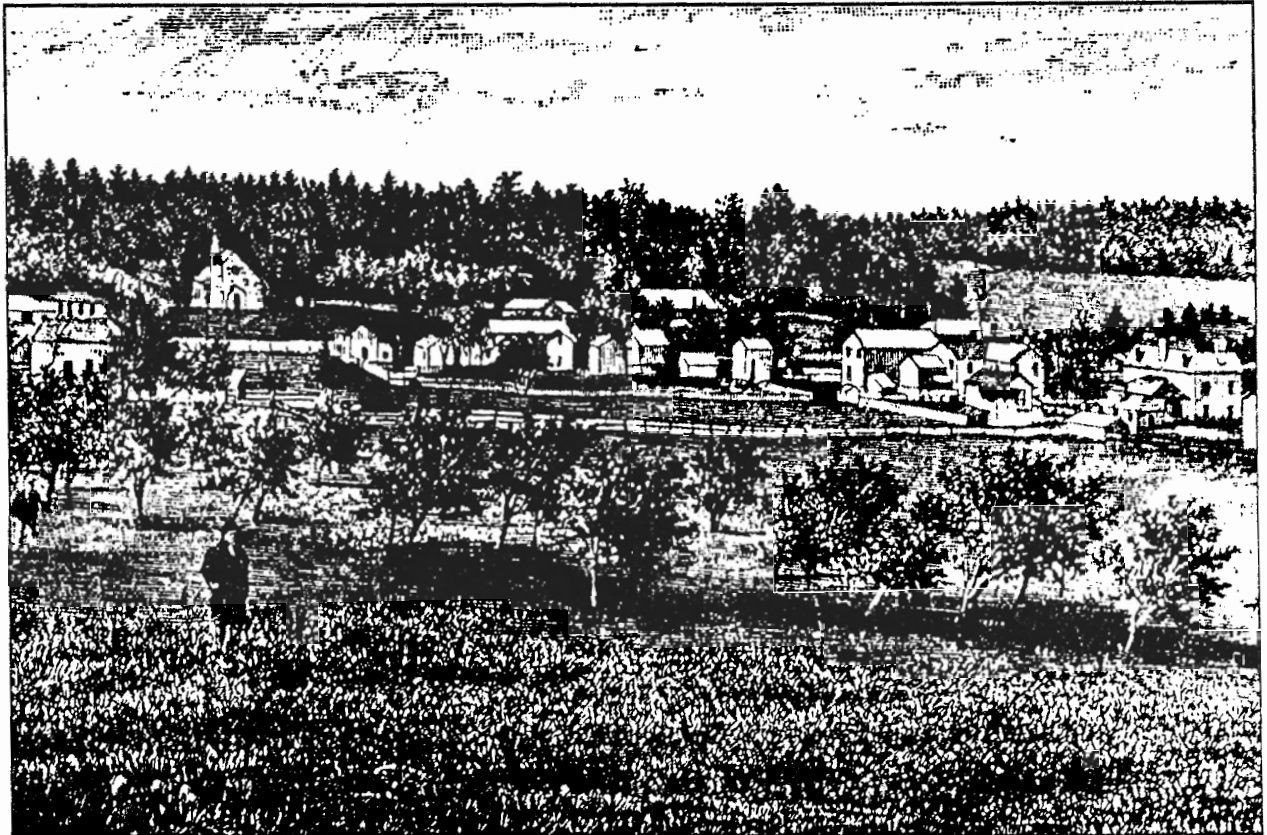
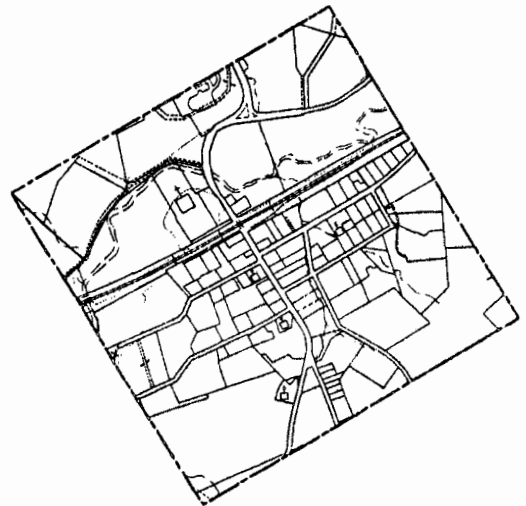

TOWN OF CLIFTON PLAN



August 6, 1996



TOWN OF CLIFTON PLAN

Brought before a Public Hearing of the Town of Clifton Planning Commission on
July 2, 1996.

Certified by the Town of Clifton Planning Commission on
July 2, 1996.

Brought before a Public Hearing of the Town of Clifton Town Council on
August 6, 1996.

Adopted by the Town of Clifton Town Council on
August 6, 1996.

Prepared by the Town of Clifton Planning Commission
Town of Clifton, Virginia

With assistance from the
Northern Virginia Planning District Commission

Under a grant from the
Chesapeake Bay Local Assistance Department

TOWN OF CLIFTON PLAN

The Town of Clifton Plan has been prepared in accordance with pertinent State and federal legislation, including comprehensive plan enabling articles of the Virginia Code 15.1-431, 446.1, 448 and 10.1-2109.B; and air quality, water quality, and flood control provisions of the United States Code, 42 U.S.C. 1857 et. seq. as amended and 33 U.S.C. 1251 et. seq. as amended.

The original Town of Clifton Plan was adopted by the Clifton Town Council on July 1, 1980. The current Town of Clifton Plan was adopted by the Clifton Town Council on August 6, 1996. Subsequent amendments to this Town of Clifton Plan were adopted by the Town Council on:

TOWN OF CLIFTON PLAN

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TOWN OF CLIFTON PLAN

Introduction

The Town of Clifton Plan is the culmination of citizen effort over a long period of time to reduce into one document the summation of a number of activities entered into by the Town and its citizens to define the long-range policies of the Town of Clifton. These activities date back to the original Zoning Ordinance, the Flood Plain Ordinance, the 1979 revision of the Zoning Ordinance, the adoption by the Town Council of historic district regulations covering the entire Town, and the adoption of the Chesapeake Bay Preservation Ordinance. The Plan is divided into seven sections: Section I is the Virginia enabling legislation covering this Plan; Section II is the analysis of existing conditions and trends in the development of the Town; Section III is a natural resources inventory of the Town; Section IV outlines natural and man-made constraints to development; Section V provides an inventory of potential pollution sources within the Town; Section VI is a policy section outlining general and future actions deemed appropriate by the Town to be taken by public and private entities operating within the Town; and Section VII consists of plan implementation strategies which identify specific tools to meet Town goals and recommendations.

SECTION I

Virginia Enabling Legislation

Section I-1 Overview of Legislation and Intentions of the Town

The Town of Clifton Plan is a compilation of the experiences, attitudes, and general character of the Town that can be used to shape and guide the Town's development in order to make the Town a more enjoyable place to live and work. The Virginia General Assembly, recognizing the need for local planning within each area of the State, adopted Section 15.1-446.1 of the Code of Virginia (1950) as amended on July 1, 1980, which requires that each municipality in Virginia develop its own comprehensive plan. The mandate states "The comprehensive plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted, and harmonious development of the territory which will, in accordance with present and probable future needs and resources best promote the health, safety, morals, order, convenience, prosperity, and general welfare of the inhabitants." The Town of Clifton adopted its first comprehensive plan in 1980.

In addition to the aforementioned mandate, the Virginia General Assembly, recognizing the economic and socio-cultural importance of protecting state waters and in particular the Chesapeake Bay and its tributaries from both point source and nonpoint source pollution, enacted the Chesapeake Bay Preservation Act of 1988 (Sections 10.1-2100, et seq., of the Code of Virginia (1950)). The waters of the Chesapeake Bay have been degraded significantly by many sources of pollution, including nonpoint source pollution from land uses and development. Section 10.1-2109.B of the Act states that "Counties, cities, and towns in Tidewater Virginia shall incorporate protection of the quality of state waters into each locality's comprehensive plan consistent with the provisions of this chapter." The Town of Clifton, recognizing the importance of the goals of the Act, has therefore amended its Town Plan in accordance with the Act.

The Town of Clifton, recognizing the importance of periodically updating the comprehensive plan as well as implementing the goals of the Chesapeake Bay Preservation Act, has developed the following Town Plan. The Town Plan is to be used with the various Town ordinances to protect those qualities of life held important by the citizens of Virginia and the Town of Clifton and to encourage future development that enhances and compliments the growth of the Town as well as protects its natural resources.

Section I-2 Title 15 Comprehensive Plan Requirements

§ 15.1-446.1. Comprehensive plan to be prepared and accepted; scope and purpose.-- The local commission shall prepare and recommend a comprehensive plan for the physical development of the territory within its jurisdiction.

Every governing body in this State shall adopt a comprehensive plan for the territory under its jurisdiction by July one, nineteen hundred eighty.

In the preparation of a comprehensive plan the commission shall make careful and comprehensive surveys and studies of the existing conditions and trends of growth, and of the probable future requirements of its territory and inhabitants. The comprehensive plan shall be made with the purpose of guiding and accomplishing a coordinated, adjusted and harmonious development of the territory which will, in accordance with present and probable future needs and resources best promote the health, safety, morals, order, convenience, prosperity and general welfare of the inhabitants.

The comprehensive plan shall be general in nature, in that it shall designate the general or approximate location, character, and extent of each feature shown on the plan and shall indicate where existing lands or facilities are proposed to be extended, widened, removed, relocated, vacated, narrowed, abandoned, or changed in use as the case may be.

Such plan, with the accompanying maps, plats, charts, and descriptive matter, shall show the commission's long-range recommendations for the general development of the territory covered by the plan. It may include, but need not be limited to:

1. The designation of areas for various types of public and private development and use such as different kinds of residential, business, industrial agricultural, conservation, recreation, public service, flood plain and drainage, and other areas;
2. The designation of a system of transportation facilities such as streets, roads, highways, parkways, railways, bridges, viaducts, waterways, airports, ports, terminals, and other like facilities;
3. The designation of a system of community service facilities such as parks, forests, schools, playgrounds, public buildings and institutions, hospitals, community centers, waterworks, sewage disposal or waste disposal areas, and the like;
4. The designation of historical areas and areas for urban renewal or other treatment;
5. The designation of areas for the implementation of reasonable groundwater protection measures;
6. An official map, a capital improvements program, a subdivision ordinance, and a zoning ordinance and zoning district maps; and

7. The designation of areas for the implementation of measures to promote construction of and maintenance of affordable housing. (1975, c. 641; 1976, c. 650; 1977, c. 228; 1988, c. 268; 1990, c. 19.)

§ 15.1-447. Surveys and studies to be made in preparation of plan; implementation of plan.-- A. In preparation of a comprehensive plan, the local commission shall survey and study such matters as the following:

1. Use of land, preservation of agricultural and forest land, production of food and fiber, characteristics and conditions of existing development, trends of growth or changes, natural resources, groundwater, surface water, geologic factors, population factors, employment, environmental and economic factors, existing public facilities, drainage, flood control and flood damage prevention measures, transportation facilities, the need for affordable housing, and any other matters relating to the subject matter and general purposes of the comprehensive plan.
2. Probable and future economic and population growth of the territory and requirements therefor.

B. The comprehensive plan shall recommend methods of implementation and shall include a current map of the area covered by such comprehensive plan. Unless otherwise required by this chapter these may include but need not be limited to :

1. An official map;
2. A capital improvements program;
3. A subdivision ordinance; and
4. A zoning ordinance and zoning district maps.

The requirement for the local commission to survey and study production of food and fiber in the preparation of a comprehensive plan shall not affect any comprehensive plan adopted prior to January 1, 1981. (Code 1950, § 15-964.1; 1962, c. 407; 1975, c. 641; 1977, c. 228; 1980, c. 322; 1981, c. 418; 1988, c. 438; 1990, c. 97; 1991, c. 280.)

§ 15.1-427. Declaration of legislative intent.--This chapter is intended to encourage local governments to improve public health, safety, convenience and welfare of its citizens and to plan for the future development of communities to the end that transportation systems be carefully planned; that new community centers be developed with adequate highway, utility, health, educational, and recreational facilities; that the needs of agriculture, industry and business be recognized in future growth; that residential areas be provided with healthy surrounding for family life;

and that the growth of the community be consonant with the efficient and economical use of public funds. (Code 1950, §§ 15-900, 15-916; Code 1950 (Repl. Vol. 1956), §15-891.1; Code 1950 (Suppl.), § 15-961; 1950, pp. 487, 889; 1956, c. 497; 1962, c. 407; 1975, c. 641.)

§ 15.1-427.1. Creation of local planning commissions; participation in planning district commissions or joint local commissions.--The governing body of every county and municipality shall by resolution or ordinance create a local planning commission by July one, nineteen hundred seventy-six, in order to promote the orderly development of such political subdivision and its environs. In accomplishing the objectives of § 15.1427 such planning commissions shall serve primarily in an advisory capacity to the governing bodies.

The governing body of any county or municipality may participate in a planning district commission in accordance with Title 15.1, Chapter 34 (§ 15.1-1400 et seq.) of the Code or a joint local commission in accordance with § 15.1-443. (1975, c. 641)

§ 15.1-489. Purpose of the zoning ordinances.--Zoning ordinances shall be for the general purpose of promoting the health, safety or general welfare of the public are of further accomplishing the objectives of § 15.1-427. To these ends, such ordinances shall be designed (1) to provide for adequate light, air, convenience of access, and safety from fire, flood and other dangers; (2) to reduce or prevent congestion in the public streets; (3) to facilitate the creation of a convenient, attractive and harmonious community; (4) to facilitate the provision of adequate police and fire protection, disaster evacuation, civil defense, transportation, water, sewerage, flood protection, schools, parks, forests, playgrounds, recreational facilities, airports and other public requirements; (5) to protect against destruction of or encroachment upon historic areas; (6) to protect against one or more of the following: overcrowding of land, undue density of population in relation to the community facilities existing or available, obstruction of light and air, danger and congestion in travel and transportation, or loss of life, health, or property from fire, flood, panic or other dangers; and (7) to encourage economic development activities that provide desirable employment and enlarge the tax base. (Code 1950, § 15-821; Code 1950 (Suppl.), § 15-968.3; 1962, c. 407; 1966, c. 344; 1968, c. 407; 1975, c. 641; 1976, c. 642)

Section I-3 The Chesapeake Bay Preservation Act

§ 10.1-2100. Cooperative state-local program.--A. Healthy state and local economies and a healthy Chesapeake Bay are integrally related; balanced economic development and water quality protection are not mutually exclusive. The protection of the public interest in the Chesapeake Bay, its tributaries, and other state waters and the promotion of the general welfare of the people of the Commonwealth require that: (i) the counties, cities, and towns of Tidewater Virginia incorporate general water quality protection measures into their comprehensive plans, zoning ordinances, and subdivision ordinances; (ii) the counties, cities, and towns of Tidewater Virginia establish programs, in accordance

with criteria established by the Commonwealth, that define and protect certain lands, hereinafter called Chesapeake Bay Preservation Areas, which if improperly developed may result in substantial damage to water quality of the Chesapeake Bay and its tributaries; (iii) the Commonwealth makes its resources available to local governing bodies by providing financial and technical assistance, policy guidance, and oversight when requested or otherwise required to carry out and enforce the provisions of this chapter; and (iv) all agencies of the Commonwealth exercise their delegated authority in a manner consistent with water quality protection provisions of local comprehensive plans, zoning ordinances, and subdivision ordinances when it has been determined that they comply with the provisions of this chapter.

B. Local governments have the initiative for planing and for implementing the provisions of this chapter, and the Commonwealth shall act primarily in a supportive role by providing oversight for local governmental programs, by establishing criteria as required by this chapter, and by providing those resources necessary to carry out and enforce the provisions of this chapter. (1988, cc. 608, 891.)

§ 10.1-2109. Local governments to designate Chesapeake Bay Preservation Areas; incorporate into local plans and ordinances.--A. Counties, cities and towns in Tidewater Virginia shall use the criteria developed by the Board to determine the extent of the Chesapeake Bay Preservation Area within their jurisdictions. Designation of Chesapeake Bay Preservation Areas shall be accomplished by every county, city and town in Tidewater Virginia not later than twelve months after the adoption of criteria by the Board.

B. Counties, cities, and towns in Tidewater Virginia shall incorporate protection of the quality of state waters into each locality's comprehensive plan consistent with the provisions of this chapter.

C. All counties, cities, and towns in Tidewater Virginia shall have zoning ordinances which incorporate measures to protect the qualities of state waters in the Chesapeake Bay Preservation Areas consistent with the provisions of this chapter. Zoning in Chesapeake Bay Preservation Areas shall comply with all criteria set forth in or established pursuant to § 10.1-2107.

D. Counties, cities, and towns in Tidewater Virginia shall incorporate protection of the quality of state waters in Chesapeake Bay Preservation Areas into their subdivision ordinances consistent with the provisions of this chapter. Counties, cities, and towns in Tidewater Virginia shall ensure that all subdivisions developed pursuant to their subdivision ordinances comply with all criteria developed by the Board.

SECTION II

Town History and Analysis of Trends

A major component of the Town Plan is to examine the past and present conditions of the Town in order to provide a basis for planning not only physical growth and development, but also the development of the community as a whole. The Town of Clifton is a prime example of how careful and thoughtful planning for future growth can result in a high quality of life and it is important that future growth both compliment and enhance Clifton's small town character. Section II "Town History and Analysis of Trends" presents a description and analysis of the history and development of the Town, population characteristics, housing characteristics, transportation, economy, and public facilities, in order to provide a sound base from which to derive future goals and recommendations presented in Section VI. Resources used in the compilation of Town history and trends data include the 1980 and 1990 United States census, the 1993 *Northern Virginia Data Book* (Northern Virginia Planning District Commission, 1993), *Population and Housing - 1960 to 1969* (Fairfax County Division of Planning, January, 1969), *Clifton: Brigadoon in Virginia* (Netherton, 1980), and the elected officials and citizens of the Town of Clifton. The reader should note that census data in many instances is based on a sample, which is subject to sampling variability, and that there are limitations to many of the data.

Section II-1 Town History and Development

Clifton is an incorporated town in the southwest quadrant of Fairfax County lying within the Springfield Magisterial District (See Figure 1 for a map of the Town). The Town is bisected by Pope's Head Creek and the Norfolk Southern Railroad, both of which played an integral role in the historical development of the Town in the late 19th and early 20th centuries. Originally laid out as "an ensemble of streets, open places, and building lots," Clifton has developed in a way that the "relationships of homes to each other, to the public buildings, and to the open spaces and streets is a lesson in urban development."

The great extent of the Town was developed in the late 19th and early 20th centuries with only 30 buildings being constructed within the Town since 1939 (See Figure 2 for a map of Clifton and its environs in 1878). Two major factors have contributed to this limited development pattern. First, as a railroad settlement, Clifton was developed and grew during the heyday of the railroads in Virginia. With the advent of the automobile and the gradual disuse of railroads for commercial and passenger transportation, development in and around Clifton stagnated. Second, the greatest current restriction on continued development in Clifton and the surrounding area is the absence of sanitary sewer facilities. Clifton, like similar communities throughout the Commonwealth, originally developed on septic fields and pit privies. In the 1960s, a sanitary sewer program was undertaken to serve the needs of the Town, the proposed resolution being a small package treatment plant located near Pope's Head Creek on the parcel now designated as the Randolph Buckley

Park. Because of the threat of eutrophication¹ in the Occoquan Reservoir, the Virginia Water Control Board (VWCB), through its Occoquan Policy, precluded the completion of this sanitary sewer system. Since that time, the County of Fairfax has only authorized building permits for additions to, or the restoration of, existing buildings or where vacant property within the Town could meet contemporary septic field standards.

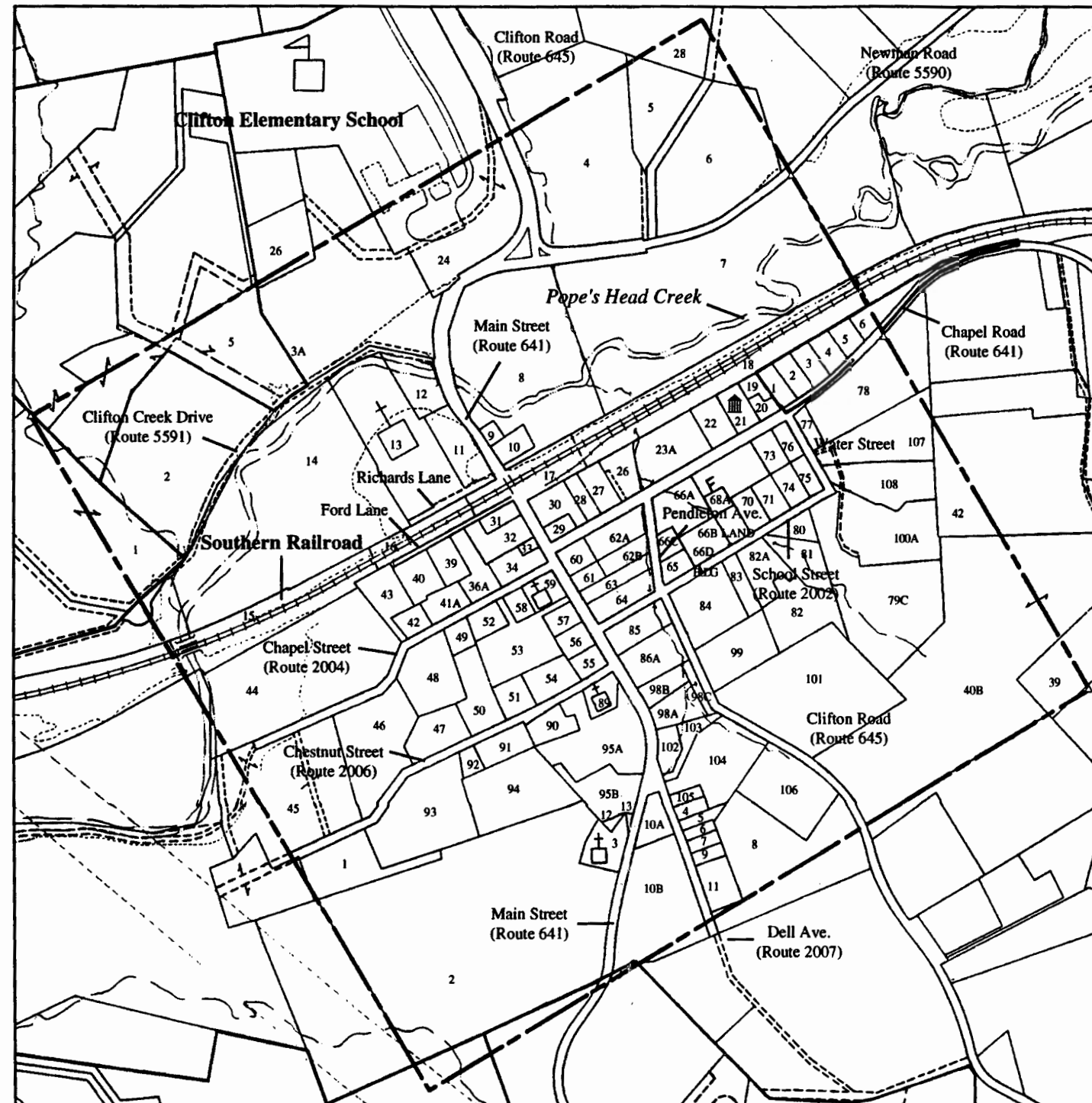
Section II-2 Land Use

Land use within the Town is largely governed by the Town's Zoning Ordinance. The Zoning Ordinance serves as a primary tool for the implementation of "Land Use Policies and Recommendations" (Section VI) as well as other policies relating to natural resources protection, transportation, and housing. Two primary components of the Zoning Ordinance which are instrumental in natural resources protection are the Town's Chesapeake Bay Preservation Ordinance (adopted 1995) and the Flood Plain Ordinance. The present Zoning Ordinance was adopted on November 6, 1979, and became effective on February 1, 1980. The Zoning Ordinance is intended to promote the health, safety, and general welfare of the public. To accomplish these ends, the Zoning Ordinance is designed:

1. *To provide for adequate light, air, convenience of access, and safety from fire, flood, and other dangers;*
2. *To reduce or prevent congestion in the public streets;*
3. *To facilitate the creation of a convenient, attractive, and harmonious community;*
4. *To facilitate the provision of adequate police and fire protection, disaster evacuation, civil defense, transportation, water, sewerage, schools, parks, and other public requirements.*
5. *To protect against destruction or encroachment upon historical areas;*
6. *To protect against one or more of the following; overcrowding of land, undue density of population in relation to the community facilities existing or available, obstruction of light and air, danger and congestion from travel and transportation, or loss of life, health, or property from fire, flood, panic, or other dangers;*
7. *To encourage economic development activities that provide desirable employment and enlarge the tax base.*
8. *To provide for the preservation of agricultural and forestal lands and other lands of significance for the protection of the natural environment;*
9. *To protect approach slopes and other safety areas of licensed airports, including United States government and military air facilities; and,*
10. *To promote affordable housing.*

¹Eutrophication is the process by which a body of water experiences an increase in the level of nutrients which results in algal blooms and oxygen depletion. Eutrophic conditions can lead to taste and odor problems in drinking water, fish kills, and unsightly conditions.

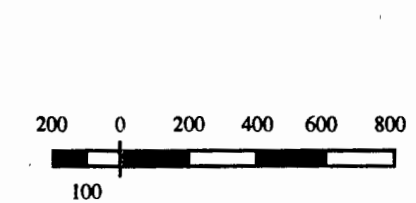
FIGURE 1
Map of the Town of Clifton



Produced by the Northern Virginia Planning District Commission for the Town of Clifton.

July, 1996

Base map: Fairfax County Zoning Map, 1995.





The Zoning Ordinance establishes Zoning Districts in which certain land uses are restricted or prohibited in order to maintain an orderly and desirable pattern of growth within the Town, to buffer incompatible land uses, and to protect environmentally sensitive features from the adverse effects of urban development. The reader is referred to the Zoning Ordinance for specific uses permitted in each of the Town's Zoning Districts. The Zoning Map (Figure 3) provides a graphic representation of the Town's Zoning District boundaries. However, in the case of a conflict between the Zoning Map and the text of the Ordinance, the text shall prevail.

2-3

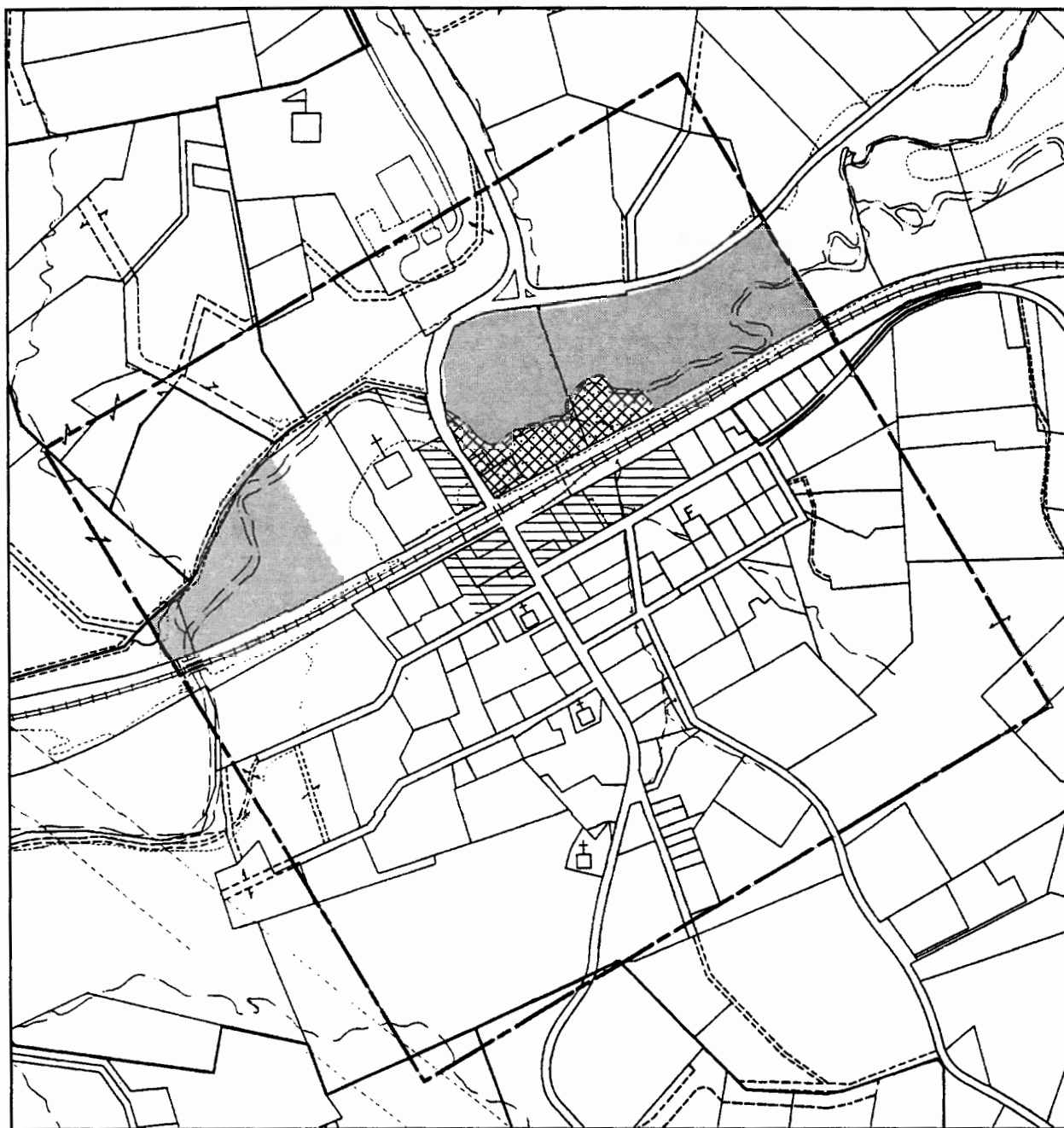






FIGURE 3
Town of Clifton Zoning Map

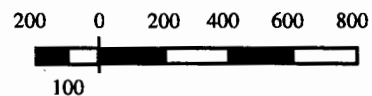
-  Agricultural
-  Commercial
-  Residential
-  Industrial



Produced by the Northern Virginia
Planning District Commission
for the Town of Clifton.

August, 1996

Base map: Fairfax County Zoning Map, 1995.



To date, there has been no detailed study of existing land uses within the Town. However, the following provides a brief description of the general nature of existing land uses within the Town limits using current zoning as a guide. As evidenced by the Zoning Map, the primary current, as well as planned land use within the Town of Clifton is residential with approximately 78.3 percent of land within the Town currently zoned as such. All residential property within the Town is considered to be single family in nature. What is not known is the percentage of residentially zoned parcels which are currently idle and a therefore open to potential new development. Land zoned for agricultural uses comprises the second largest area of the Town with approximately 10.5 percent. There are two areas of the Town which are zoned for agricultural land use, both of which are located primarily within the confines of the Pope's Head Creek floodplain. Agricultural activity on these areas is currently limited to pasture.

Land zoned as commercial and industrial comprises approximately 2.6 and 1.3 percent of the total land area of the Town respectively. The Town's commercial and industrial districts are concentrated at the intersection of Main Street and Norfolk Southern Railroad near the center of Town. Commercial activity also spreads down the northern side of Chapel Road and, to a lesser extent, along Ford Lane and Chapel Street. The industrially zoned area of the Town is constrained to the area of land in the northeastern quadrant of the intersection of Norfolk Southern Railroad and Main Street. However, no industrial land uses or structures presently exist or are planned on these parcels.

While the transportation network is often overlooked as a significant land use, it does comprise a considerable amount, approximately 7.2 percent, of the Town's total land area. Further, the impact of this land use on the environment is particularly important since these areas are almost completely impervious. The imperviousness of the total land area is a major contributing factor to nonpoint source pollution and is used in determining compliance with the Town's Chesapeake Bay Preservation Ordinance performance standards for development. For more detailed information concerning impervious areas of the Town, the reader is referred to Section V-4 "Nonpoint Source Pollution." Table 1 presents the proportion and area of currently zoned land uses within the Town.

Table 1
Zoned Land Use in the Town of Clifton

Zoned Land Use	Area in Acres*	Percentage of Town*
Residential	125.3	78.3%
Agricultural	16.8	10.5%
Commercial	4.2	2.6%
Industrial	2.1	1.3%
Roadways	11.5	7.2%
Total	160.0	100.0%

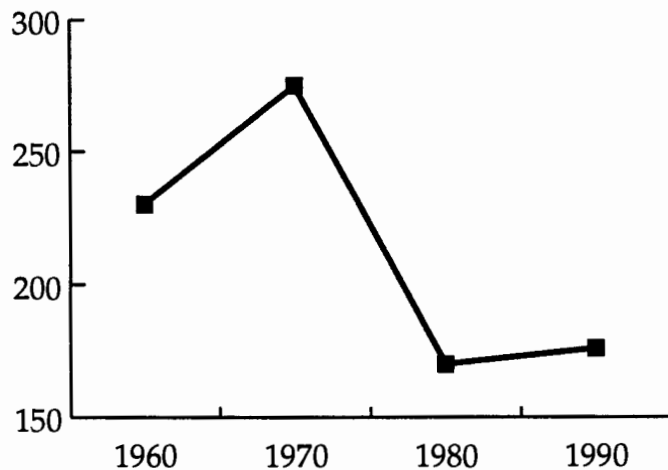
* Figures are rounded to nearest tenth. Figures derived from NVPDC planimeter of Zoning Maps.

Section II-3 Population Characteristics

According to U.S. Census data, the Town of Clifton was home to 176 residents in 1990. The population of Clifton, while relatively stable compared to neighboring Fairfax County, has fluctuated over the last few generations. According to the *Fairfax County Population and Housing Survey*, the population of the Town was recorded at 230 residents in 1960 and swelled to 275 residents in 1969.

The 1980 census, however, indicated that the population had dipped to only 170 residents. The loss of population within the Town during the decade of the 1970s was primarily the result of a dramatic decrease in average household size rather than a decrease in overall housing available. In 1960, the average household size for Clifton was 3.24 residents per unit while in 1990, the average household size was 2.93 residents per unit. Comparatively, Fairfax County during the period of 1960 to 1990 grew from 275,002 residents to 818,584 residents, decreasing Clifton's proportion of the total population from 0.08 percent to 0.02 percent. Much like Clifton, however, the number of residents per household dropped from 3.87 residents per unit to 2.80 residents per unit during the same period. Figure 4 presents population changes in Clifton from 1960 to 1990.

Figure 4
Population of Clifton - 1960 to 1990



Source: 1980 and 1990 US census data and *Population and Housing - 1960 to 1969 and Fairfax County Division of Planning: 1969.*

In 1990, there were 52 total family units within the Town which averages to 3.17 people per family. This was slightly higher than the average people per household within the Town which stood as 2.93. There were a total of 61 households in the Town.

Section II-4 Housing Characteristics

According to U.S. Census data, there were a total of 72 housing units within the Town in 1990, 61 of which were occupied year around. All housing within the Town is classified as single family detached. The average number of bedrooms for structures within the Town was 3.3. The number of housing units within the Town has grown slowly given the housing boom in the remainder of Fairfax County with only 20 units being built since 1939 and only 9 units being built since 1960.

Of the total housing units within the Town, 5 were lacking complete plumbing facilities and 2 were lacking complete kitchen facilities. All residences within the Town are reliant on well water for their potable water supply. Sewage disposal was achieved through public sewer (41 residences) and septic tank or cesspool (28 residences). Household heat was provided primarily by fuel oil or kerosene (34 units) and electricity (19 units). Other sources of heat include bottled, tank, or LP gas (4 units) and solar energy (4 units).

Section II-5 Economy

The Town currently has 11 commercial buildings containing a number of business enterprises. Several of these buildings, including the old Clifton Hotel, now the Hermitage Restaurant, the "Pink House" (Long and Foster Realty), and the current ERA building (Baskets and Boughs) have undergone major restoration within the last five years. Two of these, the "Pink House" and the current ERA building (Baskets and Boughs), were used as residential properties until recently although they have long been zoned industrial and commercial, respectively. In addition, there are a few home occupations and professional offices operating in existing residences which have been authorized by the Town Council. Such uses, however, are specifically restricted so as not to allow any adverse impacts upon the residential character of the area. Use of the home by the occupants must be predominantly residential and any impacts must be comparable to those which would normally occur as a result of residential activity. Business visitors, deliveries to the home, and hours of operation are therefore limited, and no signage whatsoever is permitted on-site.

Although there is some local employment, most of the labor force in Clifton commutes to other areas of Northern Virginia or Washington, D. C. to find employment. Recently, however, there has been a resurgence of low-impact commercial uses serving as a mini-employment center for the residents of Clifton and the surrounding area. These uses include the two restaurants, the Clifton General Store, and office/retail shops with a number of individual businesses in residence.

As a direct result of greatly increased development and commercialism in western Fairfax County, many Town residents are deeply concerned that Clifton's small community-like atmosphere is "at-risk." The past decade has seen a large increase in through traffic because of development occurring in outlying counties; there has also been an expansion of commercial businesses and offices within the Town. So far, the Town has preserved its character. A primary goal of the Town is to place strong emphasis on maintaining the current balance between residential and commercial uses in order to preserve its existing community-like atmosphere.

Section II-6 Transportation

Roads, Congestion, and Traffic

Access to Clifton is provided via Clifton Road, Newman Road, and Chapel Road, which, with Main Street, also provide the major transportation network of the Town. In addition, there are several connecting or outlet roads which service the remaining citizens of the

Town and provide access to the surrounding area. Most of the roads in the Town are paved, public streets. Two roads, Ford Lane and Richards Lane, are private. In the case of all roads, pavement widths are narrow with little curbside parking due to the Town's historic development pattern that has retained turn-of-the-century homes close to or abutting the public road right-of-way. Residential side streets are even more narrow than the two main streets in Town. Curbside parking on residential streets is even more constrained because of rural ditches on either or both sides of the road. Such roads make two way vehicular traffic difficult, with one vehicle often having to pull off the pavement in order to let the other pass.

Outside of the Town, only Clifton Road to the north has been substantially improved in the last generation. There are no current County or Virginia Department of Transportation plans to improve any of the access roads to the Town.

Over the last ten years, traffic through the Town has increased dramatically. During 1989, the Fairfax County Police Department conducted a mid-week traffic count which showed that nearly 6,000 vehicles traverse Main Street on a normal work day. That number is believed to represent a near ten-fold increase in traffic since 1980. Currently, this level of through traffic poses a safety risk to Town residents and is a major concern for residents who fear for the safety of children who are playing and/or crossing the busy streets within the Town. It also increases congestion along Main Street, one of the roads used most by commuters passing through the Town. As a consequence, turning movement in and out of both residential driveways and commercial parking areas is difficult during peak periods. There are two primary causes for this traffic: (1) the rapid residential and commercial growth of western Fairfax County and, in particular, the growth in the environs of the Town where hundreds of homes have recently been built on tracts of land that were previously either wooded or farm/agricultural areas; and (2) the extensive population growth in Prince William County (e.g., Occoquan, Lorton, Dale City, and Lake Ridge) which, coupled with the inadequate area transportation infrastructure, has resulted in a large volume of cut-through traffic as commuters drive through Clifton to reach office parks and employment centers near Dulles Airport, Centreville, and Chantilly. Currently, the route through Clifton via Main Street and Clifton Road is the only crossing of the railroad tracks between Manassas (at Fairview Avenue) and Ox Road (Route 123) in Fairfax.

Currently, the Town is actively involved in both Fairfax County and VDOT planning cycles and other potential lobbying activities aimed at developing commuter transportation alternatives which would alleviate the cut-through traffic problems. As a part of that effort, the Town has worked with VDOT, Fairfax County, and others to designate the portion of Clifton Road from Braddock Road to Ox Road as a Scenic and Historical Byway. That designation may introduce additional public pressure on VDOT to develop improved transportation alternatives. The Town has requested and received increased traffic signage, including several stop signs; several "rumble strips" have also been installed to slow the speed of traffic entering the Town. The Town has also requested the Fairfax County Police Department to substantially increase its visibility in, and patrol of, the Town.

In addition to the dramatic increase in cut-through traffic, several other proposed projects have posed severe threats to the existing atmosphere and character of the Town. Specifically, inquiries have been made regarding the location of a commuter rail station within the Town or its immediate environs. The Town's decision not to allow a commuter rail station within its boundaries and to discourage its development nearby in Fairfax County was based upon concerns: (1) that insufficient land existed outside of floodplain areas associated with Pope's Head Creek and adjacent to the railroad tracks for the kind of large scale parking facility that would be necessary to serve the rail station; (2) that the potential for additional commuter rail related traffic and congestion on existing, narrow roads would, in many instances, add to the existing commuter traffic problems rather than alleviating it; and (3) that the resulting congestion would be highly detrimental to the quality of life for residents in this primarily residential Town. In the event that such inquiries result in any firm proposal for the location of a commuter rail station near the Town, these concerns would have to be addressed and any problems solved.

The Commonwealth's mandate to local governments to protect water quality under the provisions of the Chesapeake Bay Preservation Act and the existing potential growth of employment opportunities to the north (i.e., Fair Lakes and the Route 28 corridor) as well as those that exist to the east are factors which reinforce the Town's past actions and should prompt continued efforts to find feasible alternatives to the Town streets for commuter traffic.

Off-Street Parking

In recent years, the Town has attempted to reduce safety hazards and congestion on public streets by initiating off-street vehicular parking requirements for residential and commercial uses and by negotiating with Norfolk Southern Railroad to utilize a portion of its property near Buckley Store (Lot 30) for public parking as long as the railroad's use of the property is not otherwise needed.

As mentioned previously, parking in general in the Town is limited by the historic pattern of development. Since most residential and commercial properties were already developed prior to the explosion of automobile use and suburban mobility, a proportionally smaller amount of land is physically available for needed off-street parking in the Town as compared to other developing jurisdictions.

Most existing commercial uses have managed to accommodate necessary parking on-site. The only exceptions have been for two existing restaurants. However, Town approval for the off-site parking was limited and was granted prior to the adoption of comprehensive parking requirements which are currently in effect.

Some public parking for the new Town Meeting Hall has been provided. Off-street parking for the Town Hall, however, does not exist. The Town Hall serves as the location for small gatherings attended primarily by Town residents who walk to the property. Some meetings and a children's library housed in the building prompt occasional visitors arriving by car. On-site parking for a small number of visitors should be developed.

Pedestrian Walkways

Sidewalks have been installed along portions of Main Street and Chapel Road; these sidewalks have been recently repaired or replaced and are in very good condition. Also, an asphalt trail has been added along Chapel Road to extend the existing sidewalk to the Boynton property. In addition, the Town applied for and was awarded a Community Development Block Grant for the construction of sidewalks along both sides of Chapel Road and extending east from the Boynton Building and the new Firehouse as far as Water Street. Construction of these new sidewalks was completed in 1995.

Section II-7 Public Infrastructure

Public and Semi-Public Buildings

Public buildings in the Town consist of the Town Hall, the new Firehouse and Meeting Hall, and part of the Clifton Elementary School and Grounds. The new Firehouse and Meeting Hall were authorized and constructed by Fairfax County; its final design, including external architectural features, was approved by the Clifton Town Council and the Architectural Review Board (ARB). Construction was completed in 1994 and provides the Town with enhanced firefighting capability as well as a modern Meeting Hall, serving the Town and the surrounding community. As part of the County's final design, access to the Firehouse is limited by a controlled access arm that permits station personnel access and parking only; this was necessitated since the new Firehouse has no access to its parking lot from Chapel Street. Like all other residential side-streets in Clifton, School Street is an extremely narrow, two lane road which can barely accommodate two vehicles passing in opposite directions. Nonresidential traffic must be discouraged on such streets.

Through a lease agreement with the County, the Town is responsible for the management of the Meeting Hall. The Town is also responsible for the cost of utilities and total maintenance of the Meeting Hall (the County is responsible for any structural maintenance). The use of the Meeting Hall should generate enough revenue so that it is self-supporting, but these uses should not negatively impact the quality of life of the surrounding neighborhood.

The Town also contains several quasi-public developed properties. These consist of the Clifton Presbyterian Church, the Clifton Baptist Church, the Clifton Primitive Baptist Church, the Second Baptist Church, the Acacia Masonic Lodge, the Town Playground, and an eight-acre parcel abutting Clifton which has been developed as Randolph Buckley Park. This park is accessed via a bridge over Pope's Head Creek which was designed and built primarily by Town residents. Undeveloped properties used by the public include the Town

Square (leased) as well as several properties which are owned or leased by the Clifton Betterment Association. In 1993, the CBA purchased the floodplain and the red barn behind the "Pink House" (Lot 8).

Electrical Substation

A new VEPCO substation was approved by the State Corporation Commission in 1992 (and constructed shortly thereafter) despite extensive opposition by the Town and surrounding community. This project is a vivid example of an external invasion which has the potential to adversely impact the atmosphere and character of the Town.

Sanitary Sewer

Prior to the late 1960s, the Town of Clifton's waste water disposal needs were served through individual septic systems. Due to poor soils, high water table, and slow percolation rates within the most populous areas of the Town, Fairfax County agreed to provide a sanitary sewer system and treatment plant for a maximum of 600 people. The trunk lines for the system were laid beginning in 1965 and work was completed in 1968. However, new and more stringent environmental regulations, and the establishment of the Upper Occoquan Sewer Authority, rendered the plan inadequate. Since the cost of upgrading the planned facility was prohibitively expensive, a compromise was reached in 1974 and a "pump and haul" waste water system was established. The original pump and haul system consisted of one three foot diameter manhole from which the Fairfax County Department of Public Works (DPW) pumped collected effluent into trucks and subsequently disposed of it at the Lower Potomac Sewage Treatment Plant in Lorton. The expansion of Clifton Elementary School and the addition of commercial facilities and restaurants such as the Heart in Hand and the Hermitage Inn necessitated the addition of a second five foot diameter manhole and a third six foot diameter manhole in the 1980s. Each of the manholes are connected in series. The pump and haul station is located at the end of Chapel Street on the northern side of the road. Presently, six to nine trucks pump and haul approximately 18,000 to 27,000 gallons of effluent each day. Section IV "Constraints on Development" presents more detailed information on sanitary sewer constraints to development and hook-up restrictions.

Public Schools

School facilities are provided to the Town by the Clifton Elementary School and the Robinson Secondary School, both of which are part of the Fairfax County Public School System. The Clifton Elementary School was recently enlarged to accommodate the increased population within the area of Fairfax County around Clifton.

Section II-8 Potable Water Supply

Currently, potable water supplies for the Town are provided by private groundwater wells. Water yields have, to date, not been a constraining factor for growth within Clifton. According to the Virginia Department of Environmental Quality – Water Division, groundwater yields within the area of Clifton should be adequate for the limited growth that is expected in the Town.

Section II-9 Historical District Ordinance

In 1979, the Town adopted the Clifton Historic Overlay District. This zoning district applies to all parcels within the Town and was created to preserve and perpetuate the Town's historic and architectural integrity.

A large portion of the Town has been listed as the "Clifton Historic District" on the National Register of Historic Places. Nominated to the Register in 1985, and accepted shortly thereafter, the Town is deemed significant as a historic district because it represents a "well preserved and intact example of vernacular architecture of the late 19th century and early 20th century with extremely few contemporary intrusions. The building types are those typically found in a rural village . . . The relationship of the buildings to the narrow streets and the spacing of the building lots comprise a cohesive visual quality throughout the District. Clifton's streetscapes convey a distinct sense of an agricultural Virginia town at the turn of the 20th century." (Excerpted from the National Register Inventory as developed by Emma Jane Saxe and Elizabeth S. David, Preservation Officers, Fairfax County Office of Comprehensive Planning.)

In addition to the Town's Zoning Overlay District and its National Register status, several structures are listed individually in Fairfax County's Historic Landmark Survey. They are the Clifton Presbyterian Church, the Clifton Hotel, the Buckley Brothers Store, the Quigg House, the Hetzel House, and the Clifton Baptist Church.

Figure 5 presents a map of the federally designated Clifton Historic District which is registered under the National Register of Historic Places. Appendix A provides a description of properties within the Historic District.

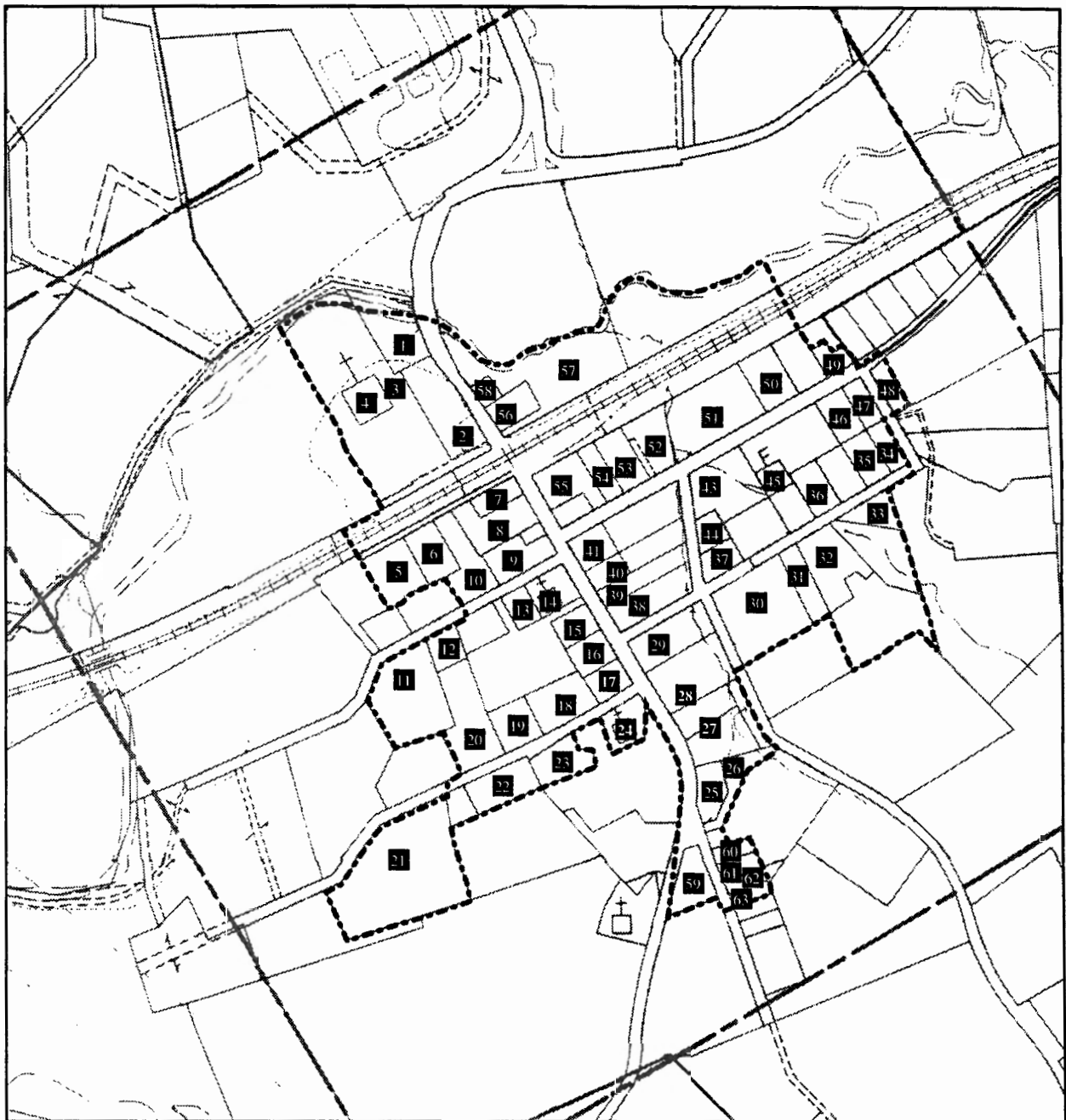


FIGURE 5
Map of the Clifton Historic District
National Register of Historic Places

- ■ ■ ■ Federal Historic District Boundary
- 22 Structure within Federal Historic Boundary*

Note: The entire Town is within a locally designated historic district as defined by the Town Zoning Code.

*See Appendix A for a description of properties within the Historic District.



Produced by the Northern Virginia Planning District Commission for the Town of Clifton.

August, 1996

Base map: Fairfax County Zoning Map, 1995.

District boundaries are taken from National Register of Historic Places – Nomination Form, 1985, as prepared by the Fairfax County Office of Comprehensive Planning, Heritage Resources. The presented map is for general informational purposes only. Refer to Nomination Form, "Boundary Description," for a complete legal description of District Boundaries.

SECTION III

Natural Resources Inventory

The Town of Clifton has within its boundaries a wealth of natural resources which are deeply integrated with the Town's character and the quality of life that its citizens enjoy. To ensure that future development is compatible with the natural environment, the following section provides an overview of the Town's natural resources and the unique characteristics associated with each resource. Included in this section are descriptions of the Town's climate, topography, geomorphology, soils, surface hydrology, wetlands, floodplains, and groundwater resources.

Section III-1 Climate

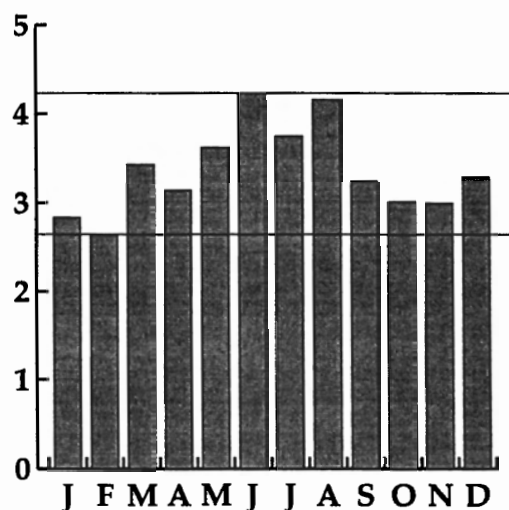
The climate of Clifton is temperate, with an average annual precipitation of 40.4 inches². The wettest month of the year is June, with an average of 4.2 inches of precipitation, while the driest month is February, with an average of 2.6 inches of precipitation. The average annual temperature is 53.9° Fahrenheit, with a daily average high of 65.2° and a daily average low of 42.5°. The hottest month of the year is July with an average daily high of 87.0°, while the coolest month of the year is January, which has a daily average high of 40.9°. The hottest day on record occurred in July, 1988 at 104°, while the coldest day on record occurred in January, 1984 at -18°. According to data recorded for the City of Manassas³, average seasonal snowfall is 15.3 inches and the greatest depth of snow at any one time was recorded at 24 inches. Records from Dulles International Airport indicate an average seasonal snowfall of 22.8 inches. The average relative humidity in mid-afternoon is about 55 percent. Humidity is higher at night and the average at dawn is about 83 percent. The sun shines 70 percent of the time in summer and about 50 percent of the time in winter. The prevailing wind is from the South. Average annual windspeed is 7.4 miles per hour (mph) and is highest in March with an average windspeed of 9.1 mph.

Figure 6 presents the average annual precipitation per month for the rain gauge at Dulles International Airport.

²National Climatic Data Center, Local Climatological Data Annual Summary with Comparative Data. Washington, D.C. Dulles International Airport. Asheville, North Carolina: 1991.

³United States Department of Agriculture and Virginia Polytechnic Institute and State University, Soil Survey of Prince William County, Virginia. Blacksburg, Virginia: 1989.

Figure 6
Average Precipitation per Month



Source: National Climatic Data Center, Local Climatological Data Annual Summary with Comparative Data for Dulles International Airport. Asheville, North Carolina: 1991.

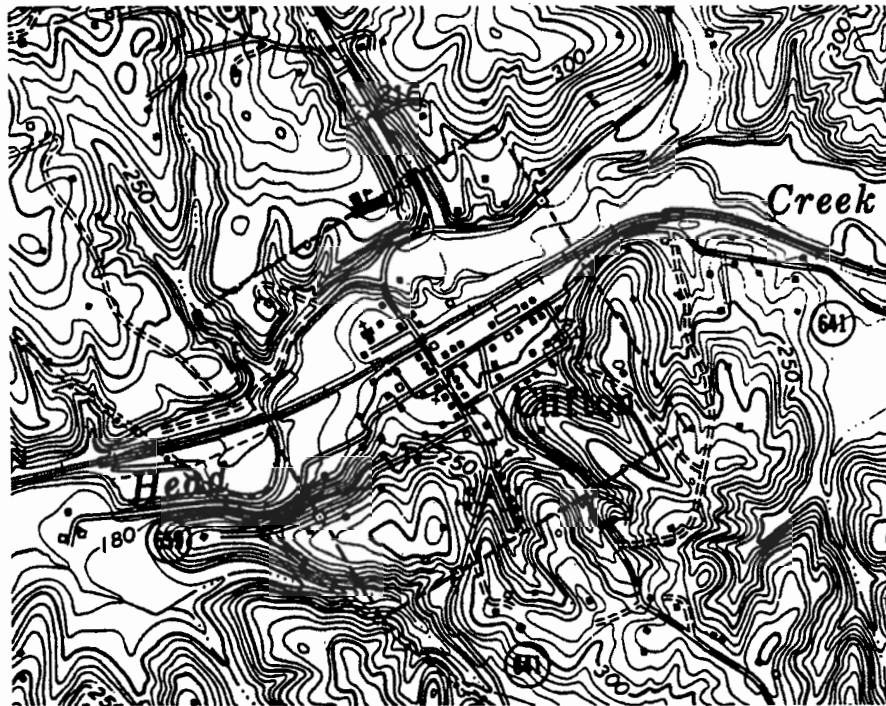
Section III-2 Topography

The heart of the Town of Clifton lies primarily within the undulating to rolling terrain between the lower Pope's Head Creek floodplain and the steep slopes which rise in the southeastern area of the Town. Steep slopes rise sharply on the northwestern border of the floodplain roughly parallel to Pope's Head Creek. Steep slopes also rise sharply in the southeastern section of the Town. Gullies carved by intermittent streams dissect the higher elevations of the Town. Elevation within the Town ranges from a low between 160 and 170 feet above sea level where Pope's Head Creek exits on the southwestern border of the Town to a high between 310 and 320 feet above sea level on a knoll in the southern corner of the Town and also on a knoll in the eastern corner of the Town. Figure 7 presents a USGS topographic map for the Town. The reader is referred to Section IV-2 for topographic constraints on development.

The Town falls within five topographic areas: those with slopes between 0-2 percent, those with slopes between 2-7 percent, those with slopes between 7-14 percent, those with slopes between 14-25 percent, and those with slopes greater than 25 percent. Areas with slopes that range from 0-2 percent comprise approximately 25 percent of the Town's land area and are located primarily within the Pope's Head Creek floodplain valley running northeast to southwest through the Town. Areas with slopes between 2-7 percent comprise slightly more than 24 percent of the land area

and are located adjacent to the floodplain and also at the tops of ridges and knolls within the Town. This area has the highest concentration of the Town's buildings and population. Areas with slopes ranging from 7-14 percent and 14-25 percent comprise just over 17 percent and 10 percent of the land area respectively and are generally located along intermittent stream valleys as well as ridge tops and knolls. Areas with slopes ranging from 25 percent and greater comprise slightly less than 24 percent of the land area and are generally located on gully faces and steep slopes bordering the floodplain. The steep slopes provide a sharp distinction between the floodplain and the surrounding topography.

Figure 7
Topographic Map of the Town of Clifton



Source: USGS Topographic Map, Manassas Quadrangle

Section III-3 Geomorphology

The Town of Clifton lies within an area known as the Upper Piedmont Geological Province. The Piedmont consists of an assemblage of plutonic (subterranean igneous) and metamorphic (highly deformed and folded materials due to heat and

pressure) rocks which were formed during the Devonian Period, approximately 360 to 408 million years ago. To the east, the Piedmont slopes downwards and is overlain by thick sediments known as the Coastal Plain. To the west is the geologic region known as the Triassic Basin. The Triassic Basin consists of down faulted blocks of the Piedmont which are filled with thick sediments that have been intruded by igneous dikes and sills.

When exposed, the Piedmont rocks which underlay the Town are primarily light to dark gray phyllite, which is lustrous, foliated, and interbedded with gray metasiltstone and dark gray slate. The saprolite is generally more than three meters thick and is gravelly and contains abundant platy fragments.⁴ The soils which have resulted from the Piedmont rocks are Manor Silt Loam, Glenelg Silt Loam, Fairfax Silt Loam, and Glenville Silt Loam. These areas are primarily in the steep or gullied areas, knolls, and ridge tops in the northwest and southeast areas of the Town. One soil within the Town, Meadowville Silt Loam, is colluvial in nature and consists of deposits of rock fragments and coarse soil materials near the base of steep slopes. The deposits have accumulated as a result of soil creep, slides, and/or local wash.

A large area of exposed soils within the Town are alluvial in nature. These are primarily located in the floodplain of Pope's Head Creek. The alluvium overlays the Piedmont rocks; however, the source material for the alluvium is sand, silt, clay, gravel, and boulders transported and deposited by Pope's Head Creek from other parts of the Piedmont. Therefore, alluvial soils may represent a wider variety of parent materials. Soils in the Town which are alluvial in nature are Chewacla Silt Loam and other mixed alluvial soils.

Section III-4 Soils

The specific physical properties and location of a soil will greatly affect the type of land use and the intensity of development that a land area can support. Factors affecting soil development include the parent material, climate, and topography. These in turn will determine a soil's erodibility, permeability, hydric nature, and slope. Soils within the Town of Clifton are part of the more general Manor-Glenelg-Elloak association and were formed in residuum of rocks of the Piedmont geological region as well as associated colluvial and alluvial deposits. Soils in the association are chiefly shallow and micaceous, rolling, hilly, and steep soils over quartz sercite schist. Most of the association outside of the Town is forest or pasture, uses to which these soils are best suited. Many of these soils are too steep for building sites; however, other characteristics make some of these soils favorable as construction material⁵. The Manor-Glenelg-Elloak association generally range from moderately

⁴United States Geological Survey, Surface Materials Map of Fairfax County and Vicinity, Virginia. Washington, D.C.: 1978.

⁵ United States Department of Agriculture, Virginia Agricultural Experiment Station, and Fairfax County, Virginia, Soil Survey of Fairfax County, Virginia. Washington, D.C.: 1963.

deep to very deep, well drained to somewhat excessively well drained, and has a loamy to clayey loam subsoil.

Soils in the Town of Clifton are classified as "silt loam" by the *Soil Survey of Fairfax County, Virginia*. The term "loam" refers to a mixture of sand, silt, and clay particles (approximately 45 percent sand, 40 percent silt, and 15 percent clay) which exhibits both "light" and "heavy" properties. The terms light and dark refer to the relative ease in which a soil can be worked. Sand, for instance, because it can be easily manipulated, is referred to as light, while clay, because it cannot be easily manipulated, is referred to as heavy. A "silt loam," therefore, is a loam which has a slightly greater proportion of silt in the mix (approximately 20 percent sand, 60 percent silt, and 20 percent clay). This proportion has the effect of making silt-loam heavier than just loam. Because of this mix, silt loams are often described as crumbly. Most soils of agricultural importance are some type of loam.⁶

There are four major groups of soils within the Town of Clifton. These are Manor Silt Loam (35.16 percent of the Town), Chewacla Silt Loam (24.23 percent of the Town), Glenelg Silt Loam (19.32 percent of the Town), and Meadowville Silt Loam (11.08 percent of the Town). Other soils which occur within the Town but with less overall significance include Glenville Silt Loam (8.70 percent of the Town), Fairfax Silt Loam (.67 percent of the Town), unmapped disturbed areas (.55 percent of the Town), and mixed alluvial deposits (.28 percent of the Town).⁷

Within each of these major families, soils are defined by the slope and the level of erosion which has taken place. Each soil category is designated a number by the Soil Conservation Service which indicates the soil type and its related properties. For example, Manor Silt Loam may be designated as 21B2. The 21 designates that soil as Manor Silt Loam, while the B designates that the soil is on slopes of 2-7 percent and the 2 indicates a moderate amount of erosion has taken place. On the other hand, Chewacla Silt Loam may be designated as 2A+. In this instance, the 2 designates the soil as Chewacla Silt Loam, while the A designates that the soil is on slopes of 0-2 percent and the + indicates that there is an accumulation of soils rather than erosion.

Figure 8 presents the location of specific soils in Clifton and provides further clarification of SCS soil designations. The reader is referred to Section IV-2 on page 4-6 for soil constraints on development. Refer to Appendix B for specific descriptions and detailed information on each of the Town's soil groups.

⁶Buckman, Harry O. and Nyle C. Brady, The Nature and Properties of Soils, Seventh Edition. The Macmillan Company, New York, New York: 1969.

⁷NVPDC planimeter of Soil Identification Map of Fairfax County, Virginia. Fairfax, Virginia: 1991.



FIGURE 8
Town of Clifton Soils Map

Soil Group

1 - Mixed Alluvial Land
2 - Chewacla Silt Loam
10 - Glenville Silt Loam
20 - Meadowville Silt Loam
21 - Manor Silt Loam
32 - Fairfax Silt Loam
55 - Glenelg Silt Loam

Slope

A - 0-2%
B - 2-7%
C - 7-14%
D - 14-25%
E - 25%+

Existing Erosion

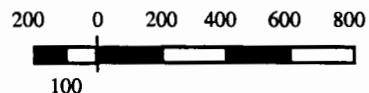
+ - Accumulation
1 - Slight
2 - Moderate
3 - Severe

Produced by the Northern Virginia Planning District Commission for the Town of Clifton. August, 1996

All soil parameters subject to field verification as provided for by the Town of Clifton Chesapeake Bay Preservation Ordinance.

Base map: Fairfax County Zoning Map, 1995.

Soils definitions taken from the Soil Survey of Fairfax County, Virginia, 1963.



Section III-5 Surface Hydrology and Biota

Land within the Town of Clifton lies completely within the Pope's Head Creek watershed (Virginia Hydrologic Unit A12), which is part of the larger Occoquan River watershed. The headwaters of Pope's Head Creek is located just south of western Fairfax City. The Creek meanders through south-central Fairfax County, which consists primarily of forested and low density residential land, and runs directly through the Town from the northeast to the southwest border. Several tributaries drain to the Creek throughout the Town. Pope's Head Creek drains to Bull Run, which flows directly into the Occoquan Reservoir – the primary water supply source for over 800,000 northern Virginians.

According to Virginia Department of Environmental Quality records, Pope's Head Creek is approximately 1 to 2 feet wide and 6 inches deep at its intersection with Braddock Road to the north and gradually widens to approximately 6 to 10 feet wide and 12 to 16 inches deep at the Town. The stream bed of Pope's Head Creek consists of gravel and some silt and clay. The area surrounding Pope's Head Creek is a part of a designated environmental quality corridor of the County of Fairfax. Within the Town, the stream flows through land zoned for agricultural, industrial, and residential uses. The preponderance of Pope's Head Creek is lined with an indigenous tree canopy including willow, sycamore, elm, red birch, red maple, white oak, and box elder.

Water quality for Pope's Head Creek (measured at DEQ ambient water quality monitoring (AWQM) station W85, river mile POE002.00) is monitored near the intersection of Pope's Head Creek and Clifton Road (Route 645). Pope's Head Creek is designated as a Class III water body by the Commonwealth of Virginia, which refers to any non-tidal water body in the Piedmont or Coastal Plain. Under the federal Clean Water Act, all state waters are expected to be maintained to support the propagation and growth of all aquatic life reasonably expected to inhabit them. The parameters used to determine this are minimum and daily average dissolved oxygen content, pH, and maximum temperature. Table 2 provides the minimum standards for water quality for Class III waters.

The conclusion of the DEQ's last test report in 1989 was that the water quality of Pope's Head Creek was good and that no further action was required. For the monitoring year 1992, no violations of any of Virginia Water Quality Standards were reported for Pope's Head Creek.⁸ With the exception of high fecal coliform counts (which is not good but is typical for most urban/suburban stream basins) Fairfax County Health Department monitoring records for 1995 show that water quality for Pope's Head Creek is good. Refer to Appendix C for detailed water quality information for Pope's Head Creek.

⁸Virginia Water Control Board, Virginia Water Quality Assessment for 1992. Information Bulletin #588, Richmond, Virginia: 1992.

Table 2
Virginia Water Quality Standards for Class III Waters

Water Quality Component	Virginia Water Quality Standard	Pope's Head Creek Water Quality (1989)
Minimum Dissolved Oxygen Content (mg/l)	4.0	>4.0
Daily Average Dissolved Oxygen Content (mg/l)	5.0	>5.0
pH (su)	6.0-9.0	≈6.7
Maximum Temperature (°C)	32	<32

Several areas located along Pope's Head Creek have been identified as having stream bank erosion problems. These areas are generally located at bends in the natural stream course and areas where the stream course is confined by culvert structures. Possible causes for the erosion may be increased water volume due to upstream development as well as the natural meandering of the water course. Four problem areas have been identified in Figure 9, two of which are located along Clifton Creek Drive. One problem area has been identified where Pope's Head Creek intersects with the Norfolk Southern Railroad and another problem area has been identified in a bend in Pope's Head Creek near the Masonic Lodge. Existing erosion control structures include two streambank areas, one behind the Masonic Lodge and the other along Clifton Creek Drive, which have been overlain with large concrete blocks.

Section III-6 Non-Tidal Wetlands

The National Wetlands Inventory (NWI) map for the Manassas Quadrangle, as well as the Fairfax County Soils Map, indicate the presence of one non-tidal wetland within the Town of Clifton. The wetland is located to the south of the Norfolk Southern Railroad near the intersection of Chapel Road and Water Street and is identified in Figure 10. The wetland is classified as a type POWZ, which indicates that it is palustrine in nature (P) with open water and an unknown bottom (OW). The last indicator (Z) designates the wetland as being permanently flooded.⁹ Refer to Section IV-2 for non-tidal wetlands constraints on development.

⁹United States Fish and Wildlife Service, Atlas of National Wetlands Inventory Maps of Chesapeake Bay, Volume 1, Coastal Plain Virginia Western Shore. Annapolis, Maryland: 1986.

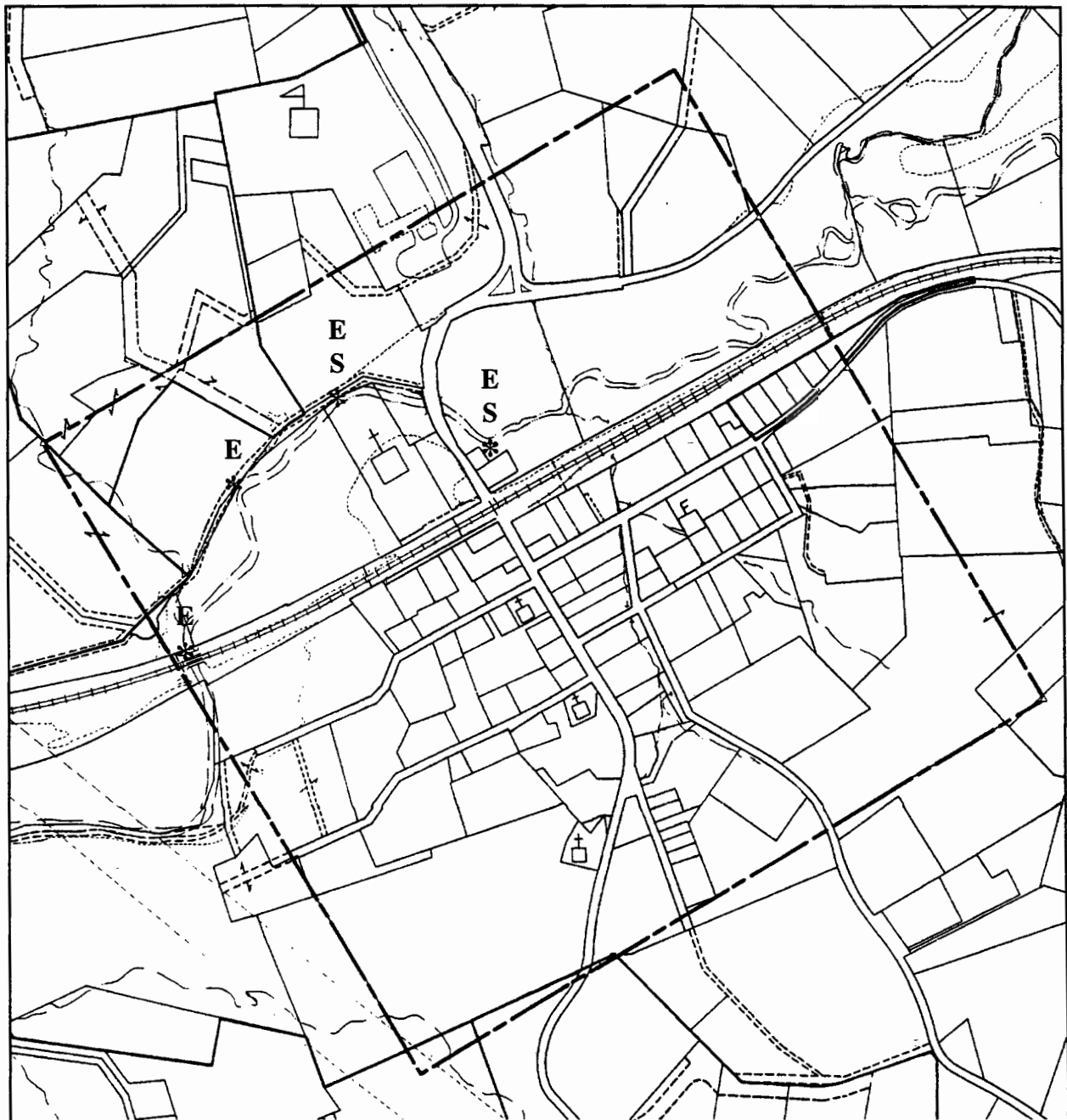


FIGURE 9

Map of Streambank Erosion Areas on Pope's Head Creek

E
* = Area identified as experiencing streambank erosion.

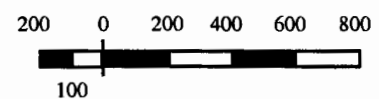
ES
* = Area identified as having structural streambank erosion controls.

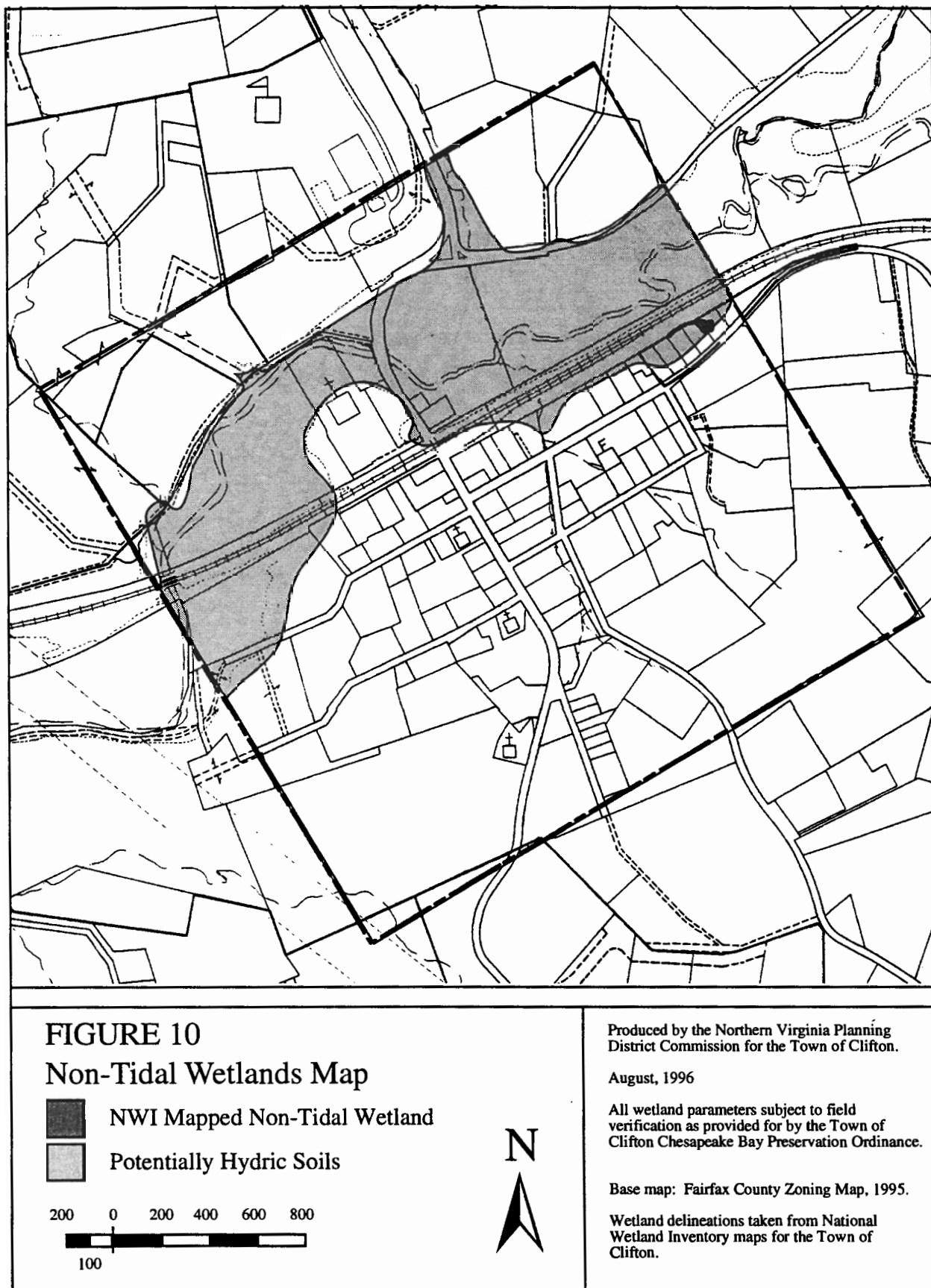


Produced by the Northern Virginia Planning District Commission for the Town of Clifton.

August, 1996

Base map: Fairfax County Zoning Map, 1991.





Another indicator of potential wetlands is the presence of hydric soils. According to the Fairfax County Soils Science Office, the only area within the Town of Clifton that may have hydric soils is the Pope's Head Creek floodplain, which is represented by Chewacla (2A+) soils. According to the *Fairfax County Wetland Probability Map*, Chewacla soils are rated as Class II with a wetland probability of 40 to 80 percent. A field reconnaissance by the Soils Science Office revealed the presence of several limited areas of hydric soils which supported sedges and other plant species suspected of being hydrophitic. These areas are scattered within the floodplain and are not marked on the soil map.¹⁰

Section III-7 Floodplains

According to the Fairfax County Zoning maps, the only floodplain within the Town of Clifton is that which is associated with Pope's Head Creek. The floodplain is constrained by steep slopes to the northwest and higher elevations and the railroad grade to the southeast. The Federal Emergency Management Agency (FEMA) floodway maps indicate that a 100-year flood would not impact on the most heavily populated area of the Town with the exception of an area between Chapel Road and Norfolk Southern Railroad. The 500-year floodplain does not differ significantly in scope to the 100-year floodplain due to the nature of the topography. Refer to Figure 11 for floodplain boundaries within Clifton.

Section III-8 Groundwater

The Town of Clifton receives all of its water supply from individual private wells located throughout the Town; therefore, it is important that these resources be protected. The groundwater unit from which Clifton draws its water is the Piedmont Geological Province, with the local groundwater aquifer consisting of phyllite. According to a USGS report entitled *Chemical Quality of Groundwater in Fairfax County, Virginia*,¹¹ water quality within the County is generally excellent. According to USGS monitoring during the 1970s (USGS station 384335077194701 located at the Northern Virginia Regional Park Authority near Hampton Road), groundwater in Clifton is considered soft, with a CaCO₃ concentration of less than 60 mg/l. Groundwater around Clifton also contains less than 100 mg/l total solids. The lower the amount of total solids (which consists of dissolved minerals such as iron), the better the water quality is likely to be. The water bearing yield capacity of rock in the Piedmont region, according to the USGS, is fair to good.

¹⁰ Written correspondence, Ross J. Fugill, Fairfax County Soils Science Office, Fairfax, Virginia: September 2, 1992.

¹¹ Larson, J.D., United States Geological Survey, Chemical Quality of Ground Water in Fairfax County, Virginia. Reston, Virginia: 1978.

Periodic testing of local groundwater by the Fairfax County Health Department has revealed levels of total coliforms in some well water that exceeds drinking water standards. Coliforms have primarily been detected in shallow or improperly protected wells constructed before Fairfax County adopted strict well construction standards in 1962. Many wells within the Town were constructed prior to 1962 and have insufficient grouting or casing. Deeper and more recently constructed wells have, in general, been devoid of coliform contamination problems. For those wells experiencing contamination, the addition of chlorine or other disinfectants has been necessary.¹²

Groundwater contamination has also taken place in the recent past as a result of a benzene spill from an underground storage tank at the Clifton Store. While the tank has been removed and the site remediated (1995), a plume of benzene spread northwest towards Pope's Head Creek. Groundwater contamination required that area wells were monitored for contamination. Further discussion is provided in Section V, "Sources of Pollution."

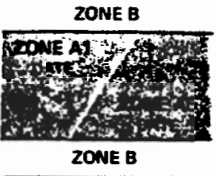
Section III-9 Rare and Endangered Wildlife Species

According to a July, 1995 survey conducted by the Virginia Division of Natural Heritage, there are no rare or endangered wildlife or vegetative species currently habitating within the Town.

¹²Personal communication, John Milgram, Fairfax County Health Department: February, 1993.

KEY TO SYMBOLS

ZONE DESIGNATIONS* WITH
DATE OF IDENTIFICATION
i.e., 12/2/74



Base Flood Elevation Line
with elevation in feet

Base Flood Elevation
where uniform within zone

Elevation Reference Mark

River Mile

513

(E1 987' MSL)

RM7

M1.5

*EXPLANATION OF ZONE DESIGNATIONS

A flood insurance map displays the zone designations for a community according to areas of designated flood hazards. The zone designations used by FIA are:

Zone	Explanation
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding; flood depth 1 to 3 feet, product of flood depth (feet) and velocity (feet per second) less than 15.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by a flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Area between limits of 100-year flood and 500-year flood; areas of 100-year shallow flooding where depths less than 1 foot.
C	Areas outside 500-year flood
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action), base flood elevations and flood hazard factors not determined.
VO	Areas of 100-year shallow flooding with velocity; flood depth 1 to 3 feet, product of depth (feet) and velocity (feet per second) more than 15.
V1-V30	Areas of 100-year coastal flood with velocity (wave action), base flood elevations and flood hazard factors determined.

CONSULT NIFA SERVICING COMPANY OR LOCAL INSURANCE AGENT OR BROKER TO DETERMINE IF PROPERTIES IN THIS COMMUNITY ARE ELIGIBLE FOR FLOOD INSURANCE.

INITIAL IDENTIFICATION DATE

MARCH 28, 1975

CONVERSION TO REGULAR PROGRAM

MAY 2, 1977

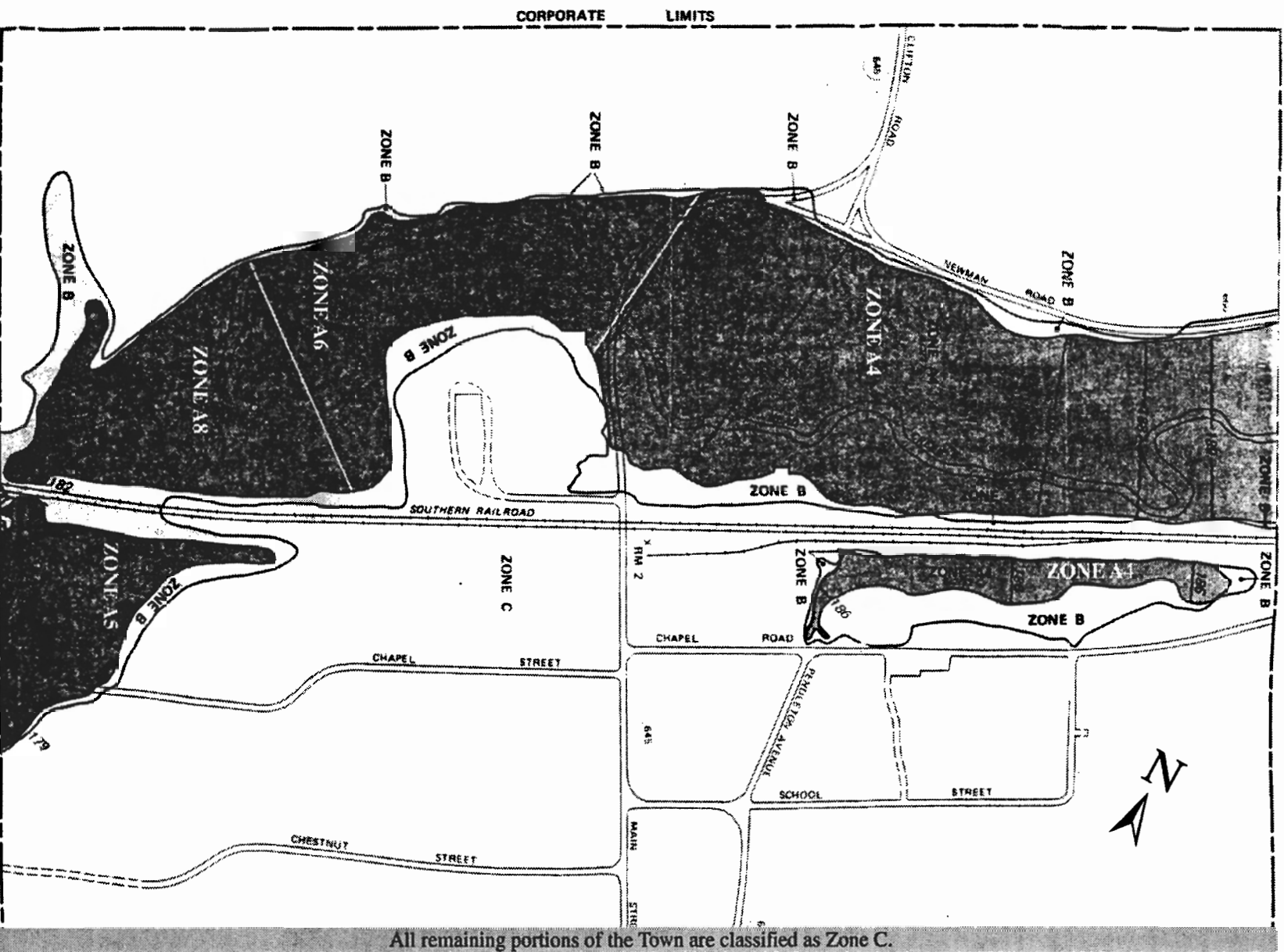


FIGURE 11
Town of Clifton Flood
Hazard Boundary Map

Map copied from U.S. Department of Housing and Urban Development Federal Insurance Administration Flood Hazard Boundary Map H-01 and Flood Insurance Rate Map I-01.
All floodway parameters are subject to field verification as provided for by the Floodplain Overlay District of the Town of Clifton Zoning Ordinance, the Town of Clifton Chesapeake Bay Preservation Ordinance, and all applicable federal, state, and local regulations.
Any additions by the Northern Virginia Planning District Commission to this map are for clarification purposes only and are not party to the official map.
For a copy of an original map, please inquire with the Town of Clifton Planning Commission.

SECTION IV

Constraints on Development

While environmental considerations were not an explicit consideration during the early growth of the Town, future development must be properly integrated with the environment to protect and preserve the Town's natural resources, its heritage, healthy and proper economic growth, and the general quality of life. The preservation and protection of natural resources within the Town is essential not only to protect the aesthetic properties of the Town, but also to protect surface and groundwater resources from the adverse effects of improper development. When disturbed, certain environmentally sensitive features, if not properly protected, can have degrading effects on water quality. Conversely, these features may have significant water quality benefits through their protection. This is particularly important since the Town relies solely on groundwater resources for its potable water supply.

Other constraints on development are man-made in nature and include the availability of public services such as sanitary sewer and public water. These constraints are largely a result of public policy decisions. For the Town of Clifton, these public policy decisions have largely been made by surrounding Fairfax County as a means of controlling water quality in the environmentally sensitive Occoquan Watershed. Limited financial resources as well as a desire to maintain the Town primarily as a residential village have and will also continue to determine many of the policy directions made by the Town. The following section outlines both natural and man-made constraints on development within the Town of Clifton.

Section IV-1 Chesapeake Bay Preservation Act

The Chesapeake Bay Preservation Act, (Chapter 25, Title 10.1 of the Code of Virginia) establishes a program to protect environmentally sensitive features which, when disturbed or developed incorrectly, lead to reductions in water quality in the Chesapeake Bay. The Act provides a framework for local government to identify these sensitive areas and to enact regulations to control land use activities on and around them. The Town's resultant Chesapeake Bay Preservation Ordinance (adopted 1995), since it encompasses a number of significant environmentally sensitive features, is outlined below and referenced when appropriate for individual environmental constraints. In accordance with the Act and its pursuant Regulations, the Town is called to promote the following:

- Protection of existing high quality state waters and restoration of all other state waters to a condition or quality that will permit all reasonable public uses, and will support the propagation and growth of all aquatic life which might reasonably be expected to inhabit them;
- Safeguarding the clean waters of the Commonwealth from pollution;

- Prevention of any increase in pollution;
- Reduction of existing pollution; and
- Promotion of water resource conservation in order to provide for the health, safety, and welfare of the present and future citizens of the Commonwealth.

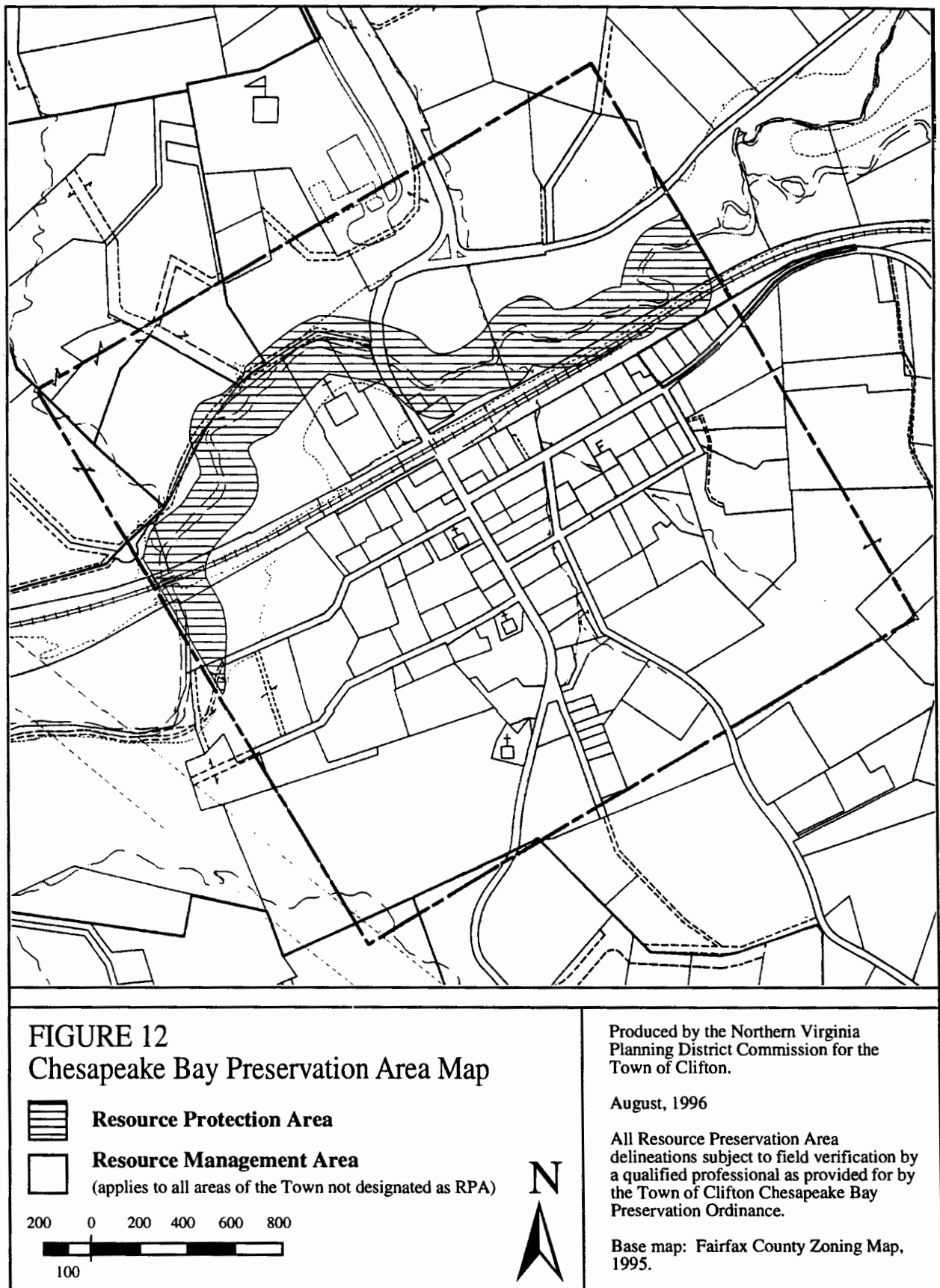
In accordance with the guidelines established by the Chesapeake Bay Preservation Act Designation and Management Regulations, Chesapeake Bay Preservation Areas have been identified for the Town of Clifton. These areas include Resource Protection Areas (RPAs) and Resource Management Areas (RMAs). Identification was based on a natural resources inventory which utilized materials such as the United States Geological Survey (USGS) 7.5 minute topo-quadrangles, the U.S. Fish and Wildlife Service National Wetlands Inventory Maps, the U.S. Soil Conservation Service soil surveys, among other technical sources.

- *Resource Protection Areas (RPAs)*
RPAs are lands at or near the shoreline containing components which are especially sensitive because of (1) the intrinsic value of the ecological and biological processes they perform which benefit water quality, or (2) the potential for impacts to them that may cause significant degradation to the quality of State waters.

The RPA within the Town includes a 100-foot vegetated buffer area located adjacent to and landward of both sides of Pope's Head Creek. These lands are excluded from development in most instances and are protected under the Town's Chesapeake Bay Preservation Ordinance.

- *Resource Management Areas (RMAs)*
RMAs include land types that, if improperly developed, have the potential for causing significant water quality degradation or for diminishing the functional value of the Resource Protection Area.

Uses within the Resource Management Area are subject to compliance with other applicable local, state, and federal regulatory programs and the performance criteria included in the program regulations. The Resource Management Area is characterized by the following land categories: floodplains; highly erodible soils, including steep slopes greater than 25 percent; highly permeable soils; non-tidal wetlands not included in the RPA; or other sensitive lands necessary to protect the quality of State waters. Due to the preponderance of sensitive environmental features within the Town, and due to a belief that the mandates of the Chesapeake Bay Preservation Act constitute good land use management, all land within the Town of Clifton is designated as a Resource Management Area.



To minimize water quality impacts from land use and development, Chesapeake Bay Preservation Areas have been identified according to criteria established by the Chesapeake Bay Local Assistance Board. The criteria also are intended to establish rules that local governments can use in granting, denying or modifying requests to re-zone, subdivide, or to use and develop land in the RMAs and RPAs. Implementation of the criteria is to be achieved through use of performance standards, best management practices, and various planning and zoning concepts. Refer to Figure 12 for the location of the Town's Chesapeake Bay Preservation Areas.

Section IV-2 Natural Constraints on Development

Topographic Constraints on Development

One of the greatest natural constraints to development within the Town is that areas with steep slopes over 25 percent comprise almost a quarter of the Town's land area. Further, areas with steep slopes form an even greater percentage of undeveloped land within the Town. Therefore, it is important that appropriate measures to protect these sensitive features are taken before development occurs.

Topography has a significant impact on development because it is a primary determinant of the erodibility of a soil. The topography of a land area, along with its shape and slope exerts a great amount of influence on the volume and rate of runoff. As both the slope length and the gradient of the surface increases, the volume and rate of surface water runoff also increases, thus magnifying the potential for erosion. Theoretically, a doubling of the rate of velocity of runoff would enable water to move particles 64 times larger, allows it to carry 32 times more material, and makes erosive power four times greater¹³. Further, steep slopes may also be prone to slippage and slump which has the potential to result in structural damage to homes and businesses. Certain slopes should not be developed unless adequate precautions and water quality protection measures are utilized. Because of the danger to property and water quality, the Town of Clifton has deemed lands with a slope of 25 percent or greater to be considered a Resource Management Area under the Town's Chesapeake Bay Preservation Ordinance. These lands are therefore subject to the water quality protection controls subscribed within the Ordinance. See Figure 13 for general topographic units within the Town of Clifton and Table 3 for general slope limitations on development

¹³Brady, Nile C., The Nature and Properties of Soils. MacMillan Publishing Company, New York, New York: 1974.

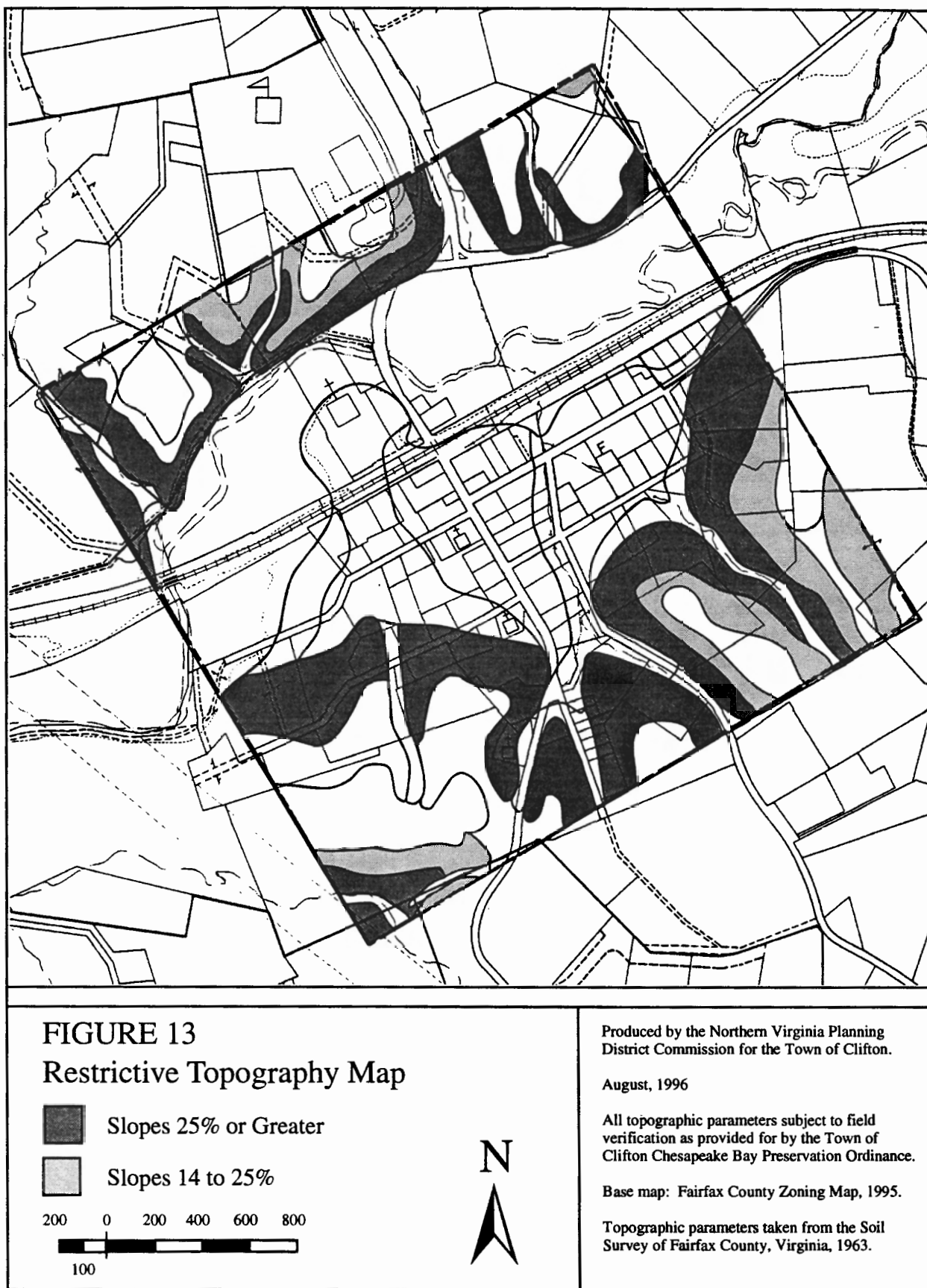


Table 3
Topography Limitations in Clifton

Slope	Percentage of Town	Limitation ¹⁴
0-2%	24.51%	Slow runoff, poor drainage. Subject to periodic flooding.
2-7%	24.23%	Slow to medium runoff. Danger from erosion slight.
7-14%	17.27%	Medium to rapid runoff. Potential for serious soil loss from erosion if a soil management program is not followed.
14-25%	9.58%	Rapid to very rapid runoff. Should only be cultivated or developed with property management techniques.
25%+	23.85%	Very rapid runoff. Land should be kept under permanent cover of grass or trees.

Soil Constraints on Development

Soil characteristics within the Town of Clifton present the next greatest natural constraint to development. Specific soil characteristics identified as RMAs in the Town's Chesapeake Bay Preservation Ordinance which impact development include highly permeable soils and highly erodible soils. Soils which have the aforementioned characteristics identified by the Ordinance are to be subject to water quality control as provided for in the Ordinance. Figures 14 and 15 present areas within the Town that have been identified by the *Soils Survey of Fairfax County, Virginia* as being highly permeable and highly erodible.

Other soil characteristics which will limit the potential for growth include shrink swell potential, wetness, flooding, depth to bedrock, and high water table. These will impact whether or not a site is suitable for the use of a septic field and/or whether the soil can adequately support a single family home footing. The Town conforms to the minimum Virginia state regulations regarding the permitted establishment of a septic field.

¹⁴United States Department of Agriculture, Virginia Agricultural Experiment Station, and Fairfax County, Virginia, Soil Survey, Fairfax County, Virginia. Washington, D.C.: 1963.

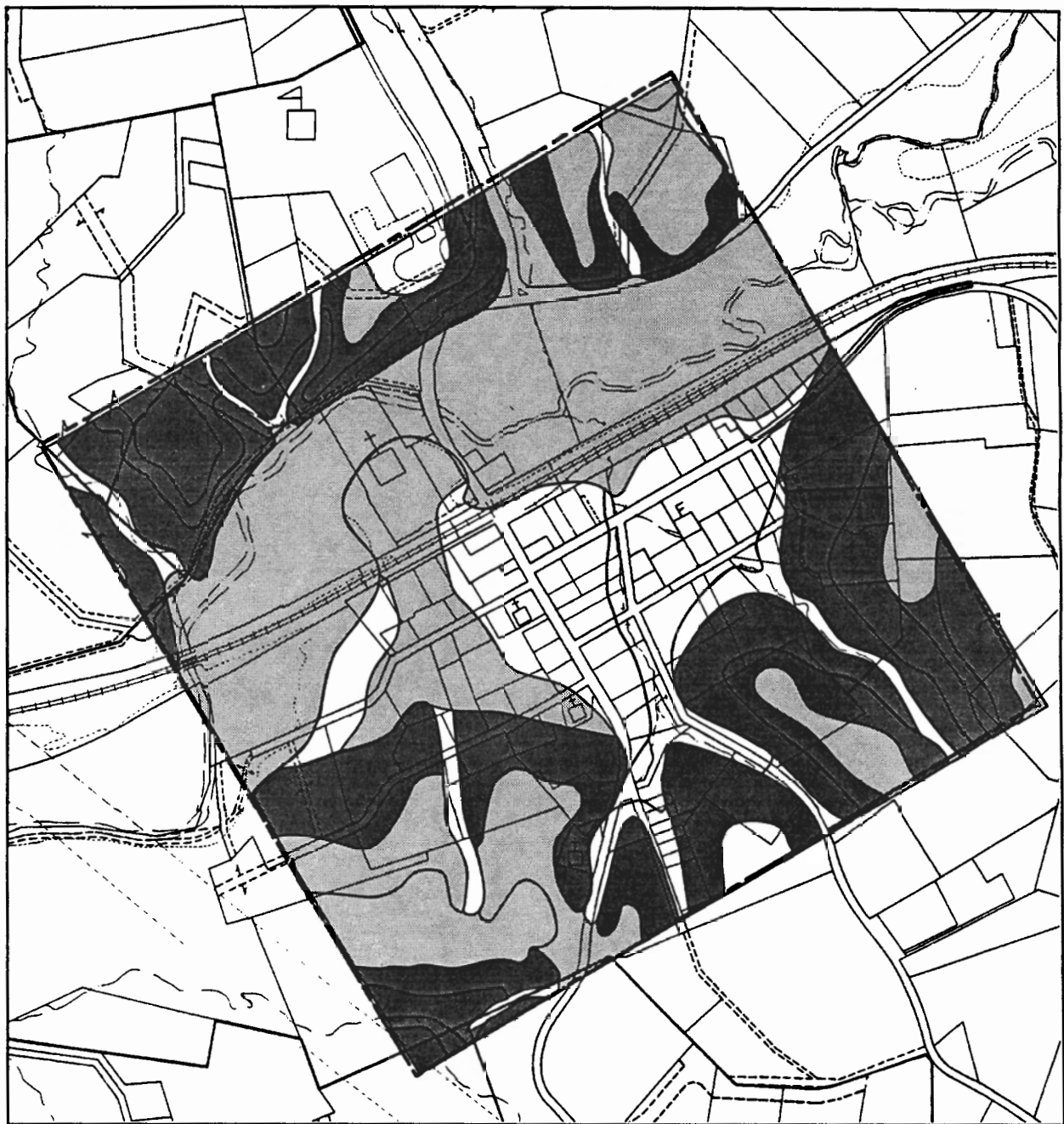
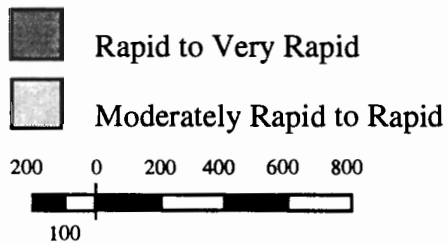


FIGURE 14
Highly Permeable Soils Map



Produced by the Northern Virginia Planning
District Commission for the Town of Clifton.

August, 1996

All soil parameters subject to field verification as
provided for by the Town of Clifton Chesapeake
Bay Preservation Ordinance.

Base map: Fairfax County Zoning Map, 1995.

Permeable soils definitions taken from the Soil
Survey of Fairfax County, Virginia, 1963.

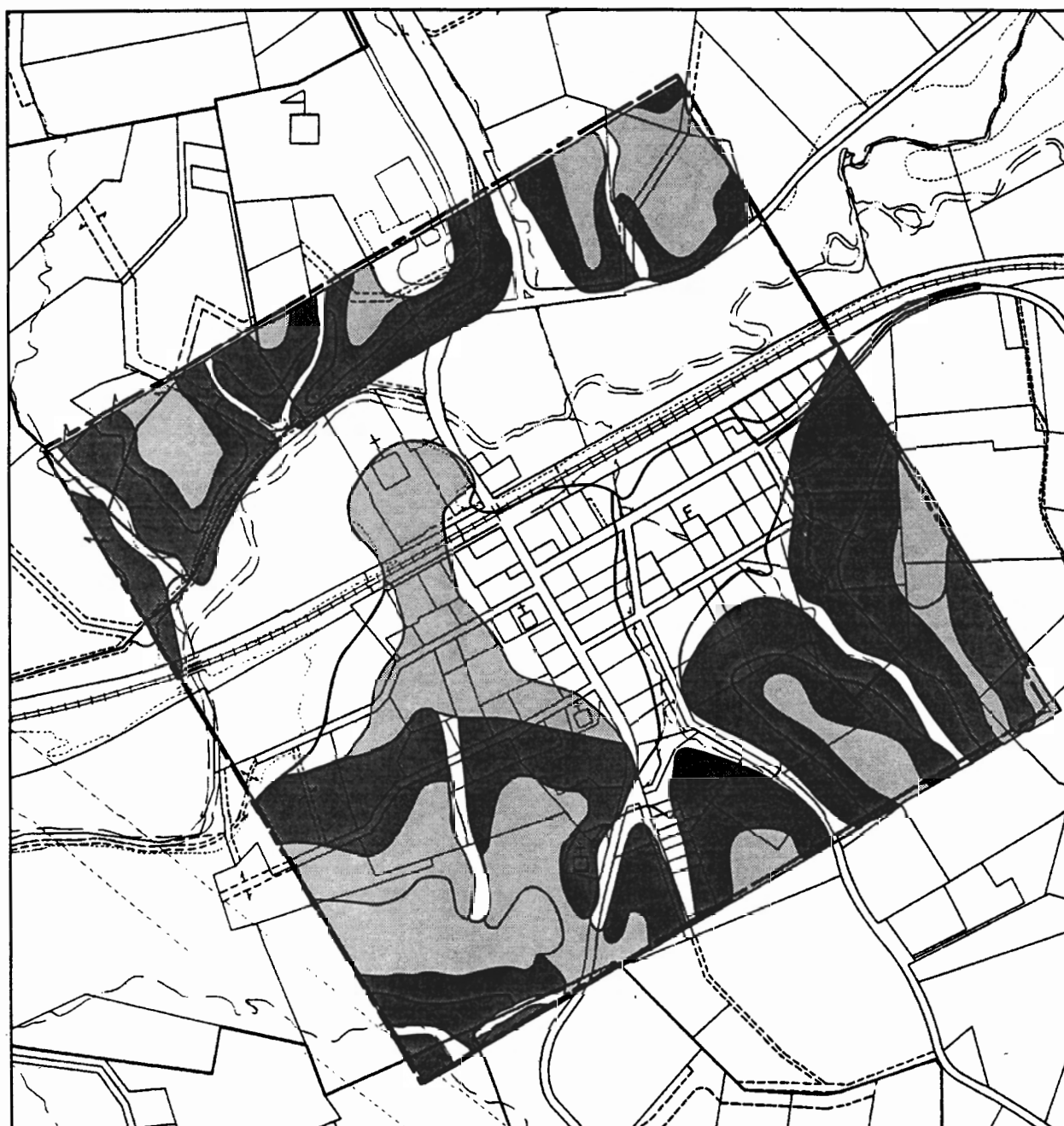


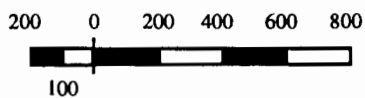


FIGURE 15
Potential Erosion Hazard Map

-  High Potential Erosion Hazard
-  Fair & Mod. Potential Erosion Hazard



Produced by the Northern Virginia Planning
District Commission for the Town of Clifton.

August, 1996

All erosion parameters subject to field
verification as provided for by the Town of
Clifton Chesapeake Bay Preservation Ordinance.

Base map: Fairfax County Zoning Map, 1995.

Erosion information taken from the Soil Survey
of Fairfax County, Virginia, 1963.

According to the Fairfax County Department of Environmental Management (DEM), there are several soils within the Town that have been identified as having problem engineering characteristics. In Fairfax County, a geotechnical report is required for construction on Chewacla soils and Meadowville soils. A geotechnical report may be required for Glenville soils as well.

Chewacla soils are poor for construction and for septic fields because they are usually located in floodplains and the seasonal high water table is generally only one-half to one and one-half feet from the surface. Meadowville soils are poor for development purposes and septic fields due to a high water table (from one to two feet). The foundation bearing values may be marginal due to soft alluvial sediments in the upper three feet of soil. Glenville soils are poor for development due to a high water table (one to two feet) and also because soft alluvial sediments may be poorly suited for foundations.¹⁵

Tables 4 and 5 sum up the suitability of each soil for the construction of septic fields and single family dwelling footings. Since these are general parameters, specific site tests will be required during the planning phase of development. Figure 16 presents the areas within the Town that are poorly or marginally suitable for septic tanks.

Table 4
Soil Suitability and Constraints for Septic Fields in Clifton

Soil	Percentage of Town	Suitability for Septic Tank Adsorption Fields	Constraint for Septic Tank Adsorption Field
Manor Silt Loam (21B2), (21C2), (21D2), and (21E2)	35.16%	Good	None
Chewacla Silt Loam (2A+)	24.23%	Poor	Floodplain, High Water Table
Glenelg Silt Loam (55B2), (55C2), and (55D2)	19.32%	Good	None
Meadowville Silt Loam (20B+)	11.08%	Poor	High Water Table
Glenville Silt Loam (10B+)	8.70%	Poor	High Water Table
Fairfax Silt Loam (32C2)	0.67%	Marginal	Has Fragipan
Mixed Alluvial Land (1A+)	0.28%	Poor	High Water Table

¹⁵Fairfax County Department of Environmental Management, Engineering Characteristics of Problem Soils in Fairfax County. Fairfax, Virginia: 1985.

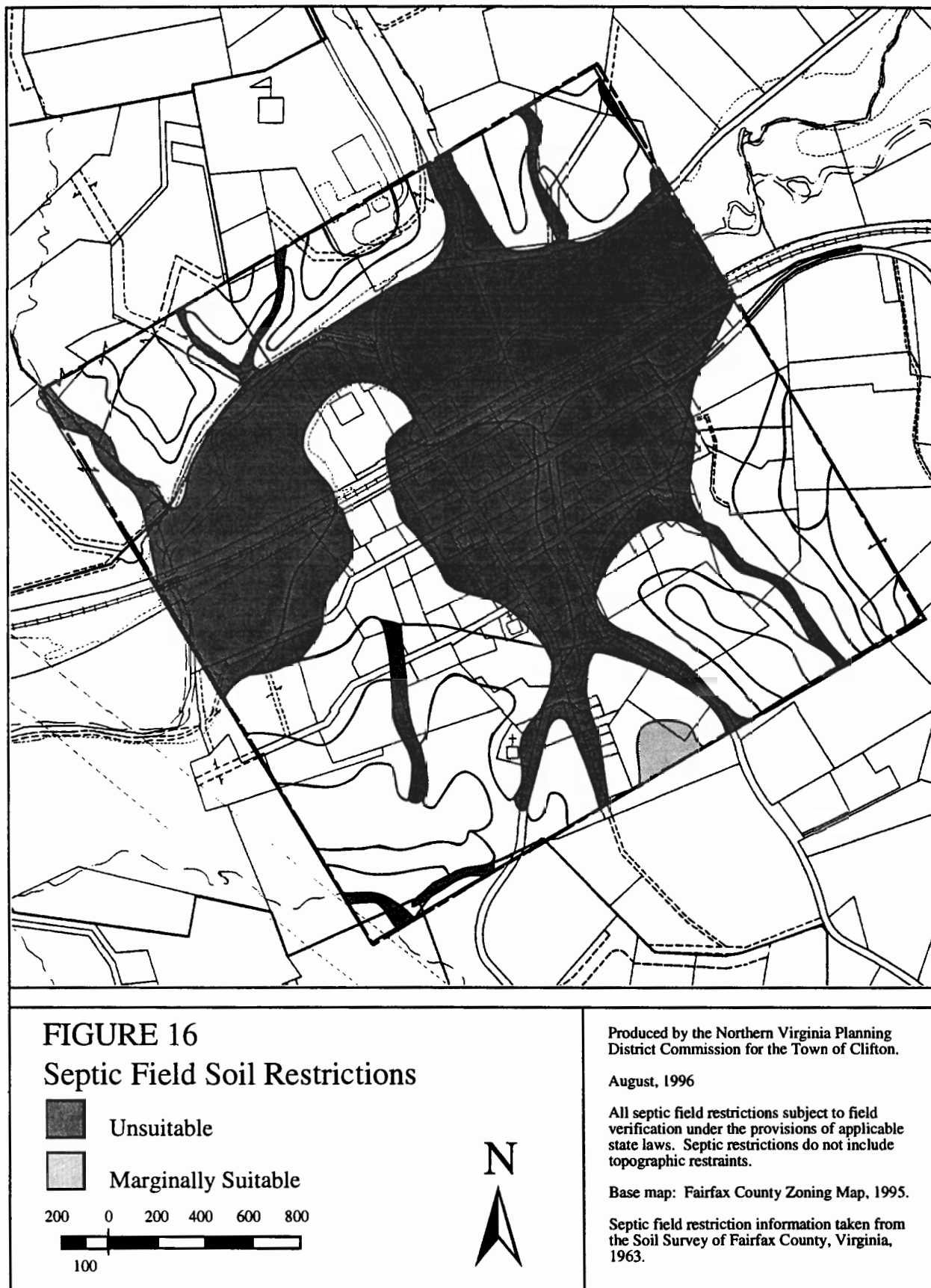


Table 5***Soil Suitability and Constraints for Footings for Single Family Developments***

Soil	Percentage of Town	Suitability for Footings for Single Family Dwelling	Constraint for Footings for Single Family Dwelling
Manor Silt Loam (21B2), (21C2), (21D2), and (21E2)	35.16%	No Unfavorable Features	None
Chewacla Silt Loam (2A+)	24.23%	Unsuitable	Floodplain
Glenelg Silt Loam (55B2), (55C2), and (55D2)	19.32%	No Unfavorable Features	None
Meadowville Silt Loam (20B+)	11.08%	Not Suited for Basements	Footings Should Extend Below the Organic Topsoil
Glenville Silt Loam (10B+)	8.70%	Not Suited for Basements	High Water Table
Fairfax Silt Loam (32C2)	0.67%	No Unfavorable Features	None
Mixed Alluvial Land (1A+)	0.28%	Unsuitable	Floodplain

Non-Tidal Wetland Constraints on Development

The Town of Clifton has one mapped isolated non-tidal wetland which has been identified as a Resource Management Area under the Town's Chesapeake Bay Preservation Ordinance. Wetlands perform an important pollution mitigation function by allowing for nutrient uptake of pollutants by vegetation and also by providing time for nutrients and other pollutants to settle out. Further, wetlands provide an important and unique wildlife habitat for local indigenous species. According to a Fairfax County Soils Science Office field survey, unmapped non-tidal wetlands occur within the Pope's Head Creek floodplain, as indicated by the presence of hydric soils and certain vegetative species. The Town's Chesapeake Bay Preservation Ordinance provides that individual development site plans must delineate potential wetlands and obtain proper wetlands permits.

Wetlands are protected under the federal Clean Water Act, Section 404. The Act, which is administered by the U.S. Corps of Engineers, regulates the discharge of dredged or fill material into wetlands or other "waters of the United States." Section 404, however, does not apply to every activity which disturbs wetlands. For example, activities less than 10 acres of wetlands above headwaters may be authorized under Nationwide Permit 26 "General Permit." Nationwide 26 permits virtually any dredge or fill activity located in isolated wetlands and headwaters so long as damage is limited to fewer than 10 acres. For activities which destroy less than one acre of wetlands, no permit is required, although it is advisable to notify the Corps of Engineers in all cases. Activities destroying between 1 and 10 acres, at a minimum, are subject to predischage notification and mitigation to ensure environmental effects are minimal. Since the isolated non-tidal wetland within the Town is less than an acre in land coverage, Resource Management Area (RMA) restrictions are the primary constraint to development.

Floodplain Constraints on Development

Development of floodplains within the Town is restricted through the Town's Chesapeake Bay Preservation Ordinance, which designates floodplains as Resource Management Areas, as well as the Town's Flood Plain Ordinance. Due to poor soils and a high seasonal water table, areas within the floodplain are unsuitable to septic fields. Alluvial soils are generally unsuited for foundation footings due to a soft subsoil. Most alluvial soils are also unsuitable for basements due to wetness and a high seasonal water table. Figure 11 designates the flood frequencies within the Town of Clifton.

In addition, a Town Council resolution cites the location of any commercial, industrial, or government building or structure within the floodplain district as being detrimental to the best interest of the Town. Floodplains may be used for agricultural, parking, recreation, residential gardens, or other similar uses. However, the location of newly constructed buildings or structures within the floodplain is undesirable.

In addition to being designated as an RMA, much of the floodplain within the Town is located within the confines of the designated RPA. Under the Town's Chesapeake Bay Preservation Ordinance, activities allowed in the RPA portion of the Pope's Head Creek floodplain are severely limited.

Section IV-3 Drinking Water and Sanitary Services

Potable Water Supply

The protection of the Town's groundwater supply from all sources of pollution should be a major consideration when determining whether a given land use is appropriate for a site. Groundwater contamination has already taken place in isolated areas of the Town and every effort must be made to site underground storage tanks, best management practices, septic fields, and other pollution generating activities away from areas where they may adversely affect well water supplies. In addition to local, state, and federal well head protection requirements, groundwater pollution potential indicators should be taken into consideration to steer inappropriate development away from sensitive groundwater areas. A system of determining groundwater pollution potential has been developed by the U.S. Environmental Protection Agency and the Virginia Department of Environmental Quality known as the DRASTIC Index. DRASTIC measures the groundwater pollution potential of a land area using the following parameters; (D)epth to water table, net (R)echarge, (A)quifer media, (S)oil media, (T)opography, (I)mpact on the vadose zone, and hydraulic (C)onductivity. While a DRASTIC map has not been produced for the Town, these parameters should be used when determining appropriate land uses as well as when developing a site plan for permitted uses so that the desired land use will not adversely affect groundwater supplies.

While groundwater supplies have generally been sufficient to meet the potable water needs of the Town in the past, the use of water conservation techniques, as the Town grows, will ensure that an adequate supply of potable water will be available to the residents of the Town in the future. Water conservation will save money for the individual water user by minimizing the costs associated with the operation any water treatment or pumping facilities. From a water quality perspective, a reduction in water usage translates to a reduction in waste water effluent which needs to be treated at a sewage treatment plant or by a septic system. This will serve to minimize waste water treatment costs as well as to protect surface and ground water quality.

The Chesapeake Bay Preservation Act (§ 10.1-2107.), as part of its water quality program, calls for the promotion of water resource conservation in order to provide for the health, safety, and welfare of the present and future citizens of the Commonwealth. In addition, the Uniform Statewide Building Code (§ 36-99.10.) provides localities with the authority to require water conservation devices as part of their building code. The Town should examine ways in which it can promote water conservation through the use of public education.

Sanitary Sewer

In 1982, the Fairfax County Board of Supervisors re-zoned approximately 40,000 acres of the Fairfax County portion of the Occoquan River watershed in order to protect the reservoir from the harmful effects of nonpoint source pollution generated from urban development. As part of the re-zoning, which reduced densities around the Town to one unit per five acres, the County voted to discontinue the expansion of sanitary sewer facilities into the Occoquan watershed. It is the current policy of Fairfax County that public sanitary sewer should not be provided for the Town until a satisfactory method of serving the Town is found. Until such time arrives, development within the Town is confined to improvements to existing structures and lots which are able to support the State minimum requirements for septic systems.¹⁶

The current number of hook-ups to the Town's "pump and haul" system includes 41 residences as well as a number of businesses and the Clifton Elementary School. According to the Fairfax County Department of Public Works, holding capacity of the system is finite and therefore additional hook-ups are limited to eligible parcels situated adjacent to the sewer line. Hook-ups may also be allowed in the event of an unmitigatable septic failure. Figure 17 presents the sites and addresses of properties within the Town that are eligible to connect to the sanitary sewer. Established residential hook-ups may be converted to commercial or industrial hook-ups provided that the number of fixture units does not exceed 30 and effluent generated does not exceed 370 gallons per day.

¹⁶Fairfax County Planning Commission, (adopted by the Fairfax County Board of Supervisors, 1991), Fairfax County Comprehensive Plan for Area III. Fairfax, Virginia: 1992

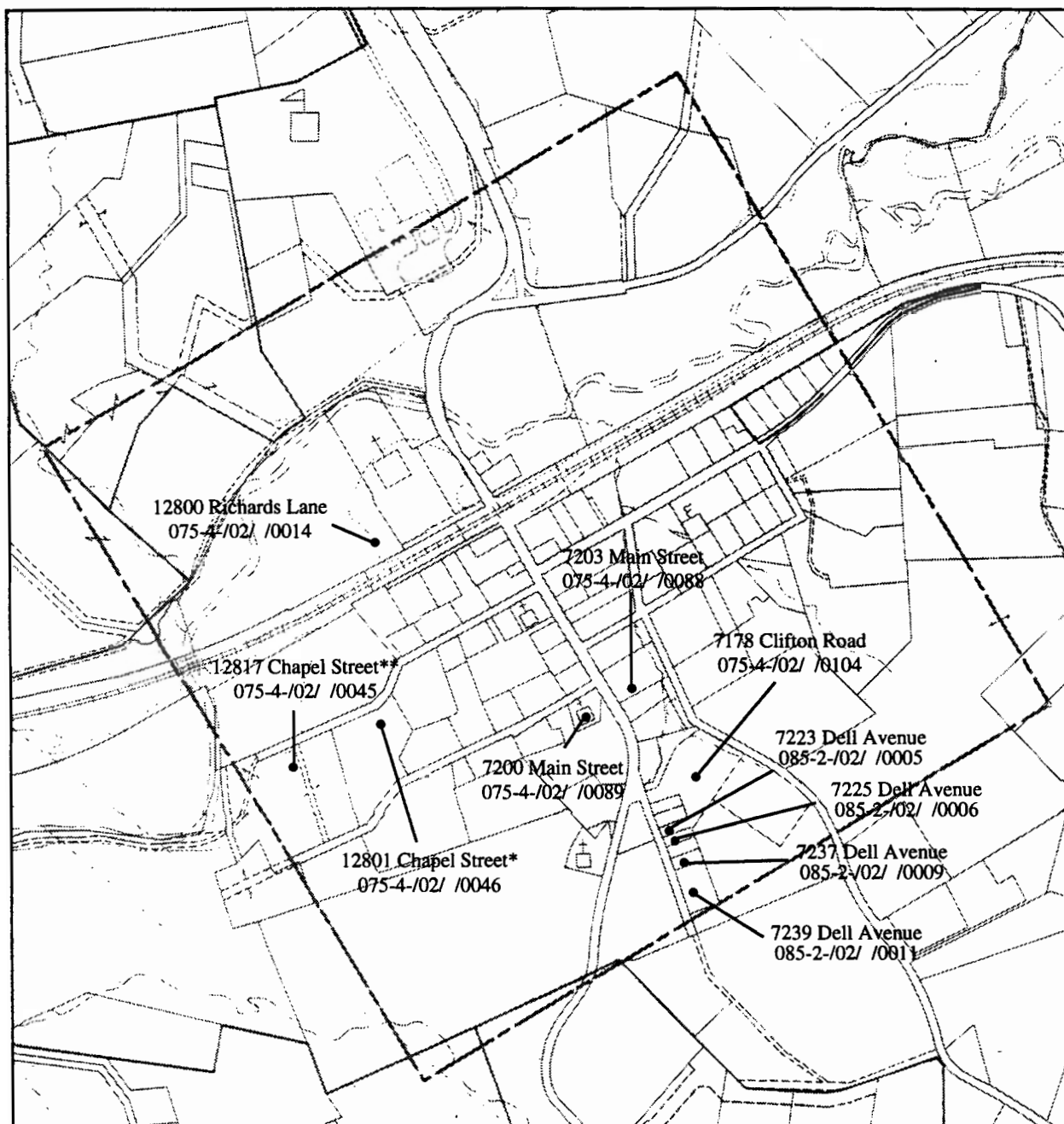
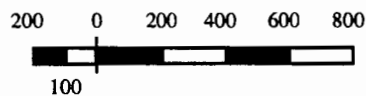


FIGURE 17

Residential Units Eligible for Sanitary Sewer



**Residential Units Eligible for
Sanitary Sewer**



Produced by the Northern Virginia Planning District Commission for the Town of Clifton. August, 1996.

All residences indicated are subject to verification by the Town of Clifton and the Fairfax County Department of Public Works.

*Fees paid to connect to sewer on October 10, 1969; Grandfathered.

**The owner must record an easement for a lateral before the County will accept fees and sign the permit (Fairfax County Board of Supervisors, August 5, 1991).

Base map: Fairfax County Zoning Map, 1995.

SECTION V

Sources of Pollution

Pollution is not a term which is generally conjured when thinking of the Town of Clifton and its well maintained, small town environment. However, while the Town is devoid of industrial pollutants, urban development within the Town has contributed to both point and nonpoint source pollution within the Occoquan watershed. Point source pollution, which is traceable to a specific source includes malfunctioning septic fields, underground and above ground storage tanks, illegal dumping, and sewage treatment. Nonpoint source pollution originates from a range of diffuse sources and is generally carried to local water courses by stormwater runoff. A primary component of the Chesapeake Bay Preservation Act and the Town's pursuant Chesapeake Bay Preservation Ordinance is to reduce both point source and nonpoint source pollution during new development and redevelopment through the use of land use planning techniques, pollutant removal performance standards, and stormwater quality control measures known as best management practices (BMPs).

Section V-1 Septic Fields

Until the late 1960s, the entire Town of Clifton relied on septic fields for sewage disposal. As evidenced by Figure 16 and Table 4, a large proportion of the Town has severe soil restrictions to septic fields, primarily as a result of high water table and flooding potential. These areas are also located in the most populated and developed areas of the Town. Due to this predicament, the County and the Town worked out an agreement to install a pump and haul system for the sewage. However, many of the residents within the Town are still hooked into septic systems. According to 1990 census data, 28 households rely on septic systems for their disposal needs. Further, many of the old systems were merely disconnected and not removed after installation of the pump and haul system. It is not known to what extent that septic systems are a pollution problem. However, recent testing by the Fairfax County Health Department of individual wells has revealed unsafe levels of fecal coliforms in some wells within the Town¹⁷. Fecal coliforms often indicate the presence of a malfunctioning septic system.

Records kept by the Fairfax County Health Department indicated a 1.83 percent failure rate for septic systems within the Piedmont geological province of Fairfax County. An analysis of failing septic systems conducted by the Northern Virginia Planning District Commission indicates that there is a 2.1 to 5 percent failure rate for septic systems within the Fairfax County Tax Map that encompasses the Town of Clifton. In northern Virginia, this is relatively low, with the Triassic Basin area of

¹⁷ Personal communication, John Milgram, Fairfax County Health Department: February, 1993.

Fairfax County having the highest septic system failure rate in the Occoquan Watershed with 5.49 percent¹⁸. However, this could largely be due to the fact that many of the failing septic systems have been sewered.

Section V-2 Underground Storage Tanks

According to the *Virginia Water Quality Assessment for 1992*, underground storage tanks are the primary source of groundwater contamination in Virginia. By their very nature, underground storage tanks are kept out of sight either due to space constraints or aesthetic purposes. As a result, leaks are often not detected until substantial contamination of the surrounding soils, and perhaps even the groundwater, has already occurred. If managed improperly, underground storage tanks pose an unwanted and potentially expensive liability on the individual property owner or the Town.

Underground storage tanks are regulated by the Environmental Protection Agency under the authority of the federal Solid Waste Disposal Act of 1970, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976. The Hazardous and Solid Waste Amendments of 1984 extended and strengthened the provisions of RCRA. The portion of RCRA addressing underground storage tanks is known as Subtitle I. Underground storage tanks are regulated if the tank system, including its piping, has at least 10 percent of its volume underground and contains a regulated substance. Subtitle I excludes several different types of underground tanks including but not fully inclusive of the following 1) farm or residential tanks of 1,100 gallons or less storing motor fuel for noncommercial uses, 2) tanks for storing heating oil for consumption on the premises where stored, and 3) septic tanks.

The Commonwealth of Virginia has adopted the EPA rules with the exception that individual fuel oil tanks with the capacity to contain over 5,000 gallons are regulated in the same manner as other regulated tanks. The Virginia Department of Environmental Quality – Water Division (DEQ-WD) is responsible for enforcing underground tank regulations in the Commonwealth. The enabling authority for the DEQ-WD is Article 11 of the State Water Control Law which prohibits any introduction of petroleum or other harmful products that could potentially effect state waters, including groundwater. Under these regulations, the DEQ-WD must keep track of and inventory all underground storage facilities within the state. The State deals with all aspects of underground storage tanks including design, construction installation, compatibility standards, leak detection, record keeping, reporting, closure, corrective action, and financial responsibility. The DEQ-WD is also responsible for ensuring that tanks installed prior to 1989 are upgraded to new tank standards before December, 1998.

¹⁸Northern Virginia Planning District Commission, Occoquan Watershed Septic System Assessment. Annandale, Virginia: 1990.

According to DEQ-WD records, there are only two institutions which maintain registered underground storage tanks within the Town of Clifton. The Town has, in recent history, experienced three incidents involving deteriorating underground storage tanks that have demonstrated the need for the Town to work closely with the DEQ-WD. These cases include the Clifton Store (DEQ-WD Pollution Control Number 89-0112), the Old Clifton Fire Station (PC# 92-2194), and the Clifton Fire Station (PC# 93-1190). The leak at the old Clifton Fire Station involved a release of diesel fuel oil into the ground. The tank was removed and the soil was subsequently treated or removed by the DEQ-WD and has been deemed non-threatening. A more recent spill came from an underground storage tank at the Clifton Store and involved benzene. The area around the site was mitigated in 1995 and the faulty tank has been removed. However, benzene contamination in the groundwater temporarily forced the Hermitage Inn, the Masonic Lodge, and a private residence to use filters or bottled water.

While these are the only known spills, a majority of homes are heated by above or underground heating fuel tanks. According to residents of the Town, many of these tanks, which are privately owned, are over twenty years old and may potentially pose a threat to the Town's drinking water supply as the tanks deteriorate and leak.

Section V-3 Above Ground Storage Tanks

Within the Town of Clifton, 34 housing units (approximately 56 percent of occupied households), particularly within its more established sections, rely on fuel oil or kerosene for home heating¹⁹. While any individual tank may not pose a significant environmental hazard, the aggregate and sheer number of tanks located within the Town may have the potential to pose a serious threat to the environment.

Individual tanks with a capacity of less than 660 gallons or multiple tanks with an aggregate capacity of less than 1,320 gallons are not currently regulated by the State or the federal government. Most home fuel oil tanks are typically only 200 to 660 gallons and are not regulated. It is therefore up to the individual owner to ensure that leaks and spills do not occur.

According to the DEQ-WD, approximately 90 percent of releases from individual tanks are as a result of overfill or the tipping over of the tank. Overfill can occur if the driver/filler is not paying attention or if the capacity of a tank is not known. To reduce the risk of an accidental spill, the homeowner or fuel oil company should inspect a tank before filling to ensure that it is sturdy and does not exhibit signs of corrosion. An owner should also have the capacity of the tank clearly marked on the tank and specifically indicate the filling cap location.

¹⁹United States Bureau of the Census, 1990 Census Data Summary for Town of Clifton. Washington, D.C.: 1990

Section V-4 Nonpoint Source Pollution

Nonpoint source (NPS) pollution is defined as pollution which is generated from diffuse sources, such as stormwater runoff and atmospheric deposition, as opposed to a "point source," such as an industrial wastewater outfall. The primary pollutants in NPS runoff include soil sediments, nutrients (such as phosphorus and nitrogen), heavy metals, and hydrocarbons. Since urbanization renders much of the land surface impervious, during storm events, NPS pollution is flushed directly into local waterways with little or no chance for pollutants to settle out or be filtered by the soil or natural vegetative cover. Further, impervious land cover results in an increased velocity of stormwater which further aggravates the problem of nonpoint source pollution by scouring and eroding unprotected soils, thus greatly contributing to the sediment load delivered to the local water body.

The effect on local waterways is a general degradation of the quality of the waterways and a phenomenon known as eutrophication. Eutrophic conditions, which are caused by excessive nutrients in the water, are characterized by low dissolved oxygen levels and high algal growth. The primary detrimental effect on water resources, particularly large bodies of water such as the Occoquan Reservoir and the Chesapeake Bay, is algal blooms, which block sunlight from aquatic life and deplete the dissolved oxygen content during decay. Eutrophication also destroys the recreational use of a water resource and results in strong odor and undesirable taste.

Because the Town of Clifton lies within the Pope's Head Creek subwatershed which drains directly into the Occoquan Reservoir and subsequently the Chesapeake Bay, controlling nonpoint source pollution and identifying sources of nonpoint source pollution are an important aspect of this plan. According to the *Virginia Water Quality Assessment for 1992*, the Virginia Division of Soil and Water Conservation has designated the control of NPS pollution as a high priority for the Pope's Head Creek watershed (DEQ-WD hydrologic unit A12).

The Town of Clifton is relatively pervious, with approximately 13 percent of the Town's land area being covered by impervious surfaces. This can be compared to the jurisdiction-wide imperviousnesses of 18 percent for Fairfax County and 38 percent for Arlington County. Impervious surfaces within Clifton include rooftops, roadways, driveways, and parking lots. Table 6 provides a break-down of impervious areas within the Town. Sources of nonpoint source pollution include automobile wear and fluid leaks as well as natural sources such as pets and birds. Agriculture is also a significant contributor of nonpoint source pollution through soil erosion and the application of fertilizers and pesticides.

Table 6
Breakdown of Impervious Areas within the Town

Impervious Area	Area in Square Feet	Percent of the Town
Structures	183,318	2.61%
Roads	506,100	7.21%
Parking Lots (Paved and Gravel)	96,111	1.37%
Driveways and Outlets (Paved and Gravel)	67,249	0.96%
Other (Pools, Tennis Courts, and Railroad Bed)	93,121	1.33%
Total Imperviousness	945,897	13.47%

Section V-5 Illegal Dumping

While illegal dumping is not a significant water quality problem for the Town of Clifton, the potential is very evident. One illegal dumping ground, located in the eastern corner of the Town and consisting of several junked trucks, has been recently cleaned up.

Section V-6 Pump and Haul Sewage System

Potential pollution from the Town's pump and haul system as a result of back-ups or overflow is minimized by the installation of an overflow warning alarm. The alarm is set to alert the Fairfax County Department of Public Works (DPW) in the event that effluent is within two feet of the system's manhole cover. In almost all instances, the alarm alerts the County in more than enough time to pump out the effluent before overflow occurs. However, due to power outages and other extenuating circumstances, the system has overflowed on occasion, discharging raw sewage directly into Pope's Head Creek. In both instances, the County took immediate precautions to protect the health of the Town's residents.

According to the Fairfax County DPW, the condition of the sewer lines is excellent and pose no pollution threat to the Town's groundwater supply.²⁰

²⁰Personal communication, Richard Meyer, Fairfax County Office of Waste Management: February 1993.

SECTION VI

Community Policies and Recommendations

As the Town of Clifton continues to grow and prosper, the Town must also continue to identify and address the needs and concerns of its residents. Using the information from the previous sections as a baseline, this section of the Town Plan contains policy goals which will be used to guide and shape the Town in the future. Each policy is the culmination of the attitudes and character of the residents of the Town and reflect the unique nature of Clifton. Each policy goal has several associated recommendations which will then be utilized to achieve the policy. These policies and recommendations will then be integrated into an action plan in Section VII, "Plan Implementation Strategies."

Section VI-1 Natural Resources Policies and Recommendations

Policy: To manage and protect the groundwater resources within the Town.

- Recommendations :
- Promote public awareness of the availability of well water testing from the Fairfax County Health Department for residents of the Town. Priority should be given to older wells within the Town.
 - Encourage the repair of and maintenance of malfunctioning septic systems or improperly sealed or abandoned septic systems which may be responsible for local groundwater contamination.
 - Allow septic systems only on parcels which can meet the minimum State standards for such facilities.
 - To work with the Fairfax County Health Department to locate and seal any abandoned wells which may serve as a conduit for groundwater pollution. Also work to close or upgrade improperly constructed or failing wells.
 - Work with the DEQ-WD to clean up the effects of underground storage tank leaks within the Town. Also work to monitor existing underground storage tanks.
 - Implement a means of educating and aiding local residents on methods to minimize the potential for accidental spills and leaks occurring from above ground and underground storage tanks.

- Work with the DEQ-WD to identify areas of high groundwater pollution potential, including areas with a high water table and highly permeable soils, and develop policies if necessary to steer improper development away from these areas.
- Encourage that land uses adjacent to the Town are not utilized in a manner that could threaten the Town's ground water supplies.
- Investigate methods of water conservation education for the residents of the Town as well as the incorporation of water conservation measures into the Town's building code.

Policy:

To protect the surface water quality of the Town, and subsequently, the waters of the Chesapeake Bay, through appropriate land use planning, the protection of sensitive environmental features, and by controlling nonpoint source pollution before as well as after it has entered into the environment.

Recommendations:

- Continue to implement the Town's Chesapeake Bay Preservation Program and Ordinance and work towards arranging a protocol with State and local staff in regard to the Ordinance's administration, review, and implementation.
- Manage development and land use within the Town so as to minimize the amount of impervious land cover, protect identified Resource Management Area components, and control nonpoint source pollution using appropriate land use planning strategies.
- Protect Resource Protection Areas from all development with the exception of permitted water dependent facilities as provided for by the Chesapeake Bay Preservation Ordinance.
- Protect the floodplain associated with Pope's Head Creek from improper development.

- Locate improper development away from environmentally sensitive soils features including highly erodible soils and steep slopes.
- Steer new development away from problem soils, including but not limited to hydric soils, shrink-swell soils, soils with low strengths, and soils with wetness or saturation problems or provide appropriate engineering measures to overcome these problems.
- Ensure that BMPs established within the Town are properly inspected and maintained so that these facilities continue to perform their water quality functions properly.
- Investigate and identify economically feasible and non-land intensive single-family BMP measures.
- Continue the Town's policy of one dwelling unit to a minimum lot size of one acre for all new development. This will serve to minimize impervious areas and thus also serve to reduce the effects of nonpoint source pollution.
- Investigate planning and design methods which will minimize the imperviousness of a site.
- Implement educational programs addressing proper lawn management techniques including measures to reduce and eliminate the overapplication of fertilizers and pesticides.
- Work with the Northern Virginia Soil and Water Conservation District office and VDOT to identify and correct eroding areas along Pope's Head Creek which pose a significant threat to private property or local roadways.
- With the exception of areas in which significant amounts of property are threatened, structural erosion control measures should be avoided in the natural reaches of Pope's Head Creek and its tributaries.

Section VI-2 Land Use Policies and Recommendations

Policy: To achieve a balanced pattern of land use which preserves the residential community nature of the Town, meets the needs of the population, and protects the natural environment.

- Recommendations:
- A substantial increase in development in the Town is not appropriate due to the importance of both maintaining Clifton's historical integrity as a National Register of Historic Places district and protecting the existing community and the quality of life for those living and working within the Town.
 - In order that water quality in the Chesapeake Bay and its tributaries may be preserved, new or expanded development within 100 feet of either side of Pope's Head Creek is not appropriate. The 100 foot buffer on both sides of the creek have been designated as a Resource Protection Area under the provisions of the Virginia Chesapeake Bay Preservation Act.
 - Measures should continue to be taken to protect and enhance the Town's residential character. The Town should remain primarily that of a residential village.
 - Expansion of non-residential uses within residentially zoned areas of the Town should be limited to low impact home business uses that are able to operate without impacting the residential character of the area and which do not necessitate exterior identification/advertising signs on the premises or the need for expansive vehicular parking.
 - Except as may be noted on the Future Land Use map (Figure 18), commercial development and commercial use of parcels within the Town are to be limited to those parcels of land currently zoned Commercial.
 - The industrially zoned land located between Pope's Head Creek and the Norfolk Southern Railroad tracks on the east side of Main Street (Parcels 9, 10, and parts of 7 and 8) should be designated for non-industrial uses in light of concern over water quality protection in tributaries of the Chesapeake Bay. Continued use of the Acacia Lodge (Parcel 7) for Masonic and community activities is

appropriate as is commercial use of the "Pink House" on Parcel 10. The remaining industrially zoned land should be preserved as open space and used for community and environmental preservation purposes.

In the event that industrial use of the property does occur, such a use must be limited to non-hazardous ones, either in the materials used or in the manner of production, operation, or manufacture. Such uses are also limited to those which do not emit hazardous fumes, odors, wastes, runoff, or noise from operation, production, or manufacturing activities.

Given that no industrial land use exists, or is currently planned for the industrially zoned site, the Town should work to amend its Zoning Ordinance to eliminate the industrial zoning designation.

- The Town should continue to encourage housing opportunities for persons of diverse incomes consistent with all other policies and recommendations contained in the Plan. The Town should investigate and make available information on government and other programs that assist residents of modest means in the maintenance and upkeep of existing homes in the Historic District.
- Such development or redevelopment as occurs within the Town should be compatibly engineered, designed, and constructed to compliment the existing residential and low intensity edifices and to minimize impacts on the Town's fragile environment.

Section VI-3

Transportation Policies and Recommendations

Policy:

To develop a transportation system that will enhance and maintain the residential village character of the Town, encourage pedestrian access to points within the Town, and avoid or reduce excessive congestion generated by through traffic within the Town.

Recommendations:

- Widening of any street pavement or right-of-way within the Town is not appropriate because of the detrimental effects that such widening would have on historic structures abutting existing roadways and the detrimental

effect that such widening would have on the historic character and cohesiveness of the National Register District and the quality of community life within the Town.

- Streets are to remain small, narrow, two lane, rural, ditch section facilities. Speed limits are to remain low, thereby eliminating the need for deceleration/turning lanes. A deceleration/turning lane will be desirable if Lot 40A/B is subdivided and developed because of the existence of a steep slope at the site's entrance and site distance impediments in the vicinity. The Town should strive, in cooperation with the Virginia Department of Transportation, to improve drainage, culverts, swales and storm sewers along and under the Town's roads.
- The Town recently was instrumental in having Clifton Road designated a Scenic and Historic Byway between Braddock Road and Route 123. The Town should continue to encourage the County and State to develop alternate commuter routes around the Town so as to reduce vehicular traffic on local roads.
- The Town should work with Fairfax County and commuter railway officials to locate commuter railway station facilities outside the Town where associated traffic and vehicular parking facilities will not impact the Town.

Section VI-4

Public Facilities Policies and Recommendations

Policies:

To ensure that public facilities within the Town are adequate for the needs of the residents of the Town and remain community based and accessible. To ensure that public facilities within the Town are compatible with the residential nature of the Town.

Recommendations:

Town Hall

- Use of the Town Hall (Lot 21) should be limited to low impact community functions such as small group meetings/gatherings as a result of its location near established residences, the small size of the building and lot, and parking constraints. Provisions should be made for parking on-site rather than on-street. Such parking should be scaled to accommodate the sole needs of activities occurring at the Town Hall.

Fire Station

- Use of the fire station property (Lot 68 and a portion of 69) is to be strictly limited in nature to fire and rescue functions approved by the Planning Commission and Town Council in 1990. Any expansion of the use or acreage associated with the use is not appropriate in light of the Town's desire to maintain on-site activity at levels which will not impact adjacent residents.

Community Hall

- In light of the Community Hall's location adjacent to established residences, activities occurring on-site should be small to medium sized community functions that primarily attract participants from the Town and its immediate environs. Commercial use of the Community Hall for purposes other than non-profit fund raising should be discouraged. On-site activities should be confined to the building's interior. High noise-level activities should be severely restricted. Every attempt should be made to insure that the quality of life for residents living nearby is not adversely affected by the activities on-site.

Post Office

- Maintaining an appropriately scaled community-serving Post Office within the Town is desirable. The facility should be located in an existing structure and on property that has adequate access and parking to support the high volume of car and truck visits to the Town Post Office.

Open Space, Parks, and Recreation

- The Town should continue to promote retention of key parcels for permanent open space by public acquisition and maintenance, private and quasi-public acquisition and maintenance, or police power regulation. The Town should acquire open space/floodplain areas deemed to be an extension of the County's Popes Head Creek Environmental Quality Corridor (EQC). Development within these areas must be restricted whether or not public acquisition of these areas occurs.
- Parcels 7 and 8 located between Newman Road and the Norfolk Southern Railroad to the east of Main Street consists primarily of floodplain associated with Pope's Head Creek. These parcels should remain generally in open space. Sporadic use of the open space for

community purposes and such low impact uses as nature trail construction would be appropriate.

- The barn located on Parcel 8 of the CBA property should be restored in keeping with its status as a contributing building in the Clifton Historic District and used for small scale community events. For safety reasons, vehicular access from Main Street should be relocated to the existing easement along the northwest boundary of Parcel 10.
- The Town should acquire ownership of Ayre Square (Lot 29).
- The Town should continue development of the Children's Playground (Lot 53) to serve children of all ages. This park should continue to serve as the focal point for outdoor, Town-centered community gatherings as well. Non-Town events should be monitored and controlled to prevent overcrowding in the park, to avoid noise and other impacts on bordering residential properties, and to insure park use by Town residents at all times.
- Richard Randolph Buckley Park should continue to exist for passive recreation and limited activity recreation for all ages.
- Lots 19 and 20 adjacent to the Town Hall should be developed as a children's playground, primarily providing open space for unstructured play (i.e., for ball games and other ad hoc team sports).

Trails and Sidewalks

- The existing trail and sidewalk network within the Town should be expanded and improved. Specifically, sidewalks should be extended along both sides of Chapel Road between the current Post Office location at Clifton House, the new Firehouse, and Water Street.
- The Town should attempt to gain the cooperation of the School Board and County to improve trail access from Main Street to Clifton Elementary School. Guardrails at the Popes Head Creek bridge which create impediments to pedestrian travel should be altered.

- Pedestrian access within the Commercial District should be enhanced. A trail extending from the sidewalk on the north side of Chapel Road to the pavement in front of "Clifton House" should be developed. A trail between Ford Lane and the Clifton Hotel (Lot 11) should also be developed.
- Pedestrian travel is the intended mode of access to all Town parks, either lying within the Town or within Fairfax County. As such, measures should be taken to restrict on-site vehicular parking and to encourage safe pedestrian access to all parks.
- Pedestrian access to any new park developed on Lots 19 and 20 (adjacent to the Town Hall) is to be encouraged and should be promoted by the development of a trail system between the sidewalk on the north side of Chapel Road and the Chapel Road/Water Street intersection. Vehicular parking along this trail should be discouraged.
- A nature trail should be developed along Pope's Head Creek on Lots 7 and 8. The trail should allow for further trail connections between Main Street and development beyond the Town.

Public Parking

- The public parking area established on railroad-owned land at Main Street should exist to accommodate general overflow parking for activities/uses in the area. Utilization of the lot to accommodate required parking for new uses in the Commercial District is not recommended due to the temporary nature of the parking facility and agreements associated with it.
- On-site, off-street parking for the Town Hall is desirable. Such parking should be scaled to accommodate the sole needs of activities occurring at the Town Hall.
- Parking on the Fire Station property is to be allocated to resident fire and rescue personnel and associated visitors. Public parking on-site, including the parking of State and County vehicles and trucks is not appropriate because sole access to the parking lot has been limited to an entrance on School Street. This street is a small, narrow, two lane residential street. A physical barrier controlling access to the parking lot should be operational at all times.

- Because access to Town parks is intended to be pedestrian in nature, on-site vehicular parking is not recommended. Vehicular parking which is necessary should be accommodated in the Town's public parking lot near the railroad tracks, along Main Street, or within the Community Hall parking lot on Chapel Road.

Section VI-5

Sewer Policies and Recommendations/Adjacent Public Facilities Uses and Impacts Policies and Recommendations

Policy:

To discourage and recommend against the establishment of public/public facilities within or near the Town that would result in an increase in traffic congestion, environmental damage, or a reduction of the quality of life that the residents of the Town presently enjoy.

Recommendations:

- The Town continues to recommend against the establishment of a commuter rail station either within the Town or in proximity to the Town because of the congestion which could be anticipated on the Town's road network, environmental damage which could be anticipated in environmentally sensitive floodway and floodplain areas, the denigration of the quality of life within the Town, and possible changes in the physical character of the Town which could change the status of the Town as a National Historic Register District.
- The Town continues to recommend against the establishment of a VEPCO substation adjacent to the Town's northwestern boundary for the following reasons:

Potential environmental hazards associated with the development/maintenance of this substation which may impact the Town, its residents, pupils/teachers at Clifton Elementary School, and water quality in Pope's Head Creek as these waters eventually flow into the Occoquan River and Reservoir.

Potential attempts to change existing roads and streetscapes resulting from road improvements and line extensions. Such attempts are of particular concern along Clifton Creek Drive.

- The Town will continue to enforce the minimum standards for the establishment of a septic system within

the Town. Particular attention must be paid to septic system installation given the potential for groundwater contamination due to septic field malfunction as a result of poor soils, steep slopes, or high groundwater table.

Section VI-6

Town Beautification Policies and Recommendations

Policy:

To enhance the aesthetic character of the Town which benefits the residents of the Town and in a manner which reflects the Town's historic character.

Recommendations:

- A landscape and beautification plan should be developed for the public areas within the Town.
- Public areas of the Town should be landscaped and beautified in a manner that reflects the Town's historic character and its village atmosphere. Those areas deemed either to be gateways to the Town or highly visible public focus areas should be visually unified and beautified. Those areas include but should not be limited to the triangle at the Clifton Road/Newman Road intersection, the Main Street/railroad track intersection, and access to the Town via Chapel Road.

SECTION VII

Plan Implementation Strategies

The following sections are to be used in implementing the specific policies and recommendations of the Town outlined in Section VI. In many instances, policies and recommendations stated in Section VI are formal statements within themselves and require no further elaboration. However, the Natural Resources Plan and the Future Land Use Plan provide a more specific work plan framework and identify resources that may be used by the Town to better achieve specific goals. Many of the action items in this section have time frames for which the action should be implemented or accomplished. Other actions, however, are ongoing in nature and should be implemented over the course of the next five years after which the Plan will be reevaluated and revised accordingly.

Section VII-1 Natural Resources Plan

The Town has recognized as its natural resources policies: (1) to manage and protect the groundwater resource within the Town and (2) to protect the surface water quality of the Town, and subsequently, the waters of the Chesapeake Bay, through appropriate land use planning, the protection of sensitive environmental features, and by controlling nonpoint source pollution before, as well as after, it has entered into the environment. The quality of life within the Town, to a large degree, depends upon the protection of its natural resources. The Town relies on groundwater resources for its potable water supply and is proud of the aesthetic beauty of the natural areas within the Town and the degree to which they have been integrated with the man-made environment. In a broader sense, the residents of the Town and the citizens of Virginia are also economically dependent on the protection of natural resources, in particular the Chesapeake Bay. Land use and the environment are integrally linked and therefore land use decisions must be made in consideration and harmony with the environment. The following section provides a general plan of action which the Town will utilize in fulfilling the policies and strategies outlined in Section VI.

Recommendation:

To manage and protect the groundwater resources within the Town.

The Town's groundwater resources are the life blood of the Town and deserve special recognition in the land use planning process. Once an aquifer has been significantly contaminated, it is often difficult, if not impossible, to bring the aquifer to its original level of purity. The Town recognizes that any groundwater plan must be proactive as well as reactive in nature and include measures to ensure that future development will not adversely impact groundwater supplies. Further, the Town must seek strategies to identify and correct existing and potential pollution sources

within the Town. To fulfill the policies and strategies outlined in Section VI, the Town intends to engage in the following courses of action:

1. The Fairfax County Health Department, upon request, will test wells for the most common contaminants free of charge. The Town should, within the next 5 years, identify and encourage owners of wells which were built before 1962 to voluntarily test for contamination. The Town should work with the Fairfax County Health Department to identify grant opportunities for upgrading contaminated wells.
2. Testing within the Town has indicated localized contamination of well water by fecal coliforms which are often the result of failing or improperly abandoned septic systems. The Town should work with the Fairfax County Health Department and the Fairfax County Department of Public Works to properly seal abandoned septic systems and have connection to public sewer.
3. The Town should continue to work with the Virginia Department of Environmental Quality – Water Division (DEQ-WD) to ensure that the adverse effects of underground storage tank spills are properly addressed. Further, due to the Town's large reliance upon above ground fuel oil storage tanks, the Town should invite a representative of the DEQ-WD to present to the Planning Commission and/or the Town Council methods by which the Town can educate its residents on spill prevention.
4. The DEQ-WD has set up a system for identifying groundwater pollution potential, known as DRASTIC, which can be used by local governments to steer improper development away from sensitive groundwater areas. In its communications with the DEQ-WD, the Town should ask the DEQ-WD for assistance in determining if there are sensitive groundwater areas within the Town and what measures could be taken to ensure that the risk of groundwater contamination can be kept at a minimum.
5. Sections (1) through (4) above will provide the Town with valuable data on the health of the Town's groundwater supply and potential sources of groundwater pollution as well as the physical conditions of the private wells which supply the Town with its only source of drinking water. Taken as a whole, the data collected as a result of sections (1) through (4) form the basis of a potential Well Head Protection Program (WHPP). As part of the Town's next comprehensive plan review in five years, the Town should contact the Fairfax County Health Department, Environmental Services Section, for guidance on how to develop and implement a cost effective WHPP.

6. Because groundwater is dynamic, the Town should strive to be informed of land use activities around the Town which may have a negative impact on the groundwater quality of the Town.
7. The Planning Commission should investigate various water conservation tools which may be implemented by the Town. Possibilities include public education and/or advocating the incorporation of water conservation measures into the County's building code. The Town may work with the Virginia Water Resources Research Center (VWRRC) to obtain information and materials regarding water conservation education.

Recommendation:

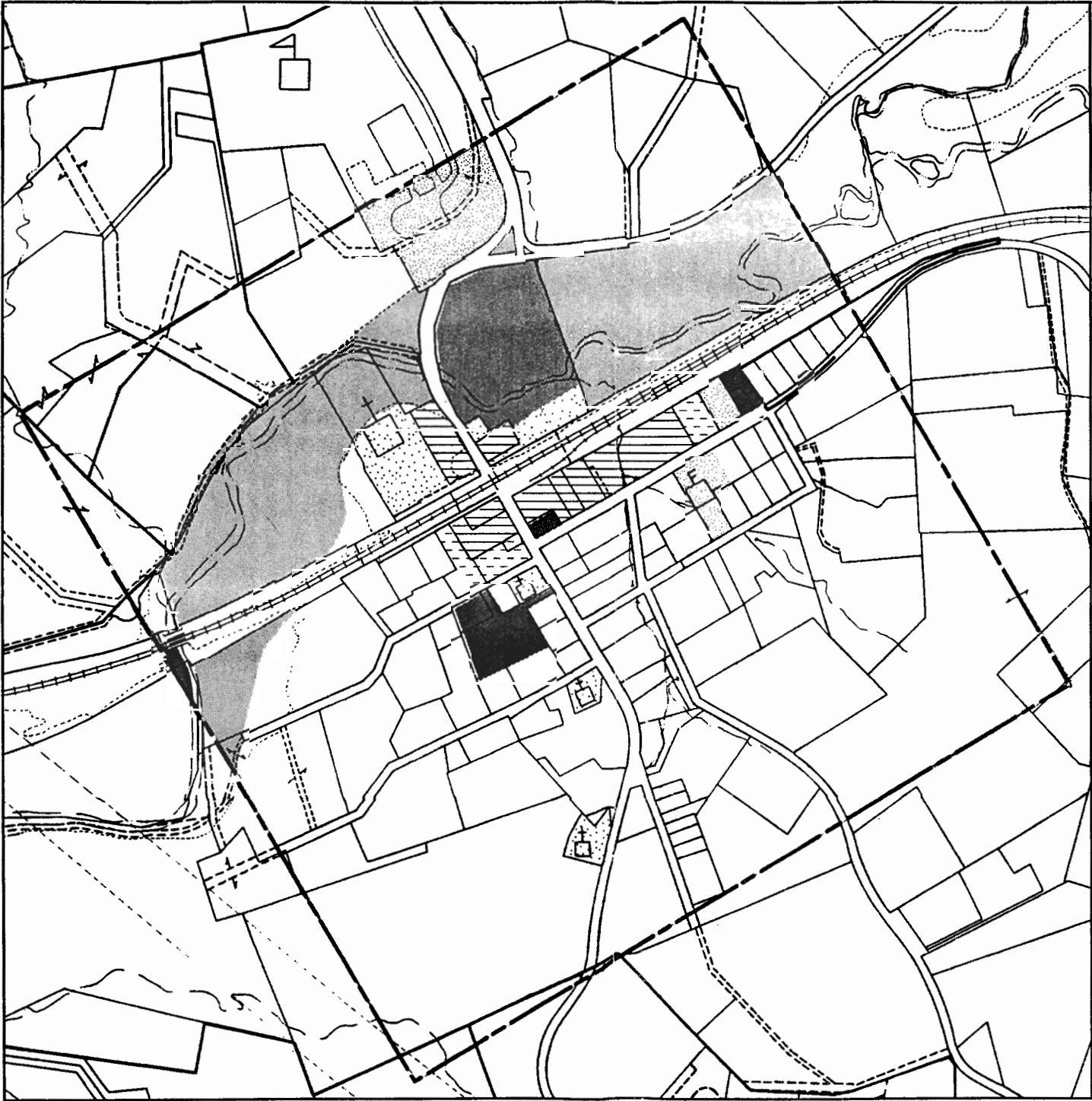
To protect the surface water quality of the Town, and subsequently, the waters of the Chesapeake Bay, through appropriate land use planning, the protection of sensitive environmental features, and by controlling nonpoint source pollution before as well as after it has entered into the environment.

The Commonwealth of Virginia, in order to ensure the longevity and economic viability of the Chesapeake Bay and the waters of the State, enacted the Chesapeake Bay Preservation Act in 1988. The key feature of the Act is to provide local governments with the tools to protect surface water quality using a variety of land use planning techniques and other appropriate measures. The Town recognizes the importance of the goals of the Chesapeake Bay Preservation Act and has outlined policies and strategies to address the Act in Section VI. To fulfill the policies and strategies outlined in Section VI, the Town intends to engage in the following courses of action:

1. The Town will continue to enforce regulations consistent with the Chesapeake Bay Preservation Act in the form of the Town of Clifton Chesapeake Bay Protection Ordinance (adopted 1995). The Ordinance establishes Resource Protection Areas, consisting of a 100 foot buffer on either side of and landward of Pope's Head Creek and Resource Management Areas consisting of all areas within the Town not designated as RPAs. Development within the RPA, with the exception of water dependent facilities and other exceptions as provided for by the Ordinance, is not allowed. Consistent with the Chesapeake Bay Preservation Act, all development within RMAs should be planned in a manner which minimizes imperviousness, protects sensitive RMA features including floodplains, non-tidal wetlands, highly permeable soils, and steep slopes from the adverse impacts of development, and controls nonpoint source pollution at its source as well as after it has entered the environment. All development within the Town is subject to the performance criteria established by the Ordinance.

2. The Town should arrange as soon as possible a protocol in regard to review and implementation of the Town's Chesapeake Bay Preservation Ordinance as well as in regard to maintenance and inspection of any BMP facilities which may result from the enforcement of the Ordinance. Options that the Town should consider include review by the Chesapeake Bay Local Assistance Department, review by a private consultant, and/or review by Fairfax County staff. The Town may wish to establish a formal protocol with the County in the form of a resolution outlining arrangements between the Town and the County. A protocol is desirable due to the Town's limited resources and because review requires knowledge of engineering principles and calculation of pollution reduction requirements.
3. The Town will enforce the Floodplain Overlay District which disallows inappropriate development within floodplain areas.
4. The Town has identified Pope's Head Creek and its associated floodplain as an environmentally sensitive area. Development and/or construction within this area must be restricted and limited to repair of existing buildings and development of recreation areas where permanent structures are not required. It is recognized that the provisions of the State's Chesapeake Bay Preservation Act, the Clean Water Act, the Federal Emergency Management Agency floodway designations, and the Town's Floodplain Ordinance will apply to development. These areas have been designated as Public and Private Open Space by the Town's Future Land Use Map (Figure 18).
5. Because the Town has several areas of steep slopes exceeding 25 percent, and because these areas are largely undeveloped but are subject to possible future development, the Town will work with the Northern Virginia Soil and Water Conservation District and the Northern Virginia Planning District Commission in examining the possible need for a separate steep slopes related ordinance.
6. Since future development within the Town will occur largely as single family, single home development, the Town will work with the Chesapeake Bay Local Assistance Department to identify economically feasible single family home BMP measures, as well as pollution source control measures.
7. Several areas along Pope's Head Creek have been identified as experiencing significant erosion problems, some of which are threatening local roadways or private property (See Figure 9). Erosion along Pope's Head Creek, which may be due to increased water volume and velocities due to upstream development, also contributes to excessive sediment loadings which serve to choke local waterways.

FIGURE 18
Clifton Future Land Use Map

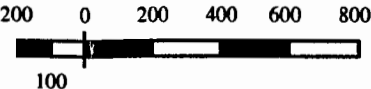


- | | |
|---------------------------|--|
| Residential | Developed Quasi-Public |
| Residential or Commercial | Public Open Space |
| Commercial | Quasi-Public Open Space |
| Industrial | Open Space - Private
(Not to be developed except under strict environmental constraints.) |
| Developed Public Use | |

Produced by the Northern Virginia Planning District Commission for the Town of Clifton.

July, 1996

Base map: Fairfax County Zoning Map, 1995.



While it is the desire of the Town to avoid structural erosion controls in the natural reaches of Pope's Head Creek, the Town acknowledges that measures should be taken in developed areas where a significant threat to roadways or private property is shown to exist. For areas of erosion which are threatening to undercut roadways, the Town should notify VDOT as to the situation and work with that agency to ensure that proper erosion control measures which require the least amount of disturbance are taken. For erosion which is threatening private property, the Northern Virginia Soil and Water Conservation District, upon request, will perform a site evaluation and make recommendations on how to best control erosive action. The Town should ensure that those property owners experiencing erosion problems are aware of this free service.

Section VII-2 Future Land Use Plan

While the Zoning Ordinance is the Town's legal land use document, Section 15.1-446.1. of the Code of Virginia allows for the Town to adopt a future land use plan which reflects how the Town would like to steer development patterns in the future. It should be noted that the Future Land Use Plan is to be used only as a guide and land use tool and holds no regulatory status. The Town's Future Land Use Plan reflects certain patterns of growth for the future that will further enhance the Town's small-town character and provide desired amenities to its residents. Changes in land use patterns, if any, are not intended to occur immediately, but rather over an extended period of time. Further, desired future land use patterns may change over time and revisions to the Future Land Use Plan should be made to reflect new concerns and changing community characteristics. The Town's Future Land Use Plan consists primarily of the Plan text and a Future Land Use Map (Figure 18) which reflects the land use changes required to achieve the policies and recommendations set out in Section VI of the Town Plan. In case of a conflict between the Plan text and the Plan map, the text shall govern.

The Future Land Use Map is based on the following underlying principals: 1) to protect the Town's residential areas from encroachment by incompatible land uses; 2) to maintain appropriate buffers between residential and commercial land uses within the Town; 3) to develop adequate public facilities and to ensure that open space, community facilities, and parks and recreation facilities are available to all residents of the Town; 4) to preserve the historic character of the Town; and 5) to protect environmentally sensitive areas of the Town from inappropriate land uses.

The Future Land Use Map, in general, is more specific than the Zoning Map in its land use designations. Of primary interest is the addition of the "Developed Public Use," "Developed Quasi-Public Use," "Public Open Space," "Quasi-Public Open Space," and "Open Space-Private" land use designations. These new designations are reflective of the desire of the Town to preserve community open space within

the Town and to preserve historically significant properties and/or structures. The term "quasi" is an important qualifier in that it indicates a property or building which is used by the community or which has particular historic significance which warrants protection even though it is not publicly owned.

Another change is that the "Agricultural" designation of the Zoning Ordinance has been omitted and is now part of a larger "Open Space-Private" designation which includes large portions of the Pope's Head Creek floodplain. The Future Land Use Map allows that certain areas that are zoned "Commercial" can be utilized as "Residential or Commercial."

Further, the Future Land Use Plan eliminates the area currently zoned as "Industrial" due to the potentially negative impacts that such a land use would have on local water quality and the environmentally sensitive Pope's Head Creek ecosystem. The industrially zoned area of the Town is now planned as a mix of "Commercial," "Quasi-Public Open Space," and "Developed Quasi-Public" land uses. Given that industrial land uses within the Pope's Head Creek floodplain may have undesirable environmental impacts, and given that no industrial land use exists, or is planned, for the site currently zoned as "Industrial," the Town should arrange to make amendments to its Zoning Ordinance to eliminate the industrial zoning designation. Consideration and action on the elimination of the industrial zoning designation should be accomplished before the next *Town of Clifton Plan* review scheduled for five years from the adoption of this current Plan.

Table 7 presents the area in acres and the percentage of the Town which are designated for each future land use. These figures are general in nature and are to be used for demonstrative and comparative purposes only.

The Town should give consideration to increase the minimum lot size beyond the one acre minimum.

Table 7
Future Land Use in the Town of Clifton

Future Land Use	Area in Acres*	Percentage of Town
Residential	110.1	68.8%
Residential/ Commercial	2.2	1.4%
Commercial	2.3	1.4%
Industrial	0.0	0.0%
Developed Public Use	4.2	2.6%
Developed Quasi-Public Use	2.1	1.3%
Public Open Space	1.9	1.2%
Quasi-Public Open Space	5.0	3.1%
Open Space-Private	20.2	12.6%
Roadways	11.5	7.2%
Total	160.0	100.0%

* Figures are approximate and are rounded to the nearest tenth. Figures derived from NVPDC planimeter of Future Land Use Map.

** For comparison to zoned land use, "Residential/Commercial" and "Commercial" are combined.

*** "Developed Public Use," "Developed Quasi-Public Use," "Public Open Space," "Quasi-Public Open Space," and "Open Space-Private" land use designations are combined and are compared to the "Agricultural" zoning designation.

SECTION VIII

Appendix

Appendix A
National Register of Historic Places
Summary Description and Architectural Analysis

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National Park Service

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National Register of Historic Places
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See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections**1. Name**

historic CLIFTON HISTORIC DISTRICT

DHL FILE # 29-225

and/or common N/A

2. Location

street & number various

n.a. not for publication

city, town Town of Clifton

N/A vicinity of

state Virginia

code 51

county Fairfax

code 059

3. Classification

Category	Ownership	Status	Present Use	
<input checked="" type="checkbox"/> district	<input type="checkbox"/> public	<input checked="" type="checkbox"/> occupied	<input type="checkbox"/> agriculture	<input type="checkbox"/> museum
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input type="checkbox"/> unoccupied	<input type="checkbox"/> commercial	<input type="checkbox"/> park
<input type="checkbox"/> structure	<input checked="" type="checkbox"/> both	<input type="checkbox"/> work in progress	<input type="checkbox"/> educational	<input checked="" type="checkbox"/> private residence
<input type="checkbox"/> site	Public Acquisition	Accessible	<input type="checkbox"/> entertainment	<input checked="" type="checkbox"/> religious
<input type="checkbox"/> object	<input type="checkbox"/> in process	<input checked="" type="checkbox"/> yes: restricted	<input checked="" type="checkbox"/> government	<input type="checkbox"/> scientific
	<input type="checkbox"/> being considered	<input checked="" type="checkbox"/> yes: unrestricted	<input type="checkbox"/> industrial	<input type="checkbox"/> transportation
	n/a	<input type="checkbox"/> no	<input type="checkbox"/> military	<input type="checkbox"/> other:

4. Owner of Property

name Multiple Ownership

street & number N/A

city, town N/A

vicinity of n.a.

state n.a.

5. Location of Legal Description

courthouse, registry of deeds, etc. Fairfax County Courthouse

street & number 4110 Chain Bridge Road

city, town Fairfax

state Virginia

6. Representation in Existing Surveystitle County Inventory of Historic Sites has this property been determined eligible? ☐ yes ☒ nodate 1969 to present ☐ federal ☐ state ☒ county ☐ local

depository for survey records Office of Comprehensive Planning

city, town Fairfax

state Virginia 22030

7. Description

Condition		Check one	Check one	
<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated	<input type="checkbox"/> unaltered	<input checked="" type="checkbox"/> original site	
<input checked="" type="checkbox"/> good	<input type="checkbox"/> ruins	<input checked="" type="checkbox"/> altered	<input type="checkbox"/> moved	date <u>n/a</u>
<input type="checkbox"/> fair	<input type="checkbox"/> unexposed			

Describe the present and original (if known) physical appearance

SUMMARY DESCRIPTION

Clifton is an incorporated town, one-quarter-mile square, located in southwestern Fairfax County along Popes Head Creek. A through railroad line (Southern Railway System and Amtrak) bisects the town in a southwest-northeast direction, and the majority of development historically occurred south of the railroad. The Clifton Historic District extends along Main Street and four streets east and west of Main Street, forming a compact grouping of sixty-two buildings. Included in the district are fifty-three residences, three churches, four commercial buildings, and two local government buildings. Among these are six buildings considered to be non-contributing elements. The district is comprised primarily of vernacular, frame buildings, constructed between 1880 and 1910, all of the same scale with similar setbacks from the narrow streets and similar design elements. Many houses, when restored in the 1970s, were enlarged, but since the additions were made to the rear of the buildings, the appearance from public right-of-ways is unchanged. The similarities of physical characteristics and the lack of contemporary intrusions produce the high degree of visual continuity and the sense of architectural cohesiveness found in Clifton.

ARCHITECTURAL ANALYSIS

The historic district includes properties facing on the section of Main Street which lies south of the railroad tracks, on both sides of Chapel Road and Chestnut Street running west off of Main Street, and on both sides of Chapel Road and School Street running east off of Main Street. There is no discernible progression of the subdivision of building lots beyond the fact that in 1878 only Main Street and two small lanes along the tracks were in existence. The older buildings tend to be along or near the Main Street core. Early 20th-century building activity occurred along the side streets. Beyond the corporate limits of the town, the fields and wooded hills indicate that suburbia has been kept at bay except for some scattered subdivisions.

Clifton developed historically as a commercial and supply center for the southwestern section of late 19th-century Fairfax County, where grain and dairy farming was the major economic activity. Harrison G. Otis, who began promoting Clifton as an attractive town center, was responsible for some of the initial development. In 1869 he built the Clifton Hotel, a large, clapboarded, three-story frame building, on a lot conveniently adjoining the railroad line. Of important historic significance to the town, the hotel currently is in deteriorated condition and needs stabilization treatment. -

In 1870 the Clifton Presbyterian Church was organized, and the congregation built the gable-roofed, stone church in 1871 on land facing Richards Lane near the railroad tracks, sold to them by Otis. The vernacular building features rough-faced limestone in a random ashlar pattern, elongated, round-arched windows on the side elevations, and a corner, frame bell tower.

The Clifton Baptist Church was also organized in the 1870s. The original structure, built in 1877 on the corner of Main Street and Chapel Road, was replaced in 1912 with the present frame, neo-Gothic style building. The pointed-arch windows, with their wood tracery, and the shingled bell tower are characteristic of this period of church architecture.

(See Continuation Sheet # 1)

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National Park ServiceNational Register of Historic Places
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Three other early buildings in Clifton are the Mayhugh Tavern, a residence built circa 1870, the Hetzel House, a frame vernacular building also dating from about 1870, and the Quigg House. Originally located on the south side of Ford Lane facing the railroad tracks, the Mayhugh house had a "genteel and orderly bar."¹ It was moved about 1920 to its present site, facing south on Chapel Street. In a district of vernacular buildings, Lewis Quigg's 1876 house is architecturally noteworthy as an example of the French Second Empire style, with its characteristic mansard roof and center projecting "tower" section. Aside from the distinction of its roof, however, the plain, wood frame house shares the physical appearance of its neighbors.

Clifton experienced steady growth throughout the 1880s and 1890s as a village center in southwestern Fairfax County. Numerous houses constructed during this period continued the pattern of simple, vernacular, frame buildings with minimal architectural detailing. Some are associated with prominent townspeople. The Ford House, built about 1880 by Leander Makely, is a two-story, hipped-roof house with weatherboard siding, a two-story bay window, and a porch that wraps around the northeast corner. The Cross House, circa 1886, a large two-story gable roofed house with weatherboard siding, is associated with James Cross, Sr., Clifton's well-known wheelwright and undertaker. On Main Street in 1896 Robert R. Buckley built a two-story framehouse with a seamed metal roof. He and his brother constructed the Buckley Brothers Store about 1900, still in commercial use. A large, frame warehouse type building, it is located on Main Street, just south of the railroad tracks. The simple one-story porch across the gable front section and the transverse wing convey the commercial character of a late 19th-century "general store." Another store on Main Street, built in 1900 and now a private residence, also has a one-story porch attached to its front gable elevation which features a center double door and large flanking windows. The turned posts, originally unadorned, were altered in 1968 by the addition of decorative brackets.

The largest portion of Clifton's domestic architecture is comprised of the houses built between 1900 and 1911. The M. M. Payne House exemplifies this period in Clifton's historical development. Built in 1903 by the owner of the town's lumber yard, the two-story, frame residence has a modest, vernacular character, with a cross gable roof arrangement. The decorative brackets in the center gable peaks and the molded lintel boards are interesting details of its design. The Detwiler House at 12704 Chapel Road, built circa 1900, is another typical example of Clifton's early 20th-century architecture. The two-story frame house has the simple, decorative feature of a center gable, sheathed with imbricated shingles.

The Turner House on Chapel Road dates from about 1900 and illustrates the type of frame house with the ridge line parallel to the road. The hipped roof porch with turned posts and decorative brackets is notable for its retention of integrity of design and materials. A lively example of Clifton's decade of intensive house building is "Red Gables" built by summer resident, Will Richards, in 1908. A prominent gable front projection from the main block and a wraparound porch on the first floor convey an informal, cottage character.

(See Continuation Sheet # 2)

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Clifton's non-contributing structures consist of a commercial building built in 1962, known as the Clifton House, the town firehouse and post office, built in 1953, a 1930s cinderblock store, two houses built in the 1950s, and one older residence in severely deteriorated condition.

With its well-preserved houses hugging the edges of the narrow streets, often lined with picket fences, and the large rear yards which open up the streets to views, Clifton conveys that sense of an earlier time and place. It has retained the appearance and feeling of a turn-of-the-20th-century small village.

¹Nan Netherton, Clifton: Brigadoon in Virginia (Clifton, Virginia: Clifton Betterment Association, 1980), p. 62.

#1 7126 Main Street. Detached house, c. 1930. A small, one-story building with a porch in front. There is an addition to the rear of the structure. This is a modest building on the edge of the district but in scale and size it does contribute to the district.

#2 7134 Main Street. Clifton Hotel, 1869. A three-story frame and weatherboard building with front porch across the second floor level. Two divided half-circle windows, one above the other, appear in the third floor level. The building has deteriorated and is in need of repair but is one of the most important elements of the district

#3 12744 Richards Lane. Church Manse, c. 1918. A two-story structure with a hipped roof. The columned porch extends across the front and to the east side of the house. The structure contributes to the character of the district.

#4 12744 Richards Lane. Clifton Presbyterian Church, 1870. Stone building with steep-pitched roof, the angle repeated in the entrance way. A round, stained glass window is above the entrance. A wooden bell tower rises to the east. The church makes a strong contribution to the historic district.

#5 12801 Ford Lane. Ford House, c. 1880. A large two-story, frame and weatherboard structure with a two-story bay window. A one-story porch wraps around the front and east facades. The windows under the porch roof are 2 over 1. All others are 2 over 2. The Ford House is an important element of the historic district.

#6 12751 Ford Lane. Ayre House, c. 1905. The original wing is a simple, two story structure. A two story addition to the rear of the house is contemporary in design but complements the scale of the house. The building adds visual character to the district.

Vacant Lot

* #7 7140 Main Street. Clifton Superette, c. 1930. A one story, concrete block structure which replaced an older structure burned about 1930. Although it is compatible in scale, by materials and architectural character it does not add to the district.

(See Continuation Sheet # 3)

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#8 7144 Main Street. Pre-1900. A one story, craftsman-style bungalow with decorative accents in the brackets. The 1983 addition to the north facade carefully replicates the style, including the brackets. This is a good example of the craftsman style and makes a strong contribution to Main Street and to the district.

#9 7152 Main Street. The Quigg House, 1896. A French Second Empire, two-story frame and weatherboard structure with dormer windows in the roof. The center bay is set forward and to either side of it a porch roof extends at the first floor level. An addition to the rear is topped with a skeletal rendering of the mansard roof in an open, wooden treatment. This is the only example of this architectural style in Clifton and is one of the most interesting visual elements of Main Street.

#10 11746 Chapel Road. Mayhugh Tavern, c. 1870. A two-story, frame and weatherboard structure with exterior end chimneys, center doorway, sidelights, and dentil trim over the top of first floor windows. Later addition to rear, not visible from the street. Moved to this site from the original location close to the railroad line. This is one of the earliest buildings in Clifton and is an important landmark.

#11 12755 Chapel Road. Detwiler House, c. 1907. A frame one-and-a-half-story building with a hipped roof covered in seam metal. A room has been enclosed under part of the front porch. This house is a variation on the usual Clifton house but adds diversity to the district.

* #12 12751 Chapel Road. Beckwith House, c. 1915. A small frame and weatherboard structure in such dilapidated condition that it must be considered a non-contributory structure.

Vacant Lot

#13 12742 Chapel Road. Fulmer House, c. 1911. A frame and weatherboard, two story structure with a one story porch and seamed metal roofing. Under the roof gable is a small window. This is one of the best examples of the typical Clifton building and makes a strong contribution to the district.

#14 7152 Main Street. Clifton Baptist Church, 1912. A white wooden structure with pointed-arched windows including wooden tracery. A large bell tower with fishtail shingles set into the steeple rises from the angle of the front and north facades. The church is an important component of the district. Its steeple is apparent from almost any site in the district.

#15 7156 Main Street. The Harris House, c. 1880. A two story frame house with metal seamed roofing, 2 over 2 double-hung windows and a one story hipped-roof porch. To the rear is a small hyphen and a simple two-story wing, repeating the design of the older building. This is one of three similar adjacent houses which give great cohesiveness to this block of Main Street.

(See Continuation Sheet # 4)

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#16 7158 Main Street. The Kidwell House, c. 1890. A two story frame and weatherboard structure with seam metal roof. The entrance door is topped with an overhang covered in the same seam metal. Like its two neighbors, this house is a strong architectural component of the district.

#17 7160 Main Street. The Kincheloe House, 1896. This is a two-story, frame and weatherboard structure with a gable-roof-topped entry porch. It is one of three houses which, together, form a strong element of the district.

#18 12714 Chestnut Road. The Cross House, 1886. A two-story, frame and weatherboard house with seam metal roof. There is a gable in the roof line, and a bay window on the west facade. Many of the elements typical of Clifton buildings are evident in this structure, which contributes to the historic district.

#19 12718 Chestnut Road. Adams House, 1905. This is a small, two-story frame and weatherboard building with a one-story porch. Though not a strong visual element it contributes to the diversity of the district.

#20 12722 Chestnut Road. Elmer Ayre House, 1919. A two-story frame and weatherboard structure with a one story porch with decorative trim. This house shares common element with the Clifton pattern and therefore contributes to the historic district.

#21 12801 Chestnut Road. Red Gables, 1908. A large, two story frame and weatherboard structure with seamed metal roof. There is a peaked gable in the front. This is an informal, cottage-style house which adds a great deal of visual diversity yet is of the same period and therefore is a strong complement to the district.

Vacant Lot

#22 12721 Chestnut Road. Buckley House, c. 1904. A two-story, frame and weatherboard structure with a roof covered in composition roofing material. There is a one story porch which is enclosed, obscuring the original front facade at the first floor level. The scale and style of the structure nevertheless make it a contributory element.

#23 12717 Chestnut Road. J. B. Cross, 1910. A two-story, frame structure with aluminum siding and a composition roof material. It has a one story simple porch. In scale and style it is a contributory visual element of the historic district.

#24 7200 Main Street. Primitive Baptist Church, c. 1890. A one story frame and weatherboard building with metal seamed roof and plain unornamented windows and entrance. The building is in poor condition but anchors Main Street at its south end and makes a visual contribution to the district.

#25 7211 Main Street. c. 1905. A one-and-a-half story frame and weatherboard structure with seam metal roofing and a simple, one story porch. The house is small in scale, but makes a definite visual contribution to the district.

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#26 Behind 7211 Main Street. A small one-and-a-half story weatherboard building with a one story, front porch which has been enclosed. There is a front gable in the roof with a small window. Not distinguished in itself, the building is close to, and in harmony with, other adjacent structures and therefore makes a contribution to the district.

#27 7207 Main Street. A two-story, frame and weatherboard structure with center gable and 2 over 2 double hung sash windows. A one story porch has a tin seamed roof and three simple column supports. It contributes visually to the district.

#28 7203 Main Street. Miller House, 1907. A two-story, frame and weatherboard structure with a one-story, three bay porch and a seam metal roof. The porch wraps around the front and the north facades. The house makes a visual contribution to the district.

Vacant Lot

#29 7161 Main Street. Wright House, 1904. A two story house with center gable in roof, 4 over 4 window in gable. To each side of the central bay door are sets of double windows, each double-hung sash. On the north side is an enclosed screened porch with a hipped roof. In scale and size this house is an architectural addition to the district.

#30 12653 School Street. Dorsey House, 1908. Two story frame and weatherboard structure with mansard roof. The windows are 2 over 2 and there is a one story, two-bay porch. The house makes a visual contribution to the district.

* #31 12651 School Street. 1950s. A frame and aluminum two story structure with sliding entrance doors on upper floor above the drive-in garage on street level. Non-contributory.

#32 12649 School Street. 1906. A one-and-a-half story frame and weatherboard house with dormer in front with shingles. Decorative brackets over columns, porch rail and lattice work over the foundation. Adds variety to the visual elements of the historic district.

#33 12641 School Street. Spring Cottage, c. 1901. Two-story, frame and weatherboard structure with bay window at front topped by a pediment. There is a front porch with brackets and open lattice work below the porch over the foundation. A recent addition to the rear provides a side porch. 2 over 2 double-hung sash windows are used throughout the house. There is a garage addition to the east of the front. The house is a strong addition in size and scale to the visual quality of the historic district.

#34 12638 School Street. One-story small bungalow with simple entry porch. The age is uncertain and it was remodelled in the 1960s, nevertheless in size and scale it contributes to the cohesiveness of the district.

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#35 12640 School Street. c. 1906. A two story frame house covered in composition siding with a one story porch with decorative turned columns. Center gable in the roof and lattice work over the front foundation. This house embodies many of the basic elements of Clifton houses and makes a definite contribution to the district.

Vacant Lot

- * #36 12644 School Street. 1955. One-story simple front-gable structure covered in composition shingle siding. Because of its age it must be considered non-contributory.

Vacant Lot

#37 7157 School Street. C. H. Wine House, 1909. A two story frame and weatherboard structure with center gable. The west side has a two story bay window and a diamond-shaped window on the first floor. The entrance door is topped by a pediment and has sidelights. The structure embodies many of the design elements of Clifton houses and makes a visual contribution to the district.

#38 7157 Main Street. Kincheloe House, 1900. A two story, frame and weatherboard structure with a one-story porch. There are turned columns and decorative brackets on the porch and a one story bay window on the south side. This house is very typical of Clifton architecture and makes a strong contribution to the historic district.

#39 7155 Main Street. c. 1935. A stone bungalow, one-and-a-half stories, with a gable in the roof with two windows. The building is of a later date than the others on Main Street, but its size and scale are compatible and it does contribute diversity to the historic district.

#40 7153 Main Street. c. 1900. Originally a store, this is a one story house with a front gable. The hipped roof, one story porch has four turned columns topped with decorative brackets added in the 1960s. The house was remodelled in 1968 and has a simple addition to the south side which respects the scale of the porch and adds another entrance door and window. The house adds visual interest to Main Street and contributes to its architectural character.

#41 7151 Main Street. Payne House, c. 1903. A two story, frame and weatherboard structure with a steep-pitched center gable with a 2 over 2 double-hung sash window. The original porch has been removed and a compatible two-story wing with hipped roof was recently added. The house is in the geographic center of the district and is a strong visual element.

#42 12705 Chapel Road. Late 1920s. A one-and-a-half story bungalow, frame and weatherboard, with center dormer in roof. The main roof line forms top of front porch, leaving half-columns on stucco blocks. The scale and setback are appropriate to the district.

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#43 7151 Pendleton Avenue. Hetzel House, 1870. A gable front and wing structure, frame and weatherboard with metal seamed roof. This is a good example of its style and both historically and architecturally important to the district.

#44 7155 Pendleton Avenue. c. 1909. Small one-and-a-half story house with front gable plan. To the south side is a small shed-roofed addition. A simple gable-topped porch appears to be a later addition, at which time the front facade was probably remodelled. This is a variation on Clifton architecture but in size and scale certainly is harmonious.

* #45 12645 Chapel Road. 1953. Firehouse and Post Office. Two attached buildings, both two stories. Non-contributory.

Vacant Lot

#46 12639 Chapel Road. Bradley House, 1882. Two story, frame and weatherboard structure with metal seam roof material over a hipped roof. Front facade has a 2 over 2 double-hung sash window on each level. One of three similar structures which contribute to the district.

#47 12637 Chapel Road. c. 1900. A two story, frame house with a mansard roof, covered with a composition siding. There is a one story bay window on the west side, and the front porch is screened in. The style of the house complements its two neighbors and contributes to the district.

#48 12635 Chapel Road. Fletcher House, c. 1905. A two story, frame and weatherboard structure with seam metal roof. There is a one story porch also roofed with seam metal. Like its neighbor, it also has a bay window on the west facade. Although in need of repair at present, the house makes a contribution to the district and marks its eastern boundary on Chapel Road.

#49 12638 Chapel Road. Clifton Town Hall, c. 1905. Small, two story, two-bay structure with one story addition to the rear. Metal seamed roof is repeated on front porch. Undecorated columns support porch roof. Now a town museum it makes a significant contribution to the district.

Vacant Lot

#50 12642 Chapel Road. Turner House, c. 1900. Two story, frame and weatherboard house with seamed metal roof. The one story porch has a seamed metal, hipped roof and porch columns with decorative brackets. A classic example of Clifton architecture, this house makes a strong addition to the district.

* #51 12644 Clifton Road. The Clifton House, 1962. Designed to complement the government building across the road, the building has two, one-story elements and one two-story element. Not unattractive, but not a contributing building.

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- #52 12698 Chapel Road. Payne's Kitchen, c. 1903. Moved across Chapel Road c. 1918. A simple gable and wing structure. Originally the kitchen for the Payne house, it has housed many commercial uses. It complements the area by adding visual diversity.
- #53 12712 Chapel Road. Woodyard House, 1904. A large two story, frame and weather-board structure with metal seamed roof. The house has a center door and five bays. The center gable has fishtail shingles. To the rear is a series of additions providing a side porch and entrance, compatible with the original structure. This house is one of the strongest architectural elements of the district.
- #54 12704 Chapel Road. Detwiler House, c. 1900. Two story, frame and weatherboard structure with center gable containing small window and covered in fishtail shingles. Simple double-hung sash windows. This is a typical Clifton structure and contributes to the district.
- #55 7145 Main Street. Buckley's Store, c. 1900. Two story frame and clapboard warehouse structure with a simple one story porch across the front facade. There is a front gable addition to the north facade and a one story wing to the south. Historically and architecturally this is one of the dominant structures in the town.
- #56 (7157) Main Street. "Pink House," 1905. Small, two story frame and stucco structure with metal seamed roof. A modest structure, but does contribute to the visual sense of the district.
- #57 Behind Main Street, north of the railroad tracks. Barn, c. 1932. Contributes to the historic atmosphere of the village and to the district.
- #58 7135 Main Street. Acacia Lodge, c. 1900. Simple two story structure. Originally a mill, it was moved about 1930 from area where barn is now. Contributes to the visual diversity and historic atmosphere of the town.
- #59 7222 Dell Avenue. Detached house. Vernacular. Ca. 1903. Wood Frame (weatherboard); 3 stories; gable roof (standing seam metal); 2 bays; 2-story, 3-bay porch with turned posts, simple balustrade extends around east side of house.
- #60 7219 Dell Avenue. Detached house. Vernacular. Late 19th century. Wood frame (weatherboard); 1½ stories; gable roof (composition); 3 bays; 1-story, 1 center bay porch with simple wood posts, gable roof.
- #61 7221 Dell Avenue. Detached house. Vernacular. Late 19th century. Wood frame (weatherboard); 1½ stories; gable roof (standing seam metal); 3 bays; 1-story, 1 center bay porch with turned posts.
- #62 7223 Dell Avenue. Detached house. Vernacular. Early 20th century. Wood frame (bricktex); 2½ stories; gable roof (composition); 2 bays.
- #63 7225 Dell Avenue. Detached house. Vernacular. Late 19th century. Wood frame (aluminum); 2 stories; gable roof (composition); 3 bays; 1-story, 1 center bay porch with simple wood posts, gable roof.

8. Significance

Period	Areas of Significance—Check and justify below			
<input type="checkbox"/> prehistoric	<input type="checkbox"/> archeology-prehistoric	<input type="checkbox"/> community planning	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 1400-1499	<input type="checkbox"/> archeology-historic	<input type="checkbox"/> conservation	<input type="checkbox"/> law	<input type="checkbox"/> science
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<input checked="" type="checkbox"/> 1900-	<input type="checkbox"/> communications	<input type="checkbox"/> industry	<input type="checkbox"/> politics/government	<input checked="" type="checkbox"/> transportation
		<input type="checkbox"/> invention		<input type="checkbox"/> other (specify)

Specific dates 1860-1910

Builder/Architect Unknown

Statement of Significance (in one paragraph)

STATEMENT OF SIGNIFICANCE

Clifton is a small village in southwestern Fairfax County near Bull Run, the border with neighboring Prince William County. The town developed during the period of 1868 to about 1910 from the impetus of the entrepreneurial activities of a post-Civil War migrant from upstate New York, one Harrison G. Otis. Otis judiciously purchased land parcels, beginning in 1868, located at a depot of the Orange & Alexandria Railroad, which ran between Gordonsville and Alexandria. The following year he became the first postmaster of the new U. S. post office named Clifton. As a result of Otis' interests in promoting land cultivation and, in general, making Clifton attractive as a local center by opening roads and building a hotel, Clifton quickly grew to a settlement of twenty families by 1878. The present district reflects the continuing prosperity of the village over the following three decades as a result of lumbering, sawmill, farming, and talc mining activities, employment provided by the railroad, and a new pattern of land ownership as former northerners settled in the county following the Civil War. By 1910 there were 200 residents in the incorporated Town of Clifton. The frame residences and several commercial buildings, dating from the forty-year period of development, represent a well-preserved and intact example of vernacular architecture of the late 19th century and early 20th century with extremely few contemporary intrusions. The building types are those typically found in a rural village serving as an agricultural and small-scale industrial center. The relationship of the buildings to the narrow streets and the spacing of the building lots comprise a cohesive visual quality throughout the district. Clifton's streetscapes convey a distinct sense of an agricultural Virginia town at the turn of the 20th century.

HISTORICAL BACKGROUND

The land area which is now within the town limits of Clifton was sparsely settled farm land by the late 1700s, with 1,200 acres of Popes Head Creek belonging to William E. Beckwith. Several events affected the area just prior to 1865. First, the section of the Orange and Alexandria Railroad between Alexandria and Manassas was completed in 1852, traversing William Beckwith's land. Secondly, between 1861 and 1865 this rail line was used strategically for transporting supplies and troops for the Union Army which incorporated it into the U. S. Military Railroad System. At what is now Clifton, the Union Army in 1863 built Devereux Station, a siding used for loading firewood onto the engines. Also in 1863, William Beckwith died, leaving no heirs and about 1,000 acres north of the Orange and Alexandria tracks in his estate to be sold and smaller parcels south of the tracks to be distributed to his freed slaves.¹

Following the Civil War, many former soldiers and others from the North migrated into Fairfax County. Harrison G. Otis followed this pattern and moved to the county from Ontario County, New York. In 1868 at the age of 54, he purchased land parcels along the railroad line from the Beckwith estate. In this same year the depot's name was changed to Clifton Station. Within a year, Clifton had become a United States post office, with Otis as the postmaster. He continued his vigorous development pursuits:

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purchasing land, undertaking vineyard cultivation, and opening roads which gave access to the railroad from points north, south, and west of Clifton. He also built the Clifton Hotel next to the tracks as a residential and tourist hotel, and by 1870 had further expanded his activities to include saw milling.² The U. S. Census records for the Centreville District of Fairfax County indicate that in 1880 Otis' brother, W. B. Otis and his wife, Anna Elizabeth, and Otis' sister, Clara, were all residents of the area.³

Over the next ten years Clifton developed the amenities needed to support a settlement of twenty families, according to the 1878 Hopkins Map. The town featured four churches, a school, saw and grist mills, four general merchants, a blacksmith shop, and wagon shops. The Hetzel House (1870), the Mayhugh Tavern (circa 1870) and the Quigg House (1876) were all standing by this time. The early churches which still survive are the Clifton Presbyterian Church (1870) and the Clifton Baptist Church (1877, building replaced in 1912).

By the early 1880s Clifton was able to take advantage of its short distance from Washington, D. C. by rail. In the Virginia Midland Railway Excursion Guide, published in 1882 by the successor to the Orange and Alexandria Railroad, Clifton House (Otis' Clifton Hotel) was listed as a resort.⁴ This role for Clifton was primarily attributable to the summer residents, many from Washington, who were attracted to the country village.

Clifton shared in the rapid population growth of the county in general which experienced an increase from 13,000 residents in 1870 to 18,600 by 1900.⁵ The prosperity of Clifton continued through the 1890s and peaked during the first decade of the 20th century. Economic activity in the town included businesses which supplied feed, fertilizers, and patent machinery, soapstone quarrying and dairy farming in the area, and a thriving timber industry which supplied railroad cross ties, firewood, and other wood specialty items. Many residents were employed by the Southern Railway System, first formed in 1894. Double tracks were in place by 1902 and in 1907 it was reported that twenty-two trains per day in both directions passed through Clifton. Passenger service lasted until 1938. Behind the Buckley Brothers Store is the site of the Southern Railway Depot which was demolished around 1958.

In 1902, with a population of 150, Clifton was incorporated as a town by an act of the General Assembly. A local newspaper, the Fairfax Herald, featured a detailed account of life in Clifton in 1904, even listing names and occupations.

Buckley Brothers -- general store W. E. Ford, clerk
J. L. Fristoe -- general store Russell Barbee, clerk
S. H. Detwiler -- livery
F. G. Mayhugh -- livery George Mayhugh assists father
J. B. Cross -- wheelwright and undertaker one helper
A. J. Kidwell -- blacksmith two helpers
Mrs. Annie Bell -- operates hotel
Mrs. Remsburg, widow -- boarders

(See Continuation Sheet # 10)

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R. W. Woodyard -- saw, lath and grist mill
Wright, Hickey and Mathers -- ties and cordwood, saw mill
M. M. Payne -- lumber dealer
J. M. Fulmer -- lumber for Northern markets
George Kincheloe -- huckster to Washington market from Fairfax and
Prince William counties
T. O. McMullen -- contract carpentering, portable saw, joiner
C. H. Ford -- manages mother's estate around Clifton
R. B. Dorsey and Will Richards -- push the pen for Uncle Sam
D. W. Mathers -- stone mason
R. S. Fullerton -- machinist
Paul McMullen, W. C. and S. W. Packett -- carpenters
R. T. Payne -- carpenter
O. F. Holland, formerly of Charlotte, N. C. -- charge of material train
of the Southern Railway
F. G. Cooksey -- stone mason for the Southern
H. Adams, H. N. Payne -- telegraph operators
T. A. Ayre -- Agent for Southern, lives with Mrs. Thomas Payne
R. B. Fitstentle (colored) -- cobbler's shop on Railroad Avenue
Five railway mail clerks live in village and run on the Southern from
Washington to Greensboro, N. C.
Dr. J. L. Sanford, surgeon, Phillipines and Cuba -- lives in hotel
Rev. W. H. Edwards -- commercial orchard; pastor, Presbyterian church

In 1906 the paper noted an increase in residential construction and listed several new occupations in the homebuilding trades. The first decade of the 20th century saw the construction of approximately thirty houses within the town limits.

Of the sixty-two buildings within the historic district boundaries, thirty date from the first decade of the 20th century, including some of the best examples of vernacular houses. These include the C. H. Wine House, 7157 Pendleton Avenue, built in 1909, and the 1907 Detwiler House, 12755 Chapel Road.

The exhaustion of the pulpwood supplies by 1910 adversely affected the various wood industries which, in turn, deprived the railroad of the bulk of its local business. Since the Southern Railway steam service could not economically serve commuter traffic, and Clifton was too far away from the District of Columbia to be served by trolley lines, the town was bypassed in regard to the land development schemes which began to characterize the suburbs in the teens and twenties. Development up to the present has been minimal, consisting of buildings for town services and new residences. Clifton's turn-of-the-century appearance remains to convey a sense of its historical development.

¹Nan Netherton, Clifton: Brigadoon in Virginia (Clifton, Virginia: Clifton Betterment Association, 1980), p. 16.

²Ibid., p. 19.

³U. S. Bureau of Census, Fairfax County, Virginia, 1870, 1880.

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⁴Netherton, op. cit., p. 51.

⁵Nan Netherton, et. al., Fairfax County, Virginia, A History (Fairfax, Virginia: Fairfax County Board of Supervisors, 1978), p. 459.

⁶Netherton, Clifton: Brigadoon in Virginia, pp. 62-63.

9. Major Bibliographical References (See Continuation Sheet #12)

Hopkins, G. M. Atlas of Fifteen Miles Around Washington, Including the Counties of Fairfax and Alexandria, Virginia. Philadelphia: G. M. Hopkins, 1879.

Netherton, Nan. Clifton: Brigadoon in Virginia. Clifton, Virginia: Clifton Betterment Association, 1980.

10. Geographical Data

Acreeage of nominated property approx. 42 acres

Quadrangle name Manassas, Va.

Quadrangle scale 1:24000

UTM References

A

1	8	2	9	2	9	7	0	4	2	9	5	1	0	0
Zone			Easting				Northing							

B

1	8	2	9	2	9	8	0	4	2	9	4	5	4	0
Zone			Easting				Northing							

C

1	8	2	9	2	4	3	0	4	2	9	4	5	4	0
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D

1	8	2	9	2	4	3	0	4	2	9	5	0	7	0
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E

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F

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G

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H

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Verbal boundary description and justification

The Clifton Historic District boundaries coincide with the property lines of those historic buildings that are in the greatest concentration in the center of the incorporated town. Included are properties facing on Main Street beginning at

List all states and counties for properties overlapping state or county boundaries (See Continuation Sheet

state	code	county	code
N/A		N/A	

state	code	county	code
N/A		N/A	

11. Form Prepared By

name/title Emma Jane Saxe and Elizabeth S. David, Historic Preservation Officer

7714 Thor Drive, Annandale, Virginia 22003

organization Office of Comprehensive Planning

date February 28, 1985

street & number 4100 Chain Bridge Road

telephone (703)237-4881

city or town Fairfax

state Virginia 22030

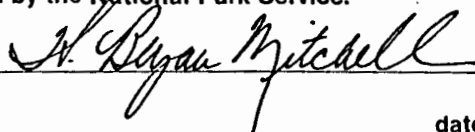
12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

☐ national ☒ state ☐ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature



title H. Bryan Mitchell, Director
Division of Historic Landmarks

date June 18, 1985

For NPS use only

I hereby certify that this property is included in the National Register

date

Keeper of the National Register

Attest:

date

Chief of Registration

United States Department of the Interior
National Park Service

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9. Major Bibliographical References

Netherton, Nan, et al. Fairfax County, Virginia: A History. Fairfax, Virginia: Fairfax County Board of Supervisors, 1978.

U. S. Bureau of Census. Fairfax County, Virginia, 1870, 1880.

10. Geographical Data

Verbal boundary description and justification

Popes Head Creek at the north and properties on both sides of Chapel Road, Chestnut Road, Dell Avenue and School Street. The northern boundary line runs along Popes Head Creek, a physical feature which determined the placement of the railroad in the 1850s. Beyond the district boundaries to the east and southeast are large open fields with no buildings. Buildings west of the western boundary line are noncontributing elements because of their recent dates of construction.

Boundary Description:

Beginning at a point (A) at the NW corner of the Clifton Presbyterian Church lot; thence approx. 1500' SE along Popes Head Creek to a point (B); thence approx. 280' S to a point (C) at the NW corner of the lot at 12638 Chapel Rd; thence approx. 165' SSE following the north and east property lines of said lot to a point (D) at the SE corner of said lot; thence approx. 80' E to a point (E) at the NE corner of the lot at 12635 Chapel Rd.; thence approx. 160' S to a point (F); thence approx. 80' W to a point (G) at the NE corner of the lot at 12638 School St.; thence approx. 180' S to a point (H) on the south side of School St.; thence approx. 80' W to a point (I) at the NE corner of the lot at 12641 School St.; thence approx. 480' S to a point (J) at the SE corner of the lot at 12649 School St.; thence approx. 340' NNW to a point (K) at the SE corner of the lot at 12651 School St.; thence approx. 300' W to a point (L) on the west side of Clifton Rd.; thence approx. 240' S to a point (M) at the SE corner of the lot last of 7211 Main St.; thence approx. 320' SW to a point (N) on the east side of Main St.; thence approx. 40' S to a point (O); thence approx. 110' E to a point (P) at the NE corner of the lot at 7219 Dell Ave.; thence approx. 230' S to a point (Q) at the SE corner of the lot at 7225 Dell Ave.; thence approx. 110' W to a point (R) thence approx. 40' N to a point (S) directly opposite the SE corner of the lot at 7222 Dell Ave.; thence approx. 180' W to a point (T) on the east side of Main St.; thence approx. 580' NE to a point (U); thence approx. 180' SW to a point (V) at the SW corner of the lot at 7200 Main St.; thence approx. 100' N to a point (W) on the south side of Chestnut Rd.; thence approx. 100' W to a point (X) at the NE corner of the lot at 12717 Chestnut Rd.; thence approx. 110' SE to a point (Y) at the SE corner of said lot, thence approx. 440' W to a point (Z); thence approx. 200' S to a point (A₁) at the SE corner of the lot at 12801 Chestnut Rd.; thence approx. 360' W to a point (B₁) at the SW corner of said lot; thence approx. 140' N to a point (C₁) on the south side of Chestnut Rd.; thence approx. 440' E to a point (D₁) at the NE corner of the lot at 12801 Chestnut Rd.; thence approx. 70' NE to a point (E₁) at the SW corner of the lot at 12722 Chestnut Rd.; thence approx.

(See Continuation Sheet # 13)

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Boundary Description (continued)

120' N to a point (F₁); thence approx. 140' W to a point (G₁); thence approx. 160' N to a point (H₁) on the south side of Chapel Rd.; thence approx. 360' E to a point (I₁) opposite the SW corner of the lot at 12746 Chapel Rd.; thence approx. 120' N to a point (J₁); thence approx. 170' W to a point (K₁) at the SW corner of the lot at 12801 Ford Lane; thence approx. 220' N to a point (L₁) on the railroad right of way; thence approx. 130' E to a point (M₁); thence approx. 560' N to the point of origin.

CLIFTON HISTORIC DISTRICT
Fairfax County, VA

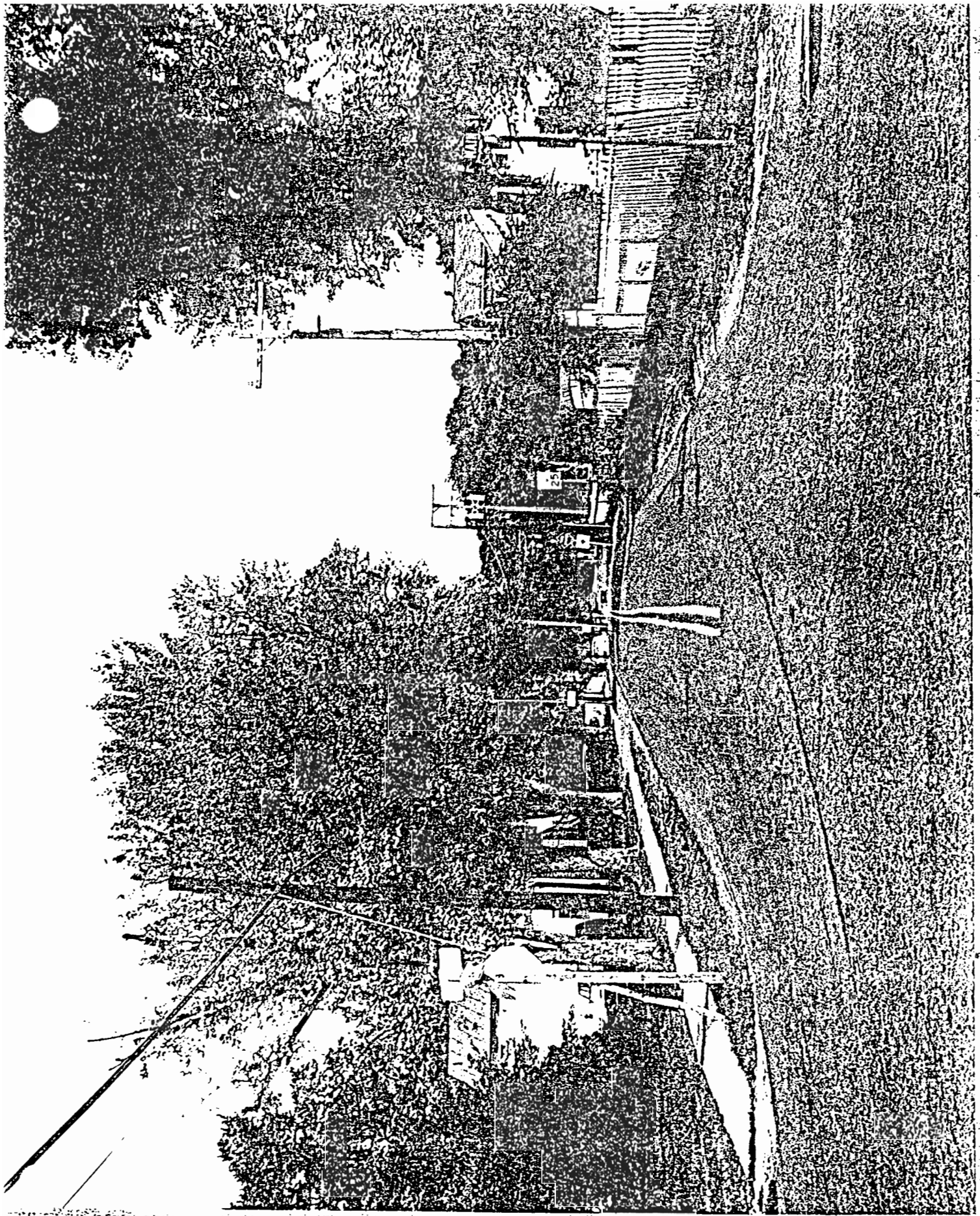
Credit: Fairfax County Heritage
Resources Program

Date: 1984

Negative Filed: Fairfax County
Heritage Resources Program

View from Main Street looking E on Chapel

File No: 25 5



CLIFTON HISTORIC DISTRICT
Fairfax County, VA

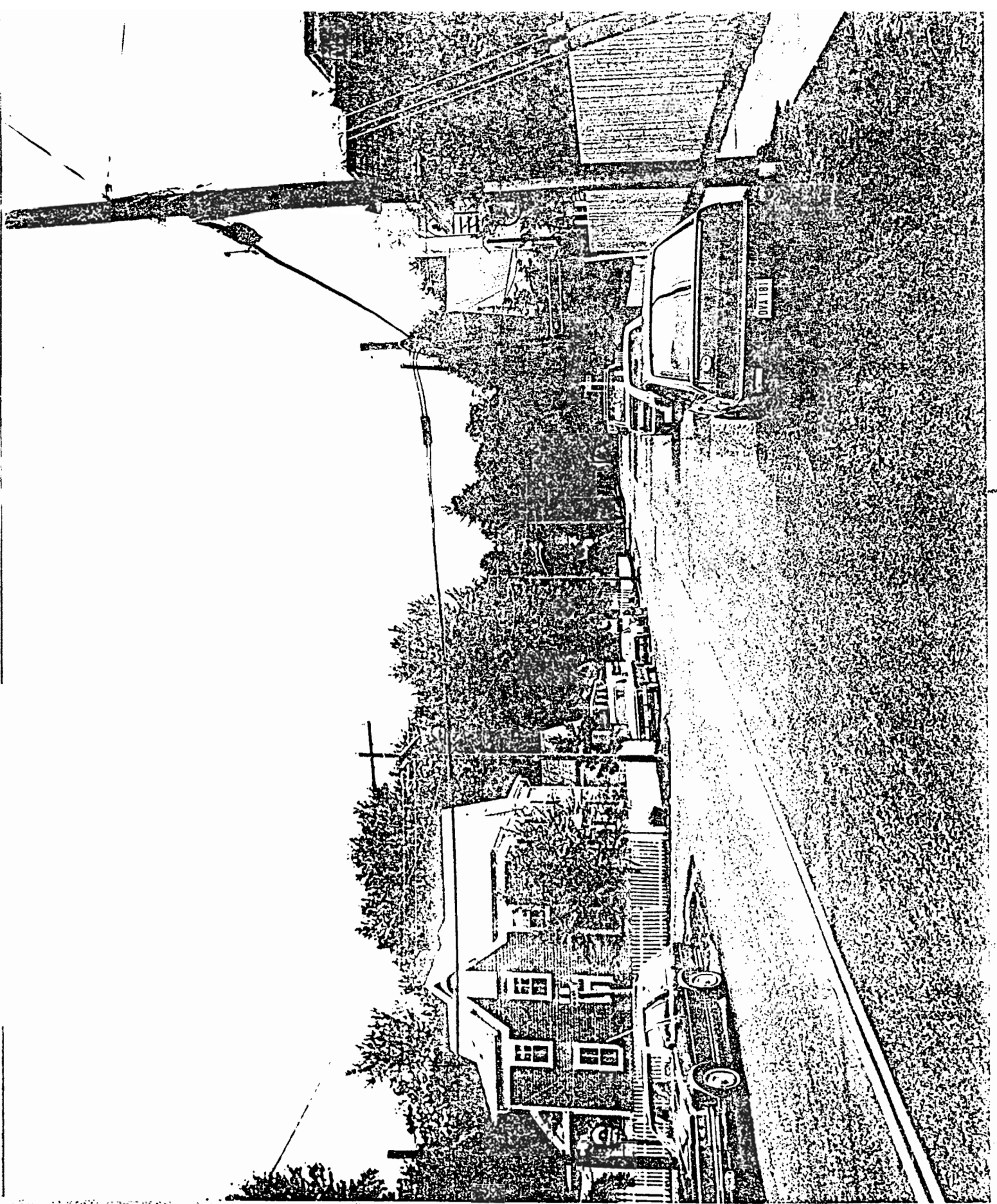
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Heritage Resources Program
View from Main Street looking S

File No. 29. 5

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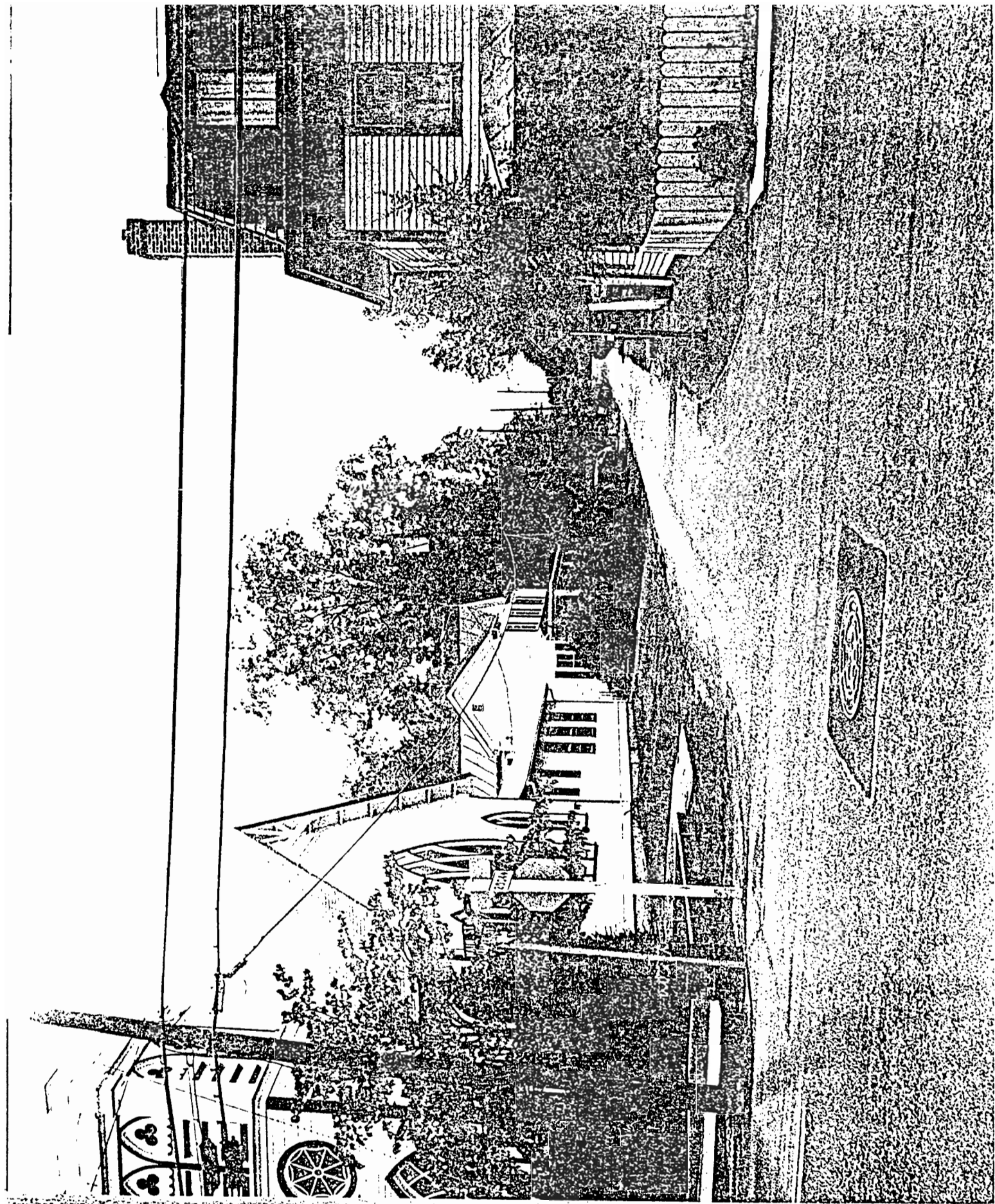
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Credit: Fairfax County Heritage
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View from Main Street looking W on Chapel.
File No. 20 '5

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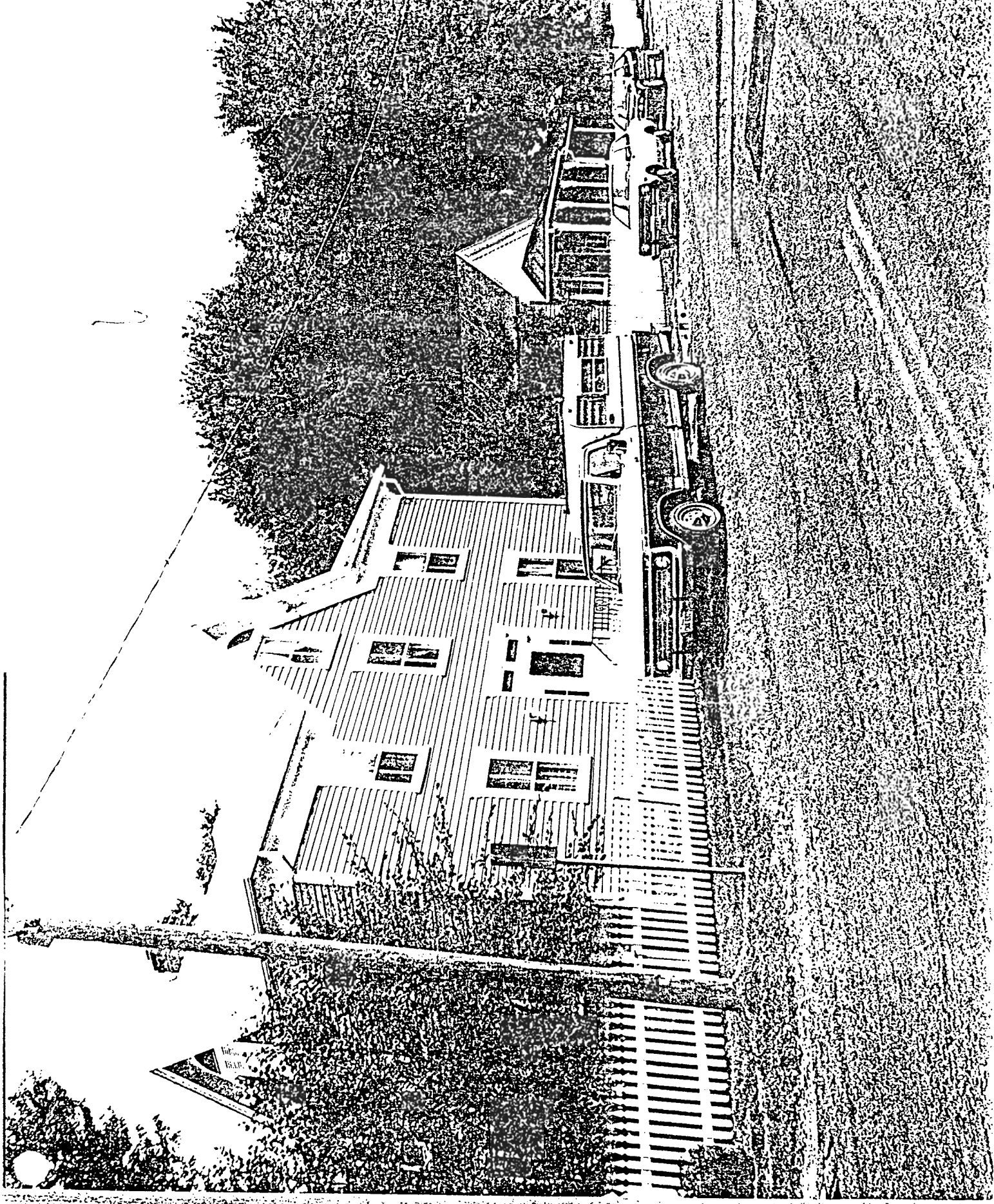


CLIFTON HISTORIC DISTRICT
Fairfax County, VA

Credit: Fairfax County Heritage
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View of 7150 and 7153 Main Street
File No. 29-225 looking southeast



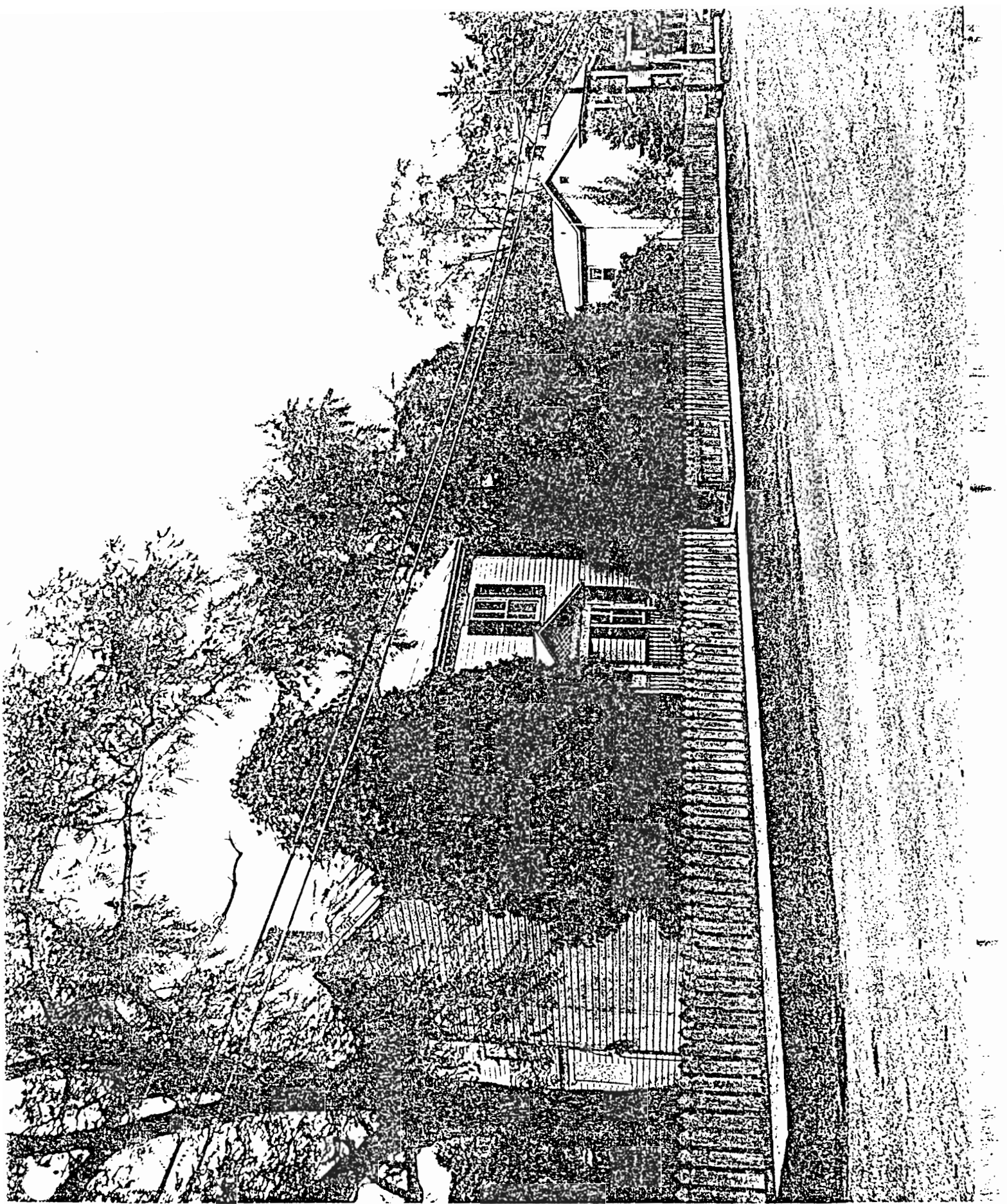
CLIFTON HISTORIC DISTRICT
Fairfax County, VA

Credit: Fairfax County Heritage
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Date: 1984

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Heritage Resources Program
View looking W on Main Street
File No. 29-225

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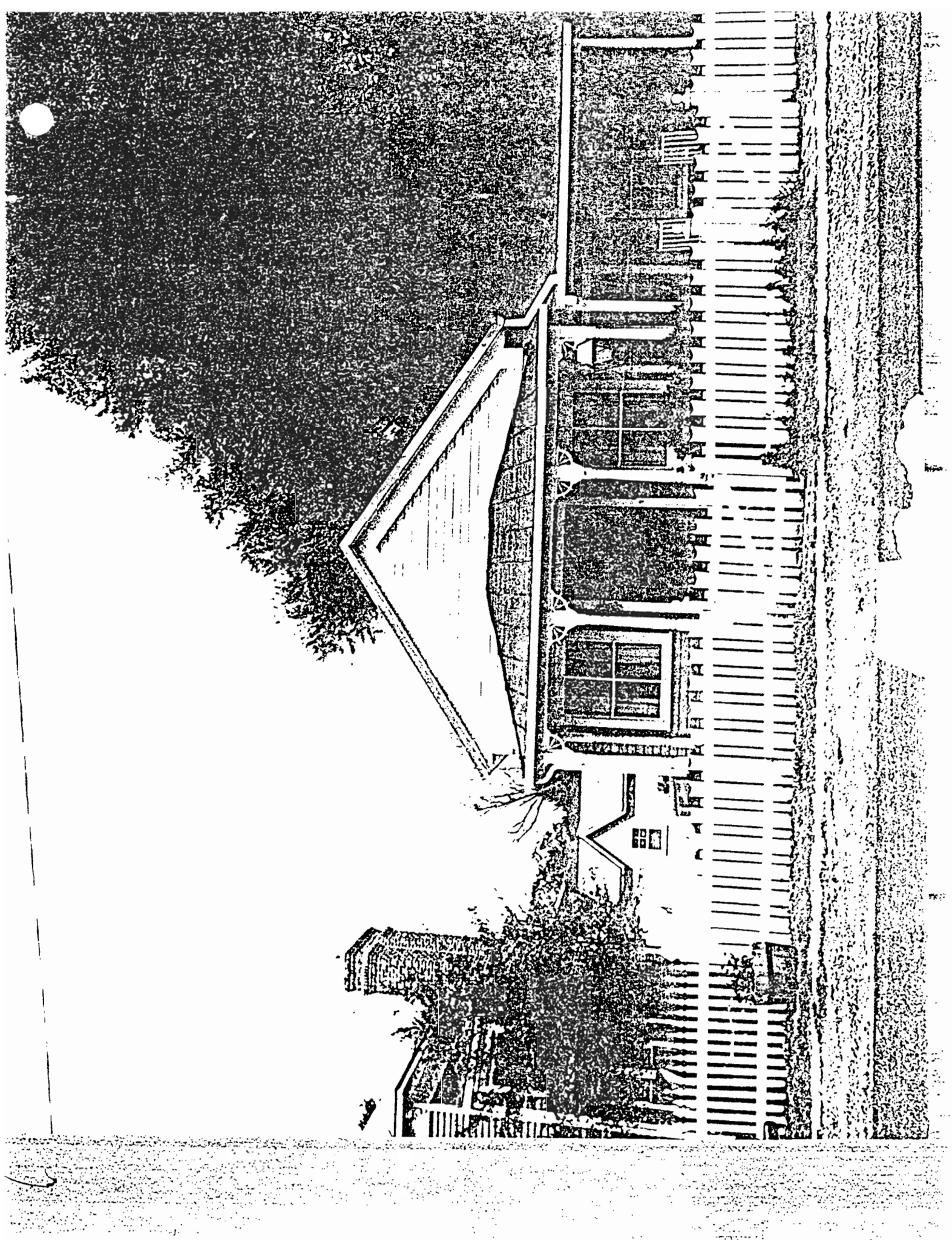
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Fairfax County, VA

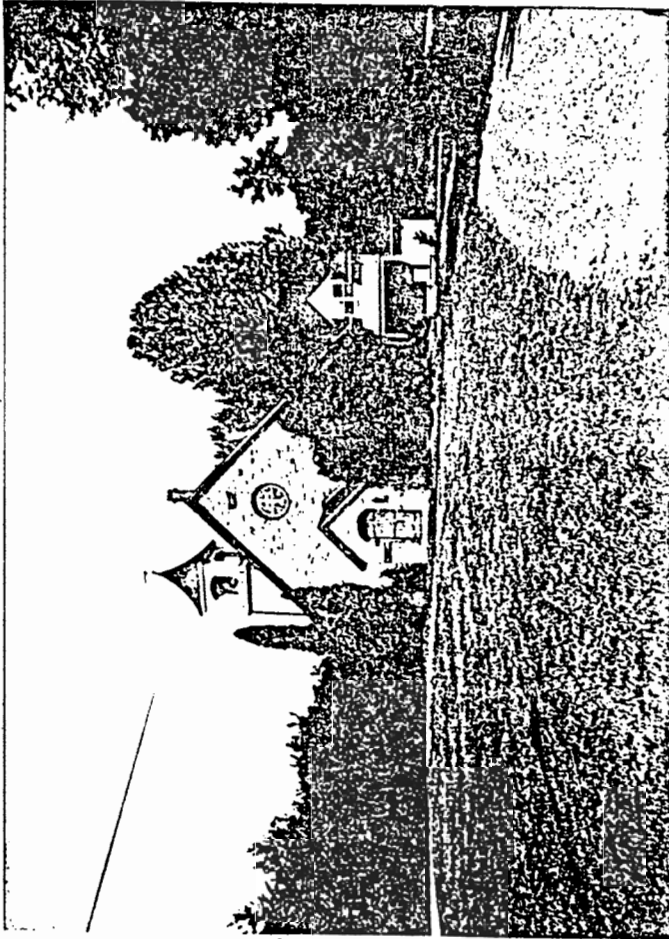
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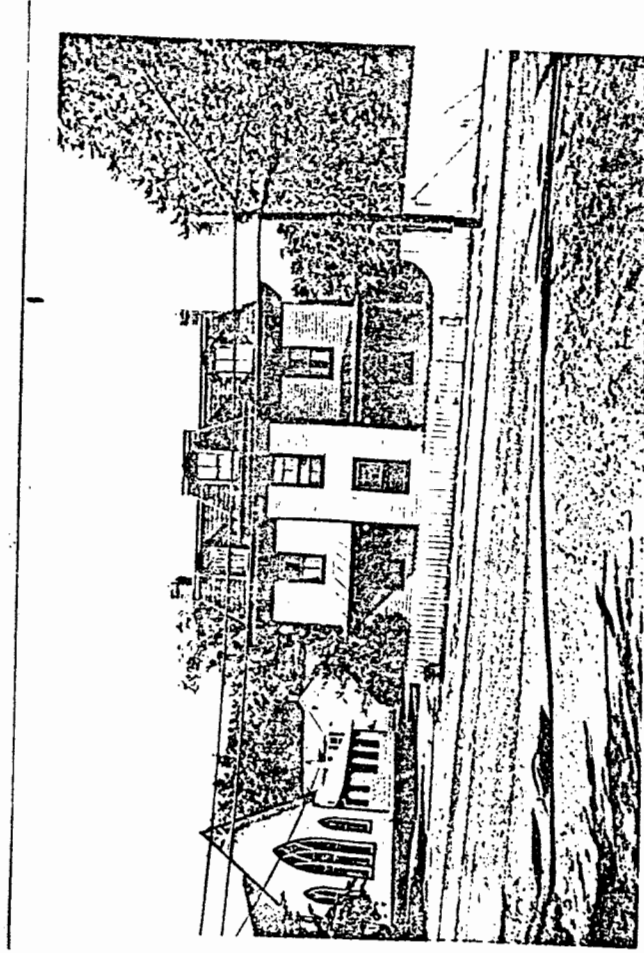
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Heritage Resources Program
View of 7153 Main Street looking east
File No. 29-725

#6

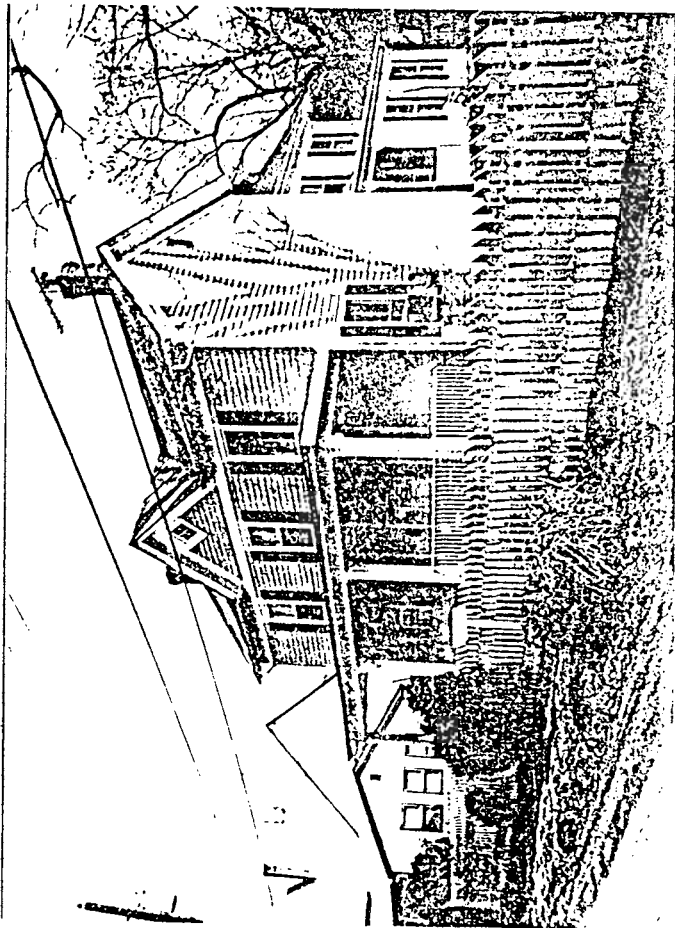




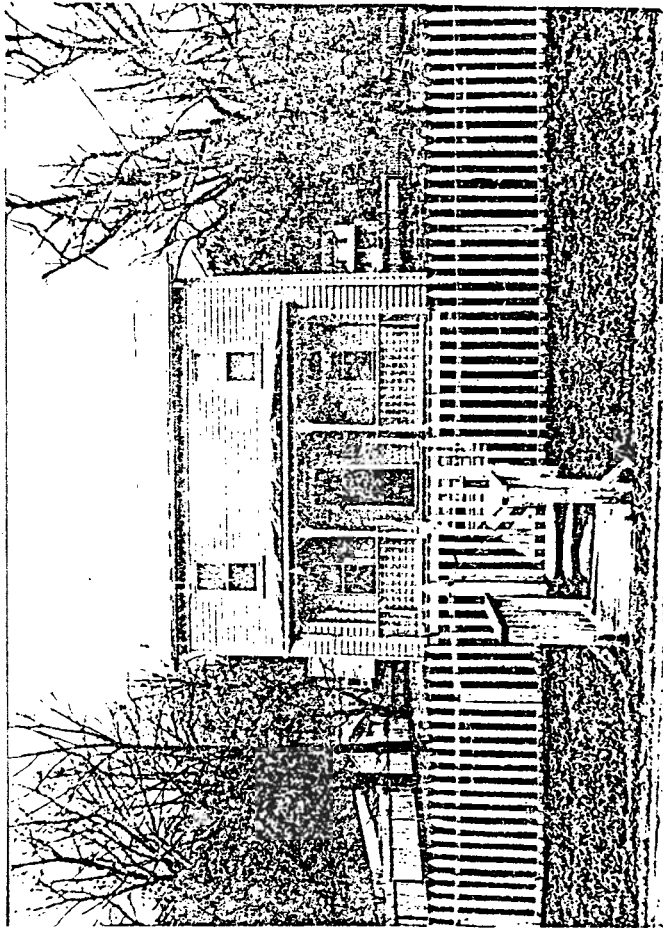
7 - Clifton Presbyterian Church
12744 Richards Lane
view looking N



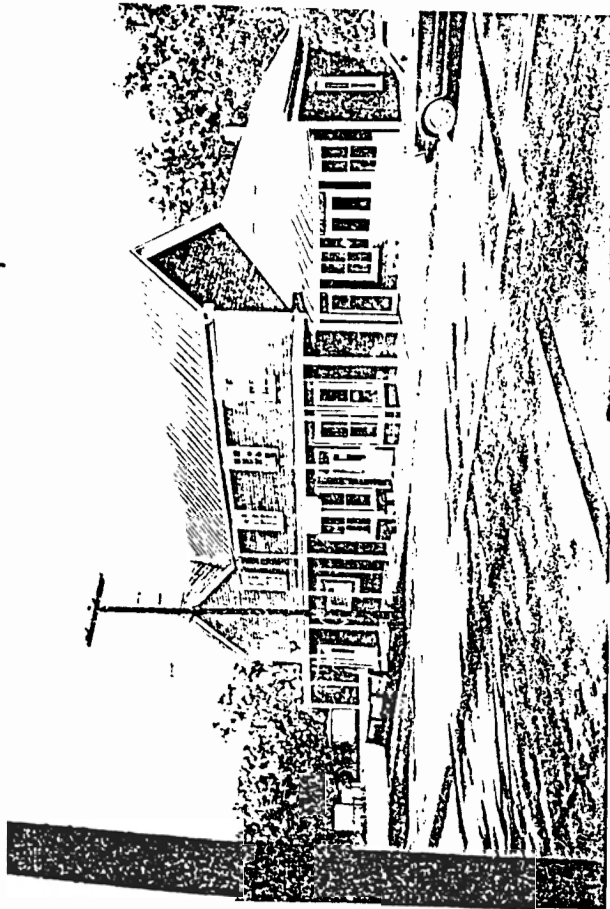
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view looking W



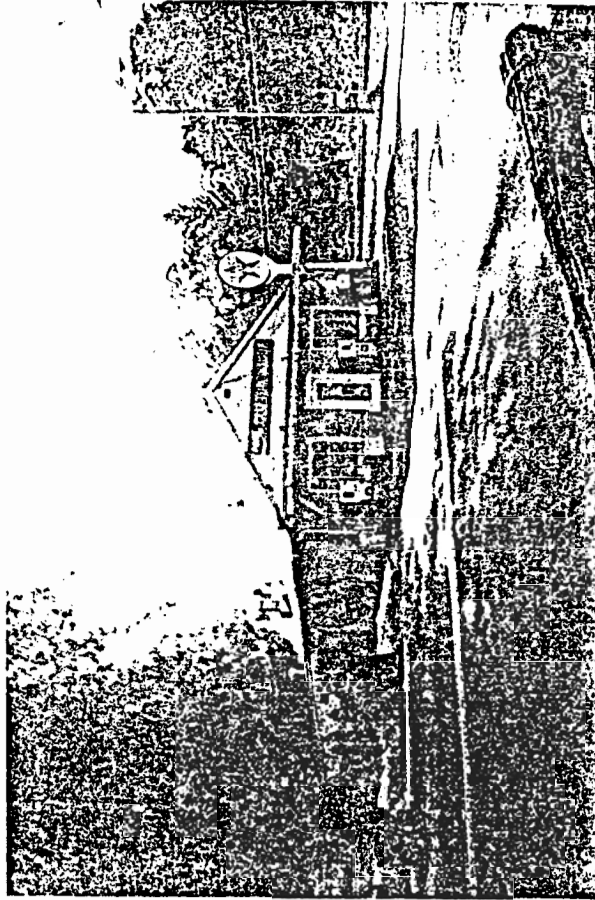
9 - 12743 Chapel Rd.
view looking S



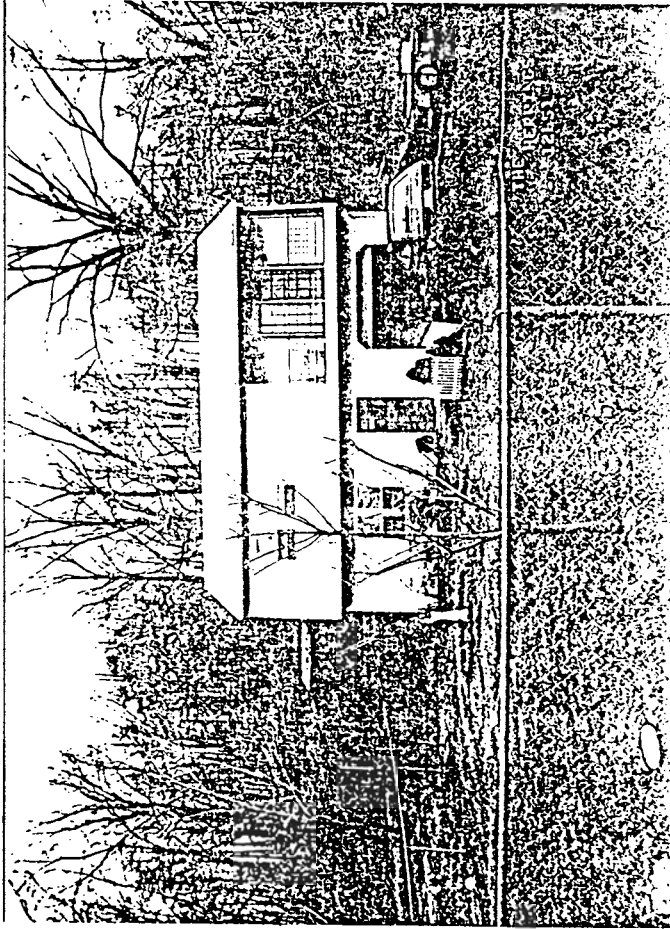
10 - 12722 Chestnut Rd.
view looking N



11 - 7145 Main St.
view looking NE



12 - 7140 Main St.
view looking W
noncontributing structure



13 - 12651 School St
view looking S
noncontributing structure

Appendix B
Detailed Soils Information for the Town of Clifton

The following paragraphs describe each of the Town's soil group characteristics and the variability within each in the order of the land area covered within the Town.

Manor Silt Loam

The dominant soil within the Town is the Manor Series which consists of shallow, highly micaceous, somewhat excessively drained soils. The soils have formed from micaceous quartz and sercite schist. They are often found on narrow, rolling ridge tops and the steeper ridge slopes. The surface layer is yellowish-brown and is directly over micaceous residuum.

Chewacla Silt Loam

The Chewacla Series is the second most predominant soil within the Town. This series consists of young, fertile, somewhat poorly drained to moderately well drained soils on first bottoms and are subject to flooding. These soils have developed primarily from fine materials that washed from the Piedmont Upland, which is underlain by granite gneiss, schist, and greenstone. The surface layer is brown to dark-brown, very friable, and granular in structure. The canopy vegetation consists primarily of trees associated with moist areas such as willow, sycamore, elm, red birch, red maple, white oak, and box elder. Chewacla soils underlay the Town's only two land areas zoned for agricultural use. These soils are cited as very productive for permanent pasture and moisture tolerant crops such as corn and mixed hay.

Glenelg Silt Loam

The Glenelg Series consists of moderately deep, well drained soils that have formed in the residuum of micaceous quartz and sercite schist. The surface layer ranges from yellowish-brown to dark brown in cultivated areas and from very pale brown to dark grayish-brown in wooded areas.

Meadowville Silt Loam

The Meadowville Series consists of deep and well drained to moderately well drained soils. Parent material for Meadowville soils is local alluvium and colluvium that washed from Glenelg and Manor Soils of the hilly and steep phases. The surface layer is brown in color. Meadowville soils are found in low positions and depressions near the heads of drainage ways and at the bases of slopes.

Glenville Silt Loam

The Glenville Series consists of moderately deep, well drained soils that have formed in the residuum of quartz and sercite schist. The Glenelg soils occupy fairly wide, undulating to rolling interstream divides and are among the more extensive soils of the upland. On the surface, Glenville is expressed as a yellowish-brown silt loam. Below 18 inches, it is mottled and mostly gray silty clay loam.

Fairfax Silt Loam

The Fairfax Series consists of well drained to moderately well drained soils that have formed in thin-bedded sand, silt, and clay fluvial material in the Coastal Plain.

This material is underlain by the residuum from granite, gneiss, and schist. The Fairfax soils are on high, moderately wide, undulating ridges. The surface of the Fairfax Silt Loam is expressed as a brownish-yellow silt loam.

Unmapped Disturbed Areas

This area is located in the highly disturbed and for the most part impervious area immediately around the site of Clifton Elementary School.

Mixed Alluvial Land

This is a land type that consists mainly of recent mixed alluvium that washed from soils of the uplands and lodged on first bottoms along some of the smaller streams. Most of these soils are somewhat poorly to poorly drained, but small areas are well and moderately drained. Mixed alluvial land is subject to frequent flooding and to additional deposits of fresh sediment. The color characteristics of this soil group will vary from area to area.

The following table presents specific soils characteristics for those soils mapped in the Town of Clifton including slope, percent of Town covered, permeability, surface runoff, erosion hazard, shrink swell, flooding potential, high water table, and depth to bedrock. This information was taken from the *Soil Survey of Fairfax County, Virginia*.

Soil Characteristics of the Town of Clifton

Soil	Slope	Percent of Town	Permeability	Surface Runoff	Erosion Hazard	Shrink-Swell	Flood Potential	High Water Table (feet)	Depth to Bedrock (feet)
Manor Silt Loam Undulating (21B2)	2-7%	1.39%	Rapid	Med.-Rapid	Mod.	Low	N/A		14-100
Rolling (21C2)	7-14%	0.56%	Rapid	Rapid	Mod.	Low			14-100
Hilly (21D2)	14-25%	9.36%	Rapid	Very Rapid	High	Low			14-100
Steep (21E2)	25% +	23.85%	Rapid	Very Rapid	High	Low			14-100
Chewacla Silt Loam (2A+)	0-2%	24.23%	Mod.-Rapid	Slow	Slight	Low	Freq.	1/2 -1 1/2	
Glenelg Silt Loam Undulating (55B2)	2-7%	3.06%	Mod.-Rapid	Med.	Fair	Low	N/A		16-100
Rolling (55C2)	7-14%	16.04%	Mod.-Rapid	Med.-Rapid	Fair	Low			16-100
Hilly (55D2)	14-25%	0.22%	Mod.-Rapid	Rapid	High	Low			16-100
Meadowville Silt Loam (20B+)	2-7%	11.08%	Mod.-Mod. Rapid	Med.-Slow	Slight	Low	N/A	1-2	
Glenville Silt Loam (10B+)	2-7%	8.70%	Slow-Mod. Rapid	Fairly Slow	Slight	Low	N/A	1-2	
Fairfax Silt Loam Rolling (32C2)	7-14%	0.67%	Mod. Slow-Mod- Rapid	Med.-Rapid	Mod.	Low-Mod.	N/A		10+
Unmapped Disturbed (Clifton Elem. Sch.)		0.55%					N/A		
Mixed Alluvial Land (1A+)	0-2%	0.28%	Mod.-Very Rapid	Slow	Slight	Var.	Freq.		

Appendix C
Water Quality Data for Pope's Head Creek

What the water quality standards mean.

The following is a brief description of the importance of some of the more common water quality test parameters. Descriptions are taken from the *Fairfax County 1995 Stream Water Quality Report* (Fairfax County Health Department, 1995).

Fecal coliforms: These indicator organisms, while not necessarily harmful in themselves, are found in the intestinal tracts of all warm-blooded animals, and therefore can be indicative of fecal contamination and the possible presence of a pathogenic organism.

In surface waters, the fecal coliform bacteria count should not exceed 200 fecal coliform bacteria per 100 ml of water.

Dissolved Oxygen: The presence of dissolved oxygen in the water is essential for aquatic life. The minimum standard for dissolved oxygen is 4.0 mg/l.

Nitrate Nitrogen: Nitrate concentrations can range from a few tenths to several hundred milligrams per liter. In nonpolluted water, they seldom exceed 10 mg/l. Nitrate is a major component of human and animal waste, and abnormally high concentrations suggest pollution from these sources.

pH: Biological productivity, stream diversity, metal solubility, and toxicity of certain chemicals are strongly related to pH. The pH Range of 6.0 to 8.5 generally provides adequate protection for aquatic life and for recreational use of streams. A pH of 7.0 is neutral.

Total Phosphorus: Phosphorus is essential to the growth of fresh water organisms. However, excessive amounts of phosphorus, which may originate from wastewater, sewage, and fertilizers, will cause explosive growth of algae. When the algae die, they consume life-sustaining DO which causes other aquatic life to die.

There is no established limit for total phosphorus, however, variations of phosphorus content may help to determine possible trends of water contamination. Fairfax County's log average for 1995 is 0.10 mg/l.

Temperature: Excessively high temperatures will reduce the biological diversity of a stream system. The maximum standard for a free flowing stream is 89.6° F.

Heavy Metals: The presence of heavy metals in a stream indicates possible discharge of household and industrial waste into the stream. Acceptable limits (Primary Maximum Contaminant Level) depend on the type of metal involved.

The following table contains water quality data for Pope's Head Creek taken by the Virginia Water Control Board (now Department of Environmental Quality – Water Division) in 1989.

DEQ-WD Water Quality Data for Pope's Head Creek
Taken at Pope's Head Creek and Clifton Road

Water Quality Component	Test Results	Water Quality Component	Test Results
Lab pH	6.7 su	Nitrate	1.9 mg/l
Alkalinity	27 mg/l (CaCO ₃)	Nitrite	0.01 mg/l
Suspended Solids	<5 mg/l	BOD ₅	1.0 mg/l
Hardness	42 mg/l (CaCO ₃)	COD	7 mg/l
Nitrogen	0.1 mg/l	Total Carbon	0.071 mg/l
Total Phosphorus	0.1 mg/l	Conductivity	116 meq
Ortho Phosphorus	0.01 mg/l	Turbidity	2.8 su
Ammonia	0.04 mg/l	Fecal Coliforms	100 mg/l

mg/l = milligrams per liter

su = standard units

meq = milliequivalents

The following tables contains water quality data for Pope's Head Creek taken by the Fairfax County Health Department in 1995 from Pope's Head Creek sample station 26-05. Samples were taken from 1/1/95 - 12/31/95. A total of 20 samples were taken.

*Fairfax County Health Department Water Quality Data for Pope's Head Creek
Taken at Pope's Head Creek and Clifton Creek*

Water Quality Component	PMCL (Primary Maximum Contaminant Level (set by USEPA)	Testing Results (mg/l)
Arsenic	0.05 mg/l	0.001
Barium	1.00 mg/l	0.019
Cadmium	0.01 mg/l	Below Detection Limit
Chromium	0.05 mg/l	0.001
Lead	0.05 mg/l	0.001
Mercury	0.02 mg/l	Below Detection Limit
Selenium	0.01 mg/l	0.001
Silver	0.05 mg/l	Below Detection Limit

Average Dissolved Oxygen: 9.8 mg/l
 Percentage of Samples Less than 4.0 mg/l: 0%

Average Nitrate Nitrogen: 0.6 mg/l
 Average pH: 7.4
 Average Total Phosphorus: 0.1

Fecal Coliform Samples:
 <200 per 100 ml (good range) 7 samples
 200-1000 per 100 ml 5 samples
 >1000 per 100 ml 8 samples