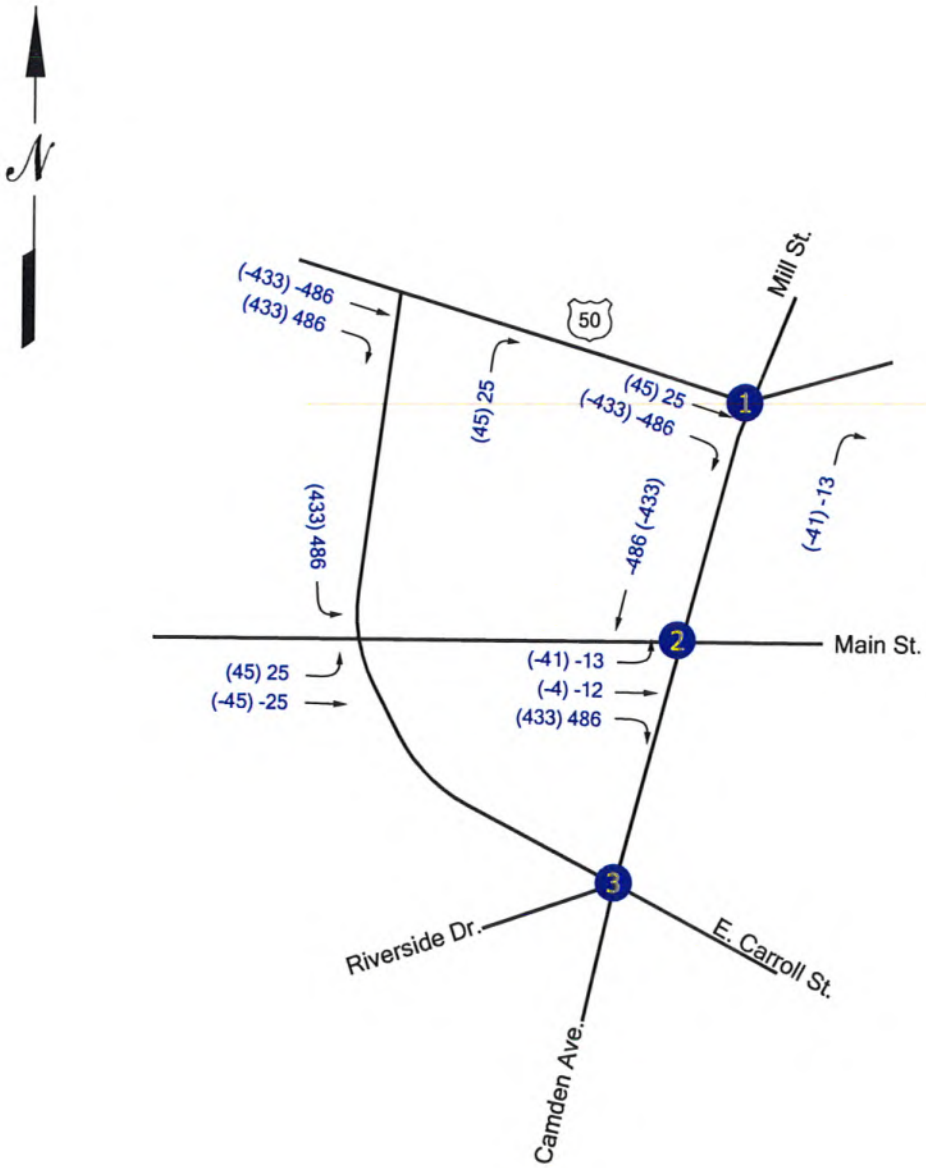


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-7
2030 TOTAL PEAK HOUR
TRAFFIC VOLUMES

dj, 060629\acad\riverside2.dwg-tot30, f09/30/10

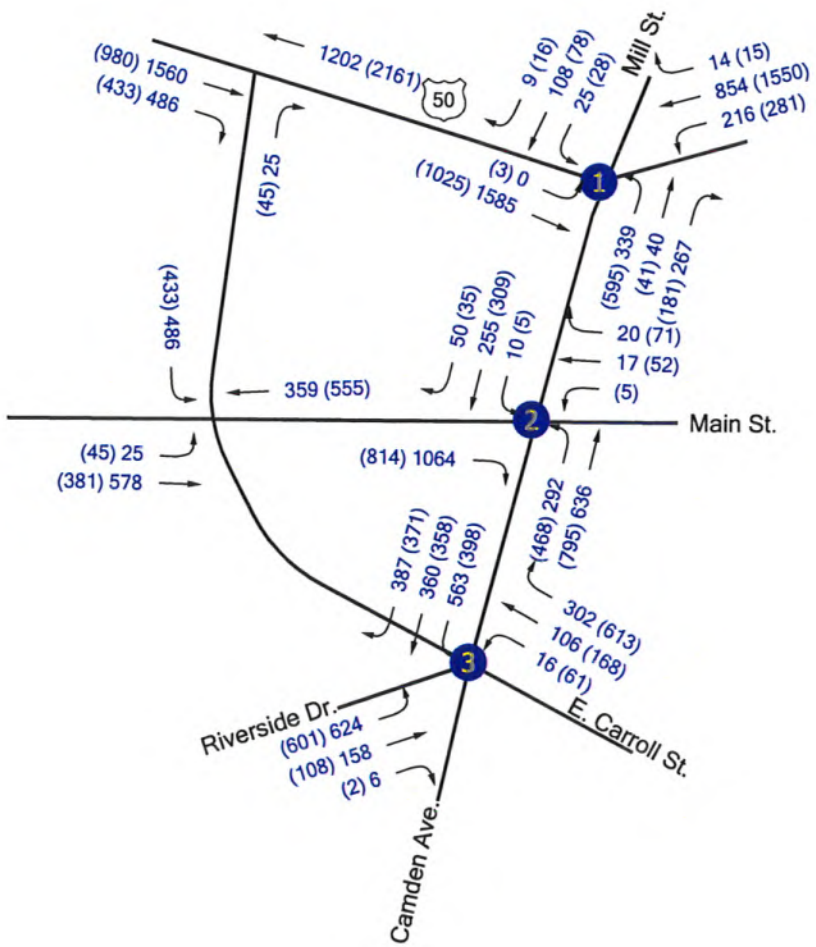


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-8
ALTERNATIVE 1 - DIVERSION OF
US 50 EASTBOUND RIGHT TURNS

dj, 060629\acad\riverside2.dwg-alt1, f09/30/10

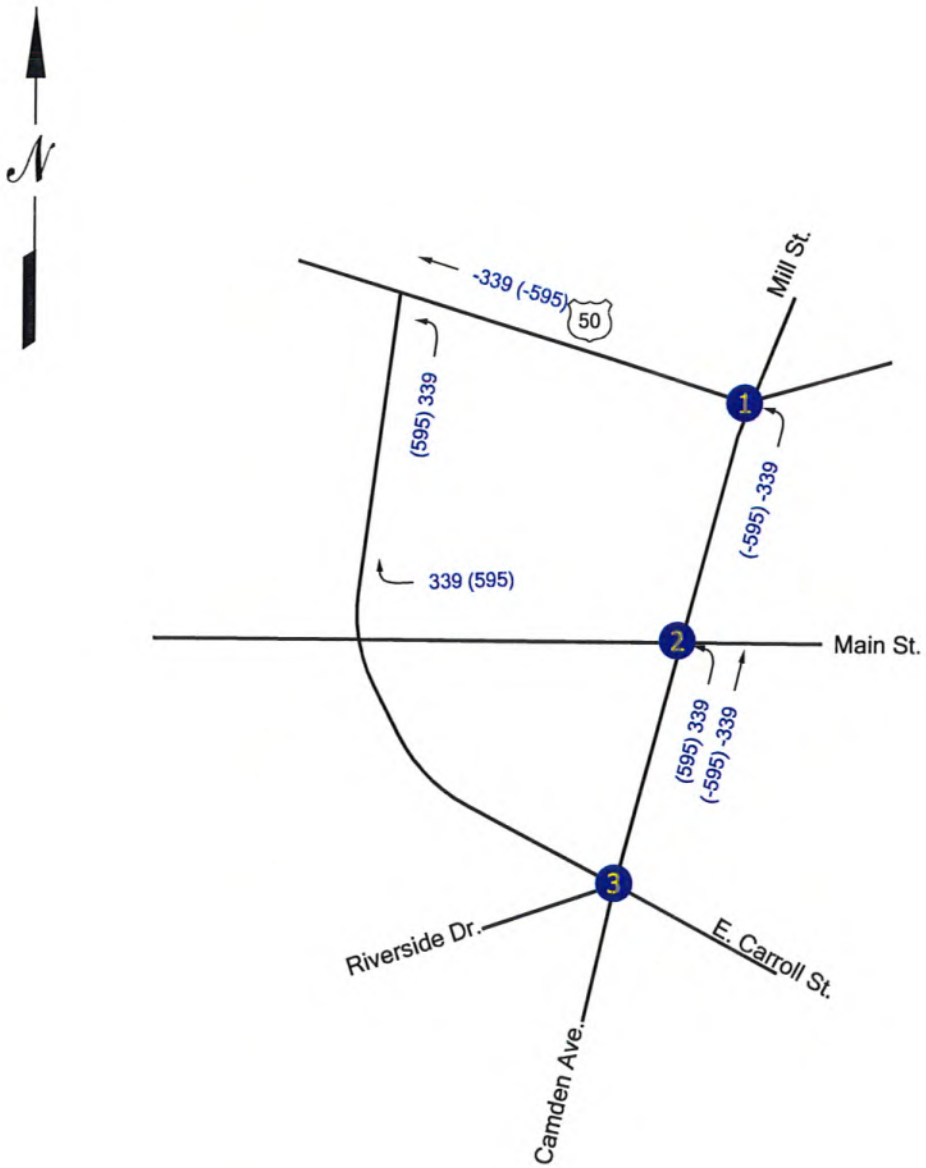


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-9
ALTERNATE 1 - TOTAL TRAFFIC
WITH DIVERSION OF US 50
EASTBOUND RIGHT TURNS

dj, 060629\acad\riverside2.dwg-tot-alt1, f09/30/10

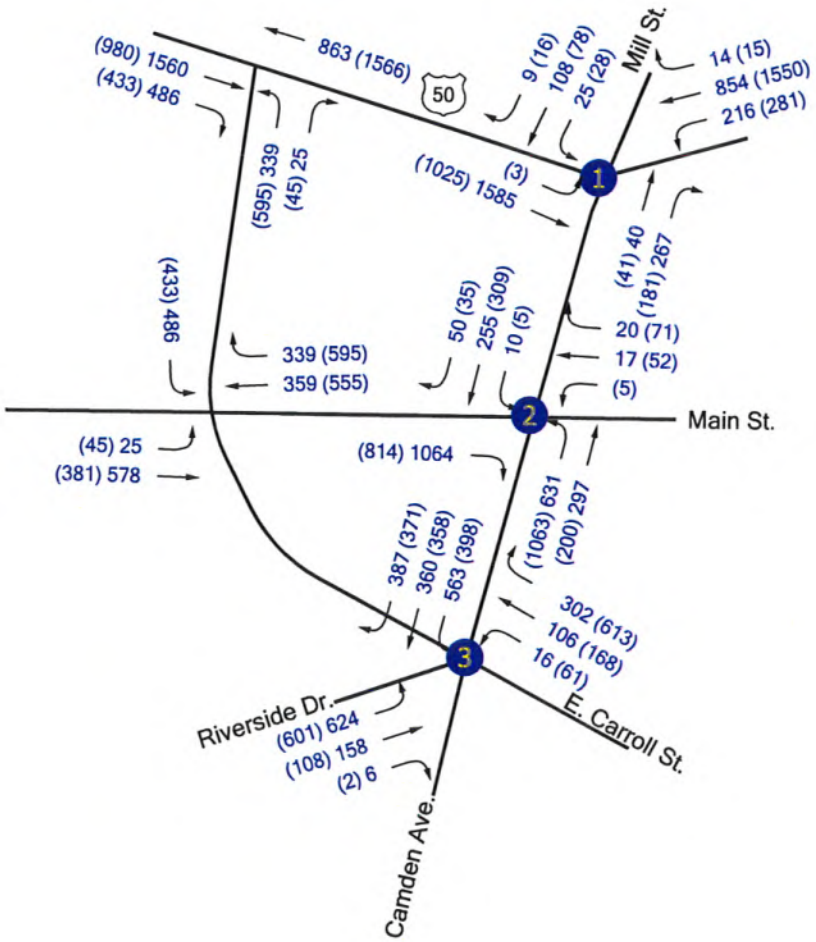


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-10
ALTERNATIVE 2 - DIVERSION OF
MILL STREET NB LEFT TURNS

dj, 060629\acad\riverside2.dwg-alt2, f09/30/10

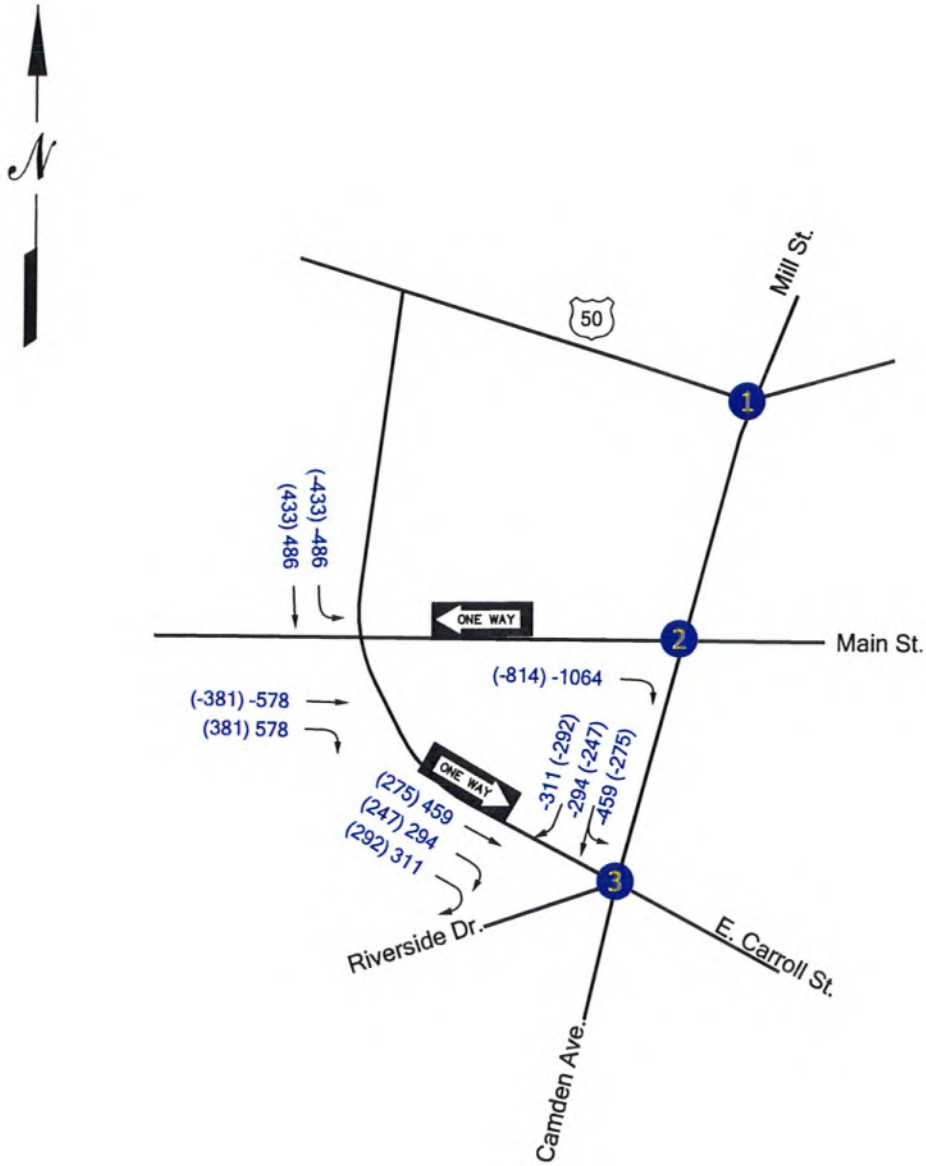


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-11
ALTERNATE 2 - TOTAL TRAFFIC
WITH DIVERSIONS OF
US 50 EB LEFT TURN AND
MILL ST NB LEFT TURN

dj, 060629\acad\riverside2.dwg-tot-alt2, f09/30/10



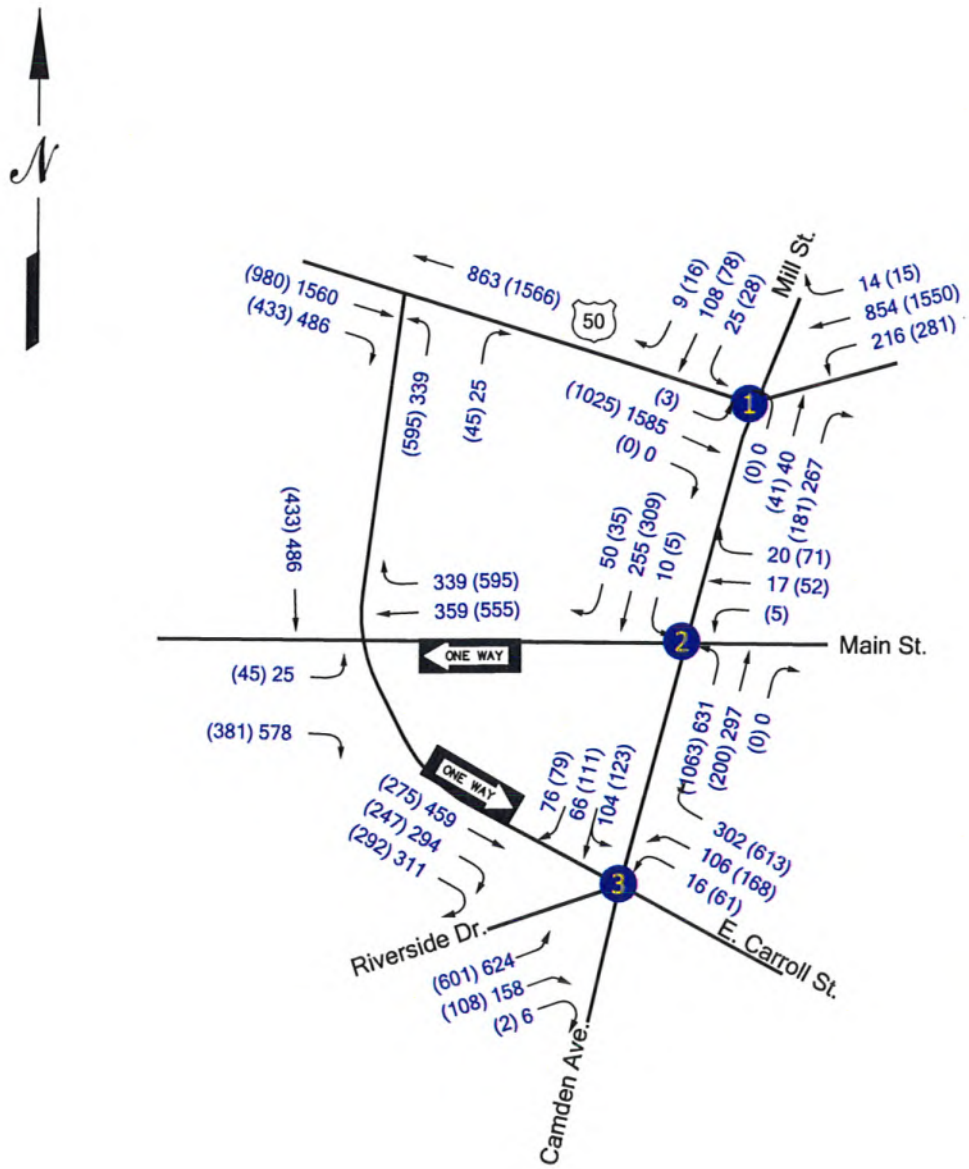
NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-12
ALTERNATIVE 3 - DIVERSION OF TRAFFIC ONTO NEW ONEWAY CARROLL ST. BRIDGE

The Traffic Group®

dj, 060629\acad\riverside2.dwg-alt3, f09/30/10

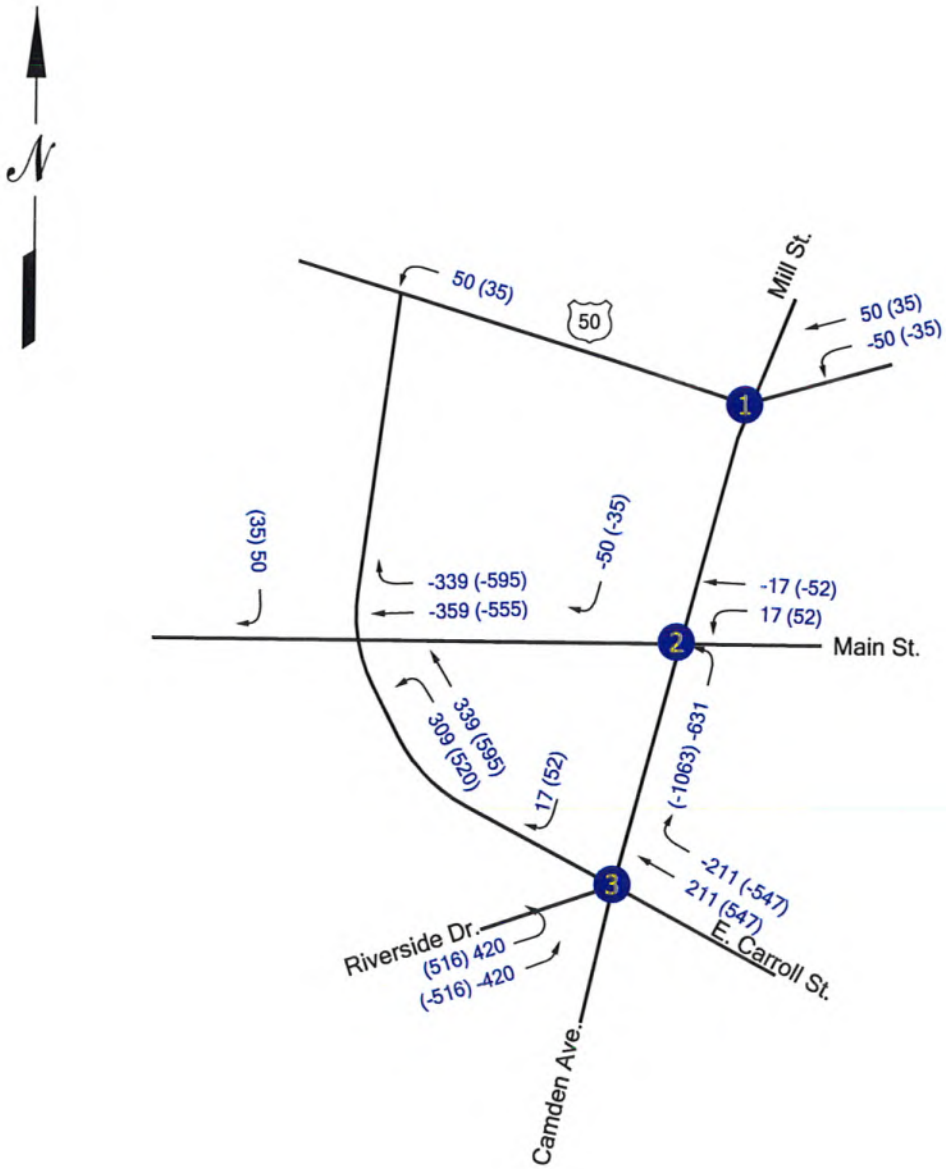


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-13
ALTERNATE 3 - TOTAL TRAFFIC
WITH NEW ONEWAY
CARROLL ST. BRIDGE

dj, 060629\acad\riverside2.dwg-tot-alt3, f09/30/10

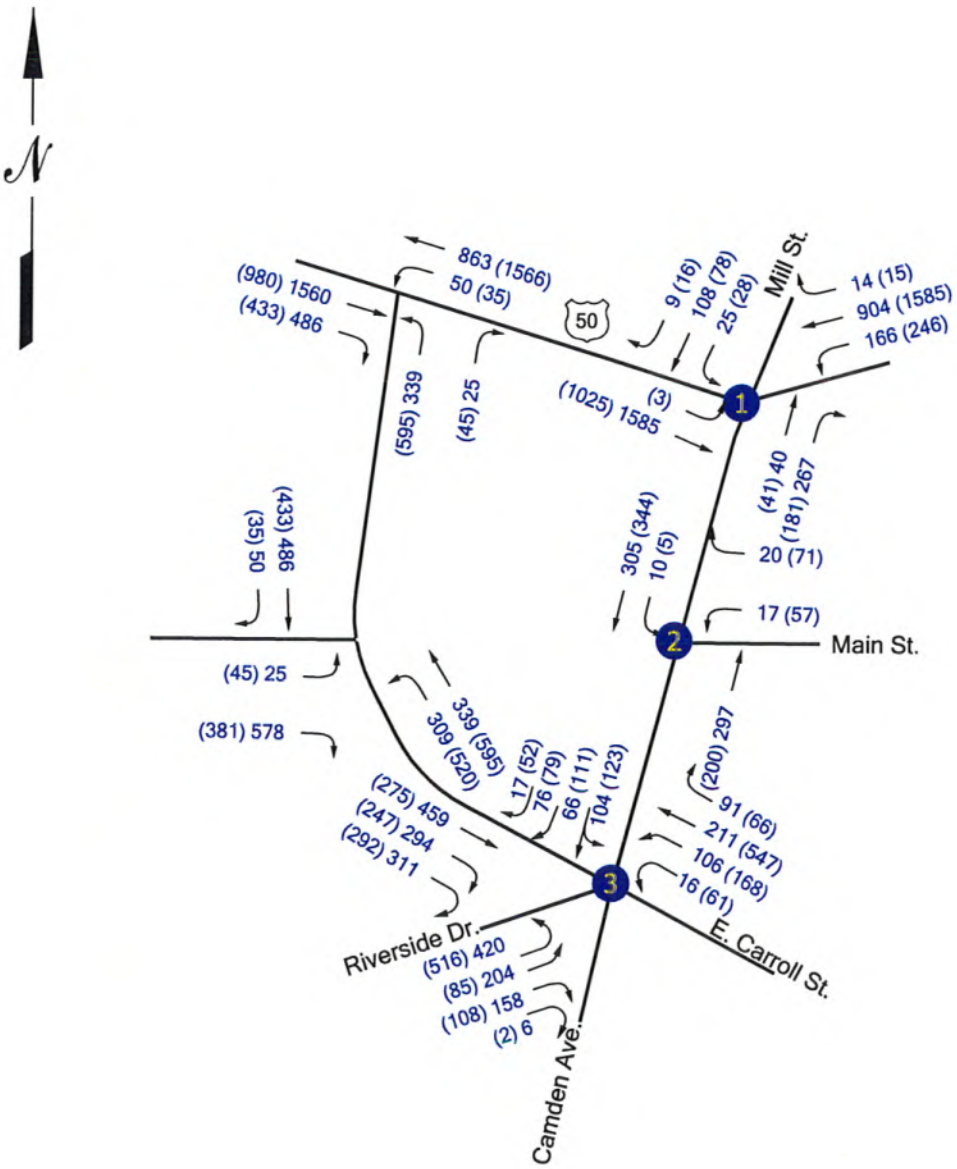


NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-14
ALTERNATE 4 - DIVERSION OF WB MAIN ST. TRAFFIC ONTO NEW CARROLL ST. BRIDGE

dj, 060629\acad\riverside2.dwg-alt4, f09/30/10



NOT TO SCALE

00 - MORNING PEAK HOUR
(00) - EVENING PEAK HOUR

EXHIBIT B-15
ALTERNATE 4
TOTAL TRAFFIC WITH NEW
TWO-WAY CARROLL ST. BRIDGE

dj, 060629\acad\riverside2.dwg-tot-alt4, f09/30/10

APPENDIX D

Synchro/Simtraf and Sidra Worksheets for Existing 2015 and 2030 Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1258	472	203	689	14	293	40	233	25	108	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00	0.95	0.95	1.00		1.00	
Frt		0.96		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected		1.00		0.95	1.00	1.00	0.95	0.97	1.00		0.99	
Satd. Flow (prot)		4722		1770	4803	1509	1665	1691	1599		1752	
Flt Permitted		1.00		0.07	1.00	1.00	0.60	0.64	1.00		0.90	
Satd. Flow (perm)		4722		125	4803	1509	1052	1123	1599		1596	
Peak-hour factor, PHF	0.92	0.90	0.93	0.88	0.93	0.75	0.90	0.75	0.84	0.75	0.93	0.75
Adj. Flow (vph)	0	1398	508	231	741	19	326	53	277	33	116	12
RTOR Reduction (vph)	0	53	0	0	0	7	0	0	129	0	2	0
Lane Group Flow (vph)	0	1853	0	231	741	12	186	193	148	0	159	0
Heavy Vehicles (%)	2%	6%	4%	2%	8%	7%	3%	3%	1%	4%	3%	44%
Turn Type				pm+pt		Perm	Perm		Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2	4		4	8		
Actuated Green, G (s)		53.7		74.0	74.0	74.0	33.0	33.0	33.0		33.0	
Effective Green, g (s)		53.7		74.0	74.0	74.0	33.0	33.0	33.0		33.0	
Actuated g/C Ratio		0.45		0.62	0.62	0.62	0.28	0.28	0.28		0.28	
Clearance Time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)		2113		273	2962	931	289	309	440		439	
v/s Ratio Prot		0.39		c0.10	0.15							
v/s Ratio Perm				c0.42		0.01	c0.18	0.17	0.09		0.10	
v/c Ratio		0.88		0.85	0.25	0.01	0.64	0.62	0.34		0.36	
Uniform Delay, d1		30.1		35.1	10.4	8.9	38.3	38.1	34.8		35.0	
Progression Factor		1.00		1.00	1.00	1.00	0.33	0.33	0.10		1.00	
Incremental Delay, d2		5.5		20.8	0.2	0.0	9.5	8.3	1.8		2.3	
Delay (s)		35.7		55.8	10.6	8.9	22.2	20.7	5.4		37.3	
Level of Service		D		E	B	A	C	C	A		D	
Approach Delay (s)		35.7			21.1			14.6			37.3	
Approach LOS		D			C			B			D	

Intersection Summary			
HCM Average Control Delay	28.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	12	573	0	17	20	278	543	0	10	714	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.93		1.00	1.00		1.00	0.99	
Flt Protected		0.97	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1852	1599		1761		1752	3539		1805	3440	
Flt Permitted		0.82	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1561	1599		1761		1752	3539		1805	3440	
Peak-hour factor, PHF	0.75	0.75	0.93	0.75	0.75	0.75	0.90	0.94	0.75	0.75	0.93	0.89
Adj. Flow (vph)	17	16	616	0	23	27	309	578	0	13	768	56
RTOR Reduction (vph)	0	0	26	0	25	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	33	590	0	25	0	309	578	0	13	820	0
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		4	3		4		3	3		2	2	
Permitted Phases	4		4	4								
Actuated Green, G (s)		11.1	48.1		11.1		37.0	37.0		56.4	56.4	
Effective Green, g (s)		11.1	48.1		11.1		37.0	37.0		56.4	56.4	
Actuated g/C Ratio		0.09	0.40		0.09		0.31	0.31		0.47	0.47	
Clearance Time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0	5.0		4.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		144	708		163		540	1091		848	1617	
v/s Ratio Prot			c0.26		0.01		0.18	0.16		0.01	c0.24	
v/s Ratio Perm		0.02	0.11									
v/c Ratio		0.23	0.83		0.16		0.57	0.53		0.02	0.51	
Uniform Delay, d1		50.5	32.4		50.1		34.9	34.3		17.0	22.1	
Progression Factor		1.00	1.00		1.00		0.52	0.52		0.68	0.64	
Incremental Delay, d2		1.1	8.7		0.6		3.2	1.3		0.0	0.7	
Delay (s)		51.6	41.0		50.8		21.3	19.3		11.6	14.8	
Level of Service		D	D		D		C	B		B	B	
Approach Delay (s)		41.6			50.8			20.0			14.8	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	517	111	6	16	91	302	0	0	0	563	360	355
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (prot)	1681	1719			1838	1568				1681	1743	1568
Flt Permitted	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (perm)	1681	1719			1838	1568				1681	1743	1568
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	615	144	8	21	108	332	0	0	0	704	379	461
RTOR Reduction (vph)	0	1	0	0	0	18	0	0	0	0	0	0
Lane Group Flow (vph)	381	385	0	0	129	314	0	0	0	535	548	461
Heavy Vehicles (%)	2%	1%	0%	0%	3%	3%	0%	0%	0%	2%	2%	3%
Turn Type	custom			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases	3	3				4						Free
Actuated Green, G (s)	29.9	29.9			13.7	72.1				58.4	58.4	120.0
Effective Green, g (s)	29.9	29.9			13.7	72.1				58.4	58.4	120.0
Actuated g/C Ratio	0.25	0.25			0.11	0.60				0.49	0.49	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	419	428			210	1021				818	848	1568
v/s Ratio Prot	c0.23	0.22			c0.07	0.15				c0.32	0.31	
v/s Ratio Perm						0.05						0.29
v/c Ratio	0.91	0.90			0.61	0.31				0.65	0.65	0.29
Uniform Delay, d1	43.7	43.6			50.6	11.7				23.2	23.1	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.92	0.92	1.00
Incremental Delay, d2	23.1	21.5			5.2	0.2				3.3	3.1	0.4
Delay (s)	66.8	65.1			55.9	11.9				24.7	24.4	0.4
Level of Service	E	E			E	B				C	C	A
Approach Delay (s)		66.0			24.2			0.0			17.3	
Approach LOS		E			C			A			B	

Intersection Summary

HCM Average Control Delay	31.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	59.1%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	5	4	10	15	174	21	450	8	23	246	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.75	0.75	0.75	0.75	0.76	0.75	0.76	0.75	0.82	0.87	0.75
Hourly flow rate (vph)	16	7	5	13	20	229	28	592	11	28	283	19
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1241	1007	292	1001	1011	597	301			603		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1241	1007	292	1001	1011	597	301			603		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	79	97	99	94	91	55	98			97		
cM capacity (veh/h)	75	230	752	209	229	504	1243			965		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	28	262	631	28	301
Volume Left	16	13	28	28	0
Volume Right	5	229	11	0	19
cSH	112	433	1243	965	1700
Volume to Capacity	0.25	0.61	0.02	0.03	0.18
Queue Length 95th (ft)	23	97	2	2	0
Control Delay (s)	47.4	25.2	0.6	8.8	0.0
Lane LOS	E	D	A	A	
Approach Delay (s)	47.4	25.2	0.6	0.8	
Approach LOS	E	D			

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	59.9%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	9	5	1	4	4	43	1	347	6	33	232	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.84	0.75	0.75	1.00	0.75
Hourly flow rate (vph)	12	7	1	5	5	57	1	413	8	44	232	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	802	746	234	746	744	417	236			421		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	802	746	234	746	744	417	236			421		
tC, single (s)	7.1	6.5	6.2	7.1	6.8	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.2	3.3	2.2			2.2		
p0 queue free %	95	98	100	98	98	91	100			96		
cM capacity (veh/h)	265	331	810	317	304	636	1343			1149		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	20	68	422	280
Volume Left	12	5	1	44
Volume Right	1	57	8	4
cSH	298	546	1343	1149
Volume to Capacity	0.07	0.12	0.00	0.04
Queue Length 95th (ft)	5	11	0	3
Control Delay (s)	17.9	12.5	0.0	1.6
Lane LOS	C	B	A	A
Approach Delay (s)	17.9	12.5	0.0	1.6
Approach LOS	C	B		

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	46.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	24	45	204	48	38	84
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.81	0.75	0.79	0.75
Hourly flow rate (vph)	32	60	252	64	48	112
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	492	284			316	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	492	284			316	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	92			96	
cM capacity (veh/h)	512	755			1256	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	92	316	160
Volume Left	32	0	48
Volume Right	60	64	0
cSH	648	1700	1256
Volume to Capacity	0.14	0.19	0.04
Queue Length 95th (ft)	12	0	3
Control Delay (s)	11.5	0.0	2.6
Lane LOS	B		A
Approach Delay (s)	11.5	0.0	2.6
Approach LOS	B		

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	1	1	6	11	11	6	205	26	6	54	28
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.79	0.81	0.75	0.75	0.75
Hourly flow rate (vph)	3	1	1	8	15	15	8	259	32	8	72	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	420	414	91	400	417	276	109			292		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	420	414	91	400	417	276	109			292		
tC, single (s)	7.1	6.5	6.2	7.1	6.6	6.4	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.1	3.5	2.4			2.2		
p0 queue free %	99	100	100	99	97	98	99			99		
cM capacity (veh/h)	519	525	973	557	510	726	1392			1282		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	5	37	300	117
Volume Left	3	8	8	8
Volume Right	1	15	32	37
cSH	590	590	1392	1282
Volume to Capacity	0.01	0.06	0.01	0.01
Queue Length 95th (ft)	1	5	0	0
Control Delay (s)	11.2	11.5	0.3	0.6
Lane LOS	B	B	A	A
Approach Delay (s)	11.2	11.5	0.3	0.6
Approach LOS	B	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	24.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	178	32	26	38	3	17	2	40	5	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.82	0.75	0.93	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	1	217	43	28	51	4	23	3	53	7	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	55			260			350	352	238	404	371	53
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	55			260			350	352	238	404	371	53
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			96	100	93	99	100	100
cM capacity (veh/h)	1563			1317			597	563	798	512	550	1021

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	261	83	79	8
Volume Left	1	28	23	7
Volume Right	43	4	53	0
cSH	1563	1317	718	518
Volume to Capacity	0.00	0.02	0.11	0.02
Queue Length 95th (ft)	0	2	9	1
Control Delay (s)	0.0	2.8	10.6	12.1
Lane LOS	A	A	B	B
Approach Delay (s)	0.0	2.8	10.6	12.1
Approach LOS			B	B

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	28.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	33	1	11	7	4	4	11	23	14	15	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.88	0.75	0.75	0.75	0.82	0.75	0.75	0.75
Hourly flow rate (vph)	5	44	1	15	8	5	5	15	28	19	20	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	51	28	48	39
Volume Left (vph)	5	15	5	19
Volume Right (vph)	1	5	28	0
Hadj (s)	0.14	0.29	-0.19	0.15
Departure Headway (s)	4.3	4.4	3.9	4.3
Degree Utilization, x	0.06	0.03	0.05	0.05
Capacity (veh/h)	824	791	887	821
Control Delay (s)	7.5	7.6	7.1	7.5
Approach Delay (s)	7.5	7.6	7.1	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.4		
HCM Level of Service	A		
Intersection Capacity Utilization	15.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	51	201	2	30	78
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.81	0.75	0.75	0.75
Hourly flow rate (vph)	3	68	248	3	40	104
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	433	249			251	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	433	249			251	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	91			97	
cM capacity (veh/h)	562	789			1315	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	71	251	144
Volume Left	3	0	40
Volume Right	68	3	0
cSH	777	1700	1315
Volume to Capacity	0.09	0.15	0.03
Queue Length 95th (ft)	7	0	2
Control Delay (s)	10.1	0.0	2.4
Lane LOS	B		A
Approach Delay (s)	10.1	0.0	2.4
Approach LOS	B		

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	29.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	790	382	232	1250	15	566	41	194	28	78	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00	0.95	0.95	1.00		1.00	
Frt		0.95		1.00	1.00	0.85	1.00	1.00	0.85		0.98	
Flt Protected		1.00		0.95	1.00	1.00	0.95	0.96	1.00		0.99	
Satd. Flow (prot)		4810		1805	5085	1509	1698	1716	1583		1781	
Flt Permitted		1.00		0.10	1.00	1.00	0.62	0.62	1.00		0.75	
Satd. Flow (perm)		4810		186	5085	1509	1111	1109	1583		1352	
Peak-hour factor, PHF	0.75	0.91	0.94	0.83	0.87	0.79	0.88	0.85	0.82	0.75	0.75	0.75
Adj. Flow (vph)	0	868	406	280	1437	19	643	48	237	37	104	21
RTOR Reduction (vph)	0	56	0	0	0	4	0	0	58	0	5	0
Lane Group Flow (vph)	0	1218	0	280	1437	15	341	350	179	0	157	0
Heavy Vehicles (%)	2%	3%	2%	0%	2%	7%	1%	0%	2%	4%	3%	6%
Turn Type				pm+pt		Perm	Perm		Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2	4		4	8		
Actuated Green, G (s)		49.3		74.5	74.5	74.5	47.5	47.5	47.5		47.5	
Effective Green, g (s)		49.3		74.5	74.5	74.5	47.5	47.5	47.5		47.5	
Actuated g/C Ratio		0.37		0.55	0.55	0.55	0.35	0.35	0.35		0.35	
Clearance Time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)		1757		333	2806	833	391	390	557		476	
v/s Ratio Prot		0.25		c0.12	0.28							
v/s Ratio Perm				c0.34		0.01	0.31	c0.32	0.11		0.12	
v/c Ratio		0.69		0.84	0.51	0.02	0.87	0.90	0.32		0.33	
Uniform Delay, d1		36.4		33.9	18.9	13.7	40.9	41.4	32.0		32.1	
Progression Factor		1.00		1.00	1.00	1.00	0.48	0.48	0.32		1.00	
Incremental Delay, d2		2.3		17.1	0.7	0.0	16.4	19.6	0.4		0.6	
Delay (s)		38.7		51.0	19.6	13.7	36.2	39.7	10.7		32.7	
Level of Service		D		D	B	B	D	D	B		C	
Approach Delay (s)		38.7			24.6			31.0			32.7	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM Average Control Delay	30.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	4	365	5	52	71	456	731	0	5	634	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.92		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1816	1599		1754		1752	3539		1805	3447	
Flt Permitted		0.37	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		703	1599		1738		1752	3539		1805	3447	
Peak-hour factor, PHF	0.79	1.00	0.93	0.75	0.75	0.75	0.84	0.86	0.75	0.75	0.88	0.88
Adj. Flow (vph)	52	4	392	7	69	95	543	850	0	7	720	40
RTOR Reduction (vph)	0	0	15	0	36	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	56	377	0	135	0	543	850	0	7	757	0
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		4	3		4		3	3		2	2	
Permitted Phases	4		4	4								
Actuated Green, G (s)		19.6	72.6		19.6		53.0	53.0		46.9	46.9	
Effective Green, g (s)		19.6	72.6		19.6		53.0	53.0		46.9	46.9	
Actuated g/C Ratio		0.15	0.54		0.15		0.39	0.39		0.35	0.35	
Clearance Time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0	5.0		4.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		102	919		252		688	1389		627	1198	
v/s Ratio Prot			0.16				c0.31	0.24		0.00	c0.22	
v/s Ratio Perm		c0.08	0.07		0.08							
v/c Ratio		0.55	0.41		0.54		0.79	0.61		0.01	0.63	
Uniform Delay, d1		53.6	18.5		53.5		36.1	32.8		28.9	36.8	
Progression Factor		1.00	1.00		1.00		0.76	0.77		0.50	0.55	
Incremental Delay, d2		7.4	0.6		2.8		5.5	0.9		0.0	1.9	
Delay (s)		61.0	19.1		56.3		32.9	26.2		14.5	22.3	
Level of Service		E	B		E		C	C		B	C	
Approach Delay (s)		24.4			56.3			28.8			22.2	
Approach LOS		C			E			C			C	

Intersection Summary			
HCM Average Control Delay	28.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	534	79	2	61	116	613	0	0	0	398	358	255
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.98	1.00				0.95	0.99	1.00
Satd. Flow (prot)	1698	1723			1852	1615				1698	1773	1599
Flt Permitted	0.95	0.97			0.98	1.00				0.95	0.99	1.00
Satd. Flow (perm)	1698	1723			1852	1615				1698	1773	1599
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	636	103	3	81	138	674	0	0	0	498	377	331
RTOR Reduction (vph)	0	0	0	0	0	28	0	0	0	0	0	0
Lane Group Flow (vph)	369	373	0	0	219	646	0	0	0	428	447	331
Heavy Vehicles (%)	1%	1%	0%	2%	0%	0%	2%	2%	2%	1%	1%	1%
Turn Type	custom			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases	3	3				4						Free
Actuated Green, G (s)	35.3	35.3			20.7	81.7				61.0	61.0	135.0
Effective Green, g (s)	35.3	35.3			20.7	81.7				61.0	61.0	135.0
Actuated g/C Ratio	0.26	0.26			0.15	0.61				0.45	0.45	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	444	451			284	1049				767	801	1599
v/s Ratio Prot	c0.22	0.22			c0.12	c0.28				0.25	0.25	
v/s Ratio Perm						0.12						0.21
v/c Ratio	0.83	0.83			0.77	0.62				0.56	0.56	0.21
Uniform Delay, d1	47.0	47.0			54.9	16.8				27.1	27.1	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.67	0.67	1.00
Incremental Delay, d2	12.5	11.8			12.2	1.1				2.5	2.4	0.3
Delay (s)	59.5	58.8			67.1	17.9				20.8	20.7	0.3
Level of Service	E	E			E	B				C	C	A
Approach Delay (s)		59.1			29.9			0.0			15.1	
Approach LOS		E			C			A			B	

Intersection Summary			
HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	7	12	4	5	233	1	264	6	35	346	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.75	0.75	0.75	0.75	0.99	0.75	0.78	0.75	0.75	0.83	0.75
Hourly flow rate (vph)	16	9	16	5	7	235	1	338	8	47	417	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1098	863	421	876	863	342	425			346		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1098	863	421	876	863	342	425			346		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	87	97	97	98	98	67	100			96		
cM capacity (veh/h)	122	283	637	250	283	705	1145			1224		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	41	247	348	47	425
Volume Left	16	5	1	47	0
Volume Right	16	235	8	0	8
cSH	218	653	1145	1224	1700
Volume to Capacity	0.19	0.38	0.00	0.04	0.25
Queue Length 95th (ft)	17	44	0	3	0
Control Delay (s)	25.4	13.8	0.0	8.1	0.0
Lane LOS	D	B	A	A	
Approach Delay (s)	25.4	13.8	0.0	0.8	
Approach LOS	D	B			

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	0	0	0	10	1	34	0	212	1	29	255	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.85	0.75	0.83	0.75	0.75	0.86	0.75
Hourly flow rate (vph)	0	0	0	13	1	40	0	255	1	39	297	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	673	633	299	633	635	256	302			257		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	673	633	299	633	635	256	302			257		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	97	100	95	100			97		
cM capacity (veh/h)	344	388	745	387	387	780	1271			1320		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	0	55	257	341
Volume Left	0	13	0	39
Volume Right	0	40	1	5
cSH	1700	613	1271	1320
Volume to Capacity	0.00	0.09	0.00	0.03
Queue Length 95th (ft)	0	7	0	2
Control Delay (s)	0.0	11.4	0.0	1.1
Lane LOS	A	B		A
Approach Delay (s)	0.0	11.4	0.0	1.1
Approach LOS	A	B		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	39.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	57	60	106	47	27	205
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.83	0.91	0.75	0.75	0.93
Hourly flow rate (vph)	61	72	116	63	36	220
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	440	148			179	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	440	148			179	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	92			97	
cM capacity (veh/h)	556	899			1409	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	133	179	256
Volume Left	61	0	36
Volume Right	72	63	0
cSH	702	1700	1409
Volume to Capacity	0.19	0.11	0.03
Queue Length 95th (ft)	17	0	2
Control Delay (s)	11.3	0.0	1.3
Lane LOS	B		A
Approach Delay (s)	11.3	0.0	1.3
Approach LOS	B		

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	37.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	0	0	16	7	9	2	120	19	7	153	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.79	0.75	0.75	0.81	0.83
Hourly flow rate (vph)	9	0	0	21	9	12	3	152	25	9	189	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	400	396	195	383	390	165	201			177		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	400	396	195	383	390	165	201			177		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	98	100	100	96	98	99	100			99		
cM capacity (veh/h)	545	539	852	574	544	885	1383			1329		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	9	43	180	210
Volume Left	9	21	3	9
Volume Right	0	12	25	12
cSH	545	629	1383	1329
Volume to Capacity	0.02	0.07	0.00	0.01
Queue Length 95th (ft)	1	5	0	1
Control Delay (s)	11.7	11.1	0.1	0.4
Lane LOS	B	B	A	A
Approach Delay (s)	11.7	11.1	0.1	0.4
Approach LOS	B	B		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	22.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	89	30	38	111	7	43	2	38	6	1	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.93	0.75	0.79	0.79	0.75	0.75	0.75	0.79	0.75	0.75	0.75
Hourly flow rate (vph)	0	96	40	48	141	9	57	3	48	8	1	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	150			136			360	362	116	407	377	145
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	150			136			360	362	116	407	377	145
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.7
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.8
p0 queue free %	100			97			90	100	95	98	100	100
cM capacity (veh/h)	1444			1461			581	550	929	514	539	790

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	136	198	108	12
Volume Left	0	48	57	8
Volume Right	40	9	48	3
cSH	1444	1461	696	561
Volume to Capacity	0.00	0.03	0.16	0.02
Queue Length 95th (ft)	0	3	14	2
Control Delay (s)	0.0	2.0	11.1	11.6
Lane LOS		A	B	B
Approach Delay (s)	0.0	2.0	11.1	11.6
Approach LOS			B	B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	26.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	18	4	37	26	19	2	20	20	14	17	6
Peak Hour Factor	0.75	0.75	0.75	0.84	0.75	0.79	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	4	24	5	44	35	24	3	27	27	19	23	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	33	103	56	49
Volume Left (vph)	4	44	3	19
Volume Right (vph)	5	24	27	8
Hadj (s)	-0.07	-0.03	-0.28	-0.02
Departure Headway (s)	4.2	4.1	4.0	4.2
Degree Utilization, x	0.04	0.12	0.06	0.06
Capacity (veh/h)	835	847	865	819
Control Delay (s)	7.3	7.7	7.2	7.5
Approach Delay (s)	7.3	7.7	7.2	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.5		
HCM Level of Service	A		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	41	112	3	46	216
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.75	0.75	0.88	0.93
Hourly flow rate (vph)	4	55	149	4	52	232
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	488	151			153	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	488	151			153	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	94			96	
cM capacity (veh/h)	523	895			1440	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	59	153	285
Volume Left	4	0	52
Volume Right	55	4	0
cSH	854	1700	1440
Volume to Capacity	0.07	0.09	0.04
Queue Length 95th (ft)	6	0	3
Control Delay (s)	9.5	0.0	1.7
Lane LOS	A		A
Approach Delay (s)	9.5	0.0	1.7
Approach LOS	A		

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	30.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1346	474	203	737	14	299	40	238	25	108	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00	0.95	0.95	1.00		1.00	
Frt		0.96		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected		1.00		0.95	1.00	1.00	0.95	0.96	1.00		0.99	
Satd. Flow (prot)		4729		1770	4803	1509	1665	1691	1599		1752	
Flt Permitted		1.00		0.07	1.00	1.00	0.60	0.64	1.00		0.90	
Satd. Flow (perm)		4729		124	4803	1509	1052	1121	1599		1595	
Peak-hour factor, PHF	0.92	0.90	0.93	0.88	0.93	0.75	0.90	0.75	0.84	0.75	0.93	0.75
Adj. Flow (vph)	0	1496	510	231	792	19	332	53	283	33	116	12
RTOR Reduction (vph)	0	50	0	0	0	7	0	0	130	0	2	0
Lane Group Flow (vph)	0	1956	0	231	792	12	189	196	153	0	159	0
Heavy Vehicles (%)	2%	6%	4%	2%	8%	7%	3%	3%	1%	4%	3%	44%
Turn Type				pm+pt		Perm	Perm		Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2	4		4	8		
Actuated Green, G (s)		54.2		74.0	74.0	74.0	33.0	33.0	33.0		33.0	
Effective Green, g (s)		54.2		74.0	74.0	74.0	33.0	33.0	33.0		33.0	
Actuated g/C Ratio		0.45		0.62	0.62	0.62	0.28	0.28	0.28		0.28	
Clearance Time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)		2136		266	2962	931	289	308	440		439	
v/s Ratio Prot		c0.41		c0.10	0.16							
v/s Ratio Perm				0.44		0.01	c0.18	0.17	0.10		0.10	
v/c Ratio		0.92		0.87	0.27	0.01	0.65	0.64	0.35		0.36	
Uniform Delay, d1		30.8		35.9	10.6	8.9	38.5	38.2	34.9		35.0	
Progression Factor		1.00		1.00	1.00	1.00	0.31	0.30	0.08		1.00	
Incremental Delay, d2		7.6		24.5	0.2	0.0	9.9	8.6	1.9		2.3	
Delay (s)		38.4		60.4	10.8	8.9	21.7	20.2	4.6		37.3	
Level of Service		D		E	B	A	C	C	A		D	
Approach Delay (s)		38.4			21.8			14.0			37.3	
Approach LOS		D			C			B			D	

Intersection Summary			
HCM Average Control Delay	29.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	79.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	12	573	0	17	20	280	554	0	10	716	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.93		1.00	1.00		1.00	0.99	
Flt Protected		0.97	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1852	1599		1761		1752	3539		1805	3440	
Flt Permitted		0.83	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1568	1599		1761		1752	3539		1805	3440	
Peak-hour factor, PHF	0.75	0.75	0.93	0.75	0.75	0.75	0.90	0.94	0.75	0.75	0.93	0.89
Adj. Flow (vph)	17	16	616	0	23	27	311	589	0	13	770	56
RTOR Reduction (vph)	0	0	26	0	24	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	33	590	0	26	0	311	589	0	13	822	0
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		4	3		4		3	3		2	2	
Permitted Phases	4		4	4								
Actuated Green, G (s)		11.6	48.6		11.6		37.0	37.0		55.9	55.9	
Effective Green, g (s)		11.6	48.6		11.6		37.0	37.0		55.9	55.9	
Actuated g/C Ratio		0.10	0.40		0.10		0.31	0.31		0.47	0.47	
Clearance Time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		152	714		170		540	1091		841	1602	
v/s Ratio Prot			c0.25		0.01		0.18	0.17		0.01	c0.24	
v/s Ratio Perm		0.02	0.11									
v/c Ratio		0.22	0.83		0.15		0.58	0.54		0.02	0.51	
Uniform Delay, d1		50.0	31.9		49.7		34.9	34.4		17.2	22.5	
Progression Factor		1.00	1.00		1.00		0.52	0.52		0.72	0.67	
Incremental Delay, d2		1.5	8.7		0.9		3.1	1.3		0.0	0.6	
Delay (s)		51.5	40.6		50.5		21.1	19.3		12.4	15.7	
Level of Service		D	D		D		C	B		B	B	
Approach Delay (s)		41.2			50.5			19.9			15.7	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	530	116	6	16	93	302	0	0	0	563	360	357
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (prot)	1681	1720			1839	1568				1681	1743	1568
Flt Permitted	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (perm)	1681	1720			1839	1568				1681	1743	1568
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	631	151	8	21	111	332	0	0	0	704	379	464
RTOR Reduction (vph)	0	1	0	0	0	16	0	0	0	0	0	0
Lane Group Flow (vph)	391	398	0	0	132	316	0	0	0	535	548	464
Heavy Vehicles (%)	2%	1%	0%	0%	3%	3%	0%	0%	0%	2%	2%	3%
Turn Type	Split			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases		3				4						Free
Actuated Green, G (s)	30.1	30.1			13.9	71.9				58.0	58.0	120.0
Effective Green, g (s)	30.1	30.1			13.9	71.9				58.0	58.0	120.0
Actuated g/C Ratio	0.25	0.25			0.12	0.60				0.48	0.48	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	422	431			213	1018				812	842	1568
v/s Ratio Prot	c0.23	0.23			c0.07	0.15				c0.32	0.31	
v/s Ratio Perm						0.05						0.30
v/c Ratio	0.93	0.92			0.62	0.31				0.66	0.65	0.30
Uniform Delay, d1	43.9	43.8			50.5	11.8				23.5	23.4	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.92	0.92	1.00
Incremental Delay, d2	26.2	25.4			5.3	0.2				3.4	3.2	0.4
Delay (s)	70.1	69.2			55.8	12.0				25.1	24.8	0.4
Level of Service	E	E			E	B				C	C	A
Approach Delay (s)		69.6			24.5			0.0			17.6	
Approach LOS		E			C			A			B	

Intersection Summary			
HCM Average Control Delay	33.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	59.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	5	4	10	15	174	21	459	8	24	252	14
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.75	0.75	0.75	0.75	0.76	0.75	0.76	0.75	0.82	0.87	0.75
Hourly flow rate (vph)	16	7	5	13	20	229	28	604	11	29	290	19
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1262	1028	299	1022	1032	609	308			615		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1262	1028	299	1022	1032	609	308			615		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	78	97	99	93	91	54	98			97		
cM capacity (veh/h)	71	223	745	201	222	497	1235			955		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	28	262	643	29	308
Volume Left	16	13	28	29	0
Volume Right	5	229	11	0	19
cSH	107	425	1235	955	1700
Volume to Capacity	0.26	0.62	0.02	0.03	0.18
Queue Length 95th (ft)	24	101	2	2	0
Control Delay (s)	50.1	26.2	0.6	8.9	0.0
Lane LOS	F	D	A	A	
Approach Delay (s)	50.1	26.2	0.6	0.8	
Approach LOS	F	D			

Intersection Summary			
Average Delay	7.0		
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	9	5	1	4	4	43	1	356	6	35	236	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.84	0.75	0.75	1.00	0.75
Hourly flow rate (vph)	12	7	1	5	5	57	1	424	8	47	236	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	822	766	238	766	764	428	240			432		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	822	766	238	766	764	428	240			432		
tC, single (s)	7.1	6.5	6.2	7.1	6.8	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.2	3.3	2.2			2.2		
p0 queue free %	95	98	100	98	98	91	100			96		
cM capacity (veh/h)	256	321	806	306	295	627	1339			1139		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	20	68	433	287
Volume Left	12	5	1	47
Volume Right	1	57	8	4
cSH	289	536	1339	1139
Volume to Capacity	0.07	0.13	0.00	0.04
Queue Length 95th (ft)	6	11	0	3
Control Delay (s)	18.4	12.7	0.0	1.7
Lane LOS	C	B	A	A
Approach Delay (s)	18.4	12.7	0.0	1.7
Approach LOS	C	B		

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	47.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	24	46	212	50	39	87
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.81	0.75	0.79	0.75
Hourly flow rate (vph)	32	61	262	67	49	116
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type.			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	510	295			328	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	510	295			328	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	92			96	
cM capacity (veh/h)	499	744			1243	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	93	328	165
Volume Left	32	0	49
Volume Right	61	67	0
cSH	637	1700	1243
Volume to Capacity	0.15	0.19	0.04
Queue Length 95th (ft)	13	0	3
Control Delay (s)	11.6	0.0	2.6
Lane LOS	B		A
Approach Delay (s)	11.6	0.0	2.6
Approach LOS	B		

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	35.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	1	1	7	11	11	6	215	28	7	56	28
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.79	0.81	0.75	0.75	0.75
Hourly flow rate (vph)	3	1	1	9	15	15	8	272	35	9	75	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	439	435	93	419	436	289	112			307		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	439	435	93	419	436	289	112			307		
tC, single (s)	7.1	6.5	6.2	7.1	6.6	6.4	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.1	3.5	2.4			2.2		
p0 queue free %	99	100	100	98	97	98	99			99		
cM capacity (veh/h)	504	511	969	540	497	713	1389			1265		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	5	39	315	121
Volume Left	3	9	8	9
Volume Right	1	15	35	37
cSH	575	574	1389	1265
Volume to Capacity	0.01	0.07	0.01	0.01
Queue Length 95th (ft)	1	5	0	1
Control Delay (s)	11.3	11.7	0.2	0.7
Lane LOS	B	B	A	A
Approach Delay (s)	11.3	11.7	0.2	0.7
Approach LOS	B	B		

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	24.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	189	35	26	41	3	18	2	40	5	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.82	0.75	0.93	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	1	230	47	28	55	4	24	3	53	7	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	59			277			370	371	254	424	392	57
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	59			277			370	371	254	424	392	57
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			98			96	100	93	99	100	100
cM capacity (veh/h)	1558			1297			579	549	782	497	535	1015

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	278	87	80	8
Volume Left	1	28	24	7
Volume Right	47	4	53	0
cSH	1558	1297	699	502
Volume to Capacity	0.00	0.02	0.11	0.02
Queue Length 95th (ft)	0	2	10	1
Control Delay (s)	0.0	2.6	10.8	12.3
Lane LOS	A	A	B	B
Approach Delay (s)	0.0	2.6	10.8	12.3
Approach LOS			B	B

Intersection Summary			
Average Delay	2.7		
Intersection Capacity Utilization	29.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	33	1	11	7	5	4	13	23	14	16	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.88	0.75	0.75	0.75	0.82	0.75	0.75	0.75
Hourly flow rate (vph)	5	44	1	15	8	7	5	17	28	19	21	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	51	29	51	40
Volume Left (vph)	5	15	5	19
Volume Right (vph)	1	7	28	0
Hadj (s)	0.14	0.27	-0.18	0.15
Departure Headway (s)	4.3	4.4	3.9	4.3
Degree Utilization, x	0.06	0.04	0.06	0.05
Capacity (veh/h)	821	793	882	820
Control Delay (s)	7.5	7.6	7.2	7.5
Approach Delay (s)	7.5	7.6	7.2	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.4		
HCM Level of Service	A		
Intersection Capacity Utilization	15.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	51	211	2	30	81
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.81	0.75	0.75	0.75
Hourly flow rate (vph)	3	68	260	3	40	108
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	450	262			263	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	450	262			263	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	91			97	
cM capacity (veh/h)	550	777			1301	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	71	263	148
Volume Left	3	0	40
Volume Right	68	3	0
cSH	765	1700	1301
Volume to Capacity	0.09	0.15	0.03
Queue Length 95th (ft)	8	0	2
Control Delay (s)	10.2	0.0	2.3
Lane LOS	B		A
Approach Delay (s)	10.2	0.0	2.3
Approach LOS	B		

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	30.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	848	388	237	1338	15	570	41	196	28	78	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00	0.95	0.95	1.00		1.00	
Frt		0.95		1.00	1.00	0.85	1.00	1.00	0.85		0.98	
Flt Protected		1.00		0.95	1.00	1.00	0.95	0.96	1.00		0.99	
Satd. Flow (prot)		4818		1805	5085	1509	1698	1715	1583		1781	
Flt Permitted		1.00		0.08	1.00	1.00	0.62	0.62	1.00		0.75	
Satd. Flow (perm)		4818		154	5085	1509	1112	1109	1583		1348	
Peak-hour factor, PHF	0.75	0.91	0.94	0.83	0.87	0.79	0.88	0.85	0.82	0.75	0.75	0.75
Adj. Flow (vph)	0	932	413	286	1538	19	648	48	239	37	104	21
RTOR Reduction (vph)	0	54	0	0	0	3	0	0	58	0	5	0
Lane Group Flow (vph)	0	1291	0	286	1538	16	343	353	181	0	157	0
Heavy Vehicles (%)	2%	3%	2%	0%	2%	7%	1%	0%	2%	4%	3%	6%
Turn Type				pm+pt		Perm	Perm		Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2	4		4	8		
Actuated Green, G (s)		48.7		74.3	74.3	74.3	47.7	47.7	47.7		47.7	
Effective Green, g (s)		48.7		74.3	74.3	74.3	47.7	47.7	47.7		47.7	
Actuated g/C Ratio		0.36		0.55	0.55	0.55	0.35	0.35	0.35		0.35	
Clearance Time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)		1738		324	2799	831	393	392	559		476	
v/s Ratio Prot		0.27		c0.13	0.30							
v/s Ratio Perm				c0.36		0.01	0.31	c0.32	0.11		0.12	
v/c Ratio		0.74		0.88	0.55	0.02	0.87	0.90	0.32		0.33	
Uniform Delay, d1		37.7		38.7	19.6	13.8	40.8	41.4	31.9		32.0	
Progression Factor		1.00		1.00	1.00	1.00	0.48	0.48	0.32		1.00	
Incremental Delay, d2		2.9		23.4	0.8	0.0	16.2	20.0	0.4		0.6	
Delay (s)		40.6		62.1	20.3	13.8	35.7	39.9	10.6		32.5	
Level of Service		D		E	C	B	D	D	B		C	
Approach Delay (s)		40.6			26.8			30.9			32.5	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM Average Control Delay	32.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	4	367	5	52	71	460	744	0	5	653	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.92		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1816	1599		1754		1752	3539		1805	3448	
Flt Permitted		0.37	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		703	1599		1738		1752	3539		1805	3448	
Peak-hour factor, PHF	0.79	1.00	0.93	0.75	0.75	0.75	0.84	0.86	0.75	0.75	0.88	0.88
Adj. Flow (vph)	52	4	395	7	69	95	548	865	0	7	742	40
RTOR Reduction (vph)	0	0	13	0	36	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	56	382	0	135	0	548	865	0	7	779	0
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		4	3		4		3	3		2	2	
Permitted Phases	4		4	4								
Actuated Green, G (s)		19.6	72.6		19.6		53.0	53.0		46.9	46.9	
Effective Green, g (s)		19.6	72.6		19.6		53.0	53.0		46.9	46.9	
Actuated g/C Ratio		0.15	0.54		0.15		0.39	0.39		0.35	0.35	
Clearance Time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0	5.0		4.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		102	919		252		688	1389		627	1198	
v/s Ratio Prot			0.16				c0.31	0.24		0.00	c0.23	
v/s Ratio Perm		c0.08	0.08		0.08							
v/c Ratio		0.55	0.42		0.54		0.80	0.62		0.01	0.65	
Uniform Delay, d1		53.6	18.6		53.5		36.2	33.0		28.9	37.1	
Progression Factor		1.00	1.00		1.00		0.76	0.77		0.50	0.55	
Incremental Delay, d2		7.4	0.6		2.8		5.8	1.0		0.0	1.9	
Delay (s)		61.0	19.2		56.3		33.3	26.4		14.5	22.4	
Level of Service		E	B		E		C	C		B	C	
Approach Delay (s)		24.4			56.3			29.1			22.3	
Approach LOS		C			E			C			C	

Intersection Summary			
HCM Average Control Delay	28.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	73.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	542	81	2	61	122	613	0	0	0	398	358	268
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.98	1.00				0.95	0.99	1.00
Satd. Flow (prot)	1698	1724			1853	1615				1698	1773	1599
Flt Permitted	0.95	0.97			0.98	1.00				0.95	0.99	1.00
Satd. Flow (perm)	1698	1724			1853	1615				1698	1773	1599
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	645	105	3	81	145	674	0	0	0	498	377	348
RTOR Reduction (vph)	0	0	0	0	0	27	0	0	0	0	0	0
Lane Group Flow (vph)	374	379	0	0	226	647	0	0	0	428	447	348
Heavy Vehicles (%)	1%	1%	0%	2%	0%	0%	2%	2%	2%	1%	1%	1%
Turn Type	custom			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases	3	3				4						Free
Actuated Green, G (s)	35.6	35.6			21.1	81.4				60.3	60.3	135.0
Effective Green, g (s)	35.6	35.6			21.1	81.4				60.3	60.3	135.0
Actuated g/C Ratio	0.26	0.26			0.16	0.60				0.45	0.45	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	448	455			290	1046				758	792	1599
v/s Ratio Prot	c0.22	0.22			c0.12	c0.28				0.25	0.25	
v/s Ratio Perm						0.12						0.22
v/c Ratio	0.83	0.83			0.78	0.62				0.56	0.56	0.22
Uniform Delay, d1	46.9	46.9			54.7	17.0				27.6	27.6	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.68	0.68	1.00
Incremental Delay, d2	12.6	12.3			12.4	1.1				2.6	2.5	0.3
Delay (s)	59.6	59.2			67.1	18.1				21.4	21.3	0.3
Level of Service	E	E			E	B				C	C	A
Approach Delay (s)		59.4			30.4			0.0			15.3	
Approach LOS		E			C			A			B	

Intersection Summary			
HCM Average Control Delay	31.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	7	12	4	5	234	1	273	6	36	357	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.75	0.75	0.75	0.75	0.99	0.75	0.78	0.75	0.75	0.83	0.75
Hourly flow rate (vph)	16	9	16	5	7	236	1	350	8	48	430	8
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1126	891	434	903	891	354	438			358		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1126	891	434	903	891	354	438			358		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	86	97	97	98	98	66	100			96		
cM capacity (veh/h)	115	272	626	239	272	694	1132			1212		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	41	248	359	48	438
Volume Left	16	5	1	48	0
Volume Right	16	236	8	0	8
cSH	208	641	1132	1212	1700
Volume to Capacity	0.20	0.39	0.00	0.04	0.26
Queue Length 95th (ft)	18	46	0	3	0
Control Delay (s)	26.6	14.1	0.0	8.1	0.0
Lane LOS	D	B	A	A	
Approach Delay (s)	26.6	14.1	0.0	0.8	
Approach LOS	D	B			

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	50.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	0	0	0	10	1	36	0	219	1	30	265	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.85	0.75	0.83	0.75	0.75	0.86	0.75
Hourly flow rate (vph)	0	0	0	13	1	42	0	264	1	40	308	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	698	656	311	655	658	265	313			265		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	698	656	311	655	658	265	313			265		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	96	100	95	100			97		
cM capacity (veh/h)	329	376	734	373	375	772	1258			1310		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	0	57	265	353
Volume Left	0	13	0	40
Volume Right	0	42	1	5
cSH	1700	605	1258	1310
Volume to Capacity	0.00	0.09	0.00	0.03
Queue Length 95th (ft)	0	8	0	2
Control Delay (s)	0.0	11.6	0.0	1.1
Lane LOS	A	B		A
Approach Delay (s)	0.0	11.6	0.0	1.1
Approach LOS	A	B		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	40.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	58	61	112	48	28	214
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.83	0.91	0.75	0.75	0.93
Hourly flow rate (vph)	62	73	123	64	37	230
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	460	155			187	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	460	155			187	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	92			97	
cM capacity (veh/h)	541	891			1399	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	135	187	267
Volume Left	62	0	37
Volume Right	73	64	0
cSH	688	1700	1399
Volume to Capacity	0.20	0.11	0.03
Queue Length 95th (ft)	18	0	2
Control Delay (s)	11.5	0.0	1.3
Lane LOS	B		A
Approach Delay (s)	11.5	0.0	1.3
Approach LOS	B		

Intersection Summary			
Average Delay	3.2		
Intersection Capacity Utilization	38.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	0	0	18	7	10	2	126	20	7	163	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.79	0.75	0.75	0.81	0.83
Hourly flow rate (vph)	9	0	0	24	9	13	3	159	27	9	201	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	422	417	207	404	410	173	213			186		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	422	417	207	404	410	173	213			186		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	98	100	100	96	98	98	100			99		
cM capacity (veh/h)	526	525	838	557	530	876	1369			1319		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	9	47	189	223
Volume Left	9	24	3	9
Volume Right	0	13	27	12
cSH	526	614	1369	1319
Volume to Capacity	0.02	0.08	0.00	0.01
Queue Length 95th (ft)	1	6	0	1
Control Delay (s)	12.0	11.3	0.1	0.4
Lane LOS	B	B	A	A
Approach Delay (s)	12.0	11.3	0.1	0.4
Approach LOS	B	B		

Intersection Summary			
Average Delay	1.6		
Intersection Capacity Utilization	23.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	96	32	38	123	7	46	2	38	6	1	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.93	0.75	0.79	0.79	0.75	0.75	0.75	0.79	0.75	0.75	0.75
Hourly flow rate (vph)	0	103	43	48	156	9	61	3	48	8	1	3
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	165			146			384	386	125	431	402	160
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	165			146			384	386	125	431	402	160
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.7
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.8
p0 queue free %	100			97			89	99	95	98	100	100
cM capacity (veh/h)	1426			1449			560	533	918	495	522	773

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	146	213	112	12
Volume Left	0	48	61	8
Volume Right	43	9	48	3
cSH	1426	1449	671	542
Volume to Capacity	0.00	0.03	0.17	0.02
Queue Length 95th (ft)	0	3	15	2
Control Delay (s)	0.0	1.9	11.4	11.8
Lane LOS		A	B	B
Approach Delay (s)	0.0	1.9	11.4	11.8
Approach LOS			B	B

Intersection Summary			
Average Delay	3.8		
Intersection Capacity Utilization	31.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	18	4	37	26	20	2	21	20	15	19	6
Peak Hour Factor	0.75	0.75	0.75	0.84	0.75	0.79	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	4	24	5	44	35	25	3	28	27	20	25	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	33	104	57	53
Volume Left (vph)	4	44	3	20
Volume Right (vph)	5	25	27	8
Hadj (s)	-0.07	-0.04	-0.27	-0.02
Departure Headway (s)	4.2	4.1	4.0	4.2
Degree Utilization, x	0.04	0.12	0.06	0.06
Capacity (veh/h)	832	845	862	816
Control Delay (s)	7.3	7.7	7.3	7.5
Approach Delay (s)	7.3	7.7	7.3	7.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.5		
HCM Level of Service	A		
Intersection Capacity Utilization	26.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	41	119	3	46	226
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.75	0.75	0.88	0.93
Hourly flow rate (vph)	4	55	159	4	52	243
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	508	161			163	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	508	161			163	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	94			96	
cM capacity (veh/h)	509	884			1428	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	59	163	295
Volume Left	4	0	52
Volume Right	55	4	0
cSH	842	1700	1428
Volume to Capacity	0.07	0.10	0.04
Queue Length 95th (ft)	6	0	3
Control Delay (s)	9.6	0.0	1.6
Lane LOS	A		A
Approach Delay (s)	9.6	0.0	1.6
Approach LOS	A		

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	34.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1560	486	216	854	14	339	40	280	25	108	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00	0.95	0.95	1.00		1.00	
Frt		0.97		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected		1.00		0.95	1.00	1.00	0.95	0.96	1.00		0.99	
Satd. Flow (prot)		4744		1770	4803	1509	1665	1688	1599		1752	
Flt Permitted		1.00		0.07	1.00	1.00	0.60	0.63	1.00		0.90	
Satd. Flow (perm)		4744		122	4803	1509	1052	1106	1599		1585	
Peak-hour factor, PHF	0.92	0.90	0.93	0.88	0.93	0.75	0.90	0.75	0.84	0.75	0.93	0.75
Adj. Flow (vph)	0	1733	523	245	918	19	377	53	333	33	116	12
RTOR Reduction (vph)	0	46	0	0	0	7	0	0	137	0	2	0
Lane Group Flow (vph)	0	2211	0	245	918	12	211	219	196	0	159	0
Heavy Vehicles (%)	2%	6%	4%	2%	8%	7%	3%	3%	1%	4%	3%	44%
Turn Type				pm+pt		Perm	Perm		Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2	4		4	8		
Actuated Green, G (s)		55.0		74.0	74.0	74.0	33.0	33.0	33.0		33.0	
Effective Green, g (s)		55.0		74.0	74.0	74.0	33.0	33.0	33.0		33.0	
Actuated g/C Ratio		0.46		0.62	0.62	0.62	0.28	0.28	0.28		0.28	
Clearance Time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)		2174		254	2962	931	289	304	440		436	
v/s Ratio Prot		c0.47		c0.10	0.19							
v/s Ratio Perm				0.49		0.01	c0.20	0.20	0.12		0.10	
v/c Ratio		1.02		0.96	0.31	0.01	0.73	0.72	0.45		0.36	
Uniform Delay, d1		32.5		39.1	10.9	8.9	39.5	39.3	35.9		35.0	
Progression Factor		1.00		1.00	1.00	1.00	0.24	0.24	0.04		1.00	
Incremental Delay, d2		23.6		46.3	0.3	0.0	12.6	11.5	2.7		2.3	
Delay (s)		56.1		85.4	11.2	8.9	22.2	21.1	4.0		37.4	
Level of Service		E		F	B	A	C	C	A		D	
Approach Delay (s)		56.1			26.5			13.9			37.4	
Approach LOS		E			C			B			D	

Intersection Summary			
HCM Average Control Delay	40.0	HCM Level of Service	D
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	19.0
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	12	578	0	17	20	292	636	0	10	741	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.93		1.00	1.00		1.00	0.99	
Flt Protected		0.97	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1852	1599		1761		1752	3539		1805	3441	
Flt Permitted		0.82	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		1561	1599		1761		1752	3539		1805	3441	
Peak-hour factor, PHF	0.75	0.75	0.93	0.75	0.75	0.75	0.90	0.94	0.75	0.75	0.93	0.89
Adj. Flow (vph)	17	16	622	0	23	27	324	677	0	13	797	56
RTOR Reduction (vph)	0	0	26	0	25	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	33	596	0	25	0	324	677	0	13	850	0
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		4	3		4		3	3		2	2	
Permitted Phases	4		4	4								
Actuated Green, G (s)		11.1	47.1		11.1		36.0	36.0		57.4	57.4	
Effective Green, g (s)		11.1	47.1		11.1		36.0	36.0		57.4	57.4	
Actuated g/C Ratio		0.09	0.39		0.09		0.30	0.30		0.48	0.48	
Clearance Time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0	5.0		4.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		144	694		163		526	1062		863	1646	
v/s Ratio Prot			c0.26		0.01		0.18	0.19		0.01	c0.25	
v/s Ratio Perm		0.02	0.12									
v/c Ratio		0.23	0.86		0.16		0.62	0.64		0.02	0.52	
Uniform Delay, d1		50.5	33.4		50.1		36.1	36.4		16.4	21.7	
Progression Factor		1.00	1.00		1.00		0.50	0.50		0.75	0.71	
Incremental Delay, d2		1.1	10.7		0.6		3.3	1.8		0.0	0.4	
Delay (s)		51.6	44.1		50.8		21.2	19.9		12.3	15.8	
Level of Service		D	D		D		C	B		B	B	
Approach Delay (s)		44.5			50.8			20.3			15.7	
Approach LOS		D			D			C			B	

Intersection Summary			
HCM Average Control Delay	25.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.0
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	624	158	6	16	106	302	0	0	0	563	360	387
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (prot)	1681	1725			1839	1568				1681	1743	1568
Flt Permitted	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (perm)	1681	1725			1839	1568				1681	1743	1568
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	743	205	8	21	126	332	0	0	0	704	379	503
RTOR Reduction (vph)	0	1	0	0	0	15	0	0	0	0	0	0
Lane Group Flow (vph)	476	479	0	0	147	317	0	0	0	535	548	503
Heavy Vehicles (%)	2%	1%	0%	0%	3%	3%	0%	0%	0%	2%	2%	3%
Turn Type	Split			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases		3				4						Free
Actuated Green, G (s)	35.0	35.0			14.9	67.0				52.1	52.1	120.0
Effective Green, g (s)	35.0	35.0			14.9	67.0				52.1	52.1	120.0
Actuated g/C Ratio	0.29	0.29			0.12	0.56				0.43	0.43	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	490	503			228	954				730	757	1568
v/s Ratio Prot	c0.28	0.28			c0.08	0.14				c0.32	0.31	
v/s Ratio Perm						0.06						0.32
v/c Ratio	0.97	0.95			0.64	0.33				0.73	0.72	0.32
Uniform Delay, d1	42.0	41.7			50.0	14.4				28.2	28.0	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.96	0.96	1.00
Incremental Delay, d2	33.2	28.4			6.1	0.2				5.2	4.8	0.4
Delay (s)	75.2	70.1			56.2	14.6				32.2	31.7	0.4
Level of Service	E	E			E	B				C	C	A
Approach Delay (s)		72.7			27.3			0.0			22.0	
Approach LOS		E			C			A			C	

Intersection Summary			
HCM Average Control Delay	38.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	6	6	10	15	175	22	572	8	28	297	15
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.75	0.75	0.75	0.75	0.76	0.75	0.76	0.75	0.82	0.87	0.75
Hourly flow rate (vph)	16	8	8	13	20	230	29	753	11	34	341	20
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1477	1242	351	1238	1246	758	361			763		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1477	1242	351	1238	1246	758	361			763		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	60	95	99	90	88	44	98			96		
cM capacity (veh/h)	40	165	697	139	164	409	1181			840		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	32	264	793	34	361
Volume Left	16	13	29	34	0
Volume Right	8	230	11	0	20
cSH	69	337	1181	840	1700
Volume to Capacity	0.46	0.78	0.02	0.04	0.21
Queue Length 95th (ft)	46	159	2	3	0
Control Delay (s)	96.2	45.0	0.7	9.5	0.0
Lane LOS	F	E	A	A	
Approach Delay (s)	96.2	45.0	0.7	0.8	
Approach LOS	F	E			

Intersection Summary			
Average Delay	10.6		
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	9	5	1	4	4	44	1	467	6	39	279	3
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.84	0.75	0.75	1.00	0.75
Hourly flow rate (vph)	12	7	1	5	5	59	1	556	8	52	279	4
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1009	952	281	952	950	560	283			564		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1009	952	281	952	950	560	283			564		
tC, single (s)	7.1	6.5	6.2	7.1	6.8	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.2	3.3	2.2			2.2		
p0 queue free %	94	97	100	98	98	89	100			95		
cM capacity (veh/h)	185	248	763	226	226	528	1291			1018		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	20	69	565	335
Volume Left	12	5	1	52
Volume Right	1	59	8	4
cSH	214	438	1291	1018
Volume to Capacity	0.09	0.16	0.00	0.05
Queue Length 95th (ft)	8	14	0	4
Control Delay (s)	23.6	14.8	0.0	1.8
Lane LOS	C	B	A	A
Approach Delay (s)	23.6	14.8	0.0	1.8
Approach LOS	C	B		

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	55.7%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	34	46	272	80	43	126
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.81	0.75	0.79	0.75
Hourly flow rate (vph)	45	61	336	107	54	168
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	666	389			442	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	666	389			442	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	89	91			95	
cM capacity (veh/h)	401	659			1128	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	107	442	222
Volume Left	45	0	54
Volume Right	61	107	0
cSH	518	1700	1128
Volume to Capacity	0.21	0.26	0.05
Queue Length 95th (ft)	19	0	4
Control Delay (s)	13.8	0.0	2.4
Lane LOS	B		A
Approach Delay (s)	13.8	0.0	2.4
Approach LOS	B		

Intersection Summary			
Average Delay	2.6		
Intersection Capacity Utilization	42.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	1	1	13	11	12	6	355	47	9	103	28
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.79	0.81	0.75	0.75	0.75
Hourly flow rate (vph)	3	1	1	17	15	16	8	449	58	12	137	37
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	698	703	156	676	693	478	175			507		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	698	703	156	676	693	478	175			507		
tC, single (s)	7.1	6.5	6.2	7.1	6.6	6.4	4.3			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.1	3.5	2.4			2.2		
p0 queue free %	99	100	100	95	96	97	99			99		
cM capacity (veh/h)	332	358	895	363	352	556	1316			1068		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	5	48	515	187
Volume Left	3	17	8	12
Volume Right	1	16	58	37
cSH	403	406	1316	1068
Volume to Capacity	0.01	0.12	0.01	0.01
Queue Length 95th (ft)	1	10	0	1
Control Delay (s)	14.1	15.0	0.2	0.6
Lane LOS	B	C	A	A
Approach Delay (s)	14.1	15.0	0.2	0.6
Approach LOS	B	C		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	33.2%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	1	349	66	26	94	3	29	2	40	5	1	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.82	0.75	0.93	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	1	426	88	28	125	4	39	3	53	7	1	0
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	129			514			656	658	470	710	700	127
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	129			514			656	658	470	710	700	127
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			97			90	99	91	98	100	100
cM capacity (veh/h)	1469			1062			372	376	592	311	356	928

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	515	157	95	8
Volume Left	1	28	39	7
Volume Right	88	4	53	0
cSH	1469	1062	471	318
Volume to Capacity	0.00	0.03	0.20	0.03
Queue Length 95th (ft)	0	2	19	2
Control Delay (s)	0.0	1.7	14.6	16.6
Lane LOS	A	A	B	C
Approach Delay (s)	0.0	1.7	14.6	16.6
Approach LOS			B	C

Intersection Summary			
Average Delay	2.3		
Intersection Capacity Utilization	37.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	4	33	1	13	7	17	4	14	23	18	16	0
Peak Hour Factor	0.75	0.75	0.75	0.75	0.88	0.75	0.75	0.75	0.82	0.75	0.75	0.75
Hourly flow rate (vph)	5	44	1	17	8	23	5	19	28	24	21	0

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	51	48	52	45
Volume Left (vph)	5	17	5	24
Volume Right (vph)	1	23	28	0
Hadj (s)	0.14	0.13	-0.17	0.17
Departure Headway (s)	4.3	4.3	4.0	4.3
Degree Utilization, x	0.06	0.06	0.06	0.05
Capacity (veh/h)	812	815	866	805
Control Delay (s)	7.6	7.6	7.2	7.6
Approach Delay (s)	7.6	7.6	7.2	7.6
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.5		
HCM Level of Service	A		
Intersection Capacity Utilization	18.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	2	51	352	2	30	130
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.81	0.75	0.75	0.75
Hourly flow rate (vph)	3	68	435	3	40	173
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	689	436			437	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	689	436			437	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	89			96	
cM capacity (veh/h)	397	620			1123	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	71	437	213
Volume Left	3	0	40
Volume Right	68	3	0
cSH	607	1700	1123
Volume to Capacity	0.12	0.26	0.04
Queue Length 95th (ft)	10	0	3
Control Delay (s)	11.7	0.0	1.8
Lane LOS	B		A
Approach Delay (s)	11.7	0.0	1.8
Approach LOS	B		

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	40.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	980	433	281	1550	15	595	41	222	28	78	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00	0.95	0.95	1.00		1.00	
Frt		0.96		1.00	1.00	0.85	1.00	1.00	0.85		0.98	
Flt Protected		1.00		0.95	1.00	1.00	0.95	0.96	1.00		0.99	
Satd. Flow (prot)		4824		1805	5085	1509	1698	1715	1583		1781	
Flt Permitted		1.00		0.08	1.00	1.00	0.62	0.62	1.00		0.73	
Satd. Flow (perm)		4824		149	5085	1509	1113	1108	1583		1318	
Peak-hour factor, PHF	0.75	0.91	0.94	0.83	0.87	0.79	0.88	0.85	0.82	0.75	0.75	0.75
Adj. Flow (vph)	0	1077	461	339	1782	19	676	48	271	37	104	21
RTOR Reduction (vph)	0	57	0	0	0	3	0	0	59	0	4	0
Lane Group Flow (vph)	0	1481	0	339	1782	16	358	366	212	0	158	0
Heavy Vehicles (%)	2%	3%	2%	0%	2%	7%	1%	0%	2%	4%	3%	6%
Turn Type				pm+pt		Perm	Perm		Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2	4		4	8		
Actuated Green, G (s)		45.1		74.0	74.0	74.0	48.0	48.0	48.0		48.0	
Effective Green, g (s)		45.1		74.0	74.0	74.0	48.0	48.0	48.0		48.0	
Actuated g/C Ratio		0.33		0.55	0.55	0.55	0.36	0.36	0.36		0.36	
Clearance Time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)		1612		363	2787	827	396	394	563		469	
v/s Ratio Prot		0.31		c0.16	0.35							
v/s Ratio Perm				c0.35		0.01	0.32	c0.33	0.13		0.12	
v/c Ratio		0.92		0.93	0.64	0.02	0.90	0.93	0.38		0.34	
Uniform Delay, d1		43.2		42.4	21.2	13.9	41.3	41.9	32.4		31.9	
Progression Factor		1.00		1.00	1.00	1.00	0.50	0.50	0.41		1.00	
Incremental Delay, d2		10.0		30.6	1.1	0.0	19.0	22.9	0.4		1.9	
Delay (s)		53.1		73.0	22.4	14.0	39.5	43.7	13.7		33.8	
Level of Service		D		E	C	B	D	D	B		C	
Approach Delay (s)		53.1			30.3			34.0			33.8	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM Average Control Delay	38.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	41	4	381	5	52	71	468	795	0	5	742	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.92		1.00	1.00		1.00	0.99	
Flt Protected		0.96	1.00		1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1816	1599		1754		1752	3539		1805	3451	
Flt Permitted		0.37	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (perm)		703	1599		1738		1752	3539		1805	3451	
Peak-hour factor, PHF	0.79	1.00	0.93	0.75	0.75	0.75	0.84	0.86	0.75	0.75	0.88	0.88
Adj. Flow (vph)	52	4	410	7	69	95	557	924	0	7	843	40
RTOR Reduction (vph)	0	0	12	0	36	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	56	398	0	135	0	557	924	0	7	880	0
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type	Perm		pm+ov	Perm			Split			Split		
Protected Phases		4	3		4		3	3		2	2	
Permitted Phases	4		4	4								
Actuated Green, G (s)		19.6	69.6		19.6		50.0	50.0		49.9	49.9	
Effective Green, g (s)		19.6	69.6		19.6		50.0	50.0		49.9	49.9	
Actuated g/C Ratio		0.15	0.52		0.15		0.37	0.37		0.37	0.37	
Clearance Time (s)		5.5	5.0		5.5		5.0	5.0		5.0	5.0	
Vehicle Extension (s)		4.0	5.0		4.0		5.0	5.0		5.0	5.0	
Lane Grp Cap (vph)		102	884		252		649	1311		667	1276	
v/s Ratio Prot			0.17				c0.32	0.26		0.00	c0.26	
v/s Ratio Perm		c0.08	0.08		0.08							
v/c Ratio		0.55	0.45		0.54		0.86	0.70		0.01	0.69	
Uniform Delay, d1		53.6	20.6		53.5		39.2	36.2		26.9	36.0	
Progression Factor		1.00	1.00		1.00		0.78	0.79		0.50	0.51	
Incremental Delay, d2		7.4	0.8		2.8		9.1	1.6		0.0	1.6	
Delay (s)		61.0	21.4		56.3		39.7	30.2		13.5	20.0	
Level of Service		E	C		E		D	C		B	B	
Approach Delay (s)		26.2			56.3			33.8			19.9	
Approach LOS		C			E			C			B	

Intersection Summary			
HCM Average Control Delay	29.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	601	108	2	61	168	613	0	0	0	398	358	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.99	1.00				0.95	0.99	1.00
Satd. Flow (prot)	1698	1728			1862	1615				1698	1773	1599
Flt Permitted	0.95	0.97			0.99	1.00				0.95	0.99	1.00
Satd. Flow (perm)	1698	1728			1862	1615				1698	1773	1599
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	715	140	3	81	200	674	0	0	0	498	377	482
RTOR Reduction (vph)	0	0	0	0	0	25	0	0	0	0	0	0
Lane Group Flow (vph)	429	429	0	0	281	649	0	0	0	428	447	482
Heavy Vehicles (%)	1%	1%	0%	2%	0%	0%	2%	2%	2%	1%	1%	1%
Turn Type	custom			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases	3	3				4						Free
Actuated Green, G (s)	39.3	39.3			24.3	77.7				53.4	53.4	135.0
Effective Green, g (s)	39.3	39.3			24.3	77.7				53.4	53.4	135.0
Actuated g/C Ratio	0.29	0.29			0.18	0.58				0.40	0.40	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	494	503			335	1001				672	701	1599
v/s Ratio Prot	c0.25	0.25			c0.15	c0.26				0.25	0.25	
v/s Ratio Perm						0.15						0.30
v/c Ratio	0.87	0.85			0.84	0.65				0.64	0.64	0.30
Uniform Delay, d1	45.4	45.1			53.5	19.4				33.0	33.0	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.66	0.66	1.00
Incremental Delay, d2	14.9	13.2			16.6	1.5				3.8	3.7	0.4
Delay (s)	60.3	58.3			70.0	20.9				25.6	25.5	0.4
Level of Service	E	E			E	C				C	C	A
Approach Delay (s)		59.3			35.3			0.0			16.6	
Approach LOS		E			D			A			B	

Intersection Summary			
HCM Average Control Delay	33.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	135.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	13	7	13	4	6	237	3	353	6	38	485	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.81	0.75	0.75	0.75	0.75	0.99	0.75	0.78	0.75	0.75	0.83	0.75
Hourly flow rate (vph)	16	9	17	5	8	239	4	453	8	51	584	13
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1400	1161	591	1172	1164	457	598			461		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1400	1161	591	1172	1164	457	598			461		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	76	95	97	97	96	61	100			95		
cM capacity (veh/h)	67	187	511	153	187	608	989			1111		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	43	253	465	51	598
Volume Left	16	5	4	51	0
Volume Right	17	239	8	0	13
cSH	132	536	989	1111	1700
Volume to Capacity	0.32	0.47	0.00	0.05	0.35
Queue Length 95th (ft)	32	62	0	4	0
Control Delay (s)	44.7	17.6	0.1	8.4	0.0
Lane LOS	E	C	A	A	
Approach Delay (s)	44.7	17.6	0.1	0.7	
Approach LOS	E	C			

Intersection Summary			
Average Delay	4.8		
Intersection Capacity Utilization	50.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (veh/h)	0	0	0	10	1	39	0	299	1	32	392	4
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.85	0.75	0.83	0.75	0.75	0.86	0.75
Hourly flow rate (vph)	0	0	0	13	1	46	0	360	1	43	456	5
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	951	905	458	905	907	361	461			362		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	951	905	458	905	907	361	461			362		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	100	100	100	95	100	93	100			96		
cM capacity (veh/h)	218	269	607	253	268	681	1111			1208		

Direction, Lane #	SE 1	NW 1	NE 1	SW 1
Volume Total	0	61	362	504
Volume Left	0	13	0	43
Volume Right	0	46	1	5
cSH	1700	484	1111	1208
Volume to Capacity	0.00	0.13	0.00	0.04
Queue Length 95th (ft)	0	11	0	3
Control Delay (s)	0.0	13.5	0.0	1.0
Lane LOS	A	B		A
Approach Delay (s)	0.0	13.5	0.0	1.0
Approach LOS	A	B		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	93	65	147	68	30	339
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.94	0.83	0.91	0.75	0.75	0.93
Hourly flow rate (vph)	99	78	162	91	40	365
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	651	207			252	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	651	207			252	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	76	91			97	
cM capacity (veh/h)	417	834			1325	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	177	252	405
Volume Left	99	0	40
Volume Right	78	91	0
cSH	535	1700	1325
Volume to Capacity	0.33	0.15	0.03
Queue Length 95th (ft)	36	0	2
Control Delay (s)	15.0	0.0	1.0
Lane LOS	C		A
Approach Delay (s)	15.0	0.0	1.0
Approach LOS	C		

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	7	0	0	40	7	12	2	220	33	8	322	10
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.79	0.75	0.75	0.81	0.83
Hourly flow rate (vph)	9	0	0	53	9	16	3	278	44	11	398	12
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	751	753	404	731	737	300	410			322		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	751	753	404	731	737	300	410			322		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.2		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.3		
p0 queue free %	97	100	100	84	97	98	100			99		
cM capacity (veh/h)	313	337	651	337	345	744	1160			1173		

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	9	79	325	420
Volume Left	9	53	3	11
Volume Right	0	16	44	12
cSH	313	380	1160	1173
Volume to Capacity	0.03	0.21	0.00	0.01
Queue Length 95th (ft)	2	19	0	1
Control Delay (s)	16.9	16.9	0.1	0.3
Lane LOS	C	C	A	A
Approach Delay (s)	16.9	16.9	0.1	0.3
Approach LOS	C	C		

Intersection Summary			
Average Delay	2.0		
Intersection Capacity Utilization	32.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	203	52	38	304	7	82	2	38	6	1	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.75	0.93	0.75	0.79	0.79	0.75	0.75	0.75	0.79	0.75	0.75	0.75
Hourly flow rate (vph)	0	218	69	48	385	9	109	3	48	8	1	1
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	394			288			741	743	253	788	773	389
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	394			288			741	743	253	788	773	389
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.7
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.8
p0 queue free %	100			96			66	99	94	97	100	100
cM capacity (veh/h)	1175			1286			324	333	778	282	320	566

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	288	442	160	11
Volume Left	0	48	109	8
Volume Right	69	9	48	1
cSH	1175	1286	393	306
Volume to Capacity	0.00	0.04	0.41	0.03
Queue Length 95th (ft)	0	3	48	3
Control Delay (s)	0.0	1.2	20.3	17.2
Lane LOS		A	C	C
Approach Delay (s)	0.0	1.2	20.3	17.2
Approach LOS			C	C

Intersection Summary			
Average Delay	4.4		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	3	18	4	38	26	28	2	22	22	29	21	6
Peak Hour Factor	0.75	0.75	0.75	0.84	0.75	0.79	0.75	0.75	0.75	0.75	0.75	0.75
Hourly flow rate (vph)	4	24	5	45	35	35	3	29	29	39	28	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	33	115	61	75
Volume Left (vph)	4	45	3	39
Volume Right (vph)	5	35	29	8
Hadj (s)	-0.07	-0.09	-0.28	0.04
Departure Headway (s)	4.2	4.1	4.0	4.3
Degree Utilization, x	0.04	0.13	0.07	0.09
Capacity (veh/h)	811	839	850	799
Control Delay (s)	7.4	7.8	7.3	7.7
Approach Delay (s)	7.4	7.8	7.3	7.7
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.6		
HCM Level of Service	A		
Intersection Capacity Utilization	28.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	3	41	215	3	46	386
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.75	0.75	0.75	0.75	0.88	0.93
Hourly flow rate (vph)	4	55	287	4	52	415
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	808	289			291	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	808	289			291	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	93			96	
cM capacity (veh/h)	339	750			1283	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	59	291	467
Volume Left	4	0	52
Volume Right	55	4	0
cSH	693	1700	1283
Volume to Capacity	0.08	0.17	0.04
Queue Length 95th (ft)	7	0	3
Control Delay (s)	10.7	0.0	1.3
Lane LOS	B		A
Approach Delay (s)	10.7	0.0	1.3
Approach LOS	B		

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	1906	231	741	19	186	193	277	161
v/c Ratio	0.88	0.84	0.25	0.02	0.64	0.62	0.49	0.37
Control Delay	34.8	55.4	10.7	3.7	22.5	21.1	4.0	37.3
Queue Delay	0.9	4.0	0.0	0.0	0.1	0.1	0.7	0.0
Total Delay	35.7	59.4	10.7	3.7	22.6	21.2	4.7	37.3
Queue Length 50th (ft)	476	122	89	0	22	22	0	99
Queue Length 95th (ft)	550	#232	110	7	49	43	0	163
Internal Link Dist (ft)	965		773			196		555
Turn Bay Length (ft)		180		75			50	
Base Capacity (vph)	2166	297	2962	938	290	309	569	441
Starvation Cap Reductn	0	0	0	0	2	4	98	0
Spillback Cap Reductn	89	26	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.85	0.25	0.02	0.65	0.63	0.59	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	616	50	309	578	13	824
v/c Ratio	0.20	0.85	0.24	0.57	0.53	0.02	0.50
Control Delay	48.4	39.1	27.6	21.6	19.5	15.1	15.8
Queue Delay	0.0	0.6	0.0	0.0	0.0	0.0	2.1
Total Delay	48.4	39.7	27.6	21.6	19.5	15.1	17.9
Queue Length 50th (ft)	25	403	17	87	85	2	139
Queue Length 95th (ft)	39	396	36	m107	m101	m8	m318
Internal Link Dist (ft)	183		68		417		196
Turn Bay Length (ft)				160		105	
Base Capacity (vph)	378	723	447	540	1091	865	1654
Starvation Cap Reductn	0	0	0	0	0	0	651
Spillback Cap Reductn	0	13	0	0	20	0	9
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.87	0.11	0.57	0.54	0.02	0.82

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	381	386	129	332	535	548	461
v/c Ratio	0.91	0.90	0.61	0.32	0.65	0.65	0.29
Control Delay	70.4	68.2	62.4	9.1	26.6	26.2	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.8	0.8	0.0
Total Delay	70.4	68.2	62.4	9.1	27.4	27.0	0.4
Queue Length 50th (ft)	298	301	97	92	273	281	0
Queue Length 95th (ft)	#425	351	143	142	354	m405	0
Internal Link Dist (ft)		1360	814			417	
Turn Bay Length (ft)	300						200
Base Capacity (vph)	434	445	398	1036	818	848	1568
Starvation Cap Reductn	0	0	0	0	88	100	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.88	0.87	0.32	0.32	0.73	0.73	0.29

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	1274	280	1437	19	341	350	237	162
v/c Ratio	0.70	0.84	0.51	0.02	0.87	0.90	0.39	0.34
Control Delay	38.3	51.5	20.5	11.5	39.3	42.7	7.6	31.6
Queue Delay	0.2	2.6	0.0	0.0	0.0	0.0	0.8	0.0
Total Delay	38.4	54.1	20.5	11.5	39.3	42.7	8.4	31.6
Queue Length 50th (ft)	348	170	294	4	67	69	14	95
Queue Length 95th (ft)	425	244	334	15	#373	362	41	121
Internal Link Dist (ft)	965		773			196		555
Turn Bay Length (ft)		180		75			50	
Base Capacity (vph)	1814	380	2808	837	437	436	676	536
Starvation Cap Reductn	0	0	0	0	0	0	214	0
Spillback Cap Reductn	86	37	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.74	0.82	0.51	0.02	0.78	0.80	0.51	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	56	392	171	543	850	7	760
v/c Ratio	0.55	0.42	0.59	0.79	0.61	0.01	0.63
Control Delay	70.7	15.0	47.4	35.3	27.1	17.2	23.3
Queue Delay	0.0	0.0	0.0	4.1	0.8	0.0	9.9
Total Delay	70.7	15.0	47.4	39.3	27.9	17.2	33.1
Queue Length 50th (ft)	48	177	110	261	213	3	163
Queue Length 95th (ft)	89	197	133	387	256	m5	327
Internal Link Dist (ft)	183		68		417		196
Turn Bay Length (ft)				160		105	
Base Capacity (vph)	152	927	408	688	1389	628	1202
Starvation Cap Reductn	0	0	0	84	257	0	412
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.42	0.42	0.90	0.75	0.01	0.96

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	369	373	219	674	428	447	331
v/c Ratio	0.83	0.83	0.77	0.63	0.56	0.56	0.21
Control Delay	62.8	62.2	72.4	16.6	23.0	22.9	0.3
Queue Delay	0.5	0.5	0.0	0.0	0.4	0.4	0.0
Total Delay	63.3	62.7	72.4	16.6	23.4	23.3	0.3
Queue Length 50th (ft)	320	323	186	298	157	165	0
Queue Length 95th (ft)	386	345	246	484	225	265	0
Internal Link Dist (ft)		1360	814			417	
Turn Bay Length (ft)	300						200
Base Capacity (vph)	528	536	357	1073	766	800	1599
Starvation Cap Reductn	0	0	0	0	78	87	0
Spillback Cap Reductn	23	24	0	1	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.73	0.61	0.63	0.62	0.63	0.21

Intersection Summary

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	2006	231	792	19	189	196	283	161
v/c Ratio	0.92	0.87	0.27	0.02	0.65	0.63	0.50	0.37
Control Delay	37.6	59.3	10.8	3.7	21.9	20.4	3.8	37.3
Queue Delay	2.0	6.9	0.0	0.0	0.1	0.1	0.8	0.0
Total Delay	39.7	66.1	10.8	3.7	22.0	20.6	4.5	37.3
Queue Length 50th (ft)	513	124	96	0	21	21	0	99
Queue Length 95th (ft)	#609	#244	119	7	46	40	0	163
Internal Link Dist (ft)	965		773			196		555
Turn Bay Length (ft)		180		75			50	
Base Capacity (vph)	2185	283	2962	938	290	309	570	441
Starvation Cap Reductn	0	0	0	0	2	4	98	0
Spillback Cap Reductn	89	27	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.96	0.90	0.27	0.02	0.66	0.64	0.60	0.37

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	616	50	311	589	13	826
v/c Ratio	0.19	0.84	0.23	0.58	0.54	0.02	0.50
Control Delay	47.5	37.9	27.1	21.5	19.4	16.1	16.7
Queue Delay	0.0	0.5	0.0	0.0	0.0	0.0	2.5
Total Delay	47.5	38.4	27.1	21.5	19.5	16.1	19.2
Queue Length 50th (ft)	24	397	17	86	85	3	149
Queue Length 95th (ft)	39	396	36	m104	m100	m7	m308
Internal Link Dist (ft)	183		68		417		196
Turn Bay Length (ft)				160		105	
Base Capacity (vph)	380	731	447	540	1091	857	1637
Starvation Cap Reductn	0	0	0	0	0	0	657
Spillback Cap Reductn	0	13	0	0	22	0	10
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.86	0.11	0.58	0.55	0.02	0.84

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	391	399	132	332	535	548	464
v/c Ratio	0.93	0.92	0.62	0.32	0.66	0.65	0.30
Control Delay	73.1	71.8	62.5	9.2	26.9	26.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.8	0.8	0.0
Total Delay	73.1	71.8	62.5	9.2	27.7	27.3	0.4
Queue Length 50th (ft)	309	314	99	93	271	277	0
Queue Length 95th (ft)	#442	#366	146	143	355	m408	0
Internal Link Dist (ft)		1360	814			417	
Turn Bay Length (ft)	300						200
Base Capacity (vph)	434	445	398	1032	812	842	1568
Starvation Cap Reductn	0	0	0	0	85	97	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.90	0.33	0.32	0.74	0.74	0.30

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	1345	286	1538	19	343	353	239	162
v/c Ratio	0.74	0.88	0.55	0.02	0.88	0.91	0.39	0.34
Control Delay	39.6	61.3	21.0	11.7	40.0	44.0	8.0	32.1
Queue Delay	0.3	4.4	0.0	0.0	0.0	0.0	0.9	0.0
Total Delay	39.8	65.7	21.0	11.7	40.0	44.0	8.9	32.1
Queue Length 50th (ft)	384	188	326	5	66	68	14	96
Queue Length 95th (ft)	448	#278	359	16	#428	#401	43	124
Internal Link Dist (ft)	965		773			196		555
Turn Bay Length (ft)		180		75			50	
Base Capacity (vph)	1806	358	2809	837	428	427	664	521
Starvation Cap Reductn	0	0	0	0	0	0	215	0
Spillback Cap Reductn	91	32	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.78	0.88	0.55	0.02	0.80	0.83	0.53	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	56	395	171	548	865	7	782
v/c Ratio	0.55	0.43	0.59	0.81	0.63	0.01	0.64
Control Delay	70.7	15.7	47.4	37.3	28.0	16.6	22.6
Queue Delay	0.0	0.0	0.0	5.2	0.9	0.0	15.4
Total Delay	70.7	15.7	47.4	42.5	28.9	16.6	38.0
Queue Length 50th (ft)	48	182	110	264	217	2	171
Queue Length 95th (ft)	89	204	133	418	263	m4	341
Internal Link Dist (ft)	183		68		417		196
Turn Bay Length (ft)				160		105	
Base Capacity (vph)	152	927	408	675	1363	641	1226
Starvation Cap Reductn	0	0	0	80	244	0	439
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.43	0.42	0.92	0.77	0.01	0.99

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	374	379	226	674	428	447	348
v/c Ratio	0.83	0.83	0.78	0.63	0.56	0.56	0.22
Control Delay	62.9	62.6	73.0	16.8	23.4	23.2	0.3
Queue Delay	0.7	0.7	0.0	0.0	0.4	0.4	0.0
Total Delay	63.7	63.3	73.0	16.8	23.8	23.6	0.3
Queue Length 50th (ft)	324	328	192	303	157	165	0
Queue Length 95th (ft)	391	352	253	485	228	269	0
Internal Link Dist (ft)		1360	814			417	
Turn Bay Length (ft)	300						200
Base Capacity (vph)	528	536	357	1069	758	792	1599
Starvation Cap Reductn	0	0	0	0	78	88	0
Spillback Cap Reductn	30	30	0	1	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.75	0.75	0.63	0.63	0.63	0.63	0.22

Intersection Summary

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	2256	245	918	19	211	219	333	161
v/c Ratio	1.02	0.96	0.31	0.02	0.73	0.72	0.58	0.37
Control Delay	54.8	79.5	11.2	4.0	23.4	22.2	4.0	37.4
Queue Delay	15.6	35.2	0.0	0.0	0.2	0.3	1.3	0.0
Total Delay	70.4	114.7	11.2	4.0	23.6	22.5	5.4	37.4
Queue Length 50th (ft)	~641	138	115	0	21	22	0	99
Queue Length 95th (ft)	#759	#292	140	7	#267	32	0	163
Internal Link Dist (ft)	965		773			196		555
Turn Bay Length (ft)		180		75			50	
Base Capacity (vph)	2219	255	2962	937	290	304	577	438
Starvation Cap Reductn	0	0	0	0	3	4	101	0
Spillback Cap Reductn	89	29	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.06	1.08	0.31	0.02	0.74	0.73	0.70	0.37

Intersection Summary

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

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	33	622	50	324	677	13	853
v/c Ratio	0.20	0.88	0.24	0.62	0.64	0.01	0.51
Control Delay	48.4	42.4	27.6	21.6	20.1	16.0	16.9
Queue Delay	0.0	4.3	0.0	0.4	0.0	0.0	3.6
Total Delay	48.4	46.8	27.6	22.0	20.1	16.0	20.5
Queue Length 50th (ft)	25	417	17	88	101	3	169
Queue Length 95th (ft)	39	412	36	m114	m119	m6	m276
Internal Link Dist (ft)	183		68		417		196
Turn Bay Length (ft)				160		105	
Base Capacity (vph)	378	710	447	526	1062	880	1682
Starvation Cap Reductn	0	0	0	31	0	0	717
Spillback Cap Reductn	0	47	0	0	0	0	16
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.94	0.11	0.65	0.64	0.01	0.88

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	476	480	147	332	535	548	503
v/c Ratio	0.97	0.95	0.64	0.34	0.73	0.72	0.32
Control Delay	76.8	72.1	62.6	11.4	34.0	33.4	0.4
Queue Delay	0.0	0.0	0.0	0.0	1.3	1.4	0.0
Total Delay	76.8	72.1	62.6	11.4	35.3	34.8	0.4
Queue Length 50th (ft)	383	383	110	105	303	305	0
Queue Length 95th (ft)	#543	#455	158	162	397	m443	0
Internal Link Dist (ft)		1360	814			417	
Turn Bay Length (ft)	300						200
Base Capacity (vph)	490	504	398	968	730	757	1568
Starvation Cap Reductn	0	0	0	0	68	78	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.95	0.37	0.34	0.81	0.81	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBT	WBL	WBT	WBR	NBL	NBT	NBR	SBT
Lane Group Flow (vph)	1538	339	1782	19	358	366	271	162
v/c Ratio	0.92	0.93	0.64	0.02	0.90	0.93	0.44	0.34
Control Delay	51.2	71.4	22.5	10.3	43.9	48.1	10.5	33.2
Queue Delay	6.3	87.2	0.0	0.0	0.0	0.0	1.3	0.0
Total Delay	57.6	158.6	22.5	10.3	43.9	48.1	11.9	33.2
Queue Length 50th (ft)	459	240	384	5	96	98	38	100
Queue Length 95th (ft)	#560	#354	410	15	#487	#475	51	131
Internal Link Dist (ft)	965		773			196		555
Turn Bay Length (ft)		180		75			50	
Base Capacity (vph)	1666	377	2787	830	396	394	622	473
Starvation Cap Reductn	0	0	0	0	0	0	186	0
Spillback Cap Reductn	108	93	0	0	0	0	0	1
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	1.19	0.64	0.02	0.90	0.93	0.62	0.34

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Lane Group	EBT	EBR	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	56	410	171	557	924	7	883
v/c Ratio	0.55	0.46	0.59	0.86	0.70	0.01	0.69
Control Delay	70.7	17.6	47.4	42.1	31.3	16.2	21.1
Queue Delay	0.0	0.0	0.0	11.6	1.7	0.0	50.9
Total Delay	70.7	17.6	47.4	53.6	33.0	16.2	72.1
Queue Length 50th (ft)	48	204	110	275	238	2	198
Queue Length 95th (ft)	89	228	133	481	317	m4	m382
Internal Link Dist (ft)	183		68		417		196
Turn Bay Length (ft)				160		105	
Base Capacity (vph)	152	900	408	649	1311	668	1278
Starvation Cap Reductn	0	0	0	80	220	0	476
Spillback Cap Reductn	0	0	0	0	30	0	19
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.37	0.46	0.42	0.98	0.85	0.01	1.10

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

Lane Group	EBL	EBT	WBT	WBR	SBL	SBT	SBR
Lane Group Flow (vph)	429	429	281	674	428	447	482
v/c Ratio	0.87	0.85	0.84	0.66	0.64	0.64	0.30
Control Delay	63.5	61.5	74.5	19.7	27.7	27.5	0.4
Queue Delay	1.2	1.1	0.0	0.0	0.7	0.7	0.0
Total Delay	64.7	62.6	74.5	19.7	28.4	28.2	0.4
Queue Length 50th (ft)	366	364	238	346	256	266	0
Queue Length 95th (ft)	450	396	308	514	228	325	0
Internal Link Dist (ft)		1360	814			417	
Turn Bay Length (ft)	300						200
Base Capacity (vph)	553	563	386	1024	671	701	1599
Starvation Cap Reductn	0	0	0	0	63	72	0
Spillback Cap Reductn	31	32	0	12	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.82	0.81	0.73	0.67	0.70	0.71	0.30

Intersection Summary

SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - AM

Riverside Drive E. Carroll St. - 2030 traffic

Performance Measure	Vehicles	Persons
Demand Flows - Total	2742 veh/h	3290 pers/h
Percent Heavy Vehicles	2.0 %	
Degree of Saturation	0.700	
Effective Intersection Capacity	3917 veh/h	
95% Back of Queue (ft)	164 ft	
95% Back of Queue (veh)	6.5 veh	
Control Delay (Total)	9.20 veh-h/h	11.04 pers-h/h
Control Delay (Average)	12.1 s/veh	12.1 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS C	
Total Effective Stops	2025 veh/h	2429 pers/h
Effective Stop Rate	0.74 per veh	0.74 per pers
Proportion Queued	0.55	0.55
Travel Distance (Total)	1075.5 veh-mi/h	1290.6 pers-mi/h
Travel Distance (Average)	2071 ft	2071 ft
Travel Time (Total)	36.8 veh-h/h	44.1 pers-h/h
Travel Time (Average)	48.3 secs	48.3 secs
Travel Speed	29.3 mph	29.3 mph
Operating Cost (Total)	617 $/h	617 $/h
Fuel Consumption (Total)	55.5 gal/h	
Carbon Dioxide (Total)	525.4 kg/h	
Hydrocarbons (Total)	0.874 kg/h	
Carbon Monoxide (Total)	42.86 kg/h	
NOX (Total)	1.306 kg/h	

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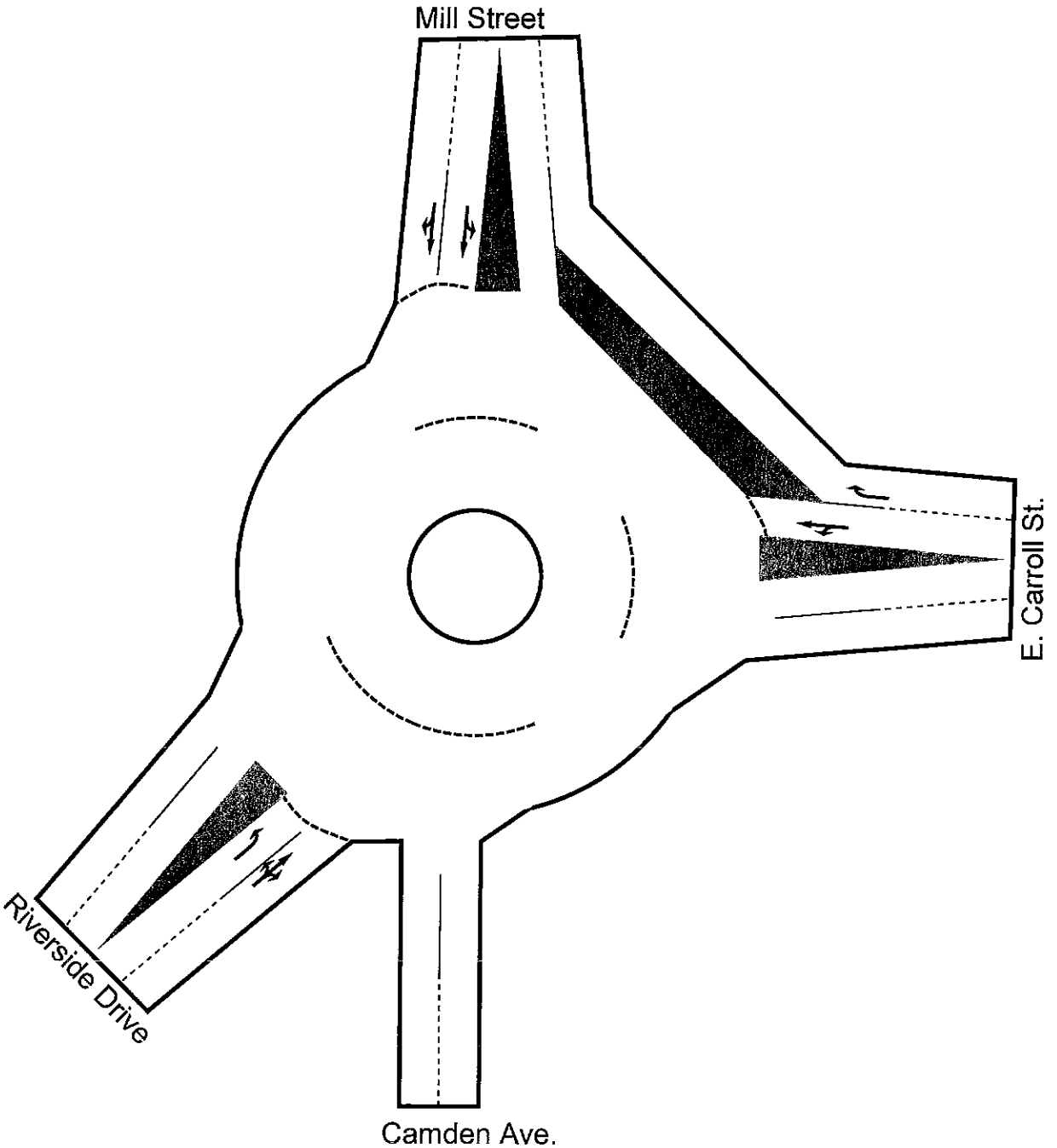

Mill Street
E. Carroll St.
Riverside Drive
Camden Ave.

SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - AM

Riverside Drive E. Carroll St. - 2030 traffic

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	17	5.6	0.225	15.6	LOS B	33	0.64	0.90	28.1
6T	T	115	1.7	0.226	14.4	LOS B	33	0.64	0.89	28.6
6R	R	328	2.1	0.207	5.9	LOS A#	8#	0.00	0.48	34.2
Approach		**462**	**2.2**	**0.226**	**8.4**	**LOS A**	**33**	**0.19**	**0.60**	**32.3**
Mill St.										
7L	L	612	2.0	0.581	13.2	LOS B	149	0.48	0.66	28.7
4T	T	391	2.0	0.581	6.1	LOS A	149	0.47	0.51	32.2
4R	R	421	1.9	0.581	6.1	LOS A	149	0.47	0.51	32.3
Approach		**1423**	**2.0**	**0.581**	**9.2**	**LOS A**	**149**	**0.48**	**0.58**	**30.6**
Riverside Drive										
13L	L	678	2.1	0.682	20.1	LOS C	164	0.86	1.09	25.7
18T	T	172	1.8	0.681	14.3	LOS B	164	0.86	1.05	28.2
18R	R	7	14.3	0.700	16.0	LOS B	164	0.86	1.07	27.2
Approach		**857**	**2.1**	**0.682**	**18.9**	**LOS B**	**164**	**0.86**	**1.08**	**26.1**
All Vehicles		**2742**	**2.0**	**0.700**	**12.1**	**LOS B**	**164**	**0.55**	**0.74**	**29.3**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

SIDRA SOLUTIONS

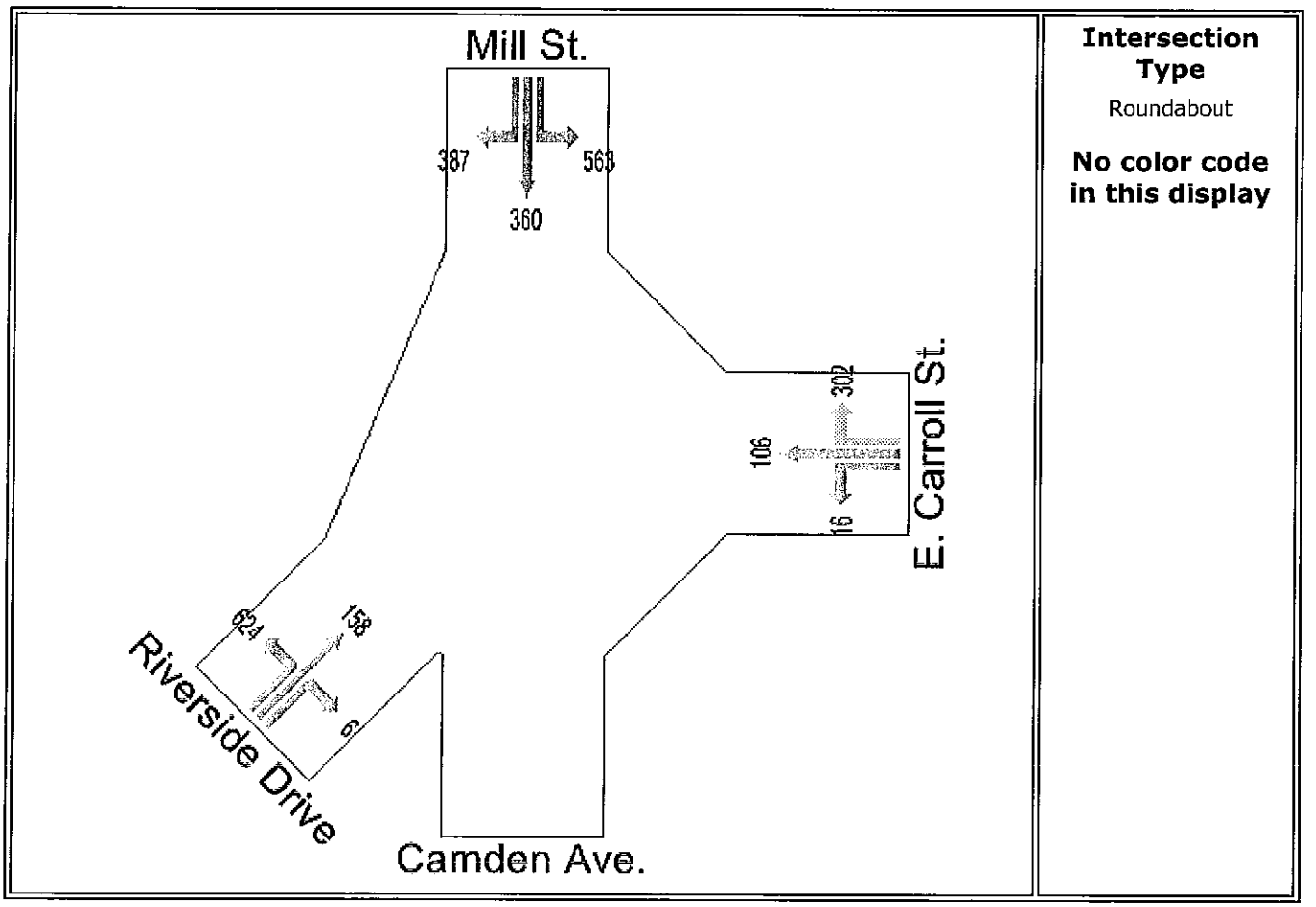
SIDRA INTERSECTION

Input Volumes

Total flow rates as given by the user (veh/60 min)

Riverside Drive Corridor - AM

Riverside Drive E. Carroll St. - 2030 traffic



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SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - PM

Riverside Drive E. Carroll St.

Performance Measure	Vehicles	Persons
Demand Flows - Total	2913 veh/h	3496 pers/h
Percent Heavy Vehicles	2.0 %	
Degree of Saturation	0.600	
Effective Intersection Capacity	4855 veh/h	
95% Back of Queue (ft)	139 ft	
95% Back of Queue (veh)	5.5 veh	
Control Delay (Total)	9.02 veh-h/h	10.83 pers-h/h
Control Delay (Average)	11.1 s/veh	11.1 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS B	
Total Effective Stops	2129 veh/h	2555 pers/h
Effective Stop Rate	0.73 per veh	0.73 per pers
Proportion Queued	0.54	0.54
Travel Distance (Total)	1137.5 veh-mi/h	1365.0 pers-mi/h
Travel Distance (Average)	2062 ft	2062 ft
Travel Time (Total)	38.1 veh-h/h	45.7 pers-h/h
Travel Time (Average)	47.0 secs	47.0 secs
Travel Speed	29.9 mph	29.9 mph
Operating Cost (Total)	642 $/h	642 $/h
Fuel Consumption (Total)	58.2 gal/h	
Carbon Dioxide (Total)	550.8 kg/h	
Hydrocarbons (Total)	0.913 kg/h	
Carbon Monoxide (Total)	44.85 kg/h	
NOX (Total)	1.373 kg/h	

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SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - PM

Riverside Drive E. Carroll St.

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	66	1.5	0.410	16.4	LOS B	68	0.70	0.93	27.7
6T	T	183	2.2	0.411	15.2	LOS B	68	0.70	0.93	28.2
6R	R	666	2.0	0.418	5.9	LOS B#	17#	0.00	0.48	34.2
Approach		**915**	**2.0**	**0.418**	**8.5**	**LOS A**	**68**	**0.19**	**0.60**	**32.2**
Mill Street										
7L	L	433	2.1	0.578	14.0	LOS B	139	0.62	0.74	28.3
4T	T	389	2.1	0.578	7.0	LOS A	139	0.62	0.59	31.5
4R	R	403	2.0	0.578	7.0	LOS A	139	0.62	0.59	31.5
Approach		**1225**	**2.0**	**0.578**	**9.5**	**LOS A**	**139**	**0.62**	**0.64**	**30.3**
Riverside Drive										
13L	L	653	2.0	0.589	17.8	LOS B	131	0.82	1.03	26.8
18T	T	117	1.7	0.588	12.1	LOS B	131	0.82	0.98	29.6
18R	R	2	33.3	0.600	13.8	LOS B	131	0.82	1.00	28.5
Approach		**773**	**2.1**	**0.589**	**16.9**	**LOS B**	**131**	**0.82**	**1.02**	**27.1**
All Vehicles		**2913**	**2.0**	**0.600**	**11.1**	**LOS B**	**139**	**0.54**	**0.73**	**29.9**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue
- Density for continuous movement

SIDRA SOLUTIONS

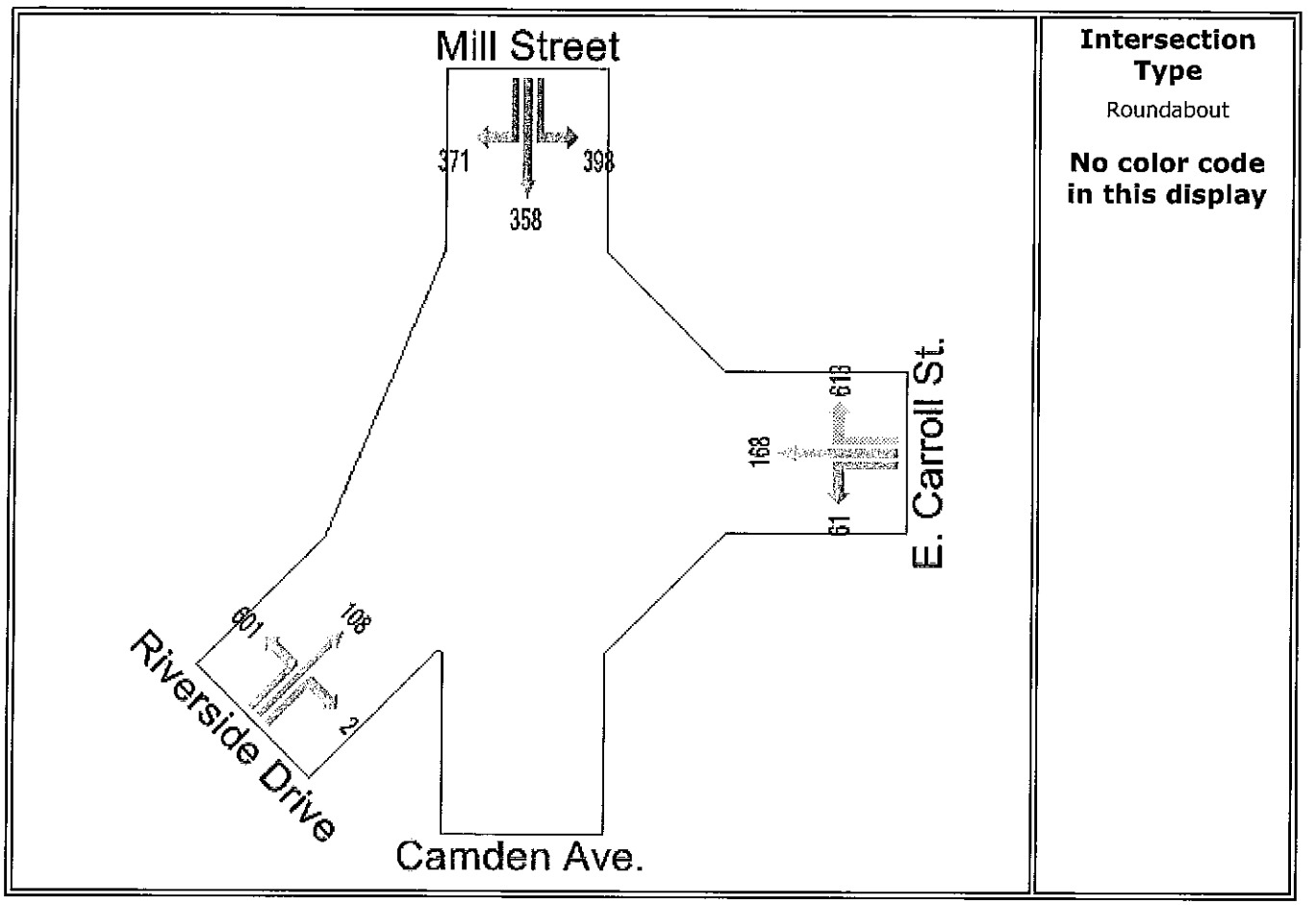
SIDRA INTERSECTION

Input Volumes

Total flow rates as given by the user (veh/60 min)

Riverside Drive Corridor - PM

Riverside Drive E. Carroll St.



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SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - Alternate 3 AM

Riverside Drive E. Carroll St.

Performance Measure	Vehicles	Persons
Demand Flows - Total	2748 veh/h	3298 pers/h
Percent Heavy Vehicles	2.1 %	
Degree of Saturation	0.700	
Effective Intersection Capacity	3926 veh/h	
95% Back of Queue (ft)	178 ft	
95% Back of Queue (veh)	7.0 veh	
Control Delay (Total)	9.24 veh-h/h	11.09 pers-h/h
Control Delay (Average)	12.1 s/veh	12.1 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS B	
Total Effective Stops	2287 veh/h	2745 pers/h
Effective Stop Rate	0.83 per veh	0.83 per pers
Proportion Queued	0.61	0.61
Travel Distance (Total)	1062.5 veh-mi/h	1275.1 pers-mi/h
Travel Distance (Average)	2042 ft	2042 ft
Travel Time (Total)	35.9 veh-h/h	43.1 pers-h/h
Travel Time (Average)	47.1 secs	47.1 secs
Travel Speed	29.6 mph	29.6 mph
Operating Cost (Total)	608 $/h	608 $/h
Fuel Consumption (Total)	55.3 gal/h	
Carbon Dioxide (Total)	523.5 kg/h	
Hydrocarbons (Total)	0.872 kg/h	
Carbon Monoxide (Total)	43.20 kg/h	
NOX (Total)	1.313 kg/h	

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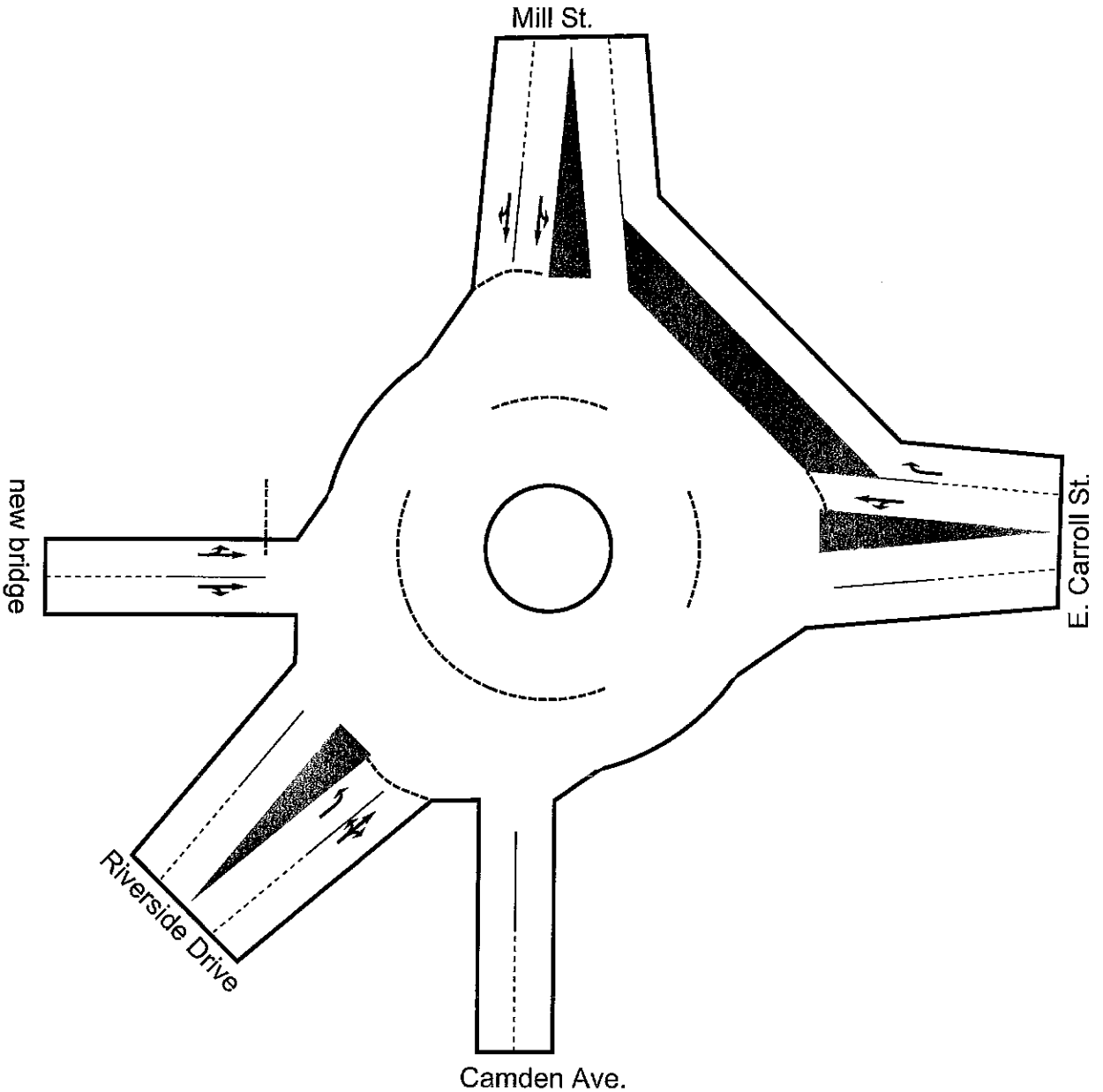
E. Carroll St.
Mill St.
Riverside Drive
new bridge
Camden Ave.

SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - Alternate 3 AM

Riverside Drive E. Carroll St.

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	17	5.6	0.225	15.7	LOS B	33	0.65	0.90	28.1
6T	T	115	1.7	0.226	14.4	LOS B	33	0.65	0.89	28.6
6R	R	328	2.1	0.207	5.9	LOS A#	8#	0.00	0.48	34.2
Approach		**462**	**2.2**	**0.226**	**8.4**	**LOS A**	**33**	**0.19**	**0.60**	**32.3**
Mill St.										
7L	L	113	1.8	0.120	12.8	LOS B	18	0.29	0.66	29.2
4T	T	72	1.4	0.120	5.8	LOS A	18	0.29	0.46	33.2
4R	R	83	2.4	0.120	5.7	LOS A	18	0.29	0.46	33.2
Approach		**267**	**1.9**	**0.120**	**8.7**	**LOS A**	**18**	**0.29**	**0.55**	**31.3**
new bridge										
5L	L	5	16.7	0.545	15.5	LOS B	117	0.63	0.89	28.1
2T	T	499	2.0	0.559	8.7	LOS A	117	0.63	0.76	31.4
2R	R	658	2.0	0.675	11.0	LOS B	178	0.71	0.87	30.3
Approach		**1162**	**2.1**	**0.676**	**10.0**	**LOS B**	**178**	**0.67**	**0.82**	**30.7**
Riverside Drive										
13L	L	678	2.1	0.680	19.2	LOS B	155	0.84	1.07	26.1
18T	T	172	1.8	0.681	13.3	LOS B	155	0.84	1.03	28.8
18R	R	7	14.3	0.700	15.1	LOS B	155	0.84	1.05	27.7
Approach		**857**	**2.1**	**0.680**	**18.0**	**LOS B**	**155**	**0.84**	**1.06**	**26.6**
All Vehicles		**2748**	**2.1**	**0.700**	**12.1**	**LOS B**	**178**	**0.61**	**0.83**	**29.6**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

- Density for continuous movement

SIDRA SOLUTIONS

Site: Riverside Dr./E.Carroll St./Mill St.
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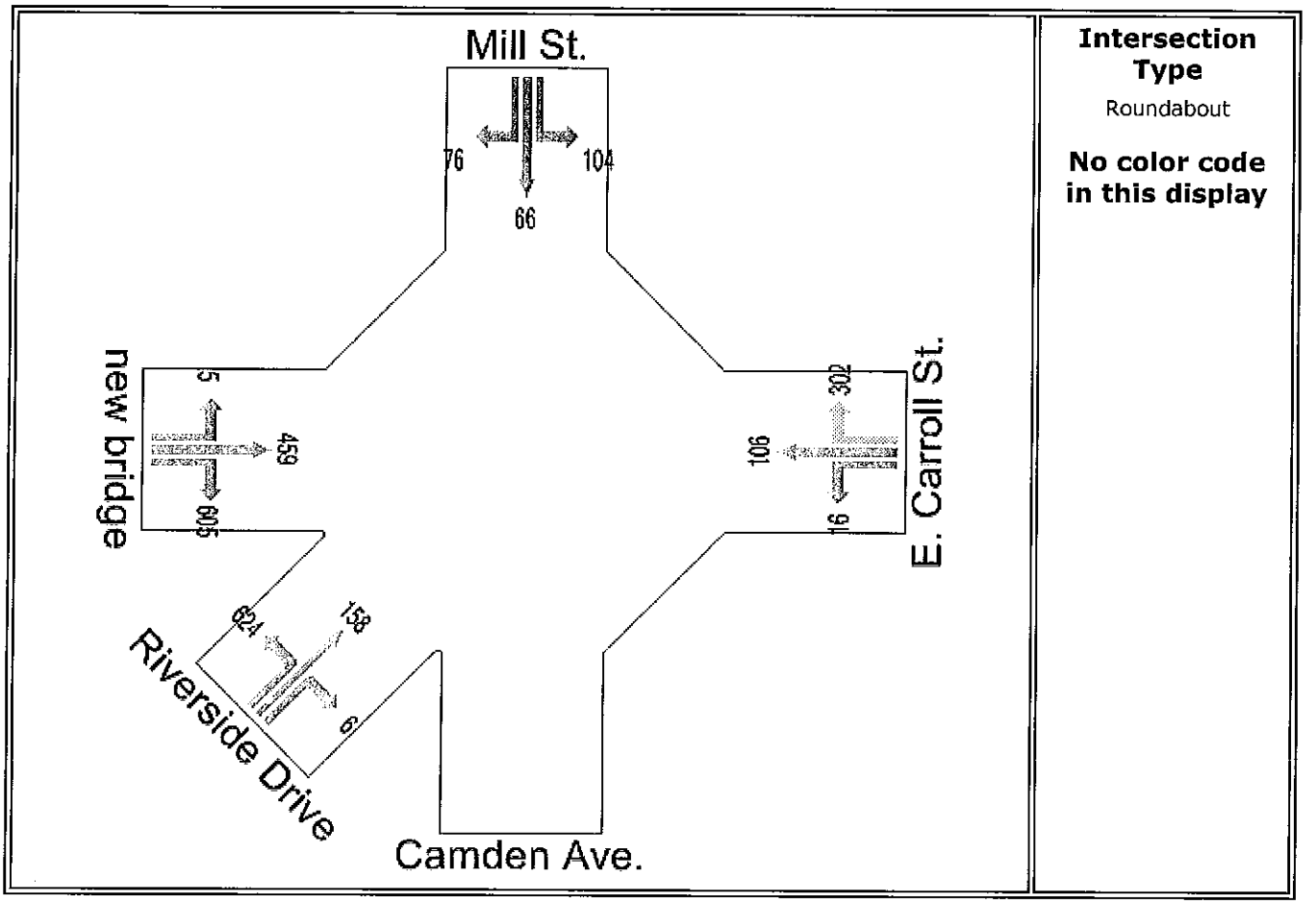
SIDRA INTERSECTION

Input Volumes

Total flow rates as given by the user (veh/60 min)

Riverside Drive Corridor - Alternate 3 AM

Riverside Drive E. Carroll St.



SIDRA SOLUTIONS

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SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - Alternate 3 PM

Riverside Drive E. Carroll St.

Performance Measure	Vehicles	Persons
Demand Flows - Total	2919 veh/h	3503 pers/h
Percent Heavy Vehicles	2.1 %	
Degree of Saturation	0.695	
Effective Intersection Capacity	4199 veh/h	
95% Back of Queue (ft)	187 ft	
95% Back of Queue (veh)	7.4 veh	
Control Delay (Total)	9.49 veh-h/h	11.38 pers-h/h
Control Delay (Average)	11.7 s/veh	11.7 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS B	
Total Effective Stops	2376 veh/h	2852 pers/h
Effective Stop Rate	0.81 per veh	0.81 per pers
Proportion Queued	0.54	0.54
Travel Distance (Total)	1130.1 veh-mi/h	1356.2 pers-mi/h
Travel Distance (Average)	2044 ft	2044 ft
Travel Time (Total)	37.8 veh-h/h	45.4 pers-h/h
Travel Time (Average)	46.6 secs	46.6 secs
Travel Speed	29.9 mph	29.9 mph
Operating Cost (Total)	640 $/h	640 $/h
Fuel Consumption (Total)	58.2 gal/h	
Carbon Dioxide (Total)	551.2 kg/h	
Hydrocarbons (Total)	0.916 kg/h	
Carbon Monoxide (Total)	45.22 kg/h	
NOX (Total)	1.379 kg/h	

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SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - Alternate 3 PM

Riverside Drive E. Carroll St.

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	66	1.5	0.410	16.4	LOS B	68	0.70	0.93	27.7
6T	T	183	2.2	0.409	15.2	LOS B	68	0.70	0.93	28.2
6R	R	666	2.0	0.418	5.9	LOS B#	17#	0.00	0.48	34.2
Approach		**915**	**2.0**	**0.418**	**8.5**	**LOS A**	**68**	**0.19**	**0.60**	**32.2**
Mill St.										
7L	L	134	2.2	0.169	13.4	LOS B	28	0.42	0.70	28.8
4T	T	121	1.7	0.169	6.3	LOS A	28	0.42	0.53	32.5
4R	R	86	2.3	0.169	6.3	LOS A	28	0.42	0.53	32.5
Approach		**340**	**2.1**	**0.169**	**9.1**	**LOS A**	**28**	**0.42**	**0.60**	**30.9**
new bridge										
5L	L	5	16.7	0.462	16.7	LOS B	78	0.66	0.93	27.5
2T	T	299	2.0	0.449	9.9	LOS A	78	0.66	0.84	31.1
2R	R	586	2.0	0.695	13.1	LOS B	187	0.79	1.01	28.9
Approach		**891**	**2.1**	**0.695**	**12.0**	**LOS B**	**187**	**0.75**	**0.95**	**29.6**
Riverside Drive										
13L	L	653	2.0	0.565	17.1	LOS B	117	0.78	1.01	27.1
18T	T	117	1.7	0.565	11.4	LOS B	117	0.78	0.95	30.0
18R	R	2	33.3	0.600	13.1	LOS B	117	0.78	0.97	28.9
Approach		**773**	**2.1**	**0.565**	**16.3**	**LOS B**	**117**	**0.78**	**1.00**	**27.5**
All Vehicles		**2919**	**2.1**	**0.695**	**11.7**	**LOS B**	**187**	**0.54**	**0.81**	**29.9**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

- Density for continuous movement

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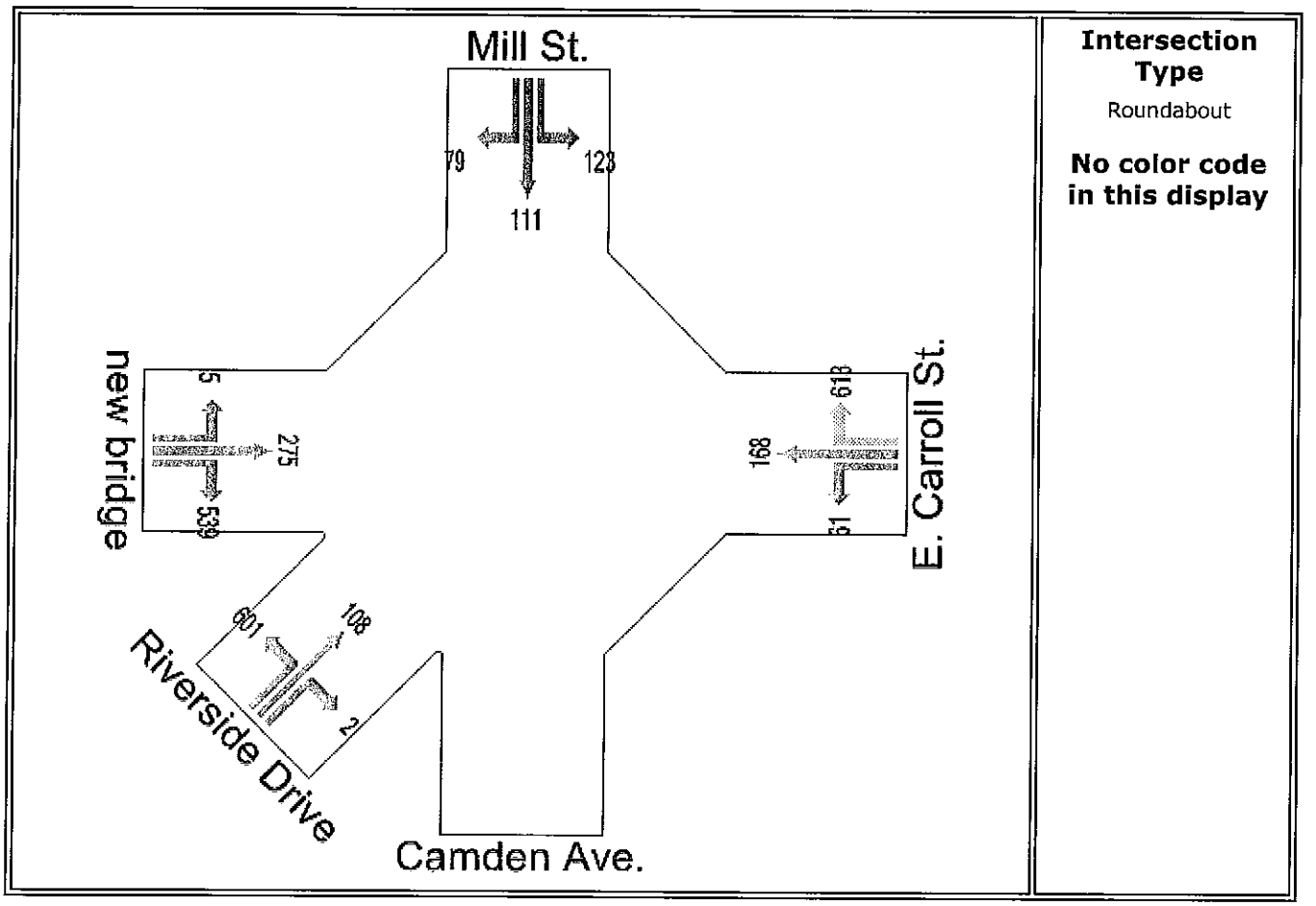
Input Volumes

Total flow rates as given by the user (veh/60 min)

Riverside Drive Corridor - Alternate 3 PM

Riverside Drive E. Carroll St.



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SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - Alternate 4 AM

Riverside Drive E. Carroll St.

Performance Measure	Vehicles	Persons
Demand Flows - Total	2766 veh/h	3319 pers/h
Percent Heavy Vehicles	2.1 %	
Degree of Saturation	0.700	
Effective Intersection Capacity	3951 veh/h	
95% Back of Queue (ft)	181 ft	
95% Back of Queue (veh)	7.1 veh	
Control Delay (Total)	9.83 veh-h/h	11.80 pers-h/h
Control Delay (Average)	12.8 s/veh	12.8 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS C	
Total Effective Stops	2412 veh/h	2894 pers/h
Effective Stop Rate	0.87 per veh	0.87 per pers
Proportion Queued	0.70	0.70
Travel Distance (Total)	1078.3 veh-mi/h	1294.0 pers-mi/h
Travel Distance (Average)	2058 ft	2058 ft
Travel Time (Total)	37.1 veh-h/h	44.5 pers-h/h
Travel Time (Average)	48.2 secs	48.2 secs
Travel Speed	29.1 mph	29.1 mph
Operating Cost (Total)	625 $/h	625 $/h
Fuel Consumption (Total)	56.6 gal/h	
Carbon Dioxide (Total)	536.5 kg/h	
Hydrocarbons (Total)	0.897 kg/h	
Carbon Monoxide (Total)	44.55 kg/h	
NOX (Total)	1.348 kg/h	

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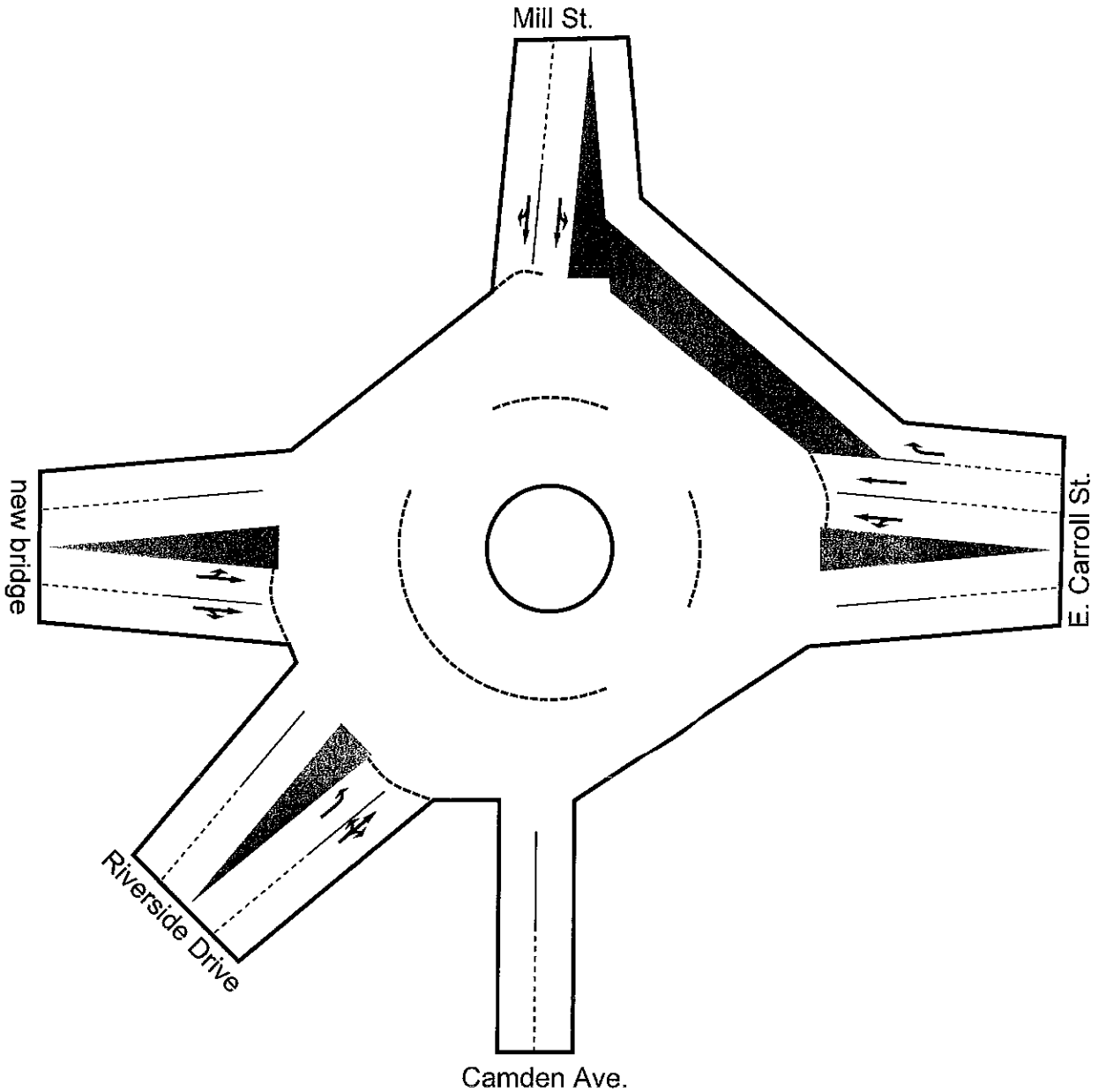

new bridge
Riverside Drive
Camden Ave.
Mill St.
E. Carroll St.

SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - Alternate 4 AM

Riverside Drive E. Carroll St.

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	17	5.6	0.247	14.9	LOS B	38	0.64	0.86	28.3
6T	T	345	2.0	0.246	9.3	LOS A	38	0.64	0.73	30.7
6R	R	99	2.0	0.062	6.1	LOS A#	3#	0.00	0.50	34.0
Approach		**462**	**2.2**	**0.246**	**8.8**	**LOS A**	**38**	**0.50**	**0.68**	**31.2**
Mill St.										
7L	L	113	1.8	0.195	15.1	LOS B	27	0.61	0.88	28.3
4T	T	72	1.4	0.195	8.0	LOS A	27	0.61	0.68	31.6
4R	R	101	2.0	0.195	8.2	LOS A	27	0.61	0.69	31.5
Approach		**285**	**1.8**	**0.195**	**10.9**	**LOS B**	**27**	**0.61**	**0.76**	**30.1**
new bridge										
5L	L	5	16.7	0.545	15.5	LOS B	120	0.65	0.91	28.2
2T	T	499	2.0	0.568	8.6	LOS A	120	0.65	0.76	31.3
2R	R	658	2.0	0.686	10.9	LOS B	181	0.72	0.88	30.3
Approach		**1162**	**2.1**	**0.686**	**9.9**	**LOS A**	**181**	**0.69**	**0.83**	**30.7**
Riverside Drive										
13L	L	678	2.1	0.684	21.0	LOS C	157	0.85	1.08	25.6
18T	T	172	1.8	0.684	13.5	LOS B	157	0.85	1.04	28.7
18R	R	7	14.3	0.700	15.2	LOS B	157	0.85	1.05	27.7
Approach		**857**	**2.1**	**0.684**	**19.4**	**LOS B**	**157**	**0.85**	**1.07**	**26.1**
All Vehicles		**2766**	**2.1**	**0.700**	**12.8**	**LOS B**	**181**	**0.70**	**0.87**	**29.1**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

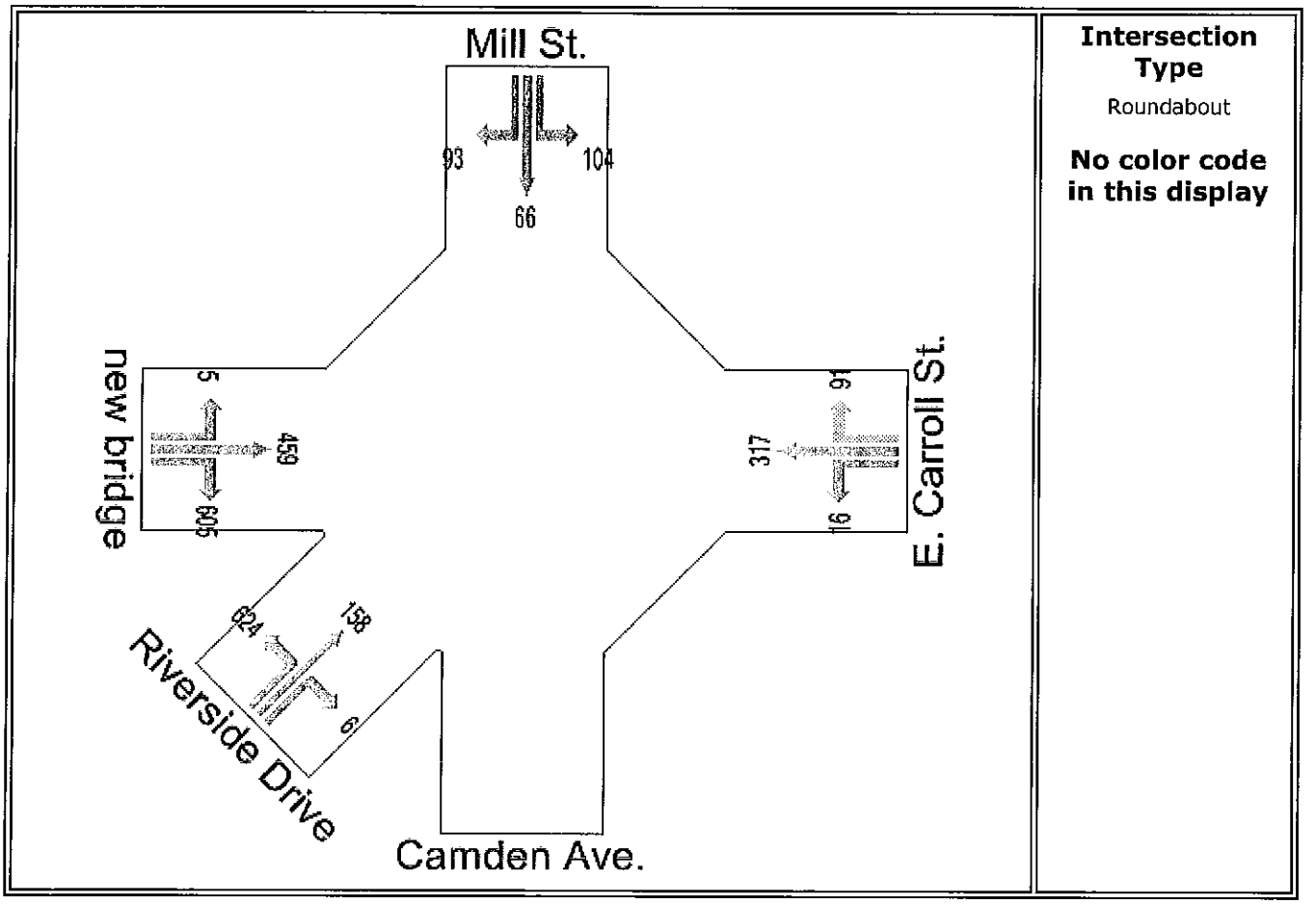
SIDRA INTERSECTION

Input Volumes

Total flow rates as given by the user (veh/60 min)

Riverside Drive Corridor - Alternate 4 AM

Riverside Drive E. Carroll St.



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SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - Alternate 4 PM

Riverside Drive E. Carroll St.

Performance Measure	Vehicles	Persons
Demand Flows - Total	2976 veh/h	3571 pers/h
Percent Heavy Vehicles	2.0 %	
Degree of Saturation	0.697	
Effective Intersection Capacity	4271 veh/h	
95% Back of Queue (ft)	175 ft	
95% Back of Queue (veh)	6.9 veh	
Control Delay (Total)	10.91 veh-h/h	13.09 pers-h/h
Control Delay (Average)	13.2 s/veh	13.2 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS B	
Total Effective Stops	2770 veh/h	3324 pers/h
Effective Stop Rate	0.93 per veh	0.93 per pers
Proportion Queued	0.74	0.74
Travel Distance (Total)	1163.6 veh-mi/h	1396.4 pers-mi/h
Travel Distance (Average)	2065 ft	2065 ft
Travel Time (Total)	40.1 veh-h/h	48.1 pers-h/h
Travel Time (Average)	48.5 secs	48.5 secs
Travel Speed	29.0 mph	29.0 mph
Operating Cost (Total)	677 $/h	677 $/h
Fuel Consumption (Total)	61.3 gal/h	
Carbon Dioxide (Total)	581.0 kg/h	
Hydrocarbons (Total)	0.972 kg/h	
Carbon Monoxide (Total)	48.42 kg/h	
NOX (Total)	1.462 kg/h	

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SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - Alternate 4 PM

Riverside Drive E. Carroll St.

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	66	1.5	0.555	16.5	LOS B	115	0.75	0.98	27.7
6T	T	777	2.1	0.555	10.5	LOS B	115	0.75	0.89	30.5
6R	R	72	1.4	0.044	6.1	LOS A#	2#	0.00	0.50	34.0
Approach		**915**	**2.0**	**0.555**	**10.6**	**LOS B**	**115**	**0.69**	**0.86**	**30.5**
Mill St.										
7L	L	134	2.2	0.374	18.5	LOS B	57	0.76	0.96	26.6
4T	T	121	1.7	0.375	11.0	LOS B	59	0.76	0.89	30.3
4R	R	142	2.1	0.374	11.2	LOS B	59	0.76	0.90	30.2
Approach		**397**	**2.0**	**0.375**	**13.6**	**LOS B**	**59**	**0.76**	**0.92**	**28.8**
new bridge										
5L	L	5	16.7	0.462	16.4	LOS B	75	0.66	0.93	27.7
2T	T	299	2.0	0.452	9.5	LOS A	75	0.66	0.83	31.3
2R	R	586	2.0	0.697	12.3	LOS B	175	0.78	0.99	29.4
Approach		**891**	**2.1**	**0.697**	**11.4**	**LOS B**	**175**	**0.74**	**0.94**	**30.0**
Riverside Drive										
13L	L	653	2.0	0.566	19.4	LOS B	118	0.79	1.02	26.4
18T	T	117	1.7	0.565	11.6	LOS B	118	0.78	0.96	29.9
18R	R	2	33.3	0.600	13.2	LOS B	118	0.78	0.98	28.8
Approach		**773**	**2.1**	**0.566**	**18.2**	**LOS B**	**118**	**0.79**	**1.01**	**26.8**
All Vehicles		**2976**	**2.0**	**0.697**	**13.2**	**LOS B**	**175**	**0.74**	**0.93**	**29.0**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

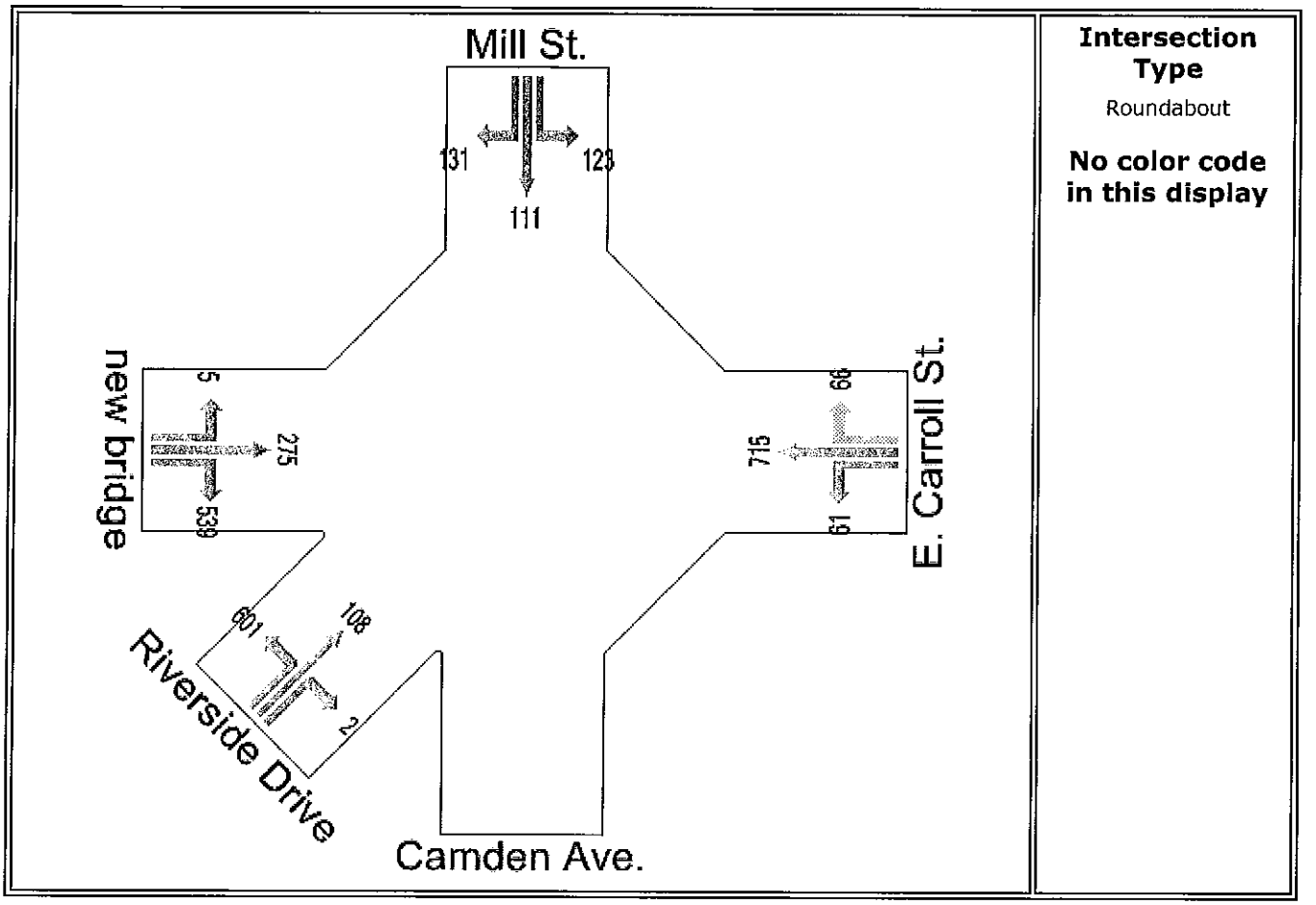
SIDRA INTERSECTION

Input Volumes

Total flow rates as given by the user (veh/60 min)

Riverside Drive Corridor - Alternate 4 PM

Riverside Drive E. Carroll St.



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APPENDIX C

Accident Data

Maryland State Highway Administration
Office of Traffic and Safety
Traffic Safety Analysis Division
7491 Connelley Drive
Hanover, Maryland 21076

Fax

To:	Ms. Betty Tustin	**From:**	Al Lewis
Dept:	The Traffic Group	**Pages:**	
Phone:		**Phone:**	410-787-5849
Fax:	410-629-1815	**Fax:**	(410) 787-5823
Date:	04/13/2010	**CC:**	District One
Re:	Accident Data Request		

☐ **Urgent** x **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:**

Wicomico County

Enclosed are the accident data for the requested roadway sections of:

Riverside Drive from Mill St to Campground Road

Campground Road from Riverside Drive to South Upper Ferry Rd

Mill St from Riverside Drive to US 50

The following Intersections are included:

US 50 and Mill St

Mill St and W. Main Street

Riverside Dr and Mill St / W. Carroll St / Camden Av

Riverside Dr and Wicomico St

Riverside Dr and South Blv

Riverside Dr and W. College Ave (NO REPORTED ACCIDENTS)

April 13, 2010

Riverside Dr and Pine Bluff Rd

Riverside Dr and Shad Pt. Rd

Campground Rd and South Upper Ferry Rd

Enclosed are accident summary worksheets, accident study worksheets and collision diagrams depicting the approximate location of accidents.

The study period is from January 2006 thru December 2008

Should you have any questions concerning this submission you may contact me directly at (410) 787-5849.

I hope this information is of assistance to you.

#18560

Robert Cunningham

From: Jack Lenox [jlenox@wicomicocounty.org]
Sent: Thursday, March 25, 2010 2:50 PM
To: Robert Cunningham
Cc: Betty Tustin
Subject: FW: Request for Accident Data

Mr. Cunningham,

I am the Planning Director for Wicomico County, and since Gary Pusey left our staff, I've been assisting with the work of the MPO.

The last few years, the MPO has initiated several roadway corridor studies within our planning area. Three studies have been completed. A fourth one is now underway, which we've called the "Riverside Drive Corridor" and encompasses Riverside Drive in Salisbury/Wicomico County in its entirety as well as Mill Street from Riverside Drive to US 50.

The roadway links are:

2921 - 0.00 - 0.02

Riverside Drive from Mill Street – west to Campground Road MU 2422 0.00 - 1.21 CO 153 0.00 - 4.79

CO 145 Campground Road from Riverside Drive to South Upper Ferry Road 0.00 - 0.17

MU 1780 Mill Street from Riverside Drive to US 50

0.58 0.44 0.44 - 0.58

The following intersections are included:

- US 50 and Mill Street
- Mill Street and W. Main Street
- Riverside Dr and Mill Street/West Carroll Street/Camden Avenue
- Riverside Dr and Wicomico Street
- Riverside Dr and South Blvd
- Riverside Dr and W. College Avenue — None Reported.
- Riverside Dr and Pine Bluff
- Riverside Dr and Shad Point Road
- Campground Road and South Upper Ferry Road

We'd like to request any accident data that you or your agency may have for the above-noted roadways and intersections to help us complete this study. Our consultant preparing the study is The Traffic Group, Inc., and if possible, and data that you have can be sent directly to Betty Tustin at The Traffic Group. This request is not being made as the result of any civil litigation but is purely for planning purposes as we attempt to adequately plan for future road improvements resulting from the growth this area is experiencing.

Betty's address is:

Betty Tustin
Project Manager
The Traffic Group, Inc.
Delmarva Office
104 Kenwood Court
Berlin, MD 21811

Thank you for any assistance you can provide. If you need to reach me by phone, my number is 410-548-4860. Thanks again.

Jack

John F. Lenox, AICP
Director of Planning, Zoning &
Community Development

Wicomico

mu 1780

US 50 Bu @ Mill Street — Mill + 50

3.16 0.44

mu 1780 Mill St @ W. Main St - mu 1640 — Mill + W. Main

0.49 0.74

mu 2422 Riverside Dr @ Mill St / W. Carroll / Camden Av - mu 370

mu 1780 mu 440 — Riverside + Mill, W. Carroll + Camden

0.00 0.58 0.00 0.00

mu 2422 Riverside @ Wicomico St - mu 2990 — Rvr + Wic

0.33 0.16

mu 2422 Riverside @ South Blvd - mu 2600 / Ridge Rd - mu ~~2440~~ 2400

0.70 0.00 0.32

Rvr + S

mu 2422 Riverside @ W. College Av - mu 630 — Rvr + W College

1.21 1.87

co 153 Riverside @ Pine Bluff - co 156 — Rvr + Pine

0.75 0.00

co 153 Riverside @ ~~Snad~~ Sand Pt. Rd - co 159 / Cherry Hill co 1136

1.32 0.00 0.08

co 145 Campground Rd @ S. Upper Ferry Rd co 144

0.00 3.79

Campground + S. Upper Ferry

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Drive from Mill St to Campground Rd
Logmiles: From 000.00 To 001.21 Length: 1.21
County: Wicomico, D1
Period: January 01, 2006 To December 31, 2008
Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed	0	0	0	0
Injury	9	8	7	24
No. Injured	17	11	15	43
Prop. Damage	8	9	8	25
Total Crashes	17	17	15	49
Severity Index	32	35	32	Avg 33
Opposite Dir.	2	0	2	4
Rear End	1	2	2	5
Sideswipe	0	1	1	2
Left Turn	1	0	0	1
Angle	4	6	3	13
Pedestrian	0	1	0	1
Parked Veh.	0	0	0	0
Fixed Object	4	3	6	13
Other	5	4	1	10
U-Turn	0	0	0	0
Backing	1	1	1	3
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	1	0	1
Other/Unk	4	2	0	6
Truck Related	1	0	1	2
Night Time	2	5	2	9
Wet Surface	7	6	3	16
Alcohol	2	3	1	6
Intersection	6	6	4	16
Total Vehicles	26	30	25	81
Total Trucks	1	0	1	2
Truck %	3.8	0.0	4.0	2.5

Comments:

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/09/2010

Location: Riverside Drive from Mill St to Campground Rd

Logmiles: From 000.00 To 001.21 Length: 1.21

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
CO0153												
0.09		06282007	1 Injured	03P	Day	Dry			PED	Su	uP	Improper backing
0.75	✓	10262007	2 Injured	03P	Day	Wet			ANGLE	WL	NS	Fail to yield right-of-way
1.04		12232007	2 Injured	09A	Day	Wet			OTHER	NS		Exceeded speed limit
1.06		07262008	Property	05A	Day	Dry		11	FXOBJ	SS		Fail to give full attention
1.14		10232007	1 Injured	03A	Day	Dry			OTHER	NS		Fail to drive in single lane
1.23		03032008	2 Injured	07A	Day	Dry			OPDIR	SS	NS	Fail to drive in single lane
1.28		05142008	1 Injured	07A	Day	Dry			RREND	NS	NS	Followed too closely
1.32	✓	07142006	1 Injured	01P	Day	Wet			ANGLE	WS	NS	Fail to yield right-of-way
1.32	✓	07142006	1 Injured	01P	Day	Wet			OTHER	NS		Fell asleep, fainted, etc.
1.32	✓	09222007	Property	10P	Night	Dry			ANGLE	WS	SS	Fail to yield right-of-way
1.32	✓	10272007	2 Injured	12P	Day	Wet			ANGLE	WS	NS	Fail to obey stop sign
1.32	✓	11142007	1 Injured	02P	Day	Dry			ANGLE	WS	NS	Fail to yield right-of-way
1.32	✓	01182008	2 Injured	11A	Day	Dry			ANGLE	WL	NS	Fail to give full attention
1.34		04272007	Property	04P	Day	Wet			RREND	SS	SS	Fail to stop for school bus
1.59		07232007	Property	09P	Night	Dry	✓	10	FXOBJ	NS		Fail to drive in single lane
1.60		02112006	1 Injured	01A	Night	Dry	✓	10	FXOBJ	SS		Too fast for conditions
1.66		03192008	Property	11A	Day	Dry			RREND	SS	SS	Improper passing
1.76		07122006	1 Injured	03P	Day	Dry			OTHER	Wu	NS	Improper backing
2.32		08092008	Property	09A	Day	Dry	✓		FXOBJ	Su		Under influence of alcohol
2.77		12302007	Property	03A	Night	Wet	✓		OTHER	NS	uP	Too fast for conditions
2.82		12122007	1 Injured	07A	Day	Wet		10	FXOBJ	SS		Too fast for conditions
2.84		06262006	1 Injured	01P	Day	Wet			OTHER	SS		Wet
2.87		11182007	1 Injured	08A	Day	Dry			OTHER	NS		Animal
3.24		07282006	1 Injured	09P	Day	Dry			OTHER	NS		Fail to drive in single lane
3.27		12042008	1 Injured	03P	Day	Dry		03	FXOBJ	NS		Fail to drive in single lane
3.43		12202007	Property	06A	Night	Dry	✓	11	FXOBJ	SS		Too fast for conditions
3.69		12192006	Property	07A	Day	Dry			OPDIR	NS	SS	Too fast for conditions
3.85		07192006	Property	06A	Day	Dry	✓	88	FXOBJ	SS		Under influence of alcohol
MU2421												
0.01		11132006	Property	03P	Day	Wet			OPDIR	SS	NS	Fail to give full attention
0.01		08072008	Property	10P	Night	Wet		04	FXOBJ	NS		Rain, snow
0.00		01122006	1 Injured	08A					OTHER	NS	uu	Too fast for conditions
0.00		09142006	Property	11A	Day	Wet		04	FXOBJ	NS		Too fast for conditions
MU2422												
0.01		11172007	Property	05P	Night	Dry			ANGLE	WL	NS	Fail to yield right-of-way

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence
08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
0.33	✓	05052006	4 Injured	01P	Day	Dry			LFTRN	SL	NS	Improper turn
0.33		06122006	Property	02P	Day	Wet			ANGLE	ES	NS	Fail to give full attention
0.33	✓	07122006	6 Injured	12P	Day	Dry			ANGLE	ES	NS	Fail to obey stop sign
0.33		09232008	Property	09A	Day	Dry			OTHER	Eu	WS	Fail to give full attention
0.33	✓	12222008	6 Injured	09A	Day	Dry			ANGLE	WS	NS	Fail to obey stop sign
0.39	✓	06292006	Property	09A	Day	Dry			RREND	SS	SR	Improper passing
0.42		04092008	Property	12P	Day	Wet			SDSWP	WL	EL	Improper turn
0.49	✓	06012006	Property	08P	Night	Dry			ANGLE	ES	NS	Fail to yield right-of-way
0.49	✓	11172007	Property	03P	Day	Dry			ANGLE	ES	NS	Fail to obey stop sign
0.84	✓	04302008	2 Injured	08A	Day	Dry			ANGLE	WS	NS	Fail to obey stop sign
0.84	✓	08012008	1 Injured	05P	Day	Dry			OPDIR	NS	SS	Fail to obey stop sign
0.00	✓	06082007	Property	01P	Day	Dry			SDSWP	ES	ES	Improper passing
0.00		09152007	Property	03P	Day	Dry			RREND	NS	NS	Followed too closely
1.01		11212008	Property	10P	Night	Dry		04	FXOBJ	NS		Too fast for conditions
1.21		05262006	Property	07P	Day	Wet		11	FXOBJ	NS		Too fast for conditions
1.20		10172008	Property	09A	Day	Wet		04	FXOBJ	NS		Wet

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence
08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Drive from Mill St to Campground Rd
Logmiles: From 000.00 To 001.21 Length: 1.21
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2006
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		9	8	17
Veh Occ		17		
Pedestrian				

Severity Index: 32

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		3	1	3	4	5	1	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	1	1			2	4	6		1		1	1	

CONDITION	DRIVER	PED
Normal:	22	
Alcohol:	2	
Other:	2	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:		1					1	1	1	1		1	
PM:	1	4	1	2				1	1	1			

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	8	9						26

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
2	Passenger Vehicle	1	Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
1	Trucks (2+3 axles)	3	Other Types

SURFACE	
7	Wet
9	Dry
	Sno/Ice
	Mud
1	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		13		1	6	1		3			1	

OTHER MOVEMENTS 1

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
1	Influence of Alcohol	1	Improper Backing
	Influence of Medication	1	Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
1	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
2	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
1	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
2	Fail to Yield Right-of-way		Severe Crosswinds
1	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus	1	Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
5	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
1	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:			2	2
Rear End	Related:			1	1
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:		1		1
	UnRelated:				
Angle	Related:		2	1	3
	UnRelated:			1	1
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:		1		1
	UnRelated:		4		4

F	Bridge	01			
I	Building	02			
X	Culvert/Ditch	03			
E	Curb	04		1	1
D	Guardrail/Barrier	05			
	Embankment	06			
O	Fence	07			
B	Light Pole	08			
J	Sign Pole	09			
E	Other Pole	10	1		1
C	Tree/Shrubbery	11		1	1
T	Contr. Barrier	12			
S	Crash Attenuator	13			
	Other Fixed Object			1	1

WEATHER		ILLUMINATION		TOTALS	
12	Clear / Cloudy	12	Day	2006	17
	Foggy	2	Dawn/Dusk		
4	Raining	1	Dark - Lights On		
	Snow / Sleet	1	Dark - No Lights		
1	Other	1	Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Drive from Mill St to Campground Rd
Logmiles: From 000.00 To 001.21 Length: 1.21
County: Wicomico, D1
Period: January 1, 2007 To December 31, 2007
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		8	9	17
Veh Occ		10		
Pedestrian		1		

Severity Index: 35

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
	3	1	1	2	2	3	5	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
				1		2	1		2	3	4	4	

CONDITION	DRIVER	PED
Normal:	21	1
Alcohol:	3	
Other:	6	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:				2			1	1	1	1			
PM:	1	1	1	4	1	1				1	1		

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	6	9	2					30

VEHICLE TYPE			
			Motorcycle/Moped
18	Passenger Vehicle		Tractor Trailer
	Sport Utility Veh		Passenger Bus
4	Pick-Up Truck	2	School Bus
	Trucks (2+3 axles)		Emergency Veh
		6	Other Types

SURFACE	
6	Wet
11	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		12			5			3		2	3	

OTHER MOVEMENTS 5

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol	1	Improper Backing
	Influence of Medication	1	Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
2	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
4	Fail to Yield Right-of-way		Severe Crosswinds
2	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal	1	Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
1	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
1	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
3	Too Fast for Conditions		Traffic Control Device Inop.
1	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:			2	2
Sideswipe	Related:			1	1
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:		3	2	5
	UnRelated:			1	1
Pedestrian	Related:				
	UnRelated:		1		1
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:		3	1	4

F	Bridge	01			
I	Building	02			
X	Culvert/Ditch	03			
E	Curb	04			
D	Guardrail/Barrier	05			
	Embankment	06			
O	Fence	07			
B	Light Pole	08			
J	Sign Pole	09			
E	Other Pole	10	1	1	2
C	Tree/Shrubbery	11		1	1
T	Contr. Barrier	12			
S	Crash Attenuator	13			
	Other Fixed Object				

WEATHER		ILLUMINATION		TOTALS	
15	Clear / Cloudy	11	Day	2007	17
	Foggy	1	Dawn/Dusk		
2	Raining	2	Dark - Lights On		
	Snow / Sleet	3	Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Drive from Mill St to Campground Rd
Logmiles: From 000.00 To 001.21 Length: 1.21
County: Wicomico, D1
Period: January 1, 2008 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		7	8	15
Veh Occ		15		
Pedestrian				

Severity Index: 32

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		2	1	4	2	4	2	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	1		2	2	1		1	3	1	1	1	2	

CONDITION	DRIVER	PED
Normal:	20	
Alcohol:	1	
Other:	4	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:						1		2	1	4		2	
PM:	1			1		1					2		

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	6	8	1					25

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
12	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
2	Pick-Up Truck	1	Emergency Veh
1	Trucks (2+3 axles)	9	Other Types

SURFACE	
3	Wet
12	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		11			5		1			2	3	

OTHER MOVEMENTS 3

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
1	Influence of Alcohol		Improper Backing
	Influence of Medication	1	Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
3	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
2	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
3	Fail to Obey Stop Sign	1	Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus	1	Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
1	Too Fast for Conditions		Traffic Control Device Inop.
1	Followed too Closely		Shoulders Low, Soft or High
1	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:		1		1
	UnRelated:		1		1
Rear End	Related:				
	UnRelated:		1	1	2
Sideswipe	Related:				
	UnRelated:			1	1
Left Turn	Related:				
	UnRelated:				
Angle	Related:		3		3
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:			1	1

F	Bridge	01			
I	Building	02			
X	Culvert/Ditch	03	1		1
E	Curb	04		3	3
D	Guardrail/Barrier	05			
	Embankment	06			
O	Fence	07			
B	Light Pole	08			
J	Sign Pole	09			
E	Other Pole	10			
C	Tree/Shrubbery	11		1	1
T	Contr. Barrier	12			
S	Crash Attenuator	13			
	Other Fixed Object			1	1

WEATHER		ILLUMINATION		TOTALS	
12	Clear / Cloudy	12	Day	2008	15
	Foggy	1	Dawn/Dusk		
3	Raining	2	Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Drive from Mill St to Campground Rd
Logmiles: From 000.00 To 001.21 Length: 1.21
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		24	25	49
Veh Occ		42		
Pedestrian		1		

AVG Severity Index: 33

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
	3	6	3	9	8	12	8	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	2	1	2	3	3	6	8	3	4	4	6	7	

CONDITION	DRIVER	PED
Normal:	63	1
Alcohol:	6	
Other:	12	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:		1		2		1	2	4	3	6		3	
PM:	3	5	2	7	1	2		1	1	2	3		

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	20	26	3					81

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
5	Passenger Vehicle	1	Passenger Bus
	Sport Utility Veh	2	School Bus
7	Pick-Up Truck	1	Emergency Veh
2	Trucks (2+3 axles)	18	Other Types

SURFACE	
16	Wet
32	Dry
	Sno/Ice
	Mud
1	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		36		1	16	1	1	6		4	7	

OTHER MOVEMENTS 9

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
2	Influence of Alcohol	2	Improper Backing
	Influence of Medication	3	Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
1	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
5	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
5	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
6	Fail to Yield Right-of-way		Severe Crosswinds
6	Fail to Obey Stop Sign	1	Rain, Snow
	Fail to Obey Traffic Signal	1	Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
1	Fail to Stop for School Bus	2	Wet
	Wrong Way on One Way		Icy or Snow Covered
1	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
9	Too Fast for Conditions		Traffic Control Device Inop.
2	Followed too Closely		Shoulders Low, Soft or High
2	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:		1		1
	UnRelated:		1	2	3
Rear End	Related:			1	1
	UnRelated:		1	3	4
Sideswipe	Related:			1	1
	UnRelated:			1	1
Left Turn	Related:		1		1
	UnRelated:				
Angle	Related:		8	3	11
	UnRelated:			2	2
Pedestrian	Related:				
	UnRelated:		1		1
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:		1		1
	UnRelated:		7	2	9

F	Bridge	01			
I	Building	02			
X	Culvert/Ditch	03	1		1
E	Curb	04		4	4
D	Guardrail/Barrier	05			
	Embankment	06			
O	Fence	07			
B	Light Pole	08			
J	Sign Pole	09			
E	Other Pole	10	2	1	3
C	Tree/Shrubbery	11		3	3
T	Contr. Barrier	12			
S	Crash Attenuator	13			
	Other Fixed Object			2	2

WEATHER		ILLUMINATION		TOTALS	
39	Clear / Cloudy	35	Day	06-08	49
	Foggy	4	Dawn/Dusk		
9	Raining	5	Dark - Lights On		
	Snow / Sleet	4	Dark - No Lights		
1	Other	1	Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis

Date: 04/13/2010

Location: Campground Rd from S. Upper Ferry Rd to Riverside Dr

Logmiles: From 000.00 To 000.17 Length: 0.17

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed	0			
Injury	1	0	0	1
No. Injured	2			
Prop. Damage	0	0	0	0
Total Crashes	1	0	0	1
Severity Index	2	0	0	Avg 1
Opposite Dir.	0	0	0	0
Rear End	0	0	0	0
Sideswipe	0	0	0	0
Left Turn	1	0	0	1
Angle	0	0	0	0
Pedestrian	0	0	0	0
Parked Veh.	0	0	0	0
Fixed Object	0	0	0	0
Other	0	0	0	0
U-Turn	0	0	0	0
Backing	0	0	0	0
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	0	0	0	0
Truck Related	0	0	0	0
Night Time	0	0	0	0
Wet Surface	0	0	0	0
Alcohol	0	0	0	0
Intersection	1	0	0	1
Total Vehicles	2			
Total Trucks	0	0	0	0
Truck %	0.0			

Comments:

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/13/2010

Location: Campground Rd from S. Upper Ferry Rd to Riverside Dr
Logmiles: From 000.00 To 000.17 Length: 0.17
County: Wicomico, D1 Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1		1
Veh Occ		2		
Pedestrian				

AVG Severity Index: 1

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
						1		

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
											1		

CONDITION	DRIVER	PED
Normal:	2	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:									1				
PM:													

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		1						2

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	1	Other Types

SURFACE	
	Wet
1	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		1		1								

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn	1	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:		1		1
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
1	Clear / Cloudy	1	Day	06-08	1
	Foggy		Dawn/Dusk		
	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/13/2010

Location: Campground Rd from S. Upper Ferry Rd to Riverside Dr
Logmiles: From 000.00 To 000.17 Length: 0.17
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2006
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1		1
Veh Occ		2		
Pedestrian				

Severity Index: 2

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
						1		

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
											1		

CONDITION	DRIVER	PED
Normal:	2	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:									1				
PM:													

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		1						2

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	1	Other Types

SURFACE	
	Wet
1	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		1		1								

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn	1	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:		1		1
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
1	Clear / Cloudy	1	Day	2006	1
	Foggy		Dawn/Dusk		
	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/13/2010

Location: Campground Rd from S. Upper Ferry Rd to Riverside Dr

Logmiles: From 000.00 To 000.17 Length: 0.17

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
CO0145												
0.17	✓	11242006	2 Injured	08A	Day	Dry			LFTRN	NS	SL	

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence 08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis

Date: 04/13/2010

Location: Mill St from US 50 to Riverside Dr.

Logmiles: From 000.44 To 000.58 Length: 0.14

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed	0	0	0	0
Injury	1	1	1	3
No. Injured	1	1	1	3
Prop. Damage	4	8	4	16
Total Crashes	5	9	5	19
Severity Index	8	12	6	Avg 9
Opposite Dir.	0	0	1	1
Rear End	2	3	3	8
Sideswipe	0	2	0	2
Left Turn	1	0	0	1
Angle	1	3	0	4
Pedestrian	0	0	0	0
Parked Veh.	0	1	0	1
Fixed Object	1	0	0	1
Other	0	0	1	1
U-Turn	0	0	0	0
Backing	0	0	1	1
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	0	0	0	0
Truck Related	0	2	1	3
Night Time	1	0	0	1
Wet Surface	0	0	0	0
Alcohol	0	0	0	0
Intersection	3	6	3	12
Total Vehicles	11	18	10	39
Total Trucks	0	2	1	3
Truck %	0.0	11.1	10.0	7.7

Comments:

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/13/2010

Location: Mill St from US 50 to Riverside Dr.
Logmiles: From 000.44 To 000.58 Length: 0.14
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2006
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1	4	5
Veh Occ		1		
Pedestrian				

Severity Index: 8

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
					1	2	2	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
				1			2		1		1		

CONDITION	DRIVER	PED
Normal:	7	
Alcohol:		
Other:	4	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:	1	2			1					1			

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	1	3		1				11

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
5	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	5	Other Types

SURFACE	
	Wet
5	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
	1	5			2			1				

OTHER MOVEMENTS 2

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
1	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
1	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
1	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
1	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
1	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:			1	1
	UnRelated:			1	1
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:			1	1
	UnRelated:				
Angle	Related:			1	1
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01			
I	Building	02			
X	Culvert/Ditch	03			
E	Curb	04	1		1
D	Guardrail/Barrier	05			
	Embankment	06			
O	Fence	07			
B	Light Pole	08			
J	Sign Pole	09			
E	Other Pole	10			
C	Tree/Shrubbery	11			
T	Contr. Barrier	12			
S	Crash Attenuator	13			
	Other Fixed Object				

WEATHER		ILLUMINATION		TOTALS	
5	Clear / Cloudy	4	Day	2006	5
	Foggy		Dawn/Dusk		
	Raining	1	Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/13/2010

Location: Mill St from US 50 to Riverside Dr.
Logmiles: From 000.44 To 000.58 Length: 0.14
County: Wicomico, D1
Period: January 1, 2007 To December 31, 2007
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1	8	9
Veh Occ		1		
Pedestrian				

Severity Index: 12

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		4	1		1	1	2	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	1	2	1	1	1	1	1					1	

CONDITION	DRIVER	PED
Normal:	18	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:							1	1			1		
PM:	2		2		1			1					

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		9						18

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
11	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
2	Pick-Up Truck		Emergency Veh
2	Trucks (2+3 axles)	3	Other Types

SURFACE	
	Wet
9	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		3			9			1	1		3	

OTHER MOVEMENTS 1

PROBABLE CAUSES			
	Influence of Drugs	2	Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
3	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
1	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
2	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn	1	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:			1	1
	UnRelated:			2	2
Sideswipe	Related:		1	1	2
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:			3	3
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:			1	1
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
9	Clear / Cloudy	9	Day	2007	9
	Foggy		Dawn/Dusk		
	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/13/2010

Location: Mill St from US 50 to Riverside Dr.
Logmiles: From 000.44 To 000.58 Length: 0.14
County: Wicomico, D1
Period: January 1, 2008 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1	4	5
Veh Occ		1		
Pedestrian				

Severity Index: 6

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		1	1		1	2		

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
				1			1		1	2			

CONDITION	DRIVER	PED
Normal:	9	
Alcohol:		
Other:	1	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:									1	2			
PM:	1		1										

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		5						10

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
5	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
2	Pick-Up Truck		Emergency Veh
1	Trucks (2+3 axles)	2	Other Types

SURFACE	
	Wet
5	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		4			5							

OTHER MOVEMENTS 1

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol	1	Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
1	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
1	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
1	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn	1	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:			1	1
	UnRelated:				
Rear End	Related:		1		1
	UnRelated:			2	2
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:			1	1
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
5	Clear / Cloudy	5	Day	2008	5
	Foggy		Dawn/Dusk		
	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/13/2010

Location: Mill St from US 50 to Riverside Dr.
Logmiles: From 000.44 To 000.58 Length: 0.14
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		3	16	19
Veh Occ		3		
Pedestrian				

AVG Severity Index: 9

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		5	2		3	5	4	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	1	2	1	3	1	1	4		2	2	1	1	

CONDITION	DRIVER	PED
Normal:	34	
Alcohol:		
Other:	5	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:							1	1	1	2	1		
PM:	4	2	3		2			1		1			

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	1	17		1				39

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
21	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
5	Pick-Up Truck		Emergency Veh
3	Trucks (2+3 axles)	1	Other Types

SURFACE	
	Wet
19	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
	1	12			16			2	1		3	

OTHER MOVEMENTS 4

PROBABLE CAUSES			
	Influence of Drugs	2	Improper Lane Change
	Influence of Alcohol	1	Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
2	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
5	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
1	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
2	Fail to Obey Traffic Signal		Animal
1	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
3	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn	2	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:			1	1
	UnRelated:				
Rear End	Related:		1	2	3
	UnRelated:			5	5
Sideswipe	Related:		1	1	2
	UnRelated:				
Left Turn	Related:			1	1
	UnRelated:				
Angle	Related:			4	4
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:			1	1
Other Collision	Related:			1	1
	UnRelated:				

F	Bridge	01		
I	Building	02		
X	Culvert/Ditch	03		
E	Curb	04	1	1
D	Guardrail/Barrier	05		
	Embankment	06		
O	Fence	07		
B	Light Pole	08		
J	Sign Pole	09		
E	Other Pole	10		
C	Tree/Shrubbery	11		
T	Contr. Barrier	12		
S	Crash Attenuator	13		
	Other Fixed Object			

WEATHER		ILLUMINATION		TOTALS	
19	Clear / Cloudy	18	Day	06-08	19
	Foggy		Dawn/Dusk		
	Raining	1	Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/13/2010

Location: Mill St from US 50 to Riverside Dr.

Logmiles: From 000.44 To 000.58 Length: 0.14

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
MU1780												
0.44	✓	04282006	Property	09P	Night	Dry			LFTRN	NL	SS	Fail to yield right-of-way
0.44	✓	10282008	Property	09A	Day	Dry			OTHER	Su	NS	Improper backing
0.45	✓	10202008	1 Injured	12P	Day	Dry			RREND	NS	NS	
0.49	✓	07212006	Property	04P	Day	Dry			ANGLE	NS	ES	Fail to obey traffic signal
0.49	✓	01292007	Property	06A	Day	Dry			ANGLE	ER	SS	Fail to give full attention
0.49		03202007	Property	10A	Day	Dry			PARKD	SS	uP	Fail to give full attention
0.49	✓	04232007	1 Injured	12P	Day	Dry			SDSWP	SS	SS	Improper lane change
0.49	✓	05122007	Property	07P	Day	Dry			ANGLE	SS	WS	
0.49	✓	06112007	Property	02P	Day	Dry			SDSWP	NS	NS	Improper lane change
0.49	✓	07122007	Property	02P	Day	Dry			RREND	WS	WS	Followed too closely
0.49	✓	12172007	Property	07A	Day	Dry			ANGLE	NS	ES	Fail to obey traffic signal
0.49		09122008	Property	02P	Day	Dry			RREND	SS	SS	Physical or mental difficulty
0.51		11112006	Property	12P	Day	Dry			RREND	NS	NS	Followed too closely
0.50		07062006	1 Injured	01P	Day	Dry		04	FXOBJ	SS		Physical or mental difficulty
0.56		02242007	Property	04P	Day	Dry			RREND	SS	SS	Fail to give full attention
0.58	✓	09022006	Property	01P	Day	Dry			RREND	NS	NS	Fail to give full attention
0.58		02162007	Property	12P	Day	Dry			RREND	SS	SS	Followed too closely
0.58		04182008	Property	09A	Day	Dry			RREND	SS	SS	Fail to give full attention
0.58	✓	07102008	Property	08A	Day	Dry			OPDIR	SS	NS	Fail to obey other control

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence
08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

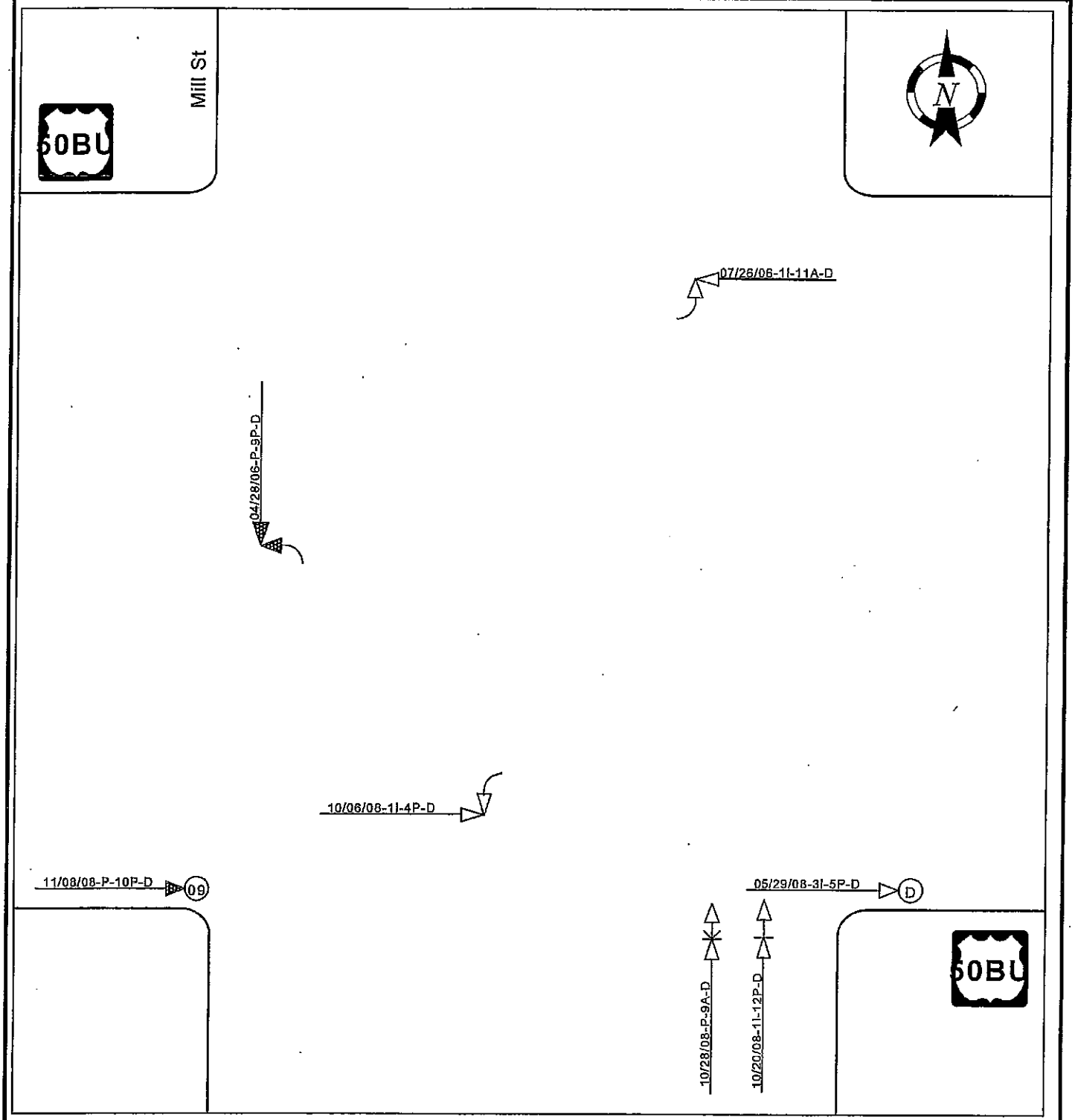
Location: US0050BU @ MILL ST
Logmiles: 003.16 At 003.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 01, 2006 To December 31, 2008
Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed	0		0	
Injury	1	0	3	4
No. Injured	1		5	
Prop. Damage	1	0	2	3
Total Crashes	2	0	5	7
Severity Index	3	0	10	Avg 4
Opposite Dir.	0	0	0	0
Rear End	0	0	1	1
Sideswipe	0	0	0	0
Left Turn	2	0	1	3
Angle	0	0	0	0
Pedestrian	0	0	0	0
Parked Veh.	0	0	0	0
Fixed Object	0	0	1	1
Other	0	0	2	2
U-Turn	0	0	0	0
Backing	0	0	1	1
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	0	0	1	1
Truck Related	0	0	1	1
Night Time	1	0	1	2
Wet Surface	0	0	0	0
Alcohol	0	0	0	0
Intersection	2	0	5	7
Total Vehicles	4		8	
Total Trucks	0	0	1	1
Truck %	0.0		12.5	

Comments:

Office of Traffic & Safety
Traffic Development & Support Division
Crash Analysis Safety Team

Location: US 50BU @ Mill St
County: WICOMICO
Study Period: 01/01/2006 to 12/31/2008
Analyst: ALEWIS Date: 04/07/2010



DATE-SEVERITY-TIME-SURFCE
NIGHT
ALCOHOL
DRUGS

SEVERITY
F - Fatalities
I - Injured
P - Property Damage Only
SURFACE
D - Dry Surface
W - Wet Surface
I - Icy Surface
S - Snowy Surface

00 - Not Applicable
01 - Bridge or Overpass
02 - Building
03 - Culvert or Ditch
04 - Curb
05 - Guardrail or Barrier
06 - Embankment
07 - Fence
08 - Light Support Pole
09 - Sign Support Pole
10 - Other Pole
11 - Tree Shrubbery
12 - Construction Barrier
13 - Crash Attenuator
88 - Other
99 - Unknown

B - Bicycle
P - Other Pedalcycle
C - Other Conveyance
T - Railway Train
A - Animal
O - Other Object
S - Spilled Cargo
J - Jackknife

U - Units Seperated
N - Other Non collision
D - Off Road
R - Downhill Runaway
F - Explosion or Fire
? - Unknown

template 06-27-05

U - TURN
BACKING
OVERTURN
Parked Vehicle
P Pedestrian

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

Location: US0050BU @ MILL ST
Logmiles: 003.16 At 003.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2006
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1	1	2
Veh Occ		1		
Pedestrian				

Severity Index: 3

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
				1		1		

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
				1			1						

CONDITION	DRIVER	PED
Normal:	3	
Alcohol:		
Other:	1	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:												1	
PM:										1			

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		2						4

VEHICLE TYPE	
Motorcycle/Moped	Tractor Trailer
1 Passenger Vehicle	Passenger Bus
Sport Utility Veh	School Bus
1 Pick-Up Truck	Emergency Veh
Trucks (2+3 axles)	2 Other Types

SURFACE
Wet
2 Dry
Sno/Ice
Mud
Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
	1				1		1				1	

OTHER MOVEMENTS

PROBABLE CAUSES

Influence of Drugs	Improper Lane Change
Influence of Alcohol	Improper Backing
Influence of Medication	Improper Passing
Influence of Combined Subst.	Improper Signal
Physical/Mental Difficulty	Improper Parking
Fell Asleep/Fainted, etc.	Passenger Interfere/Obstruct.
Fail to give full Attention	Illegally in Roadway
Lic. Restr. Non-compliance	Bicycle Violation
Fail to Drive in Single Lane	Clothing Not Visible
Improper Right Turn on Red	Sleet, Hail, Freezing Rain
2 Fail to Yield Right-of-way	Severe Crosswinds
Fail to Obey Stop Sign	Rain, Snow
Fail to Obey Traffic Signal	Animal
Fail to Obey Other Control	Vision Obstruction
Fail to Keep Right of Center	Vehicle Defect
Fail to Stop for School Bus	Wet
Wrong Way on One Way	Icy or Snow Covered
Exceeded Speed Limit	Debris or Obstruction
Operator Using Cell Phone	Ruts, Holes or Bumps
Stopping in Lane Roadway	Road Under Construction
Too Fast for Conditions	Traffic Control Device Inop.
Followed too Closely	Shoulders Low, Soft or High
Improper Turn	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:		1	1	2
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER	ILLUMINATION	TOTALS	
2 Clear / Cloudy	1 Day	2006	2
Foggy	Dawn/Dusk		
Raining	1 Dark - Lights On		
Snow / Sleet	Dark - No Lights		
Other	Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

Location: US0050BU @ MILL ST
Logmiles: 003.16 At 003.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2007 To December 31, 2007
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		0		0
Veh Occ				
Pedestrian			Severity Index:	

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK

CONDITION	DRIVER	PED
Normal:		
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:													

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL

VEHICLE TYPE	
Motorcycle/Moped	Tractor Trailer
Passenger Vehicle	Passenger Bus
Sport Utility Veh	School Bus
Pick-Up Truck	Emergency Veh
Trucks (2+3 axles)	Other Types

SURFACE
Wet
Dry
Sno/Ice
Mud
Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT

OTHER MOVEMENTS

PROBABLE CAUSES	
Influence of Drugs	Improper Lane Change
Influence of Alcohol	Improper Backing
Influence of Medication	Improper Passing
Influence of Combined Subst.	Improper Signal
Physical/Mental Difficulty	Improper Parking
Fell Asleep/Fainted, etc.	Passenger Interfere/Obstruct.
Fail to give full Attention	Illegally in Roadway
Lic. Restr. Non-compliance	Bicycle Violation
Fail to Drive in Single Lane	Clothing Not Visible
Improper Right Turn on Red	Sleet, Hail, Freezing Rain
Fail to Yield Right-of-way	Severe Crosswinds
Fail to Obey Stop Sign	Rain, Snow
Fail to Obey Traffic Signal	Animal
Fail to Obey Other Control	Vision Obstruction
Fail to Keep Right of Center	Vehicle Defect
Fail to Stop for School Bus	Wet
Wrong Way on One Way	Icy or Snow Covered
Exceeded Speed Limit	Debris or Obstruction
Operator Using Cell Phone	Ruts, Holes or Bumps
Stopping in Lane Roadway	Road Under Construction
Too Fast for Conditions	Traffic Control Device Inop.
Followed too Closely	Shoulders Low, Soft or High
Improper Turn	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER	ILLUMINATION	TOTALS	
Clear / Cloudy	Day	2007	0
Foggy	Dawn/Dusk		
Raining	Dark - Lights On		
Snow / Sleet	Dark - No Lights		
Other	Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

Location: US0050BU @ MILL ST
Logmiles: 003.16 At 003.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2008 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		3	2	5
Veh Occ		5		
Pedestrian				

Severity Index: 10

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		2	1		1		1	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
					1					3	1		

CONDITION	DRIVER	PED
Normal:	8	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:										1			
PM:	1				1	1					1		

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	2	3						8

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
5	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
1	Trucks (2+3 axles)	1	Other Types

SURFACE	
	Wet
5	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		3						3		1		

OTHER MOVEMENTS 1

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol	1	Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
1	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
1	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn	2	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:		1		1
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:		1		1
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:		1	1	2
	UnRelated:				

F	Bridge	01			
I	Building	02			
X	Culvert/Ditch	03			
E	Curb	04			
D	Guardrail/Barrier	05			
	Embankment	06			
O	Fence	07			
B	Light Pole	08			
J	Sign Pole	09		1	1
E	Other Pole	10			
C	Tree/Shrubbery	11			
T	Contr. Barrier	12			
S	Crash Attenuator	13			
	Other Fixed Object				

WEATHER		ILLUMINATION		TOTALS	
5	Clear / Cloudy	4	Day	2008	5
	Foggy		Dawn/Dusk		
	Raining	1	Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

Location: US0050BU @ MILL ST
Logmiles: 003.16 At 003.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		4	3	7
Veh Occ		6		
Pedestrian				

AVG Severity Index: 4

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		2	1	1	1	1	1	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
				1	1		1			3	1		

CONDITION	DRIVER	PED
Normal:	11	
Alcohol:		
Other:	1	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:										1		1	
PM:	1				1	1				1	1		

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	2	5						12

VEHICLE TYPE	
Motorcycle/Moped	Tractor Trailer
6 Passenger Vehicle	Passenger Bus
Sport Utility Veh	School Bus
2 Pick-Up Truck	Emergency Veh
1 Trucks (2+3 axles)	3 Other Types

SURFACE
Wet
7 Dry
Sno/Ice
Mud
Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST.	RT
	1	3			1		1	3		1	1	

OTHER MOVEMENTS 1

PROBABLE CAUSES	
Influence of Drugs	Improper Lane Change
Influence of Alcohol	1 Improper Backing
Influence of Medication	Improper Passing
Influence of Combined Subst.	Improper Signal
Physical/Mental Difficulty	Improper Parking
Fell Asleep/Fainted, etc.	Passenger Interfere/Obstruct.
Fail to give full Attention	Illegally in Roadway
Lic. Restr. Non-compliance	Bicycle Violation
Fail to Drive in Single Lane	Clothing Not Visible
Improper Right Turn on Red	Sleet, Hail, Freezing Rain
3 Fail to Yield Right-of-way	Severe Crosswinds
Fail to Obey Stop Sign	Rain, Snow
Fail to Obey Traffic Signal	Animal
Fail to Obey Other Control	Vision Obstruction
1 Fail to Keep Right of Center	Vehicle Defect
Fail to Stop for School Bus	Wet
Wrong Way on One Way	Icy or Snow Covered
Exceeded Speed Limit	Debris or Obstruction
Operator Using Cell Phone	Ruts, Holes or Bumps
Stopping in Lane Roadway	Road Under Construction
Too Fast for Conditions	Traffic Control Device Inop.
Followed too Closely	Shoulders Low, Soft or High
Improper Turn	2 Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:		1		1
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:		2	1	3
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:		1	1	2
	UnRelated:				

F	Bridge	01		
I	Building	02		
X	Culvert/Ditch	03		
E	Curb	04		
D	Guardrail/Barrier	05		
	Embankment	06		
O	Fence	07		
B	Light Pole	08		
J	Sign Pole	09	1	1
E	Other Pole	10		
C	Tree/Shrubbery	11		
T	Contr. Barrier	12		
S	Crash Attenuator	13		
	Other Fixed Object			

WEATHER	ILLUMINATION	TOTALS	
7 Clear / Cloudy	5 Day	06-08	7
Foggy	Dawn/Dusk		
Raining	2 Dark - Lights On		
Snow / Sleet	Dark - No Lights		
Other	Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/07/2010

Location: US0050BU @ MILL ST

Logmiles: 003.16 At 003.16 Radius: 200 ft.

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
MU1780												
0.44	✓	04282006	Property	09P	Night	Dry			LFTRN	NL	SS	Fail to yield right-of-way
0.44	✓	10282008	Property	09A	Day	Dry			OTHER	Su	NS	Improper backing
0.45	✓	10202008	1 Injured	12P	Day	Dry			RREND	NS	NS	
US0050												
3.15	✓	07262006	1 Injured	11A	Day	Dry			LFTRN	EL	WS	Fail to yield right-of-way
3.16	✓	05292008	3 Injured	05P	Day	Dry			OTHER	ES		
3.16	✓	11082008	Property	10P	Night	Dry		09	FXOBJ	ES		Fail to keep right of center
US0050BU												
3.16	✓	10062008	1 Injured	04P	Day	Dry			LFTRN	WL	ES	Fail to yield right-of-way

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence
08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

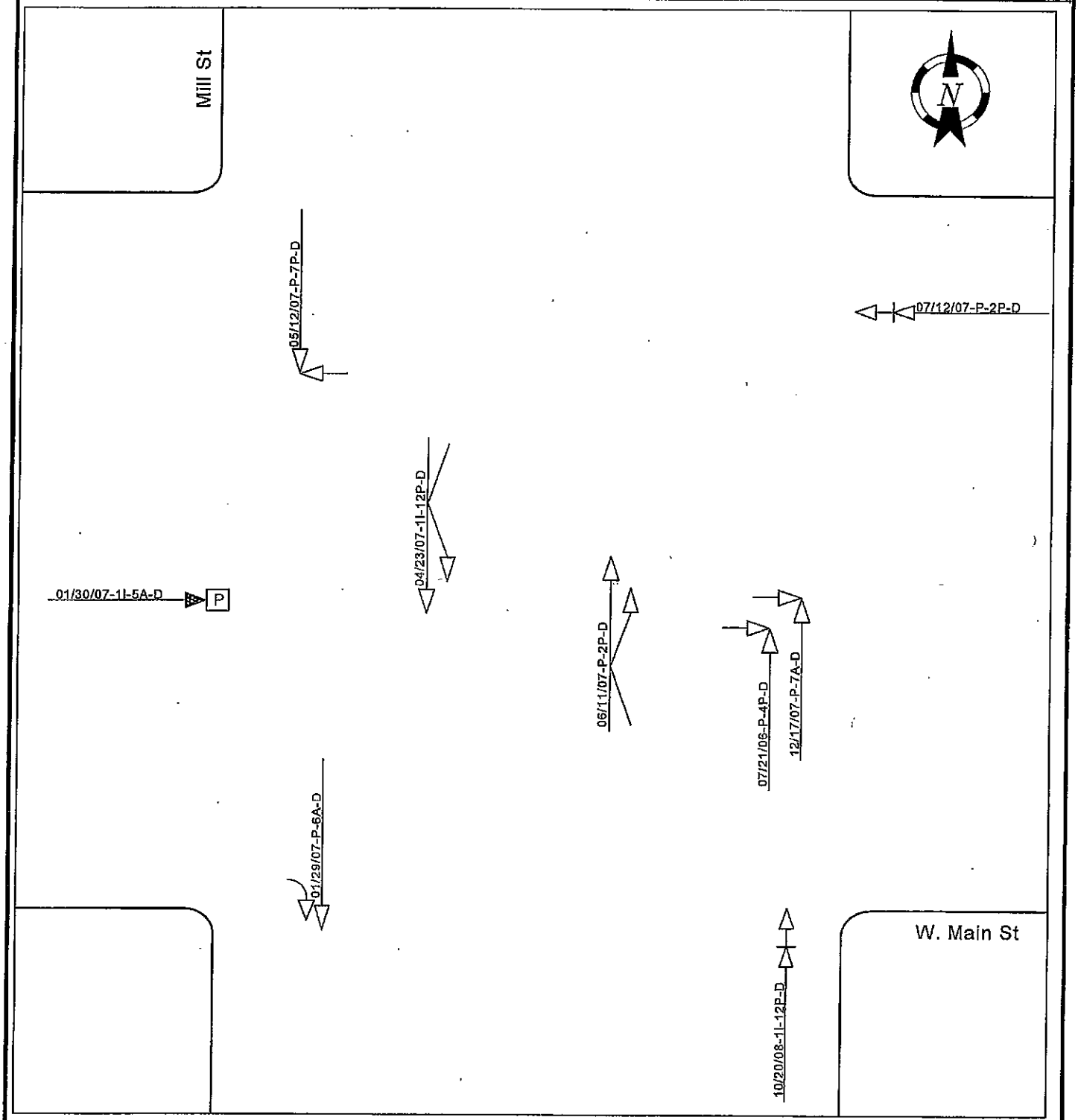
Location: Mill St @ W. Main St
Logmiles: 000.49 At 000.74 Radius: 200 ft.
County: Wicomico, D1
Period: January 01, 2006 To December 31, 2008
Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed	0	0	0	0
Injury	0	2	1	3
No. Injured	0	2	1	3
Prop. Damage	1	5	0	6
Total Crashes	1	7	1	9
Severity Index	1	16	2	Avg 6
Opposite Dir.	0	0	0	0
Rear End	0	1	1	2
Sideswipe	0	2	0	2
Left Turn	0	0	0	0
Angle	1	3	0	4
Pedestrian	0	1	0	1
Parked Veh.	0	0	0	0
Fixed Object	0	0	0	0
Other	0	0	0	0
U-Turn	0	0	0	0
Backing	0	0	0	0
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	0	0	0	0
Truck Related	0	1	0	1
Night Time	0	1	0	1
Wet Surface	0	0	0	0
Alcohol	0	0	0	0
Intersection	1	7	1	9
Total Vehicles	2	13	2	17
Total Trucks	0	1	0	1
Truck %	0.0	7.7	0.0	5.9

Comments:

Office of Traffic & Safety
Traffic Development & Support Division
Crash Analysis Safety Team

Location: Mill St @ W. Main St
County: WICOMICO
Study Period: 01/01/2006 to 12/31/2008
Analyst: ALEWIS Date: 04/07/2010



DATE-SEVERITY-TIME-SURFCE
NIGHT
ALCOHOL
DRUGS

SEVERITY
F - Fatalities
I - Injured
P - Property Damage Only
SURFACE
D - Dry Surface
W - Wet Surface
I - Icy Surface
S - Snowy Surface

00 - Not Applicable
01 - Bridge or Overpass
02 - Building
03 - Culvert or Ditch
04 - Curb
05 - Guardrail or Barrier
06 - Embankment
07 - Fence
08 - Light Support Pole
09 - Sign Support Pole
10 - Other Pole
11 - Tree Shrubbery
12 - Construction Barrier
13 - Crash Attenuator
88 - Other
99 - Unknown

B - Bicycle
P - Other Pedalcycle
C - Other Conveyance
T - Railway Train
A - Animal
O - Other Object
S - Spilled Cargo
J - Jackknife

U - Units Seperated
N - Other Non collision
D - Off Road
R - Downhill Runaway
F - Explosion or Fire
? - Unknown

template 06-27-06

U - TURN
BACKING
OVERTURN
Parked Vehicle
P Pedestrian

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

Location: Mill St @ W. Main St
Logmiles: 000.49 At 000.74 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2006
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		0	1	1
Veh Occ				
Pedestrian				

Severity Index: 1

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
						1		

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
							1						

CONDITION	DRIVER	PED
Normal:	2	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:					1								

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		1						2

VEHICLE TYPE	
Motorcycle/Moped	Tractor Trailer
1 Passenger Vehicle	Passenger Bus
Sport Utility Veh	School Bus
1 Pick-Up Truck	Emergency Veh
Trucks (2+3 axles)	Other Types

SURFACE
Wet
1 Dry
Sno/Ice
Mud
Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		1						1				

OTHER MOVEMENTS

PROBABLE CAUSES

Influence of Drugs	Improper Lane Change
Influence of Alcohol	Improper Backing
Influence of Medication	Improper Passing
Influence of Combined Subst.	Improper Signal
Physical/Mental Difficulty	Improper Parking
Fell Asleep/Fainted, etc.	Passenger Interfere/Obstruct.
Fail to give full Attention	Illegally in Roadway
Lic. Restr. Non-compliance	Bicycle Violation
Fail to Drive in Single Lane	Clothing Not Visible
Improper Right Turn on Red	Sleet, Hail, Freezing Rain
Fail to Yield Right-of-way	Severe Crosswinds
Fail to Obey Stop Sign	Rain, Snow
1 Fail to Obey Traffic Signal	Animal
Fail to Obey Other Control	Vision Obstruction
Fail to Keep Right of Center	Vehicle Defect
Fail to Stop for School Bus	Wet
Wrong Way on One Way	Icy or Snow Covered
Exceeded Speed Limit	Debris or Obstruction
Operator Using Cell Phone	Ruts, Holes or Bumps
Stopping in Lane Roadway	Road Under Construction
Too Fast for Conditions	Traffic Control Device Inop.
Followed too Closely	Shoulders Low, Soft or High
Improper Turn	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:			1	1
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER	ILLUMINATION	TOTALS	
1 Clear / Cloudy	1 Day	2006	1
Foggy	Dawn/Dusk		
Raining	Dark - Lights On		
Snow / Sleet	Dark - No Lights		
Other	Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

Location: Mill St @ W. Main St
Logmiles: 000.49 At 000.74 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2007 To December 31, 2007
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		2	5	7
Veh Occ		1		
Pedestrian		1	Severity Index: 16	

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		4	1		1		1	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	2			1	1	1	1					1	

CONDITION	DRIVER	PED
Normal:	13	1
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:						1	1	1					
PM:	1		2					1					

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	1	2						13
	1	6						

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
9	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
1	Trucks (2+3 axles)	2	Other Types

SURFACE	
	Wet
7	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		3			4			2	1		3	

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs	2	Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
1	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
1	Fail to Yield Right-of-way		Severe Crosswinds.
	Fail to Obey Stop Sign		Rain, Snow
1	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
1	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn	1	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:			1	1
	UnRelated:				
Sideswipe	Related:		1	1	2
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:			3	3
	UnRelated:				
Pedestrian	Related:		1		1
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
7	Clear / Cloudy	6	Day	2007	7
	Foggy		Dawn/Dusk		
	Raining	1	Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

Location: Mill St @ W. Main St
Logmiles: 000.49 At 000.74 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2008 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1		1
Veh Occ		1		
Pedestrian				

Severity Index: 2

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		1						

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
										1			

CONDITION	DRIVER	PED
Normal:	2	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:	1												

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		1						2

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
1	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	1	Other Types

SURFACE	
	Wet
1	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		2										

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn	1	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:		1		1
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
1	Clear / Cloudy	1	Day	2008	1
	Foggy		Dawn/Dusk		
	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/07/2010

Location: Mill St @ W. Main St
Logmiles: 000.49 At 000.74 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		3	6	9
Veh Occ		2		
Pedestrian		1	AVG Severity Index: 6	

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		5	1		1	1	1	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	2			1	1	1	2			1		1	

CONDITION	DRIVER	PED
Normal:	17	1
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:						1	1	1					
PM:	2		2		1			1					

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	1	8						17

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
11	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
2	Pick-Up Truck		Emergency Veh
1	Trucks (2+3 axles)	3	Other Types

SURFACE	
	Wet
9	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		6			4			3	1		3	

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs	2	Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
1	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
1	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
2	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
1	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn	2	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:		1	1	2
	UnRelated:				
Sideswipe	Related:		1	1	2
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:			4	4
	UnRelated:				
Pedestrian	Related:		1		1
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
9	Clear / Cloudy	8	Day	06-08	9
	Foggy		Dawn/Dusk		
	Raining	1	Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/07/2010

Location: Mill St @ W. Main St

Logmiles: 000.49 At 000.74 Radius: 200 ft.

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
MU1640												
0.74	✓	01302007	1 Injured	05A	Night	Dry			PED	ES		Fail to yield right-of-way
MU1780												
0.45	✓	10202008	1 Injured	12P	Day	Dry			RREND	NS	NS	
0.49	✓	07212006	Property	04P	Day	Dry			ANGLE	NS	ES	Fail to obey traffic signal
0.49	✓	01292007	Property	06A	Day	Dry			ANGLE	ER	SS	Fail to give full attention
0.49	✓	04232007	1 Injured	12P	Day	Dry			SDSWP	SS	SS	Improper lane change
0.49	✓	05122007	Property	07P	Day	Dry			ANGLE	SS	WS	
0.49	✓	06112007	Property	02P	Day	Dry			SDSWP	NS	NS	Improper lane change
0.49	✓	07122007	Property	02P	Day	Dry			RREND	WS	WS	Followed too closely
0.49	✓	12172007	Property	07A	Day	Dry			ANGLE	NS	ES	Fail to obey traffic signal

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence 08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis

Date: 04/09/2010

Location: Riverside Dr @ Mill St / W. Carroll / Camden Ave

Logmiles: 000.00 At 000.58 Radius: 200 ft.

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

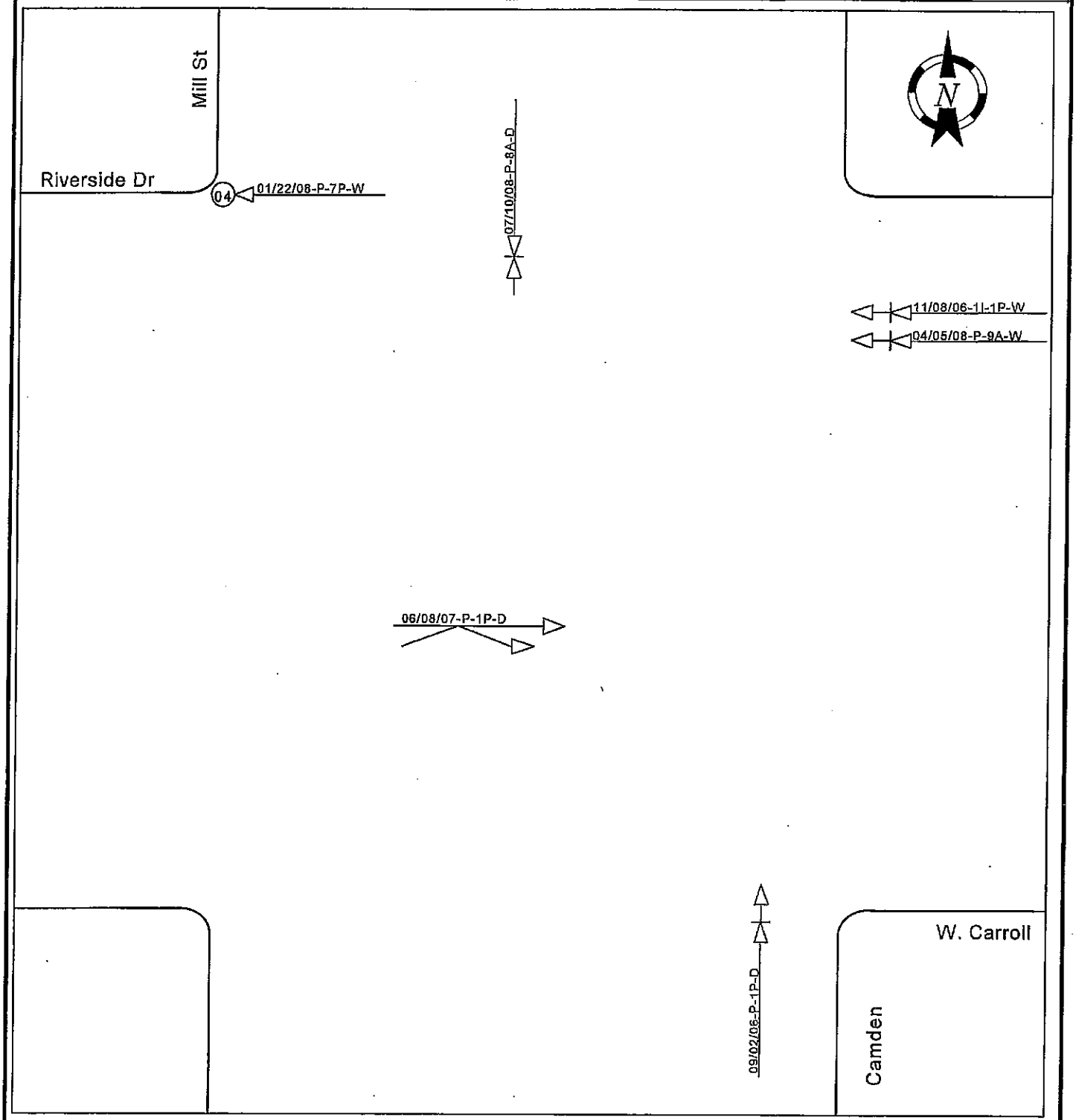
Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed	0	0	0	0
Injury	1	0	0	1
No. Injured	1	0	0	1
Prop. Damage	1	1	3	5
Total Crashes	2	1	3	6
Severity Index	3	1	3	Avg 2
Opposite Dir.	0	0	1	1
Rear End	2	0	1	3
Sideswipe	0	1	0	1
Left Turn	0	0	0	0
Angle	0	0	0	0
Pedestrian	0	0	0	0
Parked Veh.	0	0	0	0
Fixed Object	0	0	1	1
Other	0	0	0	0
U-Turn	0	0	0	0
Backing	0	0	0	0
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	0	0	0	0
Truck Related	0	0	0	0
Night Time	0	0	0	0
Wet Surface	1	0	2	3
Alcohol	0	0	0	0
Intersection	2	1	3	6
Total Vehicles	4	2	5	11
Total Trucks	0	0	0	0
Truck %	0.0	0.0	0.0	0.0

Comments:

Office of Traffic & Safety
Traffic Development & Support Division
Crash Analysis Safety Team

Location: Riverside Dr @ Mill / W. Carroll / Camden
County: WICOMICO
Study Period: 01/01/2006 to 12/31/2008
Analyst: ALEWIS Date: 04/09/2010



DATE-SEVERITY-TIME-SURFCE
NIGHT
ALCOHOL
DRUGS

SEVERITY
F - Fatalities
I - Injured
P - Property Damage Only
SURFACE
D - Dry Surface
W - Wet Surface
I - Icy Surface
S - Snowy Surface

00 - Not Applicable
01 - Bridge or Overpass
02 - Building
03 - Culvert or Ditch
04 - Curb
05 - Guardrail or Barrier
06 - Embankment
07 - Fence
08 - Light Support Pole
09 - Sign Support Pole
10 - Other Pole
11 - Tree Shrubbery
12 - Construction Barrier
13 - Crash Attenuator
88 - Other
99 - Unknown

B - Bicycle
P - Other Pedalcycle
C - Other Conveyance
T - Railway Train
A - Animal
O - Other Object
S - Spilled Cargo
J - Jackknife

U - Units Seperated
N - Other Non collision
D - Off Road
R - Downhill Runaway
F - Explosion or Fire
? - Unknown

template 06-27-06

U - TURN
BACKING
OVERTURN
Parked Vehicle
P Pedestrian

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Mill St / W. Carroll / Camden Ave
Logmiles: 000.00 At 000.58 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2006
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1	1	2
Veh Occ		1		
Pedestrian				

Severity Index: 3

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
				1			1	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
									1		1		

CONDITION	DRIVER	PED
Normal:	3	
Alcohol:		
Other:	1	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:		2											

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		2						4

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
4	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)		Other Types

SURFACE	
1	Wet
1	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		2									2	

OTHER MOVEMENTS

PROBABLE CAUSES

	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
2	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:		1	1	2
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
1	Clear / Cloudy	2	Day	2006	2
	Foggy		Dawn/Dusk		
1	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Mill St / W. Carroll / Camden Ave
Logmiles: 000.00 At 000.58 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2007 To December 31, 2007
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		0	1	1
Veh Occ				
Pedestrian				

Severity Index: 1

DAY OF THE WEEK

SUN	MON	TUE	WED	THU	FRI	SAT	UNK
					1		

MONTH OF THE YEAR

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
					1							

CONDITION	DRIVER	PED
Normal:	1	
Alcohol:		
Other:	1	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:		1											

VEHICLES INVOLVED PER ACCIDENT

1	2	3	4	5	6+	UNK	TOTAL
	1						2

VEHICLE TYPE

Motorcycle/Moped	Tractor Trailer
2 Passenger Vehicle	Passenger Bus
Sport Utility Veh	School Bus
Pick-Up Truck	Emergency Veh
Trucks (2+3 axles)	Other Types

SURFACE

Wet	
1 Dry	
Sno/Ice	
Mud	
Other	

MOVEMENTS

NORTH			SOUTH			EAST			WEST		
LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
							2				

OTHER MOVEMENTS

PROBABLE CAUSES

Influence of Drugs	Improper Lane Change
Influence of Alcohol	Improper Backing
Influence of Medication	1 Improper Passing
Influence of Combined Subst.	Improper Signal
Physical/Mental Difficulty	Improper Parking
Fell Asleep/Fainted, etc.	Passenger Interfere/Obstruct.
Fail to give full Attention	Illegally in Roadway
Lic. Restr. Non-compliance	Bicycle Violation
Fail to Drive in Single Lane	Clothing Not Visible
Improper Right Turn on Red	Sleet, Hail, Freezing Rain
Fail to Yield Right-of-way	Severe Crosswinds
Fail to Obey Stop Sign	Rain, Snow
Fail to Obey Traffic Signal	Animal
Fail to Obey Other Control	Vision Obstruction
Fail to Keep Right of Center	Vehicle Defect
Fail to Stop for School Bus	Wet
Wrong Way on One Way	Icy or Snow Covered
Exceeded Speed Limit	Debris or Obstruction
Operator Using Cell Phone	Ruts, Holes or Bumps
Stopping in Lane Roadway	Road Under Construction
Too Fast for Conditions	Traffic Control Device Inop.
Followed too Closely	Shoulders Low, Soft or High
Improper Turn	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:			1	1
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER	ILLUMINATION	TOTALS	
1 Clear / Cloudy	1 Day	2007	1
Foggy	Dawn/Dusk		
Raining	Dark - Lights On		
Snow / Sleet	Dark - No Lights		
Other	Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Mill St / W. Carroll / Camden Ave
Logmiles: 000.00 At 000.58 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2008 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		0	3	3
Veh Occ				
Pedestrian				

Severity Index: 3

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
			1		1		1	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	1			1			1						

CONDITION	DRIVER	PED
Normal:	5	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:									1	1			
PM:								1					

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	1	2						5

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
2	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	2	Other Types

SURFACE	
2	Wet
1	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		1			1						3	

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
2	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
1	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:			1	1
	UnRelated:				
Rear End	Related:			1	1
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01		
I	Building	02		
X	Culvert/Ditch	03		
E	Curb	04	1	1
D	Guardrail/Barrier	05		
	Embankment	06		
O	Fence	07		
B	Light Pole	08		
J	Sign Pole	09		
E	Other Pole	10		
C	Tree/Shrubbery	11		
T	Contr. Barrier	12		
S	Crash Attenuator	13		
	Other Fixed Object			

WEATHER		ILLUMINATION		TOTALS	
2	Clear / Cloudy	3	Day	2008	3
	Foggy		Dawn/Dusk		
1	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Mill St / W. Carroll / Camden Ave
Logmiles: 000.00 At 000.58 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1	5	6
Veh Occ		1		
Pedestrian				

AVG Severity Index: 2

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
			1	1	1	1	2	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	1			1		1	1		1		1		

CONDITION	DRIVER	PED
Normal:	9	
Alcohol:		
Other:	2	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:									1	1			
PM:		3						1					

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	1	5						11

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
8	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	2	Other Types

SURFACE	
3	Wet
3	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		3			1			2			5	

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication	1	Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
4	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
1	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:			1	1
	UnRelated:				
Rear End	Related:		1	2	3
	UnRelated:				
Sideswipe	Related:			1	1
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01		
I	Building	02		
X	Culvert/Ditch	03		
E	Curb	04	1	1
D	Guardrail/Barrier	05		
	Embankment	06		
O	Fence	07		
B	Light Pole	08		
J	Sign Pole	09		
E	Other Pole	10		
C	Tree/Shrubbery	11		
T	Contr. Barrier	12		
S	Crash Attenuator	13		
	Other Fixed Object			

WEATHER		ILLUMINATION		TOTALS	
4	Clear / Cloudy	6	Day	06-08	6
	Foggy		Dawn/Dusk		
2	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/09/2010

Location: Riverside Dr @ Mill St / W. Carroll / Camden Ave

Logmiles: 000.00 At 000.58 Radius: 200 ft.

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
MU0410												
0.00	✓	11082006	1 Injured	01P	Day	Wet			RREND	WS	WS	Fail to give full attention
0.00	✓	01222008	Property	07P	Day	Wet		04	FXOBJ	WS		Fail to give full attention
0.00	✓	04052008	Property	09A	Day	Wet			RREND	WS	WS	Fail to give full attention
MU1780												
0.58	✓	09022006	Property	01P	Day	Dry			RREND	NS	NS	Fail to give full attention
0.58	✓	07102008	Property	08A	Day	Dry			OPDIR	SS	NS	Fail to obey other control
MU2422												
0.00	✓	06082007	Property	01P	Day	Dry			SDSWP	ES	ES	Improper passing

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence 08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

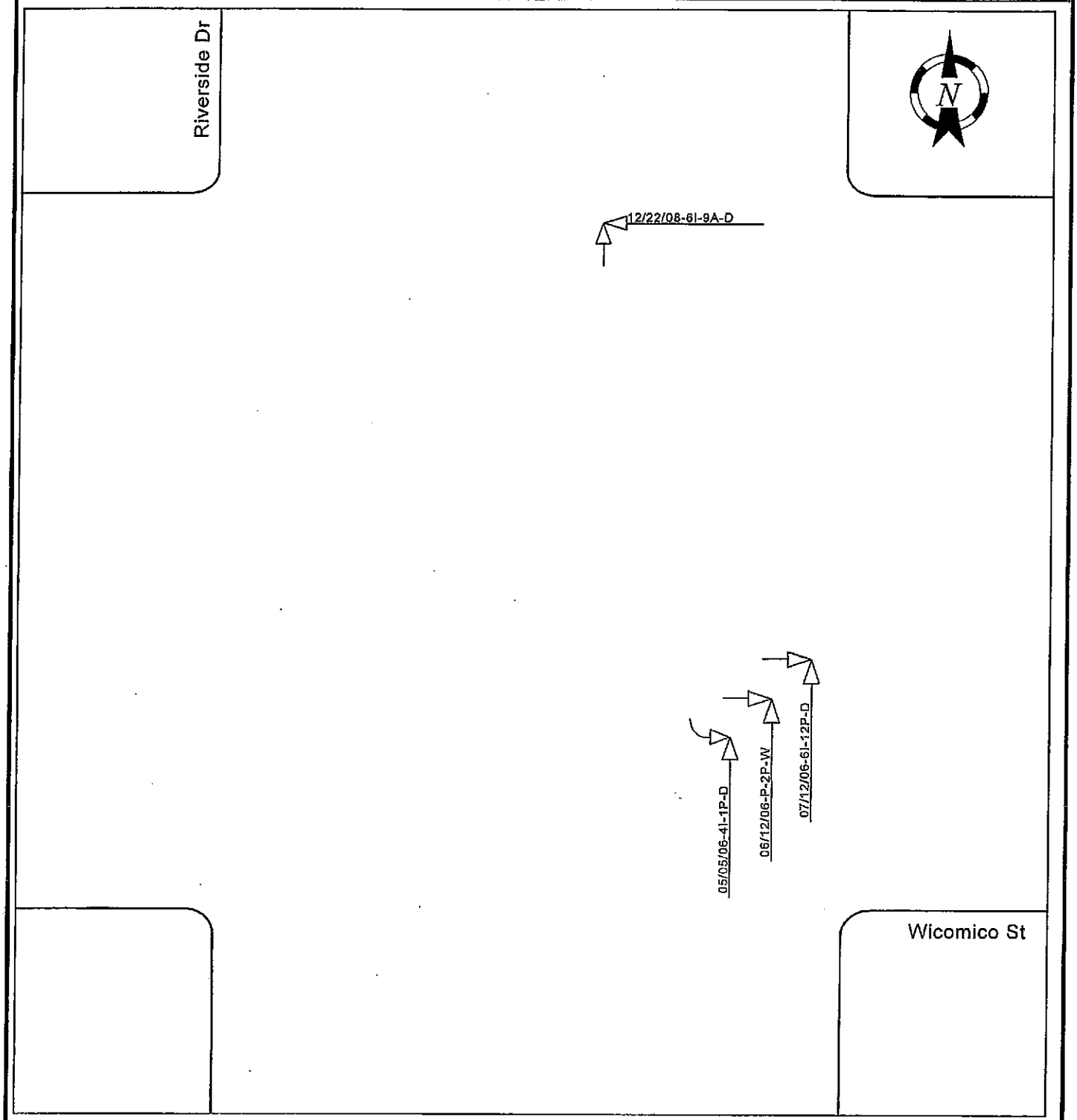
Location: Riverside Dr @ Wicomico St
Logmiles: 000.33 At 000.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 01, 2006 To December 31, 2008
Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed	0		0	
Injury	2	0	1	3
No. Injured	10		6	
Prop. Damage	1	0	0	1
Total Crashes	3	0	1	4
Severity Index	5	0	4	Avg 3
Opposite Dir.	0	0	0	0
Rear End	0	0	0	0
Sideswipe	0	0	0	0
Left Turn	1	0	0	1
Angle	2	0	1	3
Pedestrian	0	0	0	0
Parked Veh.	0	0	0	0
Fixed Object	0	0	0	0
Other	0	0	0	0
U-Turn	0	0	0	0
Backing	0	0	0	0
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	0	0	0	0
Truck Related	0	0	0	0
Night Time	0	0	0	0
Wet Surface	1	0	0	1
Alcohol	0	0	0	0
Intersection	3	0	1	4
Total Vehicles	6		3	
Total Trucks	0	0	0	0
Truck %	0.0		0.0	

Comments:

Office of Traffic & Safety
Traffic Development & Support Division
Crash Analysis Safety Team

Location: Riverside Dr @ Wicomico St
County: WICOMICO
Study Period: 01/01/2006 to 12/31/2008
Analyst: ALEWIS Date: 04/09/2010



DATE-SEVERITY-TIME-SURFCE
NIGHT
ALCOHOL X
DRUGS ⊗

SEVERITY
F - Fatalities
I - Injured
P - Property Damage Only
SURFACE
D - Dry Surface
W - Wet Surface
I - Icy Surface
S - Snowy Surface

00 - Not Applicable
01 - Bridge or Overpass
02 - Building
03 - Culvert or Ditch
04 - Curb
05 - Guardrail or Barrier
06 - Embankment
07 - Fence
08 - Light Support Pole
09 - Sign Support Pole
10 - Other Pole
11 - Tree Shrubbery
12 - Construction Barrier
13 - Crash Attenuator
88 - Other
99 - Unknown

B - Bicycle
P - Other Pedalcycle
C - Other Conveyance
T - Railway Train
A - Animal
O - Other Object
S - Spilled Cargo
J - Jackknife

U - Units Seperated
N - Other Non collision
D - Off Road
R - Downhill Runaway
F - Explosion or Fire
7 - Unknown

template 06-27-06

U - TURN
BACKING
OVERTURN
Parked Vehicle
P Pedestrian

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Wicomico St
Logmiles: 000.33 At 000.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2006
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		2	1	3
Veh Occ		10		
Pedestrian				

Severity Index: 5

DAY OF THE WEEK

SUN	MON	TUE	WED	THU	FRI	SAT	UNK
	1		1		1		

MONTH OF THE YEAR

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
				1	1	1						

CONDITION	DRIVER	PED
Normal:	6	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:	1	1	1										

VEHICLES INVOLVED PER ACCIDENT

1	2	3	4	5	6+	UNK	TOTAL
	3						6

VEHICLE TYPE

	Motorcycle/Moped		Tractor Trailer
5	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)		Other Types

SURFACE

1	Wet	
2	Dry	
	Sno/Ice	
	Mud	
	Other	

MOVEMENTS

NORTH			SOUTH			EAST			WEST		
LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
	3		1				2				

OTHER MOVEMENTS

PROBABLE CAUSES

	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
1	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
1	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
1	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:		1		1
	UnRelated:				
Angle	Related:		1	1	2
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
3	Clear / Cloudy	3	Day	2006	3
	Foggy		Dawn/Dusk		
	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Wicomico St
Logmiles: 000.33 At 000.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2007 To December 31, 2007
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		0		0
Veh Occ				
Pedestrian			Severity Index:	

DAY OF THE WEEK

SUN	MON	TUE	WED	THU	FRI	SAT	UNK

MONTH OF THE YEAR

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK

CONDITION	DRIVER	PED
Normal:		
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:													

VEHICLES INVOLVED PER ACCIDENT

1	2	3	4	5	6+	UNK	TOTAL

VEHICLE TYPE	
Motorcycle/Moped	Tractor Trailer
Passenger Vehicle	Passenger Bus
Sport Utility Veh	School Bus
Pick-Up Truck	Emergency Veh
Trucks (2+3 axles)	Other Types

SURFACE
Wet
Dry
Sno/Ice
Mud
Other

MOVEMENTS

NORTH			SOUTH			EAST			WEST		
LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT

OTHER MOVEMENTS

PROBABLE CAUSES

Influence of Drugs	Improper Lane Change
Influence of Alcohol	Improper Backing
Influence of Medication	Improper Passing
Influence of Combined Subst.	Improper Signal
Physical/Mental Difficulty	Improper Parking
Fell Asleep/Fainted, etc.	Passenger Interfere/Obstruct.
Fail to give full Attention	Illegally in Roadway
Lic. Restr. Non-compliance	Bicycle Violation
Fail to Drive in Single Lane	Clothing Not Visible
Improper Right Turn on Red	Sleet, Hail, Freezing Rain
Fail to Yield Right-of-way	Severe Crosswinds
Fail to Obey Stop Sign	Rain, Snow
Fail to Obey Traffic Signal	Animal
Fail to Obey Other Control	Vision Obstruction
Fail to Keep Right of Center	Vehicle Defect
Fail to Stop for School Bus	Wet
Wrong Way on One Way	Icy or Snow Covered
Exceeded Speed Limit	Debris or Obstruction
Operator Using Cell Phone	Ruts, Holes or Bumps
Stopping in Lane Roadway	Road Under Construction
Too Fast for Conditions	Traffic Control Device Inop.
Followed too Closely	Shoulders Low, Soft or High
Improper Turn	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER	ILLUMINATION	TOTALS	
Clear / Cloudy	Day	2007	0
Foggy	Dawn/Dusk		
Raining	Dark - Lights On		
Snow / Sleet	Dark - No Lights		
Other	Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Wicomico St
Logmiles: 000.33 At 000.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2008 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1		1
Veh Occ		6		
Pedestrian				

Severity Index: 4

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		1						

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
												1	

CONDITION	DRIVER	PED
Normal:		
Alcohol:		
Other:	3	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:										1			
PM:													

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
			1					3

VEHICLE TYPE			
Motorcycle/Moped		Tractor Trailer	
Passenger Vehicle		Passenger Bus	
Sport Utility Veh		School Bus	
Pick-Up Truck		Emergency Veh	
Trucks (2+3 axles)	3	Other Types	

SURFACE	
Wet	
Dry	1
Sno/Ice	
Mud	
Other	

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		1									1	

OTHER MOVEMENTS 1

PROBABLE CAUSES

	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
1	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:		1		1
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
1	Clear / Cloudy	1	Day	2008	1
	Foggy		Dawn/Dusk		
	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Wicomico St
Logmiles: 000.33 At 000.16 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		3	1	4
Veh Occ		16		
Pedestrian				

AVG Severity Index: 3

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
		2		1		1		

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
					1	1	1					1	

CONDITION	DRIVER	PED
Normal:	6	
Alcohol:		
Other:	3	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:										1			
PM:	1	1	1										

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		3	1					9

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
5	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	3	Other Types

SURFACE	
1	Wet
3	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		4			1			2			1	

OTHER MOVEMENTS 1

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
1	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
2	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
1	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:		1		1
	UnRelated:				
Angle	Related:		2	1	3
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
4	Clear / Cloudy	4	Day	06-08	4
	Foggy		Dawn/Dusk		
	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/09/2010

Location: Riverside Dr @ Wicomico St

Logmiles: 000.33 At 000.16 Radius: 200 ft.

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
MU2422												
0.33	✓	05052006	4 Injured	01P	Day	Dry			LFTRN	SL	NS	Improper turn
0.33	✓	06122006	Property	02P	Day	Wet			ANGLE	ES	NS	Fail to give full attention
0.33	✓	07122006	6 Injured	12P	Day	Dry			ANGLE	ES	NS	Fail to obey stop sign
0.33	✓	12222008	6 Injured	09A	Day	Dry			ANGLE	WS	NS	Fail to obey stop sign

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence 08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

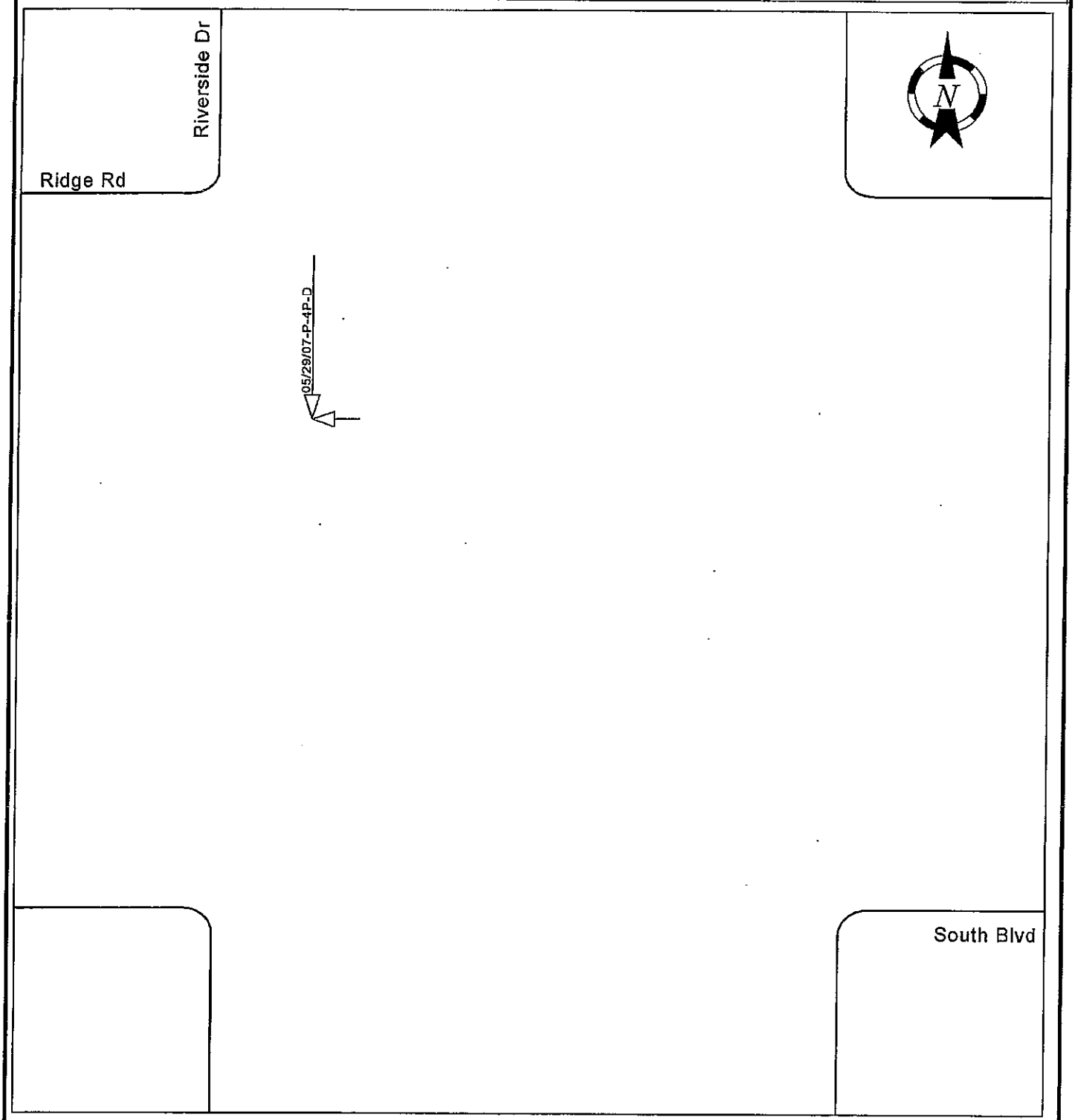
Location: Riverside Dr @ South Blvd / Ridge Rd
Logmiles: 000.70 At 000.00 Radius: 200 ft.
County: Wicomico, D1
Period: January 01, 2006 To December 31, 2008
Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed		0		
Injury	0	0	0	0
No. Injured		0		
Prop. Damage	0	1	0	1
Total Crashes	0	1	0	1
Severity Index	0	1	0	Avg 0
Opposite Dir.	0	0	0	0
Rear End	0	0	0	0
Sideswipe	0	0	0	0
Left Turn	0	0	0	0
Angle	0	1	0	1
Pedestrian	0	0	0	0
Parked Veh.	0	0	0	0
Fixed Object	0	0	0	0
Other	0	0	0	0
U-Turn	0	0	0	0
Backing	0	0	0	0
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	0	0	0	0
Truck Related	0	0	0	0
Night Time	0	0	0	0
Wet Surface	0	0	0	0
Alcohol	0	0	0	0
Intersection	0	1	0	1
Total Vehicles		2		
Total Trucks	0	0	0	0
Truck %		0.0		

Comments:

Office of Traffic & Safety
Traffic Development & Support Division
Crash Analysis Safety Team

Location: Riverside Dr @ South Blvd / Ridge Rd
County: WICOMICO
Study Period: 01/01/2006 to 12/31/2008
Analyst: ALEWIS Date: 04/09/2010



DATE-SEVERITY-TIME-SURFCE
NIGHT
ALCOHOL X
DRUGS

SEVERITY
F - Fatalities
I - Injured
P - Property Damage Only
SURFACE
D - Dry Surface
W - Wet Surface
I - Icy Surface
S - Snowy Surface

00 - Not Applicable
01 - Bridge or Overpass
02 - Building
03 - Culvert or Ditch
04 - Curb
05 - Guardrail or Barrier
06 - Embankment
07 - Fence
08 - Light Support Pole
09 - Sign Support Pole
10 - Other Pole
11 - Tree Shrubbery
12 - Construction Barrier
13 - Crash Attenuator
88 - Other
99 - Unknown

B - Bicycle
P - Other Pedalcycle
C - Other Conveyance
T - Railway Train
A - Animal
O - Other Object
S - Spilled Cargo
J - Jackknife

U - Units Seperated
N - Other Non collision
D - Off Road
R - Downhill Runaway
F - Explosion or Fire
? - Unknown

template 06-27-06

U - TURN
BACKING
OVERTURN
Parked Vehicle
P Pedestrian

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ South Blvd / Ridge Rd
Logmiles: 000.70 At 000.00 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		0	1	1
Veh Occ				
Pedestrian				

AVG Severity Index: 0

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
			1					

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
					1								

CONDITION	DRIVER	PED
Normal:	2	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:					1								

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		1						2

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
1	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	1	Other Types

SURFACE	
	Wet
1	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
					1						1	

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
	Fail to Yield Right-of-way		Severe Crosswinds
1	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:			1	1
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
1	Clear / Cloudy	1	Day	06-08	1
	Foggy		Dawn/Dusk		
	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/09/2010

Location: Riverside Dr @ South Blvd / Ridge Rd

Logmiles: 000.70 At 000.00 Radius: 200 ft.

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
MU2600												
0.00	✓	05292007	Property	04P	Day	Dry			ANGLE	WS	SS	Fail to obey stop sign

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence
08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

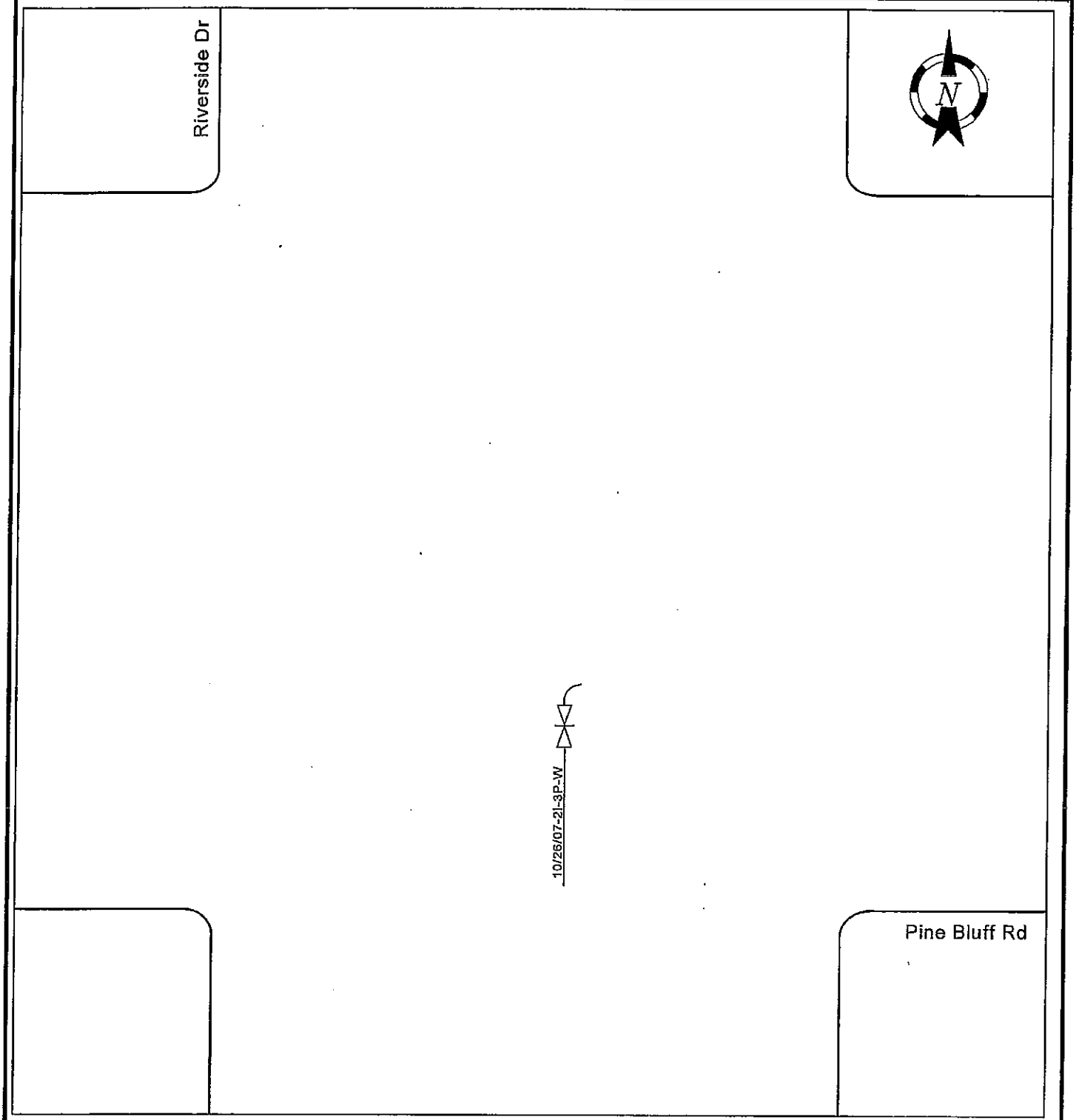
Location: Riverside Dr @ Pine Bluff Rd
Logmiles: 000.75 At 000.00 Radius: 200 ft.
County: Wicomico, D1
Period: January 01, 2006 To December 31, 2008
Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed		0		
Injury	0	1	0	1
No. Injured		2		
Prop. Damage	0	0	0	0
Total Crashes	0	1	0	1
Severity Index	0	4	0	Avg 1
Opposite Dir.	0	0	0	0
Rear End	0	0	0	0
Sideswipe	0	0	0	0
Left Turn	0	0	0	0
Angle	0	1	0	1
Pedestrian	0	0	0	0
Parked Veh.	0	0	0	0
Fixed Object	0	0	0	0
Other	0	0	0	0
U-Turn	0	0	0	0
Backing	0	0	0	0
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	0	0	0	0
Truck Related	0	0	0	0
Night Time	0	0	0	0
Wet Surface	0	1	0	1
Alcohol	0	0	0	0
Intersection	0	1	0	1
Total Vehicles		2		
Total Trucks	0	0	0	0
Truck %		0.0		

Comments:

Office of Traffic & Safety
Traffic Development & Support Division
Crash Analysis Safety Team

Location: Riverside Dr @ Pine Bluff Rd
County: WICOMICO
Study Period: 01/01/2006 to 12/31/2008
Analyst: ALEWIS Date: 04/09/2010



DATE-SEVERITY-TIME-SURFCE
NIGHT
ALCOHOL
DRUGS

SEVERITY
F - Fatalities
I - Injured
P - Property Damage Only
SURFACE
D - Dry Surface
W - Wet Surface
I - Icy Surface
S - Snowy Surface

00 - Not Applicable
01 - Bridge or Overpass
02 - Building
03 - Culvert or Ditch
04 - Curb
05 - Guardrail or Barrier
06 - Embankment
07 - Fence
08 - Light Support Pole
09 - Sign Support Pole
10 - Other Pole
11 - Tree Shrubbery
12 - Construction Barrier
13 - Crash Attenuator
88 - Other
99 - Unknown

B - Bicycle
P - Other Pedalcycle
C - Other Conveyance
T - Railway Train
A - Animal
O - Other Object
S - Spilled Cargo
J - Jackknife

U - Units Seperated
N - Other Non collision
D - Off Road
R - Downhill Runaway
F - Explosion or Fire
? - Unknown

template 06-27-06

U - TURN
BACKING
OVERTURN
Parked Vehicle
P Pedestrian

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Pine Bluff Rd
Logmiles: 000.75 At 000.00 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1		1
Veh Occ		2		
Pedestrian				

AVG Severity Index: 1

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
						1		

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
										1			

CONDITION	DRIVER	PED
Normal:	2	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:				1									

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		1						2

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
1	Passenger Vehicle		Passenger Bus
	Sport Utility Veh	1	School Bus
	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)		Other Types

SURFACE	
1	Wet
	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		1								1		

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
1	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:		1		1
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
	Clear / Cloudy	1	Day	06-08	1
	Foggy		Dawn/Dusk		
1	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/09/2010

Location: Riverside Dr @ Pine Bluff Rd

Logmiles: 000.75 At 000.00 Radius: 200 ft.

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
CO0153												
0.75	✓	10262007	2 Injured	03P	Day	Wet			ANGLE	WL	NS	Fail to yield right-of-way

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence
08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

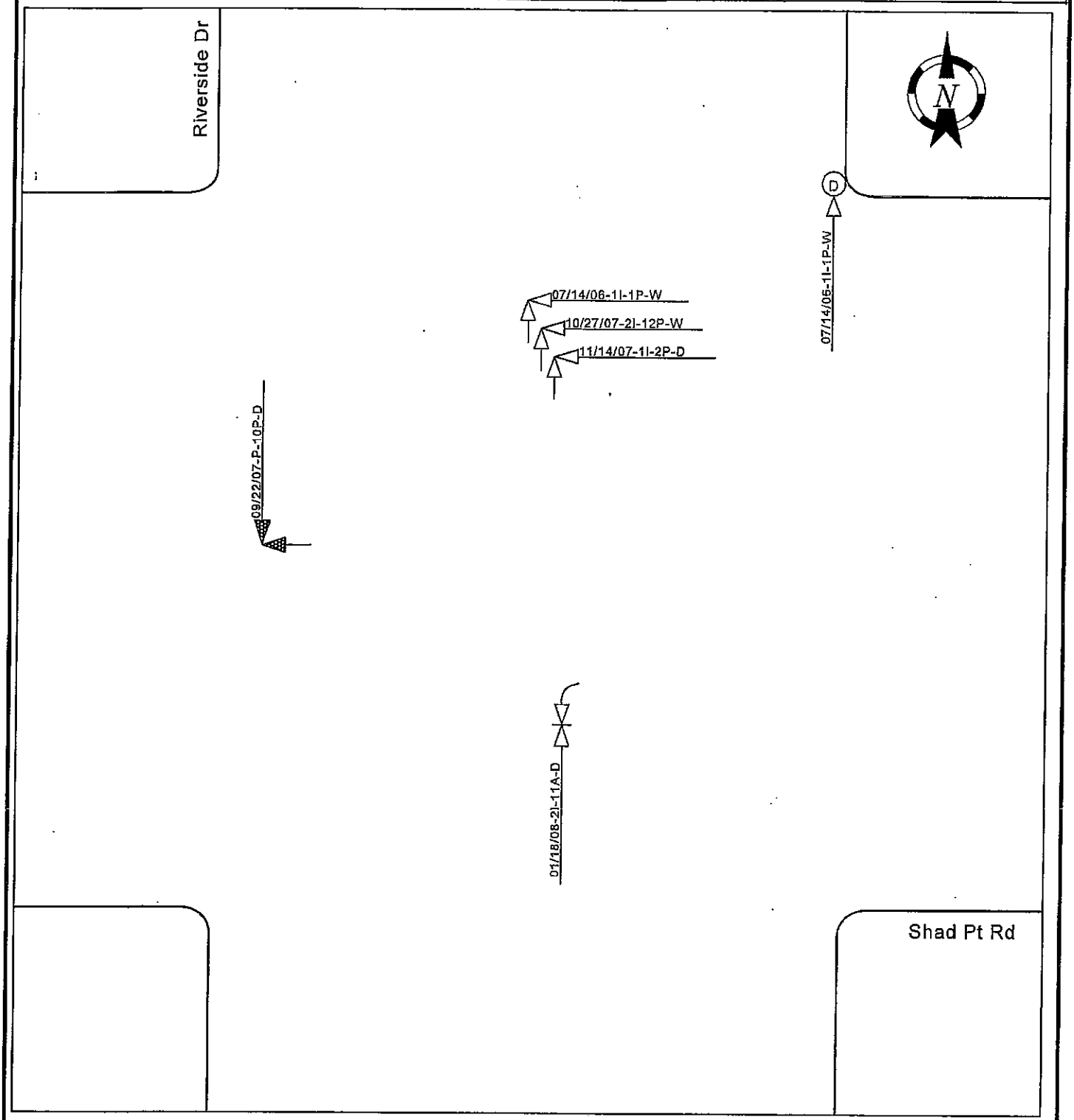
Location: Riverside Dr @ Shad Point Rd
Logmiles: 001.32 At 000.00 Radius: 200 ft.
County: Wicomico, D1
Period: January 01, 2006 To December 31, 2008
Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed	0	0	0	0
Injury	2	2	1	5
No. Injured	2	3	2	7
Prop. Damage	0	1	0	1
Total Crashes	2	3	1	6
Severity Index	4	9	4	Avg 6
Opposite Dir.	0	0	0	0
Rear End	0	0	0	0
Sideswipe	0	0	0	0
Left Turn	0	0	0	0
Angle	1	3	1	5
Pedestrian	0	0	0	0
Parked Veh.	0	0	0	0
Fixed Object	0	0	0	0
Other	1	0	0	1
U-Turn	0	0	0	0
Backing	0	0	0	0
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	1	0	0	1
Truck Related	0	0	0	0
Night Time	0	1	0	1
Wet Surface	2	1	0	3
Alcohol	0	0	0	0
Intersection	2	3	1	6
Total Vehicles	3	6	2	11
Total Trucks	0	0	0	0
Truck %	0.0	0.0	0.0	0.0

Comments:

Office of Traffic & Safety
Traffic Development & Support Division
Crash Analysis Safety Team

Location: Riverside Dr @ Shad Pt. Rd
County: WICOMICO
Study Period: 01/01/2006 to 12/31/2008
Analyst: ALEWIS Date: 04/09/2010



DATE-SEVERITY-TIME-SURFCE
NIGHT
ALCOHOL X
DRUGS ⊗

SEVERITY
F - Fatalities
I - Injured
P - Property Damage Only
SURFACE
D - Dry Surface
W - Wet Surface
I - Icy Surface
S - Snowy Surface

00 - Not Applicable
01 - Bridge or Overpass
02 - Building
03 - Culvert or Ditch
04 - Curb
05 - Guardrail or Barrier
06 - Embankment
07 - Fence
08 - Light Support Pole
09 - Sign Support Pole
10 - Other Pole
11 - Tree Shrubbery
12 - Construction Barrier
13 - Crash Attenuator
88 - Other
99 - Unknown

B - Bicycle
P - Other Pedalcycle
C - Other Conveyance
T - Railway Train
A - Animal
O - Other Object
S - Spilled Cargo
J - Jackknife

U - Units Seperated
N - Other Non collision
D - Off Road
R - Downhill Runaway
F - Explosion or Fire
? - Unknown

template 06-27-06

U - TURN
BACKING
OVERTURN
Parked Vehicle
P Pedestrian

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Shad Point Rd
Logmiles: 001.32 At 000.00 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2006
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		2		2
Veh Occ		2		
Pedestrian				

Severity Index: 4

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
						2		

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
							2						

CONDITION	DRIVER	PED
Normal:	3	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:		2											

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	1	1						3

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
3	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)		Other Types

SURFACE	
2	Wet
	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		2									1	

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
1	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
1	Fail to Yield Right-of-way		Severe Crosswinds
	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:		1		1
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:		1		1
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
	Clear / Cloudy	2	Day	2006	2
	Foggy		Dawn/Dusk		
2	Raining		Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Shad Point Rd
Logmiles: 001.32 At 000.00 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2007 To December 31, 2007
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		2	1	3
Veh Occ		3		
Pedestrian				

Severity Index: 9

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
				1			2	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
									1	1	1		

CONDITION	DRIVER	PED
Normal:	6	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:													
PM:	1		1								1		

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
		3						6

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
3	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
1	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	2	Other Types

SURFACE	
1	Wet
2	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		2			1						3	

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
2	Fail to Yield Right-of-way		Severe Crosswinds
1	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:		2	1	3
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
3	Clear / Cloudy	2	Day	2007	3
	Foggy		Dawn/Dusk		
	Raining	1	Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Shad Point Rd
Logmiles: 001.32 At 000.00 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2008 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1		1
Veh Occ		2		
Pedestrian				

Severity Index: 4

DAY OF THE WEEK

SUN	MON	TUE	WED	THU	FRI	SAT	UNK
					1		

MONTH OF THE YEAR

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
1												

CONDITION	DRIVER	PED
Normal:	2	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:												1	
PM:													

VEHICLES INVOLVED PER ACCIDENT

1	2	3	4	5	6+	UNK	TOTAL
	1						2

VEHICLE TYPE

Motorcycle/Moped	Tractor Trailer
Passenger Vehicle	Passenger Bus
Sport Utility Veh	School Bus
1 Pick-Up Truck	Emergency Veh
Trucks (2+3 axles)	1 Other Types

SURFACE

	Wet
1	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS

NORTH			SOUTH			EAST			WEST		
LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
	1									1	

OTHER MOVEMENTS

PROBABLE CAUSES

Influence of Drugs	Improper Lane Change
Influence of Alcohol	Improper Backing
Influence of Medication	Improper Passing
Influence of Combined Subst.	Improper Signal
Physical/Mental Difficulty	Improper Parking
Fell Asleep/Fainted, etc.	Passenger Interfere/Obstruct.
1 Fail to give full Attention	Illegally in Roadway
Lic. Restr. Non-compliance	Bicycle Violation
Fail to Drive in Single Lane	Clothing Not Visible
Improper Right Turn on Red	Sleet, Hail, Freezing Rain
Fail to Yield Right-of-way	Severe Crosswinds
Fail to Obey Stop Sign	Rain, Snow
Fail to Obey Traffic Signal	Animal
Fail to Obey Other Control	Vision Obstruction
Fail to Keep Right of Center	Vehicle Defect
Fail to Stop for School Bus	Wet
Wrong Way on One Way	Icy or Snow Covered
Exceeded Speed Limit	Debris or Obstruction
Operator Using Cell Phone	Ruts, Holes or Bumps
Stopping in Lane Roadway	Road Under Construction
Too Fast for Conditions	Traffic Control Device Inop.
Followed too Closely	Shoulders Low, Soft or High
Improper Turn	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:		1		1
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER	ILLUMINATION	TOTALS	
1 Clear / Cloudy	1 Day	2008	1
Foggy	Dawn/Dusk		
Raining	Dark - Lights On		
Snow / Sleet	Dark - No Lights		
Other	Other		

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Riverside Dr @ Shad Point Rd
Logmiles: 001.32 At 000.00 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		5	1	6
Veh Occ		7		
Pedestrian			AVG Severity Index: 6	

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
				1		3	2	

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
	1						2		1	1	1		

CONDITION	DRIVER	PED
Normal:	11	
Alcohol:		
Other:		

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:												1	
PM:	1	2	1								1		

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	1	5						11

VEHICLE TYPE			
	Motorcycle/Moped		Tractor Trailer
6	Passenger Vehicle		Passenger Bus
	Sport Utility Veh		School Bus
2	Pick-Up Truck		Emergency Veh
	Trucks (2+3 axles)	3	Other Types

SURFACE	
3	Wet
3	Dry
	Sno/Ice
	Mud
	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
		5			1					1	4	

OTHER MOVEMENTS

PROBABLE CAUSES			
	Influence of Drugs		Improper Lane Change
	Influence of Alcohol		Improper Backing
	Influence of Medication		Improper Passing
	Influence of Combined Subst.		Improper Signal
	Physical/Mental Difficulty		Improper Parking
1	Fell Asleep/Fainted, etc.		Passenger Interfere/Obstruct.
1	Fail to give full Attention		Illegally in Roadway
	Lic. Restr. Non-compliance		Bicycle Violation
	Fail to Drive in Single Lane		Clothing Not Visible
	Improper Right Turn on Red		Sleet, Hail, Freezing Rain
3	Fail to Yield Right-of-way		Severe Crosswinds
1	Fail to Obey Stop Sign		Rain, Snow
	Fail to Obey Traffic Signal		Animal
	Fail to Obey Other Control		Vision Obstruction
	Fail to Keep Right of Center		Vehicle Defect
	Fail to Stop for School Bus		Wet
	Wrong Way on One Way		Icy or Snow Covered
	Exceeded Speed Limit		Debris or Obstruction
	Operator Using Cell Phone		Ruts, Holes or Bumps
	Stopping in Lane Roadway		Road Under Construction
	Too Fast for Conditions		Traffic Control Device Inop.
	Followed too Closely		Shoulders Low, Soft or High
	Improper Turn		Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:		4	1	5
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:		1		1
	UnRelated:				

F	Bridge	01
I	Building	02
X	Culvert/Ditch	03
E	Curb	04
D	Guardrail/Barrier	05
	Embankment	06
O	Fence	07
B	Light Pole	08
J	Sign Pole	09
E	Other Pole	10
C	Tree/Shrubbery	11
T	Contr. Barrier	12
S	Crash Attenuator	13
	Other Fixed Object	

WEATHER		ILLUMINATION		TOTALS	
4	Clear / Cloudy	5	Day	06-08	6
	Foggy		Dawn/Dusk		
2	Raining	1	Dark - Lights On		
	Snow / Sleet		Dark - No Lights		
	Other		Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/09/2010

Location: Riverside Dr @ Shad Point Rd

Logmiles: 001.32 At 000.00 Radius: 200 ft.

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
CO0153												
1.32	✓	07142006	1 Injured	01P	Day	Wet			OTHER	NS		Fell asleep, fainted, etc.
1.32	✓	07142006	1 Injured	01P	Day	Wet			ANGLE	WS	NS	Fail to yield right-of-way
1.32	✓	09222007	Property	10P	Night	Dry			ANGLE	WS	SS	Fail to yield right-of-way
1.32	✓	10272007	2 Injured	12P	Day	Wet			ANGLE	WS	NS	Fail to obey stop sign
1.32	✓	11142007	1 Injured	02P	Day	Dry			ANGLE	WS	NS	Fail to yield right-of-way
1.32	✓	01182008	2 Injured	11A	Day	Dry			ANGLE	WL	NS	Fail to give full attention

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence
08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Study Worksheet Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

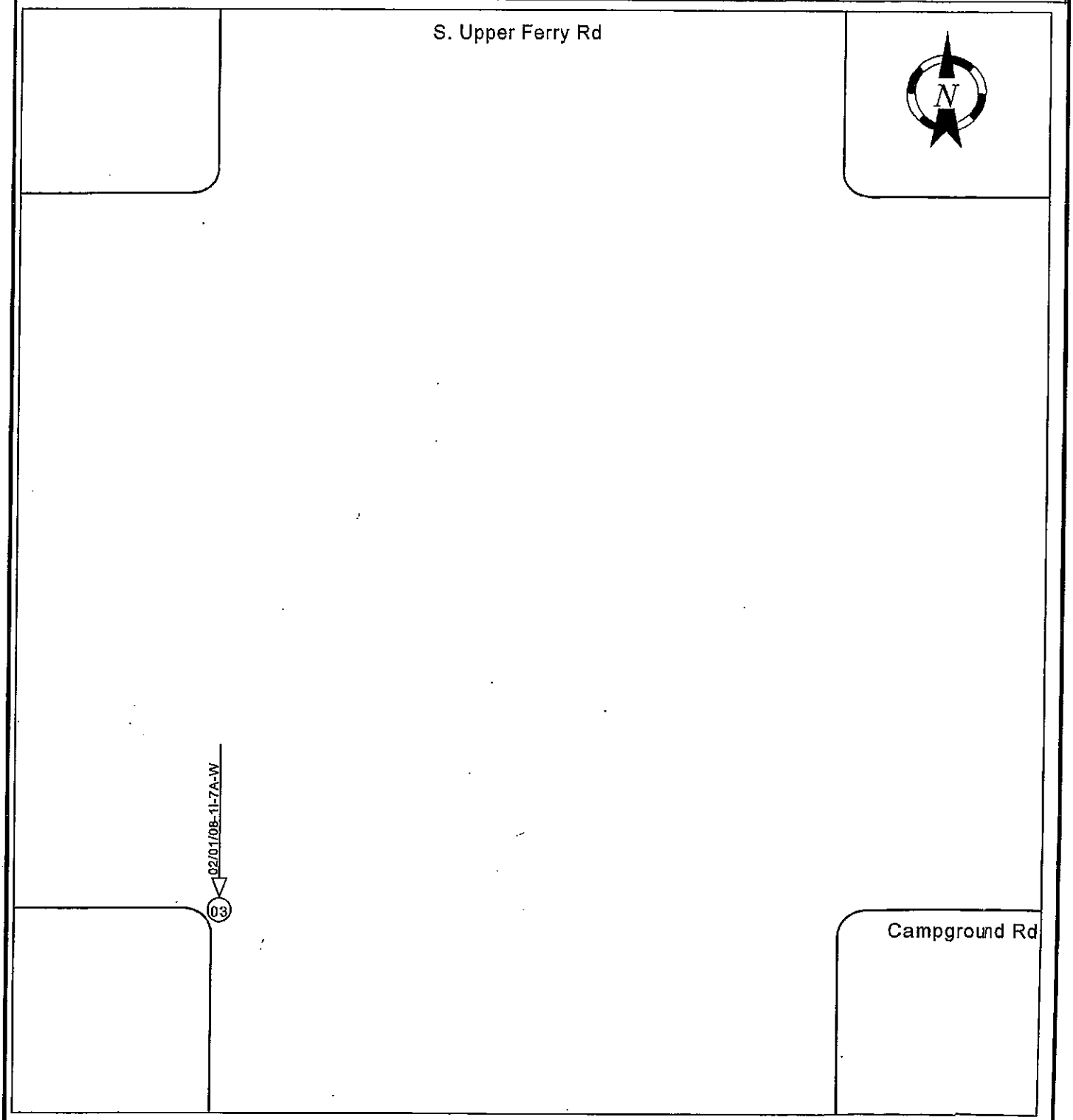
Location: Campground Rd @ S. Upper Ferry Rd
Logmiles: 000.00 At 003.79 Radius: 200 ft.
County: Wicomico, D1
Period: January 01, 2006 To December 31, 2008
Note:

YEAR >>	2006	2007	2008	Total
Fatal	0	0	0	0
No. Killed			0	
Injury	0	0	1	1
No. Injured			1	
Prop. Damage	0	0	0	0
Total Crashes	0	0	1	1
Severity Index	0	0	2	Avg 1
Opposite Dir.	0	0	0	0
Rear End	0	0	0	0
Sideswipe	0	0	0	0
Left Turn	0	0	0	0
Angle	0	0	0	0
Pedestrian	0	0	0	0
Parked Veh.	0	0	0	0
Fixed Object	0	0	1	1
Other	0	0	0	0
U-Turn	0	0	0	0
Backing	0	0	0	0
Animal	0	0	0	0
Railroad	0	0	0	0
Fire / Expl.	0	0	0	0
Overturn	0	0	0	0
Other/Unk	0	0	0	0
Truck Related	0	0	0	0
Night Time	0	0	0	0
Wet Surface	0	0	1	1
Alcohol	0	0	0	0
Intersection	0	0	1	1
Total Vehicles			1	
Total Trucks	0	0	0	0
Truck %			0.0	

Comments:

Office of Traffic & Safety
Traffic Development & Support Division
Crash Analysis Safety Team

Location: Campground Rd @ S. Upper Ferry Rd
County: WICOMICO
Study Period: 01/01/2006 to 12/31/2008
Analyst: ALEWIS Date: 04/09/2010



DATE-SEVERITY-TIME-SURFCE
NIGHT
ALCOHOL
DRUGS

SEVERITY
F - Fatalities
I - Injured
P - Property Damage Only
SURFACE
D - Dry Surface
W - Wet Surface
I - Icy Surface
S - Snowy Surface

00 - Not Applicable
01 - Bridge or Overpass
02 - Building
03 - Culvert or Ditch
04 - Curb
05 - Guardrail or Barrier
06 - Embankment
07 - Fence
08 - Light Support Pole
09 - Sign Support Pole
10 - Other Pole
11 - Tree Shrubbery
12 - Construction Barrier
13 - Crash Attenuator
88 - Other
99 - Unknown

B - Bicycle
P - Other Pedalcycle
C - Other Conveyance
T - Railway Train
A - Animal
O - Other Object
S - Spilled Cargo
J - Jackknife

U - Units Seperated
N - Other Non collision
D - Off Road
R - Downhill Runaway
F - Explosion or Fire
? - Unknown

template 06-27-06

U - TURN
BACKING
OVERTURN
Parked Vehicle
P Pedestrian

Maryland State Highway Administration
Office of Traffic and Safety - Traffic Development and Support Division
SHA 52.1 ADC Summary Output rev. 03/2010-1

Name: Alex Lewis
Date: 04/09/2010

Location: Campground Rd @ S. Upper Ferry Rd
Logmiles: 000.00 At 003.79 Radius: 200 ft.
County: Wicomico, D1
Period: January 1, 2006 To December 31, 2008
Note:

SEVERITY	FATAL	INJURY	P-DAMAGE	TOTAL
Accidents		1		1
Veh Occ		1		
Pedestrian				

AVG Severity Index: 1

DAY OF THE WEEK	SUN	MON	TUE	WED	THU	FRI	SAT	UNK
						1		

MONTH OF THE YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	UNK
		1											

CONDITION	DRIVER	PED
Normal:		
Alcohol:		
Other:	1	

TIME	12	01	02	03	04	05	06	07	08	09	10	11	UNK
AM:								1					
PM:													

VEHICLES INVOLVED PER ACCIDENT	1	2	3	4	5	6+	UNK	TOTAL
	1							1

VEHICLE TYPE		SURFACE
Motorcycle/Moped	Tractor Trailer	1 Wet
1 Passenger Vehicle	Passenger Bus	Dry
Sport Utility Veh	School Bus	Sno/Ice
Pick-Up Truck	Emergency Veh	Mud
Trucks (2+3 axles)	Other Types	Other

MOVEMENTS	NORTH			SOUTH			EAST			WEST		
	LF	ST	RT	LF	ST	RT	LF	ST	RT	LF	ST	RT
					1							

OTHER MOVEMENTS

PROBABLE CAUSES	
Influence of Drugs	Improper Lane Change
Influence of Alcohol	Improper Backing
Influence of Medication	Improper Passing
Influence of Combined Subst.	Improper Signal
Physical/Mental Difficulty	Improper Parking
1 Fell Asleep/Fainted, etc.	Passenger Interfere/Obstruct.
Fail to give full Attention	Illegally in Roadway
Lic. Restr. Non-compliance	Bicycle Violation
Fail to Drive in Single Lane	Clothing Not Visible
Improper Right Turn on Red	Sleet, Hail, Freezing Rain
Fail to Yield Right-of-way	Severe Crosswinds
Fail to Obey Stop Sign	Rain, Snow
Fail to Obey Traffic Signal	Animal
Fail to Obey Other Control	Vision Obstruction
Fail to Keep Right of Center	Vehicle Defect
Fail to Stop for School Bus	Wet
Wrong Way on One Way	Icy or Snow Covered
Exceeded Speed Limit.	Debris or Obstruction
Operator Using Cell Phone	Ruts, Holes or Bumps
Stopping in Lane Roadway	Road Under Construction
Too Fast for Conditions	Traffic Control Device Inop.
Followed too Closely	Shoulders Low, Soft or High
Improper Turn	Other or Unknown

COLLISION TYPES		FATAL	INJURY	PROP	TOTAL
Opposite Dir	Related:				
	UnRelated:				
Rear End	Related:				
	UnRelated:				
Sideswipe	Related:				
	UnRelated:				
Left Turn	Related:				
	UnRelated:				
Angle	Related:				
	UnRelated:				
Pedestrian	Related:				
	UnRelated:				
Parked Vehicle	Related:				
	UnRelated:				
Other Collision	Related:				
	UnRelated:				

F	Bridge	01			
I	Building	02			
X	Culvert/Ditch	03		1	1
E	Curb	04			
D	Guardrail/Barrier	05			
	Embankment	06			
O	Fence	07			
B	Light Pole	08			
J	Sign Pole	09			
E	Other Pole	10			
C	Tree/Shrubbery	11			
T	Contr. Barrier	12			
S	Crash Attenuator	13			
	Other Fixed Object				

WEATHER	ILLUMINATION	TOTALS	
Clear / Cloudy	1 Day	06-08	1
Foggy	Dawn/Dusk		
1 Raining	Dark - Lights On		
Snow / Sleet	Dark - No Lights		
Other	Other		

Maryland State Highway Administration

Office of Traffic and Safety - Traffic Development and Support Division

SHA 52.1 ADC History Output rev. 03/2010-2 - Combined Year Listing

Name: Alex Lewis

Date: 04/09/2010

Location: Campground Rd @ S. Upper Ferry Rd

Logmiles: 000.00 At 003.79 Radius: 200 ft.

County: Wicomico, D1

Period: January 01, 2006 To December 31, 2008

Note:

MilePt	Int Rel	Date	Severity	Time	Light	Surface	Alc Rel	FixObj	Collision	Movement V1	Movement V2	Probable Cause
CO0144												
3.79	✓	02012008	1 Injured	07A	Day	Wet		03	FXOBJ	SS		Fell asleep, fainted, etc.

Fixed Object: 01 = Bridge 02 = Building 03 = Culvert/Ditch 04 = Curb 05 = Guardrail/Barrier 06 = Embankment 07 = Fence 08 = Light Pole 09 = Sign Post 10 = Other Pole 11 = Tree/Shrubbery 12 = Construction Barrier 13 = Crash Attenuator

Wicomico County Crash Listing Inventory

Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
0.00		MU2421	Riverside Dr											At	MU2422	Riverside Dr (Back)									133-Salisbury	
0.00		MU2421	Riverside Dr											At	MU631	W College Ave									133-Salisbury	
0.00		MU2421	Riverside Dr											At		Start Of Inventory									133-Salisbury	
0.02		MU2421	Riverside Dr											At	CO153	Riverside Dr Ext (Ahead)									133-Salisbury	
0.02		MU2421	Riverside Dr											At		End Of Inventory									133-Salisbury	
0.02		MU2421	Riverside Dr											At	MU1540	Loblolly La									133-Salisbury	

Wicomico County Crash Listing Inventory

Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
0.00		MU2422	Riverside Dr #2										At		MU1780	Mill St								133-Salisbury		
0.00		MU2422	Riverside Dr #2										At		MU410	W Carroll St								133-Salisbury		
0.00		MU2422	Riverside Dr #2										At			Start Of Inventory								133-Salisbury		
0.00		MU2422	Riverside Dr #2										At		MU370	Camden Ave								133-Salisbury		
10334389	0.00	06/08/07	1345	6	03	01	N	0	0	0	0	01	01	02	2	2102	07	0199	00	0303	0202	ER	2600	9901		133
11261131	0.00	09/15/07	1511	7	01	01	N	0	0	0	0	01	01	02	3	0202	03	0101	00	0101	0404	N1	2200	0101		133
10334579	0.01	11/17/07	1750	7	01	01	N	0	0	0	0	01	03	02	2	0202	14	0100	00	0401	1201	U9	1100	0101		133
0.03		MU2422	Riverside Dr #2										At			Spur Fr Mill St								133-Salisbury		
0.33		MU2422	Riverside Dr #2										At		MU2990	Wicomico St								133-Salisbury		
0.39		MU2422	Riverside Dr #2										At		MU3050	Winder St								133-Salisbury		
0.49		MU2422	Riverside Dr #2										At		MU10	Alabama Ave								133-Salisbury		
10334578	0.49	11/17/07	1513	7	02	01	N	0	0	0	0	01	01	02	2	0202	11	0100	00	0301	0101	U9	1200	0101		133
0.54		MU2422	Riverside Dr #2										At		MU1050	Georgia Ave								133-Salisbury		
0.64		MU2422	Riverside Dr #2										At		MU1300	Indian St								133-Salisbury		
0.70		MU2422	Riverside Dr #2										At		MU2600	South Blvd								133-Salisbury		
0.70		MU2422	Riverside Dr #2										At		MU2400	Ridge Rd								133-Salisbury		
0.76		MU2422	Riverside Dr #2										At		MU710	Crestview La								133-Salisbury		
0.84		MU2422	Riverside Dr #2										At		MU2400	Ridge Rd								133-Salisbury		
0.89		MU2422	Riverside Dr #2										At			Spur Fr Riverside Rd								133-Salisbury		
0.92		MU2422	Riverside Dr #2										At		MU2430	Riverside Rd								133-Salisbury		
0.93		MU2422	Riverside Dr #2										At		MU2190	N Pinehurst Ave								133-Salisbury		
1.01		MU2422	Riverside Dr #2										At		MU1650	Manor Dr								133-Salisbury		
1.05		MU2422	Riverside Dr #2										At		MU2200	S Pinehurst Ave								133-Salisbury		
1.14		MU2422	Riverside Dr #2										At		MU2440	Riverview Ave								133-Salisbury		
1.21		MU2422	Riverside Dr #2										At			End Of Inventory								133-Salisbury		
1.21		MU2422	Riverside Dr #2										At		MU631	W College Ave								133-Salisbury		
1.21		MU2422	Riverside Dr #2										At		MU2421	Riverside Dr (Ahead)								133-Salisbury		

Wicomico County Crash Listing Inventory

Report No.	Logmile	Date	Time	DIR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
0.02		CO153	Riverside Dr Ext										At		Start Of Inventory										
0.02		CO153	Riverside Dr Ext										At	MU1540	Loblolly La										
0.02		CO153	Riverside Dr Ext										At	MU2421	Riverside Dr (Back)										
0.09		CO153	Riverside Dr Ext										At	CO154	Woodland Rd										
09907947	0.09	06/28/07	1510	5	04	03	N	0	0	0	1	01	01	02	2	2020	88	0302	00	0200	1110	N1	2500	0199	010475601
0.46		CO153	Riverside Dr Ext										At	CO881	Riverside Pines Ct										
0.56		CO153	Riverside Dr Ext										At	CO155	Douglas Rd										
0.65		CO153	Riverside Dr Ext										At	CO616	Fountain Rd										
0.67		CO153	Riverside Dr Ext										At		Spur Fr Hunting Park Dr										
0.68		CO153	Riverside Dr Ext										At	CO615	Hunting Park Dr										
0.75		CO153	Riverside Dr Ext										At	CO156	Pine Bluff Rd										
09908224	0.75	10/26/07	1538	6	02	03	N	0	0	2	0	03	01	01	2	1202	14	0100	00	0401	1201	N1	1100	0101	
0.76		CO153	Riverside Dr Ext										At	SR1	No Name										
0.80		CO153	Riverside Dr Ext										At	CO158	Irene Ave										
0.84		CO153	Riverside Dr Ext										At	CO154	Woodland Rd										
0.94		CO153	Riverside Dr Ext										At		Struc #Wi3071 Tonytank Creek										
09908394	1.04	12/23/07	0930	1	01	02	N	0	0	2	0	03	01	01	1	0200	17	1609	03	0100	0100	NO	1800	0100	
1.05		CO153	Riverside Dr Ext										At	CO590	Timberlake Dr										
09908187	1.14	10/23/07	0331	3	01	03	N	0	0	1	0	01	02	02	1	0800	17	1609	10	0100	0100	NO	0900	0100	
1.32		CO153	Riverside Dr Ext										At	CO159	Shad Point Rd										
1.32		CO153	Riverside Dr Ext										At	CO1136	Cherry Hill La										
09908201	1.32	10/27/07	1251	7	02	03	N	0	0	2	0	01	01	01	2	0208	11	0109	07	0401	0301	N1	1200	0101	
09908112	1.32	09/22/07	2257	7	02	01	N	0	0	0	0	01	03	02	2	0220	11	0100	00	0402	0201	S1	1100	0101	
09908260	1.32	11/14/07	1408	4	02	03	N	0	0	1	0	01	01	02	2	0208	11	0100	00	0401	0401	N1	1100	0101	
09907755	1.34	04/27/07	1608	6	01	01	N	0	0	0	0	01	01	01	2	2112	03	0199	00	0202	0106	S1	1600	0101	
09908000	1.59	07/23/07	2119	2	01	01	A	0	0	0	0	01	04	02	1	2000	17	0900	10	0100	0200	NO	0900	0200	
1.60		CO153	Riverside Dr Ext										At	CO1053	Carriage La										
1.74		CO153	Riverside Dr Ext										At	CO668	Joy Row La										
1.81		CO153	Riverside Dr Ext										At		Spur To Chinaberry Dr										
1.83		CO153	Riverside Dr Ext										At	CO648	Chinaberry Dr										
1.98		CO153	Riverside Dr Ext										At	CO160	Sharps Point Rd										
2.18		CO153	Riverside Dr Ext										At		James Landing Rd										
2.30		CO153	Riverside Dr Ext										At	CO161	Silver Run La										
2.41		CO153	Riverside Dr Ext										At	CO162	Dove Point La										
2.63		CO153	Riverside Dr Ext										At	CO1200	Duck Crossing La										
09908395	2.77	12/30/07	0303	1	01	01	A	0	0	0	0	01	04	01	3	0202	88	1688	00	0100	0110	SO	2100	0200	
2.78		CO153	Riverside Dr Ext										At	CO806	Sanborn Terr										
09908348	2.82	12/12/07	0709	4	01	02	N	0	0	1	0	01	01	01	1	0200	17	0911	10	0200	0100	SO	2100	0700	
09908268	2.87	11/18/07	0856	1	01	02	N	0	0	1	0	01	01	02	1	0200	17	1109	11	0100	0100	NO	4600	0100	
3.12		CO153	Riverside Dr Ext										At	OP51	No Name										
3.33		CO153	Riverside Dr Ext										At	CO898	Old Mill Branch Rd										
09908386	3.43	12/20/07	0600	5	01	01	A	0	0	0	0	01	04	02	1	0800	17	0900	11	0200	0100	NO	2100	0200	
3.94		CO153	Riverside Dr Ext										At		Stock Creek La										
4.06		CO153	Riverside Dr Ext										At	CO152	Siloam Rd										
4.79		CO153	Riverside Dr Ext										At	CO145	Camp Ground Rd										
4.79		CO153	Riverside Dr Ext										At		End Of Inventory										

Wicomico County Crash Listing Inventory

Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
0.00		MU2421	Riverside Dr										At		MU630	W College Ave								133-Salisbury		
0.00		MU2421	Riverside Dr										At		MU2422	Riverside Dr (Back)								133-Salisbury		
0.00		MU2421	Riverside Dr										At			Start Of Inventory								133-Salisbury		
10336786	0.00	01/12/06	0807	5	01	03	N	0	0	1	0	99	99	99	1	2100	99	0099	00	0100	0100	N1	2100	0100		133
10326862	0.00	09/14/06	1121	5	01	01	N	0	0	0	0	03	01	01	1	0200	17	0999	04	0100	0100	N1	2100	9900		133
09907294	0.01	11/13/06	1522	2	01	01	N	0	0	0	0	03	01	01	2	0208	06	0199	00	0201	0101	N1	0700	9901		133
0.02		MU2421	Riverside Dr										At		MU1540	Loblolly La								133-Salisbury		
0.02		MU2421	Riverside Dr										At		CO153	Riverside Dr Ext (Ahead)								133-Salisbury		
0.02		MU2421	Riverside Dr										At			End Of Inventory								133-Salisbury		
09540304	1.02	03/14/06	0605	3	01	01	N	0	0	0	0	01	04	02	1	0200	17	0999	03	0100	0100	NO	4600	0100		133

Wicomico County Crash Listing Inventory

Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
0.00		MU2422	Riverside Dr #2										At		MU1780	Mill St								133-Salisbury		
0.00		MU2422	Riverside Dr #2										At		MU410	W Carroll St								133-Salisbury		
0.00		MU2422	Riverside Dr #2										At		MU370	Camden Ave								133-Salisbury		
0.00		MU2422	Riverside Dr #2										At			Start Of Inventory								133-Salisbury		
0.03		MU2422	Riverside Dr #2										At			Spur Fr Mill St								133-Salisbury		
0.33		MU2422	Riverside Dr #2										At		MU2990	Wicomico St								133-Salisbury		
10336477	0.33	05/05/06	1324	6	02	02	N	0	0	4	0	01	01	02	2	0221	02	0116	04	0201	1201	N1	2300	0101		133
10331373	0.33	06/12/06	1424	2	01	01	N	0	0	0	0	01	01	01	2	0202	11	0100	00	0301	0201	N1	0700	0101		133
10338519	0.33	07/12/06	1228	4	02	02	N	0	0	6	0	01	01	02	2	0220	11	0100	00	0301	0201	N1	1200	0101		133
0.39		MU2422	Riverside Dr #2										At		MU3050	Winder St								133-Salisbury		
10338786	0.39	06/29/06	0940	5	02	01	N	0	0	0	0	01	01	02	2	0210	04	0100	00	0202	0113	S1	2600	0101		133
0.49		MU2422	Riverside Dr #2										At		MU10	Alabama Ave								133-Salisbury		
10338861	0.49	06/01/06	2014	5	02	01	N	0	0	0	0	01	03	02	2	0802	11	0100	00	0301	0201	N1	1100	0101		133
0.54		MU2422	Riverside Dr #2										At		MU1050	Georgia Ave								133-Salisbury		
0.64		MU2422	Riverside Dr #2										At		MU1300	Indian St								133-Salisbury		
0.70		MU2422	Riverside Dr #2										At		MU2600	South Blvd								133-Salisbury		
0.70		MU2422	Riverside Dr #2										At		MU2400	Ridge Rd								133-Salisbury		
0.76		MU2422	Riverside Dr #2										At		MU710	Crestview La								133-Salisbury		
0.84		MU2422	Riverside Dr #2										At		MU2400	Ridge Rd								133-Salisbury		
0.89		MU2422	Riverside Dr #2										At			Spur Fr Riverside Rd								133-Salisbury		
0.92		MU2422	Riverside Dr #2										At		MU2430	Riverside Rd								133-Salisbury		
0.93		MU2422	Riverside Dr #2										At		MU2190	N Pinehurst Ave								133-Salisbury		
1.01		MU2422	Riverside Dr #2										At		MU1650	Manor Dr								133-Salisbury		
1.05		MU2422	Riverside Dr #2										At		MU2200	S Pinehurst Ave								133-Salisbury		
1.14		MU2422	Riverside Dr #2										At		MU2440	Riverview Ave								133-Salisbury		
1.21		MU2422	Riverside Dr #2										At		MU630	W College Ave								133-Salisbury		
1.21		MU2422	Riverside Dr #2										At		MU2421	Riverside Dr (Ahead)								133-Salisbury		
1.21		MU2422	Riverside Dr #2										At			End Of Inventory								133-Salisbury		
10338863	1.21	05/26/06	1958	6	01	01	N	0	0	0	0	01	02	01	1	0200	17	0900	11	0100	0100	N0	2100	0100		133

Wicomico County Crash Listing Inventory

Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
0.02		CO153	Riverside Dr Ext											At	MU2421	Riverside Dr (Back)										
0.02		CO153	Riverside Dr Ext											At	MU1540	Loblolly La										
0.02		CO153	Riverside Dr Ext											At		Start Of Inventory										
0.09		CO153	Riverside Dr Ext											At	CO154	Woodland Rd										
0.46		CO153	Riverside Dr Ext											At	CO881	Riverside Pines Ct										
0.56		CO153	Riverside Dr Ext											At	CO155	Douglas Rd										
0.65		CO153	Riverside Dr Ext											At	CO616	Fountain Rd										
0.67		CO153	Riverside Dr Ext											At		Spur Fr Hunting Park Dr										
0.68		CO153	Riverside Dr Ext											At	CO615	Hunting Park Dr										
0.75		CO153	Riverside Dr Ext											At	CO156	Pine Bluff Rd										
0.76		CO153	Riverside Dr Ext											At	SR1	Ent To Hospital										
0.80		CO153	Riverside Dr Ext											At	CO158	Irene Ave										
0.84		CO153	Riverside Dr Ext											At	CO154	Woodland Rd										
0.94		CO153	Riverside Dr Ext											At		Struc #Wi3071 Tonytank Creek										
1.05		CO153	Riverside Dr Ext											At	CO590	Timberlake Dr										
1.32		CO153	Riverside Dr Ext											At	CO159	Shad Point Rd										
1.32		CO153	Riverside Dr Ext											At	CO1136	Cherry Hill La										
09540695	1.32	07/14/06	1320	6	02	02	N	0	0	1	0	03	01	01	2	0202	11	0199	00	0401	0401	N1	1100	0101		
09540698	1.32	07/14/06	1324	6	03	02	N	0	0	1	0	03	01	01	1	0200	17	1609	07	0100	0400	NO	0600	0100		
1.60		CO153	Riverside Dr Ext											At	CO1053	Carriage La										
09540204	1.60	02/11/06	0115	7	01	02	A	0	0	1	0	01	04	02	1	0800	17	0900	10	0200	0100	SO	2100	0200		
1.74		CO153	Riverside Dr Ext											At	CO668	Joy Row La										
09540625	1.76	07/12/06	1530	4	01	03	N	0	0	1	0	01	01	02	2	2105	88	1999	00	0401	1101	N1	2500	0101		
1.81		CO153	Riverside Dr Ext											At		Spur To Chinaberry Dr										
1.83		CO153	Riverside Dr Ext											At	CO648	Chinaberry Dr										
1.98		CO153	Riverside Dr Ext											At	CO160	Sharps Point Rd										
2.18		CO153	Riverside Dr Ext											At		James Landing Rd										
2.30		CO153	Riverside Dr Ext											At	CO161	Silver Run La										
2.41		CO153	Riverside Dr Ext											At	CO162	Dove Point La										
2.63		CO153	Riverside Dr Ext											At	CO1200	Duck Crossing La										
2.78		CO153	Riverside Dr Ext											At	CO806	Sanborn Terr										
09540596	2.84	06/26/06	1308	2	01	03	N	0	0	1	0	01	01	01	1	0200	17	1609	11	0200	0100	SO	6100	0100		
3.12		CO153	Riverside Dr Ext											At	OP51	No Name										
09540683	3.24	07/28/06	2155	6	01	02	N	0	0	1	0	01	01	02	1	0200	17	1609	11	0100	0100	NO	0900	0100		
3.33		CO153	Riverside Dr Ext											At	CO898	Old Mill Branch Rd										
09907399	3.69	12/19/06	0748	3	01	01	N	0	0	0	0	01	01	02	2	0202	01	0100	00	0102	0103	N1	2100	0101		
09540735	3.85	07/19/06	0633	4	01	01	A	0	0	0	0	01	02	02	1	0300	17	0999	88	0200	0100	SO	0200	0200		
3.94		CO153	Riverside Dr Ext											At		Stock Creek La										
4.06		CO153	Riverside Dr Ext											At	CO152	Siloam Rd										
4.79		CO153	Riverside Dr Ext											At	CO145	Camp Ground Rd										
4.79		CO153	Riverside Dr Ext											At		End Of Inventory										

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Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
	0.00	MU2421	Riverside Dr										At			Start Of Inventory								133-SALISBURY		
	0.00	MU2421	Riverside Dr										At		MU631	W College Ave								133-SALISBURY		
	0.00	MU2421	Riverside Dr										At		MU2422	Riverside Dr (Back)								133-SALISBURY		
10239293	0.01	08/07/08	2204	5	01	01	N	0	0	0	0	03	03	01	1	1700	17	0909	04	0100	0300	U9	4500	0100		133
	0.02	MU2421	Riverside Dr										At		MU1540	Loblolly La								133-SALISBURY		
	0.02	MU2421	Riverside Dr										At			End Of Inventory								133-SALISBURY		
	0.02	MU2421	Riverside Dr										At		CO153	Riverside Dr Ext (Ahead)								133-SALISBURY		

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Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
0.00		MU2422	Riverside Dr #2										At		MU410	W Carroll St								133-SALISBURY		
0.00		MU2422	Riverside Dr #2										At		MU1780	Mill St								133-SALISBURY		
0.00		MU2422	Riverside Dr #2										At		MU370	Camden Ave								133-SALISBURY		
0.00		MU2422	Riverside Dr #2										At			Start Of Inventory								133-SALISBURY		
0.03		MU2422	Riverside Dr #2										At			Spur Fr Mill St								133-SALISBURY		
0.33		MU2422	Riverside Dr #2										At		MU2990	Wicomico St								133-SALISBURY		
11262762	0.33	09/23/08	0905	3	01	01	N	0	0	0	0	01	01	02	2	0821	88	1999	00	0304	1106	W1	0700	0101		133
10339794	0.33	12/22/08	0921	2	02	03	N	0	0	6	0	01	01	02	3	0808	11	0109	04	0401	0201	W1	1200	0000		133
0.39		MU2422	Riverside Dr #2										At		MU3050	Winder St								133-SALISBURY		
11261042	0.42	04/09/08	1248	4	01	01	N	0	0	0	0	03	01	01	2	0208	10	0100	00	0403	1212	U9	2300	0101		133
0.49		MU2422	Riverside Dr #2										At		MU10	Alabama Ave								133-SALISBURY		
0.54		MU2422	Riverside Dr #2										At		MU1050	Georgia Ave								133-SALISBURY		
0.64		MU2422	Riverside Dr #2										At		MU1300	Indian St								133-SALISBURY		
0.70		MU2422	Riverside Dr #2										At		MU2600	South Blvd								133-SALISBURY		
0.70		MU2422	Riverside Dr #2										At		MU2400	Ridge Rd								133-SALISBURY		
0.76		MU2422	Riverside Dr #2										At		MU710	Crestview La								133-SALISBURY		
0.84		MU2422	Riverside Dr #2										At		MU2400	Ridge Rd								133-SALISBURY		
11261110	0.84	04/30/08	0853	4	02	03	N	0	0	2	0	01	01	02	2	0208	11	0199	00	0401	0101	N1	1200	0101		133
10334384	0.84	08/01/08	1730	6	02	03	N	0	0	1	0	01	01	02	2	0202	01	0100	00	0102	0302	S1	1200	0101		133
0.89		MU2422	Riverside Dr #2										At			Spur Fr Riverside Rd								133-SALISBURY		
0.92		MU2422	Riverside Dr #2										At		MU2430	Riverside Rd								133-SALISBURY		
0.93		MU2422	Riverside Dr #2										At		MU2190	N Pinehurst Ave								133-SALISBURY		
1.01		MU2422	Riverside Dr #2										At		MU1650	Manor Dr								133-SALISBURY		
11265060	1.01	11/21/08	2216	6	01	01	N	0	0	0	0	01	03	02	1	0200	17	0909	04	0100	0100	NO	2100	0100		133
1.05		MU2422	Riverside Dr #2										At		MU2200	S Pinehurst Ave								133-SALISBURY		
1.14		MU2422	Riverside Dr #2										At		MU2440	Riverview Ave								133-SALISBURY		
11262202	1.20	10/17/08	0904	6	01	01	N	0	0	0	0	03	01	01	1	0200	17	0900	04	0100	0100	N1	6100	0100		133
1.21		MU2422	Riverside Dr #2										At			End Of Inventory								133-SALISBURY		
1.21		MU2422	Riverside Dr #2										At		MU631	W College Ave								133-SALISBURY		
1.21		MU2422	Riverside Dr #2										At		MU2421	Riverside Dr (Ahead)								133-SALISBURY		

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Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
	0.02	CO153	Riverside Dr Ext											At	MU2421	Riverside Dr (Back)										
	0.02	CO153	Riverside Dr Ext											At		Start Of Inventory										
	0.02	CO153	Riverside Dr Ext											At	MU1540	Loblolly La										
	0.09	CO153	Riverside Dr Ext											At	CO154	Woodland Rd										
	0.46	CO153	Riverside Dr Ext											At	CO881	Riverside Pines Ct										
	0.56	CO153	Riverside Dr Ext											At	CO155	Douglas Rd										
	0.65	CO153	Riverside Dr Ext											At	CO616	Fountain Rd										
	0.67	CO153	Riverside Dr Ext											At		Spur Fr Hunting Park Dr										
	0.68	CO153	Riverside Dr Ext											At	CO615	Hunting Park Dr										
	0.75	CO153	Riverside Dr Ext											At	CO156	Pine Bluff Rd										
	0.76	CO153	Riverside Dr Ext											At	SR1	No Name										
	0.80	CO153	Riverside Dr Ext											At	CO158	Irene Ave										
	0.84	CO153	Riverside Dr Ext											At	CO154	Woodland Rd										
	0.94	CO153	Riverside Dr Ext											At		Struc #Wi3071 Tonytank Creek										
	1.05	CO153	Riverside Dr Ext											At	CO590	Timberlake Dr										
09908887	1.06	07/26/08	0515	7	01	01	N	0	0	0	0	01	02	02	1	0200	17	0900	11	0200	0100	N1	0700	0100		
09908561	1.23	03/03/08	0715	2	01	03	N	0	0	2	0	01	01	02	2	0202	01	0100	00	0201	0101	N1	0900	0101		
09908713	1.28	05/14/08	0732	4	01	02	N	0	0	1	0	01	01	02	2	0808	03	0100	00	0101	0106	N1	2200	0101		
	1.32	CO153	Riverside Dr Ext											At	CO159	Shad Point Rd										
	1.32	CO153	Riverside Dr Ext											At	CO1136	Cherry Hill La										
10239381	1.32	01/18/08	1149	6	02	03	N	0	0	2	0	01	01	02	2	0820	14	0111	00	0401	1201	N1	0700	0101		
	1.60	CO153	Riverside Dr Ext											At	CO1053	Carriage La										
09908588	1.66	03/19/08	1148	4	01	01	N	0	0	0	0	01	01	02	2	0205	03	0199	00	0202	0106	S1	2600	9901		
	1.74	CO153	Riverside Dr Ext											At	CO668	Joy Row La										
	1.81	CO153	Riverside Dr Ext											At		Spur To Chinaberry Dr										
	1.83	CO153	Riverside Dr Ext											At	CO648	Chinaberry Dr										
	1.98	CO153	Riverside Dr Ext											At	CO160	Sharps Point Rd										
	2.18	CO153	Riverside Dr Ext											At		James Landing Rd										
	2.30	CO153	Riverside Dr Ext											At	CO161	Silver Run La										
09908922	2.32	08/09/08	0940	7	01	01	A	0	0	0	0	01	01	02	1	0200	17	0900	00	0200	9900	SO	0200	0200		
	2.41	CO153	Riverside Dr Ext											At	CO162	Dove Point La										
	2.63	CO153	Riverside Dr Ext											At	CO1200	Duck Crossing La										
	2.78	CO153	Riverside Dr Ext											At	CO806	Sanborn Terr										
	3.12	CO153	Riverside Dr Ext											At	OP51	No Name										
09909195	3.27	12/04/08	1541	5	01	02	N	0	0	1	0	01	01	02	1	2000	17	0900	03	0100	0100	NO	0900	0100		
	3.33	CO153	Riverside Dr Ext											At	CO898	Old Mill Branch Rd										
	3.94	CO153	Riverside Dr Ext											At		Stock Creek La										
	4.06	CO153	Riverside Dr Ext											At	CO152	Siloam Rd										
	4.79	CO153	Riverside Dr Ext											At		End Of Inventory										
	4.79	CO153	Riverside Dr Ext											At	CO145	Camp Ground Rd										

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Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
	0.00	MU1780	Mill St											At		Stop Sign								133-SALISBURY		
	0.00	MU1780	Mill St											At	MU1330	E Isabella St								133-SALISBURY		
	0.00	MU1780	Mill St											At		Start Of Inventory								133-SALISBURY		
	0.03	MU1780	Mill St											At		Ent To Business								133-SALISBURY		
	0.05	MU1780	Mill St											At		Ent To Business								133-SALISBURY		
	0.08	MU1780	Mill St											At		Ent To Business								133-SALISBURY		
	0.15	MU1780	Mill St											At		Ent To Business								133-SALISBURY		
	0.17	MU1780	Mill St											At		R/R #Cr 530 479 G								133-SALISBURY		
	0.21	MU1780	Mill St											At	MU510	W Chestnut St								133-SALISBURY		
	0.27	MU1780	Mill St											At	MU1462	Lemmon Hill La								133-SALISBURY		
	0.32	MU1780	Mill St											At		Ent To Business								133-SALISBURY		
	0.35	MU1780	Mill St											At		Ent To Business								133-SALISBURY		
	0.35	MU1780	Mill St											At		R/R #Cr 530 235 X								133-SALISBURY		
	0.39	MU1780	Mill St											At		Ent To Business								133-SALISBURY		
	0.41	MU1780	Mill St											At		Ent To Business								133-SALISBURY		
	0.41	MU1780	Mill St											At		Spur Fr Us 50								133-SALISBURY		
	0.44	MU1780	Mill St											At	US50BU	Salisbury Pkwy								133-SALISBURY		
11262902	0.44	10/28/08	0917	3	03	01	N	0	0	0	0	01	01	02	2	0520	88	1900	00	0201	1106	N2	2500	0101		133
	0.45	MU1780	Mill St											At		Spur To Us 50								133-SALISBURY		
11262899	0.45	10/20/08	1202	2	03	02	N	0	0	1	0	01	01	02	2	0208	03	0100	00	0101	0601	N1	0022	0101		133
	0.48	MU1780	Mill St											At	MU530	W Church St								133-SALISBURY		
	0.49	MU1780	Mill St											At	MU1640	W Main St								133-SALISBURY		
10339443	0.49	09/12/08	1447	6	01	01	N	0	0	0	0	01	01	02	2	0208	03	0100	00	0202	0207	S2	0500	0401		133
	0.54	MU1780	Mill St											At		Struc #Wis 05 Wicomico River								133-SALISBURY		
	0.56	MU1780	Mill St											At		Spur To Riverside Dr								133-SALISBURY		
	0.58	MU1780	Mill St											At	MU370	Camden Ave (Ahead)								133-SALISBURY		
	0.58	MU1780	Mill St											At	MU410	W Carroll St								133-SALISBURY		
	0.58	MU1780	Mill St											At	MU2422	Riverside Dr #2								133-SALISBURY		
	0.58	MU1780	Mill St											At		End Of Inventory								133-SALISBURY		
11260973	0.58	04/18/08	0916	6	01	01	N	0	0	0	0	01	01	02	2	2102	03	0199	00	0202	0601	S2	0700	0101		133
10334233	0.58	07/10/08	0845	5	02	01	N	0	0	0	0	01	01	02	2	0220	01	0100	00	0201	0101	N1	1400	0101		133

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Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
	0.00	MU1780	Mill St											At		Stop Sign								133-Salisbury		
	0.00	MU1780	Mill St											At		Start Of Inventory								133-Salisbury		
	0.00	MU1780	Mill St											At	MU1330	E Isabella St								133-Salisbury		
	0.03	MU1780	Mill St											At		Ent To Business								133-Salisbury		
	0.05	MU1780	Mill St											At		Ent To Business								133-Salisbury		
	0.08	MU1780	Mill St											At		Ent To Business								133-Salisbury		
	0.15	MU1780	Mill St											At		Ent To Business								133-Salisbury		
	0.17	MU1780	Mill St											At		R/R #Cr 530 479 G								133-Salisbury		
	0.21	MU1780	Mill St											At	MU510	W Chestnut St								133-Salisbury		
	0.27	MU1780	Mill St											At	MU1462	Lemmon Hill La								133-Salisbury		
	0.32	MU1780	Mill St											At		Ent To Business								133-Salisbury		
	0.35	MU1780	Mill St											At		Ent To Business								133-Salisbury		
	0.35	MU1780	Mill St											At		R/R #Cr 530 235 X								133-Salisbury		
	0.39	MU1780	Mill St											At		Ent To Business								133-Salisbury		
	0.41	MU1780	Mill St											At		Ent To Business								133-Salisbury		
	0.41	MU1780	Mill St											At		Spur Fr Us 50								133-Salisbury		
	0.44	MU1780	Mill St											At	US50BU	Salisbury Pkwy								133-Salisbury		
	0.45	MU1780	Mill St											At		Spur To Us 50								133-Salisbury		
	0.48	MU1780	Mill St											At	MU530	W Church St								133-Salisbury		
	0.49	MU1780	Mill St											At	MU1640	W Main St								133-Salisbury		
10333501	0.49	01/29/07	0633	2	02	01	N	0	0	0	0	01	01	02	2	0208	12	0199	00	0302	1301	S1	0700	0101		133
08959885	0.49	03/20/07	1025	3	01	01	N	0	0	0	0	01	01	02	2	0205	88	0200	00	0200	0210	S1	0728	0101		133
10334428	0.49	04/23/07	1245	2	02	03	N	0	0	1	0	01	01	02	2	0602	07	0109	10	0202	0701	S2	2400	0101		133
10339111	0.49	05/12/07	1926	7	03	01	N	0	0	0	0	01	01	02	2	0202	11	0100	00	0204	0202	W2	0000	0101		133
10339850	0.49	06/11/07	1401	2	03	01	N	0	0	0	0	01	01	02	2	0821	07	0199	00	0101	0704	N1	2407	0101		133
11261200	0.49	12/17/07	0755	2	02	01	N	0	0	0	0	01	01	02	2	0202	11	0100	00	0103	0101	N2	1300	0101		133
10331648	0.49	07/12/07	1433	5	03	01	N	0	0	0	0	01	01	02	2	2120	03	0100	00	0404	0306	W1	2200	0101		133
	0.54	MU1780	Mill St											At		Struc #Wis 05 Wicomico River								133-Salisbury		
	0.56	MU1780	Mill St											At		Spur To Riverside Dr								133-Salisbury		
10339351	0.56	02/24/07	1605	7	01	01	N	0	0	0	0	01	01	02	2	0802	03	0100	00	0202	0306	S1	0700	0101		133
	0.58	MU1780	Mill St											At	MU370	Camden Ave (Ahead)								133-Salisbury		
	0.58	MU1780	Mill St											At		End Of Inventory								133-Salisbury		
	0.58	MU1780	Mill St											At	MU2422	Riverside Dr #2								133-Salisbury		
	0.58	MU1780	Mill St											At	MU410	W Carroll St								133-Salisbury		
10334069	0.58	02/16/07	1210	6	01	01	N	0	0	0	0	01	01	02	2	2120	03	0100	00	0202	0103	S2	2200	0101		133

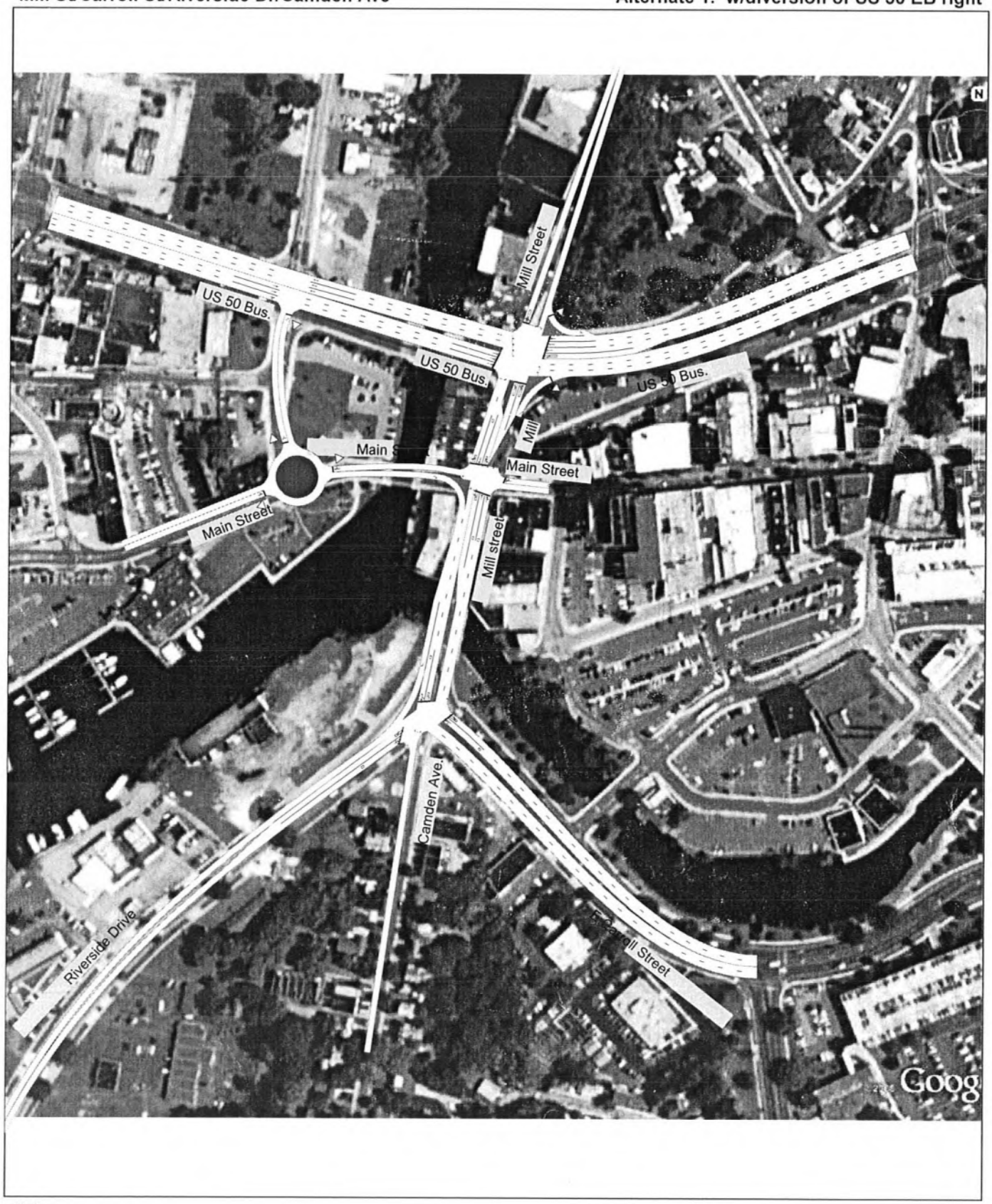
Wicomico County Crash Listing Inventory

Report No.	Logmile	Date	Time	D	IR	AS	AC	OK	PK	OI	PI	W	L	S	#V	V1V2	CT	E1E2	FO	Dir V1V2	Move V1V2	Lane	PCSC	Cond V1V2	Pedestrain CoAgeMaLo	Mun
	0.00	MU1780	Mill St										At		MU1330	W Isabella St								133-Salisbury		
	0.00	MU1780	Mill St										At			Start Of Inventory								133-Salisbury		
	0.17	MU1780	Mill St										At			R/R #Cr 530 479 G								133-Salisbury		
	0.21	MU1780	Mill St										At		MU510	W Chestnut St								133-Salisbury		
	0.27	MU1780	Mill St										At		MU1462	Lemon Hill La								133-Salisbury		
	0.35	MU1780	Mill St										At			R/R #Cr 530 235 X								133-Salisbury		
	0.41	MU1780	Mill St										At			Spur Fr Us 50								133-Salisbury		
	0.44	MU1780	Mill St										At		US50BU	Salisbury Pkwy								133-Salisbury		
10331452	0.44	04/28/06	2133	6	02	01	N	0	0	0	0	01	03	02	2	0208	02	0199	00	0102	1201	NL	1100	0199		133
	0.45	MU1780	Mill St										At			Spur To Us 50								133-Salisbury		
	0.48	MU1780	Mill St										At		MU530	Church St E&W								133-Salisbury		
	0.49	MU1780	Mill St										At		MU1640	W Main St								133-Salisbury		
10326104	0.49	07/21/06	1646	6	02	01	N	0	0	0	0	01	01	02	2	2002	11	0199	00	0103	0102	N2	1300	0101		133
10326402	0.50	07/06/06	1307	5	01	03	N	0	0	1	0	01	01	02	1	0800	17	0910	04	0200	0100	SO	0500	0100		133
10326122	0.51	11/11/06	1218	7	01	01	N	0	0	0	0	01	01	02	4	2108	03	0100	00	0101	0306	N2	2200	0101		133
	0.54	MU1780	Mill St										At			Struc #Wis 05 Wicomico River								133-Salisbury		
	0.56	MU1780	Mill St										At			Spur To Riverside Dr								133-Salisbury		
	0.58	MU1780	Mill St										At		MU370	Camden Ave (Ahead)								133-Salisbury		
	0.58	MU1780	Mill St										At		MU2422	Riverside Dr								133-Salisbury		
	0.58	MU1780	Mill St										At		MU410	W Carroll St								133-Salisbury		
	0.58	MU1780	Mill St										At			End Of Inventory								133-Salisbury		
07929192	0.58	09/02/06	1340	7	03	01	N	0	0	0	0	01	01	02	2	0202	03	0100	00	0101	0303	N2	0700	9901		133

APPENDIX E

Synchro/Suntraf and Sidra Worksheets for Alternate Conditions

Mill St/Carroll St/Riverside Dr/Camden Ave **Alternate 1. w/diversion of US 50 EB right**



dbj
The Traffic Group, Inc. **9/27/2010**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1585	0	216	854	14	339	40	267	25	108	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00	0.95	0.95	1.00		1.00	
Frt		1.00		1.00	1.00	0.85	1.00	1.00	0.85		0.99	
Flt Protected		1.00		0.95	1.00	1.00	0.95	0.96	1.00		0.99	
Satd. Flow (prot)		4893		1770	4803	1509	1665	1688	1599		1752	
Flt Permitted		1.00		0.07	1.00	1.00	0.60	0.63	1.00		0.90	
Satd. Flow (perm)		4893		129	4803	1509	1059	1112	1599		1587	
Peak-hour factor, PHF	0.92	0.90	0.93	0.88	0.93	0.75	0.90	0.75	0.84	0.75	0.93	0.75
Adj. Flow (vph)	0	1761	0	245	918	19	377	53	318	33	116	12
RTOR Reduction (vph)	0	0	0	0	0	7	0	0	130	0	2	0
Lane Group Flow (vph)	0	1761	0	245	918	12	211	219	188	0	159	0
Heavy Vehicles (%)	2%	6%	4%	2%	8%	7%	3%	3%	1%	4%	3%	44%
Turn Type				pm+pt		Perm	Perm		Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2	4		4	8		
Actuated Green, G (s)		51.8		73.0	73.0	73.0	34.0	34.0	34.0		34.0	
Effective Green, g (s)		51.8		73.0	73.0	73.0	34.0	34.0	34.0		34.0	
Actuated g/C Ratio		0.43		0.61	0.61	0.61	0.28	0.28	0.28		0.28	
Clearance Time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)		2112		286	2922	918	300	315	453		450	
v/s Ratio Prot		0.36		c0.11	0.19							
v/s Ratio Perm				c0.41		0.01	c0.20	0.20	0.12		0.10	
v/c Ratio		0.83		0.86	0.31	0.01	0.70	0.70	0.41		0.35	
Uniform Delay, d1		30.3		34.9	11.4	9.3	38.5	38.4	34.9		34.2	
Progression Factor		1.00		1.00	1.00	1.00	0.60	0.60	0.39		1.00	
Incremental Delay, d2		4.1		21.5	0.3	0.0	12.8	11.9	2.7		2.2	
Delay (s)		34.3		56.4	11.7	9.3	35.8	34.8	16.5		36.4	
Level of Service		C		E	B	A	D	C	B		D	
Approach Delay (s)		34.3			20.9			27.3			36.4	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM Average Control Delay	28.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	1064	0	17	20	292	636	0	10	255	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0		5.5		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor			1.00		1.00		1.00	0.95		1.00	1.00	1.00
Frt			0.86		0.93		1.00	1.00		1.00	1.00	0.85
Flt Protected			1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)			1627		1761		1752	3539		1805	1827	1583
Flt Permitted			1.00		1.00		0.95	1.00		0.39	1.00	1.00
Satd. Flow (perm)			1627		1761		1752	3539		749	1827	1583
Peak-hour factor, PHF	0.75	0.75	0.93	0.75	0.75	0.75	0.90	0.94	0.75	0.75	0.93	0.89
Adj. Flow (vph)	0	0	1144	0	23	27	324	677	0	13	274	56
RTOR Reduction (vph)	0	0	0	0	26	0	0	0	0	0	0	23
Lane Group Flow (vph)	0	0	1144	0	24	0	324	677	0	13	274	33
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type			Free				Prot			D.Pm		Perm
Protected Phases					4		5	2			6	
Permitted Phases			Free							2		6
Actuated Green, G (s)			120.0		6.3		28.2	103.2		103.2	70.0	70.0
Effective Green, g (s)			120.0		6.3		28.2	103.2		103.2	70.0	70.0
Actuated g/C Ratio			1.00		0.05		0.24	0.86		0.86	0.58	0.58
Clearance Time (s)					5.5		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)					3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)			1627		92		412	3044		644	1066	923
v/s Ratio Prot					0.01		0.18	0.19			0.15	
v/s Ratio Perm			c0.70							0.02		0.02
v/c Ratio			0.70		0.27		0.79	0.22		0.02	0.26	0.04
Uniform Delay, d1			0.0		54.6		43.1	1.5		1.2	12.3	10.6
Progression Factor			1.00		1.00		0.63	1.43		0.29	0.45	0.38
Incremental Delay, d2			2.6		1.5		6.9	0.1		0.0	0.4	0.1
Delay (s)			2.6		56.2		34.0	2.2		0.4	6.0	4.1
Level of Service			A		E		C	A		A	A	A
Approach Delay (s)		2.6			56.2			12.5			5.5	
Approach LOS		A			E			B			A	

Intersection Summary			
HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	0.0
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	624	158	6	16	106	302	0	0	0	563	360	387
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (prot)	1681	1725			1839	1568				1681	1743	1568
Flt Permitted	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (perm)	1681	1725			1839	1568				1681	1743	1568
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	743	205	8	21	126	332	0	0	0	704	379	503
RTOR Reduction (vph)	0	1	0	0	0	26	0	0	0	0	0	0
Lane Group Flow (vph)	476	479	0	0	147	306	0	0	0	535	548	503
Heavy Vehicles (%)	2%	1%	0%	0%	3%	3%	0%	0%	0%	2%	2%	3%
Turn Type	custom			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases	3	3				4						Free
Actuated Green, G (s)	37.8	37.8			13.8	64.2				50.4	50.4	120.0
Effective Green, g (s)	37.8	37.8			13.8	64.2				50.4	50.4	120.0
Actuated g/C Ratio	0.32	0.32			0.12	0.54				0.42	0.42	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	530	543			211	917				706	732	1568
v/s Ratio Prot	c0.28	0.28			c0.08	0.14				c0.32	0.31	
v/s Ratio Perm						0.06						0.32
v/c Ratio	0.90	0.88			0.70	0.33				0.76	0.75	0.32
Uniform Delay, d1	39.3	39.0			51.1	15.8				29.6	29.4	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.85	0.85	1.00
Incremental Delay, d2	17.8	15.6			9.6	0.2				6.4	5.9	0.5
Delay (s)	57.0	54.6			60.7	16.0				31.5	30.9	0.5
Level of Service	E	D			E	B				C	C	A
Approach Delay (s)		55.8			29.7			0.0			21.5	
Approach LOS		E			C			A			C	

Intersection Summary			
HCM Average Control Delay	33.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection: 1: US 50 Bus. & Mill Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	T	T	T	L	T	T	T	R	L	LT	R	LTR
Maximum Queue (ft)	397	420	424	240	164	189	206	58	196	207	74	221
Average Queue (ft)	264	279	292	134	66	94	122	4	139	159	30	91
95th Queue (ft)	372	394	400	225	143	162	190	35	218	235	88	189
Link Distance (ft)	421	421	421		798	798	798		178	178		567
Upstream Blk Time (%)	0	0	0						8	15		
Queuing Penalty (veh)	1	2	2						28	48		
Storage Bay Dist (ft)				180				75			50	
Storage Blk Time (%)				4	0		18	0		54	0	
Queuing Penalty (veh)				12	0		3	0		145	1	

Intersection: 2: Main Street & Mill Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	TR	L	T	TR	L	T	R
Maximum Queue (ft)	272	72	239	416	389	67	145	26
Average Queue (ft)	49	32	171	101	127	7	49	5
95th Queue (ft)	187	70	271	347	331	43	139	20
Link Distance (ft)	264	94		439	439		178	178
Upstream Blk Time (%)	1	0		0	0		1	
Queuing Penalty (veh)	8	0		2	0		1	
Storage Bay Dist (ft)			160			105		
Storage Blk Time (%)			20	1			2	
Queuing Penalty (veh)			63	3			0	

Intersection: 3: Riverside Drive & Mill street

Movement	EB	EB	WB	WB	SB	SB	SB
Directions Served	L	LTR	LT	R	L	LT	R
Maximum Queue (ft)	351	429	203	207	462	480	264
Average Queue (ft)	196	267	111	83	244	295	49
95th Queue (ft)	313	402	200	170	418	453	244
Link Distance (ft)		1326	852	852	439	439	
Upstream Blk Time (%)					1	2	
Queuing Penalty (veh)					5	14	
Storage Bay Dist (ft)	300						200
Storage Blk Time (%)	1	6				16	
Queuing Penalty (veh)	5	18				62	

Intersection: 6: Main Street &

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	340	164	237
Average Queue (ft)	186	37	105
95th Queue (ft)	346	129	206
Link Distance (ft)	316	264	269
Upstream Blk Time (%)	11		0
Queuing Penalty (veh)	0		1
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: US 50 Bus. &

Movement	EB	EB	EB	NB
Directions Served	T	T	TR	R
Maximum Queue (ft)	10	38	68	28
Average Queue (ft)	1	3	5	9
95th Queue (ft)	10	28	42	31
Link Distance (ft)	504	504	504	269
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 424

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1025	0	281	1550	15	595	41	181	28	78	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00	0.95	0.95	1.00		1.00	
Frt		1.00		1.00	1.00	0.85	1.00	1.00	0.85		0.98	
Flt Protected		1.00		0.95	1.00	1.00	0.95	0.96	1.00		0.99	
Satd. Flow (prot)		5036		1805	5085	1509	1698	1715	1583		1781	
Flt Permitted		1.00		0.11	1.00	1.00	0.64	0.64	1.00		0.84	
Satd. Flow (perm)		5036		204	5085	1509	1152	1144	1583		1512	
Peak-hour factor, PHF	0.75	0.91	0.94	0.83	0.87	0.79	0.88	0.85	0.82	0.75	0.75	0.75
Adj. Flow (vph)	0	1126	0	339	1782	19	676	48	221	37	104	21
RTOR Reduction (vph)	0	0	0	0	0	4	0	0	54	0	4	0
Lane Group Flow (vph)	0	1126	0	339	1782	15	358	366	167	0	158	0
Heavy Vehicles (%)	2%	3%	2%	0%	2%	7%	1%	0%	2%	4%	3%	6%
Turn Type				pm+pt		Perm	Perm		Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2	4		4	8		
Actuated Green, G (s)		31.3		58.0	58.0	58.0	49.0	49.0	49.0		49.0	
Effective Green, g (s)		31.3		58.0	58.0	58.0	49.0	49.0	49.0		49.0	
Actuated g/C Ratio		0.26		0.48	0.48	0.48	0.41	0.41	0.41		0.41	
Clearance Time (s)		7.0		6.0	7.0	7.0	6.0	6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0	3.0	3.0	3.0		3.0	
Lane Grp Cap (vph)		1314		375	2458	729	470	467	646		617	
v/s Ratio Prot		0.22		c0.16	0.35							
v/s Ratio Perm				c0.28		0.01	0.31	c0.32	0.11		0.10	
v/c Ratio		0.86		0.90	0.72	0.02	0.76	0.78	0.26		0.26	
Uniform Delay, d1		42.2		34.1	24.7	16.2	30.5	30.9	23.5		23.5	
Progression Factor		1.00		1.00	1.00	1.00	0.82	0.82	0.65		1.00	
Incremental Delay, d2		7.4		24.3	1.9	0.1	10.6	11.9	0.9		1.0	
Delay (s)		49.6		58.4	26.6	16.2	35.6	37.3	16.2		24.5	
Level of Service		D		E	C	B	D	D	B		C	
Approach Delay (s)		49.6			31.5			31.7			24.5	
Approach LOS		D			C			C			C	

Intersection Summary			
HCM Average Control Delay	35.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	814	0	52	71	468	795	0	5	309	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			4.0		5.5		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor			1.00		1.00		1.00	0.95		1.00	1.00	1.00
Frt			0.86		0.92		1.00	1.00		1.00	1.00	0.85
Flt Protected			1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)			1627		1751		1752	3539		1805	1827	1583
Flt Permitted			1.00		1.00		0.95	1.00		0.30	1.00	1.00
Satd. Flow (perm)			1627		1751		1752	3539		565	1827	1583
Peak-hour factor, PHF	0.79	1.00	0.93	0.75	0.75	0.75	0.84	0.86	0.75	0.75	0.88	0.88
Adj. Flow (vph)	0	0	875	0	69	95	557	924	0	7	351	40
RTOR Reduction (vph)	0	0	0	0	43	0	0	0	0	0	0	24
Lane Group Flow (vph)	0	0	875	0	121	0	557	924	0	7	351	16
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type			Free				Prot			D.Pm		Perm
Protected Phases					4		5	2			6	
Permitted Phases			Free							2		6
Actuated Green, G (s)			120.0		12.8		44.1	96.7		96.7	47.6	47.6
Effective Green, g (s)			120.0		12.8		44.1	96.7		96.7	47.6	47.6
Actuated g/C Ratio			1.00		0.11		0.37	0.81		0.81	0.40	0.40
Clearance Time (s)					5.5		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)					3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)			1627		187		644	2852		455	725	628
v/s Ratio Prot					0.07		c0.32	0.26			0.19	
v/s Ratio Perm			c0.54							0.01		0.01
v/c Ratio			0.54		0.65		0.86	0.32		0.02	0.48	0.03
Uniform Delay, d1			0.0		51.4		35.2	3.1		2.3	27.0	22.1
Progression Factor			1.00		1.00		0.85	0.46		0.39	0.48	0.22
Incremental Delay, d2			1.3		7.5		8.7	0.2		0.0	1.6	0.1
Delay (s)			1.3		58.9		38.6	1.6		0.9	14.5	4.9
Level of Service			A		E		D	A		A	B	A
Approach Delay (s)		1.3			58.9			15.5			13.3	
Approach LOS		A			E			B			B	

Intersection Summary			
HCM Average Control Delay	13.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	5.0
Intersection Capacity Utilization	62.2%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	601	108	2	61	168	613	0	0	0	398	358	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.99	1.00				0.95	0.99	1.00
Satd. Flow (prot)	1698	1728			1862	1615				1698	1773	1599
Flt Permitted	0.95	0.97			0.99	1.00				0.95	0.99	1.00
Satd. Flow (perm)	1698	1728			1862	1615				1698	1773	1599
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	715	140	3	81	200	674	0	0	0	498	377	482
RTOR Reduction (vph)	0	0	0	0	0	23	0	0	0	0	0	0
Lane Group Flow (vph)	429	429	0	0	281	651	0	0	0	428	447	482
Heavy Vehicles (%)	1%	1%	0%	2%	0%	0%	2%	2%	2%	1%	1%	1%
Turn Type	custom			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases	3	3				4						Free
Actuated Green, G (s)	34.9	34.9			21.7	67.1				45.4	45.4	120.0
Effective Green, g (s)	34.9	34.9			21.7	67.1				45.4	45.4	120.0
Actuated g/C Ratio	0.29	0.29			0.18	0.56				0.38	0.38	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	494	503			337	984				642	671	1599
v/s Ratio Prot	c0.25	0.25			c0.15	c0.25				0.25	0.25	
v/s Ratio Perm						0.15						0.30
v/c Ratio	0.87	0.85			0.83	0.66				0.67	0.67	0.30
Uniform Delay, d1	40.4	40.1			47.4	18.5				31.0	31.0	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.74	0.74	1.00
Incremental Delay, d2	14.9	13.2			16.1	1.7				4.9	4.7	0.4
Delay (s)	55.3	53.3			63.5	20.2				27.7	27.5	0.4
Level of Service	E	D			E	C				C	C	A
Approach Delay (s)		54.3			32.9			0.0			18.0	
Approach LOS		D			C			A			B	

Intersection Summary			
HCM Average Control Delay	32.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection: 1: US 50 Bus. & Mill Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	NB	SB
Directions Served	T	T	T	L	T	T	T	R	L	LT	R	LTR
Maximum Queue (ft)	296	307	326	254	313	339	374	39	190	188	71	141
Average Queue (ft)	206	221	238	183	202	239	265	5	135	150	17	54
95th Queue (ft)	289	299	315	266	288	324	351	40	205	210	65	115
Link Distance (ft)	416	416	416		798	798	798		168	168		567
Upstream Blk Time (%)									8	16		
Queuing Penalty (veh)									36	70		
Storage Bay Dist (ft)				180				75			50	
Storage Blk Time (%)				7	6		38	0		52	0	
Queuing Penalty (veh)				37	16		6	0		95	0	

Intersection: 2: Main Street & Mill Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	TR	L	T	TR	L	T	R
Maximum Queue (ft)	207	109	185	450	307	14	162	38
Average Queue (ft)	16	82	180	286	86	2	90	7
95th Queue (ft)	116	127	197	502	231	12	158	27
Link Distance (ft)	264	94		438	438		168	168
Upstream Blk Time (%)	0	27		4	0		1	
Queuing Penalty (veh)	3	0		24	1		2	
Storage Bay Dist (ft)			160			105		
Storage Blk Time (%)			42	0			9	
Queuing Penalty (veh)			165	2			0	

Intersection: 3: Riverside Drive & Mill street

Movement	EB	EB	WB	WB	SB	SB	SB
Directions Served	L	LTR	LT	R	L	LT	R
Maximum Queue (ft)	316	311	449	474	490	425	348
Average Queue (ft)	206	214	288	237	212	248	50
95th Queue (ft)	301	308	520	466	442	388	243
Link Distance (ft)		1326	852	852	438	438	
Upstream Blk Time (%)					0	1	
Queuing Penalty (veh)					2	5	
Storage Bay Dist (ft)	300					200	
Storage Blk Time (%)	0	1				13	0
Queuing Penalty (veh)	2	3				47	0

Intersection: 6: Main Street &

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (ft)	146	247	248
Average Queue (ft)	67	120	128
95th Queue (ft)	125	280	248
Link Distance (ft)	316	264	268
Upstream Blk Time (%)		0	2
Queuing Penalty (veh)		1	10
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

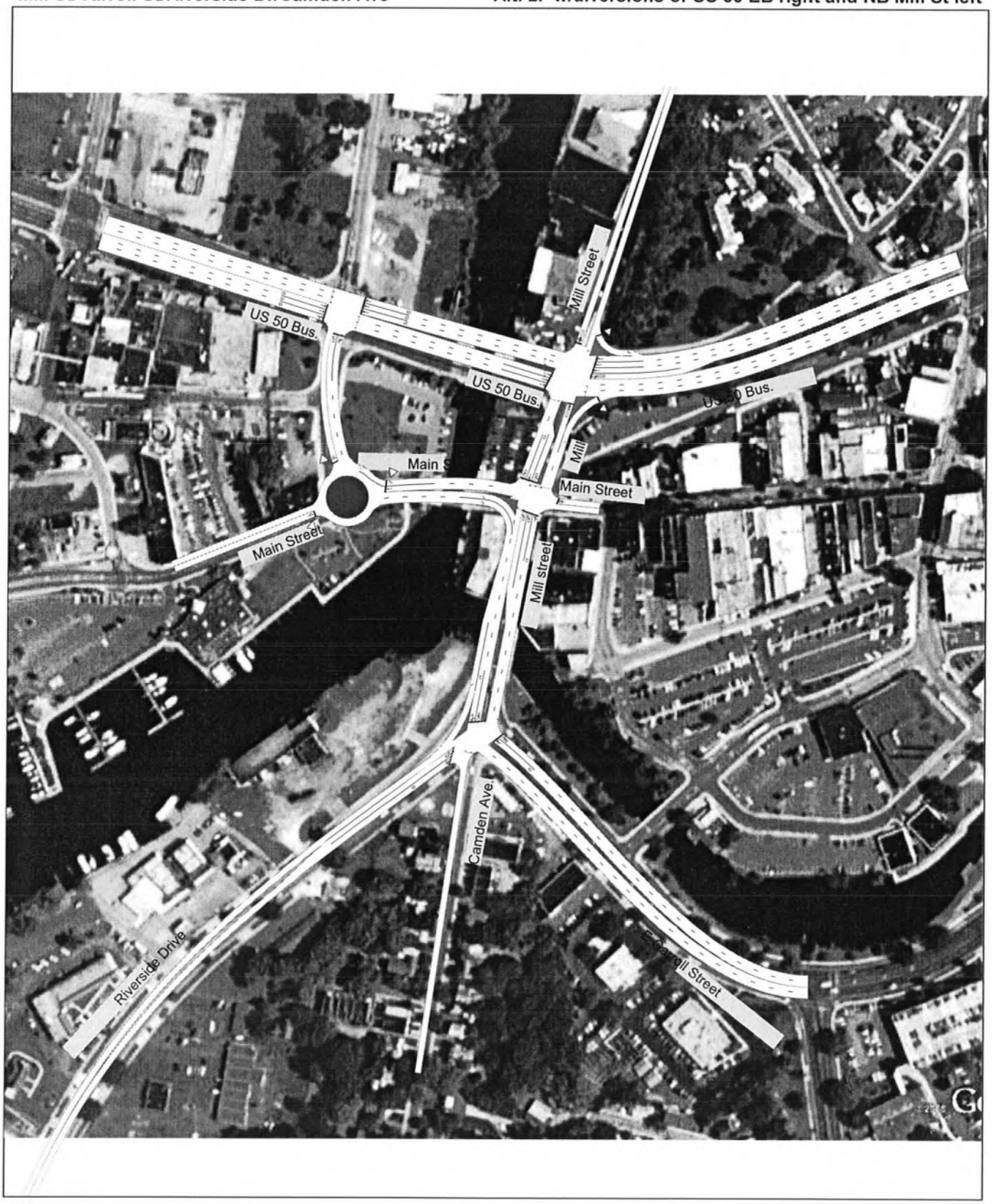
Intersection: 7: US 50 Bus. &

Movement	EB	EB	NB
Directions Served	T	TR	R
Maximum Queue (ft)	46	91	43
Average Queue (ft)	5	12	13
95th Queue (ft)	59	90	40
Link Distance (ft)	503	503	268
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 528

Mill St/Carroll St/Riverside Dr/Camden Ave **Alt. 2. w/diversions of US 50 EB right and NB Mill St left**



dbj
The Traffic Group, Inc. **9/27/2010**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1585	0	216	854	14	0	40	267	25	108	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00		1.00	1.00		1.00	
Frt		1.00		1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00		0.95	1.00	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		4893		1770	4803	1509		1845	1599		1752	
Flt Permitted		1.00		0.07	1.00	1.00		1.00	1.00		0.93	
Satd. Flow (perm)		4893		128	4803	1509		1845	1599		1652	
Peak-hour factor, PHF	0.92	0.90	0.93	0.88	0.93	0.75	0.90	0.75	0.84	0.75	0.93	0.75
Adj. Flow (vph)	0	1761	0	245	918	19	0	53	318	33	116	12
RTOR Reduction (vph)	0	0	0	0	0	7	0	0	211	0	2	0
Lane Group Flow (vph)	0	1761	0	245	918	12	0	53	107	0	159	0
Heavy Vehicles (%)	2%	6%	4%	2%	8%	7%	3%	3%	1%	4%	3%	44%
Turn Type				pm+pt		Perm			Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2			4	8		
Actuated Green, G (s)		52.4		74.0	74.0	74.0		33.0	33.0		33.0	
Effective Green, g (s)		52.4		74.0	74.0	74.0		33.0	33.0		33.0	
Actuated g/C Ratio		0.44		0.62	0.62	0.62		0.28	0.28		0.28	
Clearance Time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		2137		292	2962	931		507	440		454	
v/s Ratio Prot		0.36		c0.11	0.19			0.03				
v/s Ratio Perm				c0.41		0.01			0.07		c0.10	
v/c Ratio		0.82		0.84	0.31	0.01		0.10	0.24		0.35	
Uniform Delay, d1		29.7		34.7	10.9	8.9		32.5	33.8		34.9	
Progression Factor		0.41		1.00	1.00	1.00		0.61	0.65		1.00	
Incremental Delay, d2		2.5		18.6	0.3	0.0		0.4	1.3		2.1	
Delay (s)		14.7		53.3	11.2	8.9		20.3	23.3		37.0	
Level of Service		B		D	B	A		C	C		D	
Approach Delay (s)		14.7			19.9			22.9			37.0	
Approach LOS		B			B			C			D	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	1064	0	17	20	631	297	0	10	255	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.0		5.5		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor			0.88		1.00		0.97	1.00		1.00	1.00	1.00
Frt			0.85		0.93		1.00	1.00		1.00	1.00	0.85
Flt Protected			1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)			2814		1761		3400	1863		1805	1827	1583
Flt Permitted			1.00		1.00		0.95	1.00		0.57	1.00	1.00
Satd. Flow (perm)			2814		1761		3400	1863		1080	1827	1583
Peak-hour factor, PHF	0.75	0.75	0.93	0.75	0.75	0.75	0.90	0.94	0.75	0.75	0.93	0.89
Adj. Flow (vph)	0	0	1144	0	23	27	701	316	0	13	274	56
RTOR Reduction (vph)	0	0	600	0	26	0	0	0	0	0	0	27
Lane Group Flow (vph)	0	0	544	0	24	0	701	316	0	13	274	29
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type			Over	Perm			Prot			D.Pm		Perm
Protected Phases			5		4		5	2			6	
Permitted Phases				4						2		6
Actuated Green, G (s)			36.6		5.9		36.6	103.6		103.6	62.0	62.0
Effective Green, g (s)			36.6		5.9		36.6	103.6		103.6	62.0	62.0
Actuated g/C Ratio			0.30		0.05		0.30	0.86		0.86	0.52	0.52
Clearance Time (s)			5.0		5.5		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)			3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)			858		87		1037	1608		932	944	818
v/s Ratio Prot			0.19		c0.01		c0.21	0.17			c0.15	
v/s Ratio Perm										0.01		0.02
v/c Ratio			0.63		0.28		0.68	0.20		0.01	0.29	0.04
Uniform Delay, d1			35.9		55.0		36.5	1.3		1.1	16.5	14.3
Progression Factor			1.00		1.00		0.57	0.39		0.28	0.48	0.50
Incremental Delay, d2			1.5		1.8		1.3	0.2		0.0	0.6	0.1
Delay (s)			37.5		56.8		21.9	0.7		0.3	8.5	7.1
Level of Service			D		E		C	A		A	A	A
Approach Delay (s)		37.5			56.8			15.3			8.0	
Approach LOS		D			E			B			A	

Intersection Summary			
HCM Average Control Delay	25.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	624	158	6	16	106	302	0	0	0	563	360	387
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (prot)	1681	1725			1839	1568				1681	1743	1568
Flt Permitted	0.95	0.97			0.99	1.00				0.95	0.98	1.00
Satd. Flow (perm)	1681	1725			1839	1568				1681	1743	1568
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	743	205	8	21	126	332	0	0	0	704	379	503
RTOR Reduction (vph)	0	1	0	0	0	26	0	0	0	0	0	0
Lane Group Flow (vph)	476	479	0	0	147	306	0	0	0	535	548	503
Heavy Vehicles (%)	2%	1%	0%	0%	3%	3%	0%	0%	0%	2%	2%	3%
Turn Type	custom			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases	3	3				4						Free
Actuated Green, G (s)	37.8	37.8			13.8	64.2				50.4	50.4	120.0
Effective Green, g (s)	37.8	37.8			13.8	64.2				50.4	50.4	120.0
Actuated g/C Ratio	0.32	0.32			0.12	0.54				0.42	0.42	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	530	543			211	917				706	732	1568
v/s Ratio Prot	c0.28	0.28			c0.08	0.14				c0.32	0.31	
v/s Ratio Perm						0.06						0.32
v/c Ratio	0.90	0.88			0.70	0.33				0.76	0.75	0.32
Uniform Delay, d1	39.3	39.0			51.1	15.8				29.6	29.4	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.93	0.93	1.00
Incremental Delay, d2	17.8	15.6			9.6	0.2				6.6	6.1	0.5
Delay (s)	57.0	54.6			60.7	16.0				34.0	33.3	0.5
Level of Service	E	D			E	B				C	C	A
Approach Delay (s)		55.8			29.7			0.0			23.2	
Approach LOS		E			C			A			C	

Intersection Summary			
HCM Average Control Delay	34.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	18.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1560	486	0	863	339	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	0.91			0.91	1.00	1.00
Frt	0.96			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	4904			5085	1770	1583
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	4904			5085	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1696	528	0	938	368	27
RTOR Reduction (vph)	47	0	0	0	0	13
Lane Group Flow (vph)	2177	0	0	938	368	14
Turn Type						Perm
Protected Phases	4			8	2	
Permitted Phases						2
Actuated Green, G (s)	68.3			68.3	43.7	43.7
Effective Green, g (s)	68.3			68.3	43.7	43.7
Actuated g/C Ratio	0.57			0.57	0.36	0.36
Clearance Time (s)	4.0			4.0	4.0	4.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2791			2894	645	576
v/s Ratio Prot	c0.44			0.18	c0.21	
v/s Ratio Perm						0.01
v/c Ratio	0.78			0.32	0.57	0.02
Uniform Delay, d1	20.0			13.7	30.6	24.5
Progression Factor	1.00			0.24	1.00	1.00
Incremental Delay, d2	1.4			0.1	3.6	0.1
Delay (s)	21.5			3.3	34.3	24.6
Level of Service	C			A	C	C
Approach Delay (s)	21.5			3.3	33.6	
Approach LOS	C			A	C	

Intersection Summary			
HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection: 1: US 50 Bus. & Mill Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	T	T	T	L	T	T	T	R	T	R	LTR
Maximum Queue (ft)	221	190	214	229	212	177	172	20	51	27	176
Average Queue (ft)	101	108	115	123	70	87	111	1	14	2	82
95th Queue (ft)	192	175	196	217	186	165	167	20	42	28	163
Link Distance (ft)	419	419	419		804	804	804		175	175	568
Upstream Blk Time (%)											
Queuing Penalty (veh)											
Storage Bay Dist (ft)				180				75			
Storage Blk Time (%)				6			17				
Queuing Penalty (veh)				18			2				

Intersection: 2: Main Street & Mill Street

Movement	EB	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	R	LTR	L	L	TR	L	T	R
Maximum Queue (ft)	73	90	72	239	482	197	61	180	68
Average Queue (ft)	20	30	27	182	257	20	5	98	18
95th Queue (ft)	67	85	63	284	516	170	40	177	55
Link Distance (ft)	253	253	88		438	438		175	175
Upstream Blk Time (%)			0		8	0		1	
Queuing Penalty (veh)			0		35	1		2	
Storage Bay Dist (ft)				160			105		
Storage Blk Time (%)				32	24			7	
Queuing Penalty (veh)				102	74			1	

Intersection: 3: Riverside Drive & Mill street

Movement	EB	EB	B49	WB	WB	SB	SB	SB
Directions Served	L	LTR	T	LT	R	L	LT	R
Maximum Queue (ft)	449	937	75	390	334	462	437	348
Average Queue (ft)	336	511	6	231	147	235	267	55
95th Queue (ft)	507	1205	63	510	423	432	401	264
Link Distance (ft)		1326	246	852	852	438	438	
Upstream Blk Time (%)		1	0	0	0	1	1	
Queuing Penalty (veh)		0	0	0	0	7	6	
Storage Bay Dist (ft)	300							200
Storage Blk Time (%)	29	20					16	
Queuing Penalty (veh)	138	63					62	

Intersection: 6: Main Street &

Movement	EB	WB	SB
Directions Served	LT	T	LR
Maximum Queue (ft)	316	169	252
Average Queue (ft)	190	32	139
95th Queue (ft)	347	138	249
Link Distance (ft)	316	253	263
Upstream Blk Time (%)	8	0	1
Queuing Penalty (veh)	0	0	3
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 7: US 50 Bus. &

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	T	T	T	L	R
Maximum Queue (ft)	429	496	498	48	69	76	206	82
Average Queue (ft)	253	287	347	18	28	41	102	14
95th Queue (ft)	396	437	499	45	61	72	203	88
Link Distance (ft)	498	498	498	419	419	419	263	263
Upstream Blk Time (%)	0	0	1				0	0
Queuing Penalty (veh)	0	0	0				0	0
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Network Summary

Network wide Queuing Penalty: 515

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑↑		↰	↑↑↑	↱		↑	↱		↔	
Volume (vph)	0	1025	0	281	1550	15	0	41	181	28	78	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00		1.00	1.00		1.00	
Frt		1.00		1.00	1.00	0.85		1.00	0.85		0.98	
Flt Protected		1.00		0.95	1.00	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		5036		1805	5085	1509		1900	1583		1781	
Flt Permitted		1.00		0.11	1.00	1.00		1.00	1.00		0.93	
Satd. Flow (perm)		5036		204	5085	1509		1900	1583		1677	
Peak-hour factor, PHF	0.75	0.91	0.94	0.83	0.87	0.79	0.88	0.85	0.82	0.75	0.75	0.75
Adj. Flow (vph)	0	1126	0	339	1782	19	0	48	221	37	104	21
RTOR Reduction (vph)	0	0	0	0	0	4	0	0	131	0	4	0
Lane Group Flow (vph)	0	1126	0	339	1782	15	0	48	90	0	158	0
Heavy Vehicles (%)	2%	3%	2%	0%	2%	7%	1%	0%	2%	4%	3%	6%
Turn Type				pm+pt		Perm			Perm	Perm		
Protected Phases		6		5	2			4			8	
Permitted Phases				2	2	2			4	8		
Actuated Green, G (s)		31.3		58.0	58.0	58.0		49.0	49.0		49.0	
Effective Green, g (s)		31.3		58.0	58.0	58.0		49.0	49.0		49.0	
Actuated g/C Ratio		0.26		0.48	0.48	0.48		0.41	0.41		0.41	
Clearance Time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		1314		375	2458	729		776	646		685	
v/s Ratio Prot		0.22		c0.16	0.35			0.03				
v/s Ratio Perm				c0.28		0.01			0.06		c0.09	
v/c Ratio		0.86		0.90	0.72	0.02		0.06	0.14		0.23	
Uniform Delay, d1		42.2		34.1	24.7	16.2		21.5	22.3		23.2	
Progression Factor		0.41		1.00	1.00	1.00		0.80	0.91		1.00	
Incremental Delay, d2		4.0		24.3	1.9	0.1		0.1	0.4		0.8	
Delay (s)		21.3		58.4	26.6	16.2		17.3	20.6		24.0	
Level of Service		C		E	C	B		B	C		C	
Approach Delay (s)		21.3			31.5			20.1			24.0	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	814	5	52	71	1063	200	0	5	309	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)			5.0		5.5		5.0	5.0		5.0	5.0	5.0
Lane Util. Factor			0.88		1.00		0.97	1.00		1.00	1.00	1.00
Frt			0.85		0.92		1.00	1.00		1.00	1.00	0.85
Flt Protected			1.00		1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)			2814		1754		3400	1863		1805	1827	1583
Flt Permitted			1.00		1.00		0.95	1.00		0.61	1.00	1.00
Satd. Flow (perm)			2814		1754		3400	1863		1166	1827	1583
Peak-hour factor, PHF	0.79	1.00	0.93	0.75	0.75	0.75	0.84	0.86	0.75	0.75	0.88	0.88
Adj. Flow (vph)	0	0	875	7	69	95	1265	233	0	7	351	40
RTOR Reduction (vph)	0	0	480	0	38	0	0	0	0	0	0	27
Lane Group Flow (vph)	0	0	395	0	133	0	1265	233	0	7	351	13
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type			Over	Perm			Prot			D.Pm		Perm
Protected Phases			5		4		5	2			6	
Permitted Phases				4						2		6
Actuated Green, G (s)			51.8		13.3		51.8	96.2		96.2	39.4	39.4
Effective Green, g (s)			51.8		13.3		51.8	96.2		96.2	39.4	39.4
Actuated g/C Ratio			0.43		0.11		0.43	0.80		0.80	0.33	0.33
Clearance Time (s)			5.0		5.5		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)			3.0		3.0		3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)			1215		194		1468	1494		935	600	520
v/s Ratio Prot			0.14				c0.37	0.13			c0.19	
v/s Ratio Perm					0.08					0.01		0.01
v/c Ratio			0.33		0.68		0.86	0.16		0.01	0.58	0.03
Uniform Delay, d1			22.5		51.3		30.9	2.7		2.4	33.5	27.3
Progression Factor			1.00		1.00		0.71	0.68		0.56	0.50	0.24
Incremental Delay, d2			0.2		9.6		4.0	0.2		0.0	3.0	0.1
Delay (s)			22.7		60.9		25.9	2.0		1.3	19.9	6.6
Level of Service			C		E		C	A		A	B	A
Approach Delay (s)		22.7			60.9			22.2			18.2	
Approach LOS		C			E			C			B	

Intersection Summary			
HCM Average Control Delay	24.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	601	108	2	61	168	613	0	0	0	398	358	371
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0	6.0			6.0	6.0				6.0	6.0	4.0
Lane Util. Factor	0.95	0.95			1.00	1.00				0.95	0.95	1.00
Frt	1.00	1.00			1.00	0.85				1.00	1.00	0.85
Flt Protected	0.95	0.97			0.99	1.00				0.95	0.99	1.00
Satd. Flow (prot)	1698	1728			1862	1615				1698	1773	1599
Flt Permitted	0.95	0.97			0.99	1.00				0.95	0.99	1.00
Satd. Flow (perm)	1698	1728			1862	1615				1698	1773	1599
Peak-hour factor, PHF	0.84	0.77	0.75	0.75	0.84	0.91	0.75	0.75	0.75	0.80	0.95	0.77
Adj. Flow (vph)	715	140	3	81	200	674	0	0	0	498	377	482
RTOR Reduction (vph)	0	0	0	0	0	23	0	0	0	0	0	0
Lane Group Flow (vph)	429	429	0	0	281	651	0	0	0	428	447	482
Heavy Vehicles (%)	1%	1%	0%	2%	0%	0%	2%	2%	2%	1%	1%	1%
Turn Type	custom			Split		pm+ov				Split		Free
Protected Phases	3	3		4	4	2				2	2	
Permitted Phases	3	3				4						Free
Actuated Green, G (s)	34.9	34.9			21.7	67.1				45.4	45.4	120.0
Effective Green, g (s)	34.9	34.9			21.7	67.1				45.4	45.4	120.0
Actuated g/C Ratio	0.29	0.29			0.18	0.56				0.38	0.38	1.00
Clearance Time (s)	6.0	6.0			6.0	6.0				6.0	6.0	
Vehicle Extension (s)	3.0	3.0			3.0	3.0				3.0	3.0	
Lane Grp Cap (vph)	494	503			337	984				642	671	1599
v/s Ratio Prot	c0.25	0.25			c0.15	c0.25				0.25	0.25	
v/s Ratio Perm						0.15						0.30
v/c Ratio	0.87	0.85			0.83	0.66				0.67	0.67	0.30
Uniform Delay, d1	40.4	40.1			47.4	18.5				31.0	31.0	0.0
Progression Factor	1.00	1.00			1.00	1.00				0.86	0.86	1.00
Incremental Delay, d2	14.9	13.2			16.1	1.7				4.9	4.6	0.4
Delay (s)	55.3	53.3			63.5	20.2				31.7	31.4	0.4
Level of Service	E	D			E	C				C	C	A
Approach Delay (s)		54.3			32.9			0.0			20.5	
Approach LOS		D			C			A			C	

Intersection Summary			
HCM Average Control Delay	33.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	980	433	0	1566	595	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	4.0
Lane Util. Factor	0.91			0.91	1.00	1.00
Frt	0.95			1.00	1.00	0.85
Flt Protected	1.00			1.00	0.95	1.00
Satd. Flow (prot)	4852			5085	1770	1583
Flt Permitted	1.00			1.00	0.95	1.00
Satd. Flow (perm)	4852			5085	1770	1583
Peak-hour factor, PHF	0.75	0.75	0.75	0.75	0.75	0.75
Adj. Flow (vph)	1307	577	0	2088	793	60
RTOR Reduction (vph)	66	0	0	0	0	9
Lane Group Flow (vph)	1818	0	0	2088	793	51
Turn Type						Perm
Protected Phases	4			8	2	
Permitted Phases						2
Actuated Green, G (s)	52.0			52.0	60.0	60.0
Effective Green, g (s)	52.0			52.0	60.0	60.0
Actuated g/C Ratio	0.43			0.43	0.50	0.50
Clearance Time (s)	4.0			4.0	4.0	4.0
Vehicle Extension (s)	3.0			3.0	3.0	3.0
Lane Grp Cap (vph)	2103			2204	885	792
v/s Ratio Prot	0.37			c0.41	c0.45	
v/s Ratio Perm						0.03
v/c Ratio	0.86			0.95	0.90	0.06
Uniform Delay, d1	30.8			32.7	27.2	15.5
Progression Factor	1.00			0.36	1.00	1.00
Incremental Delay, d2	4.0			7.8	13.6	0.2
Delay (s)	34.8			19.5	40.8	15.7
Level of Service	C			B	D	B
Approach Delay (s)	34.8			19.5	39.0	
Approach LOS	C			B	D	

Intersection Summary			
HCM Average Control Delay	28.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Intersection: 1: US 50 Bus. & Mill Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	T	T	T	L	T	T	T	R	T	R	LTR
Maximum Queue (ft)	291	281	296	245	348	354	368	36	65	71	210
Average Queue (ft)	151	160	174	160	203	228	256	2	14	6	77
95th Queue (ft)	311	313	319	262	317	333	348	26	47	40	195
Link Distance (ft)	413	413	413		804	804	804		169		568
Upstream Blk Time (%)	1	1	0								
Queuing Penalty (veh)	2	3	1								
Storage Bay Dist (ft)				180				75		50	
Storage Blk Time (%)				11	5		40	0	1	0	
Queuing Penalty (veh)				55	15		6	0	2	0	

Intersection: 2: Main Street & Mill Street

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	R	LTR	L	L	TR	L	T	R
Maximum Queue (ft)	21	115	185	461	463	55	211	44
Average Queue (ft)	1	80	180	360	93	4	134	12
95th Queue (ft)	22	130	197	508	363	38	215	40
Link Distance (ft)	252	100		424	424		169	169
Upstream Blk Time (%)		11		9	1		11	
Queuing Penalty (veh)		0		55	5		20	
Storage Bay Dist (ft)			160			105		
Storage Blk Time (%)			24	19			26	
Queuing Penalty (veh)			126	102			1	

Intersection: 3: Riverside Drive & Mill street

Movement	EB	EB	B49	WB	WB	SB	SB	SB
Directions Served	L	LTR	T	LT	R	L	LT	R
Maximum Queue (ft)	450	1275	167	616	613	454	394	272
Average Queue (ft)	421	934	80	355	322	191	242	63
95th Queue (ft)	520	1665	274	588	586	383	374	279
Link Distance (ft)		1326	246	852	852	424	424	
Upstream Blk Time (%)		19	16		0	1	0	
Queuing Penalty (veh)		0	0		0	3	1	
Storage Bay Dist (ft)	300							200
Storage Blk Time (%)	60	33					13	
Queuing Penalty (veh)	247	100					47	

Intersection: 6: Main Street &

Movement	EB	WB	WB	SB
Directions Served	LT	T	R	LR
Maximum Queue (ft)	166	190	70	191
Average Queue (ft)	67	65	5	94
95th Queue (ft)	134	167	70	192
Link Distance (ft)	316	252	252	262
Upstream Blk Time (%)		0	0	
Queuing Penalty (veh)		1	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

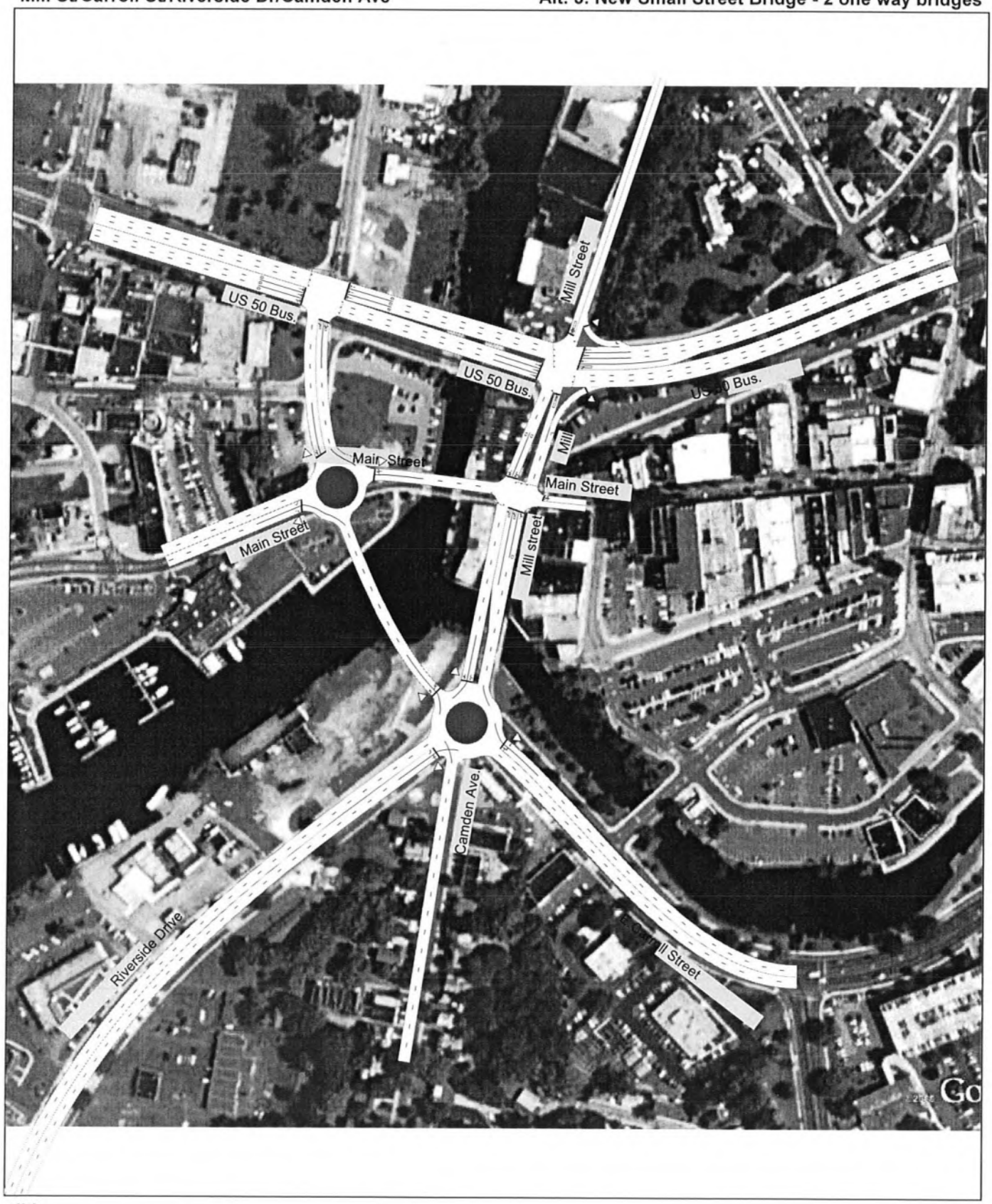
Intersection: 7: US 50 Bus. &

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	T	T	T	L	R
Maximum Queue (ft)	324	342	456	162	174	188	247	203
Average Queue (ft)	183	211	314	79	98	111	135	25
95th Queue (ft)	289	320	441	143	163	175	237	135
Link Distance (ft)	497	497	497	413	413	413	262	262
Upstream Blk Time (%)			0				0	0
Queuing Penalty (veh)			0				1	1
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Network Summary

Network wide Queuing Penalty: 794

Mill St/Carroll St/Riverside Dr/Camden Ave **Alt. 3. New Small Street Bridge - 2 one way bridges**



dbj
The Traffic Group, Inc. **9/27/2010**

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1585	0	216	854	14	0	40	267	25	108	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00		1.00	1.00		1.00	
Frt		1.00		1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00		0.95	1.00	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		5036		1805	5085	1509		1900	1583		1806	
Flt Permitted		1.00		0.08	1.00	1.00		1.00	1.00		0.93	
Satd. Flow (perm)		5036		149	5085	1509		1900	1583		1698	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1761	0	240	949	16	0	44	297	28	120	10
RTOR Reduction (vph)	0	0	0	0	0	4	0	0	4	0	2	0
Lane Group Flow (vph)	0	1761	0	240	949	12	0	44	293	0	156	0
Heavy Vehicles (%)	2%	3%	2%	0%	2%	7%	1%	0%	2%	4%	3%	6%
Turn Type				pm+pt		Perm			pm+ov	Perm		
Protected Phases		6		5	2			4	5		8	
Permitted Phases				2	2	2			4	8		
Actuated Green, G (s)		69.4		91.3	91.3	91.3		15.7	31.6		15.7	
Effective Green, g (s)		69.4		91.3	91.3	91.3		15.7	31.6		15.7	
Actuated g/C Ratio		0.58		0.76	0.76	0.76		0.13	0.26		0.13	
Clearance Time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		2912		333	3869	1148		249	496		222	
v/s Ratio Prot		0.35		c0.10	0.19			0.02	c0.08			
v/s Ratio Perm				c0.45		0.01			0.11		0.09	
v/c Ratio		0.60		0.72	0.25	0.01		0.18	0.59		0.70	
Uniform Delay, d1		16.4		26.7	4.2	3.5		46.4	38.5		49.9	
Progression Factor		0.44		1.00	1.00	1.00		0.98	1.00		1.00	
Incremental Delay, d2		0.7		7.5	0.2	0.0		0.3	1.8		9.7	
Delay (s)		7.9		34.2	4.4	3.5		46.0	40.2		59.6	
Level of Service		A		C	A	A		D	D		E	
Approach Delay (s)		7.9			10.3			41.0			59.6	
Approach LOS		A			B			D			E	

Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	0	17	20	631	297	0	10	255	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5		5.0	5.0			5.0	
Lane Util. Factor					1.00		0.97	1.00			0.95	
Frt					0.93		1.00	1.00			0.98	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					1762		3400	1863			3397	
Flt Permitted					1.00		0.95	1.00			0.94	
Satd. Flow (perm)					1762		3400	1863			3206	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	0	19	22	701	330	0	11	283	56
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	0	20	0	701	330	0	0	342	0
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type				Perm			Prot			Perm		
Protected Phases					4		5	2			6	
Permitted Phases				4						6		
Actuated Green, G (s)					6.0		31.6	103.5			66.9	
Effective Green, g (s)					6.0		31.6	103.5			66.9	
Actuated g/C Ratio					0.05		0.26	0.86			0.56	
Clearance Time (s)					5.5		5.0	5.0			5.0	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					88		895	1607			1787	
v/s Ratio Prot					c0.01		c0.21	c0.18				
v/s Ratio Perm											0.11	
v/c Ratio					0.23		0.78	0.21			0.19	
Uniform Delay, d1					54.8		41.0	1.4			13.1	
Progression Factor					1.00		1.00	1.00			0.58	
Incremental Delay, d2					1.3		4.5	0.3			0.2	
Delay (s)					56.1		45.5	1.7			7.8	
Level of Service					E		D	A			A	
Approach Delay (s)		0.0			56.1			31.5			7.8	
Approach LOS		A			E			C			A	

Intersection Summary			
HCM Average Control Delay	26.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1560	486	0	863	339	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	0.91			0.91	0.97	
Frt	0.96			1.00	0.99	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	4904			5085	3417	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	4904			5085	3417	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1733	540	0	959	377	28
RTOR Reduction (vph)	49	0	0	0	4	0
Lane Group Flow (vph)	2224	0	0	959	401	0
Turn Type						
Protected Phases	4			8	2	
Permitted Phases						
Actuated Green, G (s)	77.6			77.6	30.4	
Effective Green, g (s)	77.6			77.6	30.4	
Actuated g/C Ratio	0.65			0.65	0.25	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	3171			3288	866	
v/s Ratio Prot	c0.45			0.19	c0.12	
v/s Ratio Perm						
v/c Ratio	0.70			0.29	0.46	
Uniform Delay, d1	13.7			9.2	37.9	
Progression Factor	1.00			0.54	1.00	
Incremental Delay, d2	0.7			0.0	1.8	
Delay (s)	14.4			5.0	39.7	
Level of Service	B			A	D	
Approach Delay (s)	14.4			5.0	39.7	
Approach LOS	B			A	D	

Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection: 1: US 50 Bus. & Mill Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	NB	SB
Directions Served	T	T	T	L	T	T	T	R	T	R	LTR
Maximum Queue (ft)	164	155	194	187	72	100	140	18	74	70	210
Average Queue (ft)	53	63	72	109	25	40	68	1	29	9	127
95th Queue (ft)	137	145	168	189	61	86	126	18	69	71	217
Link Distance (ft)	439	439	439		809	809	809		191	191	566
Upstream Blk Time (%)										0	
Queuing Penalty (veh)										0	
Storage Bay Dist (ft)				180				75			
Storage Blk Time (%)				1			5	0			
Queuing Penalty (veh)				4			1	0			

Intersection: 2: Main Street & Mill Street

Movement	WB	NB	NB	NB	SB	SB
Directions Served	LTR	L	L	TR	LT	TR
Maximum Queue (ft)	59	251	319	60	97	74
Average Queue (ft)	25	133	166	10	30	23
95th Queue (ft)	55	235	270	41	88	68
Link Distance (ft)	89		371	371	191	191
Upstream Blk Time (%)	0		0			
Queuing Penalty (veh)	0		1			
Storage Bay Dist (ft)		160				
Storage Blk Time (%)		5	14			
Queuing Penalty (veh)		15	43			

Intersection: 3: Riverside Drive & Mill street

Movement	EB	EB	B49	B49	WB	WB	SB	SB	SE	SE
Directions Served	L	LTR	T	T	LT>	>	LT	TR	<LR	R>
Maximum Queue (ft)	1361	1347	127	121	108	38	64	50	430	405
Average Queue (ft)	829	781	22	18	50	10	25	16	238	162
95th Queue (ft)	1475	1457	134	124	96	35	64	50	426	388
Link Distance (ft)	1325	1325	246	246	807	807	371	371	396	396
Upstream Blk Time (%)	12	6	3	2					4	2
Queuing Penalty (veh)	0	0	0	0					22	11
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 5: US 50 Bus. &

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	T	T	T	L	LR
Maximum Queue (ft)	404	408	459	124	133	150	146	174
Average Queue (ft)	190	219	269	34	45	65	94	116
95th Queue (ft)	337	376	436	104	114	133	152	170
Link Distance (ft)	468	468	468	439	439	439	267	267
Upstream Blk Time (%)		0	0					
Queuing Penalty (veh)		0	0					
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 6: Main Street &

Movement	EB	EB	WB	SB
Directions Served	L	R	LTR	TR
Maximum Queue (ft)	25	63	245	225
Average Queue (ft)	4	6	33	113
95th Queue (ft)	19	40	177	223
Link Distance (ft)	304	304	241	267
Upstream Blk Time (%)			0	0
Queuing Penalty (veh)			2	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 97

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1025	0	281	1550	15	0	41	181	28	78	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00		1.00	1.00		1.00	
Frt		1.00		1.00	1.00	0.85		1.00	0.85		0.98	
Flt Protected		1.00		0.95	1.00	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		5036		1805	5085	1509		1900	1583		1780	
Flt Permitted		1.00		0.20	1.00	1.00		1.00	1.00		0.91	
Satd. Flow (perm)		5036		376	5085	1509		1900	1583		1636	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1139	0	312	1722	17	0	46	201	31	87	18
RTOR Reduction (vph)	0	0	0	0	0	3	0	0	33	0	4	0
Lane Group Flow (vph)	0	1139	0	312	1722	14	0	46	168	0	132	0
Heavy Vehicles (%)	2%	3%	2%	0%	2%	7%	1%	0%	2%	4%	3%	6%
Turn Type				pm+pt		Perm			pm+ov	Perm		
Protected Phases		6		5	2			4	5		8	
Permitted Phases				2	2	2			4	8		
Actuated Green, G (s)		73.1		92.3	92.3	92.3		14.7	27.9		14.7	
Effective Green, g (s)		73.1		92.3	92.3	92.3		14.7	27.9		14.7	
Actuated g/C Ratio		0.61		0.77	0.77	0.77		0.12	0.23		0.12	
Clearance Time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		3068		446	3911	1161		233	447		200	
v/s Ratio Prot		0.23		c0.08	0.34			0.02	0.04			
v/s Ratio Perm				c0.46		0.01			0.06		c0.08	
v/c Ratio		0.37		0.70	0.44	0.01		0.20	0.38		0.66	
Uniform Delay, d1		11.8		6.2	4.8	3.2		47.3	38.7		50.3	
Progression Factor		0.31		1.00	1.00	1.00		1.06	1.24		1.00	
Incremental Delay, d2		0.3		4.8	0.4	0.0		0.4	0.5		7.6	
Delay (s)		4.0		11.0	5.2	3.2		50.7	48.6		57.8	
Level of Service		A		B	A	A		D	D		E	
Approach Delay (s)		4.0			6.1			49.0			57.8	
Approach LOS		A			A			D			E	

Intersection Summary			
HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	5	52	71	1063	200	0	5	309	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					5.5		5.0	5.0			5.0	
Lane Util. Factor					1.00		0.97	1.00			0.95	
Frt					0.93		1.00	1.00			0.98	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					1755		3400	1863			3425	
Flt Permitted					1.00		0.95	1.00			0.95	
Satd. Flow (perm)					1755		3400	1863			3259	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	6	58	79	1181	222	0	6	343	39
RTOR Reduction (vph)	0	0	0	0	39	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	0	0	0	104	0	1181	222	0	0	382	0
Heavy Vehicles (%)	0%	0%	1%	0%	0%	0%	3%	2%	0%	0%	4%	2%
Turn Type				Perm			Prot			Perm		
Protected Phases					4		5	2			6	
Permitted Phases				4						6		
Actuated Green, G (s)					12.0		50.9	97.5			41.6	
Effective Green, g (s)					12.0		50.9	97.5			41.6	
Actuated g/C Ratio					0.10		0.42	0.81			0.35	
Clearance Time (s)					5.5		5.0	5.0			5.0	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					176		1442	1514			1130	
v/s Ratio Prot							c0.35	0.12				
v/s Ratio Perm					0.06						c0.12	
v/c Ratio					0.59		0.82	0.15			0.34	
Uniform Delay, d1					51.7		30.5	2.4			29.0	
Progression Factor					1.00		1.00	1.00			1.00	
Incremental Delay, d2					5.3		3.8	0.2			0.7	
Delay (s)					56.9		34.2	2.6			29.7	
Level of Service					E		C	A			C	
Approach Delay (s)		0.0			56.9			29.2			29.7	
Approach LOS		A			E			C			C	

Intersection Summary			
HCM Average Control Delay	31.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	15.5
Intersection Capacity Utilization	60.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	980	433	0	1566	595	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	0.91			0.91	0.97	
Frt	0.95			1.00	0.99	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	4852			5085	3417	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	4852			5085	3417	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1089	481	0	1740	661	50
RTOR Reduction (vph)	97	0	0	0	4	0
Lane Group Flow (vph)	1473	0	0	1740	707	0
Turn Type						
Protected Phases	4			8	2	
Permitted Phases						
Actuated Green, G (s)	61.5			61.5	46.5	
Effective Green, g (s)	61.5			61.5	46.5	
Actuated g/C Ratio	0.51			0.51	0.39	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2487			2606	1324	
v/s Ratio Prot	0.30			c0.34	c0.21	
v/s Ratio Perm						
v/c Ratio	0.59			0.67	0.53	
Uniform Delay, d1	20.5			21.7	28.4	
Progression Factor	1.00			0.77	1.00	
Incremental Delay, d2	0.4			0.6	1.5	
Delay (s)	20.9			17.2	29.9	
Level of Service	C			B	C	
Approach Delay (s)	20.9			17.2	29.9	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection: 1: US 50 Bus. & Mill Street

Movement	EB	EB	EB	WB	WB	WB	WB	WB	NB	SB
Directions Served	T	T	T	L	T	T	T	R	T	LTR
Maximum Queue (ft)	90	111	162	172	100	155	206	20	81	199
Average Queue (ft)	22	30	50	100	42	72	101	1	34	108
95th Queue (ft)	70	85	125	175	90	143	185	20	73	194
Link Distance (ft)	439	439	439		809	809	809		191	566
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)				180				75		
Storage Blk Time (%)				1			8			
Queuing Penalty (veh)				5			1			

Intersection: 2: Main Street & Mill Street

Movement	WB	NB	NB	NB	SB	SB
Directions Served	LTR	L	L	TR	LT	TR
Maximum Queue (ft)	104	210	259	417	173	166
Average Queue (ft)	76	174	213	167	107	97
95th Queue (ft)	124	244	299	466	174	161
Link Distance (ft)	89			369	191	191
Upstream Blk Time (%)	16			5	0	0
Queuing Penalty (veh)	0			66	0	0
Storage Bay Dist (ft)		160	160			
Storage Blk Time (%)		8	22	0		
Queuing Penalty (veh)		16	44	3		

Intersection: 3: Riverside Drive & Mill street

Movement	EB	EB	B49	B49	WB	WB	SB	SB	SE	SE
Directions Served		LTR	T	T	L	LT>	LT	TR	<LR	R>
Maximum Queue (ft)	1396	1398	274	261	822	822	132	111	230	202
Average Queue (ft)	971	1121	90	94	728	781	41	32	110	92
95th Queue (ft)	1814	1777	279	275	1098	947	107	88	227	184
Link Distance (ft)	1322	1322	246	246	807	807	369	369	396	396
Upstream Blk Time (%)	27	52	9	10	18	62				
Queuing Penalty (veh)	0	0	0	0	0	0				
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 5: US 50 Bus. &

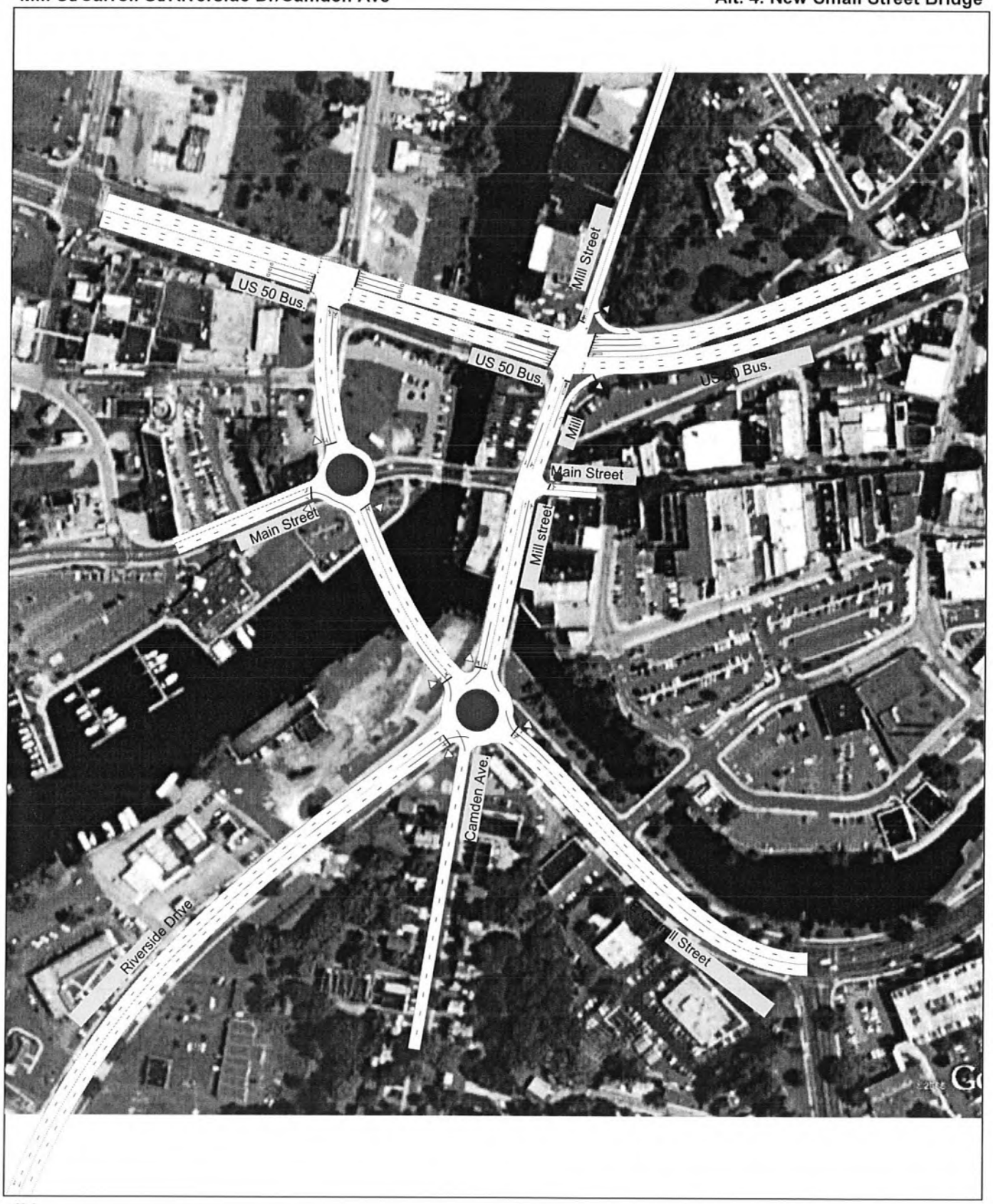
Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	T	T	T	L	LR
Maximum Queue (ft)	229	309	418	292	309	340	246	265
Average Queue (ft)	119	146	222	100	124	144	149	164
95th Queue (ft)	218	269	359	231	258	284	237	249
Link Distance (ft)	469	469	469	439	439	439	268	268
Upstream Blk Time (%)		0	1				0	0
Queuing Penalty (veh)		0	0				0	1
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 6: Main Street &

Movement	EB	WB	WB	SB
Directions Served	L		LTR	TR
Maximum Queue (ft)	29	301	335	253
Average Queue (ft)	5	27	106	104
95th Queue (ft)	21	167	308	226
Link Distance (ft)	304	241	241	268
Upstream Blk Time (%)		0	2	1
Queuing Penalty (veh)		2	11	2
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 152



dbj
The Traffic Group, Inc.

9/27/2010

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1585	0	216	854	14	0	40	267	25	108	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00		1.00	1.00		1.00	
Frt		1.00		1.00	1.00	0.85		1.00	0.85		0.99	
Flt Protected		1.00		0.95	1.00	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		5036		1805	5085	1509		1900	1583		1806	
Flt Permitted		1.00		0.08	1.00	1.00		1.00	1.00		0.93	
Satd. Flow (perm)		5036		149	5085	1509		1900	1583		1698	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1761	0	240	949	16	0	44	297	28	120	10
RTOR Reduction (vph)	0	0	0	0	0	4	0	0	4	0	2	0
Lane Group Flow (vph)	0	1761	0	240	949	12	0	44	293	0	156	0
Heavy Vehicles (%)	2%	3%	2%	0%	2%	7%	1%	0%	2%	4%	3%	6%
Turn Type				pm+pt		Perm			pm+ov	Perm		
Protected Phases		6		5	2			4	5		8	
Permitted Phases				2	2	2			4	8		
Actuated Green, G (s)		69.4		91.3	91.3	91.3		15.7	31.6		15.7	
Effective Green, g (s)		69.4		91.3	91.3	91.3		15.7	31.6		15.7	
Actuated g/C Ratio		0.58		0.76	0.76	0.76		0.13	0.26		0.13	
Clearance Time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		2912		333	3869	1148		249	496		222	
v/s Ratio Prot		0.35		c0.10	0.19			0.02	c0.08			
v/s Ratio Perm				c0.45		0.01			0.11		0.09	
v/c Ratio		0.60		0.72	0.25	0.01		0.18	0.59		0.70	
Uniform Delay, d1		16.4		26.7	4.2	3.5		46.4	38.5		49.9	
Progression Factor		0.44		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.7		7.5	0.2	0.0		0.3	1.8		9.7	
Delay (s)		7.9		34.2	4.4	3.5		46.7	40.3		59.6	
Level of Service		A		C	A	A		D	D		E	
Approach Delay (s)		7.9			10.3			41.2			59.6	
Approach LOS		A			B			D			E	

Intersection Summary			
HCM Average Control Delay	14.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	1560	486	0	863	339	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	0.91			0.91	0.97	
Frt	0.96			1.00	0.99	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	4904			5085	3417	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	4904			5085	3417	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1733	540	0	959	377	28
RTOR Reduction (vph)	49	0	0	0	4	0
Lane Group Flow (vph)	2224	0	0	959	401	0
Turn Type						
Protected Phases	4			8	2	
Permitted Phases						
Actuated Green, G (s)	77.6			77.6	30.4	
Effective Green, g (s)	77.6			77.6	30.4	
Actuated g/C Ratio	0.65			0.65	0.25	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	3171			3288	866	
v/s Ratio Prot	c0.45			0.19	c0.12	
v/s Ratio Perm						
v/c Ratio	0.70			0.29	0.46	
Uniform Delay, d1	13.7			9.2	37.9	
Progression Factor	1.00			0.54	1.00	
Incremental Delay, d2	0.7			0.0	1.8	
Delay (s)	14.4			5.0	39.7	
Level of Service	B			A	D	
Approach Delay (s)	14.4			5.0	39.7	
Approach LOS	B			A	D	

Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Intersection: 1: US 50 Bus. & Mill Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB
Directions Served	T	T	T	L	T	T	T	T	R	LTR
Maximum Queue (ft)	134	134	139	146	64	88	138	69	141	228
Average Queue (ft)	40	57	62	93	25	35	53	27	9	95
95th Queue (ft)	99	126	130	161	62	70	101	57	67	174
Link Distance (ft)	441	441	441		809	809	809	198	198	566
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (ft)				180						
Storage Blk Time (%)							2			
Queuing Penalty (veh)							0			

Intersection: 2: Main Street & Mill street

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	28	54
Average Queue (ft)	13	4
95th Queue (ft)	36	26
Link Distance (ft)	99	198
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Riverside Drive & Mill street

Movement	EB	EB	B49	B49	WB	WB	SB	SB	SE	SE
Directions Served	<L	LTR	T	T	LTR>	>	LT	TR>	<LR	R>
Maximum Queue (ft)	1397	1397	261	261	147	37	116	55	447	451
Average Queue (ft)	1041	981	93	85	56	11	43	32	257	208
95th Queue (ft)	1764	1837	278	271	116	36	90	64	439	439
Link Distance (ft)	1325	1325	246	246	807	807	364	364	396	396
Upstream Blk Time (%)	41	29	22	21					3	1
Queuing Penalty (veh)	0	0	0	0					17	8
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 5: US 50 Bus. &

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	T	T	T	L	LR
Maximum Queue (ft)	336	334	483	112	136	135	115	137
Average Queue (ft)	203	229	309	32	41	60	80	93
95th Queue (ft)	311	321	440	89	104	114	125	139
Link Distance (ft)	468	468	468	441	441	441	280	280
Upstream Blk Time (%)			0					
Queuing Penalty (veh)			0					
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 6: Main Street &

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	25	88	22	232
Average Queue (ft)	3	10	6	102
95th Queue (ft)	16	48	21	220
Link Distance (ft)	304	304	396	280
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 25

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	1025	0	281	1550	15	0	41	181	28	78	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Lane Util. Factor		0.91		1.00	0.91	1.00		1.00	1.00		1.00	
Frt		1.00		1.00	1.00	0.85		1.00	0.85		0.98	
Flt Protected		1.00		0.95	1.00	1.00		1.00	1.00		0.99	
Satd. Flow (prot)		5036		1805	5085	1509		1900	1583		1780	
Flt Permitted		1.00		0.20	1.00	1.00		1.00	1.00		0.91	
Satd. Flow (perm)		5036		373	5085	1509		1900	1583		1636	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	1139	0	312	1722	17	0	46	201	31	87	18
RTOR Reduction (vph)	0	0	0	0	0	3	0	0	19	0	5	0
Lane Group Flow (vph)	0	1139	0	312	1722	14	0	46	182	0	131	0
Heavy Vehicles (%)	2%	3%	2%	0%	2%	7%	1%	0%	2%	4%	3%	6%
Turn Type				pm+pt		Perm			pm+ov	Perm		
Protected Phases		6		5	2			4	5		8	
Permitted Phases				2	2	2			4	8		
Actuated Green, G (s)		72.0		92.3	92.3	92.3		14.7	29.0		14.7	
Effective Green, g (s)		72.0		92.3	92.3	92.3		14.7	29.0		14.7	
Actuated g/C Ratio		0.60		0.77	0.77	0.77		0.12	0.24		0.12	
Clearance Time (s)		7.0		6.0	7.0	7.0		6.0	6.0		6.0	
Vehicle Extension (s)		3.0		3.0	3.0	3.0		3.0	3.0		3.0	
Lane Grp Cap (vph)		3022		458	3911	1161		233	462		200	
v/s Ratio Prot		0.23		c0.08	0.34			0.02	0.05			
v/s Ratio Perm				c0.44		0.01			0.07		c0.08	
v/c Ratio		0.38		0.68	0.44	0.01		0.20	0.39		0.65	
Uniform Delay, d1		12.4		6.3	4.8	3.2		47.3	38.1		50.2	
Progression Factor		0.35		1.00	1.00	1.00		1.00	1.00		1.00	
Incremental Delay, d2		0.3		4.1	0.4	0.0		0.4	0.6		7.5	
Delay (s)		4.6		10.5	5.2	3.2		47.8	38.7		57.7	
Level of Service		A		B	A	A		D	D		E	
Approach Delay (s)		4.6			6.0			40.4			57.7	
Approach LOS		A			A			D			E	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (vph)	980	433	0	1566	595	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	6.0			6.0	6.0	
Lane Util. Factor	0.91			0.91	0.97	
Frt	0.95			1.00	0.99	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	4852			5085	3417	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	4852			5085	3417	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	1089	481	0	1740	661	50
RTOR Reduction (vph)	97	0	0	0	4	0
Lane Group Flow (vph)	1473	0	0	1740	707	0
Turn Type						
Protected Phases	4			8	2	
Permitted Phases						
Actuated Green, G (s)	61.5			61.5	46.5	
Effective Green, g (s)	61.5			61.5	46.5	
Actuated g/C Ratio	0.51			0.51	0.39	
Clearance Time (s)	6.0			6.0	6.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	2487			2606	1324	
v/s Ratio Prot	0.30			c0.34	c0.21	
v/s Ratio Perm						
v/c Ratio	0.59			0.67	0.53	
Uniform Delay, d1	20.5			21.7	28.4	
Progression Factor	1.00			0.77	1.00	
Incremental Delay, d2	0.4			0.6	1.5	
Delay (s)	20.9			17.2	29.9	
Level of Service	C			B	C	
Approach Delay (s)	20.9			17.2	29.9	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	20.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

TRIP GENERATION RATES

LAND USE	FORMULA
General Office (Countywide)	General Office (Bethesda CBD)
25,000 sq. ft. or more:	
Morning Trips = ([1.70 x KSF]-8)	Morning Trips = (1.50 x KSF)
Evening Trips = ([1.44 x KSF]+20)	Evening Trips = (1.50 x KSF)

TRIP GENERATION TOTALS

		Morning Peak Hour trips	Evening Peak Hour trips	
Countywide Peak-Hour Trips				
Line 1 =====>	129,182 sq. ft. General Office*	212	206	Net New
Bethesda CBD Peak-Hour trips				
Line 2 =====>	129,182 sq. ft. General Office*	194	194	Net New

* Net new square feet of general office space = proposed 150,000 minus existing 20,818 = 129,182 square feet

Line 3 ====>	PAMR Trips (Line 1 x 30%)	63	62	Net New
Line 4 ====>	Credit (Line 2 - Line 1)	18	12	Net New
Line 5 ===>	Trips Mitigation Requirement (Line 3 - Line 4)	46	50	Net New

The Traffic Group

REVISED EXHIBIT 12
Trip Migation Required
FOR PAMR

Intersection: 1: US 50 Bus. & Mill Street

Movement	EB	EB	EB	WB	WB	WB	WB	NB	SB
Directions Served	T	T	T	L	T	T	T	T	LTR
Maximum Queue (ft)	92	95	117	164	140	199	249	116	181
Average Queue (ft)	28	31	55	95	70	110	135	36	138
95th Queue (ft)	85	87	110	151	144	200	240	91	188
Link Distance (ft)	441	441	441		809	809	809	198	566
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)				180					
Storage Blk Time (%)				0			13		
Queuing Penalty (veh)				0			2		

Intersection: 2: Main Street & Mill street

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	55	30
Average Queue (ft)	36	2
95th Queue (ft)	54	15
Link Distance (ft)	99	198
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Riverside Drive & Mill street

Movement	EB	EB	B49	B49	WB	WB	SB	SB	SE	SE
Directions Served	<L	LTR	T	T	LTR>	>	LT	TR>	<LR	R>
Maximum Queue (ft)	1397	1397	261	261	822	834	266	244	245	184
Average Queue (ft)	951	776	81	50	763	722	169	76	98	82
95th Queue (ft)	1697	1622	265	203	976	1076	253	164	212	148
Link Distance (ft)	1325	1325	246	246	807	807	364	364	396	396
Upstream Blk Time (%)	38	8	21	9	62	16				
Queuing Penalty (veh)	0	0	0	0	0	0				
Storage Bay Dist (ft)										
Storage Blk Time (%)										
Queuing Penalty (veh)										

Intersection: 5: US 50 Bus. &

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	T	T	TR	T	T	T	L	LR
Maximum Queue (ft)	277	291	401	265	372	417	158	177
Average Queue (ft)	147	166	234	102	107	131	123	130
95th Queue (ft)	236	259	377	229	256	294	174	176
Link Distance (ft)	468	468	468	441	441	441	280	280
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)								
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 6: Main Street &

Movement	EB	NB	SB
Directions Served	L	LT	TR
Maximum Queue (ft)	25	63	295
Average Queue (ft)	5	17	156
95th Queue (ft)	21	50	331
Link Distance (ft)	304	396	280
Upstream Blk Time (%)			2
Queuing Penalty (veh)			4
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty: 6

SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - Alternate 3 AM

Riverside Drive E. Carroll St.

Performance Measure	Vehicles	Persons
Demand Flows - Total	2748 veh/h	3298 pers/h
Percent Heavy Vehicles	2.1 %	
Degree of Saturation	0.700	
Effective Intersection Capacity	3926 veh/h	
95% Back of Queue (ft)	179 ft	
95% Back of Queue (veh)	7.0 veh	
Control Delay (Total)	9.63 veh-h/h	11.56 pers-h/h
Control Delay (Average)	12.6 s/veh	12.6 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS B	
Total Effective Stops	2403 veh/h	2884 pers/h
Effective Stop Rate	0.87 per veh	0.87 per pers
Proportion Queued	0.69	0.69
Travel Distance (Total)	1062.2 veh-mi/h	1274.7 pers-mi/h
Travel Distance (Average)	2041 ft	2041 ft
Travel Time (Total)	36.4 veh-h/h	43.7 pers-h/h
Travel Time (Average)	47.7 secs	47.7 secs
Travel Speed	29.2 mph	29.2 mph
Operating Cost (Total)	617 $/h	617 $/h
Fuel Consumption (Total)	56.1 gal/h	
Carbon Dioxide (Total)	531.0 kg/h	
Hydrocarbons (Total)	0.890 kg/h	
Carbon Monoxide (Total)	44.37 kg/h	
NOX (Total)	1.339 kg/h	

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SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - Alternate 3 AM

Riverside Drive E. Carroll St.

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	17	5.6	0.254	16.3	LOS B	36	0.66	0.90	27.8
6T	T	115	1.7	0.254	15.1	LOS B	36	0.66	0.89	28.3
6R	R	328	2.1	0.445	9.9	LOS A	82	0.72	0.83	30.6
Approach		**462**	**2.2**	**0.445**	**11.4**	**LOS B**	**82**	**0.70**	**0.85**	**29.8**
Mill St.										
7L	L	113	1.8	0.120	12.8	LOS B	19	0.29	0.66	29.2
4T	T	72	1.4	0.120	5.8	LOS A	19	0.29	0.46	33.2
4R	R	83	2.4	0.120	5.7	LOS A	19	0.29	0.46	33.2
Approach		**267**	**1.9**	**0.120**	**8.7**	**LOS A**	**19**	**0.29**	**0.55**	**31.3**
new bridge										
5L	L	5	16.7	0.545	15.5	LOS B	117	0.63	0.89	28.1
2T	T	499	2.0	0.559	8.7	LOS A	117	0.63	0.76	31.4
2R	R	658	2.0	0.676	11.0	LOS B	179	0.71	0.87	30.3
Approach		**1162**	**2.1**	**0.676**	**10.0**	**LOS B**	**179**	**0.67**	**0.82**	**30.7**
Riverside Drive										
13L	L	678	2.1	0.680	19.2	LOS B	155	0.84	1.07	26.1
18T	T	172	1.8	0.681	13.4	LOS B	155	0.84	1.03	28.8
18R	R	7	14.3	0.700	15.1	LOS B	155	0.84	1.05	27.7
Approach		**857**	**2.1**	**0.680**	**18.0**	**LOS B**	**155**	**0.84**	**1.06**	**26.6**
All Vehicles		**2748**	**2.1**	**0.700**	**12.6**	**LOS B**	**179**	**0.69**	**0.87**	**29.2**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

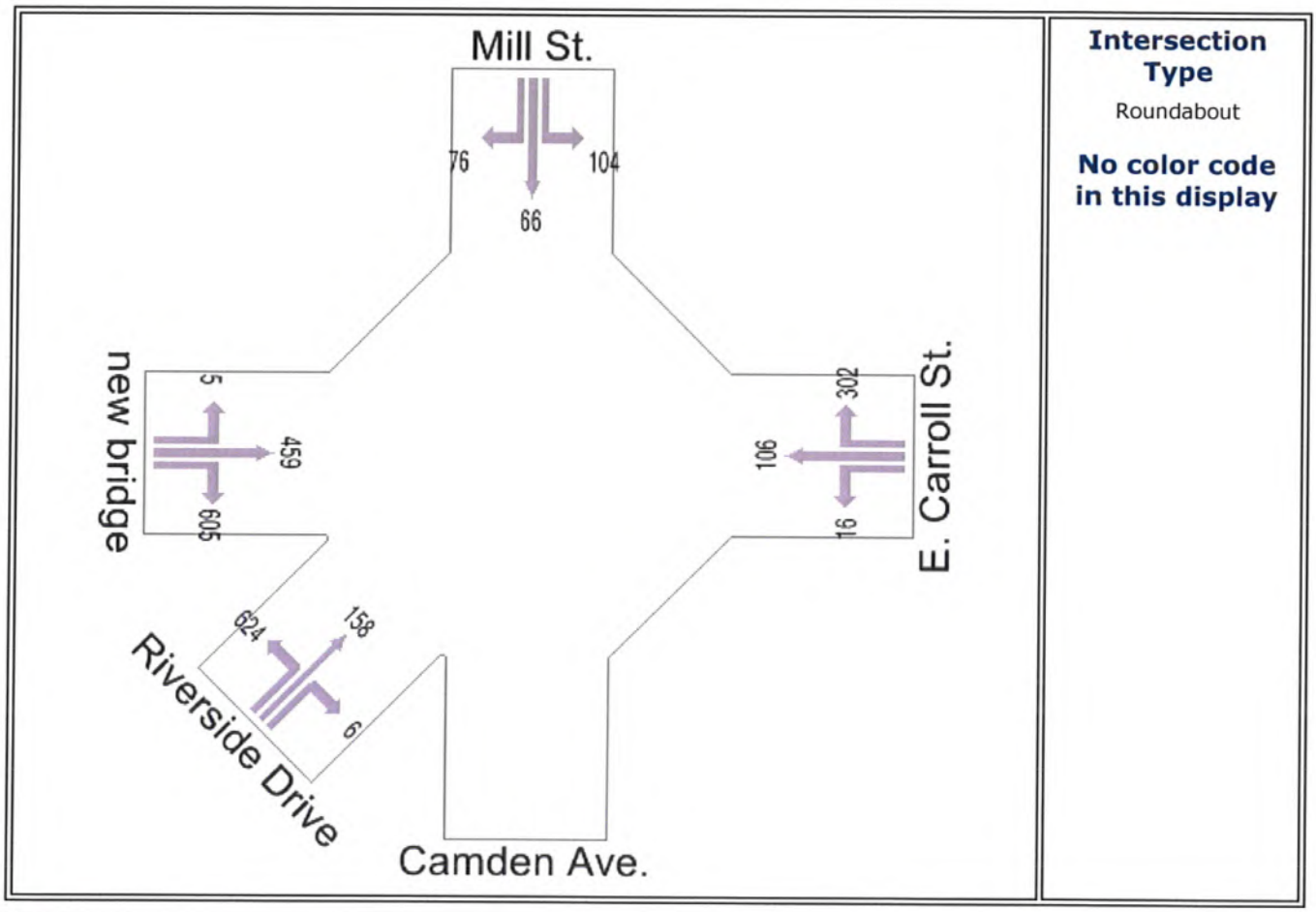
SIDRA INTERSECTION

Input Volumes

Total flow rates as given by the user (veh/60 min)

Riverside Drive Corridor - Alternate 3 AM

Riverside Drive E. Carroll St.



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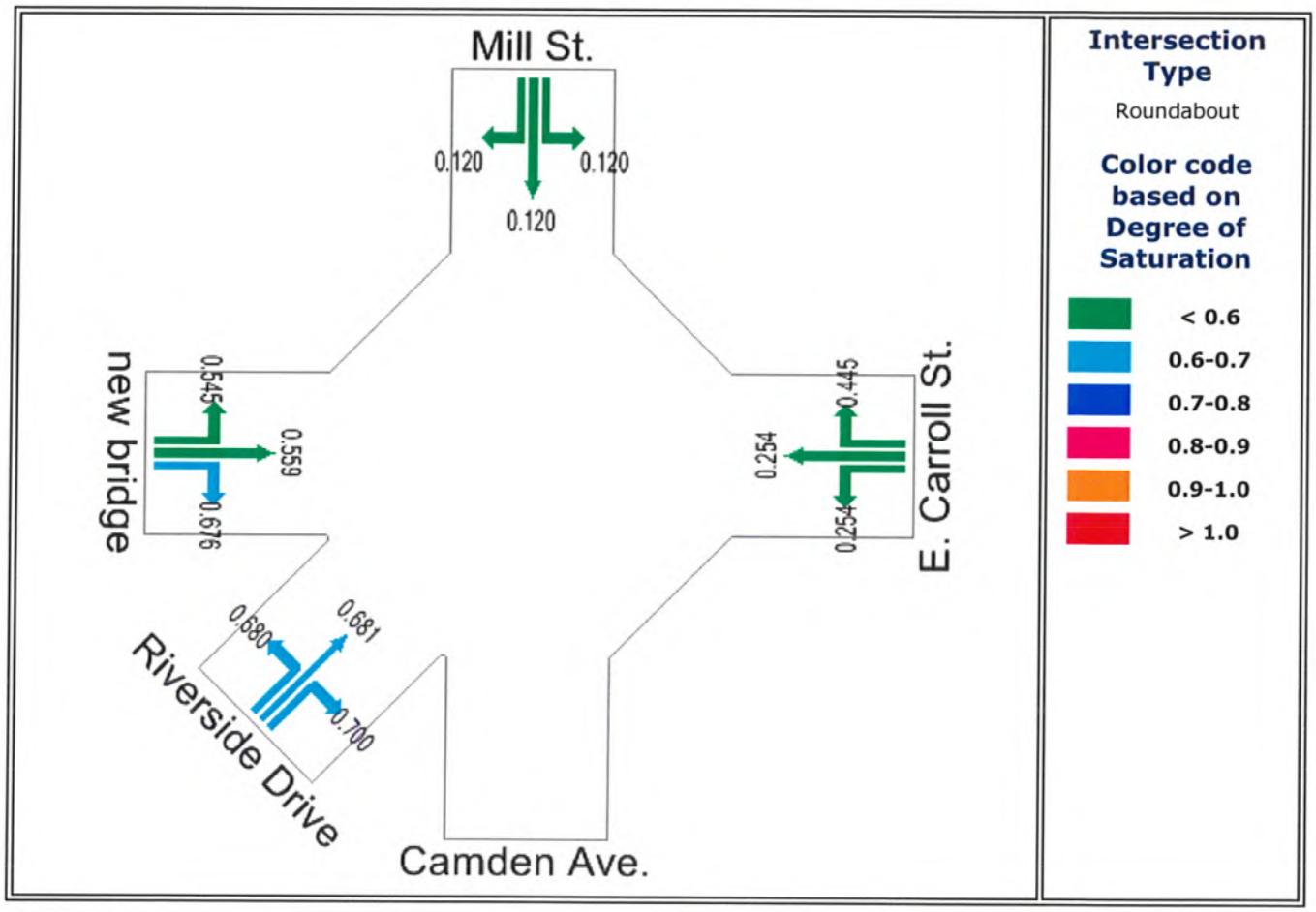
SIDRA INTERSECTION

Degree of Saturation

Demand Volume / Capacity (v/c) ratio

Riverside Drive Corridor - Alternate 3 AM

Riverside Drive E. Carroll St.



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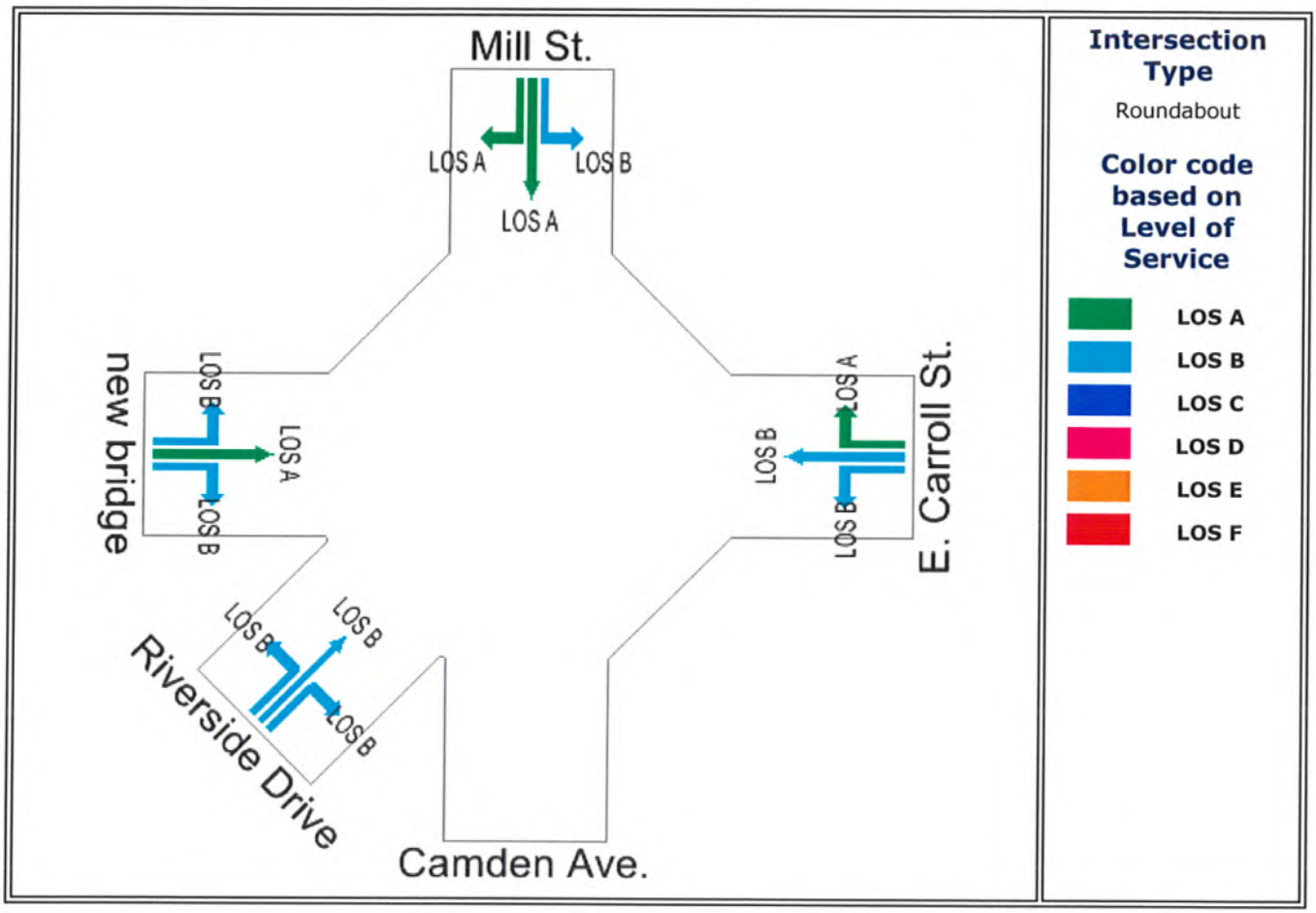
SIDRA INTERSECTION

Level of Service

Based on Delay (HCM method)

Riverside Drive Corridor - Alternate 3 AM

Riverside Drive E. Carroll St.



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SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - Alternate 3 PM

Riverside Drive E. Carroll St.

Performance Measure	Vehicles	Persons
Demand Flows - Total	2919 veh/h	3503 pers/h
Percent Heavy Vehicles	2.1 %	
Degree of Saturation	0.874	
Effective Intersection Capacity	3340 veh/h	
95% Back of Queue (ft)	325 ft	
95% Back of Queue (veh)	12.8 veh	
Control Delay (Total)	11.80 veh-h/h	14.16 pers-h/h
Control Delay (Average)	14.5 s/veh	14.5 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS B	
Total Effective Stops	2884 veh/h	3461 pers/h
Effective Stop Rate	0.99 per veh	0.99 per pers
Proportion Queued	0.77	0.77
Travel Distance (Total)	1129.6 veh-mi/h	1355.6 pers-mi/h
Travel Distance (Average)	2043 ft	2043 ft
Travel Time (Total)	40.1 veh-h/h	48.1 pers-h/h
Travel Time (Average)	49.5 secs	49.5 secs
Travel Speed	28.2 mph	28.2 mph
Operating Cost (Total)	676 $/h	676 $/h
Fuel Consumption (Total)	61.0 gal/h	
Carbon Dioxide (Total)	577.7 kg/h	
Hydrocarbons (Total)	0.976 kg/h	
Carbon Monoxide (Total)	48.84 kg/h	
NOX (Total)	1.458 kg/h	

SIDRA SOLUTIONS

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SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - Alternate 3 PM

Riverside Drive E. Carroll St.

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	66	1.5	0.482	18.2	LOS B	84	0.73	0.97	26.8
6T	T	183	2.2	0.482	17.0	LOS B	84	0.73	0.96	27.2
6R	R	666	2.0	0.874	17.7	LOS B	325	0.97	1.23	26.4
Approach		**915**	**2.0**	**0.874**	**17.6**	**LOS B**	**325**	**0.90**	**1.15**	**26.6**
Mill St.										
7L	L	134	2.2	0.169	13.4	LOS B	28	0.43	0.70	28.8
4T	T	121	1.7	0.169	6.3	LOS A	28	0.43	0.53	32.5
4R	R	86	2.3	0.169	6.3	LOS A	28	0.43	0.53	32.5
Approach		**340**	**2.1**	**0.169**	**9.1**	**LOS A**	**28**	**0.43**	**0.60**	**30.9**
new bridge										
5L	L	5	16.7	0.462	16.7	LOS B	79	0.67	0.93	27.5
2T	T	299	2.0	0.450	9.9	LOS A	79	0.67	0.85	31.1
2R	R	586	2.0	0.697	13.1	LOS B	188	0.80	1.01	28.9
Approach		**891**	**2.1**	**0.697**	**12.0**	**LOS B**	**188**	**0.75**	**0.96**	**29.6**
Riverside Drive										
13L	L	653	2.0	0.566	17.1	LOS B	117	0.78	1.01	27.1
18T	T	117	1.7	0.565	11.4	LOS B	117	0.78	0.95	30.0
18R	R	2	33.3	0.600	13.1	LOS B	117	0.78	0.97	28.9
Approach		**773**	**2.1**	**0.566**	**16.3**	**LOS B**	**117**	**0.78**	**1.00**	**27.5**
All Vehicles		**2919**	**2.1**	**0.874**	**14.5**	**LOS B**	**325**	**0.77**	**0.99**	**28.2**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

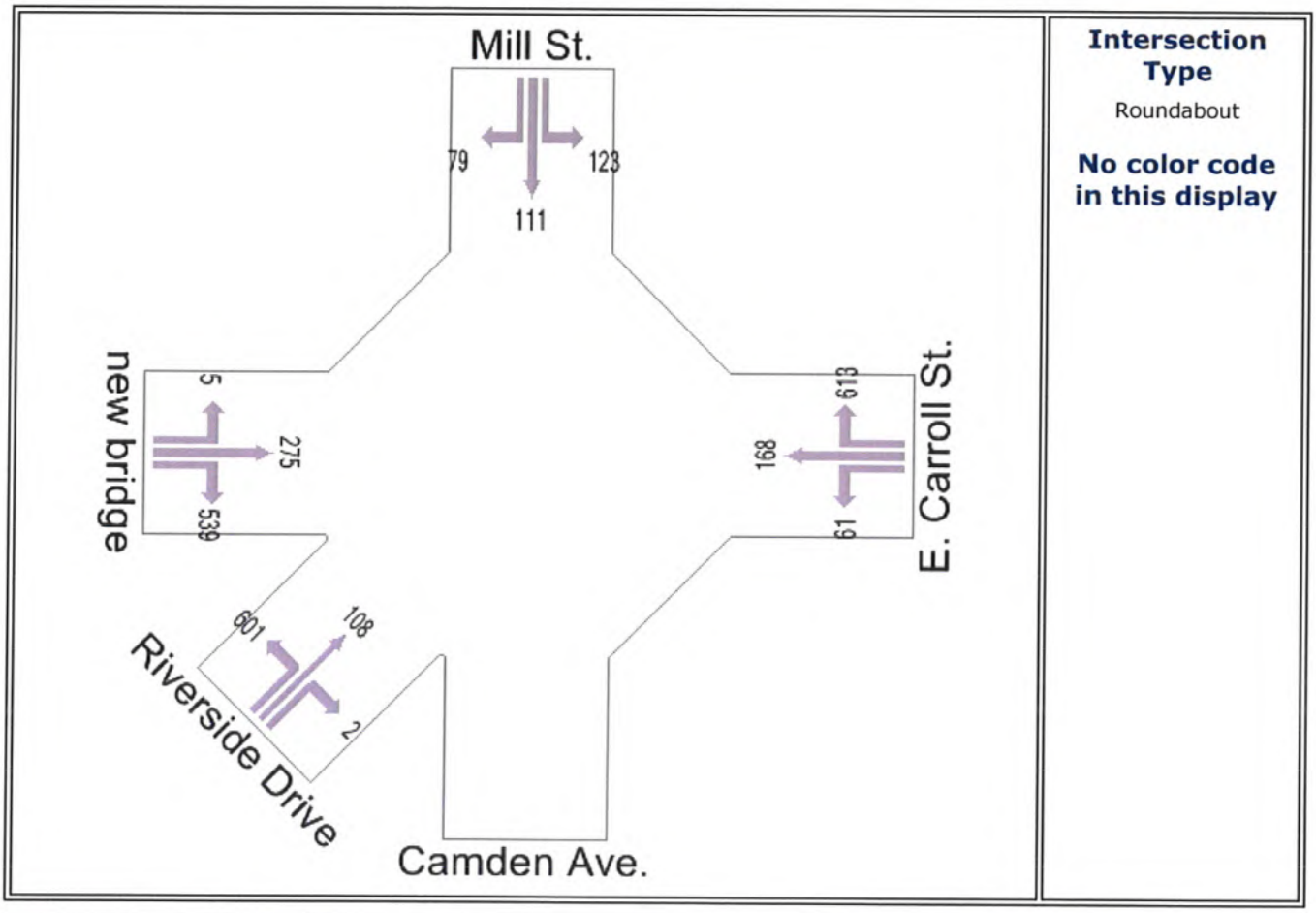
SIDRA INTERSECTION

Input Volumes

Total flow rates as given by the user (veh/60 min)

Riverside Drive Corridor - Alternate 3 PM

Riverside Drive E. Carroll St.



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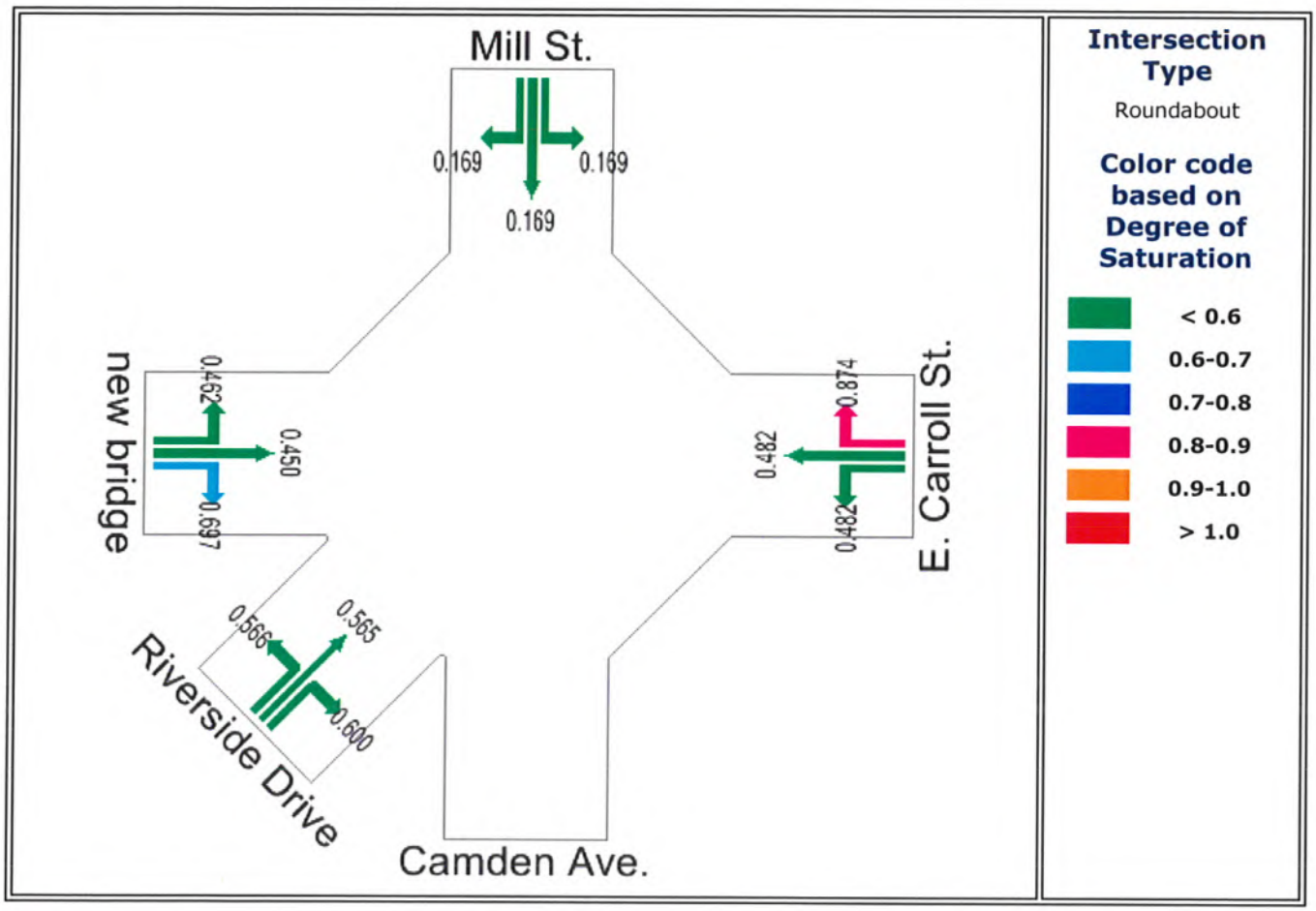
SIDRA INTERSECTION

Degree of Saturation

Demand Volume / Capacity (v/c) ratio

Riverside Drive Corridor - Alternate 3 PM

Riverside Drive E. Carroll St.



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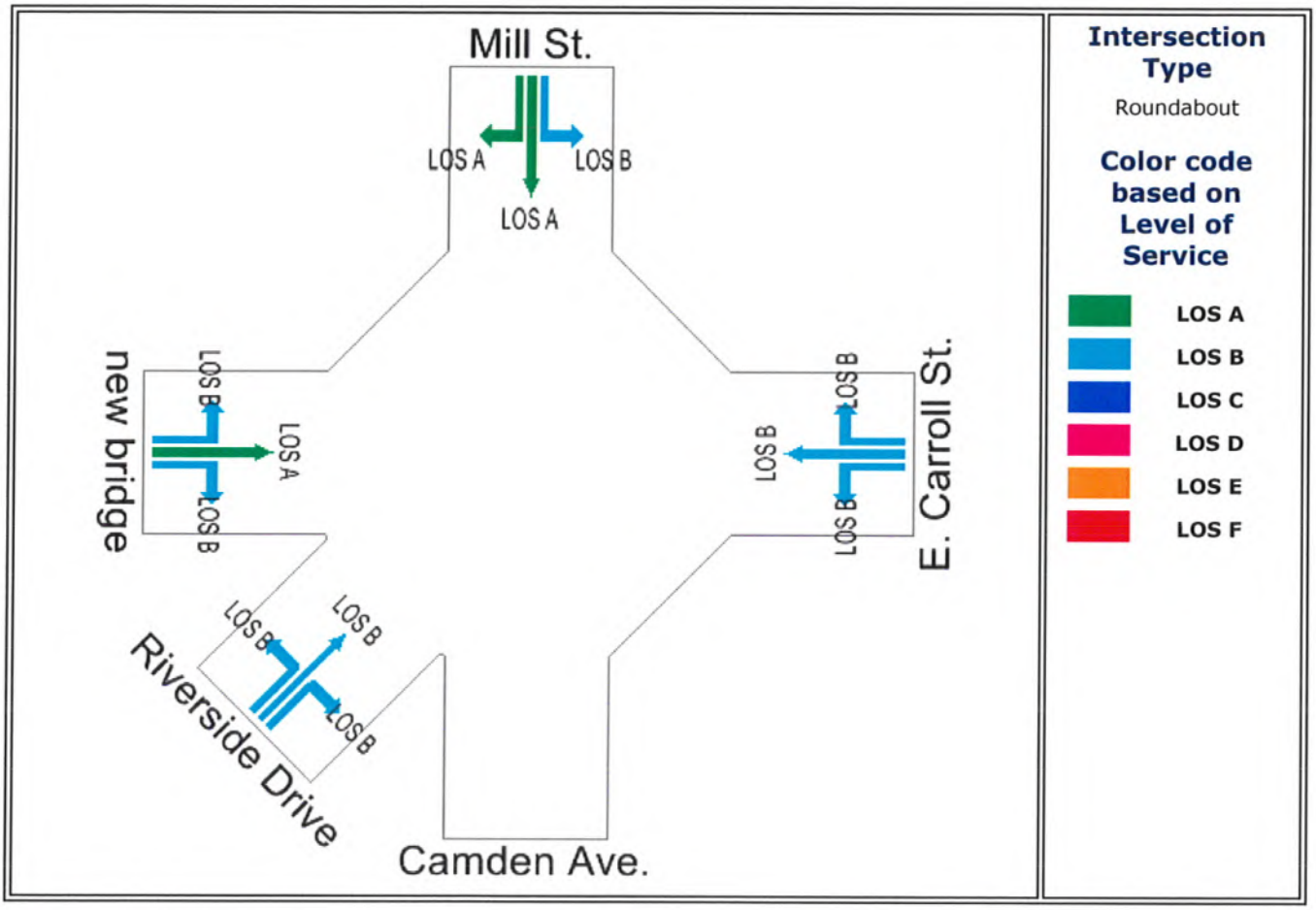
SIDRA INTERSECTION

Level of Service

Based on Delay (HCM method)

Riverside Drive Corridor - Alternate 3 PM

Riverside Drive E. Carroll St.



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SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - Alternate 4 AM

Riverside Drive E. Carroll St.

Performance Measure	Vehicles	Persons
Demand Flows - Total	2766 veh/h	3319 pers/h
Percent Heavy Vehicles	2.1 %	
Degree of Saturation	0.700	
Effective Intersection Capacity	3951 veh/h	
95% Back of Queue (ft)	193 ft	
95% Back of Queue (veh)	7.6 veh	
Control Delay (Total)	10.27 veh-h/h	12.32 pers-h/h
Control Delay (Average)	13.4 s/veh	13.4 s/pers
Level of Service	LOS B	
Level of Service (Worst Movement)	LOS C	
Total Effective Stops	2517 veh/h	3021 pers/h
Effective Stop Rate	0.91 per veh	0.91 per pers
Proportion Queued	0.75	0.75
Travel Distance (Total)	1078.3 veh-mi/h	1293.9 pers-mi/h
Travel Distance (Average)	2058 ft	2058 ft
Travel Time (Total)	37.4 veh-h/h	44.9 pers-h/h
Travel Time (Average)	48.7 secs	48.7 secs
Travel Speed	28.8 mph	28.8 mph
Operating Cost (Total)	631 $/h	631 $/h
Fuel Consumption (Total)	57.1 gal/h	
Carbon Dioxide (Total)	541.1 kg/h	
Hydrocarbons (Total)	0.907 kg/h	
Carbon Monoxide (Total)	45.19 kg/h	
NOX (Total)	1.362 kg/h	

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SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - Alternate 4 AM

Riverside Drive E. Carroll St.

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	17	5.6	0.486	16.1	LOS B	96	0.74	0.96	27.9
6T	T	345	2.0	0.491	10.6	LOS B	96	0.74	0.86	30.3
6R	R	99	2.0	0.242	11.9	LOS B	33	0.67	0.84	29.7
Approach		**462**	**2.2**	**0.491**	**11.1**	**LOS B**	**96**	**0.72**	**0.86**	**30.1**
Mill St.										
7L	L	113	1.8	0.208	15.9	LOS B	33	0.67	0.88	27.9
4T	T	72	1.4	0.209	8.8	LOS A	33	0.67	0.75	31.3
4R	R	101	2.0	0.209	9.0	LOS A	33	0.67	0.76	31.2
Approach		**285**	**1.8**	**0.209**	**11.7**	**LOS B**	**33**	**0.67**	**0.80**	**29.8**
new bridge										
5L	L	5	16.7	0.600	15.6	LOS B	127	0.67	0.90	28.1
2T	T	499	2.0	0.572	8.8	LOS A	127	0.67	0.77	31.2
2R	R	658	2.0	0.692	11.2	LOS B	193	0.75	0.89	30.2
Approach		**1162**	**2.1**	**0.692**	**10.2**	**LOS B**	**193**	**0.71**	**0.84**	**30.6**
Riverside Drive										
13L	L	678	2.1	0.688	21.0	LOS C	159	0.85	1.08	25.5
18T	T	172	1.8	0.687	13.5	LOS B	159	0.85	1.04	28.7
18R	R	7	14.3	0.700	15.3	LOS B	159	0.85	1.05	27.6
Approach		**857**	**2.1**	**0.688**	**19.5**	**LOS B**	**159**	**0.85**	**1.07**	**26.1**
All Vehicles		**2766**	**2.1**	**0.700**	**13.4**	**LOS B**	**193**	**0.75**	**0.91**	**28.8**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

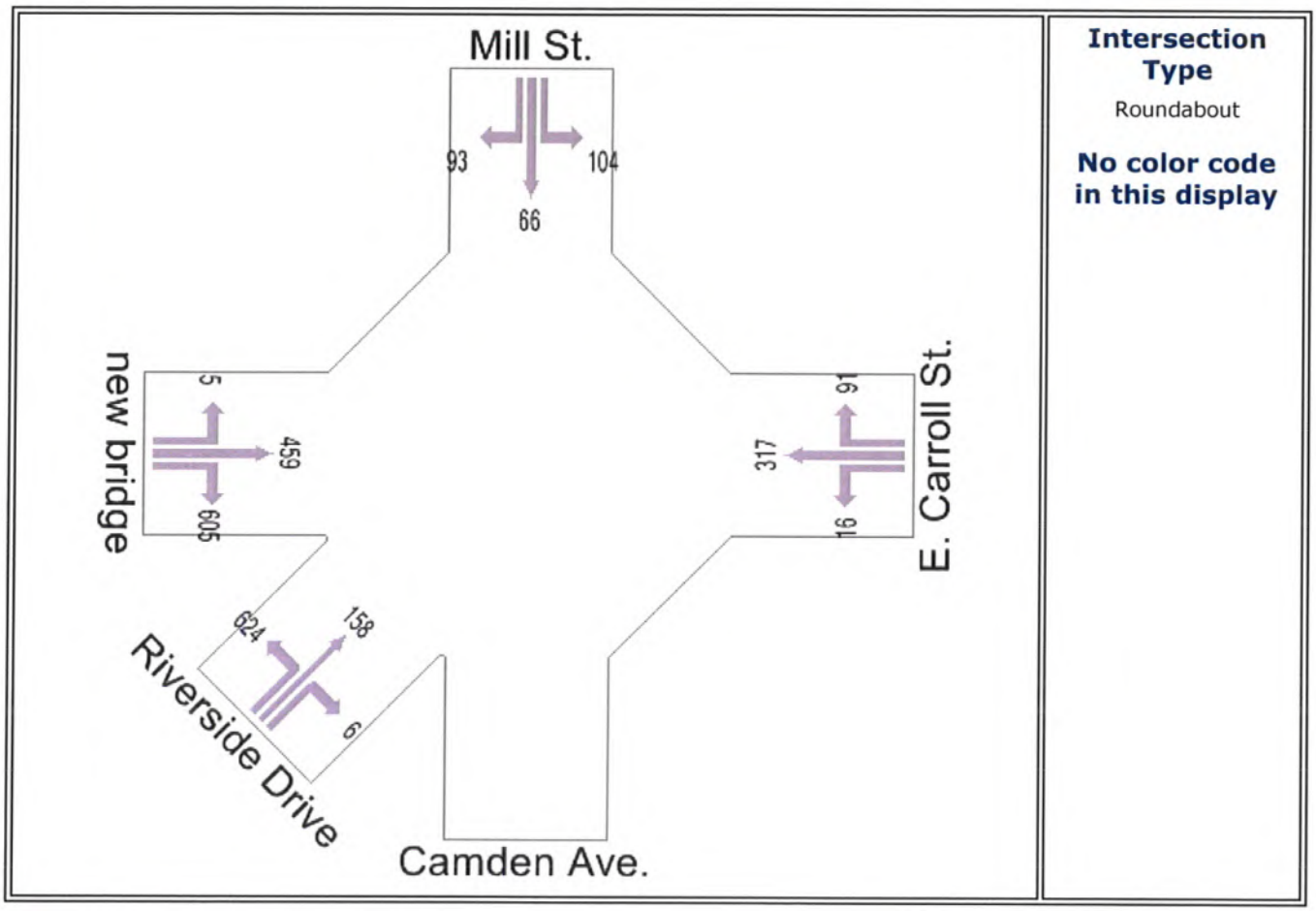
SIDRA INTERSECTION

Input Volumes

Total flow rates as given by the user (veh/60 min)

Riverside Drive Corridor - Alternate 4 AM

Riverside Drive E. Carroll St.



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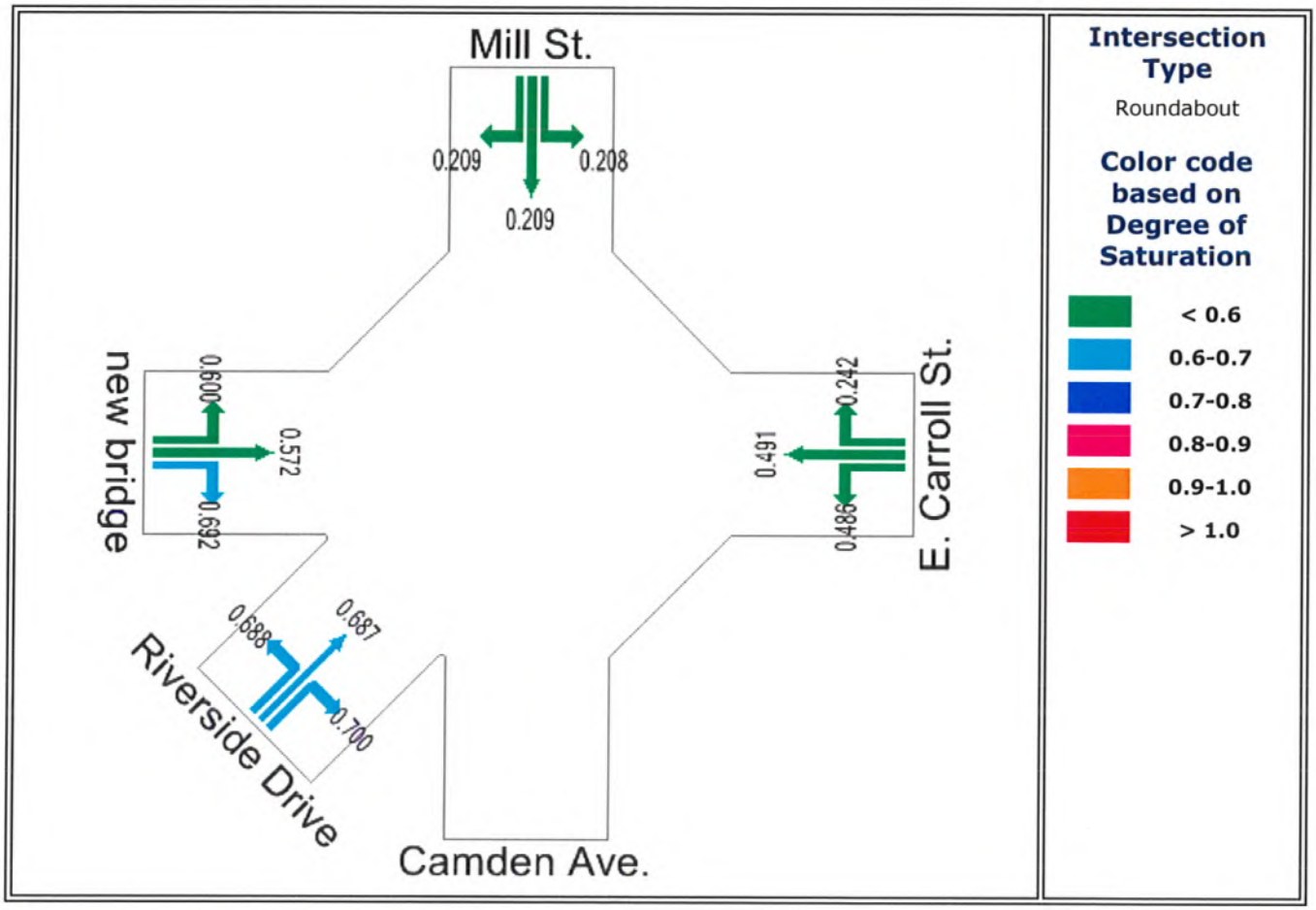
SIDRA INTERSECTION

Degree of Saturation

Demand Volume / Capacity (v/c) ratio

Riverside Drive Corridor - Alternate 4 AM

Riverside Drive E. Carroll St.



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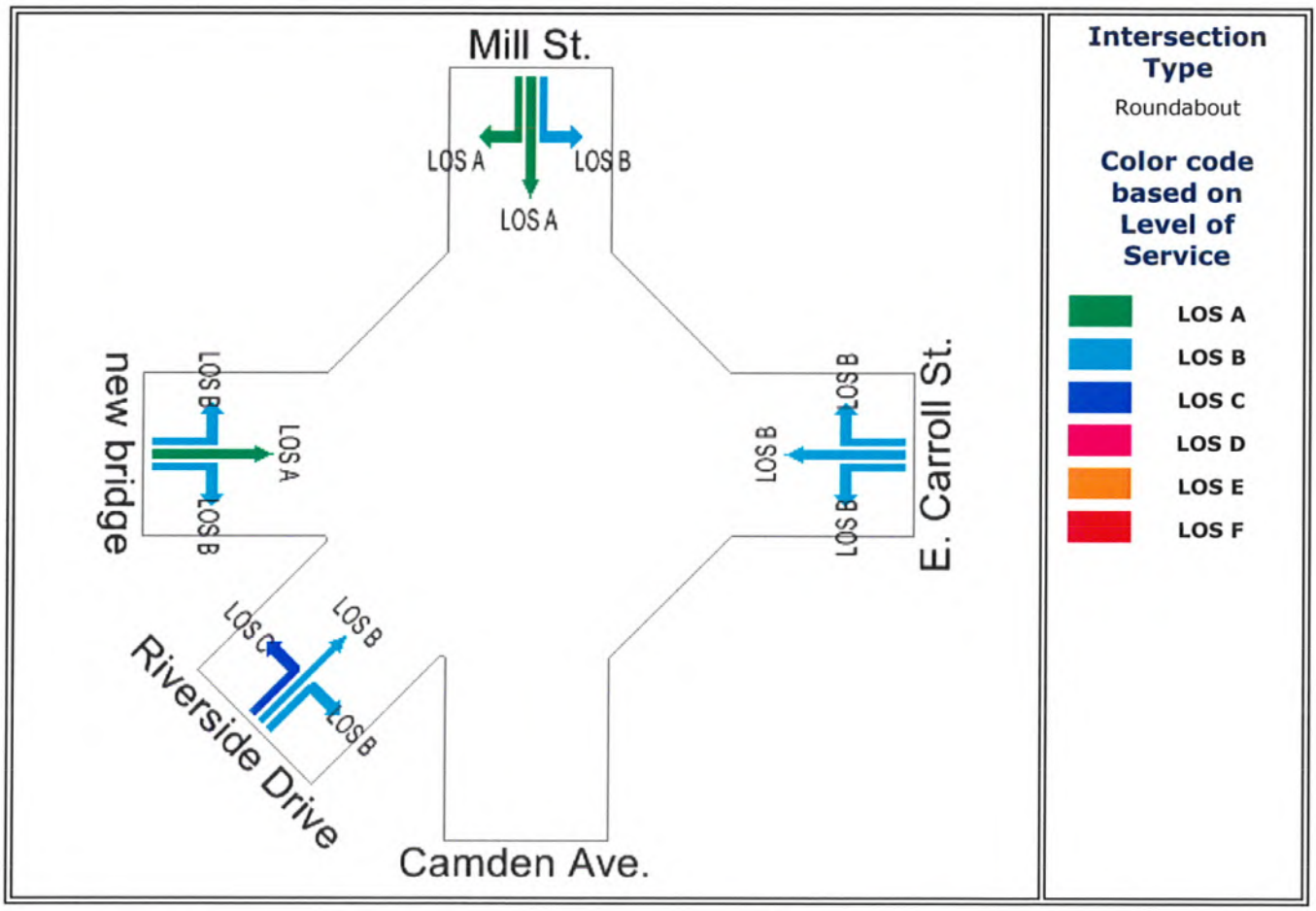
SIDRA INTERSECTION

Level of Service

Based on Delay (HCM method)

Riverside Drive Corridor - Alternate 4 AM

Riverside Drive E. Carroll St.



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SIDRA INTERSECTION

Intersection Summary

Riverside Drive Corridor - Alternate 4 PM

Riverside Drive E. Carroll St.

Performance Measure	Vehicles	Persons
Demand Flows - Total	2976 veh/h	3571 pers/h
Percent Heavy Vehicles	2.0 %	
Degree of Saturation	1.104	
Effective Intersection Capacity	2697 veh/h	
95% Back of Queue (ft)	1092 ft	
95% Back of Queue (veh)	43.0 veh	
Control Delay (Total)	25.50 veh-h/h	30.60 pers-h/h
Control Delay (Average)	30.8 s/veh	30.8 s/pers
Level of Service	LOS C	
Level of Service (Worst Movement)	LOS E	
Total Effective Stops	4107 veh/h	4928 pers/h
Effective Stop Rate	1.38 per veh	1.38 per pers
Proportion Queued	0.86	0.86
Travel Distance (Total)	1163.6 veh-mi/h	1396.3 pers-mi/h
Travel Distance (Average)	2064 ft	2064 ft
Travel Time (Total)	54.5 veh-h/h	65.5 pers-h/h
Travel Time (Average)	66.0 secs	66.0 secs
Travel Speed	21.3 mph	21.3 mph
Operating Cost (Total)	856 $/h	856 $/h
Fuel Consumption (Total)	69.6 gal/h	
Carbon Dioxide (Total)	659.3 kg/h	
Hydrocarbons (Total)	1.152 kg/h	
Carbon Monoxide (Total)	54.67 kg/h	
NOX (Total)	1.600 kg/h	

SIDRA SOLUTIONS

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SIDRA INTERSECTION

Movement Summary

Riverside Drive Corridor - Alternate 4 PM

Riverside Drive E. Carroll St.

Roundabout

Vehicle Movements

Mov ID	Turn	Dem Flow (veh/h)	%HV	Deg of Satn (v/c)	Aver Delay (sec)	Level of Service	95% Back of Queue (ft)	Prop. Queued	Eff. Stop Rate	Aver Speed (mph)
E. Carroll St.										
1L	L	66	1.5	1.100	73.7	LOS E	1092	1.00	2.35	13.3
6T	T	777	2.1	1.104	67.7	LOS E	1092	1.00	2.35	13.6
6R	R	72	1.4	0.180	12.0	LOS B	23	0.64	0.83	29.6
Approach		**915**	**2.0**	**1.104**	**63.8**	**LOS E**	**1092**	**0.97**	**2.23**	**14.1**
Mill St.										
7L	L	134	2.2	0.515	26.9	LOS C	111	0.92	1.07	23.1
4T	T	121	1.7	0.515	19.2	LOS B	116	0.93	1.05	25.7
4R	R	142	2.1	0.514	19.3	LOS B	116	0.93	1.06	25.6
Approach		**397**	**2.0**	**0.515**	**21.8**	**LOS C**	**116**	**0.93**	**1.06**	**24.7**
new bridge										
5L	L	5	16.7	0.462	16.6	LOS B	84	0.69	0.94	27.6
2T	T	299	2.0	0.461	9.8	LOS A	84	0.69	0.85	31.1
2R	R	586	2.0	0.714	13.1	LOS B	203	0.83	1.03	28.9
Approach		**891**	**2.1**	**0.714**	**12.0**	**LOS B**	**203**	**0.78**	**0.97**	**29.6**
Riverside Drive										
13L	L	653	2.0	0.569	19.3	LOS B	119	0.79	1.02	26.4
18T	T	117	1.7	0.568	11.5	LOS B	119	0.79	0.96	30.0
18R	R	2	33.3	0.600	13.2	LOS B	119	0.79	0.98	28.8
Approach		**773**	**2.1**	**0.569**	**18.1**	**LOS B**	**119**	**0.79**	**1.01**	**26.8**
All Vehicles		**2976**	**2.0**	**1.104**	**30.8**	**LOS C**	**1092**	**0.86**	**1.38**	**21.3**

Symbols which may appear in this table:

Following Degree of Saturation
x = 1.00 for Short Lane with resulting Excess Flow
* x = 1.00 due to minimum capacity

Following LOS
- Based on density for continuous movements

Following Queue

- Density for continuous movement

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SIDRA INTERSECTION

Input Volumes

Total flow rates as given by the user (veh/60 min)

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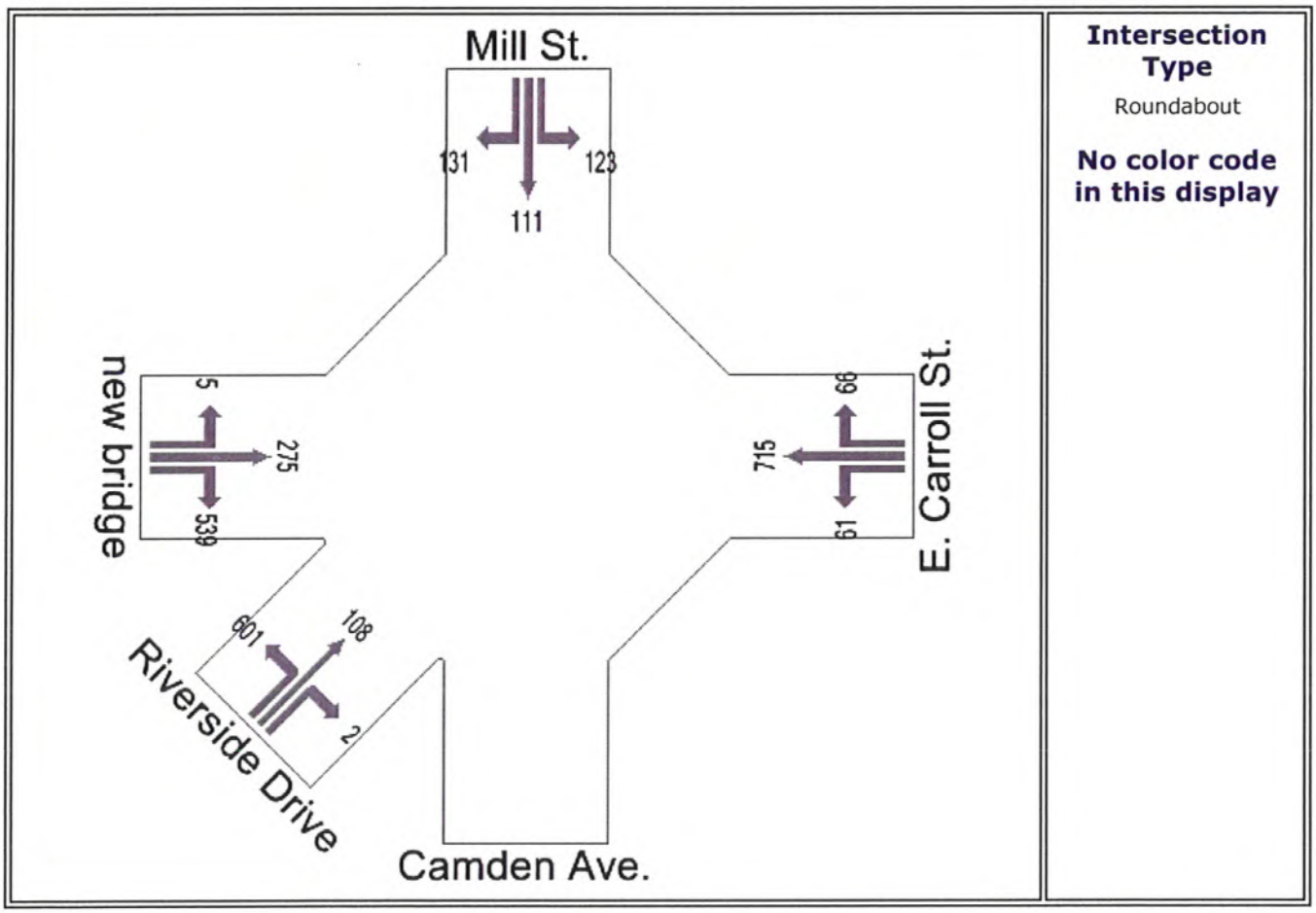
Riverside Drive E. Carroll St.



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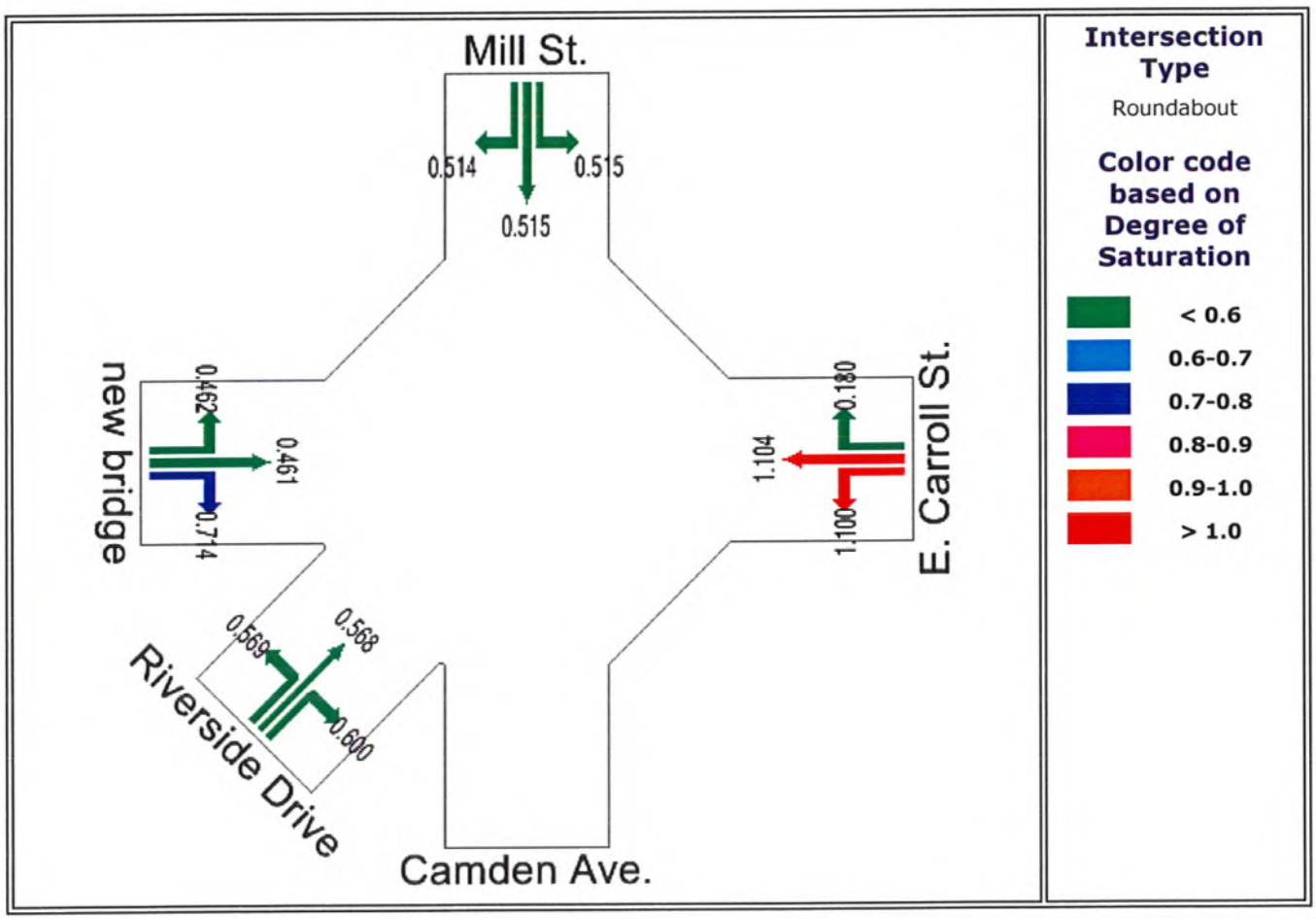
SIDRA INTERSECTION

Degree of Saturation

Demand Volume / Capacity (v/c) ratio

Riverside Drive Corridor - Alternate 4 PM

Riverside Drive E. Carroll St.



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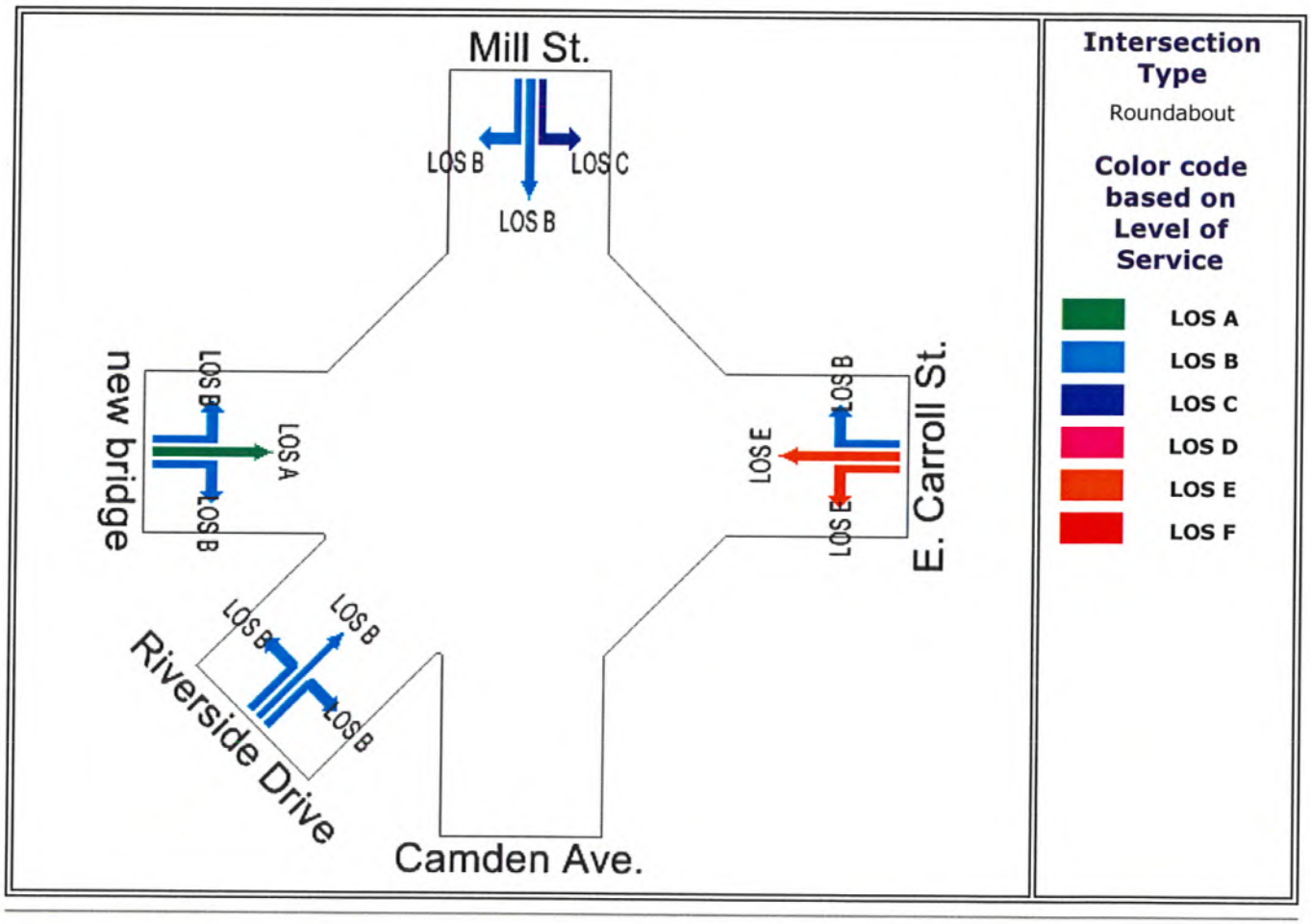
SIDRA INTERSECTION

Level of Service

Based on Delay (HCM method)

Riverside Drive Corridor - Alternate 4 PM

Riverside Drive E. Carroll St.



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