

**REPORT  
OF THE  
OFFICE OF HOUSING  
TO  
THE GOVERNOR  
AND  
THE GENERAL ASSEMBLY OF VIRGINIA**



**SENATE DOCUMENT NO. 4**

COMMONWEALTH OF VIRGINIA  
Department of Purchases and Supply  
Richmond

1975

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COMMONWEALTH OF VIRGINIA  
OFFICE OF THE GOVERNOR

October 1, 1974

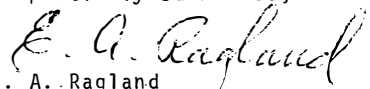
Office of Housing  
E. A. Ragland  
Executive Director

OFFICE OF HOUSING  
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TO: The Honorable Mills E. Godwin, Jr.  
Governor of Virginia  
  
and  
  
The General Assembly of Virginia

The report contained herein is pursuant to Senate Joint Resolution No. 69 which was passed by the 1974 session of the General Assembly. This report and its recommendations comprise the response of the Office of Housing with approval from the State Board of Housing to the directive that a study be conducted on the desirability and feasibility of the implementation of legislation relating to architectural barriers in public buildings to physically handicapped citizens of the Commonwealth.

Respectfully submitted,

  
E. A. Ragland  
Executive Director

EAR/lbs

## **HISTORY**

The 1974 General Assembly “directed the Office of Housing to conduct a study and report on the desirability and feasibility of the implementation of regulatory legislation relating to architectural barriers in public buildings to physically handicapped citizens of the Commonwealth.” The following resolution represents the concern of the General Assembly that all Virginians have freedom of mobility:

### **SENATE JOINT RESOLUTION NO. 69**

Whereas, the Office of Housing within the Division of State Planning and Community Affairs is mandated by statute to establish State housing policy and goals; and

Whereas, the Office of Housing is further charged with the statutory duty of implementing and administering regulatory legislation relating to housing; and

Whereas, the Office of Housing is also charged with the responsibility to establish public information and educational programs relating to housing; and

Whereas, many citizens of the Commonwealth are physically handicapped and because of their handicap and certain architectural barriers are prohibited from attendance and enjoyment of many public events and functions in Virginia’s public buildings; now, therefore, be it

Resolved by the Senate of Virginia, the House of Delegates concurring, That the Office of Housing within the Division of State Planning and Community Affairs is hereby directed to conduct a study and report on the desirability and feasibility of implementing regulatory legislation relating to architectural barriers in public buildings to physically handicapped citizens of the Commonwealth.

The Office shall examine existing architectural barriers, and identify and analyze design techniques that will remedy such barriers.

The Office shall conduct at least one public hearing before completing its study.

All agencies of the State shall assist the Office in its study upon request.

The Office of Housing shall complete its study and make its report to the Governor and the General Assembly not later than October one, nineteen hundred seventy-four.

With the approval of the State Board of Housing, the Office of Housing created an advisory committee of physically handicapped

citizens:

**Architectural Barrier Advisory Committee**

Robert Adams	Thomas Hunter
Woodbridge	Cismont
Peggy Bendrick	Joseph Jordan
Richmond - Chairman	Norfolk
William Carriker	Margaret Keister
Charlottesville	Virginia Beach
John Goode	Frank Penland
Richmond	Richmond
Harry Gravely	John Wright
Martinsville	Roanoke

**Fred Yates, Staunton**

(Mr. George Joslin, Volunteer Interpreter for Mr. Yates.)

The Committee identified specific problems caused by architectural barriers and provided resources for the staff for consideration in the development of our study.

On August 20, 1974, in accordance with the Resolution, the Office of Housing held a public hearing in the Capitol. The Office, The Honorable Charles L. Waddell, chief patron of the resolution, and representatives from the State Board of Housing, State Building Code Technical Review Board, Virginia Housing Study Commission and Architectural Barrier Advisory Committee received testimony as it related to architectural barriers.

The following information derived from testimony does not directly relate to our study but merits consideration:

1. The International Wheelchair symbol should be used on Virginia highway signs and all accessible public buildings to indicate facilities for the physically handicapped.
2. Statistical data should be collected on the numbers, locations, and problems of the physically handicapped.
3. The physically handicapped, as well as the general public, should be aware of the availability and significance of the HP and DV license plates.
4. A Therapeutic Recreation Consultant from the State Office of Recreation stated that approximately 50% of Virginia's existing State Parks are inaccessible to the physically handicapped.

**DEFINITIONS**

For the purposes of this study, the term "building" shall mean a structure, that is publicly or privately owned, which exists for the purpose of providing services to the public, including, but not limited to, commercial, residential, educational, recreational, governmental or any other public purpose.

For the purposes of this study, the term “physically handicapped” shall mean persons with:

- a) Impairments that, regardless of cause or manifestation, confine individuals to wheelchairs;
- b) Difficulty in or insecurity of mobility due to the use of braces or crutches or the loss of a foot or a leg or because of an arthritic, cerebral palsy, pulmonary, cardiac, or other condition due to accidents or birth defects;
- c) Total blindness or impairments affecting sight to the extent that the individual’s functioning in public areas is insecure or exposed to dangers;
- d) Deafness or hearing handicaps that make an individual insecure in public areas because he is unable to communicate or hear warning signals;
- e) Faulty coordination or palsy from brain, spinal, or peripheral nerve injury; or
- f) Those manifestations of the aging processes that significantly reduce mobility, flexibility, coordination and perceptiveness but are not accounted for in the aforementioned categories.

For the purposes of this study, the term “accessibility” shall mean the ability to approach, enter and make adequate use of a building and its facilities in the capacity of a citizen, client, student, consumer, employee or employer without depending upon assistance from others.

## **INTRODUCTION**

An acute public awareness and a basic understanding of the problems created by architectural barriers are essential to the elimination of such barriers. Legislators, architects, builders, retailers, local/state government officials and other citizens of the Commonwealth are necessary resources in the coordination of planning that can assure the accessibility of public buildings to all citizens.

Architectural barriers increase the difficulty of physically handicapped citizens in obtaining, without the assistance of others, the basic necessities of life, including food, clothing, housing, medical care, education and employment. These barriers also exclude the physically handicapped from places of entertainment, civic affairs and adequate travel lodging. This segment of our population represents valuable human resources. However, architectural barriers prohibit them from making economic, intellectual and social contributions to our society.

The implementation of legislation to guarantee that all public buildings are accessible is imperative to the existence of physically handicapped individuals so that they might, with independence and dignity, pursue their interests and aspirations, develop their talents

and exercise their skills for their own welfare and, therefore, for the betterment of the Commonwealth.

### **WITH WHOM ARE WE CONCERNED?**

Existing architectural design presents barriers not only to the physically handicapped, but to other individuals such as pregnant women, the physically weak or overweight and the elderly. The State Office on Aging states that 95% of our elderly are mobile, with or without limited assistance. However, many are isolated due to physical barriers which severely limit their ability to move freely.

As a direct result of medical advances that allow us to save more lives and rehabilitate victims of accident or illness, we can expect an increasing number of elderly individuals in our society or persons with some form of temporary or permanent disability. "The truth is that there is no clearly defined separation between the well and the infirm, and that in our time many of those considered well suffer some infirmity. The old idea that barrier-free architecture was catering to a minority is no longer valid."<sup>1</sup>

Through the rehabilitation process, an individual is restored to the greatest degree of physical, social, psychological and economic independence with the aid of private and public funds. However, this rehabilitation goal is thwarted by architectural barriers.

### **WITH WHAT ARE WE CONCERNED?**

We are basically concerned with buildings that are totally inaccessible as well as buildings that are inaccessible despite piecemeal alteration. A ramp approach to a too-narrow doorway or a curb between a parking area and an otherwise accessible building are examples of an inadequate piecemeal approach.

Examples of architectural barriers include:

- .... doors too narrow for wheelchairs or too heavy for many people to open
- .... audible warning signals which cannot be heard by the deaf
- .... steps without a handrail
- .... elevators without a tone system to identify floor levels for the blind.

Existing federal and state legislation has promoted barrier free design in government buildings. However, the development of improved standards for design and construction of all new buildings and facilities is necessary to further eliminate architectural barriers.

### **ADVANTAGES OF BARRIER FREE DESIGN**

"In any cost-benefit exercise regarding the adoption of barrier free design specifications, the American Mutual Insurance Alliance points out these advantages:

- \*Health and Accident: Fewer accidents in public buildings would reduce losses and rates under health insurance policies.
- \*Fire: Wide doors and ramps permit rapid evacuation. Standards recommended for aiding the handicapped also meet the highest fire prevention standards.
- \*Public Liability: Surveys of buildings that have aids for the handicapped indicate that such buildings have fewer tripping and falling hazards, thus reducing public liability claims. Under experience rating plans, policyholders may gain rate reductions on public liability policies by removing architectural barriers.
- \*Workmen's Compensation: Elimination of barriers reduces the chances of work-connected accidents. Employers benefit through reduction in compensation insurance premiums, plus the increased re-employment potential of the job-injured worker."<sup>2</sup>

## **SUMMARY**

Although physically handicapped citizens constitute a minority, their numbers are increasing as a result of continuing mechanization of industry, the high number of automobile accidents and the many inevitable mishaps that create disabilities each year.

Architectural barriers are physical obstacles built into the environment by planners whose vision of the public needs is limited to the young and able-bodied. Unfortunately, these barriers increase the isolation and dependence of physically handicapped citizens who are valuable resources to our state.

The American Institute of Architects states that more buildings will be built during the next 30 years than were built in the nearly 5 centuries since Columbus discovered America. To insure the mobility of all citizens of the Commonwealth, Virginia must act now to promote barrier free design.

## **FINDINGS**

1. It is desirable and feasible to implement legislation to eliminate architectural barriers in public buildings to the physically handicapped.
2. Architectural barriers not only affect the physically handicapped, but also impair the mobility of others, i.e. pregnant women, children and the elderly.
3. The presence of architectural barriers impedes the employment and financial independence of physically handicapped citizens. As a result, they often remain dependent upon welfare payments because they lack an economic means of support for their existence. Furthermore, planners without adequate knowledge of the needs of the physically handicapped have excluded them from citizen participation in the Commonwealth.



4. Although Virginia law requires that facilities constructed or altered with public funds be made accessible to, and usable by, physically handicapped persons, the State has leased buildings that are inaccessible. Therefore, physically handicapped citizens of the Commonwealth are still excluded from many State operated buildings and facilities.

5. Buildings with architectural barriers located in flood-prone and flood hazard areas pose a dangerous problem to physically handicapped citizens in case of an emergency.

### **RECOMMENDATIONS**

1. That Legislation be enacted to direct the State Board of Housing to adopt an appropriate standard as part of the Uniform Statewide Building Code in order to alleviate architectural barriers to physically handicapped citizens of the Commonwealth.

2. That Legislation be enacted to provide for the establishment of a tax credit for the renovation of existing buildings to make them accessible to, and usable by, the physically handicapped.

3. That Legislation be enacted to direct the Virginia Housing Study Commission to study the housing problems of the physically handicapped and the feasibility of the implementation of a tax credit for individuals constructing or renovating their own homes to make them accessible.

4. That an Architectural Barrier Advisory Committee be appointed by the Governor to advise the State Board of Housing.

## **FOOTNOTES**

1. **Journal of American Insurance (Spring, 1974)**
2. **Committee on Barrier Free Design Newsletter (January 1974)**  
published by the President's Committee on Employment of the Handicapped.

## **APPENDIX A**

### **Architectural Barriers and the Deaf**

There are almost no architectural barriers to an able-bodied deaf person.

The most pressing need for a profoundly deaf person in a public building is for a vibrating-flashing light signal to warn of fire. This warning should be similar to the immediately noticeable flasher on a police car. One night a couple of years ago some deaf teenagers burned to death in a Chicago hotel fire for lack of an adequate signal to arouse them. A flashing light alone would not alert all deaf people, but coupled with a vibrator system it would get the attention of most of them. I believe the state fire marshal is already studying this problem.

Some deaf people have other handicaps. Some are also blind; some are on crutches or in wheelchairs and they would meet barriers not faced by a person who is deaf only.

Another item which should be called to your attention, although not technically a barrier, is the lack of adequate lighting to fall on a person who may be interpreting for deaf people in a public meeting place.

Fred P. Yates, Jr.  
Virginia Council for the Deaf  
P. O. Box 11045  
Richmond, Virginia

## **APPENDIX B**

### **Architectural Barriers for the Blind and Visually Impaired Citizens of Virginia**

- 1. Steps, of substances other than carpet, should have the front edge a contrasting color since depth perception and blending make steps appear to be flat surfaces. This is particularly true when approaching them from the top step. Steps in buildings, such as lobbies should also be lit by either overhead or accent lighting (such as in theatre aisles).**
- 2. Carpeted steps should be of alternating colors to achieve the same effect as in Item 1.**
- 3. Public lobbies and other meeting places should be sufficiently well lit so that partially sighted individuals can travel without aid. Areas with ten to thirty candle power of light are not sufficient to accomplish independent travel without the aid of a sighted guide or a cane.**
- 4. Uniform placement of room numbers on walls or doors with raised letters being used if possible would greatly aid both the partially sighted and totally blind travelers. If raised letters are not desirable then a high degree of contrast between the wall or door and the letters is desirable.**
- 5. Streets and sidewalks without curbs should not be a continuous, flat surface which blends since this lack of definition can easily place blind individuals on the traveled portion of a road or street.**
- 6. Elevators should have etched numbers on the pushbuttons and a sound system (either tone or voice) which identifies the floor when the unit stops. At present, a lone blind passenger must play elevator roulette to find the desired floor in a hotel or office building.**
- 7. Traffic signal boxes; store fronts which extend into the sidewalk (beginning more than a foot above the sidewalk at the base of the building); tree limbs; ornamental light fixtures with a colonial crossbar; and other objects which are suspended in space, provide a definite threat for both banged heads and bruised shoulders. A properly used white cane will not detect any of the aforementioned objects since they are suspended in air. A close inspection of the average city block will reveal potential hazards which can do bodily harm. Additional hazards in new buildings include built-in ashtrays (they are usually waist high), water fountains, shelf-type telephone booths, book racks and other equipment.**
- 8. Street signs, particularly DETOUR, NO PARKING, NEW REGULATIONS, etc. protrude into walk spaces and are a hazard. In Williamsburg, for example, the original street sign was high enough to avoid a problem but then a red "new regulation" sign was added below, thus creating a hazardous situation.**

The aforementioned eight items are presented as major architectural and engineering barriers which daily face the blind and visually impaired citizens of Virginia. Each individual can develop a similar list based on his own community and specific environment.

Frank S. Penland, Director  
Education Services Department  
Virginia Commission for the  
Visually Handicapped

APPENDIX C

*Commonwealth of Virginia*

**STATE WATER CONTROL BOARD**

P.O. Box 11143, 2111 N. Hamilton St., Richmond, Va. 23230 (804) 770-1411



IN REPLY, REFER TO: 5 HY

September 11, 1974

Mr. Edward A. Ragland  
Director  
State Office of Housing  
1033 Madison Building  
Richmond, Virginia 23219

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Dear Mr. Ragland:

As the State Coordinating Agency for floodplain regulations, we are concerned about protecting Virginia citizens from the dangers posed by flooding.

A significant number of public buildings throughout the State are located in flood hazard areas, and are frequented by citizens who are disabled due to illness or injury.

A particular problem arises when these buildings are invaded by flood waters and rapid evacuation is necessary. Those who are confined to wheelchairs, crutches and the like cannot quickly exit from the buildings unless special provisions are made. Just as citizens are protected from the dangers of fire by the ability to exit quickly through emergency doors, steps should be taken to require special ramps, railings and passageways in public buildings to allow disabled citizens to leave the buildings quickly under their own power when an emergency situation arises.

Our office therefore supports the legislation which is now being considered by the State to eliminate architectural barriers to the handicapped from public buildings in the Commonwealth, especially those located in flood-prone and flood hazard areas.

Your support for this legislation is greatly appreciated.

With best regards,

Sincerely,

Stephen L. Hogye  
Assistant State Coordinator  
Flood Insurance and Flood Plain Studies

cc: Mrs. Peggy Bendrick

SLH:adw

