PEDESTRIAN SAFETY IN VIRGINIA: ACCIDENT CHARACTERISTICS AND SUGGESTED REVISIONS TO VIRGINIA'S PEDESTRIAN LAWS

рÀ

Dawn R. Eilenberger Graduate Legal Assistant

(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies.)

Report Prepared by the Virginia Highway and Transportation Research Council Under the Sponsorship of the Department of Transportation Safety

Virginia Highway & Transportation Research Council
(A Cooperative Organization Sponsored Jointly by the Virginia
Department of Highways & Transportation and
the University of Virginia)

Charlottesville, Virginia

April 1981 VHTRC 81-R44

SAFETY RESEARCH ADVISORY COMMITTEE

- MR. R. W. DUVAL, Chairman, Deputy Director,
 Virginia Department of Transportation Safety
- MR. FRANK D. ALTOBELLI, Regional Administrator,
 National Highway Traffic Safety Administration
- MAJOR C. M. BOLDIN, Planning Officer,
 Virginia Department of State Police
- MR. V. M. BURGESS, VASAP Administrator,
 Virginia Department of Transportation Safety
- MR. R. E. CAMPBELL, Management Information Systems Director, Office of Secretary of Transportation
- MR. WALTER E. DOUGLAS, Programs Director,
 Virginia Department of Transportation Safety
- MR. R. W. FAHY, Assistant Attorney General,
 Division of Motor Vehicles
- MR. C. P. HEITZLER, JR., Program Manager, Division of
 Management Analysis and Systems Development
- MR. B. G. JOHNSON, Supervisor, Driver Education, State Department of Education
- MR. HIRAM R. JOHNSON, Director, Department of Computer Services
- MR. DAVID O. MCALLISTER, Traffic Engineer,
 Virginia Department of Transportation Safety
- MR. R. F. MCCARTY, Safety Program Coordinator, Federal Highway Administration
- MR. W. F. MCCORMICK, Assistant District Engineer,
 Virginia Department of Highways and Transportation
- MR. R. M. MCDONALD, Project Director, Highway Safety Training Center, Administration of Justice and Public Safety
- MS. SUSAN D. MCHENRY, Director,
 Bureau of Emergency Medical Services
- MR. C. B. STOKE, Research Scientist,
 Virginia Highway and Transportation Research Council
- MR. A. L. THOMAS, Assistant Traffic and Safety Engineer,
 Virginia Department of Highways and Transportation
- MR. G. L. WHITE, JR., Driver Services Administrator, Division of Motor Vehicles

TABLE OF CONTENTS

	Page
LIST OF TABLES	V
ABSTRACT	vii
SUMMARY OF FINDINGS	ix
CONCLUSIONS	хi
RECOMMENDATIONS	xiii
INTRODUCTION	1
PURPOSE AND SCOPE	1
METHOD	2
Task 1 - Literature Review	2
Task 2 - Accident Data Analysis	2
Task 3 - Analysis of Pedestrian Traffic Regulations and Recommendations for Revisions to Code of Virginia	2
LITERATURE REVIEW	3
Accident Data	3
Injury Severity	3
Time	3
Environmental Conditions	3
Location	4
Age	4
Pedestrian Actions	4
Alcohol Involvement	5
Driver Actions	5
Accident Types	5
Legislative Countermeasures	6
VIRGINIA ACCIDENT DATA ANALYSIS	8
Magnitude of the Problem	8

TABLE OF CONTENTS (continued)

	Page
Environmental Factors	g
Pedestrian Factors	11
Age	12
Pedestrian Defects	12
Pedestrian Actions	14
Driver Factors	17
Vehicle Factors	19
Summary	20
ANALYSIS OF THE CODE OF VIRGINIA	21
Crossing at Locations Other Than Crosswalks	22
Pedestrians' Right-of-Way in Crosswalks	24
Pedestrian Obedience to Official Traffic Control	
Devices	28
Pedestrians on Highways	30
Pedestrians Soliciting Rides or Business	3 2
Intoxicated, Handicapped, and Other Highly Vulnerable Pedestrian Groups	33
Pedestrians' Right-of-Way on Sidewalks	36
Pedestrians Yielding to Emergency Vehicles	36
Bridge and Railroad Signals	37
PROPOSED PEDESTRIAN LAWS	37
CONCLUSION	45
REFERENCES	47
SELECTED BIBLIOGRAPHY	49
APPENDIX A - SCURCES FOR ACCIDENT DATA SECTION OF LITERATURE REVIEW	A-1
APPENDIX B - VIRGINIA ACCIDENT DATA	B - 1
APPENDIX C — UNIFORM VEHICLE CODE PROVISIONS	C-1
APPENDIX D - CODE OF VIRGINIA PROVISIONS	D - 1

LIST OF TABLES

				Page
Table	1	_	Pedestrian Injury Severity	8
Table	2	_	Percentage of Pedestrian Traffic Accidents by Weather Conditions	10
Table	3		Percentage of Pedestrians Injured/Killed by Light Conditions — 1979	10
Table	4	-	Percentage of Pedestrian Accidents by Road Alignment	10
Table	5	~	Percentage of Pedestrians Injured/Killed by Locality - 1979	11
Table	6		Percentage of Pedestrians Injured/Killed by Urban/Rural Location — 1979	11
Table	7	_	Percentage of Pedestrians Injured/Killed by Age - 1979	12
Table	8	_	Percentage of Pedestrians Injured/Killed by Defects - 1979	13
Table	9	_	Percentage of Pedestrians Injured/Killed by Alcohol Involvement — 1979	13
Table	10		Percentage of Pedestrians Injured/Killed by Pedestrian Action — 1979	14
Table	11		Percentage of Pedestrians Injured/Killed by Rural/Urban Location/Pedestrian Action — 1979	16
Table	12		Percentage of Licensed Drivers Involved in Pedestrian Accidents by Age - 1979	17
Table	13		Percentage of Pedestrians Injured/Killed by Driver Action	18
Table	14	_	Percentage of Pedestrians Injured/Killed by Vehicle Maneuver — 1979	19
Table	15		Percentage of Pedestrians Injured/Killed by Vehicle Type — 1979	19

ABSTRACT

The purpose of the research reported here was to evaluate the nature, characteristics, and severity of accidents involving pedestrians in Virginia and to determine whether or not these data would suggest the need for changes in Virginia traffic laws affecting pedestrians. An analysis of data on pedestrian accidents in Virginia revealed a number of situations that pose a significant risk of accident to pedestrians. A review of Virginia's pedestrian laws dealing with dangerous traffic situations showed that a number of revisions are called for to reduce pedestrian traffic risks.

Comparisons between the Virginia Code, the Uniform Vehicle Code, and pedestrian statutes from other states revealed a number of areas with which the Virginia Code does not deal or with which it deals in an unclear or inadequate manner. Recommendations for changes in the Virginia Code were formulated by revising existing Virginia regulations to more closely conform to the Uniform Vehicle Code and the statutes of other states. The need for proposed revisions to the Virginia Code was considered in terms of the identified traffic risks pedestrians face in Virginia.

SUMMARY OF FINDINGS

The following findings were made through an analysis of data on pedestrian accidents in Virginia.

- 1. Pedestrians crossing the highway accounted for close to one-half of Virginia's pedestrian injuries and fatalities, with crossing at locations other than intersections representing a majority of the crossing accidents.
- 2. Crossing at non-signalized intersections accounted for one-half of Virginia's pedestrian injuries and fatalities at intersections.
- 3. At signalized intersections, crossing against the signal caused three times more fatalities than crossing with the signal.
- 4. Walking in the roadway was the second most common action involved in pedestrian accidents in Virginia, while other roadway activities also represented a significant portion of pedestrian injuries and fatalities. Walking in the roadway with traffic was involved in twice as many injuries and fatalities as walking against traffic.
- 5. Children and the elderly accounted for a high percentage of pedestrian injuries and fatalities in Virginia. Elderly, incapacitated, and intoxicated pedestrians were overrepresented in fatalities in relation to their total involvement in pedestrian incidents.

CONCLUSIONS

The following conclusions are based upon an evaluation of pedestrian traffic regulations and accident data.

- Increased protection for pedestrians may be attained through revisions to the Virginia Code. The pedestrian section is hostile to pedestrians in that vehicular movement seems to be more important than pedestrian safety.
- Code provisions on pedestrians crossing the highway are insufficient as safety measures because they fail to indicate correct behavior for pedestrians crossing outside of crosswalks and intersections.
- 3. The pedestrian provisions of the Code do not adequately maximize safety at signalized intersections because pedestrians are not required to obey traffic signals and safe pedestrian responses to signals are not indicated.
- 4. Unclear language and undefined terms limit the safety effect of Virginia Code provisions dealing with pedestrian use of the roadway, solicitation from vehicle occupants, and right-of-way in marked and unmarked crosswalks at non-signalized intersections.
- 5. The safety effects of Code provisions on intoxicated pedestrians and right-of-way on sidewalks are limited because the provisions are not in the pedestrian article but elsewhere in the Code.
- 6. The value of Virginia's pedestrian article as a safety measure is lessened by the failure to include provisions requiring drivers to exercise due care and indicating correct pedestrian response to railroad and bridge signals and emergency vehicles.
- 7. Legislative provisions alone are insufficient to deal with the pedestrian safety problem.

RECOMMENDATIONS

The recommendations below are based upon an analysis of pedestrian laws in relation to pedestrian traffic risks in Virginia. An illustrative text of Virginia's laws modified as recommended is presented at the end of this report.

- A provision delineating the rights and duties of pedestrians crossing at places other than crosswalks or intersections should be added to the Virginia Code.
- 2. A provision requiring drivers to exercise due care to avoid pedestrians and take special precautions when near children, the elderly, and incapacitated pedestrians should be included in the Code.
- 3. Pedestrians should be required by law to obey traffic signals, and a provision specifically addressed to pedestrians should state correct pedestrian responses to signals.
- 4. The limitations on pedestrian right-of-way at cross-walks which state that "no pedestrian shall enter or cross an intersection in disregard of approaching traffic" should be changed to forbid only sudden movements into the path of vehicles constituting imminent hazards.
- 5. Virginia Code provisions on intoxicated pedestrians and right-of-way on sidewalks should be incorporated into the pedestrian article.
- 6. The language in provisions dealing with pedestrian use of the roadway, solicitation, and right-cf-way in crosswalks should be clarified and simplified.
- 7. Key terms such as "pedestrian," "street", and "traffic" should be defined.
- 8. Provisions dictating pedestrian responses to railroad and bridge signals and emergency vehicles should be adopted.
- 9. Legislative revisions should be supplemented with other countermeasures relating to education, enforcement, and engineering.

PEDESTRIAN SAFETY IN VIRGINIA: ACCIDENT CHARACTERISTICS AND SUGGESTED REVISIONS TO VIRGINIA'S PEDESTRIAN LAWS

bу

Dawn R. Eilenberger Graduate Legal Assistant

INTRODUCTION

The pedestrian accident situation is an issue of continuing concern to highway and transportation officials in Virginia and elsewhere in the United States because of the high involvement of pedestrians in highway accidents. National statistics indicate that pedestrian fatalities have risen almost 30% since 1963 and now represent about 20% of the total highway death toll. (1) Pedestrian accidents are concentrated in urban areas, where 85% of the accidents and 67% of the fatalities occur. (2) Concern about pedestrian accident involvement is evidenced by the Highway Safety Act of 1973, in which Congress instructed the Secretary of Transportation to make a full and complete investigation and study of pedestrian safety. (3)

This study examined the nature of accidents involving pedestrians and evaluated pedestrian legislation as a means of increasing pedestrian safety. Three tasks were performed to identify the characteristics of pedestrian accidents in Virginia and the need for revision to Virginia's pedestrian laws. The first was to review the literature to determine both the nature of the pedestrian accident problem and the validity of various pedestrian laws as safety measures. The second was to analyze pedestrian accident data to identify the traffic situations causing accidents and to evaluate the pedestrian laws dealing with those situations. Finally, Virginia's pedestrian laws were compared with the laws of other states to identify traffic situations which are inadequately dealt with in the Code of Virginia.

PURPOSE AND SCOPE

The purposes of this study were (1) to examine the statistics on pedestrian accidents in Virginia to identify the major factors contributing to these accidents, and (2) to determine whether or not revisions to Virginia's pedestrian laws may lessen the risks created by these factors.

Considered in the study were relevant literature on pedestrian safety, data on Virginia pedestrian accidents, and pedestrian traffic regulations from various sources. The accident data were evaluated to determine major pedestrian traffic risks in Virginia. Possible revisions to the traffic regulations were then examined to determine which ones might be appropriate for reducing these risks.

METHOD

Task 1 - Literature Review

A literature review was conducted to determine what has been done in the area of pedestrian safety. The review focused on studies relevant to the subject matter of this report. Special attention was paid to accident studies which identified the nature of the pedestrian problem and studies which examined regulations as pedestrian safety countermeasures.

Task 2 - Accident Data Analysis

Data on Virginia pedestrian accidents were collected from Virginia Crash Facts and other computerized information from the State Police. The data were evaluated to identify the traffic situations posing risks to pedestrians. Particular attention was paid to factors that appeared frequently in pedestrian accident reports such as location, age, light and weather conditions, alcohol involvement, and pedestrian actions.

Task 3 — Analysis of Pedestrian Traffic Regulations and Recommendations for Revisions to Code of Virginia

Pedestrian provisions in the Code of Virginia were reviewed to identify areas needing revision to lessen risks to pedestrians in traffic situations. The pedestrian provisions in the Uniform Vehicle Code (4) and the codes of other states were reviewed to identify areas that the Virginia Code fails to address or addresses inadequately. These pedestrian regulations were evaluated in relation to the various traffic risks in Virginia that they may affect, and recommendations for revisions to the Code deemed necessary for pedestrian safety were made.

LITERATURE REVIEW

The review of the literature began with a general search of material on pedestrian safety to determine what has been done in the area of pedestrian safety. The research that has been done can be classified under several main headings: (1) collection and review of accident data, (2) identification of accident types and corresponding countermeasures, (3) analysis of individual factors contributing to pedestrian accidents, and (4) evaluation of individual countermeasures designed to improve pedestrian safety.

Studies dealing with accident data and accident types were useful in identifying the nature and extent of the pedestrian safety problem preparatory to evaluating possible legislative countermeasures. Also of value were those studies that examined legislative and enforcement countermeasures designed to increase pedestrian safety.

Accident Data

For the studies reported in the literature, data were generally obtained from police accident records, although several studies dealing primarily with urban accidents included on-the-scene observations. The following general findings were drawn from a review of these studies. Sources for these findings are listed in Appendix A.

Injury Severity

Pedestrians are almost always injured when struck by a motor vehicle. A majority of reported pedestrian-vehicle collisions result in serious injury or death.

Time

The peak period for pedestrian accidents is from 3:00-6:00 p.m.; however, more pedestrian fatalities occur between 6:00-9:00 p.m. The lowest percentage of pedestrian accidents occur during predawn hours when the number of pedestrians is small.

Environmental Conditions

The majority of pedestrian accidents occur during daylight; however, night hours are overrepresented in pedestrian fatalities

in relation to the percentage of total pedestrian injuries occurring at night. The percentage of pedestrian fatalities during night hours, when visibility is limited, is almost twice as high as the percentage of total pedestrian injuries and fatalities occurring at night.

The large majority of pedestrian accidents occur in good weather with excellent road conditions. These accidents usually occur on straight, level roadways, and road surface defects are rarely present.

Location

Most pedestrian accidents occur in urban areas, but rural areas are overrepresented in pedestrian fatalities due to generally higher traffic speeds. Residential and commercial areas are the most common sites of pedestrian accidents.

<u>Age</u>

Pedestrians under the age of 15 are involved in more accidents than are pedestrians in other age groups, a finding that accident investigators attribute to the limited understanding of traffic risks on the part of children. The fatality rate is highest for elderly pedestrians, who often have limited mobility and eyesight or hearing difficulties and are more vulnerable to injury.

Pedestrian Actions

Accident investigators judge pedestrians to be at fault in most pedestrian-motor vehicle accidents. In a majority of cases, pedestrians violate the law or perform an unsafe act. The most frequent pedestrian act preceding an accident is crossing the street, with more accidents occurring when pedestrians cross between intersections than when they cross at intersections. When crossing at intersections, more pedestrians are involved in accidents at non-signalized than at signalized intersections. Walking in the roadway is the second most common pedestrian action associated with accidents. Fatality percentages are three times higher for pedestrians walking with traffic than for those walking against traffic.

3203

Alcohol Involvement

Studies based on police reports indicate that less than 7% of pedestrian accidents involve drinking pedestrians. However, studies using medical blood-alcohol tests present much higher percentages for the involvement of drinking pedestrians in accidents.

Driver Actions

Drivers are not at fault in most pedestrian accidents. When drivers are at fault, the most common errors are speeding, reckless driving, and inattentiveness.

Accident Types

A current approach to pedestrian safety is to derive accident types from the environmental, driver, and pedestrian factors involved in pedestrian accidents to provide a basis for the identification of appropriate countermeasures. The accident types are defined in terms of commonly occurring accident situations in which the major behavioral errors of the driver and pedestrian are known along with environmental factors that lead to accidents.

A major study on urban accidents indicated that seven types account for almost 60% of the pedestrian accidents. (5) The types are dart-out accidents where pedestrians appear suddenly in the roadway at locations other than intersections (33%); intersection-dash accidents in which pedestrians appear suddenly in or near crosswalks at intersections (9%); vehicle turn-merge accidents where pedestrians are hit by drivers concentrating on turning or merging into traffic (7%); multiple-threat accidents in which vehicles stopped to allow pedestrians to cross block them from view from other cars approaching in the same direction (3%); busstop-related accidents where pedestrians cross in front of stopped buses that screen them from view from approaching vehicles (3%); ice-cream-vendor accidents where pedestrians are struck going to or from vending vehicles (2%); and backing-up accidents in which backing vehicles strike pedestrians (2%).

A study of rural and suburban accidents found that six accident types account for over 60% of pedestrian accidents in these areas. (6) Dart-out accidents account for 21.1% of the total and intersection-dash accidents account for 9.9%. The other four major rural and suburban types are (1) walking-along-roadway accidents where pedestrians are struck while walking along the edge or shoulder of the highway (11.6%); (2) mid-block-dash accidents where pedestrians run across the road between intersections

(9.9%); (3) disabled-vehicle-related accidents in which pedestrians are struck while working on or near a disabled vehicle (5.6%); and (4) vehicle-going-out-of-control accidents where pedestrians are hit by vehicles that have gone out of control prior to the accident (3.7%).

Pedestrian behavior is the predominant factor in most of these major urban and rural accident types. Five major urban accident types and three major rural types involve pedestrians crossing the roadway. The three most common accident types — dart-out, intersection-dash, and mid-block-dash — are associated with sudden pedestrian movement into the roadway. A significant number of rural pedestrian accidents involve the pedestrian actions of walking along the roadway and working on disabled vehicles. These findings indicate that countermeasures dealing with pedestrian crossings, use of the roadway, and sudden movement into the roadway are of primary importance for reducing the number of pedestrian accidents.

Legislative Countermeasures

A large body of literature on pedestrian safety countermeasures and programs was found. The safety measures fall under the general headings of education, legislation and enforcement, and traffic engineering. Safety programs usually consist of a combination of all three types of countermeasures. A research study on the enforcement of pedestrian regulations stated that while many authorities have implemented safety programs involving pedestrian protection ordinances and enforcement activities, there is a lack of scientifically valid information on the effectiveness of these programs. (7) There is a substantial amount of nontechnical literature on engineering, enforcement, and education which, although unsubstantiated by quantitative research, has had a significant influence on the agencies and authorities concerned with pedestrian safety.

Several nontechnical studies have focused directly on pedestrian legislation as a safety measure. One such study stressed that the purpose of traffic laws is to prevent accidents, which is of great importance to pedestrians because collisions are likely to result in their serious injury or death. (8) To prevent accidents, the study found that traffic laws must be (1) comprehensive so that all highway users know what is expected of them and what to expect of others in traffic, (2) understandable so that motorists and pedestrians know what behavior is required to observe the laws, and (3) reasonable so that the laws are not met with nonobservance as unreasonable requirements. (9)

Several studies have emphasized the need for a substantial degree of uniformity nationwide in pedestrian laws to increase understanding and observance of the laws. One author stated that it is unreasonable and unfair to expect drivers and pedestrians to know that they must react to a traffic situation differently merely because they have crossed a political boundary.(10)

A U. S. Department of Transportation report dealing with state and municipal pedestrian laws across the country cited a serious lack of uniformity among pedestrian laws that caused confusion on the part of motorists and pedestrians and a lack of policy on pedestrian violations that results in inadequate enforcement. (11) Efforts to provide uniform laws reflecting the way "reasonable" pedestrians walk were recommended along with increased enforcement and educational programs directed to all age groups. (12) The report stated that comprehensive safety programs should include a combination of countermeasures related to education, engineering, and enforcement, and it emphasized education as one of the most effective countermeasures dictated by certain accident types. (13)

Several areas of pedestrian regulation where a substantial variance among the states exists were identified in a document that reviewed the laws of 50 states and 50 municipalities along with the Uniform Vehicle Code. (14) These areas include pedestrian obedience to traffic signals, correct pedestrian response to traffic lights, right-of-way of pedestrians on sidewalks, pedestrian walking on or along the roadway, and solicitation on the highway by pedestrians and vehicle occupants. The report concluded that laws should be reasonable, be uniform to a substantial degree, and offer real protection to pedestrians. (15)

The studies dealing with pedestrian legislation as a countermeasure conclude that a substantial degree of uniformity among
pedestrian laws is desirable from a safety viewpoint. They
further conclude that laws should be reasonable, comprehensive,
and understandable to increase compliance. However, there is a
lack of scientific research studies evaluating the effectiveness
of various pedestrian regulations. The studies do recognize that
legislation alone is insufficient to effectively deal with the
pedestrian safety problem and that further countermeasures
related to education, engineering, and enforcement are necessary.

VIRGINIA ACCIDENT DATA ANALYSIS

Data on accidents in Virginia were examined to determine the nature and extent of Virginia's pedestrian accident problem in order to evaluate the need for legislative countermeasures to deal with Virginia's own particular pedestrian situation. Information for the years 1977, 1978, and 1979 was obtained from the State Police Crash Tapes and Virginia Crash Facts, (16) a State Police publication presenting compilations and analyses of data on traffic accidents in Virginia. The pedestrian-motor vehicle accident data were examined to determine the major environmental, temporal, pedestrian, driver, and vehicle factors involved.

The findings from the analysis of Virginia's pedestrian accident data are generally consistent with those presented in the literature. The Virginia data were similar for all three years examined. Due to this similarity, the analysis in this section of the report deals primarily with 1979 data. Appendix B contains additional data for 1977 and 1978.

Magnitude of the Problem

Pedestrian accidents are a serious problem in Virginia (see Table 1). About 2,292 accidents involving pedestrians occurred in 1977; 2,342 in 1978; and 2,277 in 1979.(17) These accidents caused 2,401 pedestrian injuries and fatalities in 1977; 2,436 in 1978; and 2,385 in 1979. A high percentage of pedestrians injured in traffic accidents received serious or fatal injuries. Serious injuries and fatalities represented 56.9% of the total injuries in 1977; 47.5% in 1978; and 51.6% in 1979.

Table 1
Pedestrian Injury Severity

Severity	1977		1978	3	1979	
	No.	Pct.	No.	Pct.	No.	Pct.
Fatal	188	7.8	167	6.9	169	7.1
Serious	1,178	49.1	989	40.6	1,062	44.5
Slight	442	18.4	7 2 5	29.8	637	26.7
Complaint of Pain	341	14.2	501	20.6	478	20.0
Unknown	252	10.5	54	2.2	339	1.6

Source: State Police Crash Tapes. Unless otherwise noted, data in other tables in this section are from same source.

Environmental Factors

Environmental factors were examined to determine the physical conditions that contribute to pedestrian accidents in Virginia. The factors considered were weather conditions, light conditions, road character, and type of locality in which accidents frequently occur.

A summary of weather conditions revealed that two-thirds of all pedestrian accidents each year occurred in clear weather (see Table 2). Only one-third of these accidents occurred under adverse weather conditions such as rain, snow, sleet, or fog. This finding is not surprising, since lower pedestrian volumes are expected in adverse weather.

Light conditions were generally favorable when pedestrian accidents occurred (see Table 3). Of the pedestrians killed or injured in Virginia in 1979, 56% were involved in accidents during daylight hours, while only 37% were involved in accidents during hours of darkness. However, when pedestrian fatalities are viewed separately, the reverse of the above percentages is true. Of the 1979 fatalities, 65% occurred at night. Accidents at night on unlighted roads accounted for 47% of the pedestrian fatalities, but only 18% of the fatalities occurred on lighted roadways at night.

The relationship between roadway characteristics and the percentage of pedestrian accidents was examined and showed that almost 90% of Virginia's pedestrian accidents occurred on straight roadways (see Table 4). Over 70% of these accidents occurred on straight, level roads. The second most common roadway characteristic involved in pedestrian accidents was a straight, graded roadway, which accounted for close to 15% of these accidents. Only 10% of the pedestrian accidents each year occurred on curves.

Data on the characteristics of localities where pedestrian injuries and fatalities occurred showed that residential areas had a higher percentage of pedestrian incidents than any other type of locality (see Table 5). In 1979, 41% of the total number of pedestrians injured or killed were involved in accidents in residential areas. Other locality types with significant percentages of pedestrian injuries and fatalities were business and industrial areas (35%) and open country (15%). However, open country areas, where vehicle speeds are generally higher, were overrepresented in fatalities. Thirty-eight percent of pedestrian deaths in 1979 occurred in open country areas, but only 15% of the total pedestrian injuries and fatalities occurred in these areas.

Table 2

Percentage of Pedestrian Traffic Accidents by Weather Conditions

Weather Condition	1977	1978	1979
Clear	66.8	67.3	63.2
Rain	6.8	6.7	9.1
Snow/Sleet	1.4	1.9	2.1
Other	24.2	23.7	25.1
Unknown	0.8	0.5	0.5

Table 3

Percentage of Pedestrians Injured/Killed by Light Conditions — 1979

	Light	Total Injured/Killed	Injured	Killed
Dawn		1.8	1.8	2.4
Daylight		56.4	58.3	30.8
Dusk		4.3	4.6	0.6
Darkness -	Roadway Lighted	20.8	21.0	18.3
Darkness —	Roadway Not Lighted	16.3	13.9	46.7
Not Stated		0.5	0.4	1.2

Table 4
Percentage of Pedestrian Accidents by Road Alignment

Alignment	1977	1978	1979
Straight Level	70.2	70.2	71.4
Straight Grade	16.2	15.5	15.6
Curve Level	4.3	5.8	5.1
Curve Grade	4.2	3.8	4.2
Other	5.0	4.1	3.3
Not Stated	0.0	0.5	0.4

Pedestrian accidents in Virginia are concentrated in urban areas (see Table 6). In 1979, 65% of all pedestrian injuries and fatalities in Virginia occurred in urban areas, while rural areas accounted for only 35% of these incidents. However, percentages were reversed when pedestrian fatalities were considered separately. Fifty-nine percent of Virginia's pedestrian fatalities in 1979 occurred in rural areas, where traffic speeds are generally higher. Urban areas represented only 41% of these fatalities.

Table 5

Percentage of Pedestrians Injured/Killed by Locality — 1979

Locality	Total Injured/Killed	Injured	<u>Killed</u>
School-Playground	4.1	4.4	1.2
Residential	41.0	42.4	21.9
Open Country	15.4	13.7.	37.9
Business-Industrial	34.9	35.4	29.0
Other	3.8	3.4	8.9
Unknown	0.8	0.8	1.2

Table 6

Percentage of Pedestrians Injured/Killed by Urban/Rural Location — 1979

<u>Location</u>	Total Injured/Killed	Injured	<u>Killed</u>
Urban	64.7	66.5	40.8
Rural	35.3	33.5	59.2

Pedestrian Factors

An analysis of the behavior and actions of pedestrians involved in traffic accidents was essential to determine the nature and causes of pedestrian accidents. Pedestrian factors considered were age, pedestrian defects such as handicaps and alcohol consumption, and pedestrian action preceding the accident.

Age

The analysis showed that pedestrians 65 years of age and older were greatly overrepresented in fatalities in relation to their representation in total pedestrian injuries and fatalities. The 65 and over group represented 24% of the pedestrian fatalities in 1979 while accounting for only 7% of the total pedestrian injuries and fatalities (see Table 7). This may be due to lessened mobility, eyesight, or hearing among older pedestrians. Children under the age of 14 were slightly underrepresented in fatalities, and pedestrians between 15 and 64 slightly overrepresented in relation to their total injury and fatality percentages.

Table 7

Percentage of Pedestrians Injured/Killed by Age — 1979

<u>Age</u>	Total Injured/Killed	Injured	<u>Killed</u>
0-4	6.2	6.3	5.3
5-14	24.6	25.9	8.3
15-64	58.6	58.2	62.2
65 and over	6.8	5.5	23.6
Not Stated	3.8	4.0	0.6

Children and elderly pedestrians accounted for a high percentage of the total traffic injuries and deaths in their age groups.* In 1979, pedestrians under the age of 15 represented 58% of the total traffic fatalities in their age group, but accounted for only 17% of their age group's traffic injuries. Pedestrians 65 and older represented 7% of the traffic injuries in their age group, but 33% of the fatalities.

Pedestrian Defects

A summary of pedestrian defects associated with pedestrian injuries and fatalities showed such defects in 9% of the pedestrians injured or killed in 1979 (see Table 8). However, pedestrians with defects accounted for 19% of pedestrian fatalities.

^{*}Data from 1979 Virginia Crash Facts, p. 18.

Table 8

Percentage of Pedestrians Injured/Killed by Defects — 1979

Defect	Total Injured/Killed	Injured	<u>Killed</u>
Eyesight	1.3	1.0	4.7
Hearing	0.8	0.6	2.3
Other Bodily	0.9	0.8	2.3
Ill, Fatigued, Asleep	1.1	1.1	1.8
Other	4.8	4.5	8.2
No Defect	76.9	79.3	46.8
Not Stated	14.2	12.7	33.9

Source: 1979 Virginia Crash Facts, p. 60.

The high fatality percentages for pedestrians with defects may be due to limited mobility and decreased ability to perceive traffic dangers. Eyesight, hearing, and bodily defects accounted for 3% of pedestrian fatalities and injuries and 9% of the fatalities.

Alcohol involvement in pedestrian accidents was also examined. Drinking pedestrians accounted for 15% of Virginia's total pedestrian injuries and fatalities, but represented 27% of the fatalities in 1979 (see Table 9.) The high fatality percentage may have been due to a decrease in the ability to perceive traffic risks that may be experienced by drinking pedestrians. Pedestrians who were obviously drunk or impaired from alcohol use represented 7% of the total pedestrian injuries and fatalities, but accounted for 12% of the 1979 fatalities.

Table 9

Percentage of Pedestrians Injured/Killed by Alcohol Involvement — 1979

Alcohol Involvement	Total Injured/Killed	Injured	<u>Killed</u>
Had Been Drinking: Obviously Drunk	4.8	īt • ŗi	9.9
Ability Impaired	2.3	2.3	2.3
Ability Not Impaired	1.3	1.4	0.0
Not Known Whether Ability Impaired	6.5	5.9	15.2
Not Drinking	72.2	74.4	43.9
Not Stated	12.8	11.6	28.7

Source: 1979 Crash Facts, p. 60.

Pedestrian Actions

The most common pedestrian action associated with pedestrian injuries and fatalities was crossing the roadway, which was associated with 45% of Virginia's pedestrian injuries and fatalities (see Table 10). Crossing at locations other than an intersection was the single pedestrian action with the highest involvement in accidents, accounting for 27% of the total pedestrian injuries and fatalities and 32% of the fatalities in 1979. Several factors may explain these high percentages. Pedestrians may have misjudged gaps in traffic, drivers may not have expected pedestrians to cross between intersections, or driver vision may have been limited by objects such as parked cars.

Table 10

Percentage of Pedestrians Injured/Killed by Pedestrian Action — 1979

Pedestrian Action	Total Injured/Killed	Injured	Killed
Crossing at Intersection:			
With Signal	4.4	4.7	0.0
Against Signal	3.6	3.7	2.5
No Signal	8.7	8.7	8.6
Diagonally	1.2	1.1	1.9
Crossing Not at Intersection	27.0	26.6	32.1
Coming from Behind Parked Car	s 10.0	10.7	1.9
Getting On-Off Vehicle	2.9	2.9	2.5
Walking in Roadway: With Traffic	7.1	ô.5	14.2
Against Traffic	4.5	4.3	7.4
Working in Roadway	2.0	2.2	0.6
Playing in Roadway	3.0	3.1	1.2
Standing in Roadway	7.5	7.3	11.1
Lying in Roadway	1.0	0.6	6.2
Not in Roadway	6.4	6.6	4.3
Other	10.7	11.1	5.6

Coming from behind parked cars accounted for 10% of total pedestrian injuries and fatalities each year, but represented only 2% of the fatalities. The underrepresentation of this action in fatality percentages in relation to its involvement in accidents may be due to lower speeds on highways or streets where cars normally park. A second vehicle-related pedestrian accident involved getting on or off vehicles, which accounted for 3% of pedestrian injuries and fatalities.

Crossing at an intersection accounted for 17% of total pedestrian injuries and fatalities each year. Almost one-half of these injuries and fatalities, and two-thirds of the fatalities alone, occurred at non-signalized intersections. For signalized intersections, it was not surprising to find that crossing against the signal caused close to three times as many fatalities as crossing with the signal. However, there were only small percentage differences for total injuries and fatalities between crossing with and crossing against the signal. This does not mean that the risk of injury is equal for both actions, since more pedestrians may cross with rather than against the signal.

Walking in the roadway was the second most common pedestrian action in pedestrian incidents. It accounted for 12% of the total pedestrian injuries and fatalities but represented 21% of the fatalities. The high fatality percentages may be explained by higher traffic speeds on roads where there are no sidewalks. Twice as many pedestrians were killed or injured each year while walking with traffic as compared to walking against traffic.

Other pedestrian activities in the roadway were responsible for 13% of pedestrian injuries and fatalities and 19% of fatalities in 1979. Standing in the roadway was the most frequently involved action, representing 8% of total pedestrian incidents and 11% of the fatalities. Lying in the roadway caused 1% of the injuries and fatalities but 6% of the fatalities. The high fatality percentages for lying in the roadway may be explained by the inability of the driver to see the pedestrian or take evasive action to reduce injury.

An examination of the percentages of pedestrian injuries and fatalities in relation to urban or rural location showed that crossing a street at places other than an intersection was the most common action associated with pedestrian injuries and fatalities in both urban and rural areas. It accounted for 26% of the urban and 26% of the rural incidents in 1979 (see Table 11).

Table 11

Percentage of Pedestrians Injured/Killed
by Rural/Urban Location/Pedestrian Action — 1979

Pedestrian Action	Urban	Rural
Crossing at Intersection:		
With Signal	4.8	3.2
Against Signal	4.0	2.5
No Signal	9.7	5.8
Diagonally	1.6	0,4
Crossing Not at Intersection	25.9	26.2
Coming From Behind Parked Cars	12.3	4.8
Getting On-Off Vehicle	3.0	2.2
Walking in Roadway:		
With Traffic	4,3	11.2
Against Traffic	3.0	6.9
Other Activities in Roadway	11.7	15.2
Not in Roadway	4.5	9.2
Other-Not Stated	15.1	12.5

Source: Data from 1979 Crash Facts, p. 15.

In urban areas, coming from behind parked cars was the second most frequent pedestrian action in pedestrian incidents, representing 12% of the injuries and fatalities, while crossing at nonsignalized intersections accounted for 10% of the occurrences. Each of these actions represented only 5% to 6% of the total rural incidents, probably due to fewer parked cars and fewer pedestrians crossing at intersections in rural areas.

The second most common action associated with pedestrian incidents in rural areas each year was walking in the roadway, which represented 18% of rural pedestrian injuries and fatalities. This action accounted for only 7% of urban pedestrian incidents. The higher rural percentages may be explained by fewer sidewalks and higher traffic speeds in rural areas.

Driver Factors

Several major driver characteristics were examined to ascertain their involvement in pedestrian accidents. The factors analyzed were driver age, improper driver action, and vehicle maneuver being executed when the pedestrian accident occurred.

The examination showed that drivers under the age of 24 were overrepresented in pedestrian accidents in relation to their numbers (see Table 12). Drivers under the age of 17 held 3.1% of the driver licenses in force in Virginia, but were involved in 6.5% of Virginia's pedestrian accidents in 1979. Drivers between the ages of 18 and 24 held 19.7% of the driver licenses in force, but were involved in 26.2% of the pedestrian accidents in 1979. Drivers in age groups over 25 years of age were underrepresented in pedestrian accidents in relation to their numbers. They held 77.2% of the licenses in force, but were involved in only 55.4% of the pedestrian accidents.

Table 12

Percentage of Licensed Drivers Involved in Pedestrian Accidents by Age — 1979

<u>Age</u>	Percentage in Accidents	Percentage of Licensed Drivers
Under 17	6.5	3.1
18-19	7.6	5.1
20-24	18.6	14.6
25-34	23.1	27.0
35-54	21.8	31.0
55-64	6.3	11.1
Over 65	4.2	8.1
Unknown	11.9	0.0

A summary of driver actions involved in pedestrian accidents indicated that in a majority of cases drivers were not legally at fault (see Table 13). No improper driver actions were involved in 58.2% of the pedestrian injuries and fatalities in 1978 and 55.8% in 1979. The most common improper action associated with pedestrian injuries and fatalities was hit and run, which accounted for 9.6% of the incidents in 1978 and 11.5% in 1979. Driver inattention was the second most frequent incorrect driver action and

Table 13

Percentage of Pedestrians Injured/Killed by Driver Action

Driver Action	1978	1979
Exceeding Speed Limit	2.1	2.1
Exceeding Safe Speed Limit	1.4	1.3
Passing	0.9	0.8
Not Having Right-of-Way	1.9	1.9
Improper Backing	0.9	0.8
Driver Inattention	5.6	7.6
Avoiding Pedestrian-Vehicle	3.7	3.5
Hit and Run	9.6	11.5
Other	15.8	14.5
None	58.2	55.8

was involved in 5.6% of the injuries and fatalities in 1978 and 7.6% in 1979. Other driver actions associated with between 1% and 4% of the pedestrian injuries and fatalities each year were exceeding speed limit, exceeding safe speed limit, not having right-of-way, and avoiding pedestrian/vehicle. Numerous other driver actions each accounted for less than 1% of pedestrian injuries in 1978 and 1979.

The most frequent vehicle maneuver being executed by a driver when pedestrians were killed or injured was going straight, which accounted for 75% of the total pedestrian injuries and fatalities and 85% of the fatalities in 1979 (see Table 14). Right turns and left turns each accounted for 9% of the total pedestrian injuries and fatalities, but only 3% of the fatalities. This could be due to lower traffic speeds of turning vehicles. The other major vehicle maneuver being executed during pedestrian accidents was passing, which was performed when 2% of Virginia's pedestrian injuries and fatalities occurred.

Percentage of Pedestrians Injured/Killed by Vehicle Maneuver — 1979

Vehicle Maneuver	Total Killed/Injured	Injured	<u>Killed</u>
Straight	75.1	74.3	85.5
Right Turn	3.6	3.8	1.2
Left Turn	5.3	5.5	1.8
Passing	1.6	1.7	0.6
Other	14.3	14.6	10.8

Vehicle Factors

The type of vehicle most commonly associated with pedestrian injuries and fatalities was the passenger car (see Table 15). Seventy-five percent of pedestrian injuries and fatalities occurred in collisions with passenger cars, while 65% of the fatalities alone resulted from these collisions. Trucks were the second most common vehicle involved in pedestrian accidents, and were overrepresented in relation to their numbers. Trucks accounted for 14% of pedestrian injuries and fatalities, but represented less than 5% of all registered vehicles. Trucks were also overrepresented in fatalities in relation to their involvement in pedestrian accidents. Truck collisions accounted for 18% of the fatalities in 1979, while accounting for only 14% of the total pedestrian injuries and fatalities. This is not surprising when one considers that trucks are of greater weight than most other vehicles. Motorcycles, buses, and emergency vehicles accounted for 2.5% of the pedestrian injuries and fatalities.

Table 15

Percentage of Pedestrians Injured/Killed by Vehicle Type - 1979

Vehicle Type	Percent Total Injured/ Killed	Percent Injured		Percent of Registered Vehicles
Passenger Car	74.5	75.2	65.1	73.4
Truck	14.4	14.0	18.3	4.6
Motorcycle	1.0	1.1	G.O	2.0
Bus	1.2	1.1	3.0	N.A.
Emergency Vehicle	3.3	0.3	1.2	M.A.
Other	8.5	3.3	12.4	15.0
Unknown	0.0	3.0	0.0	3.0

Summary

The following findings concern the pedestrian characteristics and actions commonly involved in accidents in Virginia.

- 1. The pedestrian action of crossing the road is associated with close to one-half of total pedestrian injuries and fatalities. Crossing at locations other than an intersection was the single action with the highest involvement in pedestrian accidents, accounting for close to one-third of Virginia's pedestrian injuries and fatalities.
- 2. Crossing at non-signalized intersections represented one-half of total pedestrian injuries and fatalities and two-thirds of fatalities associated with crossing at intersections.
- 3. Crossing against the signal at signalized crossings caused close to three times as many fatalities as crossing with the signal.
- 4. Walking in the roadway was the second most common pedestrian action involved in pedestrian accidents. Twice as many pedestrians were killed or injured while walking with traffic as compared to walking against traffic.
- 5. Other pedestrian activities in the roadway standing, working, playing, or lying were associated with a significant portion of pedestrian injuries and fatalities.
- 6. Children and the elderly accounted for a higher percentage of traffic injuries and fatalities than did pedestrians in other age groups.
- 7. Elderly pedestrians, pedestrians with handicaps, and drinking pedestrians were overrepresented in fatalities in relation to their total involvement in pedestrian accidents.
- 8. A majority of pedestrian accidents involved no chargeable improper actions by drivers.

ANALYSIS OF THE CODE OF VIRGINIA

The Motor Vehicle Chapter of the Code of Virginia (COV) has a separate article, "Protection of Pedestrians", (see Appendix C), which defines pedestrian rights and duties. Its major provisions call for pedestrians to cross wherever possible at intersections or marked crosswalks, to obey pedestrian control signals, and to use the roadway only when necessary, keeping to the left. Drivers are required to yield the right-of-way to pedestrians in cross-walks and to blind pedestrians crossing the highway. The article gives local governments the authority to limit solicitation by pedestrians on the highways and to require pedestrians to obey traffic control signs and signals.

While the number of regulations in the COV pedestrian section is substantial, the tone set for the section is hostile to pedestrians. The section opens by stating:

When crossing highways or streets, pedestrians shall not carelessly or maliciously interfere with the orderly passage of vehicles. Va. Code Ann. §46.1-230(a).

This suggests that vehicle movement is more important than pedestrian safety. (18) Since pedestrians are more likely to be injured in a collision than vehicle occupants, revisions to the COV which indicate a more congenial attitude toward pedestrians seem desirable for safety.

In response to the Highway Safety Act of 1973, Section 214, pp. 93-97, the Secretary of Transportation submitted to Congress findings and recommendations for pedestrian safety legislation. Finding a "serious lack of uniformity among pedestrian laws which causes confusion on the part of both motorist and pedestrians," the Secretary recommended that effort be made to provide uniform pedestrian law throughout the country to reflect the way "reasonable" pedestrians walk. (19)

A 1977 study⁽²⁰⁾ rated state traffic laws to show how they conformed with the "Rules of the Road" chapter of the <u>Uniform Vehicle Code</u> (U.V.C.), a model motor vehicle code designed to serve as a guide for state legislatures. Virginia was ranked 48th in the study for compliance with the "Pedestrian Rights and Duties" article of the "Rules of the Road." Because this study weighted all pedestrian rules equally rather than distinguishing among them based upon their relative importance to pedestrian safety, Virginia's low rating does not necessarily mean that Virginia's pedestrian laws extend less protection to pedestrians than

the laws of other states. However, it does indicate that Virginia's pedestrian rules may require revision to afford pedestrians maximum protection.

A comparison of Virginia's pedestrian regulations with the "Pedestrians' Rights and Duties" article of the U.V.C. (see Appendix D) and the pedestrian statutes of other states disclosed several deficiencies in Virginia's pedestrian article. The Virginia article does not distinguish the rights and duties of pedestrians crossing in crosswalks from those of pedestrians crossing outside of crosswalks and between intersections. It has no general provision requiring pedestrian obedience to traffic signals or indicating safe pedestrian responses to signals. No provision requires drivers to exercise due care to avoid pedestrians or exercise special precaution toward children andd incapacitated pedestrians. Key words such as "traffic" and "street" are not defined, making it difficult to interpret several regulations. Pedestrian-related regulations dealing with intoxication, sidewalks, and passing at crosswalks are not in the pedestrian article but are found elsewhere in the COV. Several areas covered in the U.V.C. and other state codes are not mentioned in the COV at all.

In this section of this report, Virginia's pedestrian regulations are evaluated and the differences between them and the U.V.C. and other state codes are examined. Emphasis is placed upon the COV provisions which deal with the traffic situations identified in the previous section as posing significant risks for pedestrians in Virginia. The proposals for revisions that are formulated represent a combination of current Virginia laws with provisions from the U.V.C. and other state statutes. These amendments are designed to clearly and comprehensively define the rights of pedestrians versus the rights of motorists and to increase the legal protection offered to pedestrians. The amendments are evaluated in terms of their possible effects upon Virginia's pedestrian-motorist conflict problem areas.

Crossing at Locations Other Than Crosswalks

Despite the fact that the most common pedestrian accident in Virginia involves pedestrians crossing the road at places other than intersections and crosswalks, the COV has few provisions dealing with the behavior of pedestrians making such crossings. Additions to the Code which delineate the rights and duties of pedestrians who cross the highway at locations other than crosswalks or intersections should be considered.

Virginia Code §46.1-230 deals with how and where pedestrians are to cross in general.

(a) When crossing highways or streets, pedestrians shall not carelessly or maliciously interfere with the orderly passage of vehicles. They shall cross whenever possible only at intersections or marked crosswalks. Where any intersections of highways or streets contain no marked crosswalk, pedestrians shall not be guilty of negligence as a matter of law for crossing any such intersections or between intersections when crossing by the most direct route.

While this section provides that pedestrians shall cross only at intersections or marked crosswalks whenever possible, it does not indicate the rights and duties of pedestrians who chose to cross elsewhere, other than to state that they shall not "carelessly or maliciously interfere" with traffic. The COV does not indicate the types of pedestrian behavior which meet this description. This section provides insufficient safety protection to pedestrians because it fails to describe correct pedestrian crossing behavior outside of crosswalks. However, it does offer some legal protection to pedestrians crossing at or between intersections with no marked crosswalks by stating that such crossings do not constitute negligence as a matter of law.

The U.V.C. clearly distinguishes the rights and duties of pedestrians within a crosswalk or intersection from those crossing outside a crosswalk or intersection. U.V.C. §11-503 deals specifically with pedestrians crossing at places other than crosswalks:

- (a) Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway.
- (b) Any pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right-of-way to all vehicles upon the roadway.
- (c) Between adjacent intersections at which trafficcontrol signals are in operation pedestrians shall not cross at any place except in a marked crosswalk. U.V.C. §11-503.

This section is designed to reduce pedestrian crossing fatalities by clearly stating correct behavior for pedestrians crossing at points other than crosswalks.

To decrease the large number of pedestrian accidents and fatalities involving pedestrians crossing the highway at places other than intersections, the COV should be revised to include the above cited provisions of the U.V.C. These provisions may increase pedestrian safety by regulating or prohibiting pedestrian crossings at places where drivers may not expect pedestrians to cross the roadway. The section of the COV on certain crossings not constituting negligence as a matter of law should be retained for the legal protection it offers to pedestrians.

Provisions requiring pedestrians crossing roadways outside of crosswalks to yield the right-of-way to vehicles are designed to allow pedestrians to cross only when gaps in traffic are sufficient to permit them to do so safely. However, the traffic on some highways may be such that sufficient gaps for safe pedestrian crossings never occur. To deal with this situation, U.V.C. \$15-107 empowers local authorities to prohibit crossing outside a crosswalk in a business district or any highway specifically designated in an ordinance. The COV has no comparable provision, and the inclusion of such a provision in \$46.1-180.2, which lists the powers of local governments to regulate traffic, appears desirable to promote pedestrian safety.

Pedestrians' Right-of-Way in Crosswalks

Pedestrians killed and injured while crossing at non-signalized intersections represent a majority of the injuries and fatalities that occur at intersections in Virginia. Revisions to the sections of the Virginia Code dealing with the rights and duties of pedestrians in crosswalks at such intersections may reduce the number of these accidents.

The Virginia Code defines "crosswalk" to include both marked crosswalks and unmarked crosswalks at intersections. (§46.1-1). The right-of-way of pedestrians at non-signalized crosswalks is stated in §46.1-231(a) of the Code.

(a) The driver of any vehicle upon a highway or street shall yield the right of way to a pedestrian crossing such highway or street within any clearly marked crosswalk whether at mid-block or at the end of any block, or any regular pedestrian crossing included in the prolongation of the lateral boundary lines

of the adjacent sidewalk at the end of a block, or at any intersection when the driver is approaching on a highway or street where the legal maximum speed does not exceed thirty-five miles per hour except at intersections or crosswalks where the movement of traffic is being regulated by traffic officers or traffic direction devices.

Section 46.1-231 also contains provisions dealing with pedestrian and vehicular movement at intersections in general:

- (b) No pedestrian shall enter or cross an intersection in disregard of approaching traffic.
- (c) The drivers of vehicles entering, crossing, or turning at intersections shall change their course, slow down or come to a complete stop if necessary to permit pedestrians to cross such intersections safely and expeditiously.
- (d) Pedestrians crossing highways or streets at intersections shall at all times have the right-of-way over vehicles making turns into the highways or streets being crossed by the pedestrian.

These provisions protect pedestrians at certain non-signalized crosswalks by requiring drivers to yield the right-of-way to pedestrians. Drivers at intersections must change their course, slow down, or stop if necessary to allow pedestrians to cross safely, and must at all times yield to pedestrians when making turns into highways being crossed by pedestrians.

While §46.1-231 offers substantial protection to pedestrians, confusing language lessens its effectiveness. Subsection (a) protects pedestrians in all non-signalized marked crosswalks, but the language concerning unmarked crosswalks is confusing, making it difficult to determine at which unmarked crosswalks pedestrians are given the right-of-way. The meaning of "enter or cross an intersection in disregard of approaching traffic" is also unclear. This creates legal difficulties for pedestrians injured in intersections who must show that they did not act in "disregard" of "approaching" traffic.

The U.V.C. attempts to protect pedestrians by clearly defining their rights at non-signalized crosswalks. U.V.C. §11-502(a) states:

(a) When traffic control signals are not in place or not in operation the driver of a vehicle shall yield the right-of-way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is traveling, or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.

Drivers are required to yield the right-of-way to pedestrians at any non-signalized "crosswalk," defined in §1-111 to include marked crosswalks or unmarked crosswalks at intersections. This provision clearly indicates at which crosswalks drivers must yield the right-of-way to pedestrians. However, the U.V.C. stipulates that the duty to yield occurs only when the pedestrian is in the same half of the roadway as the driver, or is approaching so closely as to be in danger. The U.V.C. has no direct counterparts to Virginia Code subsection (c), which universally requires drivers to slow or stop to permit safe pedestrian crossings at intersections, or subsection (d), which gives pedestrians at all times the right-of-way over turning vehicles at intersections.

U.V.C. §11-502(b) states:

(b) No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close as to constitute an immediate hazard.

The impact of this provision appears to be in determining civil liability after an accident rather than in guiding pedestrian conduct, since no pedestrian who wants to live will knowingly enter the path of a vehicle that is so close that the driver cannot avoid colliding with him. (21)

As a determinant of civil liability, U.V.C. §11-502(b) provides greater legal protection to injured pedestrians than Virginia Code §46.1-231(a). Under the U.V.C., a pedestrian seeking to recover for injury must prove only that he did not "suddenly" move into the path of a vehicle posing an "immediate hazard", while the COV requires him to prove that he did not "disregard approaching" traffic. (22) Oregon, which is in substantial conformity with U.V.C. 11-502(b), provides further legal protection for both pedestrian and drivers by stating that "this section does not relieve the driver of a vehicle or pedestrian from the duty to exercise due care." (Ore. Rev. Stat. §483-210).

U.V.C. §11-502(d) protects pedestrians in crosswalks by forbidding a vehicle to pass another vehicle which is stopped to permit a pedestrian to cross in a crosswalk. The Virginia Code "Protection of Pedestrians" article has no comparable provision, but under §46-1.190(e) a person is guilty of reckless driving who passes another vehicle going in the same direction while pedestrians are passing or about to pass in front of either vehicle, unless a traffic light or police officer permits it. The U.V.C. provision applies only at crosswalks and the forward vehicle must be stopped, while the COV contains neither limitation. However, the impact of the Virginia provision on pedestrian safety is probably lessened because it is included in the reckless driving law rather than in the pedestrian protection article.

Only a few revisions in COV provisions are necessary to increase pedestrian safety at non-signalized crosswalks or intersections. The language concerning a driver's duty to yield to pedestrians at unmarked crosswalks should be simplified for easier comprehension by motorists and pedestrians. The Virginia provision dealing with a pedestrian's entrance into an intersection in disregard of traffic should be revised to more closely conform to the U.V.C. in order to give pedestrians greater legal protection. A section stressing that neither drivers nor pedestrians are relieved of their duty of using care for safety would also seem desirable to promote pedestrian safety. Virginia's reckless driving provision on passing at crosswalks can be incorporated into the pedestrian protection article to present a more systematic approach to pedestrian regulation. In the interest of pedestrian safety, Virginia should continue to universally require drivers to slow or stop to permit pedestrians to safely cross at intersections, since the number of pedestrian fatalities may warrant greater protection of the pedestrian, regardless of his position in the crosswalk. (23) Pedestrians should also continue to have the right-of-way at all times over turning vehicles at intersections.

Even though pedestrians have the legal right-of-way when crossing the roadway at non-signalized crosswalks, several problems may arise when pedestrians try to take advantage of their right-of-way. Drivers may not yield to pedestrians, and where there are insufficient gaps in traffic to permit safe crossings, pedestrians who assert their right-of-way in crosswalks may be injured or killed. Adding to this problem is the fact that drivers may not know that they must legally yield to pedestrians at certain intersections which contain unmarked crosswalks because it is difficult to determine where unmarked crosswalks exist. These problems indicate that potentially hazardous situations may exist at many unmarked crosswalks.

To deal with dangerous unmarked crosswalks, U.V.C.§15-108 authorizes their closing.

The (State Highway Commission) and local authorities in their respective jurisdictions may after an engineering and traffic investigation designate unmarked crosswalk locations where pedestrian crossing is prohibited or where pedestrians must yield the right-of-way to vehicles. Such restrictions shall be effective only when official traffic control devices indicating the restrictions are in place.

This section enables state and local authorities, after an investigation, to close unmarked crosswalks at sites where the traffic situation makes crossing in such crosswalks particularly hazardous to pedestrians. The inclusion of a similar provision in Virginia Code §46.1-180.2, which lists the powers of local governments to regulate traffic, may be appropriate to increase pedestrian safety at unmarked crosswalks.

U.V.C. §11-505, and similar provisions in several state codes, requires pedestrians to move, whenever practicable, upon the right half of crosswalks. This provision is designed to promote the orderly use of crosswalks, which could minimize delay to pedestrians crossing the highway in crosswalks and indirectly minimize delay to vehicles waiting for pedestrians to cross by decreasing the length of time it takes for pedestrians to cross the highway. The Virginia Code should be revised to require pedestrians to use the right half of crosswalks whenever practicable.

Pedestrian Obedience to Official Traffic Control Devices

Despite the fact that more pedestrians are killed while crossing at signalized intersections against the signal than with the signal, the COV contains no general provision requiring pedestrians to obey all signals erected for the control of traffic. Section 46.1-184 of the Code, which deals with traffic responses to red, green, and amber signals, law officers, and school crossing guards, contains no provisions directly addressed to pedestrians. This section dictates "traffic" responses, but the Code does not define "traffic" to indicate if pedestrians are included within the meaning of the term. Pedestrian responses to signals are

specifically addressed only in §46.1-231.1 of the Code, which directs pedestrians to obey special pedestrian control signals exhibiting the words "Walk" and "Don't Walk."

Virginia Code §46.1-242 gives cities, towns, and counties the authority to enact ordinances requiring pedestrians to obey traffic signals, signs, and police officers directing traffic. Consequently, each locality may enact its own ordinances to control pedestrian behavior at signalized intersections. Any nonuniformity among local ordinances can create confusion among both motorists and pedestrians, and result in increased danger to pedestrians at signalized crossings.

The U.V.C. attempts to prevent vehicle-pedestrian conflicts by requiring both motorists and pedestrians to obey traffic signals and by clearly defining pedestrian duties and rights at signalized crossings. Section 11-501 states:

- (a) A pedestrian shall obey the instructions of any official traffic-control device specifically applicable to him, unless otherwise directed by a police officer.
- (b) Pedestrians shall be subject to traffic and pedestrian control signals as provided in §§11-202 and 11-203.
- (c) At all other places, pedestrians shall be accorded the privileges and shall be subject to the restrictions stated in this chapter.

Section 11-202, which indicates responses to red, yellow, and green lights, contains provisions specifically addressed to pedestrians. When not otherwise directed by a pedestrian control signal, pedestrians facing any green signal except a sole green turn arrow may cross within a crosswalk (§11-202(a)(3)), pedestrians facing a steady circular yellow or yellow arrow shall not start to cross the roadway (§11-202(b)(2)), and pedestrians facing a steady circular red or red arrow shall not enter the roadway (§11-202(c)(4)). Section 11-203 requires pedestrians to obey special pedestrian-control signals exhibiting the words "Walk" or "Don't Walk".

To decrease vehicle-pedestrian conflict at signalized intersections in Virginia, the Code should be revised to include a provision requiring pedestrians to obey traffic-control devices specifically applicable to them, unless otherwise directed by a police officer. Such a provision would require pedestrians to obey signs such as those prohibiting pedestrian crossings at certain locations, but would not require them to obey signs such as stop signs or one-way street signs. (26)

Provisions expressly directing pedestrians facing green, amber, and red signals should be added to §46.1-184 to clarify correct pedestrian responses to traffic signals. Article 5, "Protection of Pedestrians," should be revised to include a provision subjecting pedestrians to traffic control signals as provided in §46.1-184 to make article 5 a more coherent and cohesive listing of pedestrian rights and duties. By requiring uniform pedestrian responses to crossing signals throughout Virginia and clearly indicating correct pedestrian responses to signals, these revisions could lessen confusion on the part of both motorists and pedestrians.

Arguments have been made for and against the requirement that pedestrians facing a red light not enter the roadway. Opponents argue that pedestrians will cross on red if it is safe to do so and a prohibitive rule will be disobeyed. (27) But advocates argue that where drivers can make right turns on red, allowing pedestrians to cross on red creates confusion and requires pedestrians to consider traffic approaching from the rear and cross traffic from both directions. (28)

Because more pedestrians are killed in Virginia crossing against rather than with signals, and because drivers may make right turns on red, a Virginia Code provision clearly prohibiting pedestrians from crossing on red seems preferable.

Pedestrians on Highways

The second most common pedestrian action involved in accidents in Virginia is walking in the roadway. Pedestrians walking in the roadway face a significant risk of collision, especially when walking with rather than against traffic.

Code of Virginia §46.1-234 is designed to promote pedestrian safety by preventing pedestrian use of the roadway,* unless such use is necessary:

Pedestrians shall not use the roadways or streets, other than the sidewalk thereof, for travel, except

^{*&}quot;Roadway" is defined by the COV to be the portion of highway for vehicular traffic, exclusive of shoulders. The U.V.C. definition is equivalent, but also expressly excludes sidewalks.

when necessary to do so because of the absence of sidewalks, reasonably suitable and passable for their use, in which case, if they walk upon the hard surface, or the main travelled portion of the roadway, they shall keep to the extreme left side or edge thereof, or where the shoulders of the highway are of sufficient width to permit, they may walk on either shoulder thereof.

This section requires pedestrians to use sidewalks when reasonably available. In the absence of such sidewalks, pedestrians may use either shoulder if there are shoulders wide enough to use, but must keep to the extreme left when walking on the main travelled portion of the roadway.

Two problems may arise in the application of \$46.1-234. First, it is not clear whether in the absence of sidewalks pedestrians must use a suitable shoulder where available or if they may chose to walk on the roadway even where a usable shoulder exists. Second, it may not always be practical or safe for a pedestrian to walk on the left edge of the roadway. A pedestrian walking to the left on a one-way road or divided highway would not be facing oncoming traffic and may be safer walking on the right edge of the roadway. Revising the COV to more closely conform to the U.V.C. section dealing with pedestrians on highways would eliminate these problems and increase safety by requiring pedestrians to keep out of the way of vehicles on the roadway.

U.V.C. §11-506 provides:

- (a) Where a sidewalk is provided and its use is practical, it shall be unlawful for any pedestrian to walk along and upon an adjacent roadway.
- (b) Where a sidewalk is not available, any pedestrian walking along and upon a highway shall walk only on a shoulder as far as practicable from the edge of the roadway.
- (c) Where neither a sidewalk nor a shoulder is available, any pedestrian walking along and upon a highway shall walk as near as practicable to an outside edge of the roadway, and, if on a two-way roadway, shall walk only on the left side of the roadway.
- (d) Except as otherwise provided in this chapter, any pedestrian upon a roadway shall yield the right-of-way to all vehicles upon the roadway.

Pedestrians Soliciting Rides or Business

Pedestrians using the roadway, defined in the COV as the portion of the highway for use of vehicular traffic exclusive of the shoulders, are involved in a significant number of accidents. Laws designed to keep pedestrians off of the roadway seem desirable to promote safe pedestrian behavior.

U.V.C. §11-507 makes it illegal for pedestrians to use the roadway to solicit rides or business from vehicle occupants:

- (a) No person shall stand in a roadway for the purpose of soliciting a ride.
- (b) No person shall stand on a highway[*] for the purpose of soliciting employment, business, or contributions from the occupant of any vehicle.
- (c) No person shall stand on or in proximity to a street or highway for the purpose of soliciting the watching or guarding of any vehicle while parked or about to be parked on a street or highway.

Subsection (a) prohibits pedestrians soliciting rides from standing in the roadway but allows them to use the rest of the highway, including shoulders. However, anyone soliciting employment, business, or contributions from vehicle occupants or soliciting the guarding of parked cars can stand neither on the roadway nor on any other portion of the highway. Subsection (b) does not prohibit standing on the highway to solicit from other pedestrians and has no effect on persons standing on sidewalks in business districts to solicit from pedestrians, an activity usually regulated by local ordinances.

The Virginia Code has two sections dealing with solicitation. Section 46.1-234 deals with soliciting rides as follows: "Pedestrians shall not stand or stop in any roadway or street for the purpose of soliciting rides." Whether this provision is in conformity with U.V.C. §11-507(a) is unclear. Like the U.V.C., the Virginia provision prohibits pedestrians soliciting rides from standing on the roadway, but it also prohibits them from standing

[&]quot;"Highway" is defined by the U.V.C. to be "the entire width between boundary lines of every way publicly maintained when any part is open for vehicular traffic."

on the street. "Street" is not defined in the COV, but if it is defined as in the U.V.C. to be synonmous with "highway" the Virginia law is not in agreement with the U.V.C. The effect of such a definition on Virginia's law would be not only to prohibit pedestrians soliciting rides from standing on the roadway but also from standing on any other part of the highway, including the shoulders.

Code of Virginia §46.1-234.2 concerns the distribution of literature, soliciting of contributions, and sale of merchandise on the highways. This section gives certain counties the authority to prohibit the distribution of written materials to, the soliciting of contributions from, or the sale of merchandise to drivers of motor vehicles on secondary highways within these counties. The Virginia provision is not as broad as U.V.C. §11-507(b), which uniformly prohibits pedestrians from standing on any highway to solicit business or contributions from the occupants of vehicles.

Since solicitation of vehicle occupants by pedestrians places pedestrians in dangerous proximity to moving vehicles, COV §46.1-234 should be revised to more effectively deter such activities. The Code should be modified to conform with the U.V.C. by omitting the term "street" and including the two additional subsections concerning solicitation. The amended provisions would apply uniformly to all highways and more effectively discourage pedestrian solicitation of vehicle occupants.

Intoxicated, Handicapped, and Other Highly Vulnerable Pedestrian Groups

Several categories of pedestrians are involved in a disproportionate number of Virginia's pedestrian crashes each year. These categories include the handicapped, the elderly, children, and intoxicated pedestrians. While Virginia has regulations concerning children playing in the street and the right-of-way of blind pedestrians crossing the roadway, the Code does not require drivers to exercise special care for children or incapacitated or intoxicated pedestrians. Because of the high number of pedestrian accidents in Virginia involving these groups, special regulations designed for their protection may be desirable.

Despite the high involvement of drinking pedestrians in fatal crashes, the "Protection of Pedestrians" section of the COV has no provision dealing with them. However, §18.2-388 of the Code makes it unlawful for a person to be drunk in public, and §4-2(20) defines "public place" to include any highway or street.

Section 11-512 of the "Pedestrians' Rights and Duties" article of the U.V.C. provides that:

A pedestrian who is under the influence of alcohol or any drug to a degree which renders himself a hazard shall not walk or be upon a highway except on a sidewalk.

While the inclusion of such a section may be duplicative of Virginia's public drunkenness provision, it would be appropriate to include it in the pedestrian article of the Virginia Motor Vehicle Code to stress the dangerous position of drinking pedestrians. Such an addition should not be deemed to authorize public intoxication, because such a construction would be contrary to other Virginia laws. Alternatively, Virginia could follow Ohio's "under the influence" law, which is similar to the U.V.C. provision but does not include the sidewalk exception. (Ohio Rev. Code Ann. Tit. 45 §4511.48.1) Ohio's law has the effect of totally excluding intoxicated pedestrians from the highway, including the shoulders and sidewalks. (29)

Blind pedestrians constitute a second group in need of special protection because of their vulnerability in traffic situations. The COV has two provisions designed to protect pedestrians. Section 46.1-237 requires drivers in any city or town to stop at an intersection or place of crossing not controlled by a traffic officer at which a pedestrian guided by a guide dog or carrying a clearly visible cane in a raised position is attempting to cross. Section 46.1-240 states that the failure of a blind pedestrian to use a cane or guide dog does not constitute contributory negligence or deprive him of the legal rights of ordinary pedestrians crossing streets.

While COV §46.1-237 offers substantial protection to blind pedestrians, this protection is limited to intersections or places of crossings and applies only within cities or towns. The U.V.C. provision concerning blind pedestrians contains neither limitation. U.V.C. §11-511 states:

The driver of a vehicle shall yield the rightof-way to any blind pedestrian carrying a clearly visible white cane or accompanied by a guide dog.

To offer blind pedestrians maximum protection, the Virginia Code should be revised to require drivers to yield to blind pedestrians with canes or guide dogs everywhere, rather than just at crossings in cities or towns. The Code can continue to require

drivers to stop at intersections or places of crossing not controlled by police officers at which a blind pedestrian is crossing, or may require drivers to stop wherever necessary to avoid injury or danger to blind pedestrians. To offer blind pedestrians additional legal protection not provided in the U.V.C., the Code should continue to provide that the failure of a blind pedestrian to use a cane or guide dog has no bearing on civil liability.

Other vulnerable pedestrian groups, including children, the elderly, and the handicapped, are not offered special protection by the Virginia Code. Provisions providing such protection may be desirable to decrease the high involvement of these groups in fatal pedestrian crashes.

The U.V.C. contains a provision stating the general duty of a driver to avoid colliding with pedestrians, especially those who are particularly vulnerable, such as children and infirm pedestrians. U.V.C. §11-504 provides:

Notwithstanding other provisions of this chapter or the provisions of any local ordinance, every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian or any person propelling a human powered vehicle and shall give an audible signal when necessary and shall exercise proper precaution upon observing any child or any obviously confused, incapacitated or intoxicated person.

Alaska is in substantial conformity with U.V.C. §11-504 but adds "or upon observing other conditions and circumstances which require extra caution." 13 Alaska Adm. Code §302.165 (1971). This provision protects vulnerable pedestrians under conditions not specifically mentioned in the U.V.C. The inclusion in the Virginia Code of a section similar to U.V.C. §11-504 or Alaska's comparable provision would promote pedestrian safety among vulnerable pedestrian groups. The main impact of such a provision is probably in giving pedestrians better chances for recovery in civil actions following accidents rather than in increasing safety, because drivers do not avoid hitting pedestrians merely because it is a misdemeanor. (30) However, the provision may draw a driver's attention to the possibility that where vulnerable pedestrian groups are concerned, a higher degree of care than is otherwise required may be necessary. (31)

Pedestrians' Right-of-Way on Sidewalks

One would expect pedestrians on sidewalks to have the right-of-way over vehicles crossing sidewalks at all times, because sidewalks are specifically provided for the use of pedestrians. (32) However, the COV requires drivers to yield to pedestrians on the sidewalk only when emerging from (not when entering) private roads, driveways, alleys, or buildings. (Va. Code Ann. §46.1-223) When emerging from these non-highway areas, drivers must stop before entering a public highway or sidewalk and yield the right-of-way to pedestrians on the sidewalk. This provision is not found in the "Protection of Pedestrians" article but is located elsewhere in the Code, which may limit its effectiveness in protecting pedestrians on the sidewalk.

In its "Pedestrians' Rights and Duties" article, the U.V.C. gives pedestrians the right-of-way on a sidewalk in all circumstances. U.V.C. §11-509 provides:

The driver of a vehicle crossing a sidewalk shall yield the right-of-way to any pedestrian and all other traffic on the sidewalk.

The pedestrian article of the COV should be revised to include a provision requiring drivers crossing sidewalks to yield to pedestrians on the sidewalks at all times. This requirement is appropriate because pedestrians on sidewalks do not expect to come into conflict with vehicles and may not be watching out for vehicles attempting to cross the sidewalk. The Code can continue to include §46.1-223 requiring drivers emerging onto public highways to both stop and yield to pedestrians before entering the highway or sidewalk.

Pedestrians Yielding to Emergency Vehicles

U.V.C. §11-510(a) requires pedestrians to yield the right-of-way upon the immediate approach of any authorized emergency vehicle using audible and visual signals that meet the U.V.C. signal requirements. Pedestrians must also yield to police vehicles lawfully using an audible signal only. However, while pedestrians are required to yield, subsection (b) states that drivers of emergency vehicles are not relieved of the duty to exercise due care to avoid colliding with pedestrians.

The COV has no provision dealing with pedestrians and emergency vehicles. The inclusion of such a provision in the pedestrian article will provide a more complete set of pedestrian laws and will clearly define the duties of pedestrians in relation to

emergency vehicles. One statute that does this is the California emergency vehicle provision, which requires pedestrians to remain in a place of safety or proceed to the nearest curb or place of safety until an authorized emergency vehicle has passed, unless otherwise directed by a police officer. (Cal. Veh. Code §21806 [1950]).

Bridge and Railroad Signals

- U.V.C. §11-513 indicates correct pedestrian behavior at rail-road crossings and bridges when signals or barriers are in operation.
 - (a) No pedestrian shall enter or remain upon any bridge or approach thereto beyond the bridge signal, gate or barrier after a bridge operation signal indication has been given.
 - (b) No pedestrian shall pass through, around, over or under any crossing gate or barrier at a railroad grade crossing or bridge while such gate or barrier is being opened or closed.

Since the pedestrian article of the COV has no provision dictating pedestrian response to signals and barriers at bridges and railroad crossings, such a provision should be adopted.

PROPOSED PEDESTRIAN LAWS

The pedestrian regulations below would incorporate the recommendations for revision to the "Protection of Pedestrians" article of the COV set forth above. The proposals below include existing laws as well as the proposed additions. The section numbers used are intended primarily for reference purposes, but generally correspond to current laws.

Article 5 - Protection of Pedestrians

§46.1-230 Pedestrians' right-of-way in crosswalks

(a) The driver of a vehicle shall yield the right-ofway to a pedestrian crossing the roadway within any marked crosswalk or within any unmarked crosswalk at an intersection, except at intersections or

- crosswalks where the movement of traffic is being regulated by traffic officers or traffic control devices.
- (b) The provisions of this section shall not relieve a pedestrian from the duty of using due care for his own safety. No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close as to constitute an immediate hazard.
- (c) Paragraph (a) shall not apply under conditions stated in §46.1-231(b).
- (d) The provisions of this section shall not relieve a driver of a vehicle from the duty of exercising due care for the safety of a pedestrian. The drivers of vehicles entering, crossing, or turning at intersections shall change their course, slow down, or come to a complete stop if necessary to permit pedestrians to cross such intersections safely and expeditiously.
- (e) Pedestrians crossing highways or streets at intersections shall at all times have the right-of-way over vehicles making turns into the highway or streets being crossed by the pedestrians.
- (f) The driver of a vehicle shall not overtake or pass any other vehicle proceeding in the same direction at a marked crosswalk or unmarked crosswalk at an intersection while pedestrians are crossing or about to cross the roadway in front of either such vehicle.

§46.1-230.1 Pedestrians to use right half of crosswalk

Pedestrians shall move, whenever practicable, upon the right half of crosswalks.

§46.1-231 Crossing at other than crosswalks

- (a) Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway.
- (b) Any pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right-of-way to all vehicles upon the roadway.

- (c) Between adjacent intersections at which trafficcontrol signals are in operation, pedestrians shall
 not cross at any place except in a marked crosswalk.
 Where intersections of highways or streets contain
 no marked crosswalks, pedestrians shall not be
 guilty of negligence as a matter of law for crossing
 between such intersections when crossing by the most
 direct route.
- (d) The governing body of an incorporated town or city or the governing body of a county authorized by law to regulate traffic may by ordinance permit pedestrians to cross an intersection diagonally when all traffic entering the intersection has been halted by lights, semaphores, or signals by a peace or police officer.

§46.1-232 Pedestrian obedience to traffic control devices and traffic regulations

- (a) A pedestrian shall obey the instructions of any official traffic-control device specifically applicable to him, unless otherwise directed by a police officer.
- (b) Whenever special pedestrian control signals exhibiting the words "Walk" or "Don't Walk" are in place such signals shall indicate as follows:
 - (1) Walk. Pedestrians facing such signal may proceed across the highway in the direction of the signal and shall be given the right-of-way by the drivers of all vehicles.
 - (2) Don't Walk. No pedestrian shall start to cross the highway in the direction of such signal, but any pedestrian who has partially completed his crossing on the walk signal shall proceed to a sidewalk or safety island while the Don't Walk signal is showing.
- (c) Pedestrians shall be subject to traffic control devices as provided in §46.1-184.*

^{*}A revision to §46.1-232 would make necessary additions to §46.1-184.

(d) At all other places, pedestrians shall be accorded the privileges and shall be subject to the restrictions stated in this chapter.

§46.1-184 Signals by lights or semaphores

- (a) Red indicates . . . unless otherwise directed by a pedestrian-control signal as provided in §46.1-232(b), pedestrians facing a steady circular red or red arrow signal alone shall not enter the roadway. Green indicates . . . Unless otherwise directed by a pedestrian-control signal as provided in §46.1-232(b), pedestrians facing any green signal, except when the sole green signal is a turn arrow, may proceed across the roadway within any marked or unmarked crosswalk.
- (b) Amber indicates . . . Pedestrians facing a steady circular amber or amber arrow signal, unless otherwise directed by a pedestrian-control signal as provided in §46.1-232(b), are thereby advised that there is insufficient time to cross the roadway before a red indication is shown and no pedestrian shall then start to cross the roadway.

§46.1-233 Pedestrians to yield right-of-way to emergency vehicles

- (a) Upon the immediate approach of an authorized emergency vehicle as described in §46.1-226 making use of audible and visual signals as required by §46.1-225, all pedestrians upon the highway shall remain in a place of safety or proceed to the nearest curb or place of safety until the authorized emergency vehicle has passed.
- (b) This section shall not relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons using the highway nor from the duty to exercise due care to avoid colliding with any pedestrian.

§46.1-234 Pedestrians stepping into street where they cannot be seen

Pedestrians shall not step into that portion of a highway or street open to moving vehicular traffic at any point between intersections where their presence would be obscured from the vision of drivers of approaching vehicles by a vehicle or other obstruction at the curb or side, except to board a passenger bus or to enter a safety zone, in which event they shall cross the highway or street only at right angles.

§46.1-234.1 Boarding or alighting from buses

When actually boarding or alighting from passenger buses pedestrians shall have the right-of-way over vehicles, but shall not, in order to board or alight from passenger buses, step into the highway or street sooner nor remain there longer than is absolutely necessary.

§46.1-235 Pedestrians on highways

- (a) Where a sidewalk is provided and its use is practicable, it shall be unlawful for any pedestrian to walk along and upon an adjacent roadway.
- (b) Where a sidewalk is not available, any pedestrian walking along and upon a highway shall walk only on a shoulder, and as far as practicable from the edge of the roadway.
- (c) Where neither a sidewalk nor a shoulder is available, any pedestrian walking along and upon a highway shall walk as near as practicable to an outside edge of the roadway, and, if on a two-way roadway, shall walk only on the left side of the roadway.
- (d) Except as otherwise provided in this Article, any pedestrian upon a roadway shall yield the right-of-way to all vehicles upon the roadway.

§46.1-235.1 Pedestrians soliciting rides or business

- (a) No person shall stand in a roadway for the purpose of soliciting a ride.
- (b) No person shall stand on a highway for the purpose of soliciting employment, business, or contributions from the occupant of any vehicle.
- (c) No person shall stand on or in proximity to a street or highway for the purpose of soliciting the watching or guarding of any vehicle while parked or about to be parked on a street or highway.

§46.1-235.2 Pedestrians under influence of alcohol or drugs

A pedestrian who is under the influence of alcohol or any drug to a degree which renders him a hazard shall not walk or be upon a highway.

- §46.1-236 Pedestrians on bridges and at railroad grade crossings
 - (a) No pedestrian shall enter or remain upon any bridge or approach thereto beyond the bridge signal, gate, or barrier after a bridge operation signal indication has been given.
 - (b) No pedestrian shall pass through, around, over, or under any crossing gate or barrier at a railroad grade crossing or bridge while such gate or barrier is closed or is being opened or closed.
 - (c) Pedestrians shall not loiter on any bridge on which the State Highway and Transportation Commissioner has posted signs prohibiting such action. Any person violating the provisions of this section shall be guilty of a misdemeanor and, upon conviction, shall be punished accordingly.

§46.1-237 Playing on streets or highways; roller skates, toys or other devices on wheels or runners; persons riding bicycles, etc. not to attach to vehicles

- No person shall play on a highway or street, other than upon the sidewalk thereof, within a city or town or on any part of a highway outside the limits of a city or town designated by the State Highway and Transportation Commissioner exclusively for vehicular travel. No person shall use on a highway or street where play is prohibited roller skates, or toys, or other devices on wheels or runners, except bicycles and motorcycles. The governing bodies of counties, cities, and towns may designate areas on highways or streets where play is prohibited or may restrict play to the use of roller skates, or toys, or other devices on wheels or runners and, if such highways or streets have two traffic lanes, such persons using such devices, except bicycles and motorcycles, shall keep as near as reasonably possible to the extreme left side or edge of the left-hand traffic lane so that they will be facing oncoming traffic at all times.
- (b) No person riding upon any bicycles, roller skates, toys, or other devices on wheels or runners shall attach the same or himself to any vehicle upon a roadway.

§46.1-238 Penalty for violating §46.1-230 through §46.1-237

Any person convicted of violating any of the provisions of §46.1-230 through §46.1-237 shall be fined not less than two dollars nor more than twenty-five dollars for each offense.

§46.1-239 Blind pedestrian right-of-way

- (a) The driver of a vehicle shall yield the right-of-way to any blind pedestrian carrying a clearly visible white cane or accompanied by a guide dog, and whenever such pedestrian is crossing or attempting to cross a highway the driver of every vehicle approaching the intersection or place of crossing shall bring his vehicle to a full stop before arriving at such intersection or place of crossing and shall remain stationary until the blind pedestrian has vacated the roadway, unless such intersection or place of crossing is controlled by a traffic officer.
- (b) Any person violating any provision of the section shall be guilty of a Class 4 misdemeanor.

§46.1-239.1 Construction of §46.1-239, failure to use cane or guide dog not contributory negligence

Nothing contained in §46.1-239 shall be construed to deprive any totally or partially blind or otherwise incapacitated person not carrying such a cane or walking stick or not being guided by a dog of the rights and privileges conferred by law upon pedestrians using streets and highways, nor shall the failure of such totally or partially blind or otherwise incapacitated person to carry a cane or walking stick or to be guided by a guide dog upon the streets, highway, or sidewalks of this Commonwealth be held to constitute nor be evidence of contributory negligence.

§46.1-240 Drivers to exercise due care

Notwithstanding other provisions of this article or the provisions of any local ordinances, every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian or any person propelling a human-powered vehicle, and shall give an audible signal when necessary and shall exercise proper precaution upon observing any child or any obviously confused, incapacitated, or intoxicated person or a person wholly or partially blind using a cane or guide dog, or upon observing other conditions and circumstances which require extra caution.

§46.1-241 Driving through safety zone prohibited

At no time shall a vehicle be driven through or within a safety zone.

§46.1-241.1 Pedestrians' right-of-way on sidewalks

The driver of a vehicle crossing a sidewalk shall yield the right-of-way to any pedestrian and all other traffic on the sidewalk.

The inclusion of the following definitions in the COV under §46.1-1 may be appropriate to clarify the meaning and application of the revisions to the Virginia Code presented above.

"Highway".* — The entire width between the boundary lines of every way or place of whatever nature whenever any part thereof is open to the use of the public for purposes of vehicular travel in this state, including the streets, alleys, and publicly maintained parking lots in counties, cities and towns and for law-enforcement purposes, the entire width between the boundary lines of all private roads or private streets which have been specifically designated "highway" by an ordinance adopted by the governing body of the county, city or town in which such private roads or streets are located.

"Street." — The entire width between boundary lines of every way publicly maintained when any part thereof is open to use of the public for purposes of vehicular traffic.

"Traffic." — Pedestrians, ridden or herded animals, vehicles, streetcars and other conveyances whether singly or together while using any highway for purposes of travel.

"Traffic Control Signal" — Any device, whether manually, electronically or mechanically operated, by which traffic is alternately directed to stop and permitted to proceed.

"Official Traffic Control Devices" — All signs, signals, markings and devices not inconsistent with this act placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning or guiding traffic.

[&]quot;This definition is in verbatim conformity with the existing Virginia Code definition, except for the phrase "whenever any part thereof is." This phrase was included to clarify that shoulders and sidewalks are included in the term "highway".

"Pedestrian" - Any person afoot.

"Roadway" — That portion of a highway improved, designed or ordinarily used for vehicular travel, exclusive of the sidewalk, berm or shoulder. A highway may include two or more roadways if divided by a physical barrier or barriers or unpaved area.

"Sidewalk" — That portion of street between the curb lines or the lateral lines of a roadway and adjacent property lines, intended for use by pedestrians.

CONCLUSION

It may be assumed that pedestrian regulations should present a clear, reasonable, and comprehensive definition of the rights and duties of pedestrians and motorists in traffic. Such regulations increase safety by allowing highway users to know what behavior is expected of them and what to expect of others. The safety of all highway users should be the primary goal of pedestrian statutes.

Therefore, the Code of Virginia should be revised where it fails to effectively promote safety due to unclear statutory language or the omission of rules governing important pedestrian-related traffic situations. The use of clear language in several regulations such as those dealing with pedestrian use of the roadway and right-of-way in crosswalks, along with the inclusion of sections concerning such areas as pedestrian obedience to traffic signals and crossings outside of crosswalks, can increase the effectiveness of the COV pedestrian article in dealing with Virginia's major pedestrian traffic risks.

REFERENCES

- 1. Pedestrian and Bicycle Safety Study: Highway Safety Act of 1973 (Sect. 214); NHTSA, Washington, D. C., March 1975, p. 4.
- 2. Ibid.
- 3. English, J. W., Conrath, C. W., and Gallavan, M. L., "Pedestrian Laws in the United States," <u>Traffic Law Commentary</u>, Vol. 3, No. 3, October 1974, p. 1.
- 4. Uniform Vehicle Code and Model Traffic Ordinance. Revised ed. National Committee on Uniform Traffic Laws and Ordinances. The Michie Co., Charlottesville, Va., 1968 (1977 Supplement).
- 5. Snyder, Knoblauch, "Pedestrian Safety: The Identification of Precipitating Factors and Possible Countermeasures," Final Report, Vol. 1, Operations Research, Inc., Silver Spring, Md., January 1971.
- 6. Knoblauch, R. L., "Causative Factors and Countermeasures for Rural and Suburban Pedestrian Accidents: Accident Data Collection and Analysis," Biotechnology, Inc. Falls Church, Va., NHTSA, FHWA, U. S. DOT, Final Report, March 1977.
- 7. Singer, S., "Pedestrian Regulation Enforcement and the Incidence of Pedestrian Accidents," Dunlap and Associates, Inc., Darien, Connecticut, August 1969.
- 8. Fisher, E. C., "Vehicle Traffic Law," rev. by R. H. Reeder, The Traffic Institute, Northwestern Univ., Evanston, Ill., 1974, p. 159.
- 9. Ibid., pp. 29-30.
- 10. Ibid., p. 24
- 11. Pedestrian and Bicycle Safety Study, p. 2.
- 12. Ibid., p. 3.
- 13. Ibid., pp. 13, 43.
- 14. English, Conrath, and Gallavan.
- 15. Ibid., pp. 222-224.
- 16. <u>Virginia Crash Facts</u>, Department of State Police, Richmond.

- 17. Virginia State Police Crash Tapes.
- 18. Swift, D., "Suggested Revisions to Virginia's Pedestrian, Motorcycle and Bicycle Laws," Virginia Highway and Transportation Research Council, Charlottesville, Virginia, p. 2.
- 19. Pedestrian and Bicycle Safety Study, p. 2.
- 20. "Rules of the Road Rates," <u>Traffic Laws Commentary</u>, Vol. 6, No. 5, Washington, D. C., October 1977.
- 21. English, Conrath, and Gallavar, p. 118.
- 22. Swift, D., "Suggested Revisions to Virginia's Pedestrian, Motorcycle, and Bicycle Laws," Virginia Highway and Transportation Research Council, Charlottesville, Virginia. pp.2-3.
- 23. Pennsylvania Vehicle Code: Report of Proposed Revision 1975, Pennsylvania Department of Justice, Harrisburg, Pa., 1975, p. 145.
- 24. English, Conrath, and Gallavar, p. 116.
- 25. Ibid., p. 117.
- 26. Ibid., p. 24.
- 27. "Pedestrian Response to Red Lights," <u>Traffic Laws Commentary</u>, No. 69-3, Sept. 3, 1969, p. 2.
- 28. Ibid., p. 3.
- 29. Ohio's "Rules of the Road" and the Uniform Vehicle Code, Ohio Legislative Service Commission, Staff Research Rep. No. 114, Ohio Dept. of Transportation, Columbus, Ohio, Dec. 1974, p. 105.
- 30. Pedestrian and Bicycle Safety Study, p. 26.
- 31. Ohio's "Rules of the Road" and the U.V.C., p. 98.
- 32. English, Conrath, and Gallavar, p. 161.

SELECTED BIBLIOGRAPHY

- Accident Facts. National Safety Council, Chicago, Ill., 1979 Ed.
- Berger, W. G., Urban Pedestrian Accident Countermeasures Experimental Evaluation: Vol. 1 Behavioral Evaluation Studies. Biotechnology, Inc., Falls Church, Va. Final Report, February 1975; National Highway Traffic Administration, Federal Highway Administration, U. S. Department of Transportation, 1975.
- Blomberg, R. D., Hale, A., and Kearney, E. F., Development of Model Regulations for Pedestrian Safety. Dunlap & Associates, Inc., Darien, Connecticut; National Highway Traffic Safety Administration, Washington, D. C., November 1974.
- Deuker, R. L., Urban Crossing Problems. Final Report, National Highway and Transportation Safety Administration, U. S. Department of Transportation, Washington, D. C., December 1978.
- Highway Safety Program Manual, No. 6, Codes and Laws. U. S. Department of Transportation, National Highway Traffic Safety Administration, November 1974.
- Huelke, D. F., and Davis, R. A., A Study of Pedestrian Fatalities in Wayne County, Michigan. Michigan University, Department of Anatomy, 1969.
- Knoblauch, R. L., "Accident Data Base for Urban Pedestrians" (Abridgement). Transportation Research Record, No. 629, 1977.
- Knoblauch, R. L., Moore, W., and Schmitz, P. R., Pedestrian Accidents Occurring on Freeway: An Investigation of Causative Factors, Accident Data Collection and Analysis, Vol. 1 Executive Summary. Biotechnology, Inc., Falls Church, Virginia, Final Report, October 1978; Federal Highway Administration, 1978.
- Kuziomko, L., Pedestrian Accident Study. New York State Department of Motor Vehicles, August 1971.
- Model Pedestrian Safety Program User's Manual, 78-6 Implementation Package. U. S. Department of Transportation, Washington, D.C., June 1978.
- A New Look at Pedestrian Safety. U. S. Department of Transportation, National Highway Traffic Safety Administration, November 1975.
- Pedestrian Accidents Who? When? Where? How? Idaho Department of Highways, January 1970.

- Pedestrian Offenses. Traffic Institute, Northwestern University, Evanston, Illinois, 1972.
- Pedestrian-Related Safety Studies. Wilbur Smith and Associates, New Haven, Connecticut, Illinois Department of Transportation Bureau of Traffic, February 1975.
- "Pedestrian Response to Red Lights." <u>Traffic Laws Commentary</u>, No. 69-3, September 3, 1969.
- Snyder, M. B., "Traffic Engineering for Pedestrian Safety: Some New Data and Solution," <u>Highway Research Record</u>, No. 406, 1972.
- The Status of Pedestrian Traffic Safety Efforts of the Department of Transportation, National Transportation Safety Board, May 1971.
- Traffic Laws Annotated. National Committee on Uniform Traffic Laws and Ordinances, The Michie Company, Charlottesville, Virginia, 1972 (1977 Supplement).
- Traffic Safety Program Paper Summary Report on Pedestrian Safety Programs. DOT-HS-805 350, U. S. Department of Transportation, National Highway Traffic Safety Administration, May 1980.
- Virginia Vehicle Laws and the Uniform Vehicle Code. Highway Safety Division, Commonwealth of Virginia, The Michie Company, Charlottesville, Virginia 1972.
- Yu, J. C., "Pedestrian Accident Prevention," Traffic Quarterly, Eno Foundation for Transportation, Vol. 25, No. 3. July 1971.
- Zegeer, C. V., and Deen, R. C., "Pedestrian Accidents in Kentucky." Transportation Research Record, No. 605, 1976.

APPENDIX A

- SOURCES FOR ACCIDENT DATA SECTION OF LITERATURE REVIEW
- AAA Special Survey on Alcohol Testing and Pedestrian Accidents.

 Pedestrian Safety Report, Vol. 1, No. 2., Nov. 1970.
- Accident Facts. National Safety Council, Chicago, Ill., 1977, 1978 and 1979 Editions.
- Deuker, R. L., "Urban Crossing Problems." Final Report, National Highway and Transportation Safety Administration, U. S. Department of Transportation, Washington, D. C., December 1978.
- Huelke, D. F., and Davis, R. A., "A Study of Pedestrian Fatalities in Wayne County, Michigan." Michigan University, Department of Anatomy, 1969.
- Knoblauch, R. L., "Accident Data Base for Urban Pedestrians," (Abridgement). Transportation Research Record, No. 629, 1977.
- Knoblauch, R. L., "Causative Factors and Countermeasures for Rural and Suburban Pedestrian Accidents: Accident Data Collection and Analysis." Biotechnology, Inc., Falls Church, Va., Final Report, March 1977; National Highway Traffic Safety Administration, Federal Highway Administration, U. S. Department of Transportation, 1977.
- Knoblauch, R. L., Moore, W. and Schmitz, P. R., "Pedestrian Accidents Occurring on Freeway: An Investigation of Causative Factors, Accident Data Collection and Analysis," Vol. 1 Executive Summary. Biotechnology, Inc., Falls Church, Va., Final Report, October 1978, Federal Highway Administration, 1978.
- Kuziomko, L., "Pedestrian Accident Study." New York State Department of Motor Vehicles, August 1971.
- "Pedestrian Accidents Who? When? Where? How?" Idaho Department of Highways, January 1976.
- Snyder, M. B. and Knoblauch, R. L., "Pedestrian Safety: The Identification of Precipitating Factors and Possible Countermeasures," Final Report, Vol. 1, Operations Research, Inc., Silver Spring, Maryland, January 1971.
- "The Status of Pedestrian Traffic Safety Efforts of the Department of Transportation", National Transportation Safety Board, May 1971.

- Turk, R. F., McBay, A. J., and Hudson, P., "Drug Involvement in Automobile Driver and Pedestrian Fatalities," <u>Journal of Forensic Sciences</u>, Vol. 19, Jan. 1974.
- Zegeer, C. U., and Deen, R. C., "Pedestrian Accidents in Kentucky." Transportation Research Record, No. 605, 1976.

APPENDIX B

VIRGINIA ACCIDENT DATA

I. 1977 AND 1978 DATA*

TABLE 1

PERCENTAGE OF PEDESTRIANS INJURED/KILLED BY LIGHT CONDITIONS

	Total Injured/Killed		<u>Injured</u>		<u>Killed</u>	
	1977	1978	1977	1978	1977	1978
Light						
Dawn	0.5	1.9	0.5	2.0	1.6	1.2
Daylight	59.4	58.5	61.5	60.3	33.5	33.5
Dusk	4.2	4.3	4.6	4.5	0.5	0.6
Darkness-Roadway Lighted	20.5	19.8	20.4	19.8	21.3	19.8
Darkness-Roadway Not Lighted	15.0	15.0	12.6	12.9	43.1	44.3
Not Stated	0.4	0.5	0.5	0.5	0.0	0.6

TABLE 2

PERCENTAGE OF PEDESTRIANS INJURED/KILLED BY LOCALITY

	Total Inju	ured/Killed	<u>Inj</u>	ured	<u>Ki</u>	lled_
Locality	1977	<u>1978</u>	1977	<u>1978</u>	1977	1978
School/Playground	2.3	4.0	2.5	4.2	0.0	1.8
Residential	43.1	42.5	44.9	43.5	22.3	29.3
Open Country	17.3	14.8	14.5	13.3	50.5	35.3
Business/Industrial	36.4	34.1	37.2	34.9	27.1	25.1
Other	0.0	3.2	0.0	2.9	0.0	7.2
Unknown	0.9	1.2	0.9	1.2	0.0	1.2
	TABLE	3				

PERCENTAGE OF PEDESTRIANS INJURED/KILLED BY URBAN/RURAL LOCATION

	Total Injured/Killed		Injured		<u>Killed</u>	
	1977	1978	1977	<u>197</u> 8	1977	1978
Location						
Urban Rural	65.8 34.2	64.5 35.5	68.0 32.0	66.1 33.9	40.4 59.6	43.1 56.9

^{(*} Data From State Police Crash Tapes Unless Otherwise Indicated) App. 3.

TABLE 4

PERCENTAGE OF PEDESTRIANS INJURED/KILLED BY AGE

	Total Inju	red/Killed	Inju	ured	<u>Kill</u>	.ed
Age	1977	1978	1977	1978	1977	1978
0-4	6.6	5.5	6.8	5.5	4.8	4.8
5-14 15.64	30.1 53.5	27 . 9 55.3	31.3 52.6	28.9 55.1	15.4 63.4	15.0 58.8
65-Over Not Stated	7.2 2.6	6.7 4.6	6.5 2.8	5.7 4.9	16.0 0.5	20.4

TABLE 5 (DATA TAKEN FROM CRASH FACTS)

PERCENTAGE OF PEDESTRIANS INJURED/KILLED BY DEFECTS

	<u>Total Inju</u>	red/Killed	Inju	ired	<u>Kill</u>	.ed
Defect	1977	1978	<u>1977</u>	1978	1977	<u>1978</u>
Eyesight	1.1	1.1	1.1	1.1	0.5	2.4
Hearing	0.8	0.5	0.6	0.5	3.2	0.6
Other Bodily	0.6	1.1	0.6	1.1	1.1	1.2
III, Fatigues, Asleep	0.5	0.9	0.4	0.9	2.7	1.2
Other	2.5	4.6	2.2	4.6	5.8	4.8
No Defect	59.4	78.1	60.2	80.0	51.1	53.3
Not Stated	35.1	13.5	35.1	11.6	35.6	36.5

TABLE 6 (DATA FROM CRASH FACTS)

PERCENTAGE OF PEDESTRIANS INJURED/KILLED BY ALCOHOL INVOLVEMENT

	Total Inju	red/Killed	Inju	ired	Kil:	Led
Alcohol Involvement	1977	1978	1977	1978	<u>1977</u>	1978
Had Been Drinking-Obviously						
Drunk	4.4	4.7	4.2.	4.5	6.9	6.6
HBD - Ability Impaired	2.3	1.8	2.3	1.9	2.6	1.2
HBD - Ability Not Impaired	0.8	0.9	0.8	1.0	1.6	0.6
HBD - Not Known Whether						
Ability Impaired	4.7	7.9	3.9	7.0	14.4	19.8
Not Drinking	62.1	72.8	63.7	75.4	43.1	38.3
Not Stated	25.7	11.8	25.2	10.2	31.4	33.5

TABLE 7

PERCENTAGE OF PEDESTRIANS INJURED/KILLED BY PEDESTRIAN ACTION

	Total Injured/Killed		Injur	ed	<u>Killed</u>	
	1977	1978	1977	1978	1977	1978
Crossing at Intersection -						
With Signal	3.8	3.81	4.0%	4.1	1.1	0.0
Same - Against Signal	4.1	4.1	4.2	4.2	3.2	3.1
Same - No Signal	9.9	9.5	9.8	9.2	10.6	13.6
Same - Diagonally	1.0	1.1	1.0	1.0	0.5	2.5
Crossing at Intersection	31.1	27.9	30.6	27.6	35.6	31.4
Coming From Behind Parked						
Cars	10.2	9.5	10.9	10.0	1.1	3.1
Getting On/Off Vehicle	1.5	3.3	1.6	3.5	1.6	1.9
Walking in Roadway - With						
Traffic	6.7	7.0	6.4	6.5	10.1	13.0
Same - Against Traffic	3.2	3.1	2.9	2.8	5.9	7.0
Working in Roadway	2.5	2.7	2.4	2.8	3.2	1.2
Playing in Roadway	4.7	3.1	4.8	3.2	3.2	1.9
Standing in Roadway	9.4	6.7	9.4	6.6	9.0	8.6
Lying in Roadway	1.0	1.0	0.7	0.8	3.7	3.7
Not in Roadway	8.3	5.0	8.1	5.1	10.6	3.1
Other	2.6	12.1	2.8	12.6	0.5	5.6

TABLE 8 (FROM CRASH FACTS)

PERCENTAGE OF	PEDESIKIANS	INJURED/KILLI	an bi	RURAL/URBAN	LOCATION
Pedestrian Action		Urban		Ru	<u>ral</u>
		1977	.978	1977	1978

	<u>1977</u>	<u>1978</u>	<u>1977</u>	<u> 1978</u>
Crossing at Intersection - With Signal	4.7	4.4	2.1	2.3
Same - Against Signal	4.6	5.0	3.0	2.2
Same - No Signal	11.9	10.8	6.6	6.1
Same - Diagonally	1.3	1.3	0.5	0.5
Crossing Not at Intersection	32.3	26.6	28.4	27.6
Coming From Behind Parked Cars	12.7	11.5	5.4	5.1
Getting On/Off Vehicle	1.4	3.5	1.8	2.5
Walking in Roadway - With Traffic	5.0	4.3	10.1	11.4
Same - Against Traffic	2.3	2.4	5.0	4.3
Other Activities in Roadway	14.6	10.0	23.1	19.0
Not In Roadway	6.2	3.3	12.4	7.7
Other/Not Stated	3.2	17.0	1.7	11.3

TABLE 9

PERCENTAGE OF DRIVERS INVOLVED IN PEDESTRIAN ACCIDENTS BY AGE

Age	1977	1978
Under 17	6.4	6.1
18-19	8.2	7.1
20-24	17.9	18.5
25-34	22.2	23.7
35-54	22.2	21.5
55-64	6.4	7.2
Over 65	4.1	4.6
Unknown	12.6	11.4

TABLE 10

1978 PERCENTAGE OF PEDESTRIANS INJURED/KILLED BY VEHICLE MANEUVER — 1978

Vehicle Maneuver	Total Killed/Injured	Injured	<u>Killed</u>
Straight Right Tur Left Turn Passing Other	77.7	77.0	86.7
	4.2	4.5	1.2
	4.0	4.2	0.6
	1.4	1.4	1.8
	12.7	12.9	9.7

TABLE 11

PERCENTAGE OF PEDESTRIANS INJURED/KILLED BY VEHICLE TYPE

Vehicle Type	Total Inju	ured/Killed	Injured		<u>Killed</u>	
	1977	1978	1977	1978	1977	1978
Passenger Car	77.6	75.0	78.2	75.3	69.7	71.9
Truck	14.1	14.5	13.2	14.6	23.9	13.2
Motorcycle	1.6	1.5	1.7	1.5	0.5	1.2
Bus	0.9	1.0	0.9	0.9	0.5	2.4
Emergency Vehicle	0.5	0.4	0.6	0.4	0.0	0.6
Other	0.6	7.6	0.5	7.4	2.1	10.8
Unknown	4.7	0.0	4.8	0.0	3.2	0.0

II. 1977, 1978, 1979 DATA

TABLE 1

PERCENTAGE OF PEDESTRIANS KILLED/INJURED BY HOUR

	Total Killed.Injured		Killed			
	<u>1977</u>	<u>1978</u>	1979	<u>1977</u>	<u>1978</u>	1979
12 p.m3 a.m.	5.3	5.7	6.1	12.3	12.6	10.7
3-6 a.m.	1.3	1.6	1.9	3.2%	5.4	7.8
6-9 a.m.	8.2	8.7	8.7	4.8%	4.2	7.7
9 a.m12 m.	8.2	8.8	7.6	6.8%	4.8	3.6
12 m3 p.m.	13.6	13.5	13.4	6.4%	10.2	5.4
3-6 p.m.	29.4	26.6	26.7	19.7%	13.8	14.2
6-9 p.m.	21.2	21.8	20.8	25.5%	30.0	25.4
9-12 p.m.	12.4	12.4	14.1	20.7%	18.0	25.5
Unknown	0.7	0.7	o.7	0 . 5%	1.2	0.0

TABLE 2
PERCENTAGE OF PEDESTRIANS KILLED/INJURED BY DAY

	Total Killed/Injured			Killed Killed		
	<u> 1977</u>	<u> 1978</u>	1979	1977	<u> 1978</u>	1979
Monday	12.3	13.3	13.7	10.6	12.0 ·	13.6
Tuesday	13.2	12.6	13.2	9.6	10.8	14.2
Wednesday	14.0	13.5	13.4	14.4	11.4	10.1
Thursday	14.7	14.6	14.0	11.7	13.8	15.4
Friday	19.1	18.1	19.0	17.0	14.4	21.3
Saturday	16.0	16.3	15.9	23.9	22.2	16.0
Sunday	10.7	11.6	10.8	12.8	15.6	9.6
9			1			

TABLE 3

PERCENTAGE OF PEDESTRIAN ACCIDENTS BY MONTH

Month	1977	1979	1979
January	7.3	7.7'	6.4
February	6.9	5.8	7.3
March	8.2	8.8	9.0
April	8.8	8.3	8.6
May	9.0	9.3	9.7
June	8.6	9.9	7.9
July	8.6	8.2	7.7
August	8.3	9.6	8.2
September	8.9	7.5	9.1
October	8.2	8.4	9.1
November	8.7	7.5	8.4
December	8.4	8.9	8.6

CODE OF VIRGINIA

Title 46.1.

Motor Vehicles.

§ 46.1-1. Definitions. — The following words and phrases when used in this title shall, for the purpose of this title have the meanings respectively ascribed to them in this section except in those instances where the context clearly indicates a different meaning:

(4a) "Crosswalk". — (a) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway;

(b) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface.

(10) "Highway". — The entire width between the boundary lines of every way or place of whatever nature open to the use of the public for purposes of vehicular travel in this State, including the streets, alleys and publicly maintained parking lots in counties, cities and towns and for law-enforcement purposes, the entire width between the boundary lines of all private roads or private streets which have been specifically designated "highways" by an ordinance adopted by the governing body of the county, city or town in which

such private roads or streets are located.

(10a) "Roadway". — That portion of a highway improved, designed or ordinarily used for vehicular travel, exclusive of the shoulder. A highway may include two or more roadways if divided by a physical barrier or barriers or

unpayed area. (10c) "Shoulder". — That part of a highway between the portion regularly

travelled by vehicular traffic and the lateral curbline or ditch.

(11) "Intersection". — (a) The area embraced within the prolongation or connection of the lateral curblines, or, if none, then the lateral boundary lines of the roadways of two highways which join one another at, or approximately at, right angles, or the area within which vehicles travelling upon different highways joining at any other angle may come in conflict.

(b) Where a highway includes two roadways thirty feet or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection. In the event such intersecting highway also includes two roadways thirty feet or more apart, then every crossing of two roadways of such highways shall be regarded as a separate intersection.

(c) For purposes only of authorizing installation of traffic-control devices, every crossing of a highway or street at grade by a pedestrian crosswalk.

(26) "Safety zone". — The area or space officially set apart within a roadway for the exclusive use of pedestrians and which is protected or is so marked or indicated by adequate signs as to be plainly visible at all times while set apart as a safety zone.

- § 46.1-169.2. School buses to be routed so as to avoid necessity of pupils' crossing divided highways. — All school buses transporting pupils to and from all public, private or parochial schools or in connection with such schools, operating on any streets or highways in this State which have two or more roadways separated by a physical barrier or barriers or an unpaved area shall be routed so that no pupil shall be picked up or discharged at any point which will require any pupil to cross such streets or highways as hereinabove described, in order for such pupil to reach such bus or to return to his residence. Any person violating this section shall be guilty of a misdemeanor. (1972, c. 86.)
- § 46.1-181.1. Regulation of vehicular and pedestrian traffic, etc., on certain parking lots. The governing body of any county, city, or town may adopt ordinances regulating the flow of vehicular and pedestrian traffic, the parking of vehicles, and establish speed limits upon parking lots open to the public designed to accommodate fifty or more vehicles, but no such ordinance shall be in conflict with State law or regulations of the State Highway Department for traffic control at a particular location. (1970, c. 338.)
- § 46.1-181.2. Regulation of vehicular and pedestrian traffic on systems of roadways and parking areas in residential subdivisions. — The governing body of any county, city or town which has adopted ordinances under the provisions of chapter 11 (§ 15.1-427 et seq.) of Title 15.1, may require as a part of such land use regulations for residential subdivisions employing systems of roadways and parking areas open to the public but not in public ownership, the posting and maintenance of signs or other appropriate markings regulating the operation and parking of motor vehicles and pedestrian traffic, and may adopt ordinances establishing and enforcing said regulations as to existing and future residential subdivisions. (1972, c. 471.)

§ 46.1-184. Signals by lights or semaphores. — Signals by lights or

semaphores shall be as follows:

(a) Red indicates that traffic then moving shall stop and remain stopped as long as the red signal is shown, except in the direction indicated by a lighted green arrow; provided, however, that except where a sign is placed prohibiting turns on red, vehicular traffic facing a steady red signal may, after coming to a full stop, cautiously enter the intersection to make a right turn, or to make a left turn if such left turn is made from a highway which allows for traffic in but one direction into another highway which allows for traffic in but one direction and after making such left turn the turning traffic will be going in that direction. Such turning traffic shall yield the right-of-way to pedestrians lawfully within an adjacent crosswalk and to other traffic using the intersection. Green indicates the traffic shall then move in the direction of the signal and remain in motion as long as the green signal is given, except that such traffic shall yield to other vehicles and pedestrians lawfully within the intersection.

(b) Amber indicates that a change is about to be made in the direction of the moving of traffic. When the amber signal is shown, traffic which has not already entered the intersection, including the crosswalks, shall stop if it is not reasonably safe to continue, but that which has already entered the intersection shall continue to move until the intersection has been entirely cleared. The amber

signal is a warning that the red signal is imminent.

(c) The use of a flashing red indicates that traffic shall stop before entering an intersection and the use of a flashing amber indicates that traffic may proceed through the intersection or past such signal with reasonable care under the circumstances.

(d) Officers of the law and uniformed school crossing guards may assume control of traffic otherwise controlled by lights or semaphores and in such event signals by such officers and uniformed crossing guards shall take precedence

over such lights or semaphores.

(e) Members of any fire department or any rescue squad when on duty may activate electric traffic control signals when such control signals are specifically authorized by the State Highway and Transportation Commissioner or appropriate local authority. (Code 1950, § 46-203; 1952, c. 671; 1954, c. 381; 1958, c. 541; 1964, c. 613; 1966, c. 607; 1970, cc. 515, 736; 1972, cc. 4, 234, 454; 1974, c. 347; 1976, cc. 30, 31; 1977, c. 9; 1978, c. 300.)

- § 46.1-190. Same; specific instances. A person shall be guilty of reckless driving who shall:
- (e) Overtake or pass any other vehicle proceeding in the same direction at any steam, diesel or electric railway grade crossing or at any intersection of highways unless such vehicles are being operated on a highway having two or more designated lanes of roadway for each direction of travel or unless such intersection is designated and marked as a passing zone pursuant to the provisions of §§ 46.1-173 and 46.1-205 or on a designated one-way street or highway, or while pedestrians are passing or about to pass in front of either of such vehicles, unless permitted so to do by a traffic light or police officers;
- § 46.1-223. Stop before entering public highway or sidewalk from private road, etc.; yielding right-of-way. The driver of a vehicle entering a public highway or sidewalk from a private road, driveway, alley or building shall stop immediately before entering such highway or sidewalk and, upon entering such highway or sidewalk, shall yield the right-of-way to all vehicles approaching on such public highway or to all pedestrians or vehicles approaching on such public sidewalk. (Code 1950, § 46-240; 1958, c. 541.)

ARTICLE 5.

Protection of Pedestrians.

§ 46.1-230. How and where pedestrians to cross. — (a) When crossing highways or streets, pedestrians shall not carelessly or maliciously interfere with the orderly passage of vehicles. They shall cross wherever possible only at intersections or marked crosswalks. Where any intersections of highways or streets contain no marked crosswalks pedestrians shall not be guilty of negligence as a matter of law for crossing at any such intersection or between intersections when crossing by the most direct route.

(b) The governing body of an incorporated town or city or the governing body of a county authorized by law to regulate traffic may by ordinance permit pedestrians to cross an intersection diagonally when all traffic entering the intersection has been halted by lights, semaphores, or signals by a peace or police officer. (Code 1950, § 46-243; 1958, c. 541; 1966, c. 706; 1976, c. 322.)

- § 46.1-231. Right-of-way of pedestrians. (a) The driver of any vehicle upon a highway or street shall yield the right-of-way to a pedestrian crossing such highway or street within any clearly marked crosswalk whether at mid-block or at the end of any block, or any regular pedestrian crossing included in the prolongation of the lateral boundary lines of the adjacent sidewalk at the end of a block, or at any intersection when the driver is approaching on a highway or street where the legal maximum speed does not exceed thirty-five miles per hour except at intersections or crosswalks where the movement of traffic is being regulated by traffic officers or traffic direction devices where the driver shall yield according to the direction of the traffic officer or device.
- (b) No pedestrian shall enter or cross an intersection in disregard of approaching traffic.
- (c) The drivers of vehicles entering, crossing or turning at intersections shall change their course, slow down or come to a complete stop if necessary to permit pedestrians to cross such intersections safely and expeditiously.
- (d) Pedestrians crossing highways or streets at intersections shall at all times have the right-of-way over vehicles making turns into the highways or streets being crossed by the pedestrians. (Code 1950, §§ 46-243, 46-244; 1958, c. 541; 1962, c. 471; 1968, c. 165; 1972, c. 576; 1976, c. 322.)

- § 46.1-231.1. Pedestrian control signals. Whenever special pedestrian control signals exhibiting the words "Walk" or "Don't Walk" are in place such signals shall indicate as follows:
- (a) Walk. Pedestrians facing such signal may proceed across the highway in the direction of the signal and shall be given the right-of-way by the drivers of all vehicles.
- (b) Don't Walk. No pedestrian shall start to cross the highway in the direction of such signal, but any pedestrian who has partially completed his crossing on the Walk signal shall proceed to a sidewalk or safety island while the Don't Walk signal is showing. (1974, c. 347.)
- § 46.1-232. Pedestrians stepping into street where they cannot be seen.

 Pedestrians shall not step into that portion of a highway or street open to moving vehicular traffic at any point between intersections where their presence would be obscured from the vision of drivers of approaching vehicles by a vehicle
- or other obstruction at the curb or side, except to board a passenger bus or to enter a safety zone, in which event they shall cross the highway or street only at right angles. (Code 1950, § 46-245; 1958, c. 541.)
- § 46.1-233. Boarding or alighting from buses. When actually boarding or alighting from passenger buses, pedestrians shall have the right-of-way over vehicles, but shall not, in order to board or alight from passenger buses, step into the highway or street sooner nor remain there longer than is absolutely necessary. (Code 1950, § 46-246; 1958, c. 541.)
- § 46.1-234. Pedestrians not to use roadway except when necessary; keeping to left; soliciting rides. Pedestrians shall not use the roadways or streets, other than the sidewalk thereof, for travel, except when necessary to do so because of the absence of sidewalks, reasonably suitable and passable for their use, in which case, if they walk upon the hard surface, or the main travelled portion of the roadway, they shall keep to the extreme left side or edge thereof, or where the shoulders of the highway are of sufficient width to permit, they may walk on either shoulder thereof.

Pedestrians shall not stand or stop in any roadway or street for the purpose of soliciting rides. (Code 1950, § 46-247; 1950, p. 850; 1958, c. 541; 1968, c. 165.)

- § 46.1-234.1. Loitering on bridges. Pedestrians shall not loiter on any bridge on which the State Highway and Transportation Commissioner has posted signs prohibiting such action. Any person violating the provisions of this section shall be guilty of a traffic infraction and, upon conviction, be punished according to the provisions of § 46.1-16.01. (1966, c. 469; 1978, c. 605.)
- § 46.1-234.2. Certain counties may prohibit distribution of handbills, etc., solicitation of contributions and sale of merchandise on highways. A. Counties having withdrawn their highways from the secondary system of State highways under the provisions of Chapter 415, Acts of Assembly of 1932, and which have not elected to return their highways to such system are hereby authorized to adopt ordinances prohibiting the distribution of handbills, leaflets, bulletins, literature, advertisements, or similar material to the drivers of motor vehicles or passengers therein on secondary highways located within such counties.
- B. Such counties are hereby further authorized to adopt ordinances prohibiting the solicitation of contributions of any nature from the drivers of motor vehicles or passengers therein on secondary highways located within such counties.
- C. Such counties are hereby further authorized to adopt ordinances prohibiting the sale of merchandise or the attempted sale of merchandise to the

drivers of motor vehicles or passengers therein on secondary highways located within such counties.

D. Ordinances adopted pursuant to this section may provide that any person violating the provisions of such ordinances shall be guilty of a traffic infraction. (1980, c. 113.)

- § 46.1-235. Playing on streets or highways; roller skates, toys or other devices on wheels or runners; persons riding bicycles, etc., not to attach to vehicles. (a) No person shall play on a highway or street, other than upon the sidewalks thereof, within a city or town or on any part of a highway outside the limits of a city or town designated by the State Highway Commissioner exclusively for vehicular travel. No person shall use on a highway or street where play is prohibited roller skates, or toys or other devices on wheels or runners, except bicycles and motorcycles. The governing bodies of counties, cities and towns may designate areas on highways or streets where play is prohibited or may restrict play to the use of roller skates, or toys or other devices on wheels or runners and, if such highways or streets have two traffic lanes, such persons using such devices, except bicycles and motorcycles, shall keep as near as reasonably possible to the extreme left side or edge of the left-hand traffic lane so that they will be facing oncoming traffic at all times.
- (b) No person riding upon any bicycle, roller skates, toys or other devices on wheels or runners, shall attach the same or himself to any vehicle upon a roadway. (Code 1950, § 46-248; 1958, c. 541; 1972, c. 817; 1973, c. 288.)
- § 46.1-236. Penalty for violating §§ 46.1-230 to 46.1-235. Any person convicted of violating any of the provisions of §§ 46.1-230 through 46.1-235 shall be fined not less than two dollars nor more than twenty-five dollars for each offense. (Code 1950, § 46-249; 1958, c. 541.)
- § 46.1-237. When vehicles to stop for pedestrian guided by dog or carrying white, red-tipped white or metallic cane. Whenever a pedestrian is crossing or attempting to cross a public street or highway, within the corporate limits of any city or town, guided by a dog guide or carrying in a raised or extended position a cane or walking stick clearly visible above the body which is metallic or white in color or white tipped with red, the driver of every vehicle approaching the intersection or place of crossing shall bring his vehicle to a full stop before arriving at such intersection or place of crossing, unless such intersection or place of crossing is controlled by a traffic officer. Any person violating any provision of the section shall be guilty of a Class 4 misdemeanor. (Code 1950 (Suppl.), § 46-249.1; 1950, p. 1520; 1958, c. 541; 1964, c. 20; 1975, c. 117.)
- § 46.1-240. Construction of §§ 46.1-237 to 46.1-239; failure to use cane or guide dog not contributory negligence. Nothing contained in §§ 46.1-237 through 46.1-239 shall be construed to deprive any totally or partially blind or otherwise incapacitated person, not carrying such a cane or walking stick or not being guided by a dog, of the rights and privileges conferred by law upon pedestrians crossing streets or highways, nor shall the failure of such totally or partially blind or otherwise incapacitated person to carry a cane or walking stick, or to be guided by a guide dog upon the streets, highways or sidewalks of this Commonwealth, be held to constitute nor be evidence of contributory negligence. (Code 1950 (Suppl.), § 46-249.3; 1950, p. 1521; 1958, c. 541.)

Cross reference. — As to duty of driver failure of blind person to carry white cane or use approaching blind pedestrian and effect of dog guide, see also § 63.1-171.3.

- § 46.1-241. Regulation by ordinance in cities, incorporated towns and counties. The governing bodies of cities, incorporated towns and counties may enact ordinances requiring pedestrians to obey signs and signals erected on highways or streets therein for the direction and control of travel and traffic and to obey the orders of police officers engaged in directing travel and traffic on such highways or streets and may provide penalties for violating such ordinances by fines not exceeding five dollars for each offense. (Code 1950, § 46-250; 1950, p. 942; 1958, c. 541; 1968, c. 165.)
- § 46.1-242. Driving through safety zone prohibited. The driver of a vehicle shall not at any time drive through or over a safety zone. (Code 1950, § 46-252; 1958, c. 541.)

(20) "Public place" shall mean any place, building or conveyance to which the public has, or is permitted to have, access, including restaurants, soda fountains, hotel dining rooms, lobbies and corridors of hotels, and any highway, street, lane, park or place of public resort or amusement; but shall not include hotel dining rooms or hotel ballrooms while in use for private meetings or private parties limited in attendance to members and guests of a particular group, association or organization, and shall not include dining rooms in restaurants licensed by the Commission while such rooms are in use for private meetings or private parties limited in attendance to members and guests of a particular group, association or organization, nor shall it include restaurants licensed by the Virginia Alcoholic Beverage Control Commission in office buildings, industrial or similar facilities while such restaurant is closed to the public and while such restaurant is in use for private meetings or parties limited in attendance to employees and nonpaying guests of the owner or a lessee of all or part of such building or facility, nor shall it include offices or office buildings or industrial facilities when such offices or facilities are closed to the public and while such offices or facilities are in use for private meetings or parties limited in attendance to employees and nonpaying guests of the owner or a lessee of all or part of such building or facility.

ARTICLE 5.

Obscenity and Related Offenses.

§ 18.2-388. Profane swearing and drunkenness; transportation of public inebriates to detoxification center. — If any person profanely curse or swear or be drunk in public he shall be deemed guilty of a Class 4 misdemeanor. In any area in which there is located a court-approved detoxification center, the judge of the general district court may, by written order, authorize the transportation, by police or otherwise, of public inebriates to such detoxification center; provided, however, that no person shall be involuntarily detained in such center. (Code 1950, § 18.1-237; 1960, c. 358; 1964, c. 434; 1975, cc. 14, 15; 1979, c. 654.)

APPENDIX D

UNIFORM VEHICLE CODE

CHAPTER 1

Words and Phrases Defined

§ 1-101—Definition of words and phrases

The following words and phrases when used in this act shall, for the purpose of this act, have the meanings respectively ascribed to them in this chapter, except when the context otherwise requires.

- § 1-111—Crosswalk. (a) That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway; and in the absence of a sidewalk on one side of the roadway, that part of a roadway included within the extension of the lateral lines of the existing sidewalk at right angles to the centerline. (Revised, 1975.)
- (b) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface.
- § 1-122—Highway.—The entire width between the boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.³
- § 1-126—Intersection.—(a) The area embraced within the prolongation or connection of the lateral curb lines, or, if none, then the lateral boundary lines of the roadways of two highways which join one another at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict.
- (b) Where a highway includes two roadways (30) feet or more apart, then every crossing of each roadway of such divided highway by an intersecting highway shall be regarded as a separate intersection. In the event such intersecting highway also includes two roadways (30) feet or more apart, then every crossing of two roadways of such highways shall be regarded as a separate intersection.
- (c) The junction of an alley with a street or highway shall not constitute an intersection. (NEW, 1968.)
- § 1-139—Official traffic-control devices. All signs, signals, markings and devices not inconsistent with this act placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning or guiding traffic.
- § 1-156—Right of way.—The right of one vehicle or pedestrian to proceed in a lawful manner in preference to another vehicle or pedestrian approaching under such circumstances of direction, speed and proximity as to give rise to danger of collision unless one grants precedence to the other. (REVISED, 1962.)

- § 1-143—Pedestrian.—Any person afoot.
- § 1-158—Roadway. That portion of a highway improved, designed or ordinarily used for vehicular travel, exclusive of the sidewalk, berm or shoulder even though such sidewalk, berm or shoulder is used by persons riding bicycles or other human powered vehicles. In the event a highway includes two or more separate roadways the term "roadway" as used herein shall refer to any such roadway separately but not to all such roadways collectively. (Revised, 1975.)
- § 1-164—Sidewalk. That portion of a street between the curb lines, or the lateral lines of a roadway, and the adjacent property lines, intended for use by pedestrians.
- § 1-172—Street.—The entire width between boundary lines of every way publicly maintained when any part thereof is open to the use of the public for purposes of vehicular travel.
- § 1-177—Traffic.—Pedestrians, ridden or herded animals, vehicles, streetcars and other conveyances either singly or together while using any highway for purposes of travel.
- § 1-178—Traffic-control signal.—Any device, whether manually, electrically or mechanically operated, by which traffic is alternately directed to stop and permitted to proceed. (REVISED, 1962.)

⁶ By the above definition the terms "street" and "highway" are synonymous and interchangeable.

CHAPTER 11

Rules of the Road

ARTICLE I-OBEDIENCE TO AND EFFECT OF TRAFFIC LAWS

§ 11-102-Required obedience to traffic laws

(a) It is unlawful and, unless otherwise declared in this chapter with respect to particular offenses, it is a (misdemeanor) (violation) for any person to do any act forbidden or fail to perform any act required in this chapter. (REVISED, 1979.)

OPTIONAL (b) Any person who violates section 11-808, 11-901, 11-902, 11-903 or 11-904 shall be guilty of a misdemeanor. (NEW, 1979.)

OPTIONAL (c) Any person who violates any other section in this chapter shall be guilty of an infraction. (New, 1979.)

§ 11-103-Obedience to authorized persons directing traffic

No person shall willfully fail or refuse to comply with any lawful order or direction of any police officer, fireman or uniformed adult school crossing guard invested by law with authority to direct, control or regulate traffic. (REVISED, 1971 & 1975.)

§ 11-105—Persons working on highways — exceptions

Unless specifically made applicable, the provisions of this chapter except those contained in article IX hereof shall not apply to persons, motor vehicles and equipment while actually engaged in work upon a highway but shall apply to such persons and vehicles when traveling to or from such work. (REVISED, 1971.)

ARTICLE II—TRAFFIC SIGNS, SIGNALS AND MARKINGS

§ 11-202—Traffic-control signal legend

Whenever traffic is controlled by traffic-control signals exhibiting different colored lights, or colored lighted arrows, successively one at a time or in combination, only the colors Green. Red and Yellow shall be used, except for special pedestrian signals carrying a word legend, and said lights shall indicate and apply to drivers of vehicles and pedestrians as follows:

(a) Green indication

- 1. Vehicular traffic facing a circular green signal may proceed straight through or turn right or left unless a sign at such place prohibits either such turn. But vehicular traffic, including vehicles turning right or left, shall yield the right of way to other vehicles and to pedestrians lawfully within the intersection or an adjacent crosswalk at the time such signal is exhibited.
- 2. Vehicular traffic facing a green arrow signal, shown alone or in combination with another indication, may cautiously enter the intersection only to make the movement indicated by such arrow, or such other movement as is permitted by other indications shown at the same time. Such vehicular traffic shall yield the right of way to pedestrians lawfully within an adjacent crosswalk and to other traffic lawfully using the intersection.¹
- 3. Unless otherwise directed by a pedestrian-control signal, as provided in § 11-203, pedestrians facing any green signal, except when the sole green signal is a turn arrow, may proceed across the roadway within any marked or unmarked crosswalk.

- (b) Steady yellow indication
- 1. Vehicular traffic facing a steady circular yellow or yellow arrow signal is thereby warned that the related green movement is being terminated or that a red indication will be exhibited immediately thereafter. (REVISED, 1975.)
- 2. Pedestrians facing a steady circular yellow or yellow arrow signal, unless otherwise directed by a pedestrian-control signal as provided in § 11-203, are thereby advised that there is insufficient time to cross the roadway before a red indication is shown and no pedestrian shall then start to cross the roadway. (Revised, 1975.)
 - (c) Steady red indication
- 1. Vehicular traffic facing a steady circular red signal alone shall stop at a clearly marked stop line, but if none, before entering the crosswalk on the near side of the intersection, or if none, then before entering the intersection and shall remain standing until an indication to proceed is shown except as provided in subsection (c)3. (REVISED, 1975.)
- 2. Vehicular traffic facing a steady red arrow signal shall not enter the intersection to make the movement indicated by the arrow and, unless entering the intersection to make a movement permitted by another signal, shall stop at a clearly marked stop line, but if none, before entering the crosswalk on the near side of the intersection, or if none, then before entering the intersection and shall remain standing until an indication permitting the movement indicated by such red arrow is shown except as provided in subsection (c)3. (New, 1975.)
- 3. Except when a sign is in place prohibiting a turn, vehicular traffic facing any steady red signal may cautiously enter the intersection to turn right, or to turn left from a one-way street into a one-way street, after stopping as required by subsection (c)1 or subsection (c)2. After
- stopping, the driver shall yield the right of way to any vehicle in the intersection or approaching on another roadway so closely as to constitute an immediate hazard during the time such driver is moving across or within the intersection or junction of roadways. Such driver shall yield the right of way to pedestrians within the intersection or an adjacent crosswalk. (Revised and renumbered, 1975; Revised, 1979.)
- 4. Unless otherwise directed by a pedestrian-control signal as provided in § 11-203, pedestrians facing a steady circular red or red arrow signal alone shall not enter the roadway. (REVISED AND RENUMBERED, 1975.)

§ 11-203-Pedestrian-control signals

Whenever special pedestrian-control signals exhibiting the words "Walk" or "Don't Walk" are in place such signals shall indicate as follows:

- (a) Flashing or Steady Walk. Any pedestrian facing the signal may proceed across the roadway in the direction of the signal and every driver of a vehicle shall yield the right of way to him.
- (b) Flashing or Steady Don't Walk. No pedestrian shall start to cross the roadway in the direction of the signal, but any pedestrian who has partially completed his crossing on the walk signal shall proceed to a sidewalk or safety island while the don't walk signal is showing. (Section Revised, 1975.)

ARTICLE V-PEDESTRIANS' RIGHTS AND DUTIES

§ 11-501—Pedestrian obedience to traffic-control devices and traffic regulations

- (a) A pedestrian shall obey the instructions of any official traffic-control device specifically applicable to him, unless otherwise directed by a police officer. (NEW, 1968.)
- (b) Pedestrians shall be subject to traffic and pedestrian-control signals as provided in §§ 11-202 and 11-203. (REVISED, 1968.)
- (c) At all other places, pedestrians shall be accorded the privileges and shall be subject to the restrictions stated in this chapter

§ 11-502—Pedestrians' right of way in crosswalks

- (a) When traffic-control signals are not in place or not in operation the driver of a vehicle shall yield the right of way, slowing down or stopping if need be to so yield, to a pedestrian crossing the roadway within a crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is traveling, or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.
- (b) No pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close as to constitute an immediate hazard. (REVISED, 1971.)
- (c) Paragraph (a) shall not apply under the conditions stated in § 11-503(b).
- (d) Whenever any vehicle is stopped at a marked crosswalk or at any unmarked crosswalk at an intersection to permit a pedestrian to cross the roadway, the driver of any other vehicle approaching from the rear shall not overtake and pass such stopped vehicle.

§ 11-503—Crossing at other than crosswalks

- (a) Every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right of way to all vehicles upon the roadway.
- (b) Any pedestrian crossing a roadway at a point where a pedestrian tunnel or overhead pedestrian crossing has been provided shall yield the right of way to all vehicles upon the roadway.
- (c) Retween adjacent intersections at which traffic-control signals are in operation pedestrians shall not cross at any place except in a marked crosswalk.
- (d) No pedestrian shall cross a roadway intersection diagonally unless authorized by official traffic-control devices; and, when authorized to cross diagonally, pedestrians shall cross only in accordance with the official traffic-control devices pertaining to such crossing movements. (NEW, 1962.)

§ 11-504-Drivers to exercise due care

Notwithstanding other provisions of this chapter or the provisions of any local ordinance, every driver of a vehicle shall exercise due care to avoid colliding with any pedestrian or any person propelling a human powered vehicle and shall give an audible signal when necessary and shall exercise proper precaution upon observing any child or any obviously confused, incapacitated or intoxicated person. (Revised, 1971 & 1975.)

§ 11-505-Pedestrians to use right half of crosswalks

Pedestrians shall move, whenever practicable, upon the right half of crosswalks.

§ 11-506-Pedestrians on highways

- (a) Where a sidewalk is provided and its use is practicable, it shall be unlawful for any pedestrian to walk along and upon an adjacent roadway.
- (b) Where a sidewalk is not available, any pedestrian walking along and upon a highway shall walk only on a shoulder, as far as practicable from the edge of the roadway.
- (c) Where neither a sidewalk nor a shoulder is available, any pedestrian walking along and upon a highway shall walk as near as practicable to an outside edge of the roadway, and, if on a two-way roadway, shall walk only on the left side of the roadway.
- (d) Except as otherwise provided in this chapter, any pedestrian upon a roadway shall yield the right of way to all vehicles upon the roadway. (SECTION REVISED; SUBSECTION (d) NEW, 1971.)

§ 11-507—Pedestrians soliciting rides or business

- (a) No person shall stand in a roadway for the purpose of soliciting a ride.
- (b) No person shall stand on a highway for the purpose of soliciting employment, business, or contributions from the occupant of any vehicle.
- (c) No person shall stand on or in proximity to a street or highway for the purpose of soliciting the watching or guarding of any vehicle while parked or about to be parked on a street or highway. (SECTION REVISED, 1968.)

§ 11-508—Driving through safety zone prohibited

No vehicle shall at any time be driven through or within a safety zone. (REPOSITIONED, 1962.)

§ 11-509-Pedestrians' right of way on sidewalks

The driver of a vehicle crossing a sidewalk shall yield the right of way to any pedestrian and all other traffic on the sidewalk. (REVISED, 1971 & 1975.)

§ 11-510-Pedestrians yield to authorized emergency vehicles

- (a) Upon the immediate approach of an authorized emergency vehicle making use of an audible signal meeting the requirements of § 12-401 (d) and visual signals meeting the requirements of § 12-218 of this act, or of a police vehicle properly and lawfully making use of an audible signal only, every pedestrian shall yield the right of way to the authorized emergency vehicle.
- (b) This section shall not relieve the driver of an authorized emergency vehicle from the duty to drive with due regard for the safety of all persons using the highway nor from the duty to exercise due care to avoid colliding with any pedestrian. (New Section, 1971.)

§ 11-511-Blind pedestrian right of way

The driver of a vehicle shall yield the right of way to any blind pedestrian carrying a clearly visible white cane or accompanied by a guide dog. (NEW, 1971.)

§ 11-512—Pedestrians under influence of alcohol or drugs

A pedestrian who is under the influence of alcohol or any drug to a degree which renders himself a hazard shall not walk or be upon a highway except on a sidewalk. (New, 1971.)

§ 11-513—Bridge and railroad signals

- (a) No pedestrian shall enter or remain upon any bridge or approach thereto beyond the bridge signal, gate, or barrier after a bridge operation signal indication has been given.
- (b) No pedestrian shall pass through, around, over, or under any crossing gate or barrier at a railroad grade crossing or bridge while such gate or barrier is closed or is being opened or closed. (New Section, 1971.)

§ 11-406—Highway construction and maintenance

- (a) The driver of a vehicle shall yield the right of way to any authorized vehicle or pedestrian actually engaged in work upon a highway within any highway construction or maintenance area indicated by official traffic-control devices.
- (b) The driver of a vehicle shall yield the right of way to any authorized vehicle obviously and actually engaged in work upon a highway whenever such vehicle displays flashing lights meeting the requirements of § 12-229. (New Section, 1971.)

§ 11-1003—Stopping, standing or parking prohibited in specified places

- (a) Except when necessary to avoid conflict with other traffic, or in compliance with law or the directions of a police officer or official traffic-control device, no person shall:
 - 1. Stop, stand or park a vehicle:
- a. On the roadway side of any vehicle stopped or parked at the edge or curb of a street;
 - b. On a sidewalk;
 - c. Within an intersection;
 - d. On a crosswalk;
 - e. Between a safety zone and the adjacent curb or within 30 feet of points on the curb immediately opposite the ends of a safety zone, unless a different length is indicated by signs or markings; (REVISED, 1968.)
 - f. Alongside or opposite any street excavation or obstruction when stopping, standing, or parking would obstruct traffic:
 - g. Upon any bridge or other elevated structure upon a highway or within a highway tunnel;
 - h. On any railroad tracks;
 - i. At any place where official signs prohibit stopping.
- 2. Stand or park a vehicle, whether occupied or not, except momentarily to pick up or discharge a passenger or passengers:
 - a. In front of a public or private driveway;
 - b. Within 15 feet of a fire hydrant;
 - c. Within 20 feet of a crosswalk at an intersection;
 - d. Within 30 feet upon the approach to any flashing signal, stop sign, yield sign or traffic-control signal located at the side of a roadway; (REVISED, 1968.)
 - e. Within 20 feet of the driveway entrance to any fire station and on the side of a street opposite the entrance to any fire station within 75 feet of said entrance (when properly signposted);
 - f. At any place where official signs prohibit standing.
- 3. Park a vehicle, whether occupied or not, except temporarily for the purpose of and while actually engaged in loading or unloading merchandise or passengers:
 - a. Within 50 feet of the nearest rail of a railroad crossing;
 - b. At any place where official signs prohibit parking.
- (b) No person shall move a vehicle not lawfully under his control into any such prohibited area or away from a curb such a distance as is unlawful. (SECTION REVISED, 1962.)

§ 11-1112—Stop when traffic obstructed

No driver shall enter an intersection or a marked crosswalk or drive onto any railroad grade crossing unless there is sufficient space on the other side of the intersection, crosswalk or railroad grade crossing to accommodate the vehicle he is operating without obstructing the passage of other vehicles, pedestrians or railroad trains notwithstanding any traffic-control signal indication to proceed. (NEW, 1971.)

CHAPTER 15

Respective Powers of State and Local Authorities

§ 15-102—Powers of local authorities

- (a) The provisions of this act shall not be deemed to prevent local authorities with respect to streets and highways under their jurisdiction and within the reasonable exercise of the police power from:
 - 1. Regulating or prohibiting stopping, standing or parking;
- 2. Regulating traffic by means of police officers or official traffic-control devices;
- 3. Regulating or prohibiting processions or assemblages on the highways;
- 4. Designating particular highways or roadways for use by traffic moving in one direction as authorized in § 11-308;
- 5. Establishing speed limits for vehicles in public parks notwithstanding the provisions of § 11-803(a)3;
- 6. Designating any highway as a through highway or designating any intersection or junction of roadways as a stop or yield intersection or junction; (REVISED, 1971.)
 - 7. Restricting the use of highways as authorized in § 14-113;
- 8. Regulating the operation of bicycles and requiring the registration and inspection of same, including the requirement of a registration fee;
- 9. Regulating or prohibiting the turning of vehicles or specified types of vehicles;
- 10. Altering or establishing speed limits as authorized in § 11-803:
- 11. Requiring written accident reports as authorized in § 10-115:
 - 12. Designating no-passing zones as authorized in § 11-307;
- 13. Prohibiting or regulating the use of controlled-access roadways by any class or kind of traffic as authorized in § 11-313;
- 14. Prohibiting or regulating the use of heavily traveled streets by any class or kind of traffic found to be incompatible with the normal and safe movement of traffic;
- 15. Establishing minimum speed limits as authorized in § 11-804(b);
- 16. Designating hazardous railroad grade crossings as authorized in § 11-702;
 - 17. Designating and regulating traffic on play streets:
- 18. Prohibiting pedestrians from crossing a roadway in a business district or any designated highway except in a crosswalk as authorized in § 15-107;
- 19. Restricting pedestrian crossings at unmarked crosswalks as authorized in § 15-108;
 - 20. Regulating persons propelling push carts;
- 21. Regulating persons upon skates, coasters, sleds and other toy vehicles;
- 22. Adopting and enforcing such temporary or experimental regulations as may be necessary to cover emergencies or special conditions;
- 23. Prohibiting drivers of ambulances from exceeding maximum speed limits; (New, 1975.) 24. Adopting such other traffic regulations as are specifically authorized by this act. (Renumbered, 1975.)

§ 15-107—Authority to restrict pedestrian crossings

Local authorities by ordinance, and the (State highway commission) by erecting appropriate official traffic-control devices, are hereby empowered within their respective jurisdictions to prohibit pedestrians from crossing any roadway in a business district or any designated highways except in a crosswalk. (RE-VISED, 1968.)

§ 15-108—Authority to close unmarked crosswalks

The (State highway commission) and local authorities in their respective jurisdictions may after an engineering and traffic investigation designate unmarked crosswalk locations where pedestrian crossing is prohibited or where pedestrians must yield the right of way to vehicles. Such restrictions shall be effective only when official traffic-control devices indicating the restrictions are in place. (NEW, 1968.)