
South Jersey Transportation Planning Organization

2007 Road Safety Audit

**Shunpike Road (CR 620)
Middle Township,
Cape May County**



Prepared By:



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In Association with:



April 19, 2007

Introduction

Orth-Rodgers & Associates, Inc. (ORA) was selected by the South Jersey Transportation Planning Organization (SJTPO) to conduct their 2007 Road Safety Audit (RSA) program. 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. Except at the intersection of a state highway with the study roadway, state highways were excluded from the process. County and local officials cooperated with the SJTPO in identifying roads that meet these parameters.

Four roadway sections were chosen for the 2007 audits. Two of the roadways are located in Cape May County; one is in Salem County, and one in Atlantic County. The four roadway sections are:

1. Shunpike Road (CR 620) entire length, between Indian Trail Road (CR 618) and Dias Creek Road (CR 612) in Township of Middle, Cape May County.
2. Fire Road (CR 651), between Tilton Avenue (CR 563) and Delilah Road (MP 7.91-9.97) in the Township of Egg Harbor, Atlantic County. Additionally, a section from Mill Road to Tilton Road (MP 6.67-7.91) is to be scanned.
3. Dennisville-Petersburg Road (CR 610) entire length, between Route 47 and Tuckahoe Road (CR 631) (MP 0.00-7.77), in the Townships of Dennis and Upper, Borough of Woodbine, Cape May County. A yet to be determined section of this road will be scanned.
4. Buck-Centerton Road (CR 553) between the Cumberland County border and the Gloucester County border (MP 26.97-34.78) in the Townships of Pittsgrove and Upper Pittsgrove. This includes a very short section of CR 540 (MP 25.90-25.98). Approximately two miles of the road will be audited and the remainder scanned.

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

Safety audits 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 audit 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 audit 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.”¹

To accomplish these goals, the audit 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 2007 audit is to identify potential safety deficiencies along the selected sections of the four roadways.

There are three primary parts of the audit: 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 audit 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

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

and where improvements may be needed. Based on an analysis of all of the data, the audit team can conduct a productive and comprehensive evaluation of the roads being studied. A multi-disciplinary team conducts the field view. In this case, the team walked the entire length of the study area beginning at Dias Creek Road (CR 612) and walking south to Indian Trail Road (CR 618) discussing observations and taking notes for inclusion in the report. The team leader then prepared a **draft report** that documented the audits 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

Prior to the audit, ORA e-mailed a list of questions to the County seeking to gather background information on Shunpike Road. The questions asked were:

- Why was the road chosen for the audit?
- 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 audit to ensure that no available data was missing. Since Cape May County had already participated in previous road safety audits, ORA did not schedule a general kick-off meeting. However, a pre-audit

information package was prepared and distributed in advance of the workshop and field view. The package included a brief explanation of what a safety audit is, why safety audits are conducted, and the process involved. It also included a chart of three and one-half 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. All team members were asked to review the information package prior to attending the workshop and audit. Also, prior to the audit, ORA had contacted the Middle Township Police Departments and spoke to Captain Scott Webster to explain the purposes and process involved in the audit. Since most of the scheduled team members had already participated in at least one audit, and all stakeholders received the information package, the workshop and field views were scheduled to take place on the same day.

SHUNPIKE ROAD (CR 620)

Shunpike Road (CR 620) is under the jurisdictional control of Cape May County. It is designated as a south-north road. The entire length of the road in Cape May County was audited. Shunpike Road (CR 620) extends between Indian Trail Road (CR 618) at the southern end of the study area and Dias Creek Road (CR 612) at the northern end. The road is classified as an urban collector. The total length of the study area is 2.7 miles.

Shunpike Road is basically a two-lane road with shoulders. The width of the shoulder varies along the roadway, but in most cases is less than five feet wide.

With the exception of the Cape May County Municipal Authority site , the curb line development is mainly rural residential. The Authority is the only significant traffic generator along the road. Shunpike Road (CR 620) is STOP-sign controlled at both ends; and there is a four-way stop at its intersection with Shellbay Avenue. There is a four-ton weight limit on the road between Oyster Road and Dias Creek Road (CR 612). The speed limit along the road is 50 MPH from Indian Trail Road (CR 618) to south of Aspen Drive and 40 MPH from that point to its northern terminus.

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

- The road was chosen to be audited because of the number of fatal crashes along it.
- There are no projects planned for the road.
- With the exception of the construction of several intersecting streets, no changes have occurred along the road in the last three years.
- 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 Audit Team and summarize the findings from the audit process in a manner that will allow the responsible agencies and personnel to prioritize implementation of safety enhancements.

Pre-Audit Data Collection and Analysis

Prior to the audit activities on site, ORA collected and reviewed traffic data and other related materials in order to assist the team in conducting the audit. ORA also conducted a pre-audit 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 Shellbay Avenue intersection. A-Tech Engineering conducted the count on October 19, 2006.

2. Audio -Video Recording

A-TECH Engineering, Inc. made audio-video recording of both directions of travel for the entire study area. These recordings were used to review roadway conditions.

3. Crash Data

SJTPO forwarded to ORA the crash reports from the Middle Township Police Department for the years 2003, 2004, 2005 and through June of 2006. A summary sheet was prepared for the three and one-half year period and is described in detail in the following section.

Materials listed above are included in the Appendix.

CRASH DATA SUMMARY

For the three and one-half year period, a total of 21 crashes were plotted on the straight-line plan for the study section of road. The data shows increasing crash frequency trend along the road as there were three (3) crashes occurred in 2003, three (3) in 2004, 11 in 2005 and four (4) in the first six months of 2006. The types of crashes are characterized as follows:

2 fatal crashes – one approximately 1/10 of a mile north of the driveways to the MUA driveway involving a southbound vehicle losing control and leaving the road. The second fatal crash occurred approximately 2/10 of a mile north of the driveways to the MUA driveway involving a northbound vehicle losing control and striking a southbound vehicle. Local team members were aware of other fatal crashes along the road which occurred prior to 2003. One of these fatal crashes involved a southbound vehicle leaving the road north of Secluded Hollow Road, another involved a stolen pickup truck traveling northbound striking a southbound vehicle north of Penns Wood Trail, and a third involving an inexperienced motorcyclist traveling northbound leaving the road north of Penns Wood Trail.

8 injury crashes

11 non-injury crashes

7 right-angle type crashes – Three at Shellbay Avenue and two at Stiles Avenue. There were no other concentrations.

7 same-direction type crashes – Three at School House Lane. There were no other concentrations.

6 fixed-object type crashes – No concentrations. Two were the fatal crashes described above. Three of the four other fixed-object type crashes involved injuries.

1 other type crash

1 crash involving a bicycle – at Stiles Avenue.

A review of the crashes established the following:

- ♦ The month with the most crashes (4) was July. There were no crashes in April or November.
- ♦ There was only one crash on a Friday.
- ♦ The highest frequency of crashes (5) occurred between 3:00 PM and 4:00 PM.
- ♦ The percentage of crashes during hours of darkness (23%) is less than the statewide average for county roads (approximately 30%).
- ♦ The percentage of crashes for wet surface conditions (23%) is consistent with the statewide average for county roads (approximately 24%).
- ♦ The percentage of crashes with injuries (38%) is higher than the statewide average for county roads (approximately 30%).
- ♦ The percentage of right-angle type crashes (33%) is much higher than the statewide average for county roads (approximately 21%).
- ♦ The percentage of same direction crashes (33%) is consistent with the statewide average for county roads (approximately 29 %).
- ♦ The percentage of left turn crashes (0%) is less than the statewide average for county roads (approximately 6%).
- ♦ The percentage of side-swipe type crashes (0%) is less than the statewide average for county roads (approximately 12%).
- ♦ The percentage of fixed-object type crashes (19%) is higher than the statewide average for county roads (approximately 12%).
- ♦ The percentage of bicycle-type crashes (5%) is higher than the statewide average for county roads (approximately 1%).

Audit

On October 25, 2006, the Safety Audit Team met in the Cape May County Administration Building at 4 Moore Road to formally conduct the audit. 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 audit. 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 Dias Creek Road intersection to begin the audit. Cape May County provided a van for the team. Team members are listed below.

SAFETY AUDIT TEAM FOR SHUNPIKE ROAD

Name	Agency
Raymond Reeve	Office of Highway Safety
Dale Foster	Cape May County
Ron Hearon	Cape May County
Tom Brennan	Cape May County
Capt. Scott Webster	Middle Township Police Department
Rick Ceglarski	Middle Township Director of Public Works
Bill Schiavi	SJTPO
Karen Yunk	FHWA
Norman Deitch	Orth-Rodgers & Associates, Inc.
George Strathern	Orth-Rodgers & Associates, Inc.

The team began at Dias Creek Road and walked south to Indian Trail Road.

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 Audit 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 audit, the team leader recapped the findings of the audit with the team. The team leader informed the team members on the next step in the audit process; ORA will prepare a draft report summarizing the findings from the audit process and forward the report to all team members for their review and comments.

After the daytime audit, Dale Foster, Norm Deitch and George Strathern conducted a night audit. The goal was to check the retroreflectivity of the street signs, pavement markings, and condition of the raised pavement markers (RPMs). 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 audits of Shunpike Road (CR620).

Findings

The findings from the Shunpike Road (CR 620) safety audit are presented on the following pages in the approximate order of their location along the roadway beginning at Dias Creek Road and proceeding south to Indian Trial Road.

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
1	General comment - Sign installation. Many of the signs along the road are installed as “bendaway” rather than “breakaway.” Many installed as “breakaway” are installed incorrectly with the stub too far out of the ground or on the wrong side of the post.	Consideration should be given to inventorying the method of sign installation along the entire road and taking steps to properly install all signs as “breakaway” in accordance with the most current NJDOT standards and the MUTCD.		X			X	
2	General comment – There is vegetation along the sides of the road limiting the visibility of some of the signs along the road.	Instruct the maintenance crew to drive the road and trim trees and bushes as needed.		X			X	
3	Northbound side at Dias Creek Road - standard size STOP sign facing northbound traffic.	Consideration should be given to replacing that STOP sign with an oversize STOP sign.	X			X		
4	Stiles Avenue westbound approach - STOP signs on Stiles Road at Shunpike Road and on Stiles Road at Dias Creek Road are the same size. These are two closely spaced intersections. Installing an over-sized STOP sign at Shunpike Road may assist in giving some depth perception to the closely spaced intersections.	Consideration should be given to replacing the existing STOP sign facing westbound Stiles Road traffic at Shunpike Road with an oversized STOP sign.	X			X		

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
5	Stiles Avenue intersection - There is an American Legion Hall on the northeast corner of the intersection. Local team members stated that when events are held at the Legion, vehicles park within the statutory no parking limits of the intersection obstructing corner sight distances.	Consideration should be given to signing the statutory no parking restrictions at the intersection, as well as painting what curbing there is at the intersection yellow. It is also suggested that after the statutory limits are signed the intersection again be checked for adequate corner sight distance and additional restrictions be established if needed. Additionally, it was suggested that handicapped ramps be installed on this corner of the intersection.		X			X	
6	Stiles Avenue, northwest corner of the intersection. There is a triangular island on that corner of the intersection with a flag and monument on it. There are no handicapped ramps on the island. A suggestion was made by a local team member that handicapped ramps be installed around the island.	Consideration should be given to installing handicapped ramps on the triangular island .		X		X		
7	Stiles Avenue - Eastbound approach has neither STOP line, nor centerline.	Consideration should be given to installing both a STOP line and a centerline.	X			X		
8	Northbound approaching Dias Creek Road - There is not a STOP AHEAD warning sign approaching the STOP sign at the intersection.	Consideration should be given to installing a STOP AHEAD warning sign.	X			X		

SAFETY ISSUE	REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
		LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
9 Inlets along the road at the following locations were noted as not having bicycle safe grates. <ul style="list-style-type: none"> • Dias Creek Road - southeast corner • Stiles Avenue - southeast & southwest corners. • Southbound side approximately 100 feet north of School House Lane. • Southbound side approximately 150 feet south of School House Lane. • Southbound side approximately 150 feet south of Hoppy's Lane. • Southbound side in front of #423, approximately 700 feet south of Hoppy's Lane • Southbound side approximately 850 feet south of Hoppy's Lane. • Both sides of the road approximately 500 feet south of Secluded Hollow Road. • Both sides of the road approximately 700 feet south of Secluded Hollow Road. • Southbound side approximately 600 feet north of Shellbay Avenue. • Southbound side approximately 300 feet north of Shellbay Avenue. • Northeast, northwest and southwest corners of Shellbay Avenue. • Both sides of the road approximately 100 feet south of Shellbay Avenue 	<ul style="list-style-type: none"> • Consideration should be given to replacing all with bicycle safe grates. 		X			X	

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
	<ul style="list-style-type: none"> Northeast and southeast corners of Johnstown Lane. 							
10	On the southbound side approximately 800 feet north of Hoppy's Lane, a utility pole is located at the point where the shoulder narrows.	Consideration should be given to installing an object marker in front of the pole facing southbound traffic.	X				X	
11	Southbound side at Secluded Hollow Road - White skip line painted both north and south of the intersection; probably intended as an acceleration and deceleration lane, but appears more like two travel lanes.	Consideration should be given to re-configuration of the pavement marking so that markings appear more like an acceleration and deceleration lane.	X			X		
12	Secluded Hollow Road southwest corner - Trees limit the corner sight distance.	Consideration should be given to trimming trees to improve sight distance at the intersection.	X			X		
13	Shellbay Avenue southeast corner – There is a guide rail installed running parallel to Shunpike Road. The guide rail is not to current standards.	Consideration should be given to replacing guide rail with one that curves around the radius on that corner and has appropriate end treatments.		X			X	
14	Shellbay Avenue intersection - STOP sign on northbound Shunpike Road is partially obstructed by a tree on the corner. STOP sign on westbound Shellbay is partially obstructed by a utility pole. Tree on southeast corner forms a canopy over the road.	Consideration should be given to installing some type of flashing device at the intersection to better emphasize the STOP condition. This device may be an intersection control beacon or some other type of flashing device such as flashers installed on the STOP signs.			X			X
15	Johnstown Lane southeast corner - Sight distance is restricted by a slight horizontal curve to the left and trees on that corner. Trees on the northeast corner also limit sight distance.	Consideration should be given to trimming or removing trees to improve corner sight distance.		X			X	
16	Martin Drive northeast corner - Sight distance is restricted by trees.	Consideration should be given to trimming trees to maintain corner sight distance.		X			X	

	SAFETY ISSUE	REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
17	Northbound side, south of Oyster Creek Road - Curve warning sign, modified to reflect the presence of the intersection is worn.	Replace with new sign.	X			X		
18	Southbound approaching CR 618 - "JCT 618" sign assembly located between STOP AHEAD warning sign and intersection.	Relocate "JCT 618" sign assembly north of STOP AHEAD warning sign.	X			X		
19	Guide rail at top of 'T' at CR 618 is not to current standards and the need for it is questionable.	The need for the guide rail should be evaluated and, if found not to be needed, removed. If retained, upgrade to current standards.		X			X	

NIGHTTIME FIELD VIEW IDENTIFIED THE FOLLOWING SAFETY ISSUES

20	Southbound approaching Shellbay Avenue - STOP AHEAD sign appears to be installed too far in advance of the intersection.	Relocate sign closer to the intersection.	X			X		
21	Northbound just north of CR 618 - "NORTH 620" confirming route marker assembly - "NORTH" plate is worn.	Replace worn sign.	X			X		
22	Northbound approaching Shellbay Avenue- STOP AHEAD warning sign partially obstructed by tree branches.	Trim tree branches.	X			X		
23	Shellbay Avenue - 4-way plates installed under the STOP signs at the intersection all appear not to be reflectorized and may be undersized.	Replace all with new reflectorized plates sized in accordance with the current MUTCD.	X			X		
24	Southbound at CR 618 - CR 618 route marker assembly on the northwest corner of the intersection.	Relocate sign to the far side of the intersection to the west of the large double-arrow warning sign.	X			X		

SAFETY ISSUE		REMEDIAL ACTION	LEVEL OF EFFORT REQUIRED			POTENTIAL SAFETY BENEFIT		
			LOW	MEDIUM	HIGH	LOW	MEDIUM	HIGH
25	Westbound approach of Oyster Road - STOP sign obstructed by trees.	Trim trees.	X			X		
26	Northbound side just north of Shellbay - SPEED LIMIT 40 MPH sign obstructed by tree branches.	Trim tree.	X			X		
27	Northbound approaching Dias Creek Road - Illusion that STOP sign is on left side of road.	Paint edge line on northbound approach between Stiles Avenue and Dias Creek Road to help eliminate the illusion.	X			X		

Recommendations

As stated earlier, the intent of the road safety audit 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 audit 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 item #13 the installation of flashing device at Shellbay Avenue, item #5 signing parking restrictions at Stiles Avenue, and items #2, #11, #14 and #15, which are all related to trimming trees along the road.

Unfortunately, with many roads and many of the audits we have conducted, there is no easy quick-fix solution to many of the crash patterns. While the safety audit 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 Audit report are those of the Safety Audit Team, as a whole, and not necessarily the opinions of the SJTPO or the individual team members.

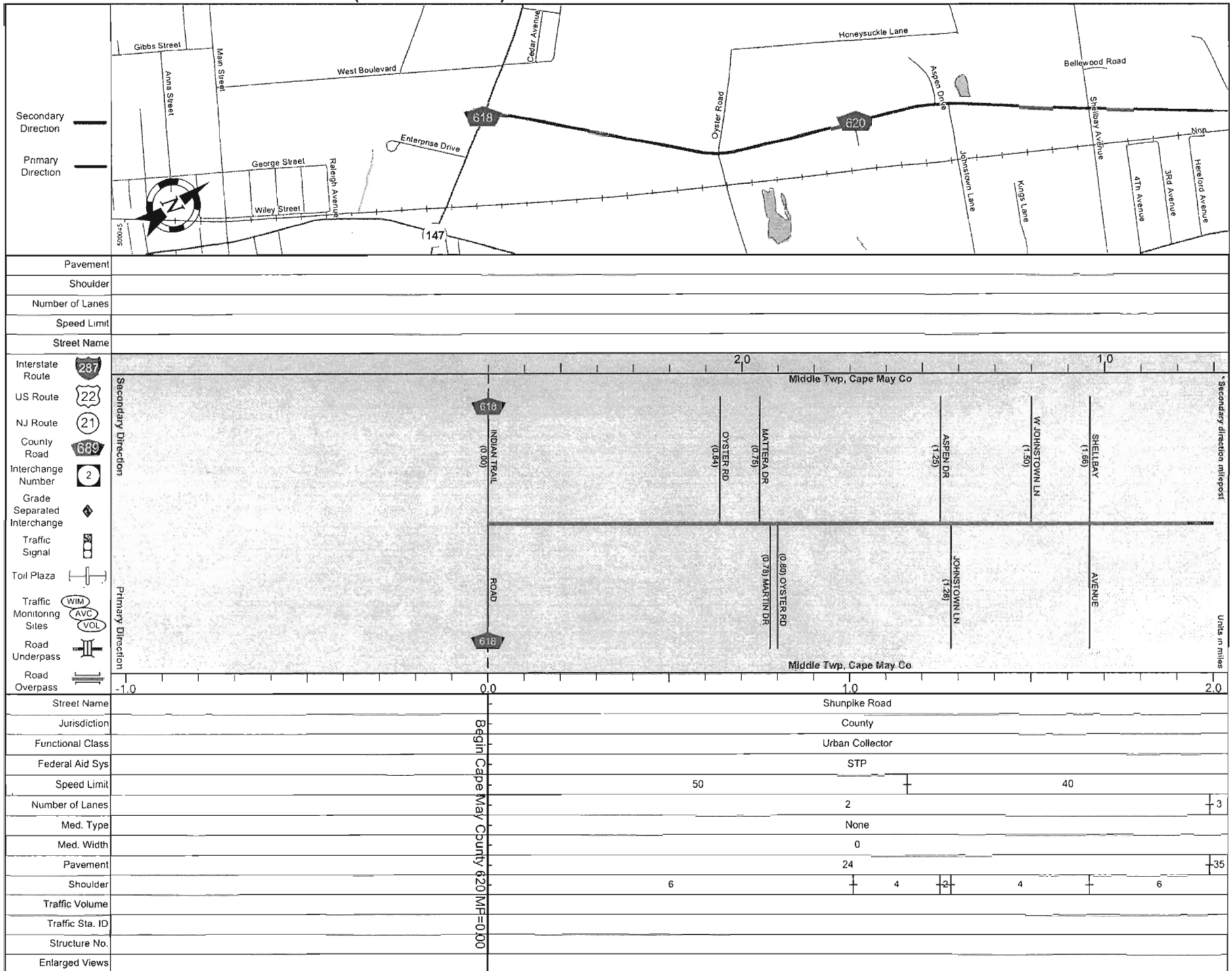
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Appendix

- Straight line Diagram of Shunpike Road (CR 620)
- Straight-line Plan on which are plotted crashes
- Crash Data Summary Sheets
- Traffic Count
- Crash Data Charts
- Photographs

CAPE MAY COUNTY 620 (South to North)

Mile Posts: 0.000 - 2.000

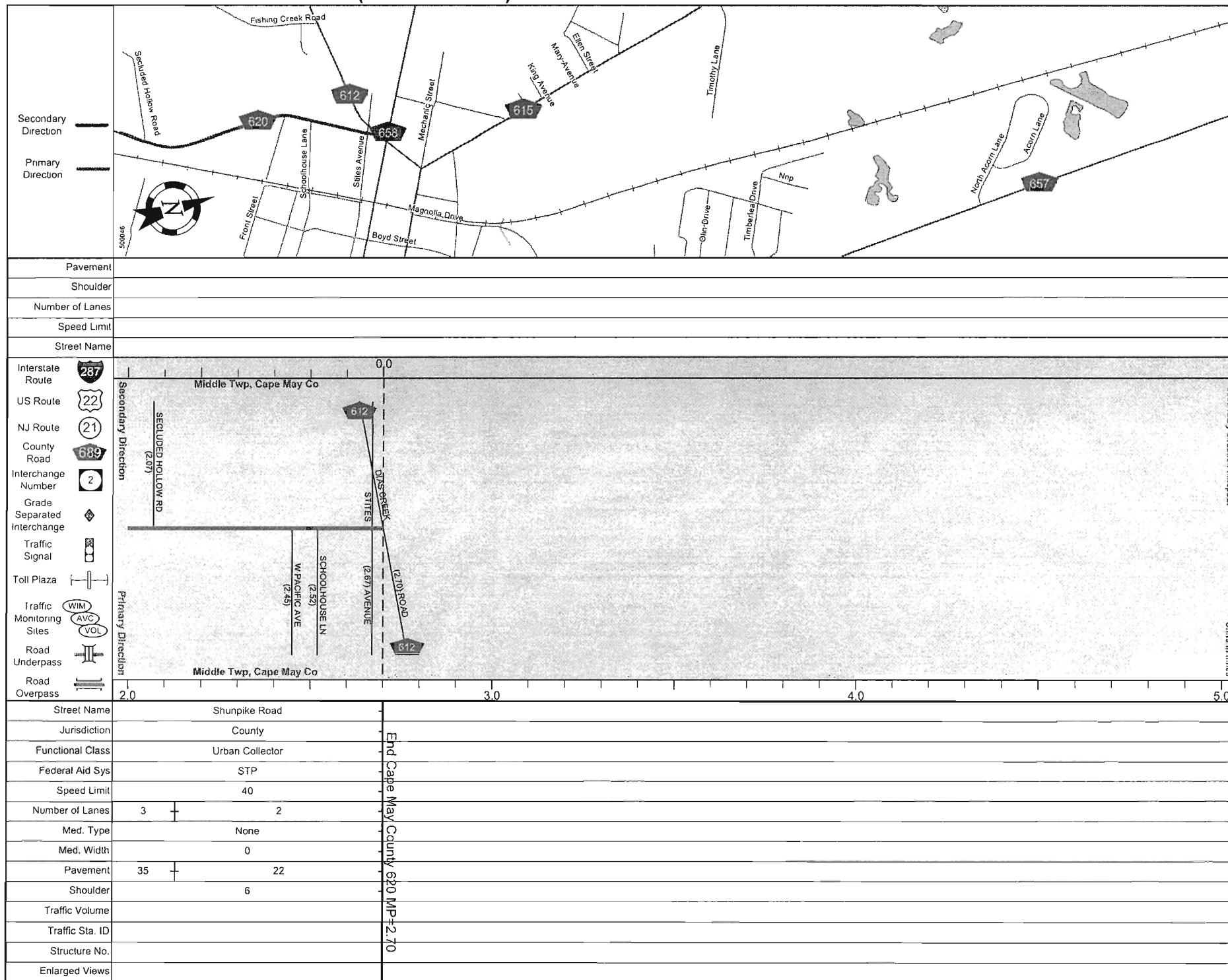


SRI = 05000620__

Date last inventoried: August 1999

CAPE MAY COUNTY 620 (South to North)

Mile Posts: 2.000 - 2.700



SRI = 05000620__

Date last inventoried: August 1999

SHUNPIKE ROAD (CR 620)
MIDDLE TOWNSHIP
CRASH SUMMARY 2003-2006 (THRU June)
TOTAL- 21 CRASHES
Month

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<u>3</u>	<u>1</u>	<u>2</u>		<u>3</u>	<u>2</u>	<u>4</u>	<u>1</u>	<u>1</u>	<u>3</u>		<u>1</u>

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

DAY 16
NIGHT 5
UNKNOWN 0

DRY 16 WET 4 SNOWY 0 ICY 1 OTHERS 0

CLEAR 19 RAIN 2 SNOW 0 FOG 0

INJURY 8 NON-INJURY 11 FATAL 1

Right Angle	Same Direction	Left Turn	Right Turn	Side Swipe
<u>7</u>	<u>6</u>	<u>0</u>	<u>0</u>	<u>0</u>
Fixed Object	Head On	Other	Pedestrian	Bike
<u>6</u>		<u>1</u>	<u>0</u>	<u>1</u>

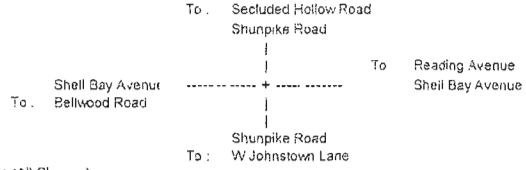
Parking Related _____

NEW JERSEY DEPARTMENT OF TRANSPORTATION TRAFFIC COUNT SUMMARY

Total Counts

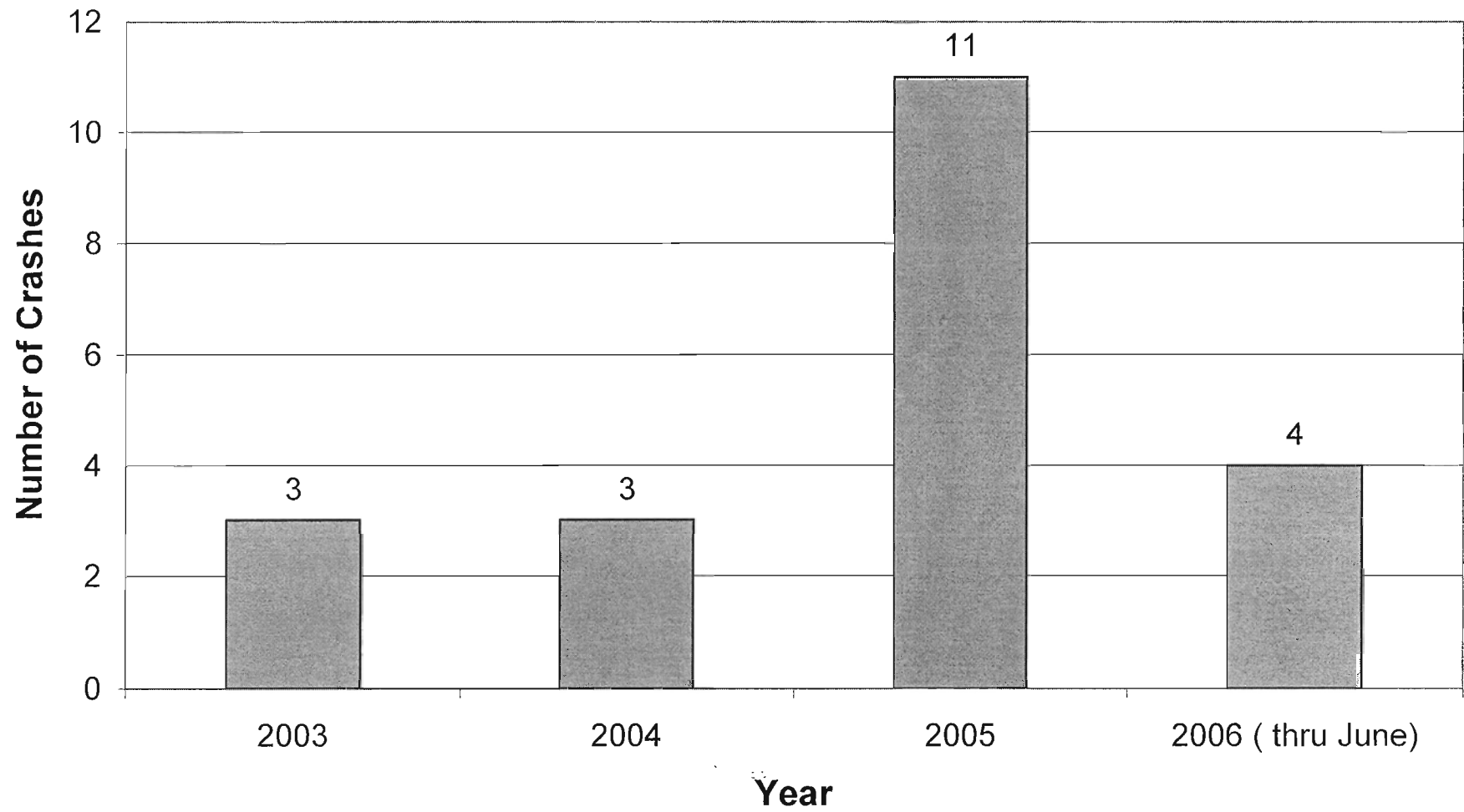
PROJECT NO: #7
 ROUTE / m.p.: CR 620 / 1.66
 ROUTE / m.p.: Middle Twp
 COUNTY: Cape May
 DATE(S): 10/19/06
 DAY OF WEEK: Thursday
 TIME(S): 10am - 8pm
 WEATHER: Cloudy
 COMMENT:

SR NO: N-S STREET: Shunpike Road
 E-W STREET: Shell Bay Avenue
 MUN. CODE: 06
 CO. CODE: 05
 COUNTED FOR: NJDOT
 PERSON: A-TECH Engineering Inc
 COUNTED BY: CC. NG
 ENUMER: CC. NG
 TEMP:

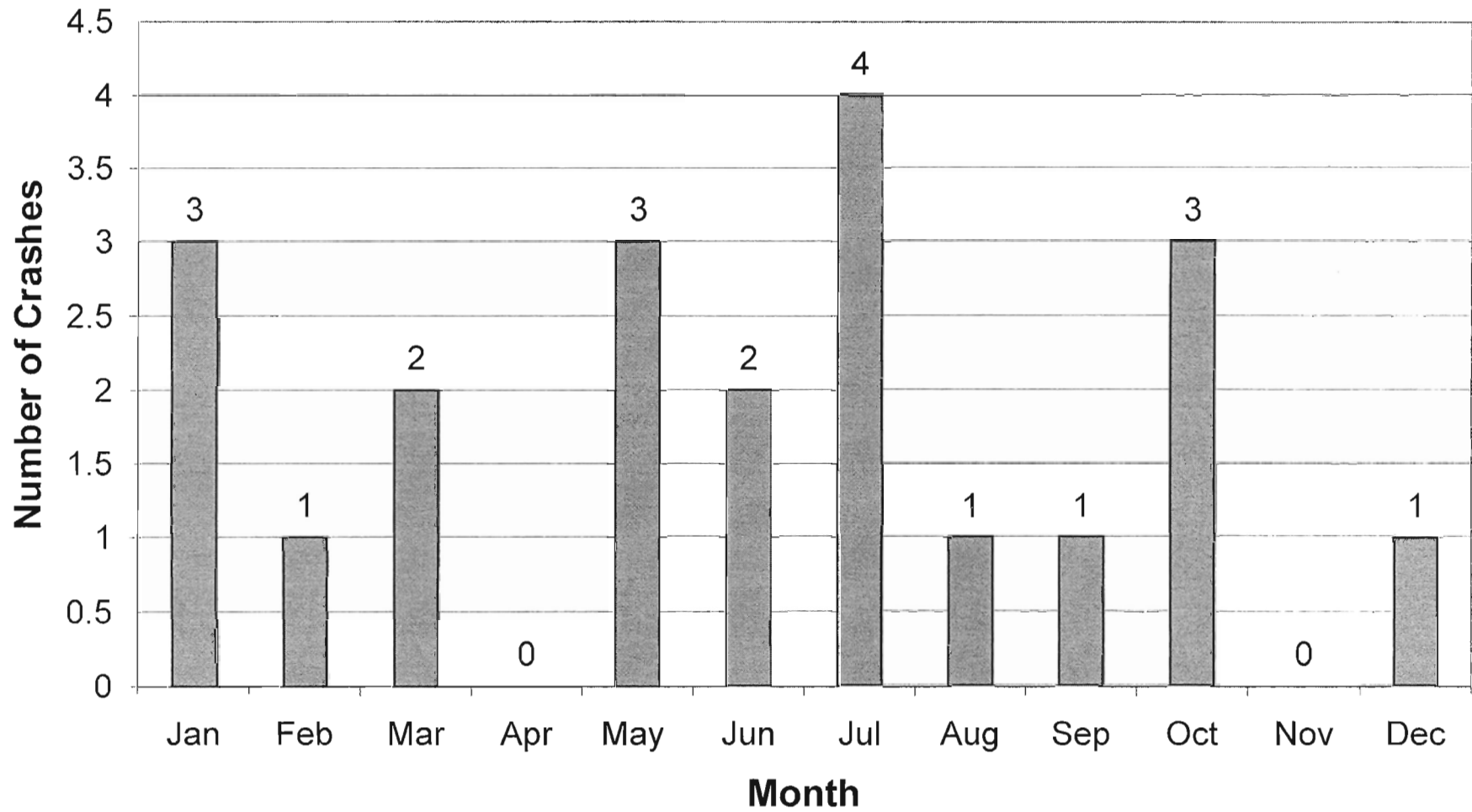


TIME PERIOD	Shunpike Road				APPROACH TOTAL	Shunpike Road				APPROACH TOTAL	Shell Bay Avenue				APPROACH TOTAL	Shell Bay Avenue				APPROACH TOTAL	GRAND TOTAL
	U	LT	TH	RT		U	LT	TH	RT		U	LT	TH	RT		U	LT	TH	RT		
6:00-6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15-6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30-6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45-7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HOURLY TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HOURLY TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15-8:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30-8:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45-9:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HOURLY TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00-9:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15-9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30-9:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45-10:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HOURLY TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00-10:15	0	4	21	2	27	0	5	12	3	20	0	2	5	2	10	0	2	5	3	10	67
10:15-10:30	0	3	20	3	26	0	7	14	4	25	0	2	5	3	10	0	3	8	4	15	76
10:30-10:45	0	2	23	3	28	0	4	11	0	15	0	3	9	2	14	0	3	5	4	12	69
10:45-11:00	0	6	11	3	20	0	4	13	4	21	0	2	8	1	11	0	4	3	6	13	65
HOURLY TOTAL	0	15	75	11	101	0	20	50	11	81	0	9	28	8	45	0	12	21	17	50	277
11:00-11:15	0	3	22	2	27	0	3	14	0	17	0	0	11	5	16	0	5	5	5	15	75
11:15-11:30	0	2	18	2	22	0	4	28	2	34	0	1	5	3	9	0	2	7	4	13	78
11:30-11:45	0	4	13	3	20	0	4	18	2	24	0	0	3	4	7	0	7	5	4	16	67
11:45-12:00	0	5	23	7	35	0	4	18	2	24	0	2	8	1	11	0	6	5	3	14	84
HOURLY TOTAL	0	14	76	14	104	0	15	78	6	99	0	3	27	13	43	0	20	22	16	58	304
12:00-12:15	0	5	15	3	23	0	5	25	2	32	0	1	8	2	11	0	2	5	11	18	84
12:15-12:30	0	1	21	4	26	0	5	32	1	38	0	3	11	5	19	0	3	6	5	14	97
12:30-12:45	0	1	26	4	31	0	4	13	1	18	0	1	5	5	11	0	7	5	8	20	80
12:45-1:00	0	3	18	4	25	0	8	20	1	29	0	3	8	3	14	0	4	10	3	17	85
HOURLY TOTAL	0	10	80	15	105	0	22	90	5	117	0	8	32	15	55	0	16	26	27	69	346
1:00-1:15	0	3	26	4	33	0	6	17	1	24	0	1	4	4	9	0	3	7	4	19	85
1:15-1:30	0	2	12	4	18	0	3	12	1	16	0	3	7	1	11	0	3	5	3	11	56
1:30-1:45	0	5	19	6	30	0	5	27	1	33	0	4	7	4	15	0	4	7	5	16	94
1:45-2:00	0	1	25	6	32	0	5	14	1	20	0	2	3	3	8	0	9	11	2	22	82
HOURLY TOTAL	0	11	82	20	113	0	19	70	4	93	0	10	21	12	43	0	24	30	14	68	317
2:00-2:15	0	3	13	4	20	0	7	17	1	25	0	1	11	1	13	0	9	3	5	17	75
2:15-2:30	0	4	19	1	24	0	11	21	2	34	0	1	2	0	3	0	9	7	1	17	78
2:30-2:45	0	6	22	3	31	0	3	25	2	30	0	2	9	2	13	0	10	12	9	31	105
2:45-3:00	0	7	21	3	31	0	5	15	1	21	0	0	8	3	11	0	7	3	4	14	77
HOURLY TOTAL	0	20	75	11	106	0	26	78	6	110	0	4	30	6	40	0	35	25	19	79	335
3:00-3:15	0	11	33	4	48	0	6	31	2	39	0	0	7	2	9	0	12	4	5	21	117
3:15-3:30	0	4	36	8	48	0	9	34	4	47	0	1	10	1	12	0	12	2	8	22	129
3:30-3:45	0	9	16	8	33	0	13	34	6	53	0	0	7	4	11	0	4	6	5	15	112
3:45-4:00	0	7	25	7	39	0	16	37	3	56	0	2	5	3	10	0	15	13	8	36	141
HOURLY TOTAL	0	31	110	27	168	0	44	136	15	195	0	3	29	10	42	0	43	25	26	94	499
4:00-4:15	0	4	27	7	38	0	5	44	4	53	0	4	6	6	16	0	10	10	20	40	147
4:15-4:30	0	8	25	3	36	0	8	36	1	45	0	2	8	2	12	0	8	11	7	26	119
4:30-4:45	0	5	32	8	45	0	4	47	3	54	0	1	11	1	13	0	19	13	13	50	162
4:45-5:00	0	8	39	10	57	0	8	37	6	51	0	0	9	3	12	0	14	9	15	38	158
HOURLY TOTAL	0	25	123	28	176	0	25	164	14	203	0	7	34	12	53	0	51	48	55	154	586
5:00-5:15	0	2	18	5	25	0	5	47	2	54	0	0	12	2	14	0	13	11	15	39	132
5:15-5:30	0	4	29	5	38	0	8	20	2	30	0	4	11	6	21	0	11	13	15	39	128
5:30-5:45	0	7	15	5	27	0	10	24	3	37	0	6	6	6	18	0	9	13	15	37	119
5:45-6:00	0	4	24	6	34	0	4	14	3	21	0	1	6	2	9	0	9	15	5	29	93
HOURLY TOTAL	0	17	86	21	124	0	27	105	10	142	0	11	35	16	62	0	42	52	50	144	472
6:00-6:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15-6:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30-6:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45-7:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HOURLY TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Shunpike Road (CR 620) 3.5 Year Trend

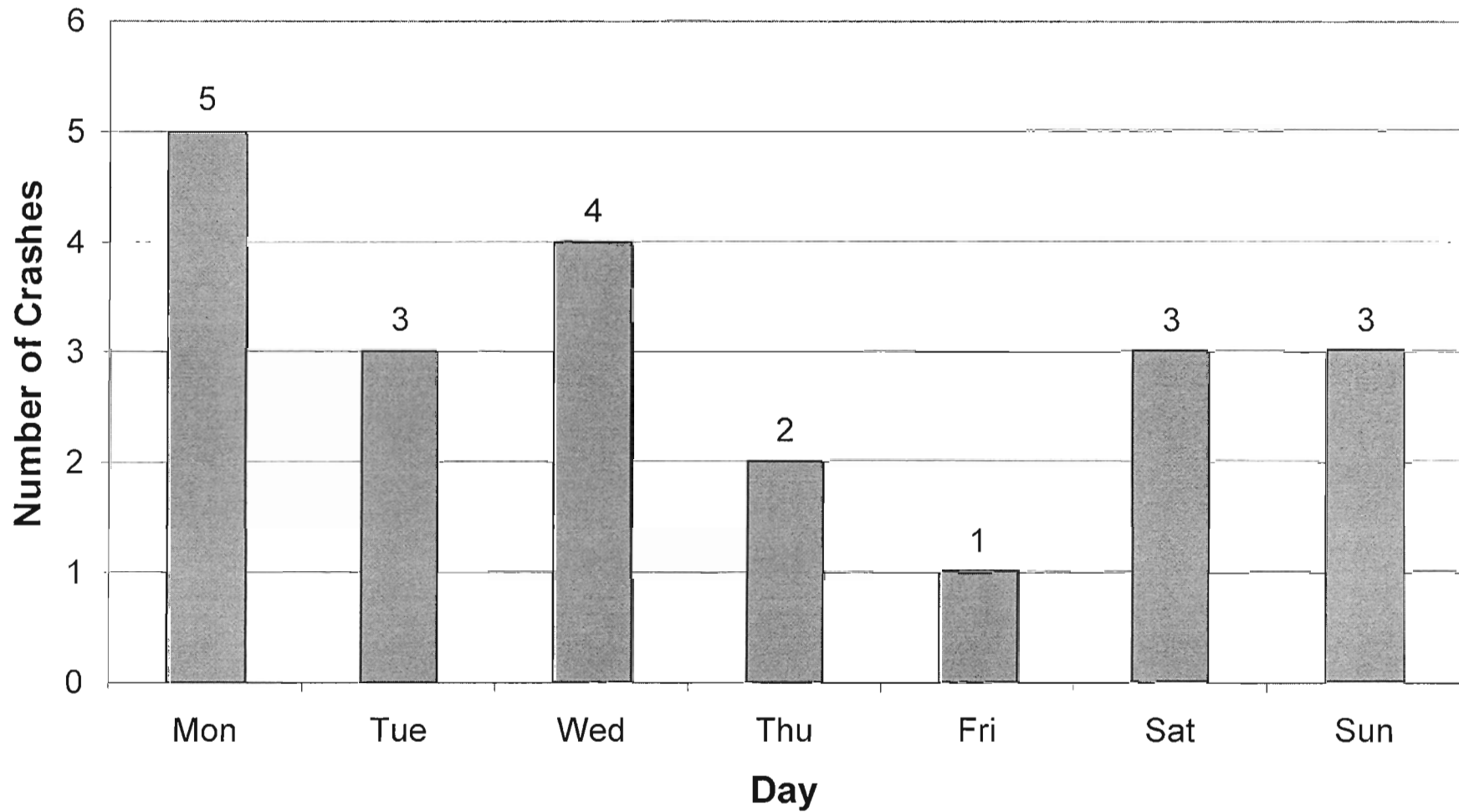


Shunpike Road (CR 620) Crash Occurrence by Month

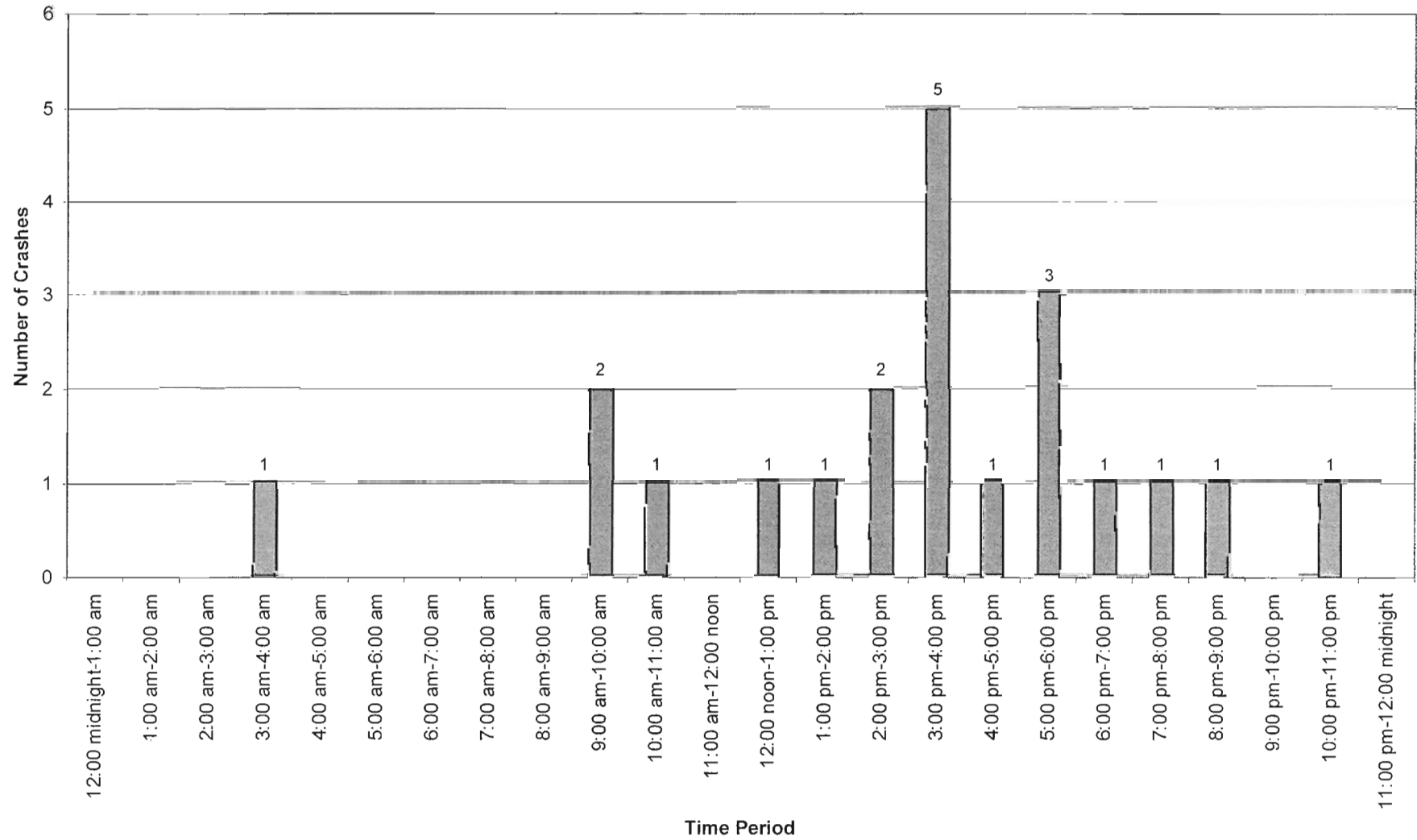


Shunkipe Road (CR 620)

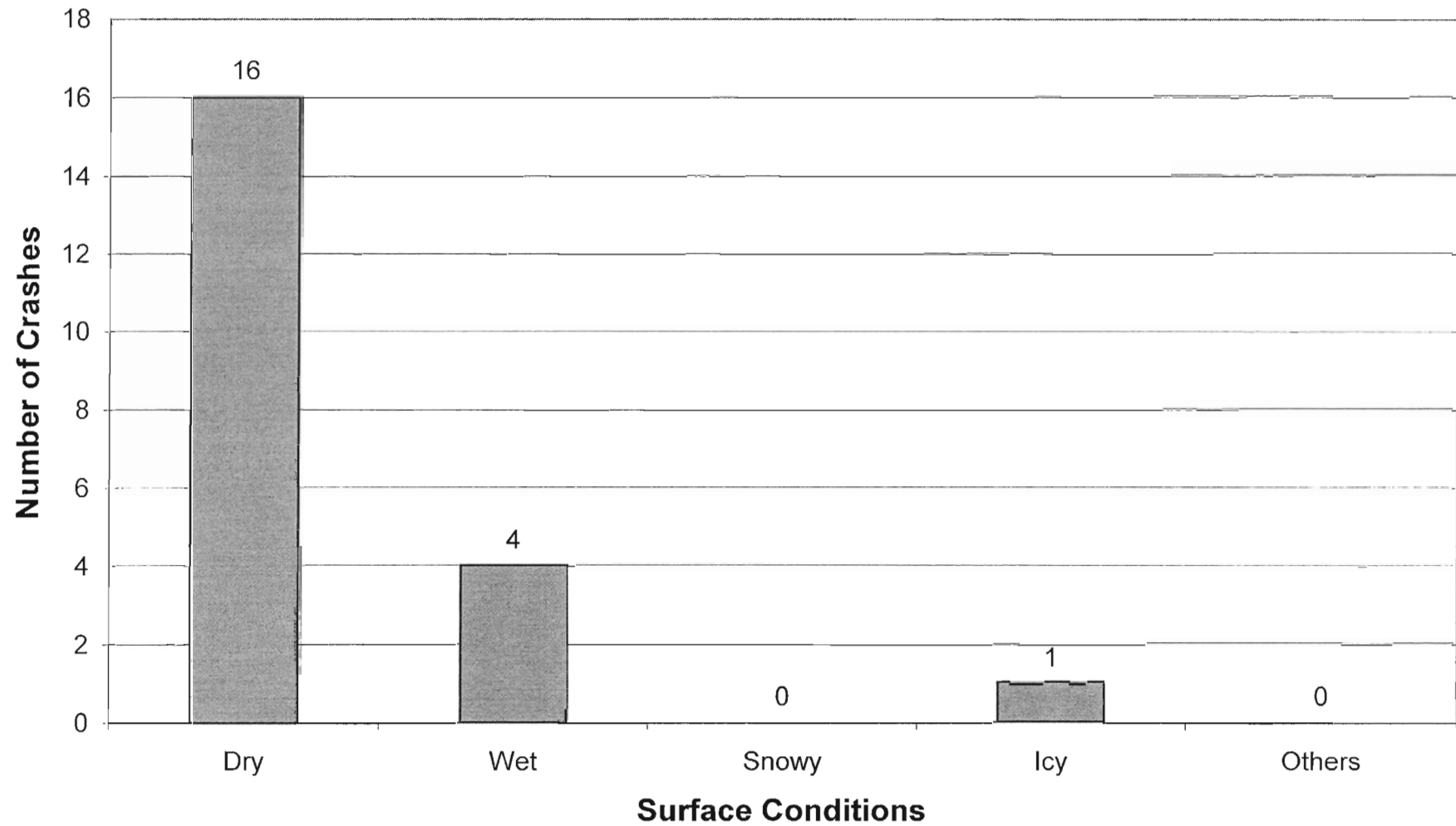
Crash Occurrence by Day of Week



Shunpike Road (CR 620)
Crash Occurrence by Time of Day

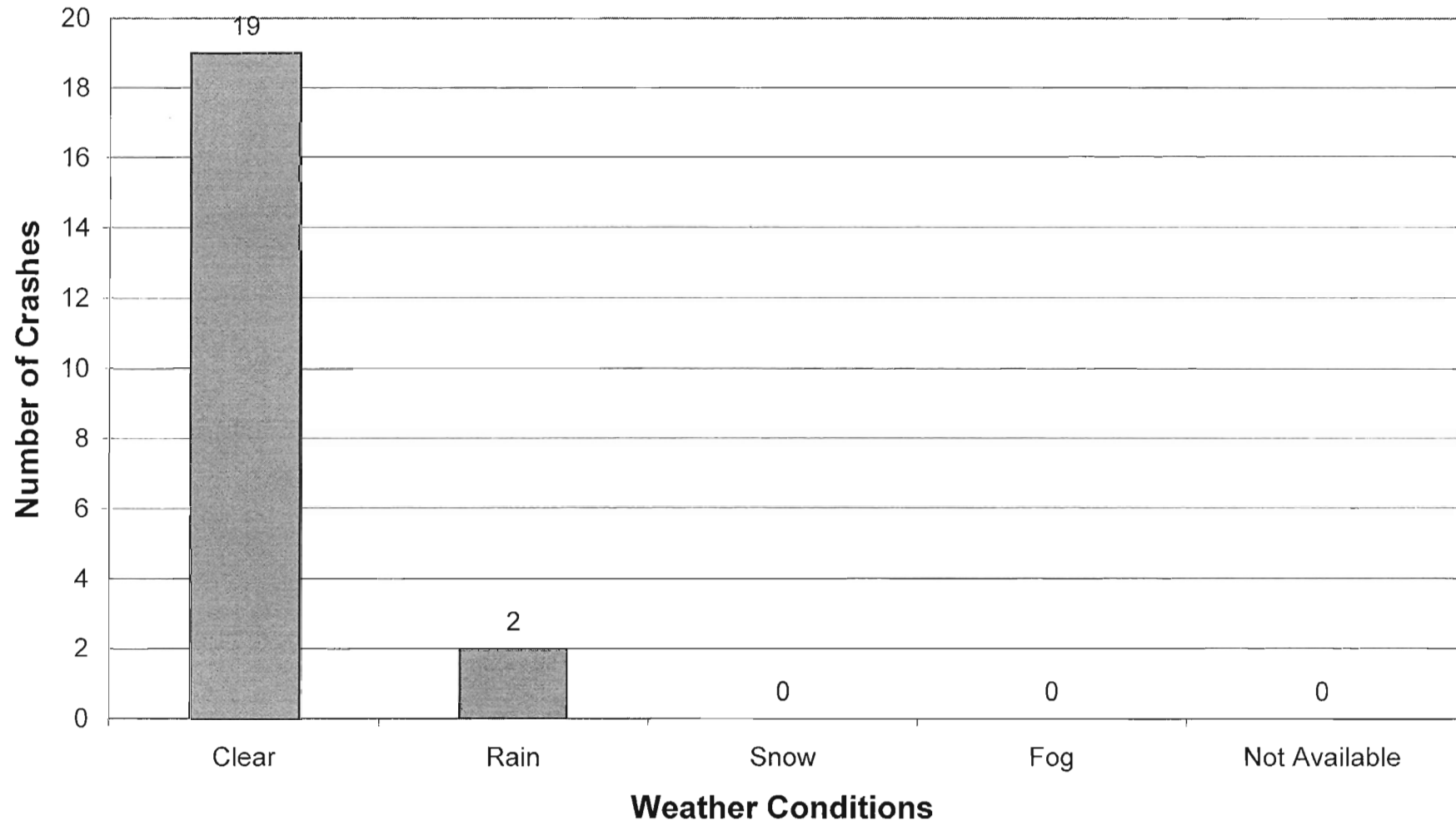


Shunpike Road (CR 620) Crash Occurrence by Surface Conditions

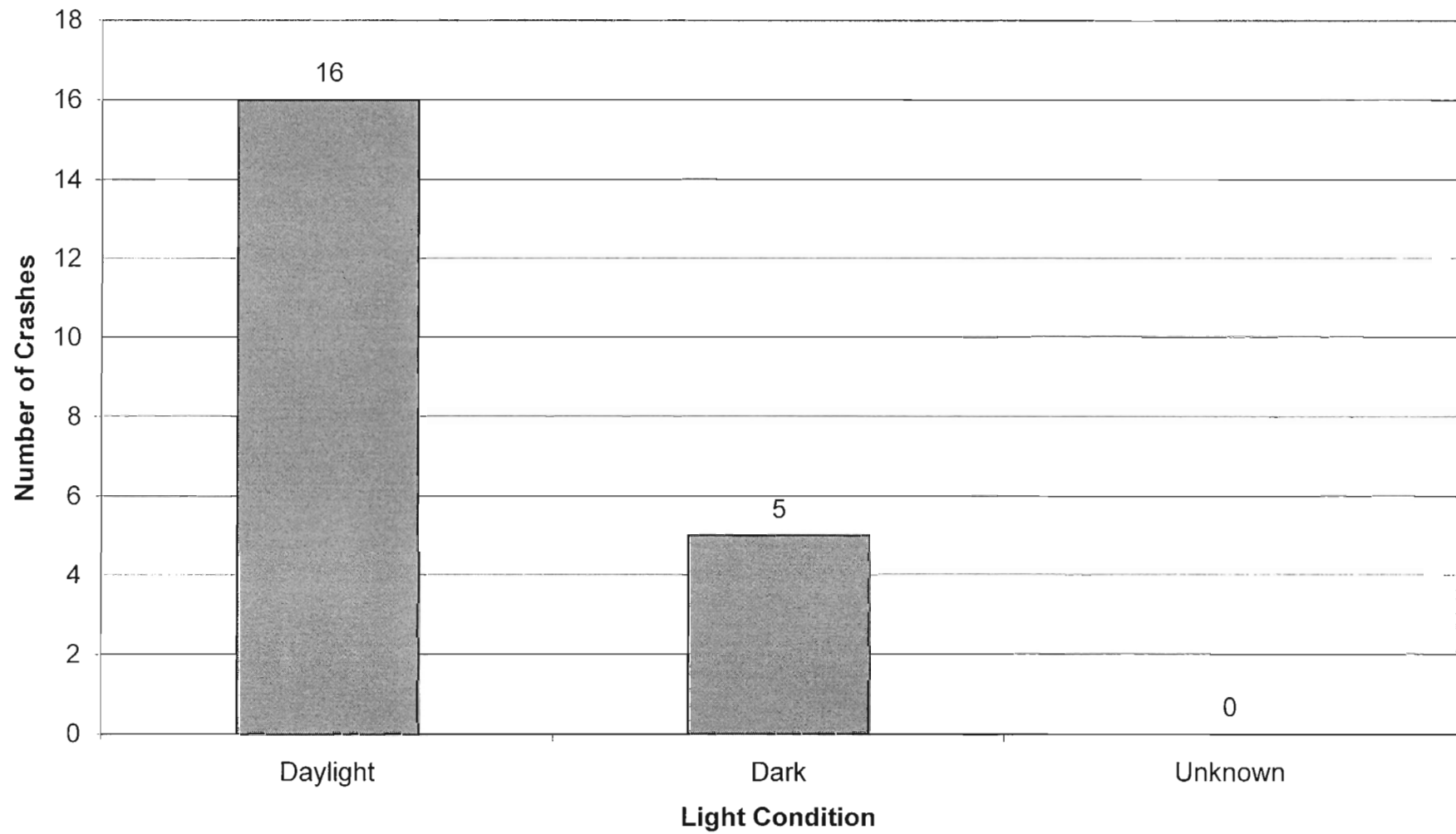


Shunpike Road (CR 620)

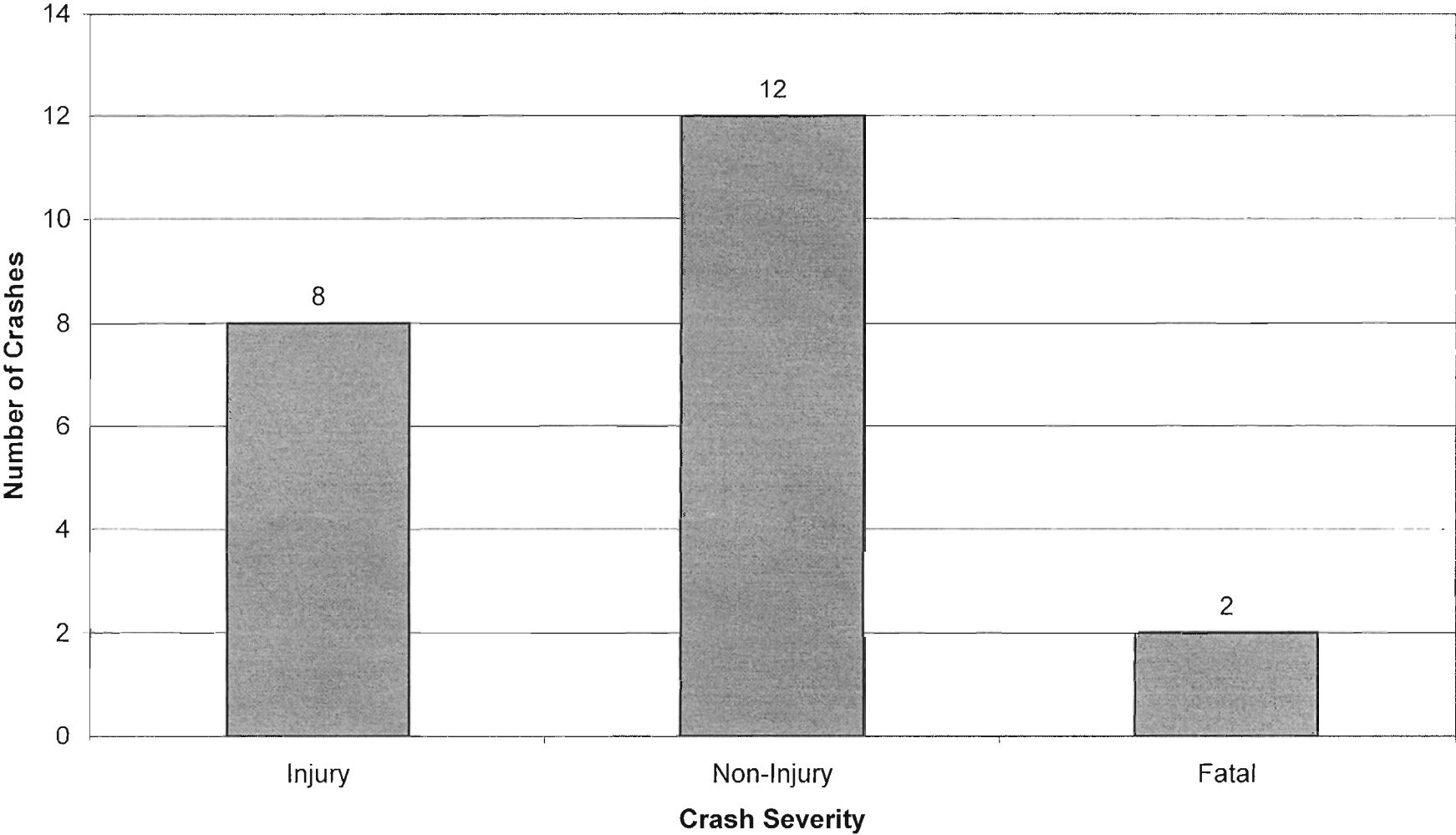
Crash Occurrence by Weather Conditions



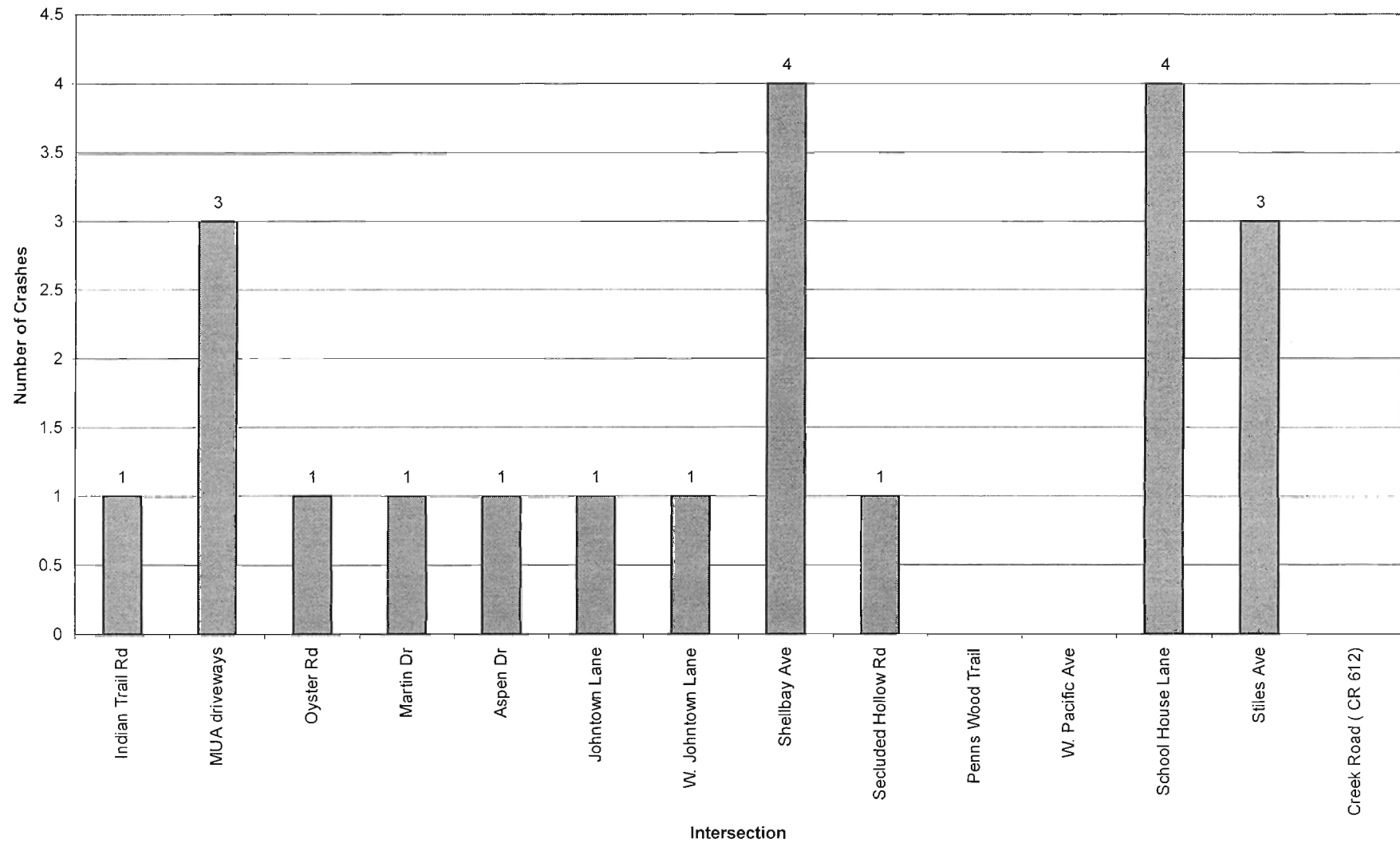
Shunpike Road (CR 620) Crash Occurrence by Light Condition



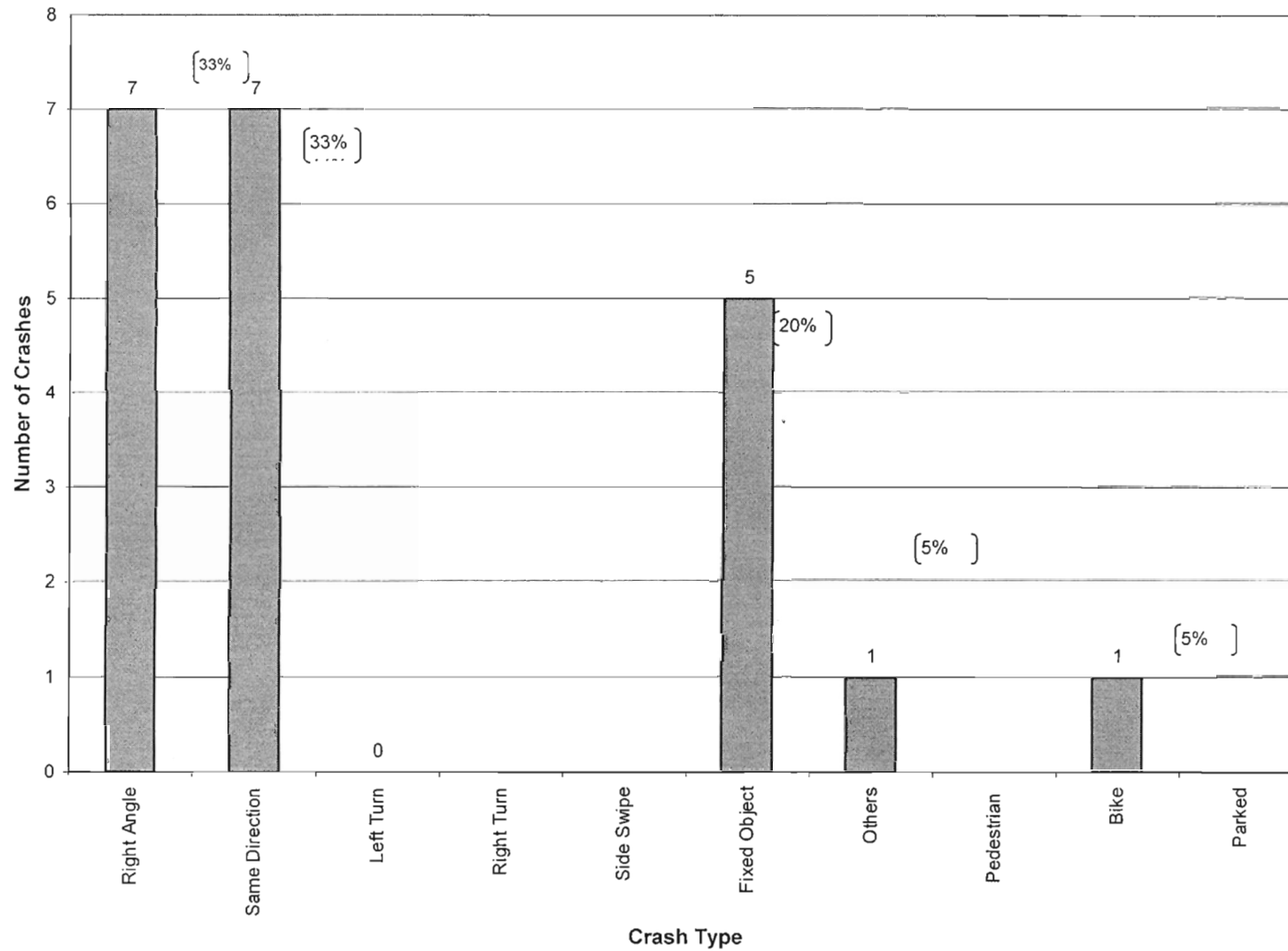
Shunpike Road (CR 620)
Crash Severity



Shunpike Road (CR 620)
Spot Location of Crashes (Proximity to Nearest Intersection)



Shunpike Road (CR 620)
Crash Type



SJTPO Safety Audits



001.jpg



002.jpg



003.jpg



004.jpg

Shunpike Road

SJTPO Safety Audits



005.jpg



006.jpg



007.jpg



008.jpg

Shunpike Road

SJTPO Safety Audits



009.jpg



010.jpg



011.jpg



012.jpg

Shunpike Road