# South Jersey Transportation Planning Organization 2011-12 Road Safety Assessment

New Jersey Avenue (CR 621)
Wildwood Crest Borough
Wildwood City
Cape May County







#### Prepared By:



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In Association with: GTS Consultants

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## Introduction

Orth-Rodgers & Associates, Inc. (ORA) was selected by the South Jersey Transportation Planning Organization (SJTPO) to conduct their 2011-12 Road Safety Assessment (RSA) project. The sections of roadway to be studied were selected by SJTPO based on a number of factors considered important to the safety and future development of the roadways. Among the factors considered were crash data, traffic volume growth, recent and planned future development along the roadway, and local cooperation and control.

Three roadway sections and 15 signalized intersections were chosen for the 2011-12 assessments. Two of the roadways are located in Atlantic County and one in Cape May County and the 15 signalized intersections are located in Cape May County.

The three roadway sections are:

- New Jersey Avenue (CR 621) between Rambler Road (MP 4.19) and Cresse Road (MP 5.05) and between Young Avenue (MP 5.70) and 26<sup>th</sup> Street (MP 6.37) in Wildwood Crest Borough and Wildwood City, Cape May County.
- 2. Brigantine Avenue (CR 638) entire length, between RT 87 and its northern terminus north of 14<sup>th</sup> Street. In The City of Brigantine, Atlantic County.
- 3. Ventnor Avenue (CR 629), between Coolidge Avenue (MP 0.78) in Margate City and Dorset Avenue (MP 3.39) in Ventnor City, Atlantic County.

The 15 signalized intersections are:

- 1. Central Avenue and 16<sup>th</sup> Avenue in the City of North Wildwood
- 2. The following locations in the city of Wildwood
  - a. New York Avenue and Maple Avenue (flashing beacon)
  - b. Atlantic Avenue and Glenwood Avenue
  - c. Atlantic Avenue and Montgomery Avenue



- d. Atlantic Avenue and Wildwood Avenue
- e. Atlantic Avenue and Oak Avenue
- f. Atlantic Avenue and Schellenger Avenue
- g. Atlantic Avenue and Taylor Avenue
- h. Atlantic Avenue and Hand Avenue
- i. Atlantic Avenue and Cresse Avenue
- j. Atlantic Avenue and Magnolia Avenue
- k. Atlantic Avenue and 26th Street
- 1. Ocean Avenue and Cresse Avenue
- m. Pacific Avenue and Baker Avenue
- n. Pacific Avenue and Spencer Avenue
- o. Central Avenue and 16<sup>th</sup> Avenue

Each studied roadway will have a separate report, but will share basically the same introduction, background section, format and some text.

Safety assessments serve to address the safe operation of the roadways and to ensure a high level of safety for all road users. The process of a safety assessment is two-fold: 1) to conduct a formal examination of highway features and the surrounding environment that increases the potential for crashes; and, 2) to identify countermeasures that will reduce or eliminate the probability of such crashes. According to the Federal Highway Administration (FHWA), the formal definition of a road safety assessment is as follows:

"A Road Safety Audit is the formal examination of an existing or future roadway or traffic project by an independent team of trained specialists."

<sup>1</sup> Federal Highway Administration, Road Safety Audits and Road Safety Audit Reviews, EDL #12345 FHWA XX-03-999



To accomplish these goals, the team assesses the safety performance history as well as the future crash potential of a roadway and prepares a report that documents the safety deficiencies and appropriate countermeasures. The purpose of the 2011-12 assessment is to identify potential safety deficiencies along the selected sections of the three roadways and the 15 signalized intersections.

There are three primary parts of the assessment: 1) the data collection and analysis phase; 2) the field view (conducted by the team); and, 3) the preparation of the report and findings.

The **data collection phase** is performed prior to the assessment team conducting a field view of the entire roadway. The data is intended to assist the team in identifying potential safety issues, as well as to provide a factual and historic component of the study. Traffic count and crash data are collected, and a capacity analysis of major intersections is performed. The traffic counts are used to assist in analyzing solutions for the intersections, as well as aid in identifying the most congested sections of the roads. The crash data assists the team in identifying specific areas and/or conditions that warrant close scrutiny that might have otherwise been overlooked. The capacity analysis of intersections identifies how well the intersections are operating and when and where improvements may be needed. Based on an analysis of all of the data, the team can conduct a productive and comprehensive evaluation of the roads being studied. A multidisciplinary team conducts the field view. In this case, the team walked the entire length of the study area discussing observations and taking notes for inclusion in the report. The team leader then prepared a draft report that documented the assessments findings and recommended actions. The draft report was distributed to the team members for their review and comments. A final report was then prepared by the team leader incorporating the agreed upon draft report comments.



## **BACKGROUND INFORMATION**

At the pre-assessment meeting a list of questions were asked of the County and local representatives seeking to gather background information on New Jersey Avenue (CR 621). The questions asked were:

- Why was the road chosen for the assessment?
- What problems exist on the road?
- What areas should be given special attention?
- Has the roadway changed in the last three years?
- Are there any projects pending or anticipated for the roadway and their status?
- Have any of the traffic control devices or regulations been changed in the last three years (i.e., signals, speed limits, etc.)?
- Was there any development on the road in the last three years, or any proposed development on the road or in the area that has or will impact traffic in the future?
- Are any recent traffic counts available?
- Have any recent traffic studies been conducted on the road?
- What plans, if any, are available for the road?
- At what locations should new traffic counts, either turning movement or ATRs, be conducted?



The same questions were again asked at the workshop on the day of the assessment to ensure that no available data was missing. A pre-assessment information package was prepared and distributed at the workshop prior to the field view. The package included a brief explanation of what a safety assessment is, why safety assessments are conducted, and the process involved. It also included a chart of three year crash trends, crash occurrence by month, by day of the week, by time of day, by surface condition, by light condition, by crash severity, by crash type, and by closest intersection.

## **NEW JERSEY AVENUE (CR 621)**

New Jersey Avenue (CR 621) is under the jurisdictional control of Cape May County. It is designated as a south-north road. The road is classified as an urban principal arterial. The total length of the study area is approximately 1.6 miles divided into two segments.

The southern section of New Jersey Avenue (CR 621) reviewed in this project (Rambler Road to Cresse Avenue (MP4.19 to MP5.05)) is a five lane roadway consisting of two through lanes in each direction with a center left turn lane. This section is classified as an urban minor arterial. The northern section of the road reviewed (Young Avenue to 26<sup>th</sup> Street (MP5.70 to MP6.37)) consists of a four lane section between Young Avenue and Schellenger Avenue and a five lane section consisting of two thorough lanes in each direction with a center left turn lane between Schellenger Avenue and 26<sup>th</sup> Street. This section of roadway is classified as an urban principal arterial. Parking is practiced along both sides of much of the road. The speed limit along the study section of road is 25 MPH. Its curb lines are fully developed with mixed business-residential use. There are sidewalks along most of the road.

It was ascertained from local members of the assessment team that:

- The road was chosen as part of the assessment because of the crashes experienced and the influx of summer traffic as the road is located in the summer resort area of the state. Also, the County wishes to upgrade the traffic signals as most are old and lack pedestrian signals. It is worth noting pedestrian and bicyclist activity is significant during the summer months. The road has narrow lanes which makes the shared vehicle/bicyclist usage a safety concern
- There are no projects planned for the road.
- There have been no changes to the traffic controls along the road in the last three years.

The following sections describe the various tasks undertaken by ORA in partnership with the Safety Assessment Team and summarize the findings from the assessment process in a manner that will allow the responsible agencies and personnel to prioritize implementation of safety enhancements.



# **Pre-Assessment Data Collection and Analysis**

Prior to the assessment activities on site, ORA collected and reviewed traffic data and other related materials in order to assist the team in conducting the assessment. ORA also conducted a pre-assessment field view of the road to familiarize itself with the road. A description of the materials that were reviewed is provided below.

#### 1. Traffic Volume Data

The County requested that an eight-hour traffic count be conducted at the New Jersey Avenue (CR621) and 26<sup>th</sup> Street intersection during the summer resort season. Also, 10AM-2 PM Saturday traffic counts were taken at the intersection. GTS consultants conducted the counts on Thursday August 11, 2011 and Saturday August 20, 2011. Since the road is located within the summer resort area of the state the County requested traffic counts be conducted during the summer months, therefore they were not available prior to conducting the field view.

#### 2. Crash Data

SJTPO forwarded to ORA the crash data excel files for the roadway sections being studied. Crash data for the years 2008, 2009 and 2010 was reviewed. A summary sheet, crash data summary text, and crash data charts were prepared for use during the pre-assessment meeting.



## **CRASH DATA SUMMARY**

During the kickoff meeting with the County it was learned that SJTPO would provide the crash charts for the sections of roadway being assessed and it was agreed that a straight line diagram plot of the crash data would not be required. SJTPO forwarded to ORA separate crash charts for MP 4.19-5.05 and 5.70-6.37 for the years 2008, 2009 and 2010. ORA combined the charts for the two separate sections of road as well as combined the individual yearly data to make the data more manageable during the pre-assessment meeting. The only charts for the two sections of roadway that were not combined were those depicting the spot location of the crashes. A summary sheet was prepared for the three year period.

In the three year period (2008-2010), a total of 39 crashes occurred along the study section of road. Eleven (11) crashes occurred in 2008, seventeen (17) in 2009 and eleven (11) in 2010.

The types of crashes are characterized as follows a concentration of crashes for reference in this report will consist of three (3) or more crashes of the same type at a location in the three (3) year period, (2008-2010). The table on the following page summarizes the crash data by type of crash and location:

# of Crashes	Type of Crash	Location of Crashes
0	Fatal Crashes	
17	Injury Crashes	
22	Non-Injury Crashes	
12	Right Angle Type Crashes	(2) n Juniper Avenue, (2) Lavender Road, No other concentrations
8	Same Direction Rear End Type Crashes	<ul><li>(2) at 26th Street</li><li>(2) at Oak Avenue</li><li>No other concentrations</li></ul>
1	Left Turn Type Crashes	At Wildwood Avenue
3	Side Swipe Same Direction Type Crashes	No concentration
2	Fixed Object Type Crashes	Wildwood Avenue and Cardinal Road
1	Head-On Type Crash	Vicinity of Spencer Avenue
6	Bicyclist Type Crashes	<ul> <li>(1) at Lotus Road</li> <li>(1) at Lincoln Avenue</li> <li>(1) at Oak Avenue</li> <li>(1) at Spicer Avenue</li> <li>(1) at Wildwood Avenue</li> <li>(1) at Young Road</li> </ul>
4	Struck parked vehicle	(1) Cardinal Road, (1) New Jersey Avenue, (1) Glenwood Avenue, (1) Magnolia Avenue
2	Other Type crashes (1 backing, 1 other)	No concentration

The crash data was compared to the "Crash Summary for County Road System" obtained from the NJDOT for the year 2009. Where SJTPO Regional averages for roads in the region were available they also are referenced.

A review of the crashes established the following:

- The month with the most crashes as expected since the roadway is in the summer resort area of the state was July (15). There were no crashes in March or December.
- The day of the week with the highest number of crashes was Sunday (8) and Wednesday was the day with the least number of crashes (4).



- The highest frequency of crashes (5) occurred between 9:00-10:00 AM, 10:00-11:00 AM and 2:00-3:00 PM.
- The percentage of crashes during hours of darkness (24%) is approximately the same as statewide average for county roads (approximately 27%). The SJTPO Regional average for roads in the region is 24 %.
- The percentage of crashes for wet surface conditions (5%) is much less then the statewide average for county roads (approximately 22%).
- The percentage of crashes with injuries (44%) is higher than the statewide average for county roads (approximately 28%).
- The percentage of right angle type crashes (31%) is higher than the statewide average for county roads (approximately 19%). The SJTPO regional average for roads in the region is 16%.
- The percentage of same directional rear end type crashes (21%) is less than the statewide average for county roads (approximately 32%). The SJTPO regional average for roads in the region is 22%.
- The percentage of left-turn crashes (3%) is approximately the same as the statewide average for county roads (approximately 5%).
- The percentage of same direction side-swipe type crashes (8%) is approximately the same as the statewide average for county roads (approximately 11%). The SJTPO regional average for roads in the region is 9%.
- The percentage of fixed-object type crashes (5%) is less than the statewide average for county roads (approximately 12%). The SJTPO regional average for roads in the region is 17%.
- The percentage of bicycle type crashes (15%) is much higher than the statewide average for county roads (approximately 1%).
- The percentage of struck parked vehicle type crashes (10%) is much higher than the statewide average for county roads (approximately 1%). The SJTPO Regional average for roads in the area is 13%.



## **Assessment**

On August 9, 2011, the Safety Assessment Team met in the Cape May County Engineers office building to formally conduct the assessment. The meeting commenced at 9:30 AM with brief statements by ORA representatives who reiterated the importance of RSAs and outlined the objectives of the safety assessment. There were brief introductions by team members followed by an extensive review and discussion of materials described in the previous section. The team then drove to the southern end of study area, the Rambler Road intersection, to begin the assessment. Cape May County provided a van for the team. Team members are listed below.

SAFETY ASSESSMENT TEAM FOR NEW JERSEY AVENUE

Name	Agency
Brian Stankus	Orth-Rodgers & Associates, Inc.
Michael Weber	Rutgers TSRC
Jennifer Marandino	SJTPO
Dale Foster	Cape May County
Thanh Le	Rutgers TSRC
Ashley Machado	Rutgers TSRC
Andy Kaplan	Rutgers TSRC
Kim Catrambone	Orth-Rodgers & Associates, Inc.
Norman Deitch	Orth-Rodgers & Associates, Inc.
George Strathern	Orth-Rodgers & Associates, Inc.

The team walked the entire length of the study area in both directions. During the field views, team members identified features on the roadway and its surrounding environment that could contribute to the occurrence or relative severity of roadway crashes. At the intersections and mid-block locations, the Team identified safety deficiencies and inappropriate traffic signs, as well as other items that were felt to be inconsistent with effective road function and use. A variety of safety improvement measures were discussed with field notes and digital photographs being taken by team members.

At the completion of the assessment, the team leader recapped the findings of the assessment with the team. The team leader informed the team members on the next step in the assessment



process; ORA will prepare a draft report summarizing the findings from the assessment process and forward the report to all team members for their review and comments.

On Thursday January 12, 2012 Dale Foster, Norm Deitch and George Strathern conducted a night assessment. The goal was to check the retroflectivity of the street signs and pavement markings. In addition, the need for street lighting was checked and lights adjacent to the roadway on private property were checked to ensure that they did not create bright areas that could distract drivers. The team also looked for issues that would only be apparent during hours of darkness, such as clearly defined roadway alignment, ineffective street lighting, etc.

The next section of the report summarizes the findings from the daytime and nighttime assessment of New Jersey Avenue (CR 621) along with suggested remedial actions to address the noted safety issues. In order to assist in prioritizing the work effort recommended to correct the situation, the level of effort required (low, medium, high) and degree of safety benefit derived (low, medium, high) is also noted for each item.

### LEVEL OF EFFORT REQUIRED

For this road safety assessment final report the "level of effort" required to address a remedial action recommendation has been divided into three levels-low, medium and high. A correlation of cost and man hour expenditures generally helps to define the level of effort. The following are some examples of the levels of effort:

Low Level of Effort - Development of general work orders or directives from the
engineering department to its maintenance forces to: implement signal timing changes,
pavement marking revisions and refurbishing; replace worn signs; installing new signs;
replacing a few rigid sign supports with breakaway supports; tree trimming.

- Medium Level of Effort Minor revisions to a traffic signal not requiring any underground work; replacing inlet grates; installing or repairing small sections of sidewalk and guiderail; installing corridor wide breakaway sign supports; restriping an entire roadway section; signal revisions that require re-wiring for new signal heads; installing pedestrian indications; conducting more detailed in-house traffic studies to address specific issues.
- High Level of Effort Redesign of roadway features; major signal revisions requiring underground work such as new foundations, conduit, new signal controller; resolving poor drainage issues; development of design plans that would require outside contractors to implement; any road work that would require permits and general capital improvement projects.

#### POTENTIAL SAFETY BENEFITS

Potential safety benefits are divided into three categories- low, medium and high. This is a subjective breakdown based on engineer's opinion as to the percentage of the road that would be impacted by the improvement along with the degree of impact that the identified safety issue would have on potential crash experience. For example, eliminating a potential tripping safety hazard where there are very few pedestrians could be considered low, however, if the number of pedestrians was high the potential safety benefit would increase. Pavement markings not visible at night could be considered high.



# **Findings**

The findings from the New Jersey Avenue (CR 621) safety assessment, except where repetitious items have been combined into a single comment or general comment, are generally presented on the following pages in the approximate order of their location along the roadway, beginning at Rambler Road and proceeding north to Cresse Avenue then traveling south to Rambler Road; and then beginning at Young Avenue and proceeding north to 26<sup>th</sup> Street and then traveling south to Young Road.

			LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
1	General comment - there are some	Consideration be given to			X			X
	handicapped ramps along the roadway	installing ADA compatible						
	but most do not appear to be in	ramps along the roadway in						
	compliance with ADA standards. Other	conjunction future roadway						
	locations lack them entirely. Many lack	projects.						
	the detectable warning surfaces.							
	(Pictures 1& 2)							



PICTURE 1: NO CURB RAMP AT CROSSWALK AT HEATHER ROAD



PICTURE 2: NO CURB RAMP AT CROSSWALK AT GARFIELD AVENUE

			LEVEL (	OF EFFORT I	REQUIRED	POTEN	TIAL SAFETY I	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
2	General comment - Sign installations.	Consideration should be given to			X		X	
	Many of the signs along the road are	inventorying the method of sign						
	installed as "bendaway" rather than	installation along the entire road						
	"breakaway." Many installed as	and taking steps to properly						
	"breakaway" are installed incorrectly	install all signs as "breakaway"						
	with the stub too far out of the ground or	in accordance with the most						
	on the wrong side of the post. It was	current NJDOT standards and						
	noted that many of the signalized	the MUTCD.						
	intersections have hinged "STOP" signs							
	on the side street approaches to New							
	Jersey Ave. It was stated by the local							
	team members that these signs are used							
	to supplement the stop condition when							
	the signals are operated in the flashing							
	mode in the off season or during power							
	outages which we were told occur with							
	some frequency. (Pictures 3&4)							



PICTURE 3: 20 MINUTE PARKING SIGN IN TREE SOUTH OF CROCUS ROAD NON-BREAKAWAY POST PICTURE 4: Non-Breakaway Sign at Lincoln Avenue





PICTURE 5: RESERVED PARKING SIGN POST NON-BREAKAWAY, SOUTH OF PALM ROAD

PICTURE 6: NO PARKING SIGNS WORN AND ON NON-BREAKAWAY POST, NORTH OF COLUMBINE ROAD



			LEVEL OF EFFORT REQUIR		EQUIRED	POTEN'	TIAL SAFETY	Y BENEFIT	
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH	
3	General comment- all parking prohibition signs along the road should be install at a 45 degree angle to the road. ( <b>Pictures 5 &amp; 6</b> )	Reinstall or adjust all parking prohibition signs to be 45 degrees to the road.	X			X			
4	General comment- statutory parking prohibitions are not being enforced along the roadway.	To the extent practical enforce statutory parking prohibitions.		X			X		
5	General comment- some of the street name signs along the road are worn.	Municipal officials should consider inventorying the street name signs and replace those noted to be worn to comply with current MUTCD standards.			X			X	
6	General comment- local officials stated that the signal progression along the road was not good. The team members concur with this observation.	Consideration be given to evaluating the signal progression along the roadway to determine what improvements can be made.			X		X		
7	General Comment- many of the one way roads are signed with a single double sided "ONE WAY" signs on a sign post instead of the standard installation of two "ONE WAY" signs with one installed on either side of the sign post. (Pictures 7 & 8)	Revise all installations to standard method of signing.	X			X			



PICTURE 7: ONE (1) ONE-WAY SIGN MOUNTED INSTEAD OF BACK-TO-BACK MOUNT, NON-BREAKAWAY POST AT PRIMROSE AVENUE

PICTURE 8: ONE WAY SIGN OBSCURED BY TREE LINE AT ROSEMARY ROAD



			LEVEL	OF EFFORT I	REQUIRED	POTENT	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
8	General comment- Orth-Rodgers at the							
	request of the county has previously							
	reviewed all of the vehicular yellow, all							
	red intervals and pedestrian clearance							
	times at all of the traffic signal along this							
9	section of New Jersey Avenue (621) The following locations had "DO NOT	Install 36" x 36" "STOP" signs.	X			X		
9	ENTER" signs installed back to back on	Replace all non-breakaway posts	Λ			Λ		
	the same post as the "STOP" sign, with	with breakaway posts. Replace						
	the "DO NOT ENTER" sign being larger	those signs indicated as worn or						
	then the "STOP" sign.	undersized unless otherwise						
		noted						
	NORTHBOUND SIDE-							
	Fern Road on a non-breakaway post.							
	Rosemary Road on a non-breakaway							
	post.							
	Wisteria Road on a non-breakaway post.							
	Juniper Avenue on a non-breakaway							
	post.							
	SOUTHBOUND SIDE							
	Forget-Me-Not Road on a non-							
	breakaway post.							
	breakaway post.							
	Crocus Road on a non-breakaway post.							
	Columbine Road on a non-breakaway							
	post.							
	Poplar Avenue on a non-breakaway post.							
	1 opiai 71venue on a non-oreakaway post.							
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			LEVEL (	OF EFFORT I	REQUIRED	POTEN	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
10	The following location had inlets located within the crosswalk-handicap ramp area:  Rambler Road-southeast corner.	Consideration be given to investigating what can be done to either relocate the inlets out of the handicapped area or to revise the handicapped area to eliminate the conflict.		X		X		
11	Inlet grates which are not bicycle safe were noted at the following locations.  Two on the southeast corner and two on the northeast corner of Fern Road.  PICTURE 9: INLET GRATE NOT BICYCLE SAFE GRATE, SOUTHEAST CORNER OF FERN ROAD	Consideration be given to replacing all of the inlet grates with bicycle safe grates.		X				X
	Two on the southeast corner and two on the northeast corner of Columbine Road.							
	Northeast and southeast corners of Magnolia Avenue.							
	Northeast and southeast corners of Poplar Avenue.							
	Northeast corner of Jupiter Avenue.							



			LEVEL	OF EFFORT I	REQUIRED	POTEN'	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	The following locations had sign which	Re-install sign on break-away			X		X	
	are installed on non-breakaway posts.	posts. Replace those signs						
		indicated as worn, damaged,						
	NORTHBOUND SIDE	defaced or undersized unless						
	W (2) 4 (2) 1 1 6	otherwise noted. Install any						
	Worn "North 621" sign south of Primrose Dive.	missing supplemental sign						
	Prinirose Dive.	plates. Trim tree or relocate those indicated as obstructed by						
	Worn "STOP" sign at Myrtle Road.	tree branches.						
	Wolff 5101 sign at Wythe Road.	tree branches.						
	Worn "STOP" sign at Lotus Road.							
	Handicap parking sign north of Lotus							
	Road.							
	Worn "SPEED LIMIT 25" north of Palm							
	Road.							
	"ONE WAY" ciam at Farm David							
	"ONE WAY" sign at Fern Road.							
	"ONE WAY" sign on the southeast							
	corner of Forget-Me- Not Road.							
	"LEFT LANE MUST TURN LEFT" just							
	north of Forget-Me- Not Road.							
	"ONE WAY" on the southeast corner of	Attempt to find new location						
	Rosemary Road.	closer to New Jersey Ave (CR						
		621) to improve visibility.						



			LEVEL	OF EFFORT I	REQUIRED	POTENT	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued-				X		X	
	"20 MINUTE PARKING 8AM-8PM" just south of Columbine Road.							
	"ONE WAY" sign on the southeast corner of Columbine Road.							
	Worn "20 MINUTE PARKING" sign north of Columbine Road.							
	"20 MINUTE PARKING" sign north of Columbine Road.							
	"NO PARKING DRIVEWAY" and "NO PARKING WHEN ROAD IS SNOW COVERED" signs north of Columbine Road.							
	"ONE WAY" sign on the southeast corner of Wisteria Road.							
	Worn "STOP" sign on the northeast corner of Wisteria Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign north of Wisteria Road.							
	Worn "SPEED LIMIT 25" sign north of Wisteria Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign south of Sweet Briar Road.							



				OF EFFORT I			TIAL SAFETY	BENEFIT
		REMEDIAL ACTION	LOW	MEDIUM		LOW		HIGH
12	"NO TURN ON RED" sign on the northeast corner of Sweet Briar Road.  Empty sign post north of Sweet Briar Rd  Worn "NO TURN ON RED" sign on the southeast corner of Cardinal Road.  "20 MINUTE PARKING" sign north of Crocus Road. Also, sign is obstructed by tree branches. (Picture 10)  "LEFT LANE MUST TURN LEFT" sign just north of Crocus Road. Also, sign is	Sign will probably need to be relocated.	LOW	MEDIUM	HIGH X	LOW	MEDIUM X	HIGH
	just north of Crocus Road. Also, sign is obstructed by trees.  Three (3) "20 MINUTE PARKING" signs north of Crocus Road.  "LEFT LANE MUST TURN LEFT" sign south of Heather Road.	PICTURE 10: 20 Minute Parking Sign in T South of Crocus Road	ΓREE					



			LEVEL	OF EFFORT I	REQUIRED		TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued-Hinged "STOP" sign on the northeast corner of Heather Road.  Worn "20 MINUTE PARKING 8AM-8 PM" sign and worn "NO PARKING WHEN ROAD IS SNOW COVERED" sign south of Lavender Road.  Worn "DO NOT ENTER" sign on the southeast corner of Lavender Road.  Worn "STOP" sign on the northeast corner of Lavender Road.  Worn "20 MINUTE PARKING" sign north of Lavender Road.  "ONE WAY" sign on the southeast corner of Buttercup Road.  "Parkway" sign just south of Morning Glory Road.  "ONE WAY" on the southeast corner of Morning Glory.  Worn"STOP" sign on the northeast corner of Morning Glory Road.	Also, sign is obstructed by tree branches, consider relocating sign or supplement with another sign on the northeast corner.				POTEN' LOW		



				OF EFFORT I			FIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued-				X		X	
	Worn "NO PARKING HERE TO CORNER" south of Cresse Road.							
	Hinged "STOP" sign on the northeast corner of Spencer Avenue.							
	"HOLIDAY BEACH STATION SHOPPING" sign north of Spencer. Also, sign installed too low.	Consider removing sign and post.						
	Worn"STOP" sign on the northeast corner of Spicer Avenue.							
	"WILDWOOD HISTORICAL MUSEUM" sign on the northwest corner of Spicer Avenue.	Consider removing sign and post.						
	"HOLIDAY BEACH STATION SHOPPING" sign south of Garfield. Consider removing sign and post.							
	"STOP" sign on the northeast corner of Garfield Avenue.							
	Pedestrian warning symbol sign with diagonal arrow plate at Lincoln Avenue.							
	Worn"STOP" sign on the Lincoln Avenue approach.							
	Worn and defaced "HOLIDAY BEACH STATION SHOPPING" sign north of Lincoln.	Consider removing sign and post.						



			LEVEL (	OF EFFORT I	REQUIRED	POTEN	FIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
13	2 Continued-				X		X	
	Hinged "STOP" sign on the northeast corner of Wildwood Avenue.							
	"15 minute parking 8AM to 12 Midnight" south of Pine Avenue.							
	School crossing advance warning sign north of Maple Avenue. Also, "AHEAD" plate is missing.	Install "AHEAD" plate.						
	Worn "ONE WAY" sign and worn "DO NOT ENTER" sign on the southeast corner of Maple Avenue.							
	"STOP" sign on the northeast corner of Maple Avenue.							

			LEVEL (	OF EFFORT I	REQUIRED	POTEN'	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued  "NO PARKING BUS STOP" north of Glenwood.  Worn "WEST CR 614" with arrow to the left sign assembly north of Glenwood Avenue.  Damaged "LEFT LANE MUST TURN	KEMEDIKE NCTION	LOW	MEDICM	X	LOW	X	mon
	LEFT" sign south of Magnolia Avenue.  Worn "NO PARKING BUS STOP" sign south of Magnolia Avenue.  Worn school crossing warning symbol	Install missing diagonal arrow						
	sign on the southeast corner of Magnolia Avenue. Also, diagonal arrow sign is missing.  Worn "ONE WAY" sign and worn "DO NOT ENTER" sign on the southeast corner of Magnolia Avenue.	plate.						
	Hinged "STOP" sign on the northeast corner of Magnolia Avenue.  Worn "NO TURN ON RED" sign on the northeast corner of Magnolia Avenue.							
	Worn school crossing warning symbol sign on the northeast corner of Magnolia Avenue. Also, diagonal arrow sign is missing.	Install missing diagonal arrow plate.						



			LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued-				X		X	
	"30 MINUTE PARKING" sign south of Jupiter Avenue.							
	Hinged "STOP" sign on the northeast corner of 26 <sup>th</sup> Avenue.							

				OF EFFORT I			FIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued-				X		X	
	SOUTHBOUND SIDE							
	"WELCOME TO THE CREST" on the southwest corner of Cresse Road.							
	Worn "SPEED LIMIT 25" south of Cresse Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign south of Morning Glory Road.							
	"ONE WAY" sign on the northwest corner of Morning Glory Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign south of Morning Glory Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign south of Morning Glory Road.							
	Worn "DO NOT ENTER" and "ONE WAY" signs on the northwest corner of Buttercup Road.							
	Worn "STOP" sign on the southwest corner of Buttercup Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign south of Buttercup Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign and "NO PARKING WHEN ROAD IS SNOW COVERED" sign south of Buttercup Road.							



			LEVEL	OF EFFORT I	REQUIRED	POTEN	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	CONTINUED-				X		X	
	"ONE WAY" sign on the northwest corner of Lavender Road.							
	"LEFT LANE MUST TURN LEFT" sign south of Lavender Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign north of Heather Road. Sign is obstructing visibility of "LEFT LANE MUST TURN LEFT" sign.	Relocate sign.						
	"LEFT LANE MUST TURN LEFT" sign north of Heather Road.							
	"NO TURN ON RED" sign on the southwest corner of Lavender Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign south of Heather Road.							
	"ONE WAY" sign on the northwest corner of Crocus Road.							
	Worn "STOP" sign on the southwest corner of Crocus Road.							
	"20 MINUTE PARKING 8AM-8 PM" sign north of Aster Road.							
	"NO TURN ON RED" sign on the southwest corner facing the Aster Road approach.							



			LEVEL	OF EFFORT I	REQUIRED	POTEN	ΓIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued-				X		X	
	"20 MINUTE PARKING 8AM-8 PM" sign south of Aster Road.							
	"NO TURN ON RED "sign on the southwest corner of Cardinal Road.							
	"NO PARKING WHEN ROAD IS SNOW COVERED" just north of Sweet Briar Road.							
	"NO TURN ON RED "sign on the southwest corner facing the Sweet Briar Road approach.							
	Worn "SPEED LIMIT 25 "on the northwest corner of Wisteria Road.							
	"ONE WAY" sign on the northwest corner of Wisteria Road.							
	"NO PARKING WHEN ROAD IS SNOW COVERED" just south of Wisteria Road.							
	"ONE WAY" sign on the northwest corner of Columbine Road.							
	Worn "STOP" sign on the southwest corner of Columbine Road.							
	"ONE WAY" sign on the southwest corner of Rosemary Road.							
	"ONE WAY" sign on the northwest corner of Rosemary Road.							



				OF EFFORT I		POTEN	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued-				X		X	
	"ONE WAY" sign on the northwest corner of Palm Road.							
	Worn "DO NOT ENTER" sign on the southwest corner of Palm Road.							
	Worn "STOP" sign on the southwest corner of Lotus Road.							
	"ONE WAY" sign on the northwest corner of Myrtle Road.							
	Worn truck route assembly and worn County route marker assembly signs just south of Myrtle Road.							
	Opposite Primrose Road- four posts with white colored boards. Posts most likely installed when west side of road was reconfigured. Remove the posts and							
	attachments.							
	PICTURE 11: Non-MUTCD Compliant Barricade @ Primrose Avenue							

			LEVEL (	OF EFFORT I	REQUIRED	POTENT	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued-				X		X	
	Worn "TRUCK ROUTE" sign and Worn "SOUTH CR 621" sign assembly just north of 26 <sup>th</sup> Avenue.							
	Hinged "STOP" sign on the southeast corner of 26 <sup>th</sup> Avenue.							
	"ONE HALF HOUR PARKING 8AM- 12 MIDNIGHT" sign south of 26 <sup>th</sup> Street.							
	School crossing advance warning sign south of Poplar Avenue. Also, "AHEAD" plate is missing. Sign is hidden in trees.	Install "AHEAD" plate and consider relocation.						
	Worn school crossing warning symbol sign on the northwest corner of Magnolia Avenue. Also, diagonal arrow sign is missing.	Install diagonal arrow plate.						
	Worn school crossing advance warning sign south of Magnolia Avenue. Also, "AHEAD" plate is missing.	Install "AHEAD" plate.						
	"CURB YOUR DOG" sign south of Magnolia Avenue.	Consider removing sign and post.						
	"LEFT LANE MUST TURN LEFT" sign north of Glenwood.							



			LEVEL	OF EFFORT I	REQUIRED	POTEN	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
12	Continued-				X		X	
	Worn school crossing warning symbol sign on the northwest corner of Glenwood Avenue. Also, diagonal arrow sign is missing.	Install missing diagonal arrow plate.						
	Worn "DO NOT ENTER" sign and worn "ONE WAY" signs on the northwest corner of Glenwood Avenue.							
	Worn "DO NOT ENTER" sign, worn "ONE WAY" signs and worn school crossing warning symbol sign on the southwest corner of Glenwood Ave.  Diagonal arrow sign is missing from the school crossing warning symbol sign.	Install missing diagonal arrow plate.						
	Worn "CR 621" sign south of Glenwood Avenue.							
	"NO PARKING ANY TIME" on the northwest corner of Pine Avenue.							
	Worn "DO NOT ENTER" sign and worn "ONE WAY" signs on the northwest corner of Pine Avenue.							
	Worn "DO NOT ENTER" sign and worn "ONE WAY" signs on the southwest corner of Pine Avenue.							
	Worn "HOLIDAY BEACH STATION SHOPPING" sign on the northwest corner of Wildwood Avenue.	Consider removing sign and post.						
	"LEFT LANE MUST TURN LEFT" sign north of Oak Avenue.							





				OF EFFORT I		POTEN	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
13	Rambler Road-Park Boulevard  General comment-The traffic signal at this intersection consist of a four pole layout with pole mounted vehicular indications used to control pedestrians. This installation does not appear to conform to the current MUTCD.  (Picture 12)	Consideration be given to upgrading the signal design to bring it into conformance with the current MUTCD. This would probably require the installation of additional foundations and signal poles			X			X
	There are painted crosswalks across the Rambler Road approach and the New Jersey Avenue (CR 621) southerly approach to the intersection but none across either the Park Boulevard approach or the New Jersey Avenue (CR 621) northerly approach to the intersection.	Consideration be given to installing a crosswalk across either or both the Park Boulevard approach and New Jersey Avenue (CR 621) northerly approach. If only one new crosswalk is installed, install the necessary pedestrian prohibition crossing signs directing pedestrians to the crosswalks at the intersection should be installed. In conjunction with the installation of the crosswalk the necessary WALK_DONT WALK pedestrian indications should also be installed.			X			X
	SIGNAL CLUSTER AT RAMBLER ROAD, SW CORNER							



				OF EFFORT I			TIAL SAFETY	
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
13	Rambler Road-Park Boulevard Continued- The Park Boulevard approach to the intersection has an exclusive green interval but has only three section signal heads with red ball, yellow ball and green ball sections displayed. The current MUTCD requires this interval to	Consideration be given to upgrading the signal design to bring it into conformance with the current MUTCD.			X			X
	also display a green left turn arrow.  The painted arrows and "ONLY" pavement markings on the Park Blvd. approach do not reflect the two left turn movements that can be made from the approach, one onto Rambler Road and the other onto northbound New Jersey Avenue (CR 621). (Picture 13)	Consideration be given to revising the pavement markings to reflect the two left turn movements.	X				Х	
	There are no lane use control signs reflecting the lane usage control pavement marking noted above.	Consideration be given to installing the necessary lane use control sign along the Park Boulevard approach.	X				X	
		PICTURE 13: ARROW PAVEMENT MARKINGS ON PARK BLVD. APPROACH						



			LEVEL (	OF EFFORT I	REQUIRED	POTENT	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
13	Rambler Road-Park Boulevard							
	Continued	Consideration be given to						
	The lane use configuration along the	evaluating the need for the		X				X
	southbound New Jersey Avenue (CR	exclusive left turn lane along		71				71
	621) approach to the intersection	southbound New Jersey Avenue						
	consists of an exclusive left turn lane and	(CR 621). If the exclusive left						
	two through lanes with two receiving	turn lane is not needed the						
	lanes on the far side of the intersection.	pavement marking could be						
	The receiving lanes on the far side of the	modified to reflect this change						
	intersection are significantly offset from	easing the offset for the through						
	the through lanes along the southbound	lanes.						
	approach.		***			***		
		Replace both signs.	X			X		
	"NO TURN ON RED" sign facing the							
	Park Boulevard approach is worn as is							
	the "DO NOT ENTER" sign mounted on							
	the back of the "NO TURN ON RED"							
	sign.							



				OF EFFORT F			TIAL SAFETY	
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
14	Palm Road- General comment- the traffic signal at this intersection consists of a four pole layout with pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD. The pedestrian signal heads are weather beaten.							
	No mast arm mounted street name signs exist at the intersection.	Consideration be given to installing mast arm mounted street name signs at the intersection.	X			X		
	Southeast corner of the intersection was repayed and the crosswalks on that corner were not repainted. ( <b>Picture 14</b> )	Re-install crosswalks.	X			X		
	"DO NOT ENTER" sign installed on the pedestal pole on the northwest corner of the intersection is worn.	Install new sign.	X			X		
	"DO NOT ENTER" sign on the southwest corner of the intersection is worn.	Install new sign.	X			X		
	An empty non-breakaway sign post is on the northeast corner of the intersection.	Remove sign post.	X			X		
		PICTURE 14: CROSSWALK NOT EXTENDING TO CURB AT SOUTHEAST CORNER OF PALM ROAD						



			LEVEL	OF EFFORT I	REQUIRED	POTEN	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
15	Rosemary Road-Signalized Intersection  General comment- The traffic signal at this intersection consist of a three pole layout with pole mounted vehicular type indications used to control pedestrians. Signal does not meet current standards of MUTCD.	Consideration be given to installing WALK_DONT WALK pedestrian indication indications at the intersection.			X		X	
16	Northbound side- Crosswalk across Columbine Road has been paved over.	Re-install crosswalk	X			X		
17	Northbound side- there is no painted crosswalk across New Jersey Avenue (CR 621) at Wisteria Road.	Considering be given to installing crosswalk.	X			X		
18	Northbound side- The easterly approach of Wisteria Road is one way westbound. There are no "DO NOT ENTER" signs supplementing the one way signs at the intersection.	Install the necessary "DO NOT ENTER" signs at the intersection to conform to the signing for the other one way roads intersecting New Jersey Avenue (CR 621).	X			X		



			LEVEL	OF EFFORT I	REQUIRED	POTEN'	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
19	Sweet Briar Road Signalized intersection General comment- the signal design at this intersection consists of a two pole layout with two mast arms on each pole.  There is a service road just east of the New Jersey Avenue (CR 621) easterly curb line. There are no signal indications on the far side of the service road to define the stop line along the Sweet Briar Road easterly approach which is located on the far side of the service road. The installation lacks pedestrian indications. Some pedestrian movements at the intersection lack a readily visible indication. The signal at the intersection does not conform to MUTCD requirements and will require a new installation to bring it into conformance. (Pictures 15 & 16)	Consideration be given to installing a complete new signal installation at the intersection.	20 11		X			X



PICTURE 15: CROSSWALK ACROSS NEW JERSEY AVENUE AT SWEET BRIAR ROAD



PICTURE 16: END OF SERVICE ROAD AT SWEET BRIAR ROAD

			LEVEL (	OF EFFORT I	REQUIRED	POTEN	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
20	Cardinal Road- Signalized intersection General comment- the signal design at this intersection consist of a two pole layout with two mast arms on each pole.  There is a service road just east of the New Jersey Avenue (CR 621) easterly curb line. There are no signal indications on the far side of the service road to define the stop line along the Cardinal Road easterly approach which is located on the far side of the service road. The installation lacks pedestrian indications. Some pedestrian movements at the intersection lack a readily visible indication. The signal design at the intersection does not conform to MUTCD requirements and will require a new installation to bring it into conformance.	Consideration be given to installing a complete new signal installation at the intersection.			X			X
	There are handicap ramps on only two corners of the intersection.	Consideration be given to installing the missing two handicap ramps at the intersection.		X			X	



			LEVEL	OF EFFORT I	REQUIRED	POTEN	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
2	Aster Road- Signalized intersection General comment- the signal design at this intersection consist of a two pole layout with two mast arms on each pole.  There is a service road just east of the New Jersey Avenue (CR 621) easterly curb line. There are no signal indications on the far side of the service road to define the stop line along the Aster Road easterly approach which is located on the far side of the service road. The installation lacks pedestrian indications. Some pedestrian movements at the intersection lack a readily visible indication. The signal design at the intersection does not conform to MUTCD requirements and will require a new installation to bring it into conformance.	Consideration be given to installing a complete new signal installation at the intersection.			X			X
	There are handicap ramps on only three of the four corners of the intersection.	Consideration be given to installing the missing handicap ramp at the intersection.		X			X	



			LEVEL	OF EFFORT F	REQUIRED	POTEN	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
22	Heather Road-							
	Signalized intersection							
	General comment- the signal design at							
	this intersection consist of a two pole							
	layout with two mast arms on each pole.							
	Signal does not appear to meet the							
	current standards of MUTCD.							
					X		X	
	There are no WALK-DONT WALK	Consideration be given to						
	pedestrian indications at the intersection.	upgrading the signal design to						
	Some pedestrian movements at the	include pedestrian indications.						
	intersection lack a readily visible							
	indication.							
	B: 1 1: 1:1:16	Caratilandian Landina da						
	Right turn on red is prohibited from the	Consideration be given to	X			X		
	northbound New Jersey Avenue (CR	evaluation the need to retain the						
	621) approach to the intersection. The	existing right turn on red						
	need for the prohibition was questioned	prohibition for the northbound						
	by some members of the team.	New Jersey Avenue (CR 621)						
		approach to the intersection.						



PICTURE 17: FOLDING STOP SIGN USED WITH SIGNAL AT HEATHER ROAD

Northbound side- Lavender Road easterly approach to the intersection-partially blacked out stop line approximately 10 feet east of the existing stop line.

			LEVEL (	OF EFFORT F	REQUIRED	POTEN	FIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
24	Southbound side- Columbine Road westerly approach to the intersection-partially blacked out stop line approximately 10 feet west of the existing stop line.	Consideration be given to removing the partially blacked out stop line.	X			X		
25	Southbound side- northwest corner of Lotus Road- stub of pipe in sidewalk area tripping hazard. (Picture 18)	Consideration be given to contacting the local officials regarding correcting the tripping hazard.	X			X		



PICTURE 18: TRIPPING HAZARD AT LOTUS ROAD NORTHWEST CORNER

26	Southbound side-Lotus Road westerly	Re-install stop line.	X		X	
	approach to the intersection- stop line					
	has been paved over.					
27	Young Avenue-					
	Signalized intersection					
	General comment:					
	County officials informed team members					
	that Young Avenue intersection is being					
	re-designed. Therefore it was not					
	assessed.					

			LEVEL	OF EFFORT R	EQUIRED	POTEN'	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
28	Spencer Avenue- Signalized intersection General comment- the signal design at this intersection consist of a three pole layout with the two poles supporting two mast arms and the third supporting a pole mounted vehicular type indication used to control pedestrians. Signal does not appear to meet the current standards of MUTCD.  There is no signal pole on the northwest corner of the intersection. There are no WALK-DONT WALK pedestrian indications at the intersection. The signal installation uses vehicular indications to control pedestrian movements. Some pedestrian movements at the intersection lack a readily visible indication.	Consideration be given to installing WALK_DONT WALK pedestrian indications at the intersection.			X		X	
29	Spicer Avenue-Paving at the intersection has obliterated the stop line and crosswalks on the Spicer Avenue approaches.	Re-install obliterated pavement markings.	X			X		
30	Northbound side-Lincoln Avenue has a pedestrian crossing warning symbol sign with a diagonal arrow. There is no advance pedestrian crossing symbol warning sign with ahead plate.	Install advance pedestrian crossing symbol warning sign and "AHEAD" plate at appropriate distance in advance of Lincoln Avenue.	X			X		



			LEVEL	OF EFFORT I	REQUIRED	POTENT	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
31	Schellenger Avenue Signalized intersection General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD.							
32	Oak Avenue Signalized intersection General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD.							
33	Wildwood Avenue- Signalized intersection General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD.  There are handicap ramps on only two of the four corners of the intersection.	Consideration be given to installing the two missing handicap ramps.		X			X	

				OF EFFORT I		POTENTIAL SAFETY BENEFIT			
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH	
34	Glenwood Avenue Signalized intersection General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD.  There are handicap ramps on only two of the four corners of the intersection.  Mast arm mounted "NO TURN ON RED" sign facing northbound traffic is	Consideration be given to installing the two missing handicap ramps.  Replace with new sign.	X	X		X	X		
35	Magnolia Avenue Signalized intersection General comment- the traffic signal at this intersection consist of a four pole layout with countdown pedestrian indications. The signal appears to meet the minimum requirements of the MUTCD.  There are handicap ramps on only two of the four corners of the intersection.	Consideration be given to installing the two missing handicap ramps.		X			X		
36	Northbound side- "CR 621" sign on a lighting pole north of Magnolia Avenue is worn.	Replace with new sign.	X			X			



			LEVEL	OF EFFORT I	REQUIRED	POTEN'	TIAL SAFETY	BENEFIT
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
37	Northbound side north of Popular Road-	Replace with new sign.	X			X		
	"SPEED LIMIT 25" sign is worn and							
	appears to be home made. (Picture 19)							
	25 25	PICTURE 19: NON-MUTCD COMPLIANT SPEED LIMIT SIGN NORTH OF POPLAR AVENUE		PICTU STACKING PR BETWEEN S SOUTH	OBLEM IGNALS			
38	26 <sup>th</sup> Street - Signalized intersection							
	General comment- signal layout at							
	intersection consist of one pole with two mast arms on the northeast corner of the							
	intersection and two poles on the							
	southwest corner of the intersection each							
	with one mast arm. Signal does not							
	appear to meet the current standard of							
	the MUTCD. (Picture 20)							
	There are no WALK-DONT WALK	Consideration be given to			X		X	
	pedestrian indications at the intersection.	upgrading the signal installation						
	Some pedestrian movements at the	to include pedestrian indications						
	intersection lack a readily visible	across all corners of the						
	indication.	intersection.	X			X		
	Team members observed traffic backup	Consideration be given to						
	between signals south of 26 <sup>th</sup> Avenue.	evaluating the signal timing to						
		alleviate backup.						
		_		X				X
	"NO TURN ON RED" sign installed on	Replace with new sign.						
	the traffic signal pole on the northeast corner of the intersection is worn.							
	corner of the intersection is worn.							
	Northbound pavement markings and	Study to develop new signing						
	signing do not address the lane drop.	and pavement markings.						



			LEVEL	OF EFFORT I	REQUIRED	POTENTIAL SAFETY BENEFIT			
	SAFETY ISSUE	REMEDIAL ACTION	LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH	
39	Southbound side- worn "CR 621" with arrow sign assembly north of Magnolia	Replace with new sign and post.	X			X			
40	Southbound side- south of Glenwood Avenue- junction box in sidewalk area possible tripping hazard.	Consideration be given to eliminating the tripping hazard.		X		X			
41	Southbound side- school crossing symbol warning sign with ahead plate south of Schellenger Avenue installed on a breakaway post however the stub is too far above the ground.	Correct breakaway post installation.	X			X			
	NIGHTTIM	E FIELD VIEW IDENT	CIFIED T	HE FOLL	OWING SA	FETY IS	SUES		
42	General comment- deficiencies observed in the nighttime field view but already noted in the daytime comments are not repeated in this section.								
43	General comment- Pavement markings and lighting along road are in adequate condition other than those previously mentioned.								
44	Southbound side-"ONE WAY" sign at Forget-Me-Not Road is worn.	Replace worn sign	X			X			
45	Southbound "DO NOT ENTER" sign on NW corner of Glenwood Ave is worn.	Replace with new sign.	X			X			
46	Southbound side- at Rambler Road. The county suggested exploring another possibility for easing the offset for the southbound through lanes. The elimination of existing left turn lane and revising the lane configuration southbound to an exclusive left turn lane and one through lane. The team members concur with this comment.	The county should investigate this suggestion in more detail.		X			X		
47	Southbound side- Worn "SPEED LIMIT 25" on southeast corner of Palm Avenue.	Replace with new sign	X			X			
48	Northbound side- "NO TURN ON RED" sign on southeast corner of Aster Ave.	Replace with new sign	X			X			



## Recommendations

As stated earlier, the intent of the road safety assessment process is to conduct a formal examination of highway features and the surrounding environment that increase the potential for crashes and identify countermeasures that will reduce (or eliminate) the probability of such crashes. The safety issues identified during the conduct of this assessment and included in this report have been organized to provide the convenience and flexibility necessary to allow the implementation of the safety improvements as time and budget limitations allow. To the extent possible, the findings have been separated into line items so that the improvements can be implemented independently as appropriate. Clearly, consolidating a number of the safety recommendations will reduce the overall cost of improvements. We recommend that the appropriate management staff review the findings and decide which items can be completed in the immediate future (within one year). Many of the deficiencies can be corrected in the short term if the roadway owners dedicate both the time and financial resources to the task. The Level of Effort (an estimate of expenditures and man hours) indicated on the finding sheets of the report represent the team's best effort at categorizing each item.

The findings of the report with the greatest potential for reducing the crash experience along the road appear to be items #19 (the installation of a new traffic signal at Sweet Briar Road), 20(the installation of a new traffic signal at Cardinal Road) and 21 (the installation of a new traffic signal at Aster Road). The presence of the service road at these three intersections leading us to believe that they would benefit the most from the installation of new traffic signals better designed to meet the needs of these complicated intersections. Item # 13, the replacement or upgrading of the traffic signal at Rambler Road-Park Avenue and its related pedestrian enhancements, is also an item that would contribute to potential overall safety of the road.

Implementing Items #1 (the installation of ADA compatible handicap ramps along the entire road), 2 (inventorying the method of sign installation and correcting non-conforming sign installations), 5 (replacing worn street name signs) and 6 (evaluating the signal progression) which are all general comments would significantly contribute to the

overall safe operation of the road. Item # 11, the installation of bicycle safe inlet grates (six

(6) of the crashes or 15% of the crashes on the road involved bicyclist) should also be a

priority item for implementation.

Unfortunately, with many roads and many of the assessments we have conducted, there is no

easy quick-fix solution to many of the crash patterns. While the safety assessment focuses on

roadway features, enforcement is still a crucial component of safety on a road. Enforcement

discourages the motorist from becoming lax in obeying or observing the traffic regulations

along the road. Just as resources must be allocated to the physical improvements of the road,

they must also be allocated to enforcement to maintain the safe operation of the road.

The opinions found in the findings of this Safety Assessment report are those of the Safety

Assessment Team, as a whole, and not necessarily the opinions of the SJTPO or the individual

team members.

## Appendix A

## **Crash Data Summary Sheets**

### **NEW JERSEY AVENUE (CR 621)**

### MP 4.19-5.05, 5.70-6.37

### WILDWOOD CREST BOROUGH-WILDWOOD CITY

### CRASH SUMMARY 2008-2010 TOTAL-39 CRASHES

#### Month

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	3		2	2	5	15	6	3	1	1	0

	Time o		Day of Week				
AM Midnight - Noon	Number of Crashes	PM Noon - Midnight	Number of Crashes		Number of Crashes		
Midnight – 1:00		12:00-1300		Monday	5		
1:00 - 2:00		1300-1400	1	Tuesday	7		
2:00 - 3:00		1400-1500	5	Wednesday	4		
3:00 - 4:00		1500-1600	2	Thursday	5		
4:00 - 5:00	1	1600-1700	1	Friday	5		
5:00 - 6:00		1700-1800	3	Saturday	5		
6:00 - 7:00	1	1800-1900	2	Sunday	8		
7:00 - 8:00	1	1900-2000	1				
8:00 - 9:00	2	2000-2100					
9:00 - 10:00	5	2100-2200	2				
10:00 - 11:00	5	2200-2300	3				
11:00 – 12 Noon	2	2300-2400	2				

DAY 30 NIGHT 9

DRY <u>36</u> WET <u>2</u> SNOWY\_\_ ICY\_\_ OTHERS <u>1</u> (UNKNOWN)

CLEAR 38 RAIN 1 SNOW FOG\_\_\_\_

INJURY <u>17</u> NON-INJURY <u>22</u> FATAL <u>0</u>

Right Angle	Same Direction	Left Turn	Right Turn	Same Direction-Side
				Swipe
12	8	1		3
Fixed Object	Head On	Other	Pedestrian	Bike
2	1	2	0	6

Parking Related 4

Year	Number of Crashes
2003	27
2004	28
2005	33
2006	27
2007	19
2008	11
2009	17
2010	11
2011	2
<b>Grand Total</b>	175
2008-2010 Total	39

Month	2003	2004				es by ` 2008		2010	2011	Grand Total	2008-2010 Total
January						1				1	1
February						3				3	3
March											
April										0	0
May						2				2	2
June						4				4	4
July						10				10	10
August						10				10	10
September						4				4	4
October						3				3	3
November						1				1	1
December						1				1	1
Grand Total	0	0	0	0	0	39	0	0	0	39	39

Day of Week	2003	2004				nes by ` 2008		2010	2011	Grand Total	2008-2010 Total
Sunday						8				8	8
Monday						5				5	5
Tuesday						7				7	7
Wednesday						4				4	4
Thursday						5				5	5
Friday						5				5	5
Saturday						5				5	5
Grand Total	0	0	0	0	0	39	0	0	0	39	39

Time of Day	2003	2004				nes by ` 2008		2010	2011	Grand Total	2008-2010 Total
12:00 MIDNIGHT-1:00 AM										0	0
1:00-2:00 AM										0	0
2:00-3:00 AM										0	0
3:00-4:00 AM										0	0
4:00-5:00 AM						1				1	1
5:00-6:00 AM										0	0
6:00-7:00 AM						1				1	1
7:00-8:00 AM						1				1	1
8:00-9:00 AM						2				2	2
9:00-10:00 AM						5				5	5
10:00-11:00 AM						5				5	5
11:00AM-12:00 NOON						2				2	2
12:00-1:00 PM						1				1	1
1:00-2:00 PM						1				1	1
2:00-3:00 PM						5				5	5
3:00-4:00 PM						2				2	2
4:00-5:00 PM						1				1	1
5:00-6:00 PM						3				3	3
6:00-7:00 PM						2				2	2
7:00-8:00 PM						1				1	1
8:00-9:00 PM										0	0
9:00-10:00 PM						2				2	2
10:00-11:00 PM						3				3	3
11:00PM-12:00 MIDNIGHT						2				2	2
<b>Grand Total</b>	0	0	0	0	0	40	0	0	0	40	40

Road Surface Condition	2003	2004		mber o		•		2010	2011	<b>Grand Total</b>	2008-2010 Total
Dry						36				36	36
Wet						2				2	2
Snowy										0	0
lcy										0	0
Slush										0	0
Water (Standing/Moving)										0	0
Sand, Mud, Dirt										0	0
Unknown						1				1	1
Grand Total	0	0	0	0	0	39	0	0	0	39	39

Weather Condition	2003	2004	Nun 2005			es by ` 2008		2010	2011	Grand Total	2008-2010 Total
Clear						38				38	38
Rain										0	0
Snow										0	0
Fog/Smog/Smoke										0	0
Overcast										0	0
Sleet/Hail/Freezing Rain						1				1	1
Grand Total	0	0	0	0	0	39	0	0	0	39	39

Light Condition	2003	2004				es by ` 2008		2010	2011	<b>Grand Total</b>	2008-2010 Total
Daylight						30				30	30
Dawn										0	0
Dusk										0	0
Dark - Street Lights Off										0	0
Dark - No Street Lights										0	0
Dark - Street Lights On/ continu	ious					8				8	8
Dark - Street Lights On/ spot						1				1	1
Grand Total	0	0	0	0	0	39	0	0	0	39	39

Crash History 1/1/2003 - 4/29/2011

Severity	2003	2004			f Crash 2007	•		2010	2011	Grand Total	2008-2010 Total
Fatal										0	0
Injury						17				17	17
Property Damage Only						22				22	22
Grand Total	0	Λ	Λ	Λ	Λ	30	Λ	Λ	Ω	30	30

Crash Type 20	003	2004	Num 2005			es by <b>\</b> 2008		2010	2011	Grand Total	2008-2010 Total
Same Direction - Rear End						8				8	8
Same Direction - Side Swipe						3				3	3
Right Angle						12				12	12
Opposite Direction - Head On, Angu	ılar					1				1	1
Opposite Direction - Side Swipe										0	0
Struck Parked Vehicle						4				4	4
Left Turn / U Turn										0	0
Backing						1				1	1
Encroachment										0	0
Overturned										0	0
Fixed Object						2				2	2
Animal										0	0
Pedestrain										0	0
Pedalcyclist						6				6	6
Non-fixed Object										0	0
Other						1				1	1
<b>Grand Total</b>	0	0	0	0	0	38	0	0	0	38	38

Nearest Cross Street	2003	2004				es by \ 2008		2010	2011	<b>Grand Total</b>	2008-2010 Total
NEW JERSEY AVENUE						1				1	1
LOTUS ROAD						1				1	1
PALM ROAD										0	0
100 EAST PALM ROAD										0	0
FERN ROAD						1				1	1
FORGET-ME-NOT ROAD										0	0
ROSEMARY ROAD										0	0
COLUMBINE ROAD						2				2	2
SWEET BRIAR ROAD										0	0
CARDINAL ROAD						3				3	3
ASTER ROAD						2				2	2
HEATHER ROAD						1				1	1
LAVENDER ROAD						2				2	2
BUTTERCUP ROAD										0	0
MORNING GLORY ROAD										0	0
CRESSE AVENUE						1				1	
										0	0
Grand Total	0	0	0	0	0	14	0	0	0	14	13

Crash Type				nber of						Grand Total	2008-2010
Same Direction - Rear End	2003	0	3	<b>2006</b>	1	0	2009	0	0	9	Total 2
ASTER ROAD	1	U	1		'	U	1	U	U	3	1
COLUMBINE ROAD	•		1				•			1	0
CRESSE AVENUE			1				1			2	1
HEATHER ROAD			•		1		•			1	0
ROSEMARY ROAD				1	-					1	0
SWEET BRIAR ROAD				1						1	0
Same Direction - Side Swipe	1	0	2	0	1	0	0	1	0	5	1
ASTER ROAD	-		1		-			-		1	0
CARDINAL ROAD					1					1	0
COLUMBINE ROAD								1		1	1
FORGET-ME-NOT RD			1							1	0
SWEET BRIAR ROAD	1		•							1	0
Right Angle	1	1	3	2	2	1	2	3	1	16	6
ASTER ROAD			1	_		•		1		2	1
CARDINAL ROAD							1			1	1
COLUMBINE ROAD							1			1	1
CRESSE AVENUE			1		1		•			2	0
FERN ROAD			-		-			1		1	1
HEATHER ROAD			1	1				•		2	0
LAVENDER ROAD			•	•		1		1	1	3	2
LOTUS ROAD		1								1	0
MORNING GLORY ROAD	1	•								1	0
SWEET BRIAR ROAD	·			1	1					2	0
Opposite Direction - Head On, A	Angular			•	•					0	0
Opposite Direction - Side Swipe										0	0
Struck Parked Vehicle	0	2	1	2	0	0	1	1	1	8	2
CARDINAL ROAD	-		1	1				1	1	4	1
CRESSE AVENUE		1	-	•				-	-	1	0
NEW JERSEY AVENUE		•					1			1	1
PALM ROAD		1		1						2	0
Left Turn / U Turn	0	0	0	1	0	0	0	0	0	<u></u>	0
SWEET BRIAR ROAD	-			1						1	0
Backing	1	0	0	0	0	0	0	1	0	2	1
HEATHER ROAD								1		1	1
NEW JERSEY AVENUE	1									1	0
Encroachment	-									0	0
Overturned										0	0
Fixed Object	1	1	0	0	0	0	1	0	0	3	1
100 E. PALM ROAD		1								1	0
BUTTERCUP ROAD	1									1	0
CARDINAL ROAD							1			1	1
Animal										0	0
Pedestrain										0	0
Pedalcyclist	0	0	0	0	3	0	0	1	0	4	1
COLUMBINE ROAD	-	-		-	1		-			1	0
CRESSE AVENUE					1					1	0
HEATHER ROAD					1					1	0
LOTUS ROAD								1		1	1
Non-fixed Object										0	0
Railcar - Vehicle										0	0
Other	2	2	0	0	0	0	0	0	0	4	0
ASTER ROAD		1		-	-	-				1	0
CARDINAL ROAD	1	•								1	0
CRESSE AVENUE	1									1	0
FORGET-ME-NOT ROAD	-	1								1	0
Grand Total	7	6	9	7	7	1	6	7	2	52	14
- · · · · · · · · · · · · · · · · · · ·										<b>V</b> -	

Year	Number of Crashes
2003	20
2004	22
2005	24
2006	20
2007	12
2008	10
2009	11
2010	4
<b>Grand Total</b>	123
2008-2010 Total	25

Month		Ν	lumbe		Grand Total	2008-2010				
Worth	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total	Total
January	2	1		1					4	0
February	1		2			1			4	1
March										0
April	2	1	1	2					6	0
May	1	3	3	1		1		1	10	2
June	1	5	2	3	2	2			15	2
July		3	3	2	3	3			14	3
August	5	2	4	5	3		7	1	27	8
September	5	4	4	3	1		3	1	21	4
October	2	2	3	2	2	2		1	14	3
November	1			1		1			3	1
December		1	2		1		1		5	1
Grand Total	20	22	24	20	12	10	11	4	123	25

Day of Week		N	lumbe		Grand Total	2008-2010				
Day of week	2003	2004	2005	2006	2007	2008	2009	2010	Granu rotai	Total
Sunday	5	3	1	3	1	2	1		16	3
Monday		4	2	7	1	2	1		17	3
Tuesday	2	2	4		1		2	1	12	3
Wednesday	2	4	2	3	2	1	1	1	16	3
Thursday	4	2	7	3	3	2	3		24	5
Friday	4	6	2	3	2	2	1		20	3
Saturday	3	1	6	1	2	1	2	2	18	5
<b>Grand Total</b>	20	22	24	20	12	10	11	4	123	25

Time of Day	Number of Crashes by Year Grand Tota											
Time of Day	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total	Total		
12:00 MIDNIGHT-1:00 AM			1						1	0		
1:00-2:00 AM	1			1					2	0		
2:00-3:00 AM	1								1	0		
3:00-4:00 AM	2	1		1					4	0		
4:00-5:00 AM					1		1		2	1		
5:00-6:00 AM									0	0		
6:00-7:00 AM		1							1	0		
7:00-8:00 AM		1		1		1			3	1		
8:00-9:00 AM	1				1				2	0		
9:00-10:00 AM	1		2			1	1	1	6	3		
10:00-11:00 AM		3	3	2		2	1	1	12	4		
11:00AM-12:00 NOON	1	3		1	1		1	1	8	2		
12:00-1:00 PM	1	2	4		4				11	0		
1:00-2:00 PM		2	1	1	2				6	0		
2:00-3:00 PM			2			1		1	4	2		
3:00-4:00 PM	3		1	1		1			6	1		
4:00-5:00 PM	1	3	4				1		9	1		
5:00-6:00 PM			1	2			1		4	1		
6:00-7:00 PM	3	2	1	4			2		12	2		
7:00-8:00 PM			2	3			1		6	1		
8:00-9:00 PM	1	1		1	2				5	0		
9:00-10:00 PM	2		1	1	1	1			6	1		
10:00-11:00 PM	1	1	1			2	1		6	3		
11:00PM-12:00 MIDNIGHT	1	2		1		1	1		6	2		
Grand Total	20	22	24	20	12	10	11	4	123	25		

Road Surface		N	lumbe		Grand Total	2008-2010				
Condition	2003	2004	2005	2006	2007	2008	2009	2010	Granu rotai	Total
Dry	17	19	24	16	12	10	11	4	113	25
Wet	2	3		4					9	0
Snowy	1								1	0
Grand Total	20	22	24	20	12	10	11	4	123	25

Weather Condition		N	lumbe		Grand Total	2008-2010				
weather Condition	2003	2004	2005	2006	2007	2008	2009	2010	Granu Total	Total
Clear	18	19	24	16	12	10	11	4	114	25
Rain	1	3		2					6	0
Snow	1								1	0
Overcast				2					2	0
Sleet/Hail/Freezing Rain									0	0
Grand Total	20	22	24	20	12	10	11	4	123	25

Light Condition		N	lumbe		Grand Total	2008-2010				
Light Condition	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total	Total
Daylight	11	16	20	14	8	6	8	4	87	18
Dawn									0	0
Dusk				1	1				2	0
Dark - Street Lights Off									0	0
Dark - No Street Lights		1							1	0
Dark - Street Lights On/ continuous	9	5	4	5	2	4	2		31	6
Dark - Street Lights On/ spot					1		1		2	1
Grand Total	20	22	24	20	12	10	11	4	123	25

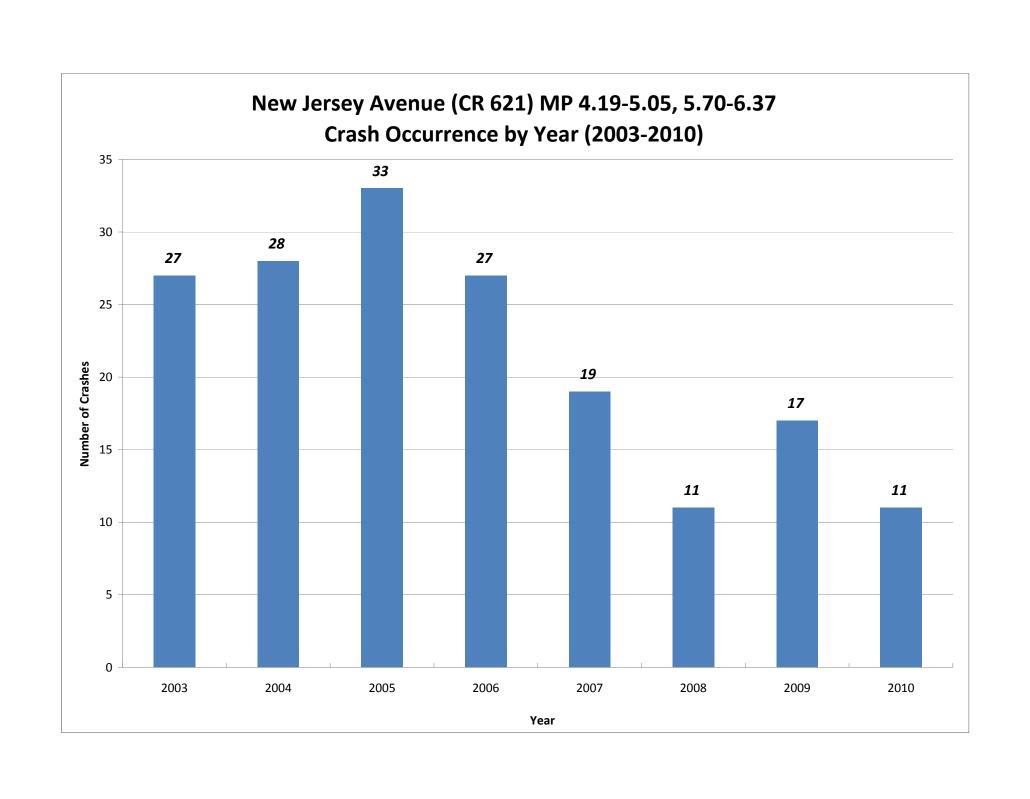
Severity		N	lumbe		Grand Total	2008-2010				
	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total	Total
Fatal				1					1	0
Injury	4	6	5	6	3	6	4	1	35	11
Property Damage Only	16	16	19	13	9	4	7	3	87	14
Grand Total	20	22	24	20	12	10	11	4	123	25

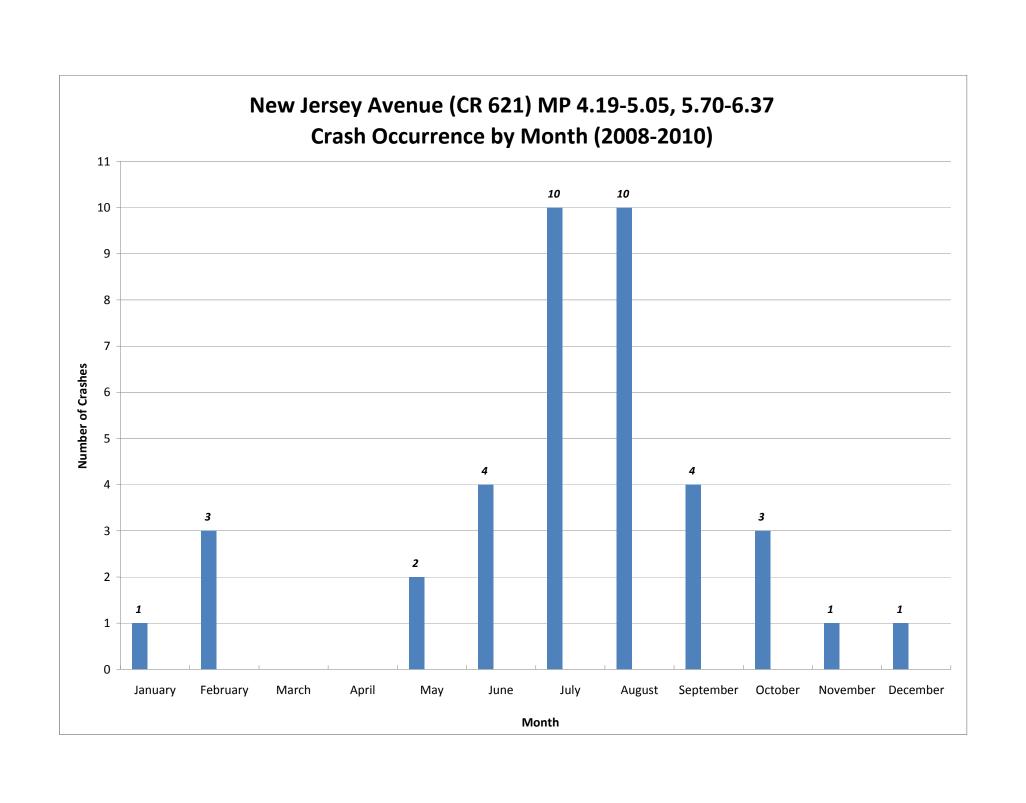
Creek Tyre		Ν	lumbe		Grand Total	2008-2010				
Crash Type	2003	2004	2005	2006	2007	2008	2009	2010	Grand Total	Total
Same Direction - Rear End		3	5	3	7	3	3		24	6
Same Direction - Side Swipe	5	1	4	3	2		1	1	17	2
Right Angle	3	7	5	6	1	2	2	2	28	6
Opposite Direction - Head On / Angular				1			1		2	1
Opposite Direction - Side Swipe									0	0
Struck Parked Vehicle	5	1	3		1	1	1		12	2
Left Turn / U Turn	2	1	1		1	1			6	1
Backing		2	1	1					4	0
Encroachment									0	0
Overturned									0	0
Fixed Object				2			1		3	1
Animal									0	0
Pedestrain				3					3	0
Pedalcyclist				1		2	2	1	6	5
Non-fixed Object									0	0
Railcar - Vehicle									0	0
Other	4	5	4			1			14	1
Unknown	1	2	1						4	0
Grand Total	20	22	24	20	12	10	11	4	123	25

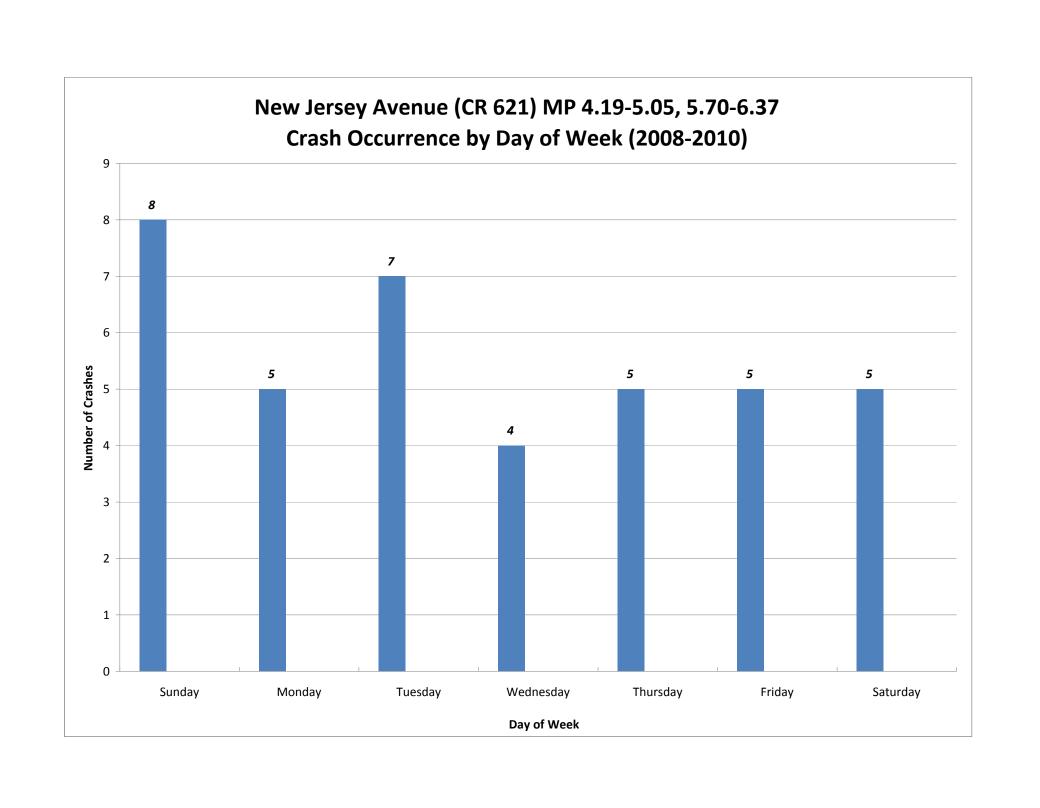
Nearest Cross Street	2003					by Yea 2008		2010	Grand Total	2008-2010 Total
3801 NEW JERSEY AVENUE		1							1	0
3711 NEW JERSEY AVENUE	1	1							2	0
3701 NEW JERSEY AVENUE		1							1	0
RITE AID PARKING LOT		1							1	0
3401 NEW JERSEY AVENUE	1								1	0
3200 NEW JERSEY AVENUE			2						2	0
WAWA PARKING LOT		1							1	0
100 EAST MAPLE AVE					1				1	0
PRIVATE PROPERTY	1	3	1						5	0
YOUNG AVENUE	1		2	2		2			7	2
SPENCER AVENUE	2	1					1		4	1
SPICER AVENUE	1	3	1	1			1	1	8	2
GARFIELD AVENUE			2	1	3		2		8	2
LINCOLN AVENUE	1		2	2		1			6	1
SCHELLENGER AVENUE	5		3	2	2	1		1	14	2
OAK AVENUE		1		3			3		7	3
WILDWOOD AVENUE	2	1	2	2	1	1	2	1	12	4
PINE AVENUE			2	1	1	1			5	1
MAPLE AVENUE	1		2	1		1			5	1
GLENWOOD AVENUE	1	1	1	1	2	1			7	1
MAGNOLIA AVENUE		2			1		1		4	1
POPLAR AVENUE	2	2							4	0
JUNIPER AVENUE		1	1	1			1	1	5	2
26TH STREET	1	2	3	3	1	2			12	2
Grand Total	20	22	24	20	12	10	11	4	123	25

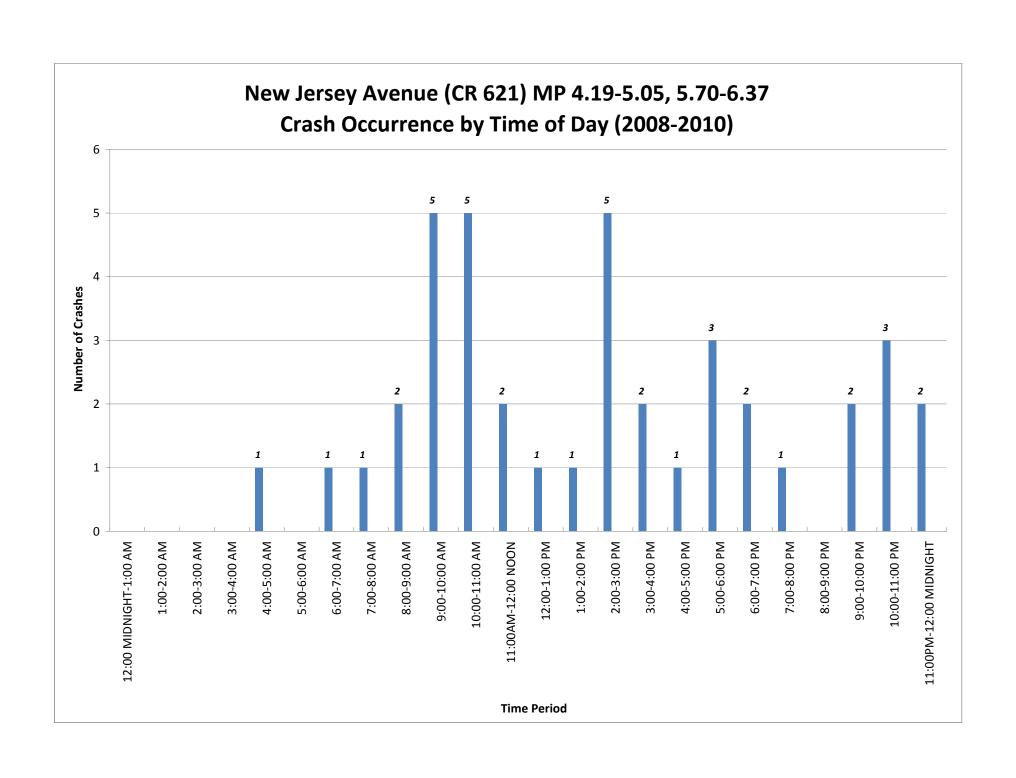
## **Appendix B**

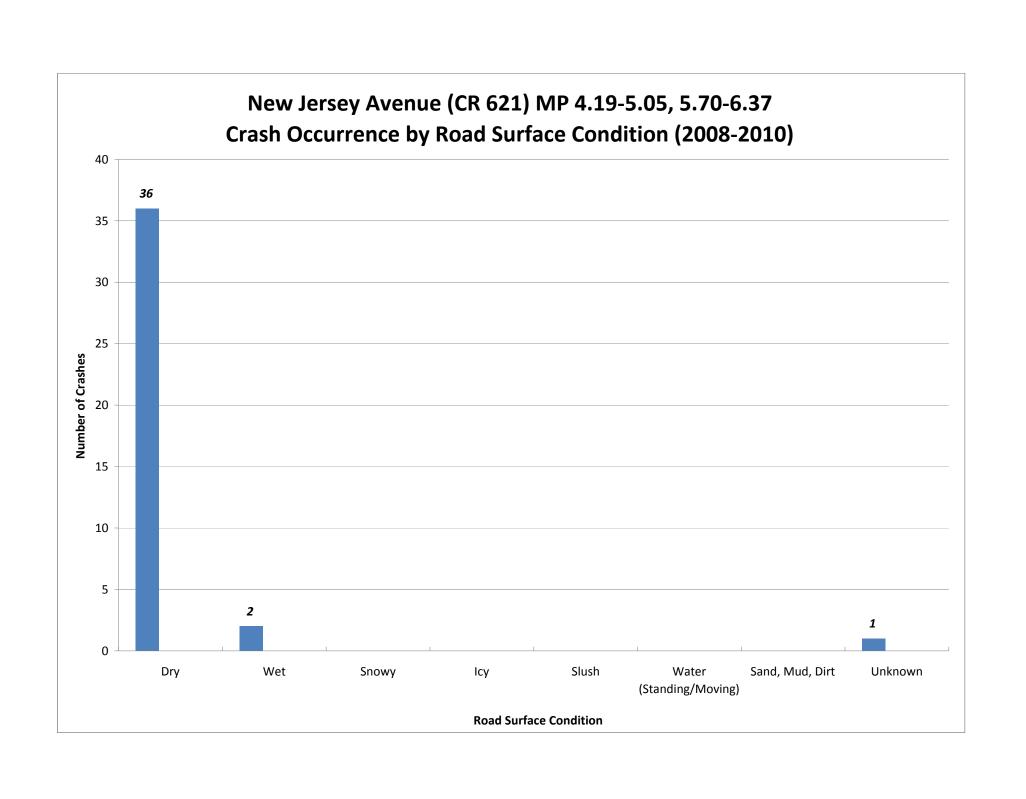
# **Crash Data Charts**

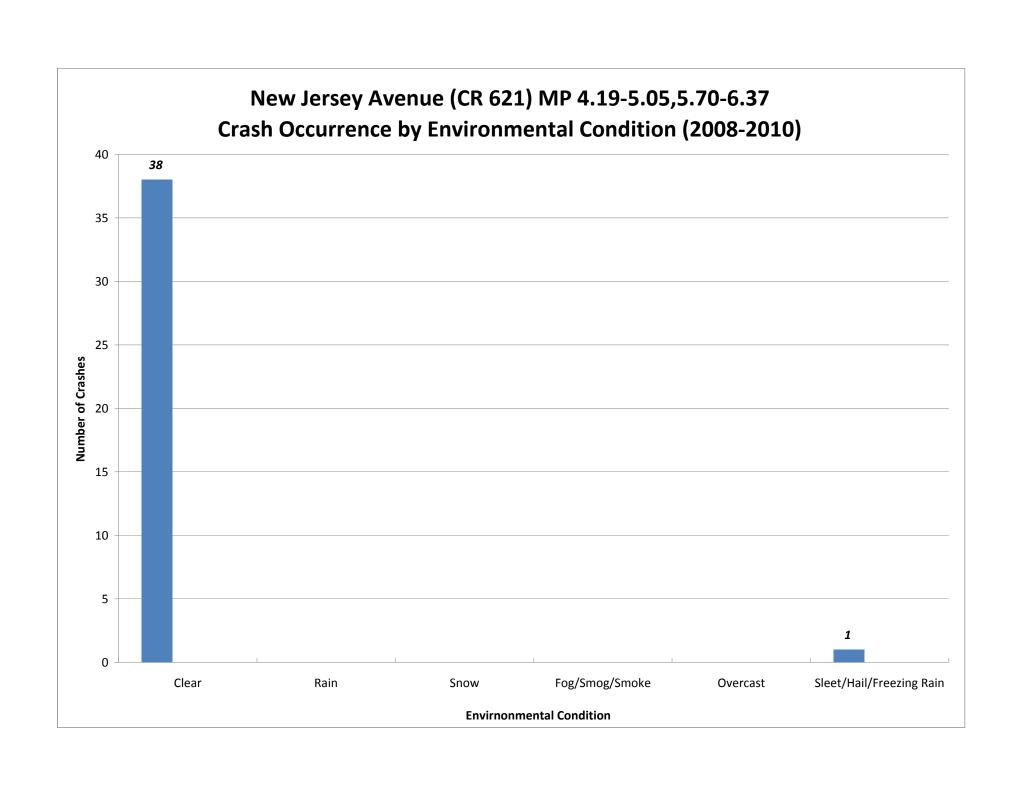


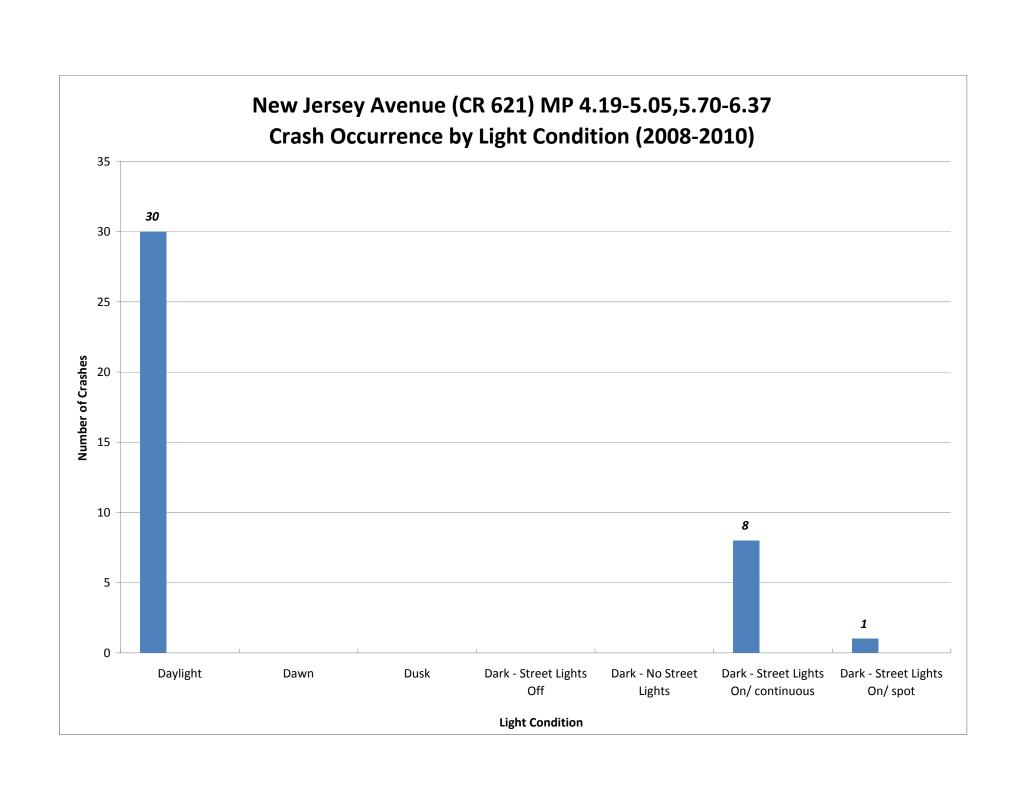


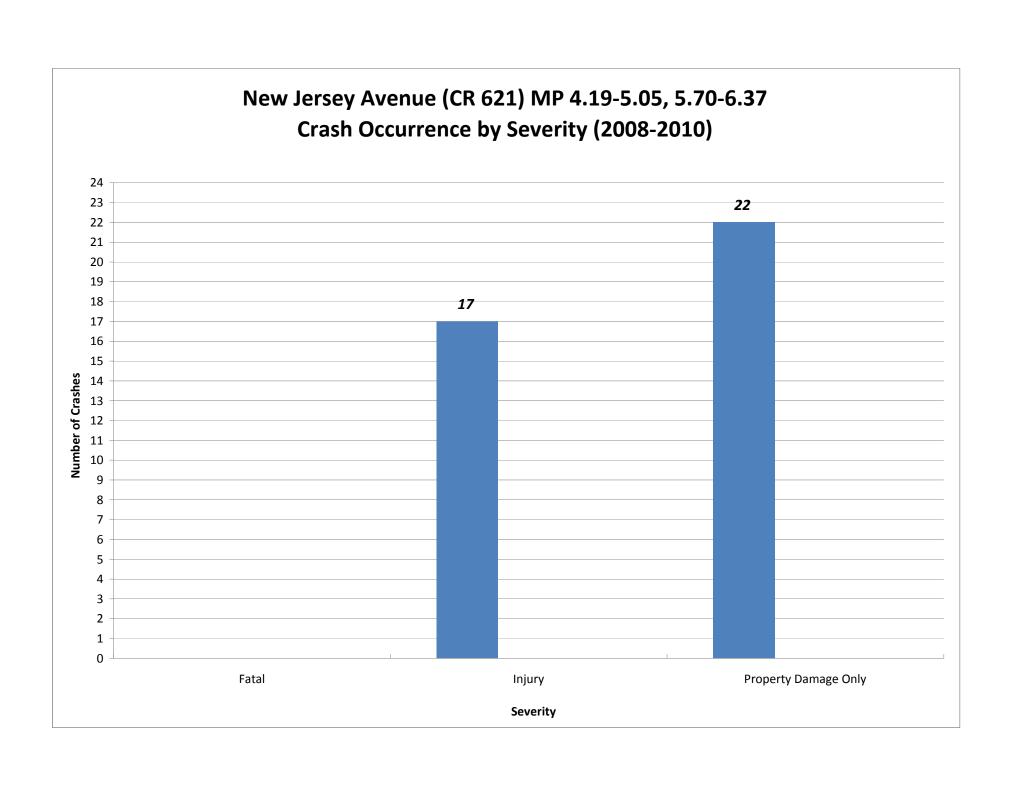


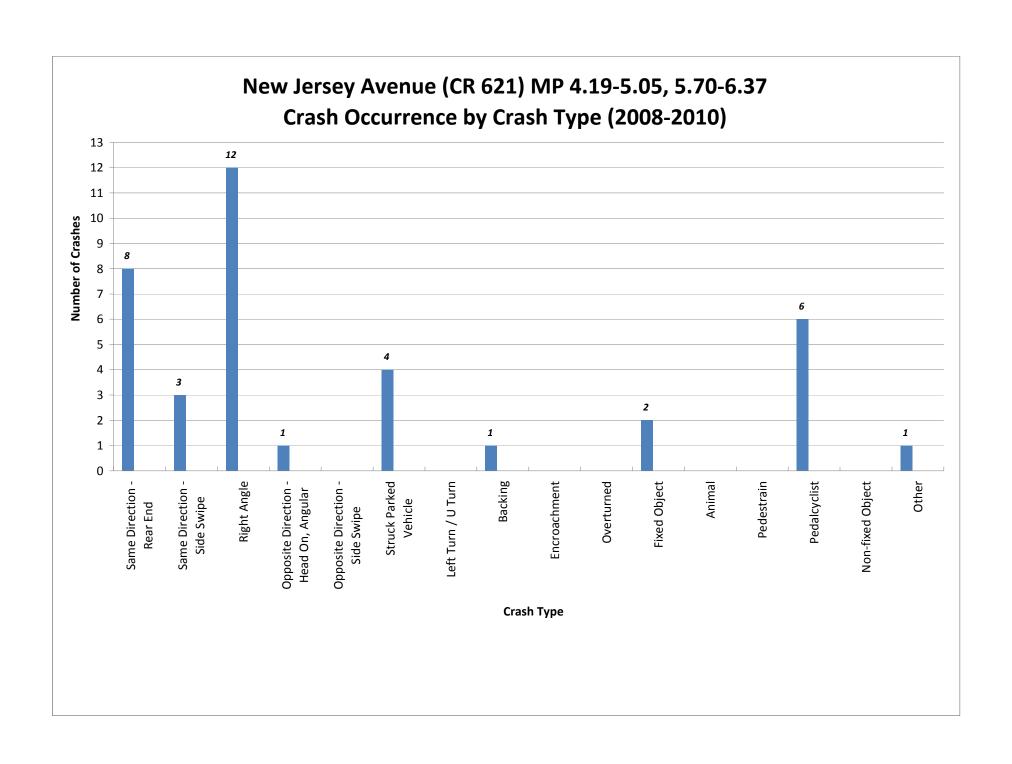


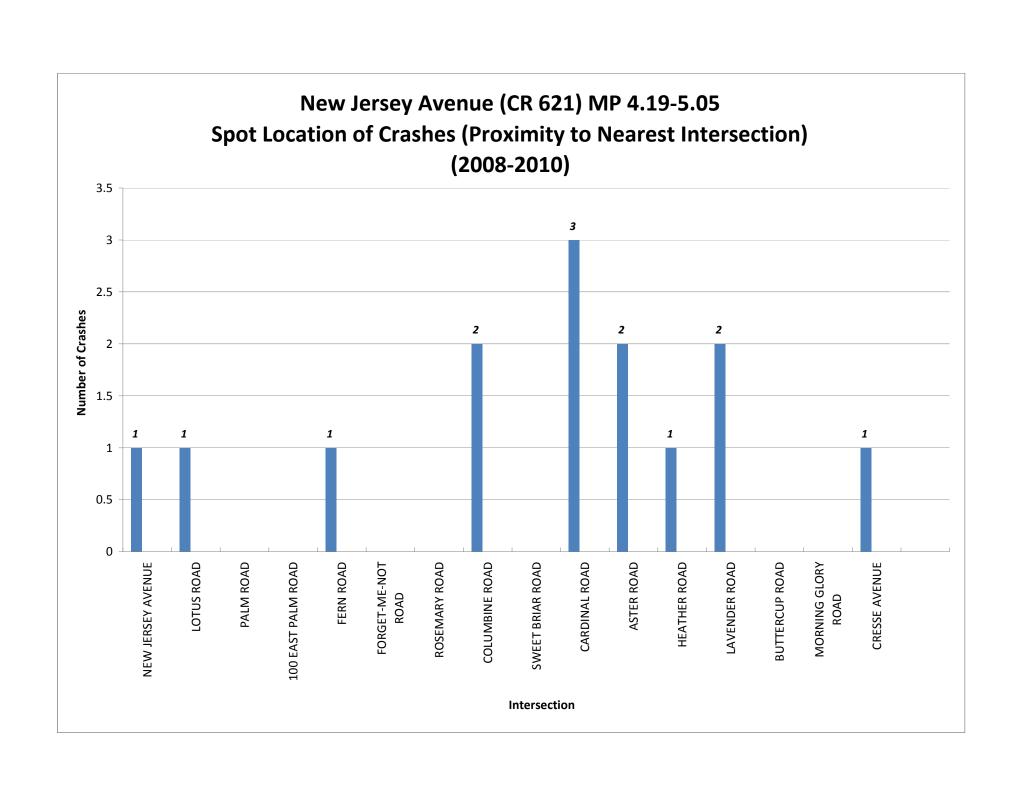












## **Appendix C**

## **Traffic Counts**

West Trenton, NJ 08628

File Name: 009\_08-11-11

Site Code : 00000000 Start Date : 8/11/2011

Page No : 1

									Group	s Printed- U	∪nsniitea				1						
			NJ					26th				NJ						26th			
		S	outhboun	ıd				Vestboun	d			N	orthbou	nd			<u> </u>	Eastboun	d		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
10:00 AM	4	89	7	2	102	8	6	12	4	30	2	78	5	1	86	2	5	3	6	16	234
10:15 AM	8	83	4	0	95	8	4	12	2	26	2	78	7	1	88	2	9	12	6	29	238
10:30 AM	4	85	5	1	95	9	8	11	7	35	1	67	9	2	79	2	3	4	7	16	225
10:45 AM	7	93	7	0	107	18	15	7	5	45	3	90	12	4	109	3	11	9	2	25	286
Total	23	350	23	3	399	43	33	42	18	136	8	313	33	8	362	9	28	28	21	86	983
11:00 AM	7	109	3	5	124	14	13	7	0	34	2	79	10	3	94	2	15	9	0	26	278
11:15 AM	7	107	3	3	120	12	11	5	5	33	0	69	12	1	82	3	13	6	3	25	260
11:30 AM	6	104	4	2	116	11	14	5	8	38	1	96	12	13	122	3	13	13	6	35	311
11:45 AM	6	98	3	7	114	10	11	11	6	38	1	84	15	5	105	2	7	10	2	21	278
Total	26	418	13	17	474	47	49	28	19	143	4	328	49	22	403	10	48	38	11	107	1127
*** BREAK ***																					
12:30 PM	14	110	3	2	129	10	20	9	1	40	5	102	13	3	123	4	17	11	2	34	326
12:45 PM	9	103	3	3	118	17	12	8	7	44	1	95	10	0	106	0	10	9	3	22	290
Total	23	213	6	5	247	27	32	17	8	84	6	197	23	3	229	4	27	20	5	56	616
01:00 PM	8	88	5	1	102	7	11	8	2	28	3	92	5	1	101	3	13	10	5	31	262
01:15 PM	10	70	3	0	83	13	12	7	10	42	3	79	6	5	93	2	9	6	3	20	238
01:30 PM	5	93	2	1	101	14	16	5	9	44	2	79	8	6	95	2	18	6	10	36	276
01:45 PM	12	93	2	0	107	14	16	14	6	50	3	76	12	1	92	0	10	5	2	17	266_
Total	35	344	12	2	393	48	55	34	27	164	11	326	31	13	381	7	50	27	20	104	1042
02:00 PM	5	68	6	0	79	9	6	9	7	31	2	63	13	1	79	5	7	11	5	28	217
02:15 PM	4	82	3	4	93	11	10	7	8	36	2	77	9	3	91	3	10	8	2	23	243
02:30 PM	7	86	3	3	99	13	11	6	1	31	4	67	14	0	85	0	3	8	9	20	235
02:45 PM	6	81	0	9	96	12	12	4	9	37	3	65	10	0	78	2	10	7_	5	24	235
Total	22	317	12	16	367	45	39	26	25	135	11	272	46	4	333	10	30	34	21	95	930
03:00 PM	7	70	1	0	78	10	15	6	4	35	3	66	11	1	81	2	16	5	6	29	223
03:15 PM	3	30	1	0	34	6	10	4	2	22	4	39	2	2	47	1	10	8	1	20	123
*** BREAK ***																					
Total	10	100	2	0	112	16	25	10	6	57	7	105	13	3	128	3	26	13	7	49	346
04:00 PM	10	78	4	6	98	12	17	12	2	43	1	74	13	7	95	1	8	6	9	24	260
04:15 PM	14	93	4	2	113	10	16	7	6	39	5	81	11	0	97	2	8	12	9	31	280
04:30 PM	9	86	2	9	106	12	16	11	5	44	3	72	9	1	85	3	18	17	10	48	283
04:45 PM	10	103	3	5	121	11	26	13	16	66	2	71	12	5	90	3	11	13	7	34	311
Total	43	360	13	22	438	45	75	43	29	192	11	298	45	13	367	9	45	48	35	137	1134

West Trenton, NJ 08628

File Name: 009 08-11-11

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									Group	JS I I III LEU-	Chishiitea										
			NJ					26th				NJ						26th			
		S	outhboun	ıd			V	Vestboun	ıd			N	orthbou	nd			I	Eastboun	d		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
05:00 PM	8	87	5	2	102	16	18	11	4	49	2	83	21	8	114	1	11	12	5	29	294
05:15 PM	17	113	3	1	134	22	22	9	13	66	3	80	14	4	101	0	14	8	9	31	332
05:30 PM	14	77	3	4	98	17	12	8	3	40	4	81	9	2	96	2	6	20	1	29	263
05:45 PM	4	94	6	7	111	12	13	7	6	38	1	77	8	3	89	1	13	6	7	27	265
Total	43	371	17	14	445	67	65	35	26	193	10	321	52	17	400	4	44	46	22	116	1154
Grand Total	225	2473	98	79	2875	338	373	235	158	1104	68	2160	292	83	2603	56	298	254	142	750	7332
Apprch %	7.8	86	3.4	2.7		30.6	33.8	21.3	14.3		2.6	83	11.2	3.2		7.5	39.7	33.9	18.9		
Total %	3.1	33.7	1.3	1.1	39.2	4.6	5.1	3.2	2.2	15.1	0.9	29.5	4	1.1	35.5	0.8	4.1	3.5	1.9	10.2	

		So	NJ outhbour	ıd			V	26th Vestboun	d			NJ N	orthbou	nd			l	26th Eastboun	d		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis	From 10:	00 AM to	02:45 PI	M - Peak	1 of 1										,			•			
Peak Hour for Entir	e Intersect	tion Begir	ns at 10:4	5 AM																	
10:45 AM	7	93	7	0	107	18	15	7	5	45	3	90	12	4	109	3	11	9	2	25	286
11:00 AM	7	109	3	5	124	14	13	7	0	34	2	79	10	3	94	2	15	9	0	26	278
11:15 AM	7	107	3	3	120	12	11	5	5	33	0	69	12	1	82	3	13	6	3	25	260
11:30 AM	6	104	4	2	116	11	14	5	8	38	1	96	12	13	122	3	13	13	6	35	311
Total Volume	27	413	17	10	467	55	53	24	18	150	6	334	46	21	407	11	52	37	11	111	1135
% App. Total	5.8	88.4	3.6	2.1		36.7	35.3	16	12		1.5	82.1	11.3	5.2		9.9	46.8	33.3	9.9		
PHF	.964	.947	.607	.500	.942	.764	.883	.857	.563	.833	.500	.870	.958	.404	.834	.917	.867	.712	.458	.793	.912
Peak Hour Analysis Peak Hour for Entir					1 of 1																
04:30 PM	9	86	2	9	106	12	16	11	5	44	3	72	9	1	85	3	18	17	10	48	283
04:45 PM	10	103	3	5	121	11	26	13	16	66	2	71	12	5	90	3	11	13	7	34	311
05:00 PM	8	87	5	2	102	16	18	11	4	49	2	83	21	8	114	1	11	12	5	29	294
05:15 PM	17	113	3	1	134	22	22	9	13	66	3	80	14	4	101	0	14	8	9	31	332
Total Volume	44	389	13	17	463	61	82	44	38	225	10	306	56	18	390	7	54	50	31	142	1220
% App. Total	9.5	84	2.8	3.7		27.1	36.4	19.6	16.9		2.6	78.5	14.4	4.6		4.9	38	35.2	21.8		
PHF	.647	.861	.650	.472	.864	.693	.788	.846	.594	.852	.833	.922	.667	.563	.855	.583	.750	.735	.775	.740	.919

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									Group	<u>s Printed- U</u>	<b>Inshifted</b>										
			NJ					26th					NJ					26th			
		S	outhboun	d			V	Vestboun	d			N	orthbou	nd			I	Eastboun	d		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
10:00 AM	15	129	11	10	165	18	15	12	6	51	1	89	7	7	104	3	13	18	9	43	363
10:15 AM	5	107	1	10	123	16	12	7	4	39	2	111	9	7	129	4	15	15	21	55	346
10:30 AM	7	116	2	7	132	14	15	12	7	48	3	87	12	2	104	6	16	10	10	42	326
10:45 AM	17	95	5	8	125	11	14	12	10	47	3	126	10	6	145	5	15	14	6	40	357
Total	44	447	19	35	545	59	56	43	27	185	9	413	38	22	482	18	59	57	46	180	1392
11:00 AM	11	110	11	6	138	15	23	15	4	57	3	109	10	7	129	3	16	13	13	45	369
11:15 AM	12	127	7	6	152	19	20	8	8	55	2	107	9	4	122	12	12	18	9	51	380
11:30 AM	12	104	8	6	130	26	19	10	8	63	6	94	15	18	133	6	26	12	10	54	380
11:45 AM	9	124	6	5	144	10	21	9	4	44	2	102	24	3	131	4	19	11	10	44	363
Total	44	465	32	23	564	70	83	42	24	219	13	412	58	32	515	25	73	54	42	194	1492
12:00 PM	18	92	2	5	117	15	10	15	0	40	3	113	14	3	133	3	19	7	9	38	328
12:15 PM	6	79	7	3	95	15	15	10	3	43	5	73	12	3	93	3	17	12	4	36	267
*** BREAK ***					·																
Total	24	171	9	8	212	30	25	25	3	83	8	186	26	6	226	6	36	19	13	74	595
01:00 PM	8	108	4	2	122	9	15	10	9	43	0	71	18	3	92	3	16	7	10	36	293
01:15 PM	3	94	5	2	104	17	26	9	1	53	2	74	11	5	92	8	19	14	3	44	293
01:30 PM	5	108	3	8	124	18	13	11	2	44	3	71	10	3	87	3	18	7	10	38	293
01:45 PM	7	92	6	3	108	15	22	10	5	52	2	101	10	4	117	4	23	6	4	37	314
Total	23	402	18	15	458	59	76	40	17	192	7	317	49	15	388	18	76	34	27	155	1193
Grand Total	135	1485	78	81	1779	218	240	150	71	679	37	1328	171	75	1611	67	244	164	128	603	4672
Apprch %	7.6	83.5	4.4	4.6		32.1	35.3	22.1	10.5		2.3	82.4	10.6	4.7		11.1	40.5	27.2	21.2		
Total %	2.9	31.8	1.7	1.7	38.1	4.7	5.1	3.2	1.5	14.5	0.8	28.4	3.7	1.6	34.5	1.4	5.2	3.5	2.7	12.9	

			NJ					26th					NJ					26th			]
		S	outhbour	nd			V	Vestboun	ıd			N	orthbour	ıd			]	Eastboun	d		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis	From 10	:00 AM to	01:45 PN	M - Peak	1 of 1						'										•
Peak Hour for Entir	e Intersec	tion Begi	ns at 11:0	0 AM																	
11:00 AM	11	110	11	6	138	15	23	15	4	57	3	109	10	7	129	3	16	13	13	45	369
11:15 AM	12	127	7	6	152	19	20	8	8	55	2	107	9	4	122	12	12	18	9	51	380
11:30 AM	12	104	8	6	130	26	19	10	8	63	6	94	15	18	133	6	26	12	10	54	380
11:45 AM	9	124	6	5	144	10	21	9	4	44	2	102	24	3	131	4	19	11	10	44	363
Total Volume	44	465	32	23	564	70	83	42	24	219	13	412	58	32	515	25	73	54	42	194	1492
% App. Total	7.8	82.4	5.7	4.1		32	37.9	19.2	11		2.5	80	11.3	6.2		12.9	37.6	27.8	21.6		
PHF	.917	.915	.727	.958	.928	.673	.902	.700	.750	.869	.542	.945	.604	.444	.968	.521	.702	.750	.808	.898	.982

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Crounc Printed Unchifted

										s Printed- U	<b>Inshifted</b>										1
			ific Aver					nbler Ave					ific Ave					nbler Ave			
		So	outhboun	d			V	Vestboun	d			No	orthbou	nd			I	Eastboun	d		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
10:00 AM	4	35	1	1	41	1	9	1	0	11	6	55	2	12	75	2	8	6	1	17	144
10:15 AM	0	29	1	1	31	2	3	5	3	13	8	63	6	0	77	2	6	4	2	14	135
10:30 AM	6	36	1	2	45	2	6	4	3	15	3	48	3	2	56	0	9	6	8	23	139
10:45 AM	0	39	3	0	42	2	2	6	0	10	3	62	1_	3	69	4	12	7	8		152
Total	10	139	6	4	159	7	20	16	6	49	20	228	12	17	277	8	35	23	19	85	570
11:00 AM	3	28	0	1	32	4	7	4	0	15	7	59	4	1	71	2	8	3	2	15	133
11:15 AM	3 1	52	0	4	57	0	5	4	4	13	5	45	2	0	52	1	18	5	2		148
11:30 AM	4	53	0	0	57	1	12	7	5	25	1	59	1	0	61	1	13	0	3		160
11:45 AM	4	39	1	6	50	3	6	4	0	13	8	72	2	0	82	2	14	11	3		175
Total	12	172	1	11	196	8	30	19	9	66	21	235	9	1	266	6	53	19	10	88	616
12:00 PM	3	40	2	0	45	1	3	7	0	11	1	53	1	0	55	0	18	9	2		140
12:15 PM	3	38	0	1	42	7	9	2	4	22	4	73	3	0	80	2	15	9	2		172
12:30 PM	2	39	1	1	43	0	8	2	0	10	4	70	3	4	81	0	11	7	4		156
12:45 PM	1	30	3	2	36	11	4	2	2	9	5	40	2	1_	48	3	13	9	5		123
Total	9	147	6	4	166	9	24	13	6	52	14	236	9	5	264	5	57	34	13	109	591
*** BREAK ***																					
01:30 PM	1	30	0	0	31	3	7	2	1	13	1	64	10	2	77	0	10	4	0	14	135
01:45 PM	2	32	0	0	34	3	8	4	3	18	4	34	4	9	51	0	11	2	1	14	117
Total	3	62	0	0	65	6	15	6	4	31	5	98	14	11	128	0	21	6	1	28	252
02:00 PM	2	25	3	5	35	3	2	3	1	9	0	47	5	0	52	1	10	5	1	17	113
02:15 PM	1	35	1	3	40	0	8	7	2	17	3	56	2	2	63	0	10	8	0		138
02:30 PM	0	40	3	0	43	2	8	4	1	15	3	49	3	1	56	0	10	7	2		133
02:45 PM	3	30	0	2	35	2	6	3	3	14	3	57	3	1	64	11	10	5	4		133
Total	6	130	7	10	153	7	24	17	7	55	9	209	13	4	235	2	40	25	7	74	517
03:00 PM	0	28	2	0	30	2	5	4	6	17	4	56	2	4	66	0	6	5	0	11	124
03:15 PM	1	31	1	0	33	2	7	3	1	13	1	72	0	1	74	2	10	4	1	17	137
03:30 PM	5	32	0	0	37	1	4	3	5	13	8	52	3	0	63	4	14	8	3		142
03:45 PM	2	31	0	2	35	1	4	2	4	11	6	41	2	1	50	1	12	3	2	18	114
Total	8	122	3	2	135	6	20	12	16	54	19	221	7	6	253	7	42	20	6	75	517
*** BREAK ***																					
04:30 PM	0	37	0	2	39	4	4	4	0	12	4	70	2	1	77	2	10	6	1	19	147
04:45 PM	1	40	3	0	44	3	12	6	3	24	2.	70 72	3	2	79	2	7	8	1	19	165
Total	1	77	3	2	83	<u>3</u> 7	16	10	3	36	6	142	<u>5</u>	3	156	4	17	14	2		312
i Otai	1	, ,	3	2	63	,	10	10	3	50	U	1+4	3	3	150	4	1 /	1+	2	31	314

West Trenton, NJ 08628

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									0100	Jo I I IIII CCG	C 110111100										
			cific Aver				Ran	nbler Av	enue			Pa	cific Aver	nue			Rar	nbler Av	enue		
		S	outhboun	ıd				Vestbour	ıd			N	orthbour	ıd			]	Eastboun	d		<u> </u>
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
05:00 PM	5	49	2	0	56	4	10	4	1	19	2	55	4	0	61	2	5	4	0	11	147
05:15 PM	2	31	1	4	38	2	10	5	1	18	6	73	4	3	86	3	8	6	1	18	160
05:30 PM	1	38	3	0	42	5	6	3	5	19	4	71	2	8	85	0	7	6	1	14	160
05:45 PM	2	39	0	1	42	6	11	2	4	23	5	55	3	8	71	1	7	4	0	12	148
Total	10	157	6	5	178	17	37	14	11	79	17	254	13	19	303	6	27	20	2	55	615
Grand Total	59	1006	32	38	1135	67	186	107	62	422	111	1623	82	66	1882	38	292	161	60	551	3990
Apprch %	5.2	88.6	2.8	3.3		15.9	44.1	25.4	14.7		5.9	86.2	4.4	3.5		6.9	53	29.2	10.9		
Total %	1.5	25.2	0.8	1	28.4	1.7	4.7	2.7	1.6	10.6	2.8	40.7	2.1	1.7	47.2	1	7.3	4	1.5	13.8	ĺ

			rific Aver					nbler Avo Vestboun					cific Ave					nbler Ave Eastboun			
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis	s From 10:	00 AM to	02:45 PN	M - Peak	1 of 1																
Peak Hour for Entir	re Intersec	tion Begii	ns at 11:30	0  AM																	
11:30 AM	4	53	0	0	57	1	12	7	5	25	1	59	1	0	61	1	13	0	3	17	160
11:45 AM	4	39	1	6	50	3	6	4	0	13	8	72	2	0	82	2	14	11	3	30	175
12:00 PM	3	40	2	0	45	1	3	7	0	11	1	53	1	0	55	0	18	9	2	29	140
12:15 PM	3	38	0	1	42	7	9	2	4	22	4	73	3	0	80	2	15	9	2	28	172
Total Volume	14	170	3	7	194	12	30	20	9	71	14	257	7	0	278	5	60	29	10	104	647
% App. Total	7.2	87.6	1.5	3.6		16.9	42.3	28.2	12.7		5	92.4	2.5	0		4.8	57.7	27.9	9.6		
PHF	.875	.802	.375	.292	.851	.429	.625	.714	.450	.710	.438	.880	.583	.000	.848	.625	.833	.659	.833	.867	.924
Peak Hour Analysis					1 of 1																
Peak Hour for Enti	re Intersec	tion Begii	ns at 04:4:	5 PM																	
04:45 PM	1	40	3	0	44	3	12	6	3	24	2	72	3	2	79	2	7	8	1	18	165
05:00 PM	5	49	2	0	56	4	10	4	1	19	2	55	4	0	61	2	5	4	0	11	147
05:15 PM	2	31	1	4	38	2	10	5	1	18	6	73	4	3	86	3	8	6	1	18	160
05:30 PM	1	38	3	0	42	5	6	3	5	19	4	71	2	8	85	0	7	6	1	14	160
Total Volume	9	158	9	4	180	14	38	18	10	80	14	271	13	13	311	7	27	24	3	61	632
% App. Total	5	87.8	5_	2.2		17.5	47.5	22.5	12.5		4.5	87.1	4.2	4.2		11.5	44.3	39.3	4.9		
PHF	.450	.806	.750	.250	.804	.700	.792	.750	.500	.833	.583	.928	.813	.406	.904	.583	.844	.750	.750	.847	.958

West Trenton, NJ 08628

File Name: 010\_08-13-11

Site Code : 00000000 Start Date : 8/13/2011

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										ps Printea- u	Unshiited										
			cific Aver					nbler Ave					cific Aver					abler Ave			
		S	outhboun	d			V	Vestboun	d			N	orthbour	ıd			I	Eastboun	d		
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
10:00 AM	3	59	1	9	72	2	9	5	6	22	8	100	5	5	118	0	18	8	0	26	238
10:15 AM	1	50	2	5	58	5	18	3	2	28	6	83	6	1	96	1	19	14	5	39	221
10:30 AM	6	59	1	2	68	1	13	12	3	29	5	83	4	2	94	2	16	11	3	32	223
10:45 AM	2	48	2	3	55	2	11	3	1	17	5	78	2	12	97	1	17	9	6	33	202
Total	12	216	6	19	253	10	51	23	12	96	24	344	17	20	405	4	70	42	14	130	884
·																					
11:00 AM	2	51	3	6	62	5	10	4	2	21	5	87	6	9	107	0	11	10	4	25	215
11:15 AM	5	51	1	3	60	6	10	8	3	27	3	68	2	7	80	2	17	4	3	26	193
11:30 AM	3	44	0	3	50	3	15	6	5	29	2	82	7	4	95	2	24	6	3	35	209
11:45 AM	3	66	3	3	75	6	11	5	5	27	8	66	2	6	82	3	17	11	2	33	217
Total	13	212	7	15	247	20	46	23	15	104	18	303	17	26	364	7	69	31	12	119	834
					1																
12:00 PM	4	51	2	3	60	6	10	4	4	24	6	94	7	1	108	4	14	16	6	40	232
12:15 PM	4	50	1	0	55	5	9	1	7	22	8	81	5	0	94	3	20	10	13	46	217
*** BREAK ***	_																			_	
Total	8	101	3	3	115	11	19	5	11	46	14	175	12	1	202	7	34	26	19	86	449
01 00 PM		40		2	co.	2	0	_	2	10		7.0			07	4	1.7	0	0	20	104
01:00 PM	6	48	4	2	60	3	8	5	2	18	4	76	6	1	87	4	17	8	0	29	194
01:15 PM	3	52	4	1	60	1	9	9	2	22	3	78	2	1	84	1	20	8	2	31	197
01:30 PM	3	42	2	1	48	4	8	3	_	17	8	76	2	6	92	0	24	1	1	32	189
01:45 PM	17	45	10	I	51	12	6	4	9	17	10	65	4	12	76	7	15	6	0	23	167
Total	1/	187	10	5	219	13	31	21	9	74	18	295	14	12	339	/	76	29	3	115	747
Grand Total	50	716	26	42	834	54	147	72	47	320	74	1117	60	59	1310	25	249	128	48	450	2914
Appreh %	6	85.9	3.1	5	634	16.9	45.9	22.5	14.7	320	5.6	85.3	4.6	4.5	1310	5.6	55.3	28.4	10.7	430	2914
Total %	1.7	24.6	0.9	1.4	28.6	1.9	43.9	2.5	1.6	11	2.5	38.3	2.1	4.3	45	0.9	8.5	4.4	1.6	15.4	
10tai 70	1./	∠4.0	0.9	1.4	20.0	1.9	3	2.5	1.0	11	2.5	50.5	2.1		43	0.9	0.5	4.4	1.0	13.4	l

			cific Aver					nbler Av Vestbour					cific Aver orthbour					nbler Av Eastboun			
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis	From 10	:00 AM to	01:45 PN	M - Peak	1 of 1						'				'					•	•
Peak Hour for Entir	e Intersec	tion Begi	ns at 10:0	0 AM																	
10:00 AM	3	59	1	9	72	2	9	5	6	22	8	100	5	5	118	0	18	8	0	26	238
10:15 AM	1	50	2	5	58	5	18	3	2	28	6	83	6	1	96	1	19	14	5	39	221
10:30 AM	6	59	1	2	68	1	13	12	3	29	5	83	4	2	94	2	16	11	3	32	223
10:45 AM	2	48	2	3	55	2	11	3	1	17	5	78	2	12	97	1	17	9	6	33	202
Total Volume	12	216	6	19	253	10	51	23	12	96	24	344	17	20	405	4	70	42	14	130	884
% App. Total	4.7	85.4	2.4	7.5		10.4	53.1	24	12.5		5.9	84.9	4.2	4.9		3.1	53.8	32.3	10.8		
PHF	.500	.915	.750	.528	.878	.500	.708	.479	.500	.828	.750	.860	.708	.417	.858	.500	.921	.750	.583	.833	.929

#### **Appendix D**

## **Straight Line Diagram**

