

**REPORT OF THE
DEPARTMENT OF STATE POLICE
AND THE
DEPARTMENT OF TRANSPORTATION ON**

Crime in Highway Rest Areas

**TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA**



HOUSE DOCUMENT NO. 10

**COMMONWEALTH OF VIRGINIA
RICHMOND
1991**



COMMONWEALTH of VIRGINIA

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December 4, 1990

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To: The Honorable L. Douglas Wilder, Governor of Virginia,
and Members of the General Assembly:

Pursuant to House Joint Resolution Number 96, enclosed is the study on Crime in Highway Rest Areas. This study is the result of a cooperative effort between the Department of State Police and the Department of Transportation.

Sincerely,

A handwritten signature in cursive script, appearing to read "W. F. Corvello".

Superintendent

WFC:lr

Enclosure

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EXECUTIVE SUMMARY

Purpose

The purpose of the study is to analyze criminal activity in highway rest areas and to formulate appropriate recommendations for reducing such crime.

Background

In the 1990 session of the General Assembly, House Joint Resolution Number 96 was passed, requesting the Department of State Police and the Virginia Department of Transportation (VDOT) to study crime in highway rest areas.

There are 40 highway rest areas in Virginia. According to figures provided by VDOT, an average of 140,800 people visit Virginia's rest areas each day. Each rest area has a custodial staff responsible for cleaning, refuse disposal, repairs, painting, mowing, and general maintenance. Seven rest areas are staffed 24 hours a day. Staffing hours at the other rest areas vary, but generally extend from 6 a.m. to 10 p.m.

Resources

This study is a result of a cooperative effort between the Department of State Police and VDOT. Both departments contributed substantially to the production of the study.

Additionally, the following agencies participated in crime prevention evaluations of selected rest areas:

Department of Criminal Justice Services (DCJS)
Virginia Crime Prevention Association
Prince William County Police Department
Emporia Police Department

Methodology

VDOT supplied all background information on rest areas, including the 24-hour traffic counts used to determine the number of persons visiting the rest areas.

In order to analyze criminal activity, all Preliminary Investigative Reports (S. P. Form 102) and Complaint/Request/Incident Reports (S. P. Form 103) originating in rest areas between January 1, 1989, and April 30, 1990, were collected. Local law enforcement agencies were also contacted for information on rest area crimes and arrests handled by their personnel. All information collected was analyzed to determine the type and level of criminal activity in rest areas and to identify any crime trends or patterns.

Reported criminal activity was also examined to identify rest areas with relatively high levels of criminal activity. Eight rest areas were so identified and selected for site evaluations. During each site evaluation, crime prevention specialists conducted a security analysis to identify vulnerabilities and opportunities for improvement.

In addition, a survey was conducted among 15 states to determine the level of rest area crime in other states and the techniques used to address such crime.

Crime Analysis

For the purpose of this study, "criminal incidents" were examined. These incidents include crimes reported by victims, complaints of criminal activity reported by citizens, arrests made by law enforcement personnel, and situations requiring a law enforcement response.

Between January 1, 1989, and April 30, 1990, there were 133 reported criminal incidents in Virginia's rest areas. During this 16-month period, over 68 million people visited these rest areas. When compared to the number of people visiting Virginia's rest areas, the number of reported criminal incidents appears quite insignificant. On the average, there was one criminal incident for every 513,443 visitors to rest areas.

The following table presents a breakdown of criminal activity in rest areas by incident type.

<u>Incident Type</u>	<u>Number</u>
Grand Larceny	20
Recovered Stolen Vehicle	18
Drug Offense	16
Petit Larceny	11
Robbery	9
Vandalism	9
Homosexual Activity	8
Suspicious Person(s)	7
Indecent Exposure	5
Assault	5
Parking Complaint	4
Prostitution	4
Rape	3
Homicide	2
Mental Subject	2
Accident	1
Domestic	1
Driving Under the Influence	1
Drunk in Public	1
Escape of Prisoners	1

Habitual Offender	1
Reckless Driving	1
Runaway	1
Unauthorized Use of Vehicle	1
Weapons Violation	<u>1</u>

TOTAL 133

Approximately 14% of the incidents involved violence, such as homicide, rape, robbery, and assault, while the remaining 86% were nonviolent. Although there is no discernible pattern concerning the day of occurrence, a pattern was detected involving the time of day in which criminal activity occurred. Approximately 46% of criminal activity in rest areas occurred between 10 p.m. and 6 a.m., when most rest areas are unattended.

Site Visits

Eight rest areas that exhibited relatively high levels of criminal activity were selected for site evaluations. The following vulnerabilities at the rest areas were identified:

1. Excessive landscaping significantly decreases visibility in the rest areas.
2. Lighting problems, such as burned out light fixtures, dirty light fixtures, and light fixtures overgrown by trees were observed.
3. A need was identified for a prominent sign at each rest area, designating the name and exact location of the rest area.
4. Very few of the telephones examined were labeled with the location of the rest area. On the phones that were labeled, the information was difficult to locate and barely legible.
5. Many picnic tables in the rest areas were isolated and/or concealed by landscaping.
6. Contract custodians were only distinguishable by their uniform shirt, while VDOT custodians wear full uniforms consisting of a uniform shirt and pants.
7. At some rest areas, rest room windows were left open, providing an unobstructed view of rest room occupants.
8. Alternate rest rooms were left unlocked when not in use.
9. State Police personnel are not required to make formal reports of certain misdemeanor offenses reported in rest areas.

Law Enforcement Initiatives

The Department of State Police uses a variety of methods to combat crime in rest areas, including patrol, the use of narcotic detector dogs, and surveillance and undercover operations. Other states surveyed rely predominantly on high visibility patrol, surveillance/undercover operations, and crime prevention through environmental design.

Recommendations

The following recommendations are offered to reduce crime and enhance public safety in highway rest areas.

A. Landscaping

- Trees should be thinned to increase visibility of the rest areas from the interstate and to improve visibility within the rest areas.
- Trees blocking light fixtures should be pruned or removed.
- Low hanging branches should be removed up to a height of 8 feet.
- Shrubs that obscure visibility because of their size or location should be pruned or removed.
- Shrubs around rest room windows should be removed.

B. Picnic Areas

- The size of picnic areas should be reduced by removing all isolated tables.

C. Signs

- All rest areas should have a prominent sign, designating the name and exact location of the rest area.
- Mr. R. L. Fink of VDOT estimates that VDOT can produce the signs at a cost of approximately \$100 per sign.

\$100 x 40 rest areas = \$4,000

D. Telephones

- All rest area telephones should be clearly labeled with the name of the rest area, the exact location, and the toll-free telephone number of the State Police Division Headquarters. This information should be conspicuous by both its size and location on the instrument.

E. Lighting

- Light fixtures should be carefully maintained so that problems with dirty or burned out fixtures are immediately corrected.
- After the removal of overgrowth from around light fixtures, VDOT should have crime prevention experts evaluate rest areas at night to determine if the current lighting is adequate.

F. Custodians

- Contract custodians should be required to wear full uniforms consisting of a uniform shirt and pants.
- Custodians should be encouraged to maintain a high profile presence by periodically walking about the rest areas.
- Custodians should be trained to recognize and report suspicious activity.

G. Rest Area Operations

- Alternate rest rooms should be kept locked when not in use.
- At least one of the glazed rest room window panes should be kept in the lower position to prevent observation of the rest room from the outside. The upper portion of the sash may be left open for ventilation, if necessary.

H. Law Enforcement Operations

- In order to accurately document crime in rest areas and develop appropriate strategies to address such crime, State Police personnel should be required to make formal reports of all crime reported in rest areas. For misdemeanor offenses not requiring the completion of the State Police Preliminary Investigative Report (S. P. Form 102), troopers should utilize a Complaint/Request/Incident Report (S. P. Form 103) or a memorandum to the division commander.

I. VDOT should confer with crime prevention practitioners before additional rest areas are designed and built in order to effectively utilize the concepts of crime prevention through environmental control.

PURPOSE

The purpose of this study is to analyze criminal activity at highway rest areas and to formulate appropriate recommendations for reducing such crime. The following objectives were established.

1. To determine the type and level of criminal activity in highway rest areas
2. To identify crime trends and patterns, if any
3. To identify techniques currently used to address crime in Virginia rest areas
4. To identify techniques used by other states to address crime in rest areas
5. To identify features of rest areas that increase the probability of criminal activity

BACKGROUND

Authority for Study

In the 1990 Session of the General Assembly, House Joint Resolution Number 96 was passed, requesting the Department of State Police and the Virginia Department of Transportation to study crime at highway rest stops.

"WHEREAS, crimes committed at Virginia's highway rest stops have recently begun to receive considerable attention; and

WHEREAS, in the past twelve months, highway rest stops have been the scene of two homicides, ten assaults, twelve grand larcenies, nine petty larcenies, twenty-six drug violations, two cases of vandalism, twenty-four instances of prostitution, one kidnapping with forcible rape, forty-three cases of homosexual activity and recovery of five stolen automobiles; and

WHEREAS, these crimes have caused a considerable amount of apprehension in the minds of the motoring public and produced a negative impact upon Virginia's tourism industry; and

WHEREAS, it is highly desirable that all possible efforts be made to control crime at highway rest stops; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, that the Department of State Police and the Virginia Department of Transportation are requested to study crime at highway rest stops and formulate appropriate recommendations for reducing such crime.

The departments shall complete their work in time to submit their findings and recommendations to the Governor and the 1991 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents."

Virginia Highway Rest Areas - General Information

There are 40 highway rest areas in Virginia. Ten of these rest areas include welcome centers which provide travel counselors and a large selection of travel brochures. The rest areas were constructed between 1964 and 1983. The average age of the facilities is approximately 17-1/2 years.

According to figures provided by VDOT, an average of 140,800 people visit Virginia's rest areas each day. The volume for a single rest area ranges from 788 visitors per day (Alleghany County, Interstate 64 rest area) to 10,463 visitors per day (Prince William County, Interstate 95 rest area), with the average being 3,520 visitors per day. (See Appendix A.)

Each rest area has a custodial staff responsible for cleaning, refuse disposal, repairs, painting, mowing, and general maintenance. VDOT employees provide these services at 24 rest areas, while private contractors are employed to service the remainder. Seven rest areas are staffed 24 hours a day. Staffing hours at the other rest areas vary, but generally extend from 6 a.m. to 10 p.m. (See Appendix B.)

The following amenities are offered at Virginia's rest areas:

- Rest rooms
- Water fountains
- Telephones
- Benches
- Picnic tables
- Grills
- Pet rest areas
- Newspaper stands

Vending machines, providing drinks and snacks, are currently available at nine rest areas. Because of the popularity of the vending machines, VDOT proposes to expand their availability by installing vending machines in 24 additional rest areas. (See Appendix C.)

RELATED STUDIES AND RESOURCES

Previous Study

In July 1988, the Virginia Transportation Research Council completed a study entitled An Examination of the Operation and Motorist Usage of Virginia's Highway Rest Areas and Welcome Centers. The study was conducted to examine conditions at highway rest areas and to assess the impact of additional services, such as vending machines.

The study indicated that travelers are quite dependent on rest areas and welcome centers. It also identified a need for additional and improved rest areas, particularly with respect to women's rest rooms.

According to the study, vending machines have been well received by the public. Although refuse increased approximately 30% after the installation of the vending machines, there was only a negligible increase in litter. The study indicated that vandalism to the vending machines only occurred while custodians were not on duty. As a result, some vending machine buildings are being kept closed while unattended. In other instances, the State has provided 24-hour custodial coverage. Overall, the vending machines were found to generate a substantial amount of revenue for VDOT and the Department for the Visually Handicapped.

A survey of motorists was conducted during the study to identify the levels of usage for the rest area amenities. The survey produced the following profile of amenity usage:

<u>"Amenity Used</u>	<u>Percentage of Respondents*</u>
Rest room	97.2
Water fountain	43.7
Travel information	20.2
Parking lot	16.3
Trash cans	15.6
Telephone	11.5
Picnic table	8.6
Paths/grounds	7.2
Pet rest area	4.0
Benches	3.8
Cooking grill	.3

*There were 4,423 total responses tabulated due to the allowance of multiple responses to the question; therefore, percentages do not total 100."¹

¹Michael A. Perfater, An Examination of the Operation and Motorist Usage of Virginia's Highway Rest Areas and Welcome Centers, Virginia Transportation Research Council, 1988, page 26.

Resources

Pursuant to House Joint Resolution No. 96, this study is a result of a cooperative effort between the Department of State Police and VDOT. Both departments contributed substantially to the production of the study.

The Department of Criminal Justice Services (DCJS) provided invaluable assistance in the development of this study. In addition to conducting crime prevention evaluations of selected rest areas, DCJS personnel coordinated the assistance of crime prevention specialists from the Virginia Crime Prevention Association, the Prince William County Police Department, and the Emporia Police Department.

METHODOLOGY

VDOT supplied all background information on highway rest areas. This information included location, type, age, amenities, and type of custodial service. VDOT also provided 24-hour traffic counts for the interstate highway at each rest area and recommended the following formula to determine the number of visitors per day.

Traffic count x .10 (% of vehicles stopping) x 2.25 (average number of persons per vehicle) = Number of persons visiting rest area per day

In order to analyze criminal activity, all State Police Preliminary Investigative Reports (S. P. Form 102) and Complaint/Request/Incident Reports (S. P. Form 103) originating in rest areas between January 1, 1989, and April 30, 1990, were collected. In addition, all first sergeants with highway rest facilities in their areas were instructed to meet with local law enforcement personnel and obtain information on rest area crimes reported to local departments and arrests made by their personnel. The incidents reported to State and local law enforcement were examined to ascertain the type and level of criminal activity in rest areas and to identify any crime trends or patterns.

Reported criminal activity was examined to identify rest areas with relatively high levels of criminal activity. The following rest areas were identified and selected for site evaluations:

Goochland County, Interstate 64 rest area (east bound and west bound)
Greensville County, Interstate 95 rest area (north bound)
New Kent County, Interstate 64 rest area (east bound and west bound)
Prince William County, Interstate 66 rest area (west bound)
Prince William County, Interstate 95 (north bound and south bound)

During each site evaluation, crime prevention specialists conducted a security analysis to identify vulnerabilities and opportunities for improvement. A State Police representative assigned to the area was present at each site evaluation to answer questions and provide insight into specific crime problems at the rest area. A representative from VDOT was also present to supply information on rest area operations and design and to discuss opportunities for improvement.

A survey was conducted to determine the level of rest area crime in other states and the techniques used to address such crime. (See Appendix D.) The following states were included in the survey.

Connecticut	New Jersey
Delaware	New York
Florida	North Carolina
Georgia	Pennsylvania
Maine	Rhode Island
Maryland	South Carolina
Massachusetts	Vermont
New Hampshire	

CRIME ANALYSIS

For the purpose of this study, "criminal incidents" were examined. These incidents include crimes reported by victims, complaints of criminal activity reported by citizens, arrests made by law enforcement personnel, and situations requiring a law enforcement response such as a report of suspicious persons. By examining these aspects, a reasonably complete picture of criminal activity in rest areas should emerge.

There were some problems encountered in collecting information on rest area crime. For example, State Police reports are not configured in such a way as to allow automated retrieval of crime reports from rest areas. As a result, the reports had to be collected manually. Another problem concerned the information obtained from local law enforcement personnel. Some departments provided very detailed reports of criminal activity, while others supplied more general information.

The absence of a record of calls for service at rest areas presented another obstacle to the analysis of rest area crime. If a call for service did not result in a written report, there is no record of the incident available for analysis.

There is also a concern that certain types of crime may be under reported. Although reports are taken by the State Police on all serious crimes, reports of certain minor misdemeanor crimes are taken at the discretion of the trooper. For example, when vandalism is reported to the State Police, the trooper has the option of making an official report or taking informal notes on the incident. If a report is not made, the incident cannot be analyzed. This problem is compounded by the fact that rest area custodians may simply repair the damage rather than report the incident. Another type of crime that may be under reported is crime involving narcotics and vice offenses. Because there are no victims to report this type of crime, the only sources of information are citizen complaints and arrest statistics.

Between January 1, 1989, and April 30, 1990, there were 133 reported criminal incidents in Virginia's highway rest areas. During this 16-month period, over 68 million people visited these rest areas. When compared to the number of people visiting Virginia's rest areas, the number of reported criminal incidents appears quite insignificant. On the average, there was one criminal incident for every 513,443 visitors to rest areas.

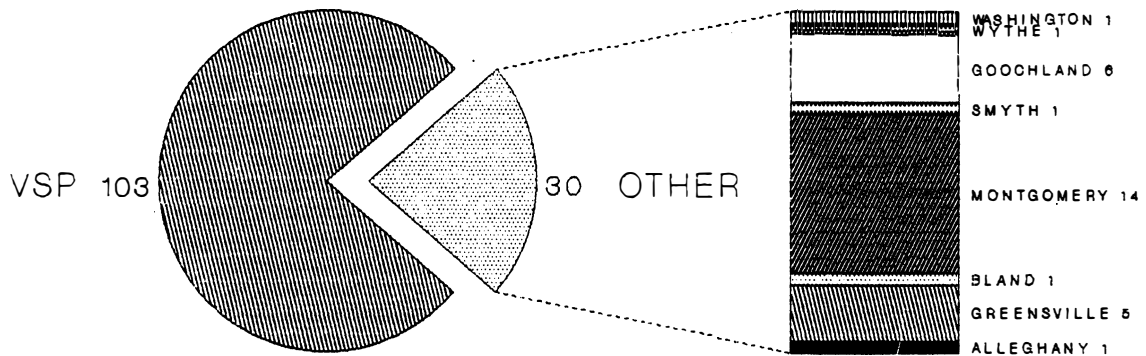
Criminal incidents in highway rest areas are generally handled by the State Police. During the study period, the State Police responded to 103 incidents, while local departments handled 30 cases. (See Graph 1.)

In most areas, the State Police assume sole responsibility for interstate rest areas. However, in some counties, local law enforcement personnel assume an active role in rest areas. In these areas, calls for service received by local agencies are handled, rather than referred to the State Police.

CRIME IN HIGHWAY REST AREAS BREAKDOWN BY AGENCY HANDLING INCIDENT

VSP VS.
OTHER AGENCIES

BREAKDOWN OF
OTHER AGENCIES



TIME PERIOD: 1-1-89 THROUGH 4-30-90

The following table presents a breakdown of criminal activity in rest areas by incident type.

<u>Incident Type</u>	<u>Number</u>
Grand Larceny	20
Recovered Stolen Vehicle	18
Drug Offense	16
Petit Larceny	11
Robbery	9
Vandalism	9
Homosexual Activity	8
Suspicious Person(s)	7
Indecent Exposure	5
Assault	5
Parking Complaint	4
Prostitution	4
Rape	3
Homicide	2
Mental Subject	2
Accident	1
Domestic	1
Driving Under the Influence	1
Drunk in Public	1
Escape of Prisoners	1
Habitual Offender	1
Reckless Driving	1
Runaway	1
Unauthorized Use of Vehicle	1
Weapons Violation	<u>1</u>
TOTAL	133

Approximately 14% of these incidents involved violence, such as homicide, rape, robbery, and assault, while the remaining 86% were nonviolent incidents such as larceny, vandalism, and vice offenses.

Violent Crime

There were 19 violent crimes reported in highway rest areas between January 1, 1989, and April 30, 1990. Although this number seems insignificant when compared to the number of persons utilizing the rest areas, the presence of violent crime can cause a great deal of fear and anxiety among the public and, therefore, should be closely examined.

Homicide

The breakdown of criminal activity by incident type indicated that there were two homicides in highway rest areas. This actually refers to one incident in which a young couple was murdered while traveling from the Richmond area to Virginia Beach. Their bodies were found in a wooded area approximately 0.4 miles northeast of Interstate 64 and Route 155. Their vehicle was recovered at the New Kent County, Interstate 64 rest area (west bound). However, there is no evidence to indicate that the couple was abducted from or murdered at the rest area.

There were three rapes reported in Virginia's rest areas during the study period.

1. Caroline County, Interstate 95 rest area (south bound). The victim was abducted from a local convenience store by a known suspect and taken to the rest area where she was raped.
2. Spotsylvania County, Interstate 95 rest area (south bound). The victim initially accepted money from the suspect in exchange for sex at a truck stop. The victim was then abducted from the truck stop and taken to the rest area where she was raped.
3. Wythe County, Interstate 81 rest area (north bound). The victim reported that she had been raped in the rest area. After an extensive investigation, Wythe County deputies concluded that the report was unfounded.

In two of the incidents, the victims were abducted from a store or truck stop and taken to a rest area where the rape actually occurred. In the remaining case, the report was unfounded. Overall, there were no incidents in which the offense originated in the rest area.

Robbery

There were nine robberies reported in Virginia's rest areas during the study period. One of the reports was determined to be unfounded. Five of the robberies involved weapons. The following chart presents a breakdown of these robberies by the type of weapon used.

<u>Weapon(s)</u>	<u>Number of Incidents</u>
Gun	2
Knife	2
Gun & Knife	1

In the eight founded cases of robbery, victims sustained various injuries. In two robberies, the victims were stabbed. In the remaining cases, the victims were beaten (2), pushed (2), choked (1), or threatened (1).

Assault

There were five assaults reported in rest areas during the 16-month study period. One assault was domestic related. Another was possibly related to homosexual activity in the rest area. Two incidents involved fights; and, in the remaining incident, a woman was "grabbed" and released by an unknown male.

Crime Patterns

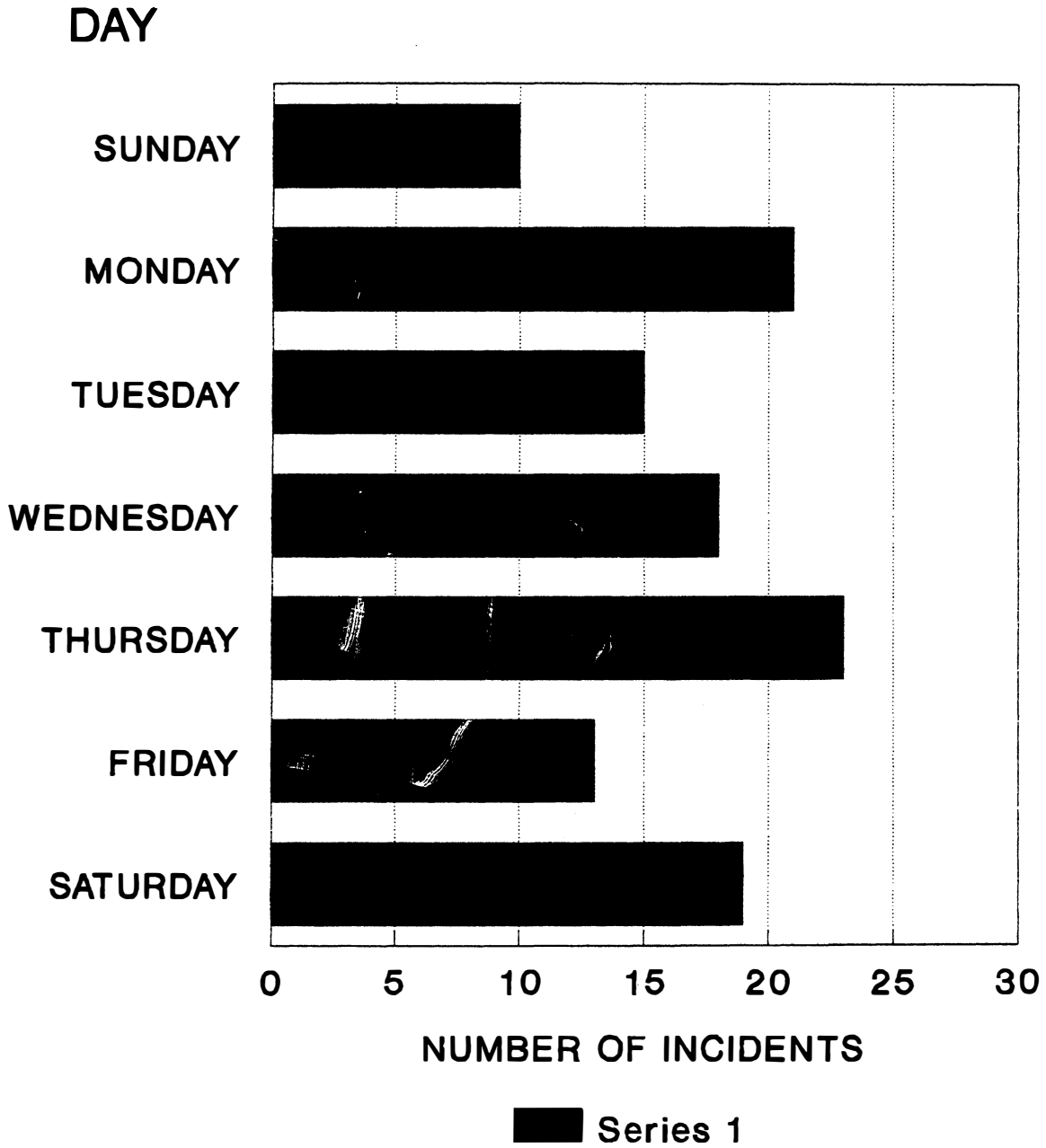
Criminal incidents that occurred in rest areas during the study period were also analyzed to identify general crime trends. First, the incidents were broken down by the weekday on which they occurred. (See Graph 2.) The exact day of occurrence could be determined for 120 incidents. The following chart presents a breakdown of these incidents.

<u>Weekday</u>	<u>Number of Incidents</u>	<u>Percentage</u>
Sunday	10	8.3%
Monday	21	17.5%
Tuesday	16	13.3%
Wednesday	18	15.0%
Thursday	23	19.2%
Friday	13	10.8%
Saturday	19	15.8%

There appears to be no clear pattern in the breakdown of incidents by day of occurrence.

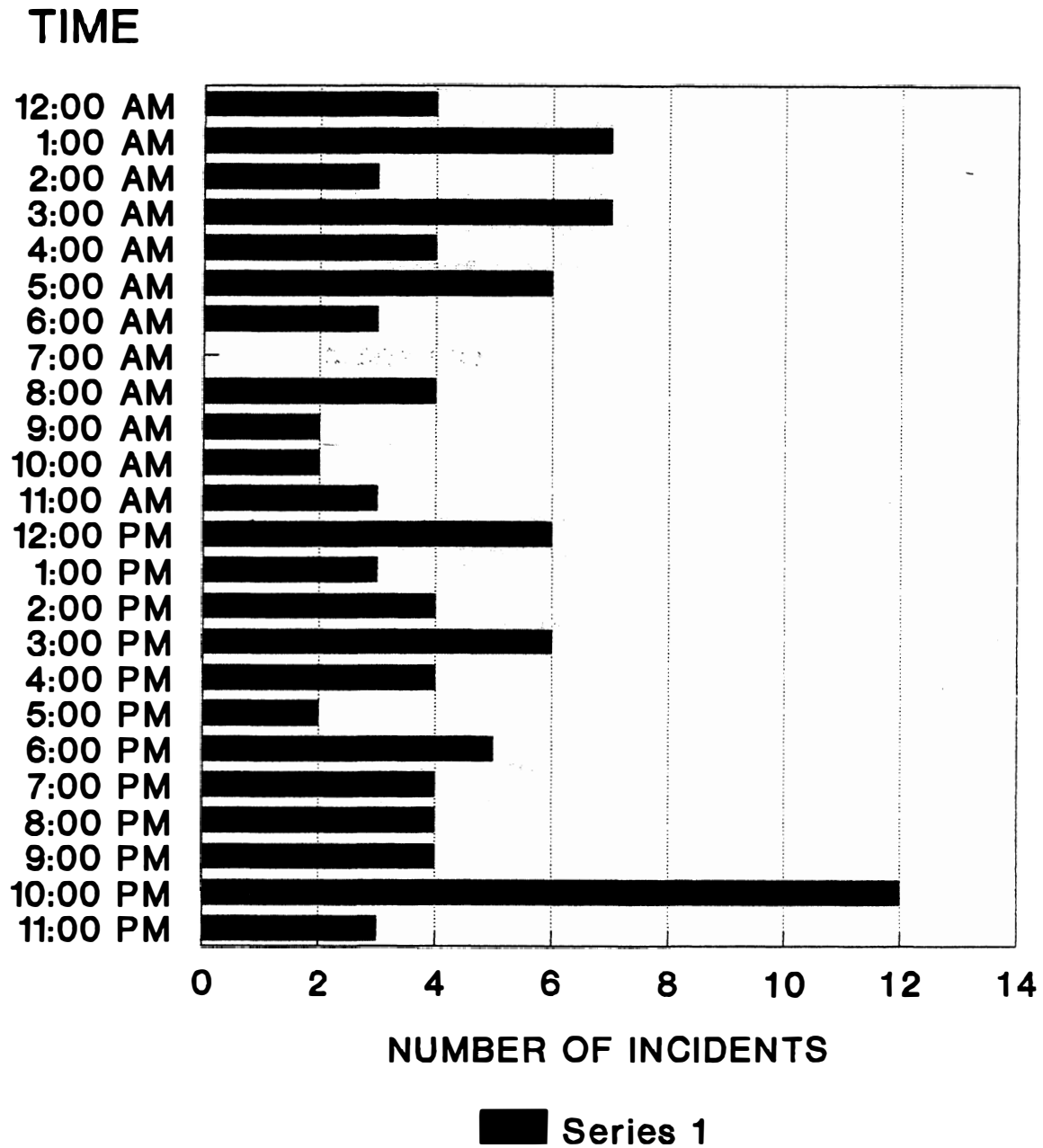
Secondly, criminal incidents were broken down by the time of occurrence, which could be determined in 103 cases. (See Graph 3.) An examination of these incidents shows an elevated level of criminal activity between 10 p.m. and 6 a.m. Approximately 46% of the reported criminal activity occurred during this 8-hour period. As previously indicated, most rest areas are unattended during these hours.

CRIME IN HIGHWAY REST AREAS BREAKDOWN BY DAY OF WEEK



TIME PERIOD: 1-1-89 THROUGH 4-30-90

CRIME IN HIGHWAY REST AREAS BREAKDOWN BY TIME OF DAY



TIME PERIOD: 1-1-89 THROUGH 4-30-90

SITE VISITS

After completing the crime analysis, eight rest areas that exhibited relatively high levels of criminal activity were selected for site evaluations. The site evaluation teams consisted of the following persons:

- VDOT assistant maintenance division administrator
- State Police employee(s) assigned to the area
- Local crime prevention specialists
- State Police lead analyst

At each site evaluation, team members were provided with a recap of criminal activity in the rest area during the study period. (See Appendix E.)

After completing the site evaluations, crime prevention specialists from DCJS, the Virginia Crime Prevention Association, and the Prince William County Police Department submitted reports of their findings, including vulnerabilities that were identified and recommendations for improvement. (See Appendix F.) A summary of their findings is presented below.

Landscaping

Visibility into and within rest areas is significantly decreased by the type and amount of landscaping. Trees with low hanging branches and large hedges reduce visibility in most of the rest areas examined and provide concealment for illegal activities. In one case, shrubbery around a men's rest room window was apparently concealing a great deal of activity at the window, as evidenced by the ripped screen and a large number of cigarette butts and beer cans outside of the window.

According to Mr. Patrick D. Harris of DCJS, "A key principal [sic] of crime prevention is to enhance visibility and increase opportunities for surveillance by users, maintenance staff, law enforcement personnel, and persons who pass by."

Lighting

Since site evaluations were conducted during day light hours, the teams were unable to accurately assess lighting at the rest areas. Interviews with custodial personnel indicated that rest area lighting is generally adequate. However, the evaluation teams did observe the following problems:

- Burned out light fixtures
- Dirty light fixtures
- Light fixtures overgrown by trees

The importance of lighting was stressed by all crime prevention specialists participating in the site evaluations. According to Officers P. S. Harmon and J. L. Hamilton of the Prince William County Police Department, "Lighting is one of the best ways to deter crime."

Property Identification

None of the rest areas examined had signs identifying the rest area location. Each rest area had a State map with a small "x" designating the location of the rest area. However, the maps have very small print and, in some cases, the "x" was simply scratched on the Plexiglas covering the map. In addition, the State map does not indicate the side of the interstate on which the rest area is located.

The absence of prominent signs designating rest area location can lead to confusion when citizens attempt to report crimes in rest areas. For example, an out-of-state crime victim may be unsure of the county or direction of travel when asked for his location. This confusion is compounded by the fact that, in some cases, there are several rest areas on an interstate in the same county. This confusion can cause critical delays in incidents requiring a quick law enforcement response.

Telephones

All rest areas are equipped with telephones. Very few of the telephones examined had the locations of the rest area on the instrument. The telephones that were labeled had the location information printed on a small plastic strip at the bottom of the message board. The labels were difficult to find and, in some cases, barely legible. As previously indicated, the lack of specific location information significantly inhibits the prompt and accurate reporting of crime in rest areas.

Picnic Areas

Many of the picnic facilities in rest areas are isolated and concealed by landscaping. During the site evaluations, the picnic areas were generally unused. The underutilization of picnic facilities was also noted in the study of rest area usage previously cited. "On average, 7 percent of these facilities were in use during daylight hours . . . As expected, usage of these facilities was highest during the summer; but, even then, these facilities were never found to be at or near capacity."²

During interviews with rest area custodians and State Police personnel, it became apparent that the isolated picnic tables were providing an ideal location for illegal activities. Problems with drug use and homosexual activity were repeatedly cited.

²Ibid, page 13.

Custodians

VDOT custodians assigned to rest areas wear a uniform consisting of a shirt and pants. However, at some rest areas maintained by private contractors, the custodians were only distinguishable by their uniform shirt. In the opinion of the evaluation teams, the full uniforms worn by VDOT custodians were more conspicuous and presented a more professional image.

Rest Rooms

In several rest areas inspected, the rest room windows were found to be left open for ventilation, which provides an unobstructed view of rest room occupants from the outside of the building. This allows people to determine the number of occupants, which can be dangerous for persons traveling alone. It also promotes homosexual activity.

Virginia's rest areas are equipped with three rest rooms. Generally, two are kept open while the third is closed for cleaning. When an open rest room needs to be cleaned, it is closed and the alternate, clean rest room is opened. The alternate rest rooms are also utilized when a large number of visitors necessitates the use of additional rest room facilities.

Routinely, custodians place signs in front of the alternate rest rooms indicating that they are closed for cleaning. However, once clean, these rest rooms are not kept locked while not in use. The presence of these closed, but unlocked, rest rooms provides concealment for criminals and criminal activity.

According to Mr. Harold A. Wright of the Virginia Crime Prevention Association, access and movement control are among the primary principles of a concept called "Crime Prevention Through Environmental Design (CPTED)." "The intent of access control is to limit access so that legitimate users of a space can be observed and therefore protected . . . Movement control within a space is also important as it directs individuals to areas that can be observed and controlled. It also serves to restrict access to areas that may be particularly vulnerable to crime."

LAW ENFORCEMENT INITIATIVES

Virginia

The Department of State Police uses a variety of methods to combat crime in rest areas, including patrol, the use of narcotic detector dogs, and surveillance and undercover operations. Troopers check rest areas as part of their routine patrol of the interstates. Some troopers drive through the rest areas, while others park and remain in the rest areas for extended periods. During one site evaluation, the area first sergeant indicated that he required his troopers to park, check the rest area, and speak with the travel counselors in the welcome center. In another area, the first sergeant requires troopers to check the rest areas once every hour or as often as manpower levels permit. This area also utilizes a narcotic detector dog in the rest areas.

In addition, State Police personnel occasionally conduct surveillance and undercover operations in rest areas. These operations generally target narcotics and vice offenses and usually result from citizen complaints or an unusual amount of incident reports from a particular rest area.

Other States

In order to determine the level of rest area crime in other states and to identify the methods used to combat such crime, a survey was conducted among 15 states. Responses were received from 14 states. The number of rest areas in these states ranged from 1 (Delaware) to 440 (New York). Very few of these states were able to provide specific information on the type and level of crime in rest areas. However, the following crime problems were repeatedly cited:

- Homosexual activity
- Prostitution
- Drug offenses
- Larceny

In the survey, agencies were asked to identify the strategies that they utilize to address the problem of crime in rest areas. The following strategies were identified by respondents:

<u>Strategy</u>	<u>Number of Agencies</u>
High visibility patrol	14
Surveillance/undercover operations	9
Crime prevention through environmental design	6
Sobriety check points in rest areas	1
Truck squad operation in rest areas	1

RECOMMENDATIONS

According to House Joint Resolution Number 96, "it is highly desirable that all possible efforts be made to control crime at highway rest stops." The following recommendations are offered to reduce crime and enhance public safety in highway rest areas.

1. Landscaping

- Trees should be thinned to increase visibility of the rest areas from the interstate and to improve visibility within the rest areas.
- Trees blocking light fixtures should be pruned or removed.
- Low hanging branches should be removed up to a height of 8 feet.
- Shrubs that obscure visibility because of their size or location should be pruned or removed.
- Shrubs around rest room windows should be removed.

2. Picnic Areas

- The size of picnic areas should be reduced by removing all isolated tables.

3. Signs

- All rest areas should have prominent signs designating the name and exact location of the rest area.
- Mr. R. L. Fink of VDOT estimates that VDOT can produce the signs at a cost of approximately \$100 per sign.

$$\$100 \times 40 \text{ rest areas} = \$4,000$$

4. Telephones

- All rest area telephones should be clearly labeled with the name of the rest area, the exact location, and the toll-free telephone number of the State Police Division Headquarters. This information should be conspicuous by both its size and location on the instrument.

5. Lighting

- Light fixtures should be carefully maintained so that problems with dirty or burned out fixtures are immediately corrected.
- After the removal of overgrowth from around light fixtures, VDOT should have crime prevention experts evaluate rest areas at night to determine if the current lighting is adequate.

6. Custodians

- Contract custodians should be required to wear full uniforms consisting of a uniform shirt and pants.
- Custodians should be encouraged to maintain a high profile presence by periodically walking about the rest areas.
- Custodians should be trained to recognize and report suspicious activity.

7. Rest Area Operations

- Alternate rest rooms should be kept locked when not in use.
- At least one of the glazed rest room window panes should be kept in the lower position to prevent observation of the rest room from outside. The upper portion of the sash may be left open for ventilation, if necessary.

8. Law Enforcement Operations

- In order to accurately document crime in rest areas and develop appropriate strategies to address such crime, State Police personnel should be required to make formal reports of all crime reported in rest areas. For misdemeanor offenses not requiring the completion of the State Police Preliminary Investigative Report (S. P. Form 102), troopers should utilize a Complaint/Request/Incident Report (S. P. Form 103) or a memorandum to the division commander.

9. VDOT should confer with the crime prevention practitioners before additional rest areas are designed and built in order to effectively utilize the concepts of crime prevention through environmental control.

APPENDICES

APPENDIX A

<u>District</u>	<u>County</u>	<u>Route</u>	<u>Mile Post</u>	<u>Location</u>	<u>Persons/Day</u>
Bristol	Smyth	81	54.00	17 SBL	1,890
	Washington	81	.25	13A NBL	1,913
	Washington	81	13.90	14 NBL	3,150
	Bland	77	59.70	13 NBL	1,800
	Bland	77	61.90	13 SBL	1,800
	Wythe	81	61.00	18 NBL	1,890
Culpeper	Albemarle	64	105.30	3 EBL	2,093
	Albemarle	64	113.00	3 WBL	2,430
Fredericksburg	Caroline	95	108.00	37 NBL	5,063
	Caroline	95	108.00	37 SBL	5,063
	Spotsylvania	95	131.80	38 SBL	6,885
Northern VA	Prince William	66	48.70	10 EBL	6,525
	Prince William	66	48.80	10 WBL	6,525
	Prince William	95	153.90	39A SBL	10,463
	Prince William	95	154.50	39A NBL	10,463
	Prince William	95	156.00	39 NBL	10,463
	Prince William	95	156.00	39 SBL	10,463
Richmond	Goochland	64	168.40	5 WBL	1,890
	Goochland	64	169.30	5 EBL	1,890
	Dinwiddie	85	55.00	32 SBL	1,856
	Dinwiddie	85	55.00	32 NBL	1,856
	New Kent	64	213.50	6 WBL	3,510
	New Kent	64	213.50	6 EBL	3,510
	Brunswick	85	32.00	31 SBL	1,305
	Brunswick	85	32.00	31 NBL	1,305
	Mecklenburg	85	.60	30 NBL	1,553
Salem	Montgomery	81	108.50	21 NBL	2,306
	Montgomery	81	108.50	21 SBL	2,306
	Montgomery	81	129.20	22 NBL	3,465
	Carroll	77	.25	11 NBL	1,733
	Botetourt	81	158.10	23 SBL	2,475
Staunton	Frederick	81	320.00	29 SBL	2,745
	Rockingham	81	262.00	27 NBL	2,250
	Rockingham	81	262.20	27 SBL	2,250
	Alleghany	64	2.60	1 EBL	788
	Rockbridge	81	199.10	25 SBL	2,700
	Augusta	81	232.20	26 NBL	2,858
	Augusta	81	232.20	26 SBL	2,858
Suffolk	Accomack	13	.25	Rte. 13	1,778
	Greensville	95	.10	33 NBL	<u>2,734</u>

140,800

APPENDIX B

<u>District</u>	<u>County</u>	<u>Route</u>	<u>Mile Post</u>	<u>Location</u>	<u>Staffing</u>
Bristol	Smyth	81	54.00	17 SBL	6 a.m.-10 p.m. (VDOT)
	Washington	81	.25	13A NBL	6 a.m.-10 p.m. (VDOT)
	Washington	81	13.90	14 NBL	6 a.m.-10 p.m. (Contract)
	Bland	77	59.70	13 NBL	6 a.m.-10 p.m. (VDOT)
	Bland	77	61.90	13 SBL	6 a.m.-10 p.m. (VDOT)
	Wythe	81	61.00	18 NBL	6 a.m.-10 p.m. (VDOT)
Culpeper	Albemarle	64	105.30	3 EBL	6:30 a.m.-11 p.m. (VDOT)
	Albemarle	64	113.00	3 WBL	6:30 a.m.-11 p.m. (VDOT)
Fredericksburg	Caroline	95	108.00	37 NBL	5 a.m.-10 p.m. (Contract)
	Caroline	95	108.00	37 SBL	5 a.m.-10 p.m. (Contract)
	Spotsylvania	95	131.80	38 SBL	24 hrs./day (Contract)
Northern VA	Prince William	66	48.70	10 EBL	24 hrs./day (Contract)
	Prince William	66	48.80	10 WBL	24 hrs./day (Contract)
	Prince William	95	153.90	39A SBL	24 hrs./day (Contract)
	Prince William	95	154.50	39A NBL	24 hrs./day (Contract)
	Prince William	95	156.00	39 NBL	24 hrs./day (VDOT)
	Prince William	95	156.00	39 SBL	24 hrs./day (VDOT)
Richmond	Goochland	64	168.40	5 WBL	5 a.m.-10 p.m. (Contract)
	Goochland	64	169.30	5 EBL	5 a.m.-10 p.m. (Contract)
	Dirwiddie	85	55.00	32 SBL	5 a.m.-10 p.m. (VDOT)
	Dirwiddie	85	55.00	32 NBL	5 a.m.-10 p.m. (VDOT)
	New Kent	64	213.50	6 WBL	5 a.m.-10 p.m. (Contract)
	New Kent	64	213.50	6 EBL	5 a.m.-10 p.m. (Contract)
	Brunswick	85	32.00	31 SBL	5:30 a.m.-10 p.m. (VDOT)
	Brunswick	85	32.00	31 NBL	5:30 a.m.-10 p.m. (VDOT)
	Mecklenburg	85	.60	30 NBL	5:30 a.m.-10 p.m. (VDOT)
Salem	Montgomery	81	108.50	21 NBL	8 a.m.-10 p.m. (VDOT)
	Montgomery	81	108.50	21 SBL	8 a.m.-10 p.m. (VDOT)
	Montgomery	81	129.20	22 NBL	8 a.m.-10:30 p.m. (VDOT)
	Carroll	77	.25	11 NBL	7 a.m.-7 p.m. (VDOT)
	Botetourt	81	158.10	23 SBL	6 a.m.-10 p.m. (VDOT)
Staunton	Frederick	81	320.00	29 SBL	7 a.m.-11 p.m. (VDOT)
	Rockingham	81	262.00	27 NBL	6 a.m.-11 p.m. (Contract)
	Rockingham	81	262.20	27 SBL	6 a.m.-11 p.m. (Contract)
	Alleghany	64	2.60	1 EBL	7 a.m.-11 p.m. (VDOT)
	Rockbridge	81	199.10	25 SBL	7 a.m.-11 p.m. (VDOT)
	Augusta	81	232.20	26 NBL	6 a.m.-11 p.m. (Contract)
	Augusta	81	232.20	26 SBL	6 a.m.-11 p.m. (Contract)
Suffolk	Accomack	13	.25	Rte. 13	8 a.m.-5 p.m. (VDOT)
	Greensville	95	.10	33 NBL	7 a.m.-8:30 p.m. (VDOT)

Vending Machine Facilities

Operational

Spotsylvania County, I-95 (SB)
New Kent County, I-64 (EB & WB)
Mecklenburg County, I-85 (NB)
Montgomery County, I-81 (NB & SB)
Augusta County, I-81 (NB & SB)
Greensville County, I-95 (NB)

Proposed

Bland County, I-77 (NB & SB)
Washington County, I-81 (NB)
Albemarle County, I-64 (EB & WB)
Caroline County, I-95 (NB & SB)
Prince William County, I-95 Truck Rest Area (NB & SB)
Prince William County, I-95 (NB & SB)
Goochland County, I-64 (EB & WB)
Brunswick County, I-85 (NB & SB)
Dinwiddie County, I-85 (NB & SB)
Carroll County, I-77 (NB)
Montgomery County, I-81 (NB)
Alleghany County, I-64 (EB)
Rockbridge County, I-81 (SB)
Rockingham County, I-81 (NB & SB)
Frederick County, I-81 (SB)

HIGHWAY REST STOP SURVEY

I. Jurisdiction _____

II. How many highway rest stops are located within your state? _____

III. Which alternative most accurately describes the staffing schedule at your rest stops?

_____ Staffed 24 hours/day

_____ Staffed 16 hours/day

_____ Staffed 8 hours/day

_____ Not staffed

IV. What type of personnel are assigned to your rest stops?

_____ Custodial personnel

_____ Security guards

_____ Information personnel

V. Do you have vending machines at your highway rest stops? _____

VI. Have you experienced significant problems with criminal activity at your rest stops? _____

VII. What types of crime occur at your highway rest stops? (Please provide totals and percentages to identify the approximate level of each.)

<u>NUMBER</u>	<u>PERCENTAGE</u>	
_____	_____	Homicide
_____	_____	Rape
_____	_____	Robbery
_____	_____	Abduction
_____	_____	Assault
_____	_____	Larceny
_____	_____	Drug Offenses
_____	_____	Prostitution
_____	_____	Homosexual Acts
_____	_____	Other (Please List)

VIII. What strategies have you utilized to address the problem?

_____ Crime Prevention through Environmental Design

_____ High Visibility Patrol

_____ Surveillance/Undercover Operations

IX. Please describe any additional strategies that you utilize to combat crime at rest stops.

If your department has conducted any research concerning crime at rest stops, please include a copy of your findings with the completed survey.

I-64, NEW KENT, EASTBOUND

Age of Facility	13 years
Average Number of Visitors Per Day	3,510
Staffing	5 a.m. - 10 p.m., by contract
Vending Machines	Yes

<u>Date</u>	<u>Time</u>	<u>Day of Week</u>	<u>Crime/Incident</u>
3/15/89	9:40 a.m.	Wednesday	Drug Offense (Marijuana)
3/20/89	10:15 p.m.	Monday	Stolen Vehicle Recovered
3/20-21/89	?	Monday-Tuesday	G. L. (Tools from truck)
5/3/89	10:35 p.m.	Sunday	Drug Offense (Marijuana & Cocaine)
6/28/89	1:00 a.m.	Wednesday	Oral Sodomy
9/12/89	11:15 a.m.	Tuesday	Drug Offense (Marijuana)
11/13/89	6:55 p.m.	Monday	Drug Offense (Cocaine)
11/13/89	11:45 p.m.	Monday	Drug Offense (Cocaine)
4/20/89	8:30 p.m.	Friday	Drug Offense (Marijuana & Cocaine)

I-64, NEW KENT, WESTBOUND

Age of Facility	13 years
Average Number of Visitors Per Day	3,510
Staffing	5 a.m. - 10 p.m., by contract
Vending Machines	Yes

<u>Date</u>	<u>Time</u>	<u>Day of Week</u>	<u>Crime/Incident</u>
2/25/89	12:45 p.m.	Saturday	Indecent Exposure
3/18/90	9:50 p.m.	Sunday	Stolen Vehicle Recovered
7/1-3/90	?	Sunday-Monday	G. L. (Money from safe)
9/4-5/89	?	Monday-Tuesday	Homicide (2)
2/6/90	4:50 p.m.	Tuesday	Escape of Prisoners
3/31/90	10:45 p.m.	Friday	Drug Offense (Marijuana)

I-64, GODCHLAND, EASTBOUND

Age of Facility	18 years
Average Number of Visitors Per Day	1,890
Staffing	5 a.m. - 10 p.m. by VDOT
Vending Machines	No

<u>Date</u>	<u>Time</u>	<u>Day of Week</u>	<u>Crime/Incident</u>
3/19/89	1:36 a.m.	Sunday	Drunk in Public
3/22/89	10:49 a.m.	Wednesday	Indecent Exposure
10/14/89	4:52 p.m.	Saturday	Drug Offense (Marijuana)

I-64, GOOCHLAND, WESTBOUND

Age of Facility	18 years
Average Number of Visitors Per Day	1,890
Staffing	5 a.m. - 10 p.m. by VDOT
Vending Machines	No

<u>Date</u>	<u>Time</u>	<u>Day of Week</u>	<u>Crime/Incident</u>
3/1/89	10:27 p.m.	Wednesday	Suspicious Person
3/25/89	1:15 a.m.	Saturday	P. L. (Purse from vehicle)
4/14/89	6:10 a.m.	Friday	Drug Offense (Marijuana)
5/12/89	6:51 p.m.	Friday	P. L. (Purse from vehicle)
8/3/89	3:25 a.m.	Thursday	Robbery (Gun)

I-66, PRINCE WILLIAM, WESTBOUND (WELCOME CENTER)

Age of Facility	25 years
Average Number of Visitors Per Day	6,525
Staffing	24 hours per day by contract
Vending Machines	No

<u>Date</u>	<u>Time</u>	<u>Day of Week</u>	<u>Crime/Incident</u>
3/25/89	5:45 a.m.	Saturday	Drug Offense (Marijuana)
6/14/89	?	Wednesday	G. L. (Ring from sink)
8/28/89	2:40 a.m.	Monday	Habitual Offender
10/15/89	3:15 p.m.	Sunday	Robbery/Assault (Strong arm)
3/19/90	4:00 p.m.	Monday	Drug Offense (Marijuana)
4/2/90	3:00 a.m.	Monday	G. L. (Tools from shed)

I-95, PRINCE WILLIAM NORTHBOUND (CAR)

Age of Facility	25 years
Average Number of Visitors Per Day	10,463
Staffing	24 hours per day by VDOT
Vending Machines	No

<u>Date</u>	<u>Time</u>	<u>Day of Week</u>	<u>Crime/Incident</u>
2/22/89	8:10 a.m.	Wednesday	Stolen Vehicle Recovered
2/27/89	3:30 p.m.	Monday	P. L. (Property from vehicle)
2/2/90	12:30 a.m.	Thursday	Simple Assault (Domestic)
2/19/90	5:45 a.m.	Monday	Drug Offense (Cocaine)
2/24/90	11:30 a.m.	Saturday	Stolen Vehicle Recovered
3/24/90	9:35 p.m.	Saturday	Drug Offense (Cocaine)
3/30-4/1/90	?	Friday-Sunday	P. L. (Hubcaps from vehicle)
4/18/90	7:35 p.m.	Wednesday	G. L. (Drove off with property)
4/23/90	10:15 p.m.	Monday	Simple Assault
4/25/90	2:40 a.m.	Wednesday	Robbery (Gun)

I-95, PRINCE WILLIAM, SOUTHBOUND (CAR)

Age of Facility	25 years
Average Number of Visitors Per Day	10,463
Staffing	24 hours per day by VDOT
Vending Machines	No

<u>Date</u>	<u>Time</u>	<u>Day of Week</u>	<u>Crime/Incident</u>
9/17/89	12:05 p.m.	Sunday	Drug Offense (Paraphernalia)
10/30/89	6:58 p.m.	Monday	Stolen Vehicle Recovered
12/7/89	9:30 a.m.	Thursday	Drug Offense (Marijuana)
12/22/89	4:00 a.m.	Friday	Robbery (Gun, knife)
2/6/90	10:30 p.m.	Tuesday	Simple Assault
2/16/90	5:25 p.m.	Friday	Stolen Vehicle Recovered
3/14/90	8:34 a.m.	Wednesday	Stolen Vehicle Recovered
3/22/90	5:10 a.m.	Thursday	Stolen Vehicle Recovered
4/30/90	9:40 p.m.	Monday	Drug Offense (Marijuana)

I-95, GREENSVILLE, NORTHBOUND (WELCOME CENTER)

Age of Facility	25 years
Average Number of Visitors Per Day	2,734
Staffing	7 a.m. - 8:30 p.m. by VDOT
Vending Machines	Yes

<u>Date</u>	<u>Time</u>	<u>Day of Week</u>	<u>Crime/Incident</u>
4/17/89	10:30 a.m.	Monday	Stolen Vehicle Recovered
4/22/89	2:45 p.m.	Saturday	G. L. (Watch from arm)
4/26/89	12:00 p.m.	Tuesday	Stolen Vehicle Recovered
5/23/89	10:06 p.m.	Tuesday	Mental Subject
6/24/89	?	Saturday	G. L. (Purse)
9/14/89	12:40 a.m.	Thursday	Vandalism
10/13/89	10:35 p.m.	Friday	P. L. (Purse snatch)
12/5/89	6:50 p.m.	Tuesday	Stolen Vehicle Recovered
2/7/90	7:40 p.m.	Wednesday	Attempted Robbery/Assault (Knife)



REGIONAL CHAPTERS
Central Virginia Crime Prevention Association
Northern Virginia Crime Prevention Association
Southwest Virginia Crime Prevention Association
Hampton Roads Crime Prevention Association

P. O. BOX 6942 • RICHMOND, VIRGINIA 23230 • (804) 747-9193

July 26, 1990

Ms. Nancy Dunn
Planner
Virginia State Police
P.O. Box 27472
Richmond, Virginia 23261-7472



Dear Nancy:

The attached represents my findings and recommendations concerning the security of interstate rest areas in Goochland and New Kent counties.

Please feel free to call me at 804/266-7506 if you need further explanation about any of the attached.

Best Wishes,

Harold A. Wright



TAKE A BITE OUT OF
CRIMETM

SECURITY ANALYSIS OF SELECTED INTERSTATE REST AREAS
AND
OPPORTUNITIES FOR IMPROVEMENT

BACKGROUND

Patrick D. Harris of the Department of Criminal Justice Services contacted me to determine if I was interested in working with the Virginia State Police and others to conduct a security analysis of selected interstate highway rest areas.

On July 9, 1990 I met the designated survey team at the I-64 rest area in Goochland. For the next five hours we inspected four rest areas.

My part in the inspections should not be construed as a complete and thorough analysis. Because of the limited time devoted to this project, the following should be considered as observations of the more obvious conditions that may enhance the opportunity for crime at the rest areas. Furthermore, the recommendations contained in this report are intended to reduce the opportunity for crime at the rest areas inspected. They should not be interpreted as a guarantee that no further crime will occur at the selected rest areas.

INTRODUCTION TO CRIME PREVENTION AND SECURITY

This section is intended to serve as an introduction to crime prevention and security. It also may serve as a foundation for the finding and opportunities for improvement sections of this report and a more comprehensive one prepared by the State Police.

Crime prevention is defined as:

The anticipation, recognition, and appraisal of a crime risk and the initiation of some action to remove or reduce it.

This definition was formulated by the National Crime Prevention Institute at the University of Louisville in the late sixties. It is now universally accepted as the definition for crime prevention.

It is around this definition that essentially every law enforcement agency in America has built its crime prevention program. The definition also accurately describes the security function.

If a homeowner or business is to provide for the safety and security of their person and property they must first determine the extent to which they are at risk. As the definition suggest, it is necessary to anticipate the crime risk by identifying factors which produce it. For rest areas, the risk is apparent. Users of rest areas serve as available targets for personal and property crimes. There is also an inherent risk to the property itself.

To recognize the risk is to properly identify it. Rest areas can reasonably consider themselves to be at risk to vandalism. They can reasonably consider users of rest areas to be at risk to robbery, assault, larceny, auto theft, and rape.

The process of appraising the crime risk reveals the extent of the risk and the degree of vulnerability. It is necessary to undertake an assessment in order to identify factors that contribute to the risk. Among others, they include: past history of crime on the property, crime in the immediate neighborhood of the property, other properties nearby that may serve as crime and disorder generators, stability of the neighborhood, and the degree to which the site or the facility represents more of a target than other surrounding businesses.

Making an appraisal of the crime risk also implies the need to determine the degree to which the property is vulnerable to the threat of crime.

This phase of the assessment will identify security weaknesses and strengths. In burglary prevention seminars for homeowners, law enforcement officers suggest that the homeowner pretend he is locked out of his house. He is asked how he would break into his own home if there were no spare keys. Officers then make the point that a burglar would probably come to the same decision. Hence, the homeowner identifies the areas of vulnerability.

At a rest area, it is necessary for a staff member, security manager, law enforcement officer, or hired consultant to conduct an assessment to identify areas of vulnerability for each of the risks. In short, what are the opportunities to commit crime on the property?

Once risks have been anticipated, recognized, and appraised, the next step is to devise appropriate security or crime prevention strategies. The strategies chosen must relate directly to the risks in order to be effective.

Finally, it is necessary to initiate or put into action the chosen strategies in order to reduce the opportunity for crime.

Assessing security is an on-going process. It requires constant evaluation to determine if security measures are in response to risks. Although the risks themselves may not change drastically, the degree to which they threaten the property and its users may. For instance, a rash of crimes in an area should alert those responsible for security that extra precaution is needed until the police apprehend the subject.

Elements of a Crime

There are three elements common in every incident of crime: the desire of the criminal, his ability to commit the act, and the opportunity. To prevent a crime from occurring it is necessary to remove one of the three.

There is little that an owner or manager of a business can do individually to remove the desire or the ability of a person intent on

committing a criminal act. Educational programs directed at reducing the public's desire to commit crime are undertaken on a community wide basis through school systems, churches, government agencies, and community organizations. For the most part, the criminal justice system attempts to address the ability of the criminal by apprehending and incarcerating law violators.

Although home and business owners may contribute to community efforts which attempt to remove the desire of individuals to commit crime, most recognize that other steps must be taken to provide for the safety and security of their property, assets, family, employees, and customers.

Realistically, the only other option available is to take the necessary action to remove or reduce the opportunity for crime.

Reducing the Opportunity for Crime

The opportunity for crime can be removed or reduced naturally, through organized methods, and by securing or hardening the crime target.

Naturally

The opportunity for crime can be removed or reduced when the built environment is designed to allow for natural surveillance, controls access and movement, fosters territoriality, avoids design conflicts, and limits unassigned spaces. Together, these factors are considered the primary principles of a concept called Crime Prevention Through Environmental Design, or CPTED.

Surveillance - Surveillance deters crime in that criminals are more likely to recognize the threat of being observed and reported. It also assists with crime detection and reporting because legitimate users of a space are able to observe what is occurring around them.

Access and Movement Control - The intent of access control is to limit access so that legitimate users of a space can be observed and therefore protected. Access control also serves to increase the criminal's perception of risk if entry into a space is restricted to an area that is under the control of someone who can observe and report.

Movement control within a space is also important as it directs individuals to areas that can be observed and controlled. It also serves to restrict access to areas that may be particularly vulnerable to crime.

Territoriality - The design of the built environment can create a sense of proprietorship among legitimate users of a space, including employees of a business. When the primary users of a space assume "ownership", they are more likely to protect it against crime and social disorders such as vandalism, loitering, and deterioration. Territoriality can reduce the opportunity for crime by increasing the criminal's perception of risk. A major factor which influences territoriality is the extent to which the property is physically defined.

Design Conflicts - Design conflicts occur when two incompatible activities or businesses are located adjacent to one another or when a business is located in a neighborhood where other businesses are incompatible. Design conflicts can result in a greater opportunity for crime as well as an increased fear of crime. Design conflicts should be avoided when selecting building locations. Existing businesses which are in conflict with others in the neighborhood by purpose of function should create the perception of separation by barriers and plantings along the property boundary.

Unassigned Spaces - Unassigned spaces relate directly to territoriality and are considered spaces over for which no one seemingly has control. Such spaces can be a vacant lot, parking lots in some circumstances, lobbies, corridors, and other open spaces.

Organized Methods

Although the built environment can have the effect of reducing the opportunity for crime, it is usually necessary to employ organized methods to ensure the security of property and assets and the personal safety of users. Businesses and institutions that have initiated a security department or function have done so because of the need to protect property, assets, and persons against the threat of crime.

Organized methods can encompass any number of strategies, including, among others: identifying crime risks, assessing the extent to which the property is secure against crime risks, developing security policy and procedures, assigning the responsibility for security to a staff member, providing security training to staff, providing education material to staff and visitors, conducting stationary and mobile security patrols, collecting and analyzing incident reports, and creating a formalized security operation.

Of course the type and degree of organized methods initiated depends on the threat of crime.

Target Hardening

Target hardening measures such as upgrading locks, doors, windows, and lighting depend on the crime risk and the extent to which the criminal's opportunity is reduced or removed naturally and through organized security methods. Likewise, the application of security measures such as the installation of alarms, closed circuit television, and others is dependent on the threat of crime.

ANALYSIS OF CRIME AND POLICE CALLS FOR SERVICE AT REST AREAS

The Virginia State Police had compiled crime statistics for the affected rest areas from January 1989 to present. The information compiled included both Part I and Part II crimes. Since there is nothing against which to compare the twenty-three incidents, I have

chosen to comment only on the data that was not obtained, apparently because it was not available.

The representative from the Highway Department stated that rest areas were victimized at times from vandalism. However, the state police apparently do not take official reports of vandalism. According to a state police spokesperson, troopers only record acts of vandalism in their daily logs.

Also missing was the number and types of police "calls for service" to rest areas. Typically, both the state police and local departments respond to citizen complaints originating from rest areas. This information would have been most helpful in understanding the nature of problems at the rest areas as well as when they were most likely to occur.

It is probable that a number of criminal and related offenses occur at rest areas but are not reported or detected by law enforcement. The more prevalent ones include drug offenses, prostitution, sodomy, indecent exposure, theft, and assaults.

Opportunities for Improvement

The State of Virginia provides a substantial amount of funding to local sheriff and police departments. It should therefore insist on certain standards concerning the collection and storage of crime and related data. To this end, the state should establish a task force to consider the collection and retrieval of data. It should then seek legislation which requires that local jurisdictions comply if they wish to receive 599 funds or those from the Compensation Board.

ANALYSIS OF PHYSICAL SECURITY

Lighting

A visit to one of the rest areas (New Kent Westbound) on July 9th revealed that lighting most likely met lighting standards for such facilities. However, there was a perception that the lighting was inadequate. One of the lights in front of the facility was burned out at the time of my visit.

Telephones

Only a few of the phones inspected had the name and location of the rest area on the instrument. This information appeared on a plastic strip at the bottom of the message board. In some instances it was almost concealed. In all instances it was difficult to find on the instrument. This would be especially true if someone had to make an emergency call.

All but a few of the pay phones at the rest areas were turned so that it would be difficult to determine if anyone was using them.

Location Signs

None of the rest areas visited had a sign indicating the name or location of the rest area.

Landscaping Design

Goochland Westbound

The restroom facility is located in a park-like setting. Picnic areas are on both the west and east side of the facility. The entire parking area is lined with trees and shrubs. During the visit they were so thick that it was impossible to see into the picnic area from the parking lot. Too, users are unable to observe the restroom area unless they are parked directly in front of it.

There are also trees in the medium strip which make it difficult to observe the rest area from the interstate.

Goochland Eastbound

The design of the eastbound rest area is much more practical than the the westbound one. The picnic area is relatively small and visibility is generally good.

It is possible to see the rest area from the interstate. This is also a good design in that it at least creates the perception that wrongful acts can be observed.

New Kent Eastbound

The eastbound rest area has several picnic areas. Two are located immediately to the west and east of the restroom. The third is located some distance from the facility and is extremely isolated.

There is no opportunity to observe the rest area from the interstate as trees separate the two areas.

New Kent Westbound

The westbound rest area also has three picnic areas. The most isolated area is less so than the one located in the eastbound rest area since it is between the automobile and truck parking lots.

There is a small opening among the trees along the interstate which allows limited observation of the rest area.

There is a wall topped with scrubs along the east entrance to the restroom. This configuration makes visibility to the east difficult and serves to separate the restroom from the area around it.

Opportunities for Improvement

- o All rest areas should be over-lighted to create the perception that illegal or anti-social behavior will be observed.

- o A prominent sign should be installed at the entrance to each rest area which identifies the location of the rest area. A similar sign should be installed over the bank of telephones at each rest area. It is recommended that sign identify the interstate, direction, and the county, i.e., I-64 Eastbound, Goochland.
- o A telephone should be installed at each rest area which can be used from the automobile.
- o All trees and scrubs which limits observation from the parking area to the rest area facility should be removed or thinned. Likewise, all plantings which impede observation between the facility and the areas should be removed or thinned.
- o The use of picnic areas which are isolated from the rest area facility should be discontinued and the tables removed.
- o Trees along the interstate which serve to restrict surveillance of the rest areas should be removed. In short, rest areas should be visible from the interstate.

POLICIES

The four rest areas inspected are staffed by maintenance personnel from 5:00 AM to 10:00 PM. They are distinguishable by a uniformed shirt.

The state police periodically patrols through the rest areas. The number of patrols depends on the trooper and amount of time available.

Opportunities for Improvement

- o Rest areas which cannot be seen from the interstate and have large picnic areas should be staffed twenty-four hours a day. Maintenance personnel should be furnished with a uniform consisting of pants and shirt. They should be instructed to spend idle time patrolling the facility so that their presence is recognized. A sign should be installed indicating that an attendant is on duty.
- o Sworn state police officers assigned to the interstates should be instructed to leave their vehicle and inspect rest areas during their shift, especially evening and midnights. Local law enforcement should be encouraged to check rest areas.
- o The Highway Department should confer with the Virginia Crime Prevention Association and the Department of Criminal Justice Services before additional rest areas are designed and built in order to better understand the relationship between crime and the built environment.



COUNTY OF PRINCE WILLIAM

15960 Cardinal Drive, Woodbridge, Virginia 22191
(703) 335-7200

POLICE
DEPARTMENT

Charlie T. Deane
Chief of Police

July 26, 1990

FROM: OFFICER P. S. HARMAN *PSH*
OFFICER J. L. HAMILTON *JLH*

TO: ANALYST NANCY G. DUNN, VA STATE POLICE

RE: INTERSTATE REST AREA VULNERABILITY EVALUATION



On Monday July 23, 1990 Officer Hamilton and I met with Ms. Dunn and two State Police officials to conduct a vulnerability study of the interstate rest areas located with the boundaries of Prince William County.

Contained in this report are the results of that study. It identifies specific areas and problems and concludes with some overall recommendations for all four sites. The enclosed pictures have been marked to coincide with this report.

I - I95 Northbound Rest Area
Located between Rt 234 and Dale City

We found this location to present the highest number of identifiable vulnerabilities. Problem areas are as follows:

A) Pet Area

Problem: The pet area is lined with large pine trees. (Photo NB #1) These trees hinder visibility from the main rest area and provide concealment for would be perpetrators. This problem intensifies at night when the only available light is directed from the pet area to the parking area creating a back drop of darkness. (Photo NB #2)

Recommendation: Shorten the trees to a height of 4' (four feet) or remove them all together. Place ground level lighting along the chain link fence to light the pet area strip and increase natural surveillance from the common area and parking lot.



B) Brick Retaining Wall (Photo NB #3)

Problem: The hedge surrounding the wall provides an area of concealment and blocks the strongest available light from the parking area.

Recommendations: Remove the hedge completely.

C) Hedges (Photos NB #4-8)

Problem: The hedges located in the picnic areas are overgrown and concealing. In their present condition they do not even offer the aesthetic value for which they were intended.

Recommendation: Reduce and maintain all hedges to a height of 3' (three feet) or remove. All picnic areas should remain open and clear of obstruction as shown in photo NB #9.

D) Rest Area Structure

Problem: The approach to the front of building from the building from the parking area (Photos NB #10-11) is clear, however, at night the fullness of the trees inhibit the available light to the walkway.

Recommendation: Install ground lighting along the walk ways. Ground lighting can also used to light the front of the building.

Problem: The shrubbery in front of the structure is at an appropriate height but the overall appearance reflects a lack of adequate maintenance. There is a lot of trash and shrubbery is not adequately maintained.

Recommendation: Improve maintenance of grounds and shrubbery.

Problem: The windows in the front and rear of the rest rooms are left open for ventilation. This allows people outside to view the inside of the room and to determine the number of occupants.

Recommendation: Place both panes in the lower position and place a ventilation fan or screen in the upper sash opening. (Photo NB #12)

D) Rest Area Structure Continued:

Problem: Approaching the rest area structure from the rear presents problems. The shrubbery is dense. The lighting on the rear of the building is ineffective in may not be necessary. This area should only be accessed by employees. (Photos NB #13-14) The supply door should not be left open.

Recommendation: Thin out the shrubbery along the back of the building. Replace the existing two light fixtures with "motion detection" lights. These lights will activate if anyone moves toward the rear of the building and will act as a deterrent. Keep the door to the supply room closed so as not to create temptation.

Problem: The sides of the building are lined with shrubbery that is too high and too dense. The lighting does not provide adequate walkway lighting.
(Photo NB#15)

Recommendation: Remove shrubbery. Increase wattage in lighting fixtures. Ground lighting is also needed at the front of the building.

Problem: Inside the structure the "alternate bathroom" was unlocked and the office door was open. Hallway lighting was restricted by dirty fixtures.

Recommendation: Keep alternate bathroom locked when not in use. Clean insects and dirt from light fixtures.

II - I95 Southbound Rest Area
Located between Rt 234 and Dale City

A) Parking Area

Problem: Visibility is restricted from the parking area to the rest area structure by large pine trees. While the sidewalk encourages an alternate route, the visible path is an indication that people are taking a more direct route. (Photo SB #1)

Recommendation: Remove trees. Put up another split rail to discourage using path to rest rooms.

B) Picnic areas in this location are open and free from overgrown shrubs.

C) Rest Area Structure. The court yard in front of the structure is well maintained and open.

Problem: Inside the structure the alternate bathroom was unlocked and the office door was open.

Recommendation: Same as previously stated.

Problem: The problem and recommendation with the bathroom windows is the same as previously stated. In addition the rear screen to the men bathroom has been ripped open and it appears from the amount of trash (cigarette butts, beer cans etc.) on the ground below the window, that there is a lot of activity at this location. There is no light source. (Photo SB #3)

Recommendation: Remove the hedge next to rear window. Install a motion detection light on sides of building.

III - I66 East and Westbound Rest Areas
Located between Rt 234 and Fairfax County

These rest areas were found to be better maintained than the I95 rest areas. Shrubbery was low, rest room windows were closed and the overall appearance was much cleaner.

A) Parking Area (Photo WB #1)

Problem: The employee parking area behind the west bound rest area is isolated and lacking adequate lighting.

Recommendation: Increased lighting for employee safety and deterrence.

Problem: The picnic areas are open and visible except at night when there does not appear to be any available lighting. While this may discourage travelers, it will entice perpetrators.

Recommendation: Ground lighting for all walkways.

Overall Recommendations

TREES - Keep trees pruned to a minimum height of 6' (six feet) to allow a clear line of sight as indicated in photo R #1. Do not allow branches to droop as indicated in photo R #2.

BENCHES - Benches encourage delay. Ideally we want people in and out as quickly as possible. The I95 NB rest area has numerous benches all over the area. The I66 area has none. The I66 area is cleaner and more open and experiences a lower rate of crime. If benches are desired, we recommend that you duplicate the I95 SB courtyard atmosphere directly in front of the rest rooms.

TRAINING - Since VDOT employees occupy the grounds on a twenty four hour basis, it would be beneficial to train them in how to recognize and report suspicious activity. It would be equally beneficial to train them in personal protection practices.

SIGN - We recommend a sign at each rest area entrance reminding people to keep their vehicles locked.

CRUISER - Sr. Trooper Heflin had a ingenious idea to deter drug transactions. Park a deadlined cruiser at each rest stop. Maybe the drug dealers will figure it our...maybe not.

LIGHTING- Lighting is one of the best ways to deter crime. While an actual candle power lighting assessment was not done it is apparent that the majority of the reported incidents are occurring during the hours of darkness (over 85% of reported crime for I95 rest areas). We recommend that lighting be up graded by using high pressure sodium vapor lamps which are most efficient and cost effective over time. The optimum goal for effective lighting would be to achieve a minimum maintain lighting level of 2.0 footcandles.

If replacing the fixtures is not an option at this time, we recommend that the best use of the exist ing be made. As you can see in photo R #3 a lot of available illumination is being lost in the trees.

We hope that this report proves helpful to you in your efforts. Please do not hesitate to contact our office if we can be of any further assistance to you.

NB #1



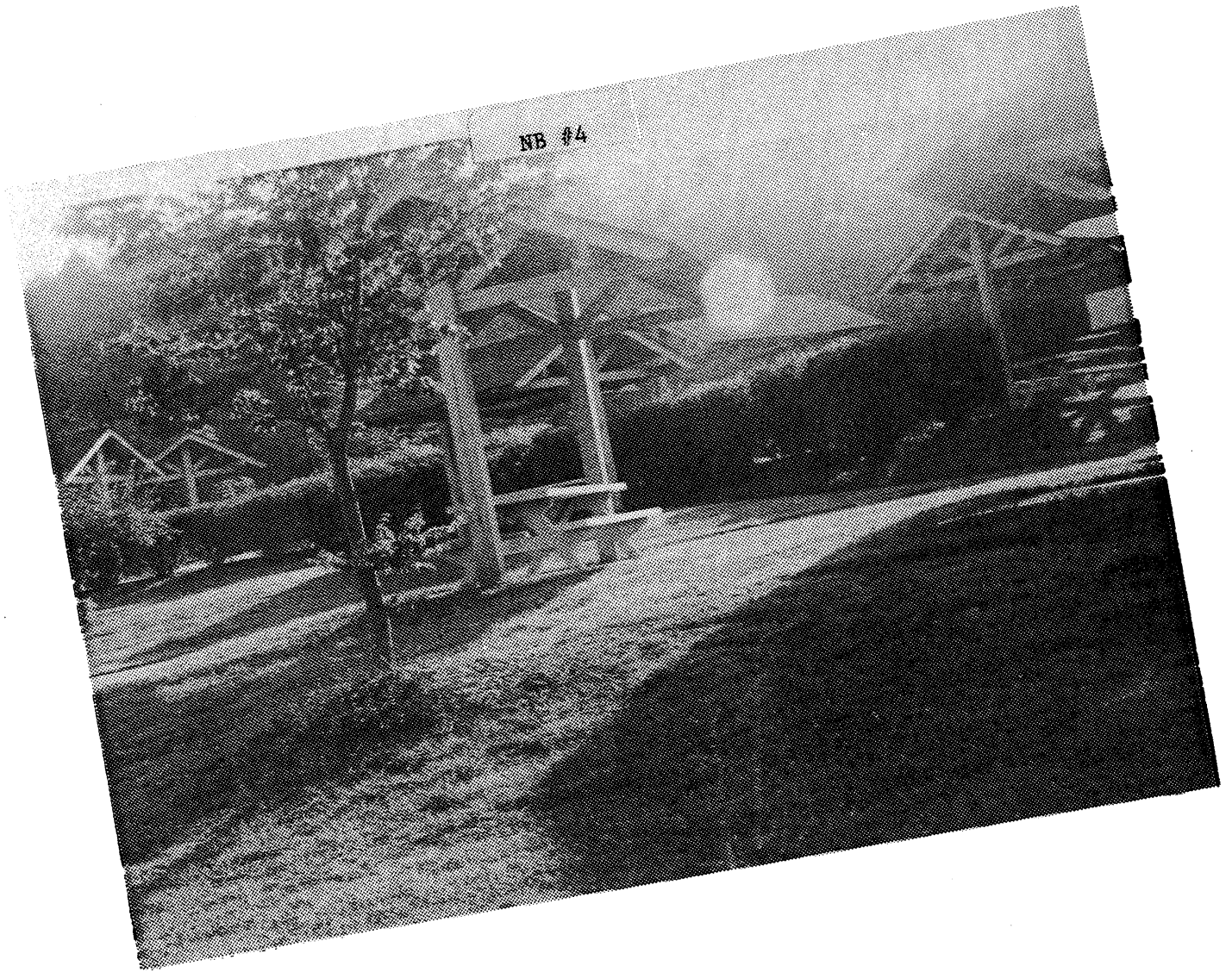
NB #2



NB #3



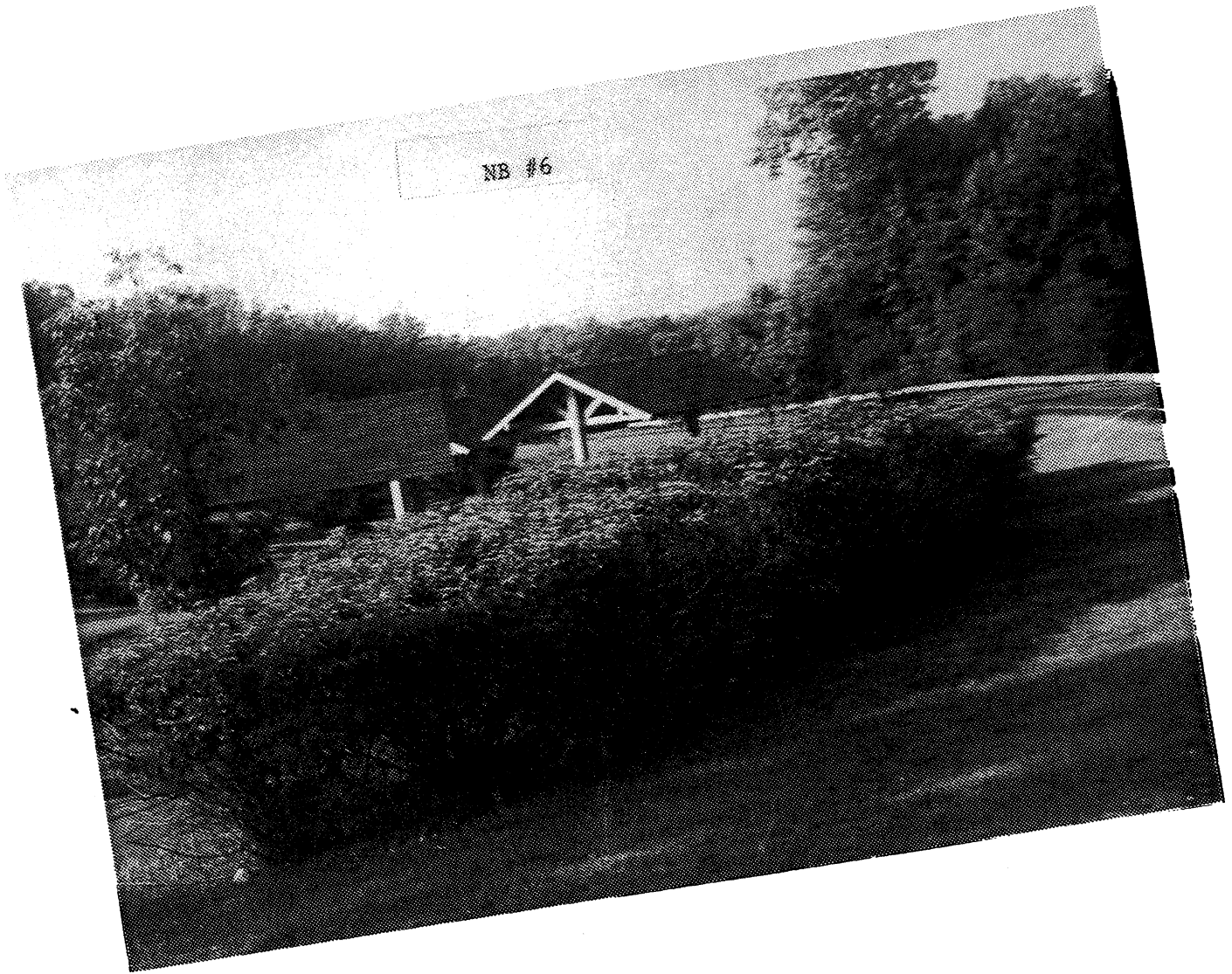
NB #4



NB #5



NB #6



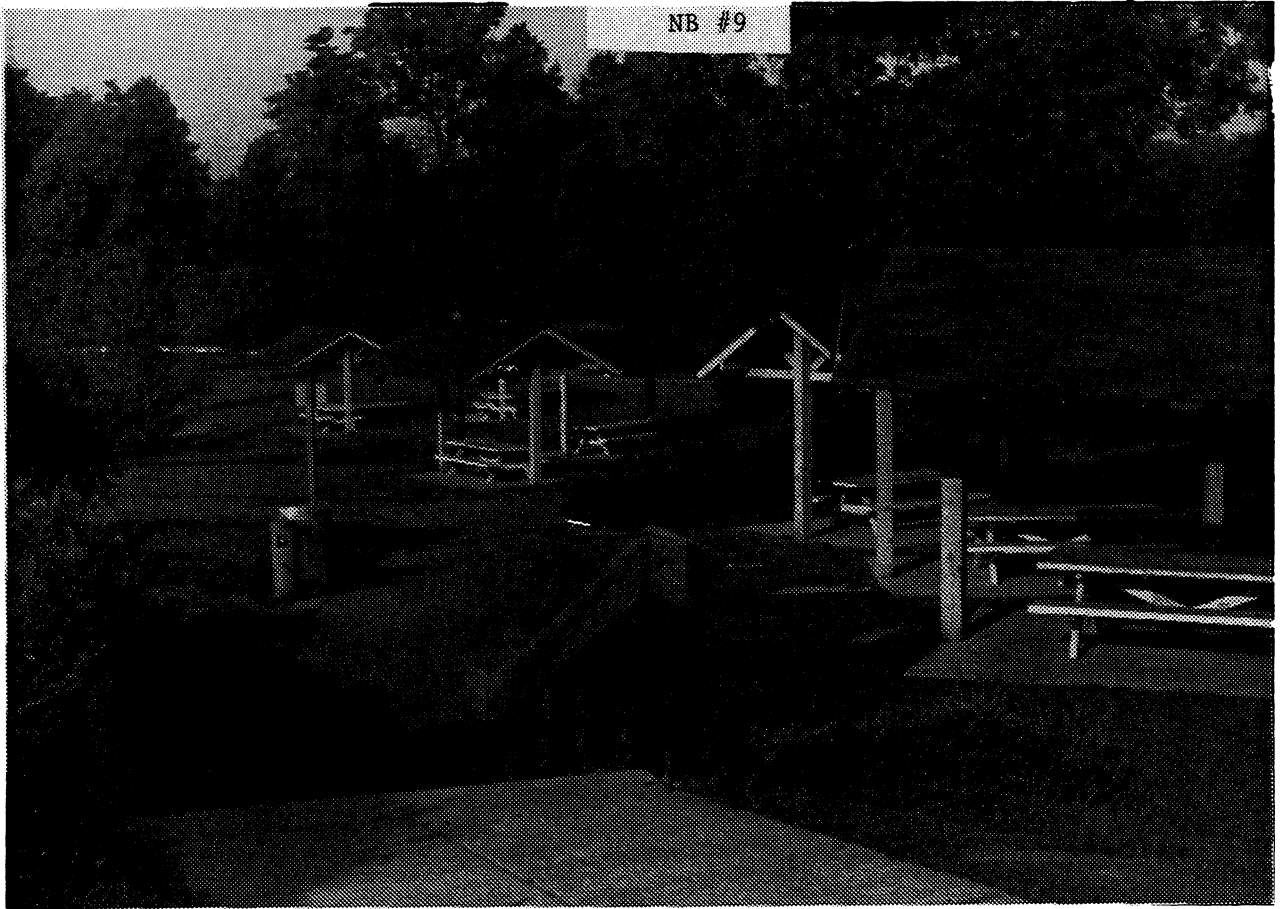
NB # 7



NB #8



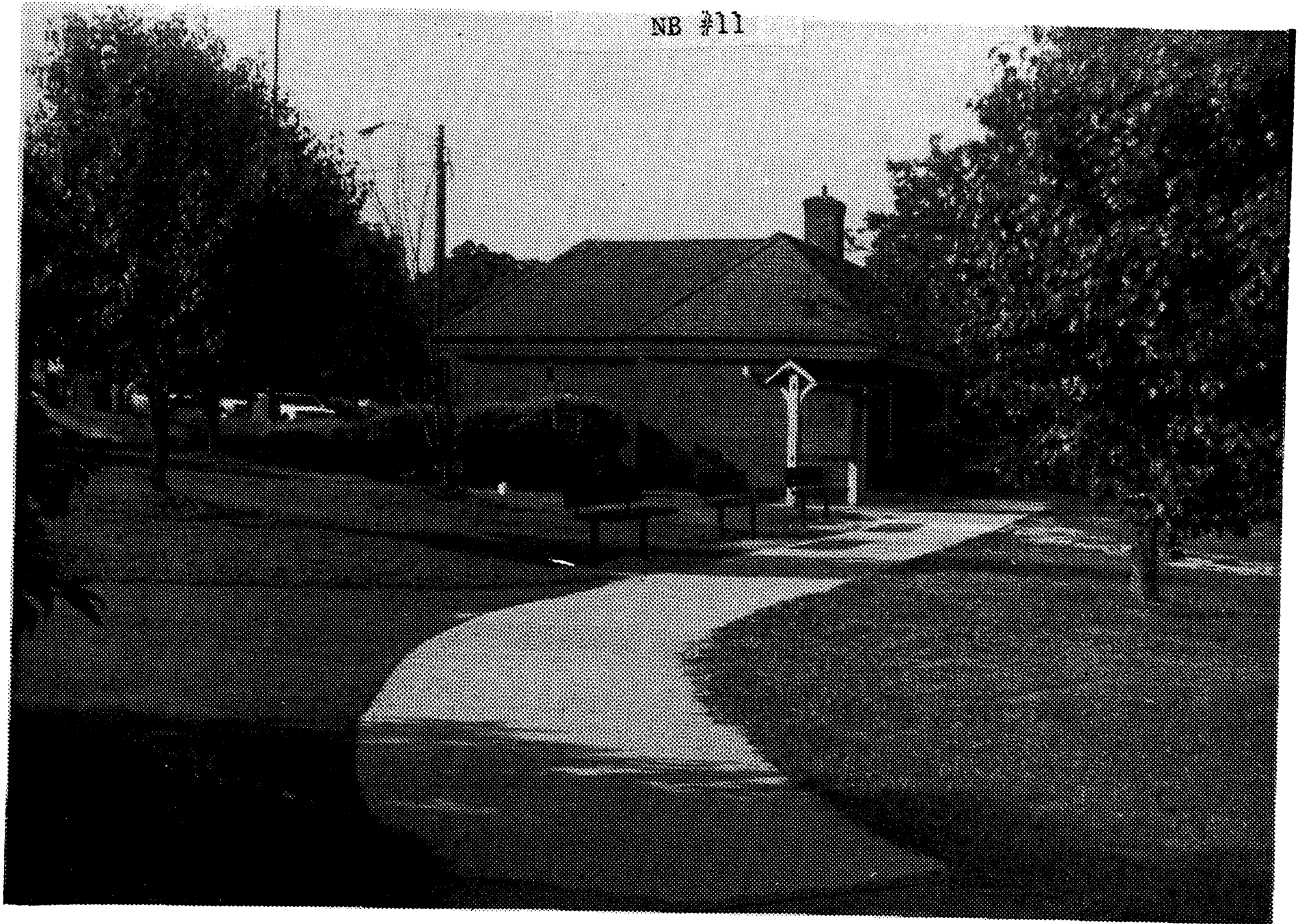
NB #9



NB #10



NB #11

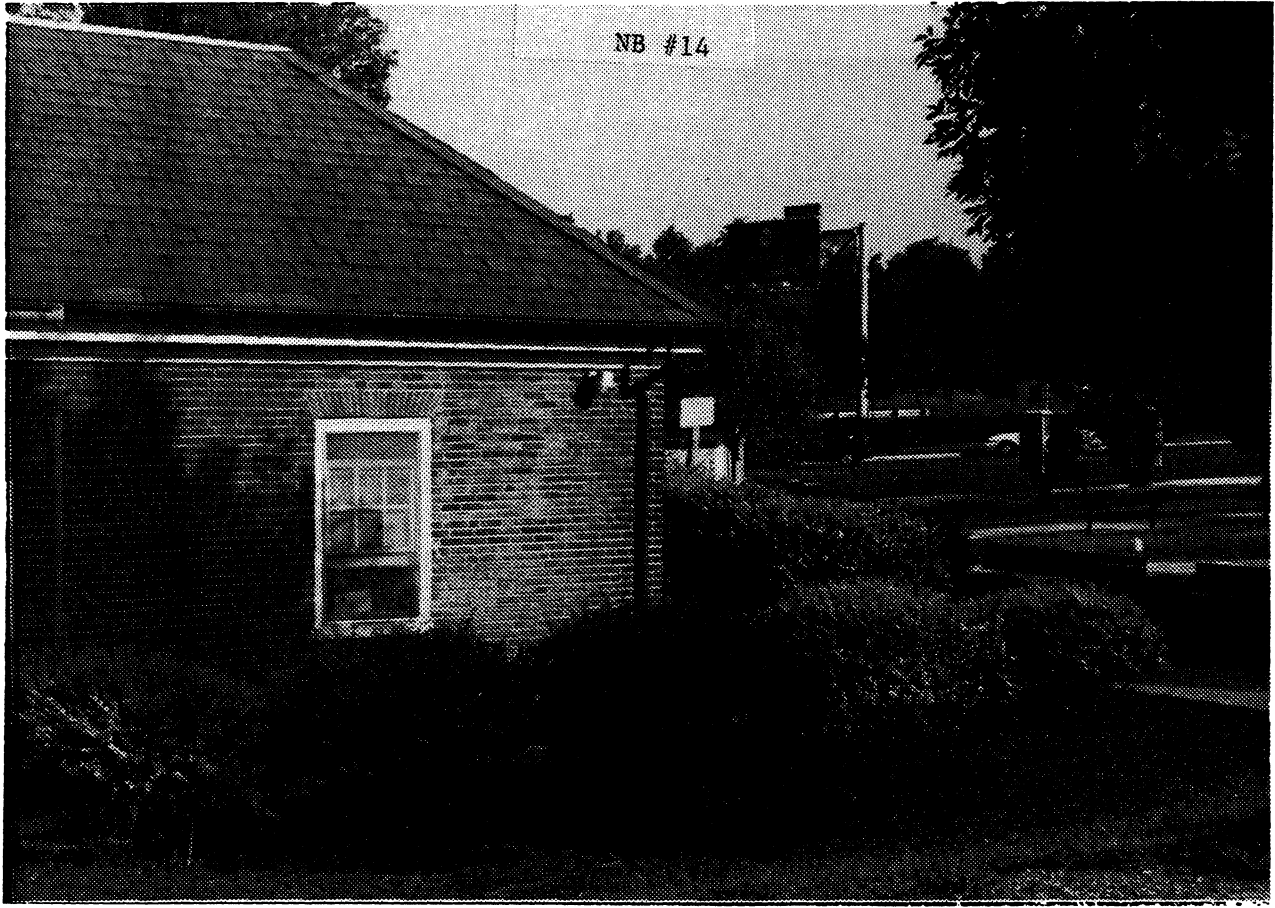


NB #12

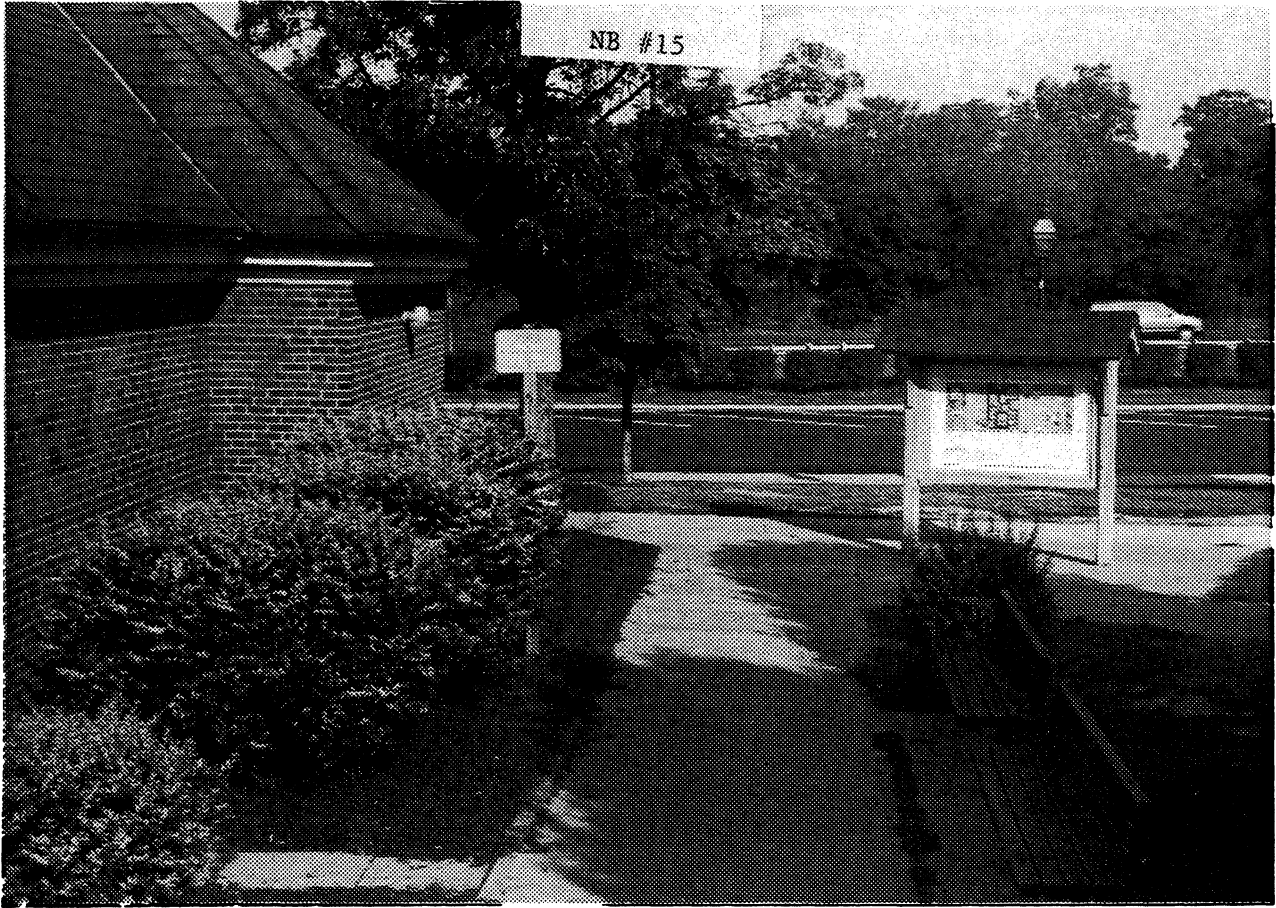


NB #13





NB #14



SB #1



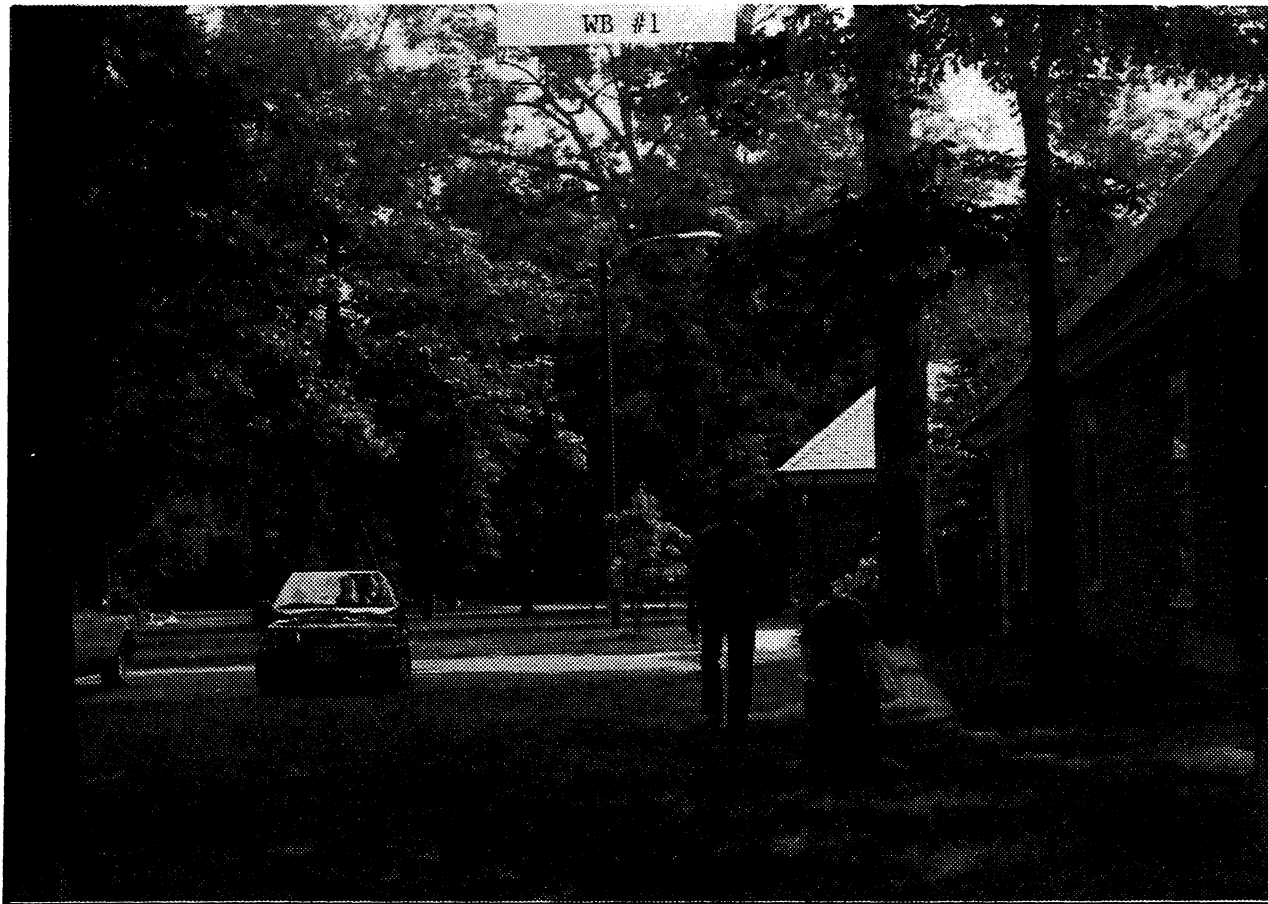
SB #2



SB #3



WB #1



WB #2



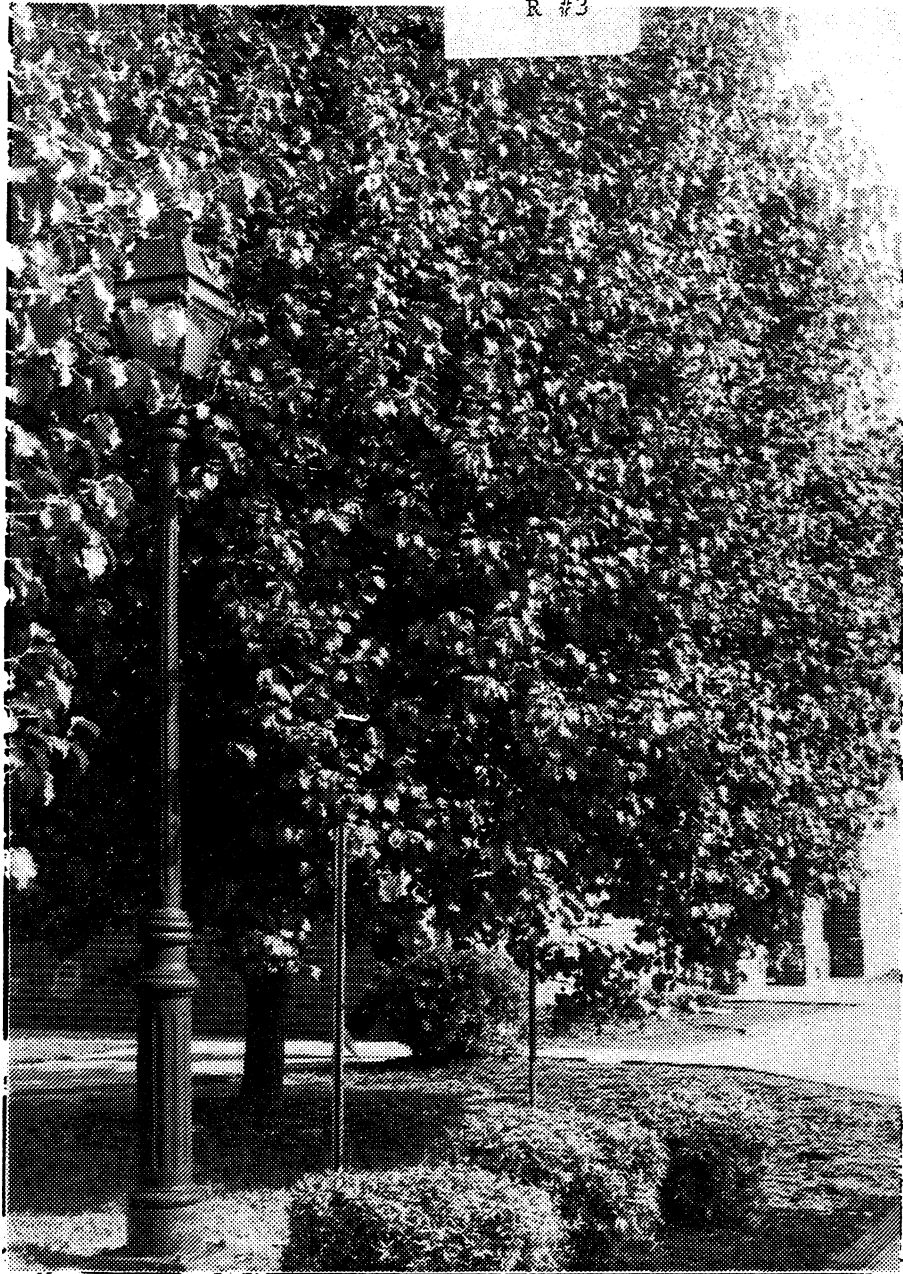
R #1



R #2



R #3





COMMONWEALTH of VIRGINIA

CRIMINAL JUSTICE SERVICES BOARD

Department of Criminal Justice Services

RICHARD N. HARRIS
Director

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July 30, 1990

Ms. Nancy Dunn
Planning Unit
Department of State Police
P.O. Box 27472
Richmond, VA 23261

Dear Nancy,

It was a pleasure to work with you on the Rest Stop Crime Study. I hope the surveys in Prince William and Greenville worked out well.

Attached are my comments for the rest stops we surveyed in Goochland and New Kent. Attached to those comments is some material on Crime Prevention Through Environmental Design which may be useful to you.

If you have questions about my comments or the CPTED material, please give me a call.

Yours truly,

Patrick D. Harris, Manager
Crime Prevention Center

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Dunn
073090



Crime Prevention Evaluation Interstate Rest Stops

General comments based on surveys of several interstate rest stops.

1. Information System

An information system needs to be developed which can be used to track crime related problems being experienced at interstate rest stops. Based on conversations with State Police and Transportation personnel current systems for tracking crime and disorder problems at rest stops are inadequate. A rest stop crime and disorder information system should include:

- .. A system to track State and local police calls for services, crime reports and arrests at rest stops. The new Incident Based Crime Reporting System being developed by the State Police may be useful in this regard.
- .. A data base for comments or complaints by the public to law enforcement or transportation officials about law and order problems at rest stops.
- .. A system to track costs incurred by the Department of Transportation for repair or replacement of rest stop property because of crime.

2. Property Identification

The location of rest stops is not adequately marked. An individual calling for help from a rest stop by telephone, cellular phone or citizen's band radio may not be able to get help because of not knowing where the rest stop is located. All rest stops should be given a very obvious name or number which can be used to locate them. Naming rest stops after police or highway personnel killed in the line of duty is a possibility.

3. Design/Use Conflict

Examination of several rest stops seemed to indicate some confusion about the purpose of a rest stop. Several rest stops included large picnic areas. Is the purpose of a rest stop to provide relief from the calls of nature or is it to serve as a mini park where recreational activity will be encouraged? Some rest stops had extensive picnic areas were well away from the main rest stop buildings and on occasion being used as a congregating point for drug and homosexual activity. If the rest stops are going to be used as small parks, then some consideration should be given to provide adequate staff to insure that the "parks" are safe and orderly.

4. Poor Visibility

Visibility into and within several rest stops was severely restricted because of the amount and quantity of landscaping. In some areas the growth was so thick that it was difficult to see or be seen from any vantage point. A key principal of crime prevention is to enhance visibility and increase opportunities for surveillance by users, maintenance staff, law enforcement personnel and persons who pass by. People who engage in illegal or disorderly activity don't like to be seen.

Visibility was also limited in several locations because of poor layout, i.e., locating picnic tables down a hill in the woods where they could not be seen, locating phone booths in several locations rather than concentrating them in one location.

Although the rest stop surveys were conducted during daylight, lighting at night may be a problem. In several locations light fixtures were overgrown by the leaves of trees. This overgrowth and poor placement of lights most certainly reduce the quality and amount of light.

5. Maintenance

Maintenance of the rest stops by the Department of Transportation was excellent. All surveyed rest stops were clean and well maintained. This attention to maintenance plays a key role in the safety of the rest stops. People tend to commit illegal activity in areas where no one is acting responsible, i.e., maintaining the property.

Specific comments on interstate rest stops surveyed on July 9, 1990.

Goochland I-64 West

Positive:

Good visibility of the rest stop from the interstate.

Well maintained.

Bathroom equipped to be fairly vandal resistant.

Negative:

Several light fixtures are overgrown by trees. Trim trees or consider relocating lights.

Too many trees and bushes, which limit visibility. Trees should be thinned and remaining trees should be pruned at eight feet from the ground up.

Phone booths lack good visibility by being placed in two locations. Place all phone booths in one location.

Truckers are using the woods for a rest room and trash dump. Erect a fence along the boundary of the truck parking lot to reduce access to the surrounding woods.

Goochland I-64 Eastbound

..Positive

Well maintained.

Good visibility from the highway.

Good visibility of the picnic area from the main building because of central location of picnic area and effective use of landscaping.

Bathrooms equipped to be fairly vandal resistant.

..Negative

Some light fixtures are overgrown by trees. Trim trees or consider relocating lights.

Phone booths lack good visibility by being placed in two locations. Place all phone booths in one location.

New Kent I-64 Eastbound

..Positive

Well maintained.

..Negative

Visibility of the rest stop from the highway is prohibited because of a large wooded area between the highway and rest stop area. Remove this wooded area.

Too many picnic tables and too spread out, which severely reduces the opportunity for surveillance. Reduce the number of picnic tables and reduce the size of the rest stop area.

Too many trees and bushes and they are overgrown. To increase visibility thin trees, remove most bushes and prune trees to eight feet from the ground up.

At the time of the survey, the vending machines were all out of change. The change capacity of the vending machines should be increased to insure that people don't become irritated about not being able to buy a drink or snack. This could lead to vandalism or other disorderly behavior. However, too much change or cash in the vending machines can also create theft problems.

New Kent I-64 Westbound

The observations for the eastbound rest stop apply.

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