



Lakeside Avenue Enhancement Plan
County of Henrico, Virginia



March 1995

Lakeside Avenue Enhancement Plan

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Dedication: *The Lakeside Avenue Enhancement Plan is dedicated to the memory of Ben Earp, former "Mayor" of Lakeside who worked for many years to better his community.*

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Lakeside Avenue Enhancement Plan

1.0 Plan Purpose

The Lakeside Avenue Enhancement Plan is a comprehensive plan for physical improvements to the Lakeside Avenue corridor of Henrico County. The purpose of the plan is to study existing conditions that affect the physical appearance and function of the corridor and to develop recommendations for making improvements based on this assessment. The plan represents a first step toward forging a public-private partnership in undertaking a coordinated improvement program that will contribute to economic revitalization of the area. By involving the residents, property owners and business community in the planning process, the plan takes a very important step toward becoming a community-based improvement program.

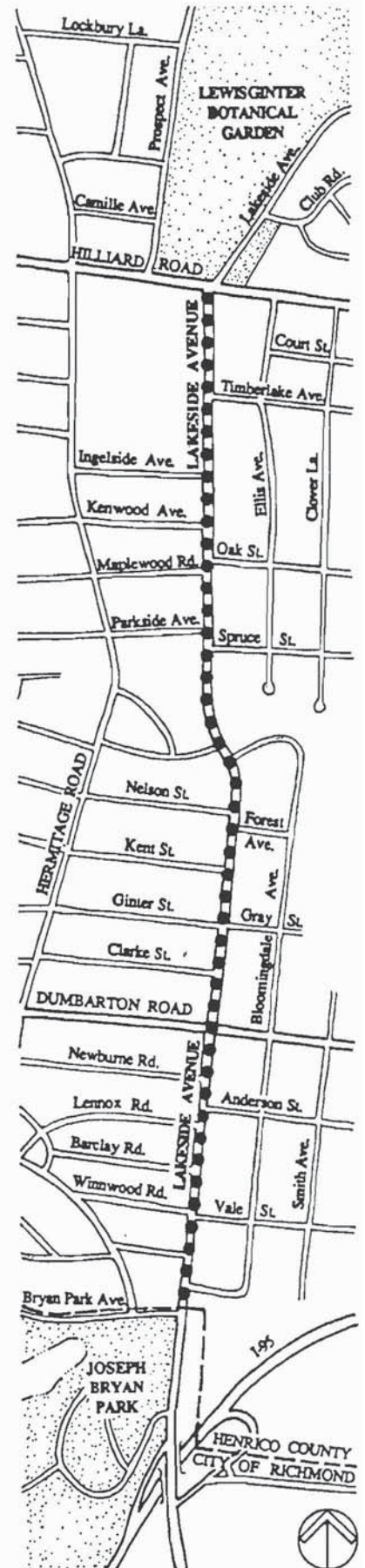
2.0 Study Area

From the Park to the Garden: the study area consists of the 1.5-mile predominantly commercial frontage of the Lakeside Avenue corridor from the City line at Bryan Park north to Hilliard Road and on to the entrance of Bloemendaal-Lewis Ginter Botanical Garden. This juxtaposition between two regional activity centers represents an enviable position of potential gateway to both park and garden and business opportunities in between.

3.0 Plan Scope

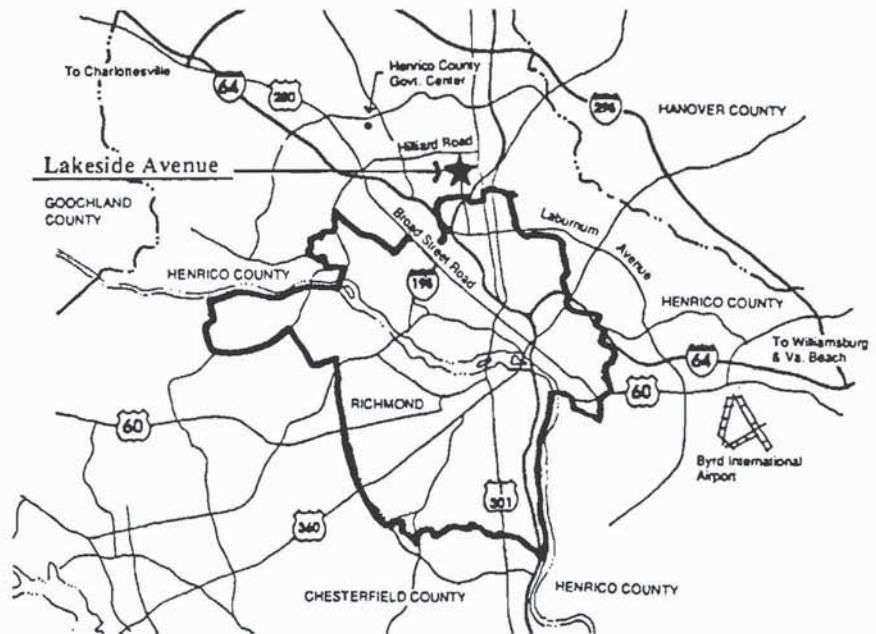
The Lakeside Avenue Enhancement Plan concentrates on the study of physical site development and building facade issues which affect the aesthetics and the function of the Lakeside corridor. For the purpose of this study these issues include streetscape elements such as street trees, sidewalks, lighting, public signage, and street furnishings; the functional issues of parking, traffic circulation, and storm drainage; and architectural character as represented by the building facades.

Parking arrangements, distribution and function are a specific focus in exploring improvement alternatives. The study of the more functional traffic control issues is limited to assessing opportunities for positively impacting the corridor aesthetics, with an ancillary benefit of improving vehicular and pedestrian safety and traffic



circulation. Additional traffic studies beyond the scope of this study will be required to fully analyze recommendations for median consolidations, addition of left turn lanes, and drive access improvements proposed by the plan. Storm drainage problem areas and possible solutions for improvements are identified, but will also require further study.

Market research and economic base analysis also has not been included in the scope of this study. However, in order to assess the potential for economic revitalization, a cursory review of the commercial composition, a definition of the market area and general characteristics of the households in the market area performed under separate study by the Waverly Research Group are contained in Section 6 of this Plan.



4.0 Planning Process/Design Committee

Funded by the County of Henrico's Community Development Block Grant program, the planning process began in June 1994, and has involved an open community workshop approach. The Lakeside Business Association (LBA) with an active membership of 110 business and property owners in the general Lakeside area has been the primary vehicle for citizen involvement. Two open community workshops were held in July and August for the purposes of obtaining community input on visual preferences and community image, as well as for communicating preliminary analysis findings. A booth about the Lakeside Enhancement planning process was set up at the Lakeside Day festival in September during which residents and shoppers were queried on issues and opportunities affecting Lakeside.

A smaller group made up of volunteers representing a cross-section of Lakeside business owners and residents was established as a Design Committee, including:

Ben Long Earp and Clara Earp, Lakeside residents
Jane Fortune, NationsBank
Peter Francisco, Lakeside Appliance
Steve Jeffrey, Lakeside Community Officer for Henrico
County Police Department
Melvin Major, Fin and Feather Pet Center
Frank Robinson, Lewis Ginter Botanical Garden, Inc.
Carole Rupertus, Lawrence Hardware

Three meetings were held with this smaller committee to develop improvement alternatives, and select a refined approach to the enhancement of Lakeside. A number of meetings were subsequently held with County staff and Mr. Roland H. (Bob) Riley, the Resident Engineer of the Virginia Department of Transportation to discuss the alternatives and refine a recommended solution.

The traditional planning process has been followed in developing this plan, including the following steps:

1. **Analysis.** Analysis of existing site conditions and architectural styles which influence the Lakeside corridor, its use and potential use by patrons of the area;
2. **Goals and Objectives.** Formulation of a Vision Statement, and related goals and objectives for the improvement program to achieve;
3. **Conceptual Alternatives.** Development of conceptual alternatives for physical improvements to both the public infrastructure and individual private properties;
4. **Alternative Selection.** Selection and refinement of a final conceptual plan; and
5. **Implementation.** Establishment of program budget targets, sources of funds and means to implement the improvements.

5.0 Physical Site and Architectural Analysis

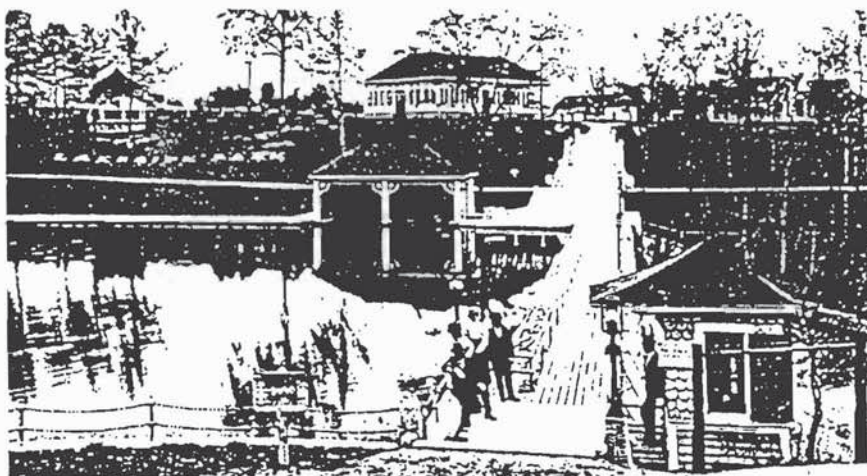
5.1 History of Development

*This brief history is compiled from several publications: **Rails in Richmond** by Carlton Norris McKenney, Interurban Press, 1986; **A Richmond Album** by Earle Lutz, Garrett & Massie, 1937; **Lewis Ginter's Richmond** by David D. Ryan, Whittet & Shepperson, 1991.*

The name "Lakeside" is derived from a recreation area constructed by Major Lewis Ginter in the late 19th century as part of the historic Bloemendaal Farm on the present-day site of the Lewis Ginter Botanical Garden. Opening March 15, 1896, the Park was developed as a destination and impetus for City folks to leave the City for the northside suburbs being laid out and developed by Ginter. Lakeside Park included clubhouses, boat houses, a bowling alley, a casino, pavilion, a restaurant and zoological garden.



A clubhouse was built for the Lakeside Wheel Club, a social organization of bicycle enthusiasts, who traveled to the park over a cinder path called the "Missing Link Trail" built along the route of the present-day Lakeside Avenue. Transforming his existing narrow gage rail line, originating in 1892 for hauling road stone to nearby "Ginter Park", Ginter developed a secondhand passenger car system for service to the area from the City. The line extended from his own steam-powered railroad along his own land from the park down Lakeside Avenue to Young's Pond (Upham Brook, now in Bryan Park) and tied into Brook Turnpike (present-day Brook Road) along a route which probably followed Fauquier Avenue, linking up with Brookland Parkway. Here, Ginter constructed a railroad station, and the Richmond Railway & Electric Co. extended its Barton Heights streetcar line to meet Ginter's railroad.



A conversion of Ginter's line to a streetcar line was made in June 1897 following the dummy line from Upham Creek northward along Lakeside Avenue. Declining patronage eventually caused the Lakeside line to be converted to a shuttle between the park and the corner of Laburnum and Chamberlayne Avenues. As the terminus to the Ginter Park line, a circular waiting shelter resembling a gazebo was constructed at the center of this intersection. The Lakeside shuttle fare was 5 cents. The last open-bench street car ran in the summer of 1925, and on June 2, 1929, buses replaced the Lakeside streetcars.

5.2 Development Pattern/Land Uses & Zoning.

The Lakeside project area consists of two separate and distinct commercial cores, the older of the two starting at the City boundary and centered around the intersection of Lakeside and Dumbarton with the more recent grouping of commercial uses located at the intersection of Lakeside with Hilliard Road. These two commercial areas are principally zoned B-1 and B-2. A small section of Lakeside Avenue frontage which divides the two commercial areas is zoned either for R-4 Residential uses or O-2 Office. Lot depths of the commercial frontage range from 200 to as much as 400 feet.

5.3 Architectural Assessment/Character, Type and Style

A variety of commercial architectural styles and building types are found along Lakeside Avenue ranging from contiguous buildings constructed in the 1920's and 1930's to individual auto-oriented buildings constructed in the 1930's and later. The architectural styles range from basic plain brick rectangles to interpretations of historical styles. Other styles reflect national building designs that relate to an individual retail chain and are not of any particular style.



5.4 Property Ownership Patterns

Based on a sampling of 27 properties in the two commercial areas, only four (4) properties, or less than 15 percent, were found to be owned by absentee landlords outside of the immediate Lakeside area. Many of the individual properties are owned in common by a single owner indicating a greater likelihood that buildings or storefronts can be treated more effectively as a unit in the application of common renovation techniques, treatment and colors. A review of the property ownership and occupancy records of the Lakeside commercial property also indicates that a majority of the business owners also own the building they occupy.

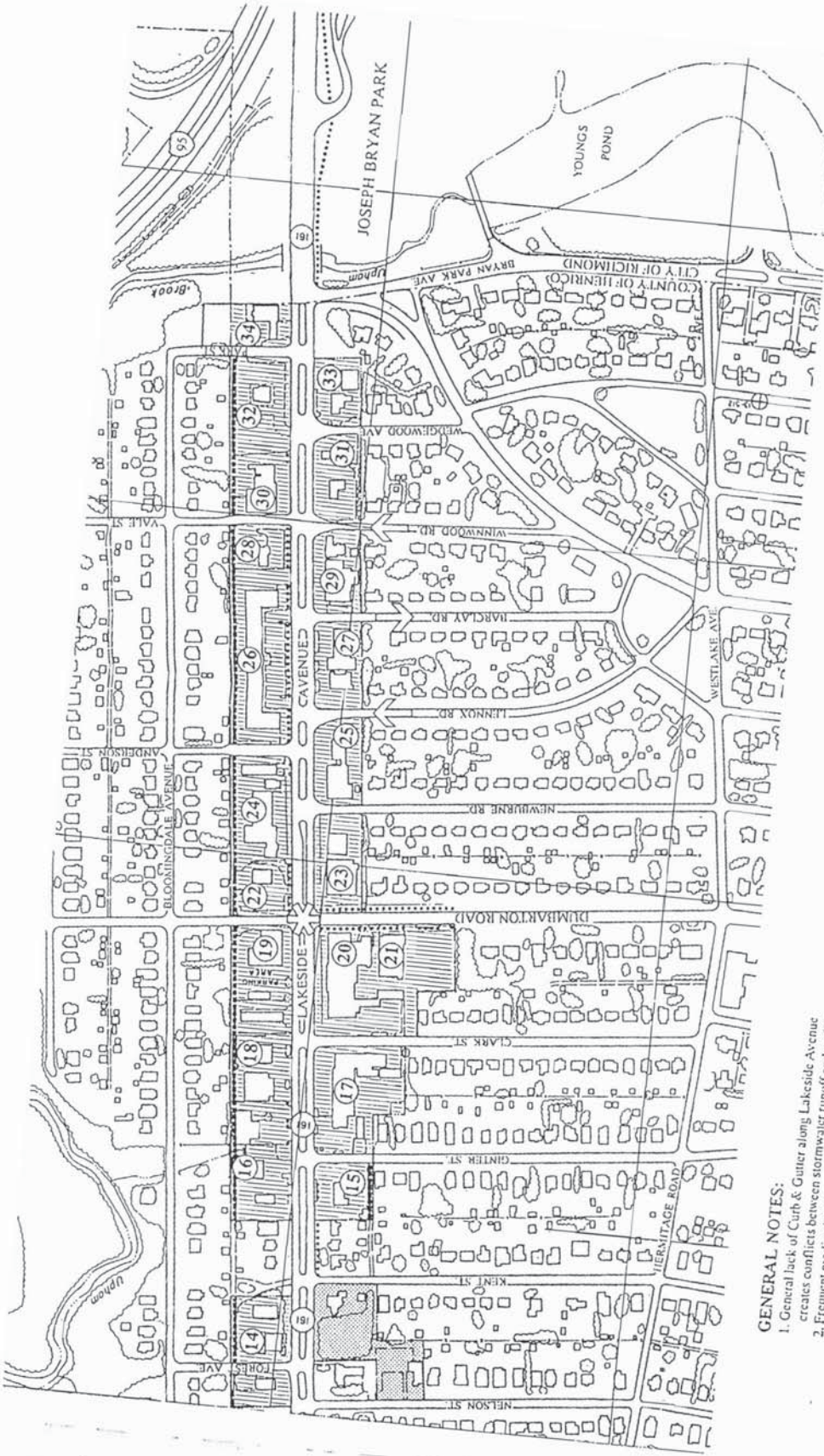
5.5 Vehicular Traffic Circulation/Road Characteristics

Lakeside Avenue (State Route 161) is a four (4) lane State-maintained highway arterial with a median of varying width (from 10 to 23 feet). The road is classified as a major collector road by the County's Major Thoroughfare Plan. Existing right-of-way width is 100 feet, and the speed limit is 35 miles per hour. Left-turn stacking lanes are provided where accommodated by the median width. A double left turn lane is provided for traffic moving north on Lakeside Avenue at Hilliard Road. Traffic lights with turn signals are located at Lakeside Avenue's intersection with Hilliard and with Dumbarton. Pedestrian crossing signals are provided for the Lakeside and Dumbarton intersection.

KEY

- ① Retail Shops
- ② 7-11
- ③ Signet Bank
- ④ Fire Station
- ⑤ Lakeside Market
- ⑥ Rescue Squad
- ⑦ CVS Pharmacy
- ⑧ Hardees
- ⑨ Post Office
- ⑩ Crown Gas Station
- ⑪ Professional Building
- ⑫ Pediatric Center
- ⑬ Communication Building
- ⑭ Lakeside House
- ⑮ Vacant Gas Station
- ⑯ Convenience Store
- ⑰ Retail Shops
- ⑱ Texaco Gas Station
- ⑲ Retail Shops
- ⑳ Lakeside Pharmacy
- ㉑ Coleman Bros. Flowers
- ㉒ Crestar Bank
- ㉓ Lakeside Appliance
- ㉔ Retail Shops
- ㉕ Coleman Bros. Flowers
- ㉖ Franco's Fashion
- ㉗ Goodyear Auto
- ㉘ East Coast Gas
- ㉙ Lakeside Animal Hospital
- ㉚ Retail Shops
- ㉛ Roys Big Burger
- ㉜ F & M Bank
- ㉝ Retail Shops
- ㉞ Natrons Bank





GENERAL NOTES:

1. General lack of Curb & Gutter along Lakeside Avenue creates conflicts between stormwater runoff and traffic.
2. Frequent median breaks increase potential traffic conflicts.
3. Lack of defined access and random pull-in parking create unsafe traffic situations.
4. Lack of pedestrian amenities, i.e. sidewalks, benches, street trees (for shade), crosswalks, and handicap ramps.
5. Generally disjointed streetscape appearance and signage program (in both public R.O.W. and individual buildings).
6. Historic nature of the Lakeside area is unrecognized.

LEGEND

- Major Intersection
- One-Way Traffic
- Service Alley
- Existing Sidewalk
- Residential
- Business
- Office
- Conservation

Composite Analysis
Lakeside Avenue Enhancement Plan
 County of Henrico, Virginia
 Higgins Associates, Inc., Landscape Architect/ Land Planners
 Franzer Associates, Architects
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Average daily traffic (ADT) along the 1.3 mile length of Lakeside Avenue from the City line to Hilliard Road (State Route 356) has increased significantly by 82 percent in the past decade from 13,000 ADT in 1983 to 24,000 ADT in 1993. The increase in traffic has been more significant in the last five years than the first five years of the decade, some of which may be attributable to increased attendance at the Lewis Ginter Botanical Gardens.

The development pattern of the commercial corridor and surrounding neighborhoods reflect its natural evolution. The east-west perpendicular cross streets only meet each other at Lakeside Avenue in two cases, at Dumbarton and Winnwood/Vale. The frequent median cross-overs required to accommodate the side streets result in numerous, short median pieces which do not serve to control traffic movements or aesthetically divide the roadway. Greater opportunities for erratic turning movements and interruption of through-traffic causes increased potential for traffic accidents.

5.6 Utilities/Storm Drainage

The entire Lakeside corridor is served with public water and sewer, much of which is located within the Lakeside Avenue median. When looking at utility needs of the area, the location and function of existing storm drainage facilities serving the area is of the most immediate concern. Storm drainage from an approximate point at the Hub Shopping Center is directed south and north from Dumbarton Road to Trumpet Branch at Oakwood Lane. From the dividing line at Dumbarton, the storm drainage moves south through a system of pipes and gutters to an outfall at Upham Brook at the edge of Bryan Park. Storm drainage is either collected within the median swale or through a combination of pipes and gutters along the perimeter of Lakeside Avenue.

The median is not divided from the roadway by curb and gutter; storm water runoff from the roadway is allowed to flow freely into the median, collecting in swales and catch basins. North of Dumbarton, the storm drainage system appears to be functional, but moving south on Lakeside, the system is not fully functioning as evidenced by standing water, wash-outs and erosion. The area south of Lennox to the City line is particularly affected by off-corridor drainage from the neighborhoods.

Improvements made along Vale and Bloomingdale Avenue on the east side of Lakeside have alleviated some of the drainage problems, but additional improvements both within the neighborhoods and in the corridor are necessary. Median

improvements should include installation of curb and gutter and diversion of the flow to the roadway perimeter so that plant material within the median is given a better chance of survival.

5.7 Off-Street Parking/Supply & Access

A general review and analysis of existing parking supply and distribution within each of the commercial cores was conducted to determine whether problems of supply exist in the area. Applying Henrico County zoning requirements to rough estimates of square footage indicate that the amount of parking appears to be adequate.



However, the arrangement and efficiency of the parking provided represent obstacles for the aesthetics, function and safety of the user. For example, within the core at the Lakeside/Dumbarton intersection, 83 parking spaces or 35 percent of the total spaces counted are located in front of the stores in the form of angled, pull-in spaces. While convenient in many ways for the customer who can park at the front door and not worry about parallel parking, this parking arrangement creates potential traffic conflicts from vehicles backing into traffic and provides little relief from the expanse of pavement from one side of the street to the other. The remaining parking (150 spaces, or 65 percent) is provided off-street in mostly unimproved parking lots. The existing conditions of parking areas is generally poor, with much of it unpaved, unmarked and poorly drained. Typical for many older commercial areas that have developed over time, individual properties do not share common parking, access between properties is often physically blocked by fences, bollards or grade differences.

5.8 Service Areas/Loading and Employee Parking

Separate service and employee parking areas generally are not marked. On the east side of Lakeside Avenue a continuous alley

does exist for service between the commercial and residential properties from Dumbarton to the south. Service alleys on the west side are less consistent and more divided by individual property ownership lines. It appears that most commercial businesses can be serviced from rear or side parking areas causing infrequent conflict between patrons who park in the front and service vehicles. Most rear entrances to stores are not open to the general public.

5.9 Pedestrian Circulation and Amenities

Within the commercial cores of Lakeside, asphalt pavement stretches from one storefront grouping to that on the other side of the street, with a right-of-way width of more than 100-feet made up of travel lanes, unplanted median and pull-in parking at building fronts. Valley gutters and utility poles are often the only elements that separate the travel lane from the parking area. Open-ended curb cuts and pull-in parking areas in front of businesses leave pedestrian routes undefined. Perimeter sidewalks are provided along both sides of Lakeside from Oakwood Lane north to Hilliard. From Oakwood south, sidewalks are virtually non-existent, except for in the core area at Dumbarton where a narrow sidewalk is provided immediately at the front of each building row and in front of Franco's between Anderson and Vale Streets.

Traveling north on Lakeside Avenue from the City and Bryan Park, there is significant contrast between the adjacent Hermitage Road image consisting of new acorn lights, large shade trees and stately homes and the Lakeside community image made up of pavement, signs, utility poles and overhead wires. Roadway and pedestrian lighting within the entire length of the corridor is limited to three cobra-head fixtures attached to wooden utility poles. Private security lighting for parking areas is the only other source of light. Traveling south on Lakeside from the opposite direction off Hilliard Road, the image is similar; a small entry sign in the median welcoming the visitor to Lakeside is obscured by its surroundings. The view looking north across Hilliard is of the open field of the Botanical Garden framed by utility poles and guy wires, and an almost rural two-lane Lakeside Avenue.

Through the efforts of the late Ben Earp and his streetscape committee, planting of small street trees has started within the median in the core area of Lakeside at Dumbarton. Survival of the recently planted trees has been difficult due to the effects of highway runoff. Aside from this private planting program and the landscaping work associated with Franco's and the banks in the area, street trees are almost non-existent along the corridor.

6.0 Market Considerations

A survey of the businesses in the target area was conducted by the Waverly Research Group to determine the type and broad category of the establishments, as well as the commercial character of the area. This was done primarily to help define the market area served by the commercial district.

Generally, Lakeside is an older retail area, with most stores oriented to the street, with parking in front. One small shopping center is located at Hilliard and Lakeside along with a combined supermarket/drug store, both served with ample off-street parking. The survey included 108 commercial spaces; only four spaces appear vacant at this time, although some residences on Lakeside could be available for conversion.

Of the 104 active businesses, only five were determined to have a wider market than the neighborhood. Two, Franco's Fashion Galleries and Lakeside Appliance, are estimated to have regional appeal. However, both have additional outlets in the metro area which limits the stores at this location to a community market. The other three include a furniture store, a pet shop and a florist, and are also considered to have broader "community" appeal. The number of competitors in each category spread throughout the metro area probably limits the market for these stores to the central north side of the metropolitan area.

The remaining 99 establishments are more oriented to the immediate neighborhood and include a supermarket and a convenience store, three drug store/pharmacies, and a hardware store. The neighborhood is also served by a post office and a fire station both located in the northern portion of the study area. Most of the businesses (61 percent) are service oriented, including medical and financial services. Ten percent of the businesses offer prepared food.

Market Area Definition. The analysis also addressed the demographic and economic conditions among the household population served by the commercial district. Given the overwhelming majority of "neighborhood", convenience goods type stores, the market area is narrowly defined to include only the immediately adjacent residential areas of the community. The market area is also constrained by competing shopping centers located east (Brook Run SC, Brookhill Azalea SC and Azalea Mall), west (Dumbarton Square and Staples Mill SC), and north (Parham One, Hungary Brook SC and Laurel Park SC) of the neighborhood, and by the City limits on the south.

Since data is not available for exactly the blocks served, particularly in the northwest, two areas were investigated which reflect the characteristics of the population and do have accurate census data available. The first is very narrowly defined and includes Census Tracts 2006 and 2007.98 to encompass approximately 90 percent of the market area. The second, the Lakeside Census Defined Place (CDP), is broader, and extends beyond the neighborhood served, particularly in the north.

Data and trends for the County as a whole as well as the Richmond Urban Area (Richmond City, Henrico County, Hanover County and Chesterfield County) are provided for comparison purposes.

The analysis focuses on a basic demographic standard, the household. Households are the most accurate base for indications of commercial activity since households generally form the buying unit for both convenience (neighborhood) and consumer (community) goods.

Demographics. Demographic trends for the vicinity are stable. Population did not vary significantly between 1980 and 1990, but the number of households did increase, at an average annual rate of approximately 1.0 percent between 1980 and 1990 in the Census Tracts (CDP growth was slightly lower). Both population and household growth are less than in the County and metropolitan area.

Population and household trends also indicate that there is an aging of the population and households. Elderly population is increasing much more rapidly than the general population, and elderly households formed 25 percent of the total households in the Census Tracts in 1990.

Tenure trends indicate that over 40 percent of the households in the tracts were renters in 1990. Only 30 percent of the CDP households were renters; the area north of Hilliard Road is almost exclusively single family housing, with few rentals.

Mobility data indicate a moderate degree of turnover for a mature area. Of the population over age 5 in the 1990, 56 percent were residents of the community in 1985; over one-quarter had moved in from outside the County. By comparison, for the County as a whole, less than 50 percent of the population were residents of the County in 1985. Vacancy data also reflects stability. In 1990, according to the Census, only 3.6 percent of all housing units in the vicinity were vacant, and half of those were not available for rent or for sale.

**Table 1
Lakeside Community
Population Trends
1980 - 1990**

	<u>1980</u>	<u>1990</u>	<u>Total Growth</u>	<u>Avg. Annual Growth Rate</u>
Richmond Urban Area	591,719	693,517	101,798	1.6 %
County of Henrico	180,735	217,881	37,146	1.9 %
Lakeside CDP	12,289	12,081	-208	-0.2 %
Census Tracts	7,393	7,455	62	0.1 %

Elderly Population

	<u>1980</u>	<u>1990</u>	<u>Total Growth</u>	<u>Avg. Annual Growth Rate</u>
Richmond Urban Area	59,760	75,496	15,736	2.4 %
Proportion of Total	10.1%	10.9%		
County of Henrico	17,897	29,949	7,052	3.4%
Proportion of Total	9.9%	11.5%		
Lakeside CDP	2,088	2,179	91	0.4%
Proportion of Total	17.0%	18.0%		
Census Tracts	1,547	1,859	312	1.9%
Proportion of Total	20.9%	24.9%		

Note: The average annual growth rate is a compound not a simple average.

Sources: U.S. Census of Population, 1990
U.S. Census of Population, 1980

Table 2
Lakeside Community
Household Trends
1980 - 1990

	<u>1980</u>	<u>1990</u>	<u>Total Growth</u>	<u>Avg. Annual Growth Rate</u>
Richmond Urban Area	215,167	270,544	55,377	2.3%
County of Henrico	67,037	89,138	22,101	2.9%
Lakeside CDP	5,060	5,453	393	0.8%
Census Tracts	3,157	3,482	325	1.0%

Notes: The average annual growth rate is a compound not a simple average.

Sources: U.S. Census of Population, 1990
U.S. Census of Population, 1980

Table 3
Lakeside Community
Tenure Trends
1990

	<u>Total Households</u>				
	<u>Total</u>	<u>Owners</u>	<u>%</u>	<u>Renters</u>	<u>%</u>
Richmond Urban Area	270,544	167,716	62.0%	102,828	38.0%
County of Henrico	89,138	56,848	63.8%	32,290	36.2%
Lakeside CDP	5,453	3,781	69.3%	1,672	30.7%
Census Tracts	3,482	2,085	59.9%	1,397	40.1%

Sources: U.S. Census of Population, 1990
U.S. Census of Population, 1980

Incomes. Household incomes in the vicinity are lower than the County as a whole and the metro area. Median income in 1989 was approximately \$30,300, compared to \$35,600 in the County, \$23,500 in the City and \$33,500 in the entire urban area. More than 40 percent of the neighborhood households earned more than \$35,000 in 1989.

The rate of increase in incomes in Lakeside was 5.9 percent per year between 1979 and 1989, compared to the County rate of 5.8 percent (unadjusted for increases in the cost of living).

Table 4
Richmond MSA
Household Income Distribution
1989

Income Range:	<u>Number</u>	<u>Percentage</u>	<u>Cumulative Percentage</u>
Less than \$10,000	39,826	12.0%	12.0%
\$10,000 - \$14,999	24,761	7.5%	19.5%
\$15,000 - \$24,999	54,868	16.5%	52.1%
\$25,000 - \$34,999	66,344	20.0%	72.1%
\$35,000 - \$49,999	59,984	18.1%	90.2%
\$50,000 - \$74,999	18,876	5.7%	95.8%
\$75,000 - \$99,999	13,795	4.2%	100.0%
\$100,000 and greater			
Median Household Income	\$33,489	50.0%	

Sources: U.S. Census of Population, 1990

Table 5
County of Henrico
Household Income Distribution
1989

Income Range:	<u>Number</u>	<u>Percentage</u>	<u>Cumulative Percentage</u>
Less than \$10,000	7,176	8.1%	8.1%
\$10,000 - \$14,999	5,921	6.7%	14.7%
\$15,000 - \$24,999	15,035	16.9%	31.6%
\$25,000 - \$34,999	15,475	17.4%	49.0%
\$35,000 - \$49,999	18,683	21.0%	70.0%
\$50,000 - \$74,999	17,196	19.3%	89.3%
\$75,000 - \$99,999	5,348	6.0%	95.3%
\$100,000 and greater	4,192	4.7%	100.0%
Median Household Income	\$35,604	50.0%	
Median Household Income, 1980	\$20,096		

Sources: U.S. Census of Population, 1990

Table 6
Lakeside Census Defined Place (CDP)
Household Income Distribution
1989

Income Range:	<u>Number</u>	<u>Percentage</u>	<u>Cumulative Percentage</u>
Less than \$10,000	564	10.4%	10.4%
\$10,000 - \$14,999	434	8.0%	18.4%
\$15,000 - \$24,999	1,091	20.1%	38.4%
\$25,000 - \$34,999	1,127	20.7%	59.2%
\$35,000 - \$49,999	1,246	22.9%	82.1%
\$50,000 - \$74,999	715	13.2%	95.2%
\$75,000 - \$99,999	165	3.0%	98.3%
\$100,000 and greater	95	1.7%	100.0%
Median Household Income	\$30,331	50.0%	
Median Household Income, 1980	\$17,066		

Sources: U.S. Census of Population, 1990
U.S. Census of Population, 1980

7.0 Lakeside Vision: Goals, Objectives and Strategies

As part of the first community workshop, a Visual Preference Survey was conducted using a series of slide images taken of the corridor. The following summary of findings from the visual preference survey was used as one basis for crafting a Vision Statement for Lakeside:

1. Of the 43 slides viewed, one-third of the responses were almost evenly split expressing both a positive and negative reaction to each of 14 slides.
2. Negative reactions edged out positive reactions--38 percent to 33 percent
3. 29 percent were responded to indifferently
4. 2 views received unanimously positive comments--view of Bryan Park entrance and Franco's.
5. 3 views received unanimously negative comments--view from the opposite direction toward Bryan Park with median of Lakeside in foreground; the Snookies strip; and a view from the south looking toward the strip anchored on the north by Broughton Appliance.
6. One interesting observation is that much of the reaction depended upon the angle or direction of the picture. Changes in the foreground, the "frame" of the picture mattered greatly. The presence of vegetation, a "green frame"--as opposed to the harshness of poles and wires--elicited consistently more positive comments.
7. Key words and phrases mentioned most frequently:
 - Wires
 - Signs-ugly, too big, too many, inconsistent, temporary not good
 - Pavement-no separation between parking and drive lanes not good
 - Poor drainage
 - Image of unkempt properties shows lack of interest
 - Inconsistent scale of buildings--individual storefronts not reading as a unit

Responses from this Visual Preference Survey were used to define the collective wishes of the community, and contributed to the drafting of broad goals and specific objectives to guide the selection of individual design elements which will come together to create the desired image.

Vision Statement for Lakeside:

To create a unified, well-defined commercial district that functions for the highway user and accommodates the pedestrian.

This vision is broken down into specific objectives of the enhancement plan:

I. Unification Elements:

A. Street edges

1. Vertical--defined by storefronts, street trees and lights which are consistent in type and placement; overhead wires and poles cleanup and relocation
2. Ground plane--defined by curb/gutter, pavement separated by landscape strip

B. Buildings/Storefronts

1. Signage-sensitive placement and increased quality
2. Colors-define palette which will help guide individual consultations
3. Awnings/canopies-objective of increased vibrancy through placement, colors, quality

II. Definition of Space:

All of the above, and additionally

A. District Gateways

improve the approach from all directions both in and out; look for opportunities to work with Lewis Ginter Botanical Garden and Bryan Park

B. Public Signage

consistent and well placed, welcoming into district and serving as identifiers of public parking and specific features or history of the area

III. Functional considerations for the highway user:

A. Parking

provide an appropriate amount which is safe, well marked and accessible

B. Lighting

pedestrian lighting should be improved, and at least consistent with that provided on adjacent Hermitage Road; street lighting/parking lot lighting consistent treatment, quality and distribution of light should be as uniform as possible

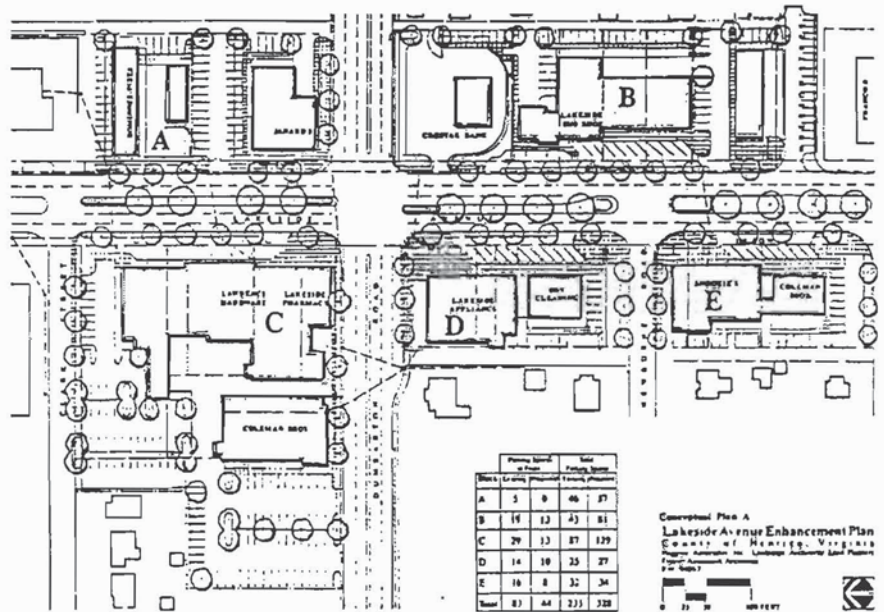
- C. Sight distance
median planting, placement of access drives, parking arrangements should be considered for impacts
- D. Roadway
roadway should serve the tourist from the Interstate (Based on current visitation of 60,000 annually, Lewis Ginter projects 250,000 visitors by the year 2000) and the everyday user
- E. Storm Drainage
improved to be kept off highway, the median and parking lots
- F. Median breaks/crossovers
safe access to businesses and parking of primary concern

IV. Aesthetic/Functional considerations for the pedestrian and bicyclists:

- A. Vehicular Conflict
reduction of conflict between vehicle, pedestrian and bicycling traffic-sidewalks, crosswalks, travel lane, walk signals, signage with clear messages need to be added
- B. Pedestrian safety
pedestrian scale lighting which is uniform between street and sidewalks, handicap access leading to paved surfaces needs to be assured
- C. Pedestrian comfort
shade trees, landscape for color, benches and trash receptacles, signs, markers or photo displays that give the area meaning or establish it as a special place, i.e. plant materials in median reflective of the Lewis Ginter Botanical Garden, representative street trees, interpretive signs/photo boards of street car which once ran down Lakeside, before/after storefront photos, historic plaques for buildings.

8.0 Concept Plan Alternatives

Three alternative improvement concepts were formulated using the 5-block core area as a prototype or representative of the remainder of the corridor. Major features of each concept are briefly described below:

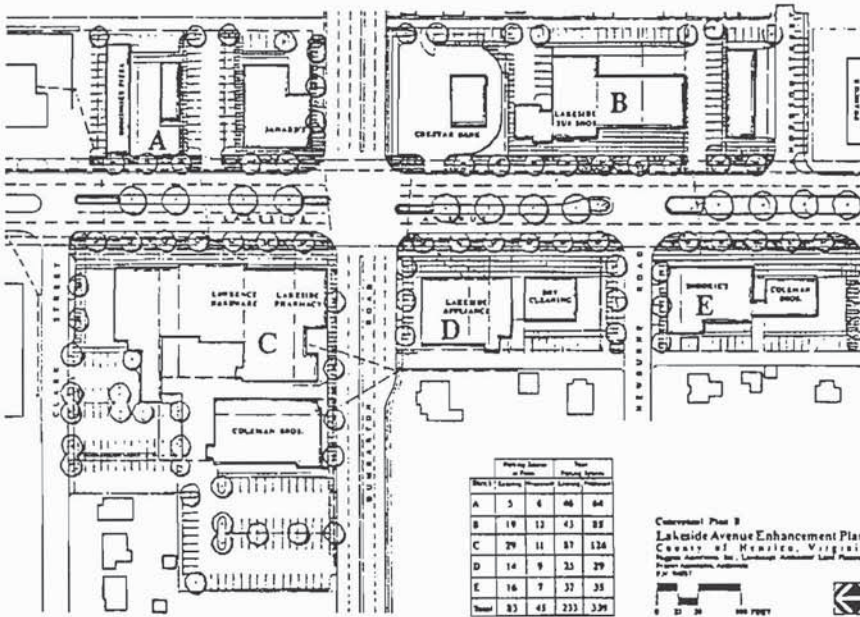


Conceptual Plan A

- Focus on improving the aesthetic and function of parking within each block viewing each as a self contained unit made up of both on-street (either parallel or improved angled spaces) and off-street parking.
- Removal of the few on-street parking spaces in Block A, and improvement to off-street lots, including the addition of spaces off the back alley which can be used for employee parking. The off-street parking improvements are intended to more than make up for the loss of on-street parking which will allow for the addition of a landscaped island between the travel lane and a new sidewalk.
- On-street parking in Block C (Lawrence Hardware) is proposed to be converted to two parallel parking lanes with a service drive separated from the roadway with a narrow landscaped median. Off-street parking lots and internal circulation between separate parcels is proposed to be improved to increase the number of spaces within the block as a whole.
- Where existing building setbacks will allow as in Blocks B (Crestar Bank), D (Lakeside Appliance) and E (Snookie's), the existing on-street parking arrangement is proposed to be replaced with a defined service drive which provides access to 45-degree angled parking spaces. The service drive and parking are divided from the roadway by a landscaped strip. As in the other blocks, off-street parking is proposed to be improved

along with the opening up of cross-access between parcels through reclaimed alleys.

- The net result of these proposed parking improvements for the five blocks is a net gain in parking of 56 spaces while shifting the parking from in front of the stores to rear and side parking lots. Another big change results in the use of the space in the front--that which was committed to the vehicle for parking is proposed to become pedestrian space in the form of sidewalks which widen out at corners. Shifting from an 80/20 to a 60/40 ratio of parking area to pedestrian space allows for the addition of street trees, pedestrian-scale lighting and street furnishings.
- Representative of other median cross-over changes which are proposed to help in the safe movement of traffic and pedestrians, closure of the cross-over at Anderson Street is shown along with the addition of a left-turn lane in the median and the possible closure of Anderson Street up to the alley to reduce neighborhood pass-through traffic.



Conceptual Plan B

- Focus on the establishment of a uniform street edge with on-street parallel parking, a landscaped strip and wide sidewalk.
- The net result in terms of parking is approximately the same as Concept B with a greater emphasis on off-street parking and reduction of parking at the storefront.
- The most significant difference presented by Alternative B is the increase in pedestrian space, a commitment of nearly 80 percent of the space to the pedestrian rather than 20 percent as it is now.

Conceptual Plan C

- Represents a compromise between Concepts A and B, and proposes a combination of improved pull-in angled parking within the key core blocks, removal of a few on-street parking spaces and overall improvement to off-street parking, particularly on Block A.
- In addition to improved off-street parking, this plan suggests the closure of Clark and Anderson Streets. The upper portion of Clark is proposed to be abandoned as a public right-of-way and returned to the private sector for use as parking related to the businesses in this block. The lower portion of Clark would be terminated in a cul-de-sac severing vehicular access between the residential and commercial neighborhoods. Anderson Street is proposed to be treated similarly, and includes the elimination of the median cross-over and the addition of a left-turn lane.
- The result of this plan is a slight reduction in the number of parking spaces at the front door which is necessitated by a combination of more defined pedestrian nodes at both ends of each parking row and the addition of several small street trees within the parking area.

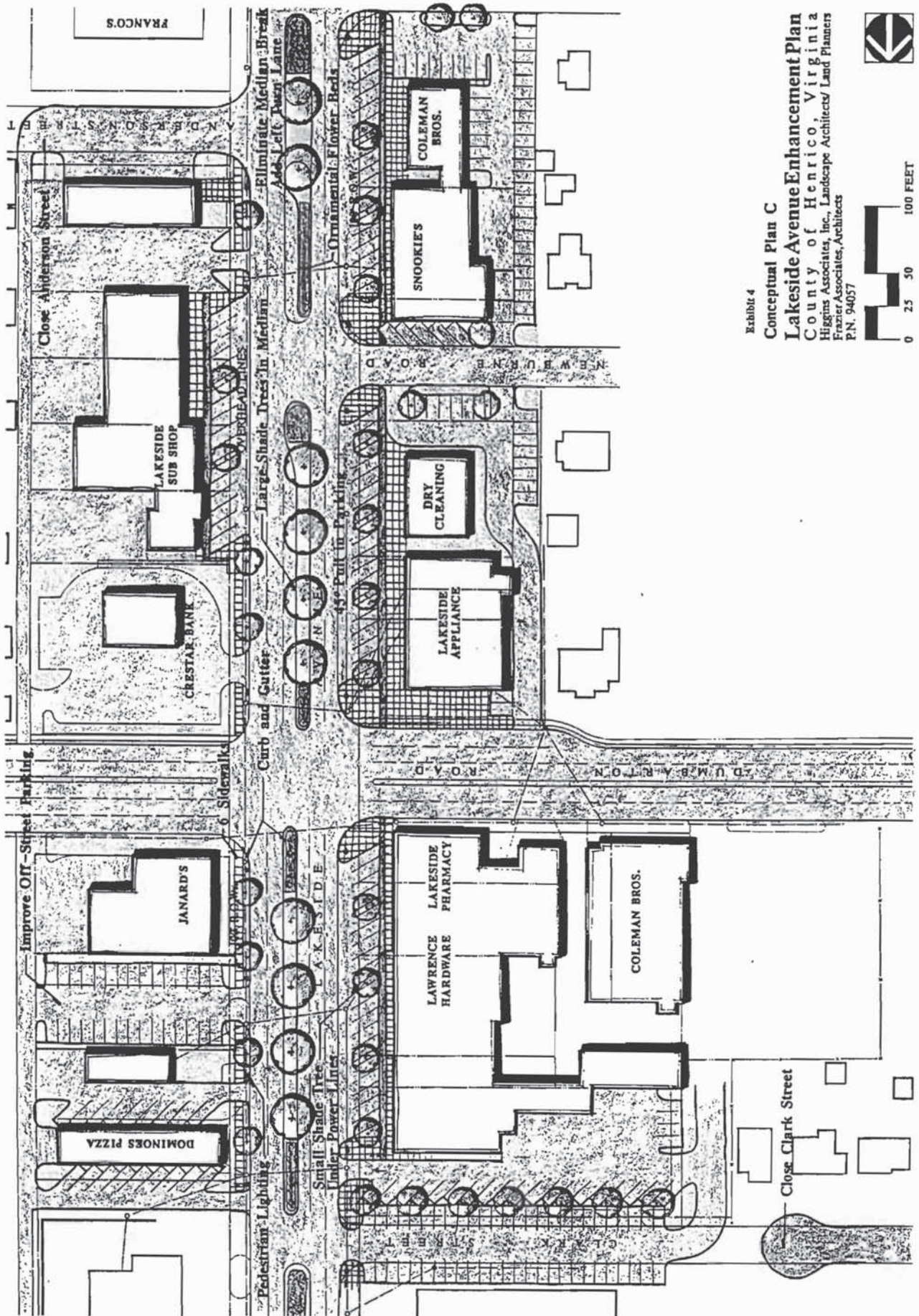


Exhibit 4

Conceptual Plan C

Lakeside Avenue Enhancement Plan
 County of Henrico, Virginia
 Higgins Associates, Inc., Landscape Architects/ Land Planners
 Franer/Associates, Architects
 P.N. 94057



9.0 Final Enhancement Plan

Following a review of the three alternatives, the Design Committee selected an overall plan based on the principles established by Conceptual Plan C, including the following recommendations:

9.1 Traffic Circulation/median consolidation & road closings

Five (5) possible median cross-overs are recommended to be considered for closure after further traffic study. The following closures are proposed to help establish more defined traffic movements; and as a direct result, improve pedestrian safety and create larger median pieces for landscaping:

1. Oak Street at Maplewood Avenue
2. Parkside Avenue at Spruce Street
3. Forest Avenue at Nelson Street
4. Anderson Street at Lennox Road
5. Wedgewood Avenue

Based on existing median width, it appears that companion left-turn lanes could be built into the median improvements for the last three, or southernmost, cross-over closures. The addition of left-turn lanes would enable vehicles making U-turns to get out of the travel lane as a further improvement to traffic flow.

As suggested by Conceptual Plan C, abandonment of the first blocks of both Clark and Anderson Streets from Lakeside Avenue are recommended for further study with the intended purposes of: (1) reducing through traffic in the adjacent residential neighborhoods, reducing the mix of commercial and residential traffic; and (2) providing additional private, off-street parking, particularly important in the Clark Street area. The two neighborhoods affected by these proposed road closings would be consulted as part of further study.

9.2 On- and Off-Street Parking Arrangements

Existing pull-in angled parking is proposed to be improved as shown on Conceptual Plan C for seven (7) blocks, including the following:

On the west side:

- Ginter to Clark Streets
- Clark to Dumbarton
- Dumbarton to Newburne
- Newburne to Lennox

On the east side:

Middle of block between Dumbarton to Anderson (Lakeside Sub Shop)
Block south of Vale up to the F&M Bank

Parking for the remaining blocks is proposed to be off-street in improved lots with drive access from Lakeside Avenue defined by associated curb and gutter/sidewalk improvements along the street perimeter.

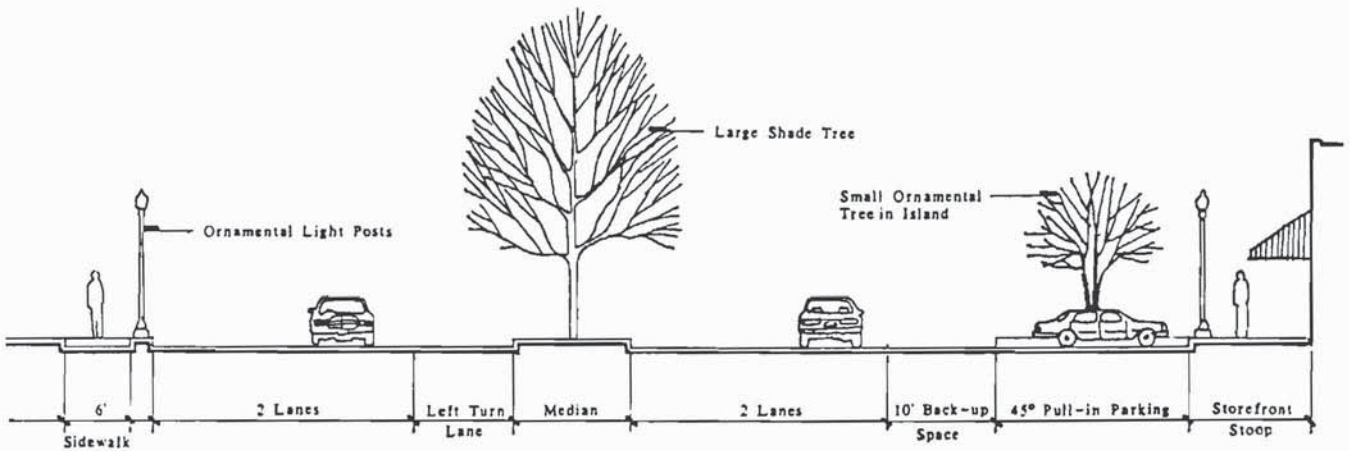
9.3 Streetscape Improvements

Street Tree Planting Program. An ambitious street tree planting program is proposed with an emphasis on the installation of large shade tree species in the median and smaller street trees (See Appendix for recommended species and size) along the perimeter. Within the core area (and involving 7 blocks or block segments) where parking at storefronts is particularly crucial and the pull-in parking will remain, a small street tree will be introduced generally between every five parking spaces, taking away a couple of parking spaces on each block, but creating some green relief and shade.

The following applicable general standards and VDOT standards are recommended (*Guidelines for Planting Along Virginia's Roadways*, VDOT guidelines for planting roadways with design speeds of 35 to 50 mph):

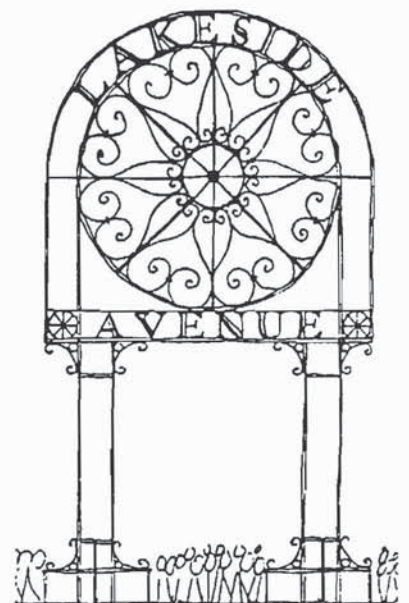
1. With the addition of curb and gutter for the median, major trees may be installed six (6) feet (minimum) behind the face of the curb.
2. Where there is a parking lane adjacent to the travel way, a minimum setback of three (3) feet from the curb is suggested.
3. Sight distance to traffic information signs or other fixed traffic control devices shall be maintained. Approximately 1-inch of letter height on a sign equals 50 feet of sight distance.
4. Providing for adequate sight distance through a setback ranging from 25 to 35 feet from an intersection or median cross-over; the specific distance to be considered on a case by case basis with the intent of allowing the driver of a vehicle a 75-foot view in both directions at an intersection and 50 feet at cross-overs and drive entrances [*Trees in Urban Design*, Henry Arnold, 1980]. The use of street trees rather than shrubbery is recommended to ensure adequate site distance at intersections and drive entrances is maintained.

5. The arrangement of the selected tree species for each median piece and/or median group should recognize the ability of the large street trees in the median to organize the space both horizontally and vertically; the effect of the trees should be to lessen the width of the existing street and to create a defined edge. In most urban situations, spacing trees between 10 to 25 feet is reasonable, permitting effective design and healthy growth [*Trees in Urban Design*].
6. Perimeter trees will have to be limited to smaller, minor street trees because of considerations for overhead utilities. Sight distances for drive access points and within the parking areas are also be a consideration in the placement of street trees along the perimeter. The use of street trees rather than shrubbery is stressed to retain clear sight distances and have impact.



Entry/Interpretive and Directional Signs. A single, dramatic entry sign is recommended for either end of Lakeside at the City boundary and near the Hilliard Road intersection. The purpose of the sign should be to serve as a welcome and symbol of the Lakeside community. The Victorian design of the sign sketch at right evokes the past of the Lakeside Wheel Club through the use of the wheel and spokes radiating from the center; as well as the present of the Park and the Garden, through the use of a flower and petals that suggest a heart shape. Fabricated of metal, the transparent quality of the sign offers a subtle identification of Lakeside Avenue, one that through repetition could become readily recognized as a symbol for the community.

Providing greater history and interest for the area, the initiation of a simple interpretive signage program is recommended. Old photographs accompanied by a brief narrative description of the streetcar, Lakeside Park, and other local history placed on lectern-type, pedestrian sign boards will give patrons and residents of the



area a better appreciation of the history of Lakeside. Additionally, a key map of the planting layout by block to be read from the perimeter sidewalk while viewing the median would be one way to institute a meaningful "re-forestation" or planting program, in keeping with that of the Botanical Garden. Directional signs indicating locations and availability of off-street parking should also be installed within the corridor.

Sidewalks/Crosswalks. A six-foot wide concrete sidewalk is proposed to extend along each side of the street from Oakwood Lane south to the City line. The sidewalk would be divided from the travel way of the street by a 4-foot wide planting strip. Within the seven (7) blocks or segments designated to continue with pull-in parking, a widened section of concrete sidewalk (See Conceptual Plan C) would be installed at the ends of each block or segment and the pedestrian would then be directed from these points up to the walk already provided along each storefront. Crosswalks at the major intersections, Dumbarton and Hilliard should be clearly marked with paint striping; pedestrian walk signals should be added at Hilliard.

Pedestrian improvements at Hilliard are intended to support Lewis Ginter Botanical Garden's own plans for a Visitor Center to be initiated in 1997 at the northwest corner of Hilliard and Lakeside. Such improvements will transform this gateway intersection. The widening and enhancement of Lakeside Avenue with sidewalks, lighting and landscaping north of Hilliard on the east side are recommended to support visitation increases to more than 1000 visitors per day to the Botanical Garden by the year 2000.



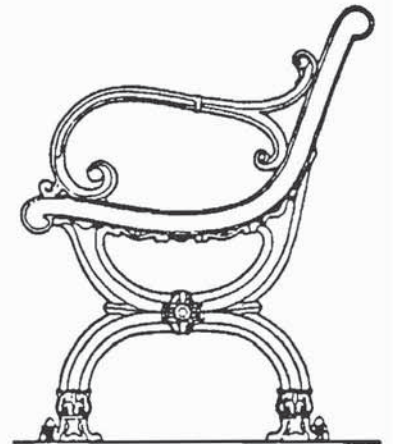
Pedestrian Lighting. Ornamental, pedestrian-scale lighting is recommended to be installed along the street perimeter, incorporated as part of the landscape strip or at intersection nodes within the core. The standard acorn fixture of Virginia Power is suggested to be in keeping with the existing acorn style on Hermitage Road. A specific lighting plan will be required to determine exact placement of lights considering the photometrics for both the sidewalk and roadway. In the areas with pull-in parking and where there are conflicts from existing overhead utilities, the pedestrian lighting may have to be supplemented with lower level landscape type lighting or entry lighting by individual store owners.

Utilities. Curb and gutter, correction and adjustment of storm drainage within the median particularly south of Dumbarton and drainage improvements along the sides of Lakeside Avenue to

handle highway run-off are recommended as basic infrastructure improvements, essential to the implementation of a planting program and other pedestrian improvements. Specific drainage improvements will require further engineering study beyond the scope of this master plan.

The under grounding of overhead utilities was viewed early in the planning process as being cost prohibitive; therefore, the recommended solution is one of creating a better frame to mask utility wires by lining the corridor with street trees which start in a gateway fashion in the median. The eye will be drawn to the new planting, the uniformity of lights and other street furnishings. As detailed design proceeds, opportunities for relocation of utility poles and wires should be examined, particularly as a practical issue where poles would conflict with new parking improvements. For example, within the core (*See Conceptual Plan C*) utility pole and wire cleanup will be required to provide the drive access to parking on the side lot next to Lawrence Hardware and for the improved parking at the front of the stores.

Sidewalk Furnishings. Where practical, and on a majority of blocks, a definable street edge will be created through curb and gutter, a landscape strip of small street trees, and the concrete sidewalk. Due to the pedestrian nature intended for the storefront, benches and trash receptacles are also proposed particularly in the higher traffic areas such as the core and near the Hub Shopping Center.



9.4 Architectural Facade Improvements

Architectural Consultations. As part of this planning effort, Frazier Associates, Architects provided facade design services to interested commercial property owners along Lakeside Avenue. The services included: an on-site meeting with the property owner, a visual assessment of the property, review of draft recommendations with each property owner and final facade improvement drawings. Twenty-one (21) buildings owned by 12 different property owners were assessed. Of these, 14 buildings required final drawings (elevation sketches in color) and written recommendations, including paint color specs, awning fabrics and colors and preliminary opinions of probable costs. An estimated \$165,000 to \$251,000 (average \$7,800 to \$11,900 per building) in possible facade improvements was identified through these consultations. The remaining buildings required only verbal consultation or the property owner was not prepared to make improvements to the property at this time.

Guidelines for Private Property Improvements. The site was included as part of several of the architectural consultations. The following general parameters were developed to guide both site and architectural improvement recommendations for Lakeside.

Site Improvements

Buffering and Screening

1. Street trees are the most effective natural frame for the storefront. The trees provide for a semi-transparent buffer which allows for views of storefront signage under and through tree canopies as they grow.
2. A landscape hedge with maximum height of three feet is recommended as a screen for the front and sides of parking areas.
3. Landscaping and/or masonry wall should also be used to screen rear lot lines of the commercial property adjacent to the residential neighborhood in accordance with the Henrico County Zoning Code.
4. Fences and walls are not recommended for use along the front lot line of single frontage lots or along either front lot line of corner lots.
5. If an outside storage, mechanical or dumpster area is necessary and it is visible from the street, the area should be screened with a wall or fence and appropriate landscaping.
6. Fences and walls visible from a public right-of-way or constructed to form a visual barrier should be made of natural materials such as wood, brick or stone. Split rail or chain link fences are not recommended.

Parking Lot Landscaping and Screening

1. Although private parking lots are exempt, the Henrico County Landscape Manual (effective date of November 1991) is a helpful guide for the landscaping of parking areas.
2. Apart from recommendations of the County Manual, it is recommended that landscaping be used within the interior of any parking lot that exceeds 10,000 square feet. For the first 10,000 square feet, a minimum of 350 square feet of landscaping is suggested, and for each additional 5,000 square feet another 350 square feet of landscaping would be added.
3. Wherever practical, shade trees are the preferred landscape material within parking lots.

Building Rehabilitation/Storefront Improvements

General Rehab Principles

1. Emphasize quality in the design and in the materials.
2. Use traditional building materials such as brick, wood and stone respecting the materials from which the building was originally constructed. In general, the materials used should remain consistent throughout the entire elevation of the building.
3. Emphasize and build on any existing architectural character of the building.
4. In general, do not cover up or remove features of the original architectural design such as windows, entrances, and ornamentation.
5. Avoid theme architecture and artificial materials that do not relate to the building or the district.
6. In general, maintain the original roof design although flat roofs may be covered with properly proportioned gable designs to improve their aesthetics and reduce leakage problems. Do not add a mansard roof to the front elevation of a building.
7. Be aware of recently passed federal legislation which creates new requirements for access to buildings by disabled individuals.
8. Since brick and masonry are the most commonly used materials in the corridor, these materials are recommended for new construction and major rehabilitation. When appropriate, materials that complement the materials of adjacent buildings should be used.
9. Secondary materials could include wood and metal for details and trim.

Paint and Color Considerations

1. Colors that are muted and relate to natural building materials should be used.
2. Bright primary colors are not recommended for wall or trim colors of a building. If used at all, they are more appropriate for accent colors on a door, sign or awning.
3. On simple buildings with little detailing, colors should be limited to a primary wall color and a secondary trim color. A third accent color may be acceptable on door, signs, or awnings. Otherwise, do not "pop out" individual details of a building with bright colors.
4. In general, if masonry was originally unpainted, it should not be painted. Exceptions may be made for severely damaged brick (as from sandblasting) or if the masonry is heavily stained and cannot be adequately cleaned.

Signs

There exists a tremendous variety in the location, type, size, material and lighting of the signs along Lakeside Avenue. In addition to the following recommendations below, all signs must meet the requirements for signs of the Henrico County Zoning Ordinance:

1. In general, signs in commercial corridors should be located in front of the buildings near the street. Signs may also be located on the buildings themselves.
2. Signs on buildings should fit within the architectural framework of the building's design. Such areas may include windows, awnings, cornice lines, and parapet walls.
3. Although pole signs are common in the corridor, consideration should be given to lower monument type signs that are also easily readable, particularly at closer distances.
4. Wall mounted signs should complement the architecture of the building. In buildings with multiple storefronts, all wall mounted signs should be coordinated in terms of size, placement, lettering, color and overall design. Whenever possible, wall mounted signs should be placed in the building's sign band and should be sized so that they do not obscure existing architectural details.
5. Window signs would be made with vinyl letters or should be painted by a professional sign painter. Hand painted signs and large temporary signs which will block the view of window displays from outside the building should be avoided.
6. If signs are internally lit, in general, the letters should be light and the surrounding background should be dark.
7. Signs may also be lit by external incandescent sources.
8. Sign colors should be coordinated with the accent colors on the building or awnings.

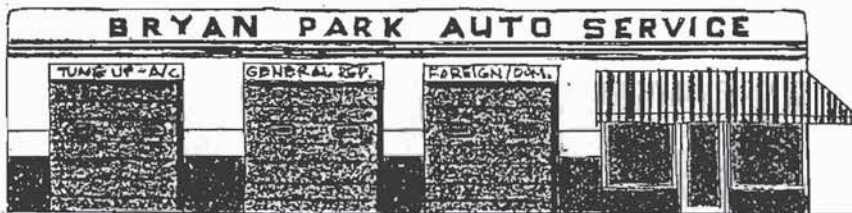
Case Studies: Lakeside Avenue Private Property Improvements

Three different building types or conditions dominate the Lakeside Avenue corridor. An example of each is briefly discussed to demonstrate the application of the above design principles and to summarize the results from the individual architectural consultations.

Independent Service Station: Bryan Park Auto

Existing Conditions: The site is finished in blacktop with no curb, gutter, or sidewalks. There is no landscaping and because it is an auto repair shop, numerous cars are parked on the lot. A freestanding sign is located on the corner of the lot. The building was originally constructed as a gas station and is sheathed in enamel panels. The panels at the base of the building were originally painted green the paint is stable. The panels above the base were originally white and have only recently been painted. This paint is failing.

Recommendations: Gently remove all paints from the white panels, testing first using hand scraping and then chemical removers. Add new lettering, paints, and awning frame and fabric as shown. Sidewalk, curb and gutter and curb cuts for entry and exist to be added within public right-of-way will prevent cars from pulling up to front door and order pedestrian/vehicular activity related to the site. A new freestanding sign using the new business logo is recommended; the sign height should be lower, i.e. 10 feet, for better visibility



Shopping Center: The Hub

Existing Conditions: A mansard roof was added to the front of the building and is causing maintenance problems. The original canopy is also intact. The many businesses in the shopping center all have different types of signs. The parking lot has little landscaping.



Recommendations: The mansard roof should be removed, and the original canopy and parapet wall restored. This may require some new roofing materials, flashing and coping. A new sign system is suggested using cloth valances hung from the edge of the canopy. Colors can be varied depending on the color theme of the individual business. All valances should be the same depth. For the businesses without frontage, signs should be placed above the canopy as shown in the illustration. A new freestanding sign should be created. Height should be added to the parapet at the end of the center and signage like the freestanding sign added.

Row of Connected Buildings: Snookies (between Newburne and Lennox)

Existing Conditions: Variety of signs, painted and unpainted brick, and colors gives the strip an appearance that is disorderly and lacks quality. The pull-in parking at the storefront is open ended, unmarked and poorly arranged.

Recommendations: Two approaches are recommended. The first is simple to remove all the signs, make repairs, paint and add new signs in a coordinated way similar to those recommended for the Hub Shopping Center. Flat wall signs the width of each storefront and a consistent height would best be located above each storefront. Awnings would be an alternative. The second approach which is illustrated would be more extensive (and costly) and include adding a new roof system and updating the building with sign bands and awnings.



10.0 Implementation

10.1 Estimates of Probable Cost

Preliminary estimates of probable cost for constructing the improvements recommended by the plan are outlined below:

Lakeside Avenue Enhancement Program

<i>Project Element Description</i>	<i>Quant.</i>	<i>Unit</i>	<i>Cost</i>	<i>Ext. Cost</i>
<i>Landscaping-Trees, Shrubs & Ground covers</i>				
Large Shade Trees in Median 3-3 1/2"	160	EA	425.00	68,000
Small Shade Trees on Sides-2-2 1/2"	320	EA	200.00	64,000
Daylilly/Daffodil Mix in Median	7,200	SF	7.50	54,000
Fill Dirt for Medians	5,553	CY	17.40	96,622
Seeding Median	78,220	SF	0.10	7,822
Mulch for Flower Beds	65	CY	25.00	1,625
<i>Subtotal</i>				<i>\$292,069</i>
<i>Hardscape Features (Corridor)</i>				
Asphalt Demolition (cross-overs)	125,000	SF	1.25	156,250
New Asphalt (cross-overs)	75,000	SF	1.75	131,250
Median Curb & Gutter	12,600	LF	12.00	151,200
Perimeter Curb & Gutter/Piping Rework ¹	1,900	LF	70.00	133,000
New Drainage Pipe	1,400	LF	50.00	70,000
Drop Inlets	70	EA	2,100	147,000
Concrete Sidewalks	33,980	SF	2.50	84,950
Ornamental Lights ²	73	EA	2,000	146,000
Benches	22	EA	800	17,600
Trash Receptacles	22	EA	600	13,200
Lakeside Entry Signs	2	EA	10,000	20,000
Interpretive Signs	4	EA	500	2,000
Tree Identification Markers/Layout	30	EA	100	3,000
<i>Subtotal</i>				<i>\$1,075,450</i>
<i>Hilliard/Lewis Ginter Gateway</i>				
ROW Acquisition (Lakeside north)		LS		24,000
Utility Relocation (Lakeside north)				45,000
Lakeside (north) widening (5-lane, curb & gutter, median, variable ROW)	1400	LF	318	445,200
<i>Subtotal</i>				<i>514,200</i>
<i>Design Fees</i>				
Engineering Design				142,000
Landscape Design				40,000
<i>Subtotal</i>				<i>182,000</i>
TOTAL				\$2,063,719

Notes:

1. Perimeter drainage estimates do not include those required within the adjacent neighborhoods.
2. Lighting estimates include only commercial areas; infill between two areas would be at a later date.

Sources

Road and Drainage-Related Costs: Henrico County Department of Public Works

Landscape and Landscape Furnishings: Higgins Associates, Inc., Landscape Architects

10.2 Project Phasing

Phase I of the project is proposed to consist of median reconstruction and streetscape improvements, including sidewalks, lighting and furnishings, from the City line to Trumpet's Branch just beyond Oakwood Lane. This portion of the project is identified as the first priority because of the basic infrastructure needs that require attention, namely the storm drainage issues south of Lennox Road. As median improvements are being made, perimeter drainage improvements must also be addressed to make the median function as designed. Phase I activities will also provide for a concentration of activities. The median will have one of the greatest impacts on enhancing the Avenue, providing the opportunity to plant large tree species and overcome past problems of survival. Gateway signage, interpretive signage and tree labeling for the southern portion will be installed as part of Phase I.

Phase II activities are proposed to consist of the same level of improvement to the northern section of the project area and including the Lakeside Avenue improvements north of Hilliard, critical to supporting increased visitation to the Botanical Garden and creating the northern gateway.

It is anticipated that individual property improvements to storefronts and site improvements will take place during both Phase I and II, the most notable single property improvement being the Lewis Ginter Botanical Garden visitor center on the northwest corner of Lakeside Avenue and Hilliard Road to begin construction in 1998.

<i>Project Element</i>	<i>Phase I</i>	<i>Phase II</i>
<i>Landscaping-Trees, Shrubs & Ground covers</i>		
Large Shade Trees in Median 3-3 1/2"	\$ 29,750	\$ 38,250
Small Shade Trees on Sides-2-2 1/2"	28,000	36,000
Daylilly/Daffodil Mix in Median	23,250	30,750
Fill Dirt for Medians	53,122	43,500
Seeding Median	3,611	4,211
Mulch for Flower Beds	750	875
Subtotal	\$ 138,483	\$ 153,586
<i>Hardscape Features</i>		
Cross-Over Closures	\$172,500	\$115,000
Median Curb & Gutter	88,800	62,400
Perimeter Curb & Gutter/Piping Rework	133,000	
New Drainage Pipe	20,000	50,000
Drop Inlets	96,600	50,400
Concrete Sidewalks	72,450	12,500
Ornamental Lights	74,000	72,000
Benches	8,000	9,600
Trash Receptacles	6,000	7,200
Lakeside Entry Signs	10,000	10,000
Interpretive Signs	1,000	1,000
Tree Identification Markers/Layout	1,500	1,500
Subtotal	\$683,850	\$391,600
<i>Hilliard/Lewis Ginter Gateway</i>		
ROW Acquisition (Lakeside north)		24,000
Utility Relocation (Lakeside north)		45,000
Lakeside (north) widening (5-lane, curb & gutter, median, variable ROW)		445,200
Subtotal		\$514,200
<i>Lakeside Corridor Perimeter</i>		
<i>Design Fees</i>		
Engineering Design	65,000	77,000
Landscape Design	19,000	21,000
Subtotal	\$ 84,000	98,000
Total	\$ 906,333	\$1,157,386

KEY

- ① Retail Shops
- ② 7-11
- ③ Signet Bank
- ④ Fire Station
- ⑤ Lakeside Market
- ⑥ Rescue Squad
- ⑦ CVS Pharmacy
- ⑧ Hardees
- ⑨ Post Office
- ⑩ Crown Gas Station
- ⑪ Professional Building
- ⑫ Pediatric Center
- ⑬ Communication Building
- ⑭ Lakeside House
- ⑮ Vacant Gas Station
- ⑯ Convenience Store
- ⑰ Retail Shops
- ⑱ Texaco Gas Station
- ⑲ Retail Shops
- ⑳ Lakeside Pharmacy
- ㉑ Coleman Bros. Flowers
- ㉒ Crestar Bank
- ㉓ Lakeside Appliance
- ㉔ Retail Shops
- ㉕ Coleman Bros. Flowers
- ㉖ Franco's Fashion
- ㉗ Goodyear Auto
- ㉘ East Coast Gas
- ㉙ Lakeside Animal Hospital
- ㉚ Retail Shops
- ㉛ Roys Big Burger
- ㉜ F & M Bank
- ㉝ Retail Shops
- ㉞ Nations Bank

Widen Lakeside Avenue
with Landscaped Median
up to Lewis Ginter Entrance
(includes Sidewalks & Lighting)

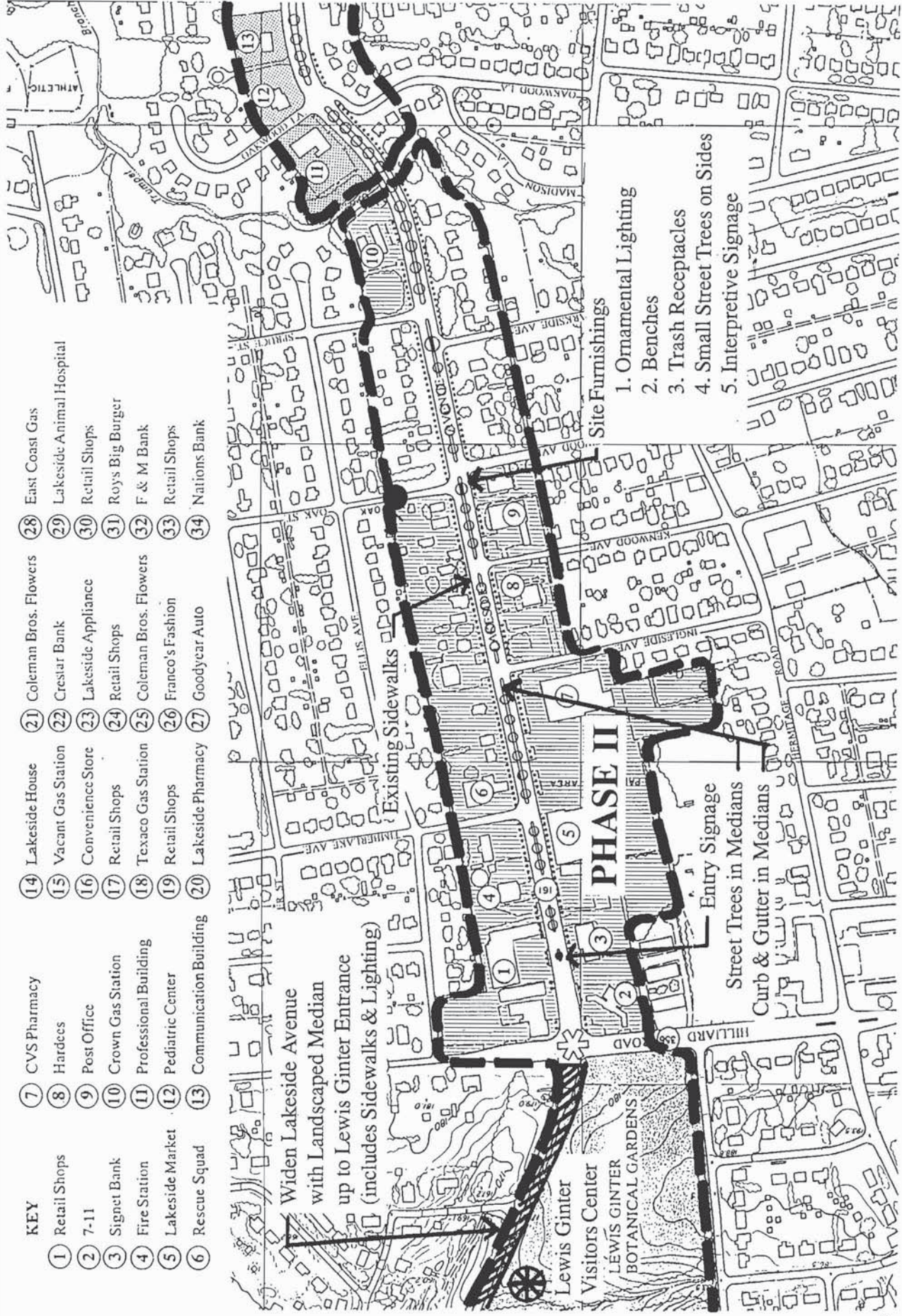
Existing Sidewalks

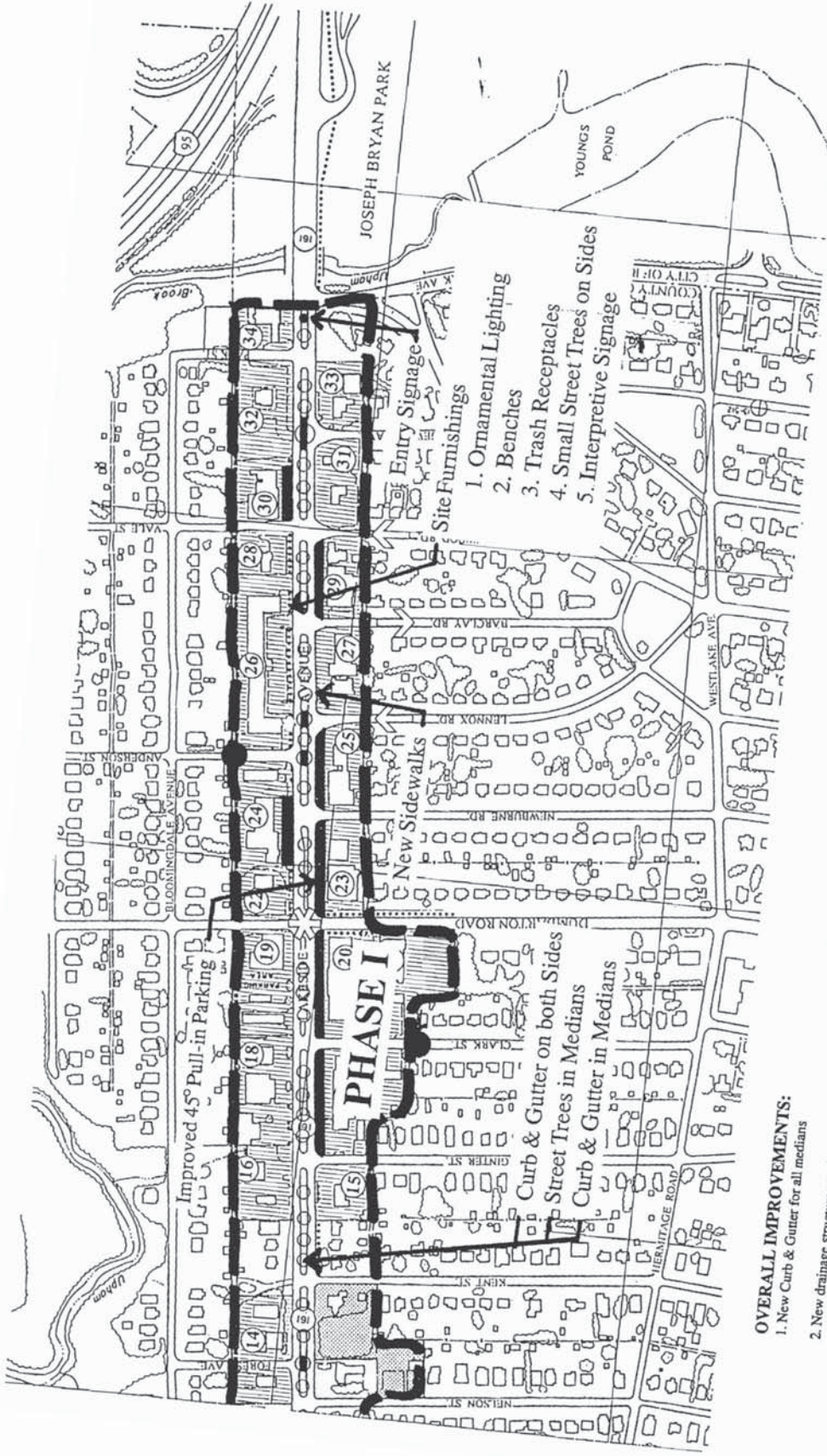
PHASE II

Site Furnishings

1. Ornamental Lighting
2. Benches
3. Trash Receptacles
4. Small Street Trees on Sides
5. Interpretive Signage

Entry Signage
Street Trees in Medians
Curb & Gutter in Medians





OVERALL IMPROVEMENTS:

1. New Curb & Gutter for all medians
2. New drainage structures to alleviate drainage problems at the southern end of Lakeside Avenue.
3. Improve 45° pull-in parking by providing curb & gutter, and landscaped islands to break up the parking areas.
4. Pedestrian amenities, i.e. sidewalks, benches, street trees in medians (for shade), crosswalks, and handicap ramps.
5. Improved entry signage at the Gateways into Lakeside.
6. Through architectural consultation, improved facades and signage programs.

LEGEND

- Major Intersection
- One-Way Traffic
- Service Alley
- Existing Sidewalk
- Residential
- Business
- Office
- Conservation

- Site Furnishings**
1. Ornamental Lighting
 2. Benches
 3. Trash Receptacles
 4. Small Street Trees on Sides
 5. Interpretive Signage

Exhibit 6

Composite Map
Lakeside Avenue Enhancement Plan
 County of Henrico, Virginia
 Higgins Associates, Inc., Landscape Architects/ Land Planners
 Frazier Associates, Inc., Landscape Architects/ Land Planners
 P.N. 94057



10.3 Funding Sources

Lakeside Sanitary District. It is customary practice in Henrico County to designate a *Small Area District* as part of a larger Sanitary District for the purpose of creating a mechanism for financing capital improvement projects through an incremental tax on real estate. The process must follow the traditional rules of the Commonwealth for establishing a Sanitary District. Such an area is initiated by a petition signed by at least 51 percent of the registered voters within the area delineated. The delineation should be made in consideration of who will benefit from the proposed improvement, the ability of the beneficiaries to absorb the cost and the reasonableness of tax increase and term required to finance the improvement. The County is making use of this mechanism to pass along the monthly costs of operating new street lighting in certain neighborhoods. The incremental tax increase is nominal (i.e. 0.015 cents per \$100) depending on all these factors. Such an approach is being recommended as one way to meet the monthly obligations for the new pedestrian lighting along the Lakeside corridor.

Community Development Block Grant (CDBG), Henrico County Entitlement Program. The County receives approximately \$1.7 million annually through the CDBG program administered by the Federal Department of Housing and Urban Development for the purpose of meeting capital improvement, housing and economic development needs of the County's low-and-moderate income (LMI) neighborhoods. LMI designations are based on 80 percent of median family income according to family size. In Henrico the LMI range is \$25,000 to \$48,000 per year for a single person up to a 6-person or larger family size. The County accepts applications for eligible projects from community groups, neighborhoods, non-profits and County agencies starting in March of each year. Funding selections are made by the Board of Supervisors in consultation with staff and submitted in August to HUD. Lakeside has been determined to be an eligible area; 8 to 10 projects are traditionally funded in response to total requests for \$15.0 million.

Transportation Enhancement Program of the Virginia Department of Transportation (VDOT). Funded through the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 through a 6-year Congressional authorization, this program is intended to direct highway funds toward specific types of transportation enhancements in any one of ten (10) eligible categories ranging from pedestrian accommodations and landscaping to the renovation of historic train stations. Ten (10)

percent of each state's Surface Transportation Program (STP) is set aside, amounting to about \$7.0 million per year for Virginia through 1996. In response to the enhancement opportunities offered by this Lakeside Avenue Plan, the County of Henrico submitted an application for ISTEA funds on January 31, 1995. Funds for the Phase I project activities, excluding the work required for median cross-over adjustments were requested; a decision should be forthcoming from VDOT in June.

Capital Improvements Program (CIP). Each year Henrico County prepares and updates a five-year CIP representing anticipated expenditures needed by the County for road improvements, public facilities construction and the expansion and maintenance of the governmental infrastructure. Improvements such as those proposed for Lakeside Avenue, particularly neighborhood drainage projects would be the type of project funded through the CIP process.

Fund Raising. Established as a non-profit 501(c)(3) corporation, the Lakeside Business Association can serve as useful mechanism for tax deductible donation--"adopt-a-bench", establish a memorial garden, or whatever form it may take. Such a Corporation would also be able to make application for a variety of grant programs, for example:

- The **Metropolitan Richmond Retail Merchants Association** has a grant program for worthy physical improvement projects of member organizations
- The **Greater Richmond Community Foundation** grant program for special projects which enrich community life, i.e. the Midlothian Beautification project was awarded a grant for streetscape improvements recently.
- **GreenVirginia 2000** has two funding rounds annually that provide grants on a 50/50 match basis to private non-profit, civic and community groups. Trees must be planted on public property or private property dedicated to public use through easements, covenants, etc. Applications are due September 1 for spring planting projects and May 1 for fall projects. The program has been funded through the year 2000 by Chambers Development of Virginia, Inc.

- **U. S. Small Business Administration, Natural Resources Development Program** is intended to encourage local governments to employ small businesses to plant trees on public land. The program is administered by the Virginia Department of Forestry. The County of Henrico would be the applicant on the behalf of the Lakeside Business Association. The trees must be planted on land owned or controlled by state or local government, and at least 45 percent of the project cost must be provided by the applicant. Applications are due in February and the recommended funding range is \$1,000 to \$15,000 per applicant. Approximately \$350,000 is available for 1995 for the Commonwealth.
- **America the Beautiful Act of 1990** authorized a five year initiative to encourage citizen involvement in long term urban and community forestry programs. Also requiring a 50/50 match, potential grantees include units of government, non-profit organizations, neighborhood and civic groups. Grants are available up to \$10,000 per federal ID number. Tree planting is an objective, but emphasis is also placed on other activities with long term benefits such as development of tree protection ordinances, inventories, management and maintenance plans, volunteer involvement and education programs.

10.4 Maintenance and Management

It is expected that project improvements located within the Lakeside Avenue 100-foot right-of-way will be the maintenance responsibility of the Virginia Department of Transportation through their maintenance reserve account for the County. This will include the median plantings (by contract) and drainage structures within the ROW. Lakeside Avenue landscape improvements north of Hilliard Road will be maintained by the Lewis Ginter Botanical Garden. Entry signage maintenance will be a responsibility of the Lakeside Business Association (LBA). Depending on their location within the State ROW, the smaller street trees and the concrete sidewalks to be located along either side of the Avenue in front of businesses are proposed to be maintained by way of an agreement between the LBA and VDOT. The pedestrian-scale street lights will be owned, maintained, and operated by Virginia Power using proceeds from the Lakeside Sanitary District expressly for the purpose of supporting the lighting program.

10.5 Lakeside Business Association/Design Committee. The market research performed by the Waverly Research Group highlighted a healthy occupancy rate among business properties in the Lakeside area, indicating economic stability of the area. Expected increases in visitation of the Lewis Ginter Botanical Garden and future improvement plans for Bryan Park present positive opportunities for the economic stability to continue and be strengthened. The existence of a non-profit business association with an active membership also puts Lakeside in a positive competitive mode. The LBA offers the capabilities for organizing business development efforts and serving as a mechanism for fund raising.

In order to capitalize on current and future trends for Lakeside, it is recommended that the LBA continue to work with its members to be proactive in the marketplace, providing the impetus and consistency required for the ultimate implementation of this plan. The Design Committee established for the plan review and input may wish to remain intact as a committee of the LBA in order to continue the Lakeside planning process. As with any other plan, this document is only the beginning.

Appendix
Tree Suggestions

The lists which follow, represent an example of the types of trees that would be appropriate for use along Lakeside Avenue as street trees.

Additional species may be acceptable for use. Criteria include: urban tolerance, maintenance, size, form, aesthetics, unique features.

Small Street Trees for use along sides of Lakeside Ave.	H= Height S= Spread	General Form/ Unique Features
1. Acer buergeranum Trident Maple	H= 25- 30' S= 20- 30'	Upright to oval-rounded good fall color, exfoliating bark
2. Acer campestre Hedge Maple	H= 18-20' S= 10-20'	Upright to oval-rounded good fall color, attractive bark
3. Acer ginnala Amur Maple	H= 18-20' S= 15-20'	Multi-stemmed, rounded good fall color, low maintenance
4. Carpinus caroliniana American Hornbeam	H= 20- 30' S= 15- 20'	Horizontal branching refined in character
5. Cercis canaensis Eastern Redbud	H= 20-25' S= 15-30'	rounded, dense attractive leaf, spring flowering
6. Crataegus phaenopyrum Washington Hawthorn	H= 30- 35' S= 20-25'	Compact, upright with rounded head good fall color, flowers, fruit
7. Koelreutaria paniculata Goldenraintree	H= 30' S= 20'	Upright, irregular attractive flower and seed pods
8. Lagerstroemia indica Crapemyrtle (Tree Form)	H= 15- 25' S= 15- 20'	Multi-stemmed, upright, open attractive flower, exfoliating bark

Large Street Trees for use in median of Lakeside Ave.	H= Height S= Spread	General Form/ Unique Features
1. Acer rubrum 'October Glory' Red Maple	H= 40- 50" S= 30- 35'	Rounded with ascending branches excellent fall color
2. Acer saccharum Sugar Maple	H= 60- 100' S= 30- 35'	Conical to round top, very dense excellent fall color
3. Fraxinus pennsylvanica Green Ash	H= 50- 60' S= 25- 30'	Upright, broad branching Resists drought, light texture
4. Ginkgo biloba Ginkgo (Male)	H= 50- 70' S= 35- 40'	Pyramidal when young, long lived unique leaf, good fall color

Large Street Trees for use in median of Lakeside Ave.	H= Height S= Spread	General Form/ Unique Features
5. Nyssa sylvatica Black Tupelo	H= 40- 60' S= 20- 30'	Tall and narrow, picturesque excellent fall color, nice branching
6. Platanus x acerifolia London Plane-Tree	H= 70- 100' S= 50- 70'	Broad Spreading, stately attractive bark, high urban tolerance
7. Quercus palustris Pin Oak	H= 60- 80' S= 40- 50'	Pyramidal, dense good fall color, needs pruning
8. Quercus phellos Willow Oak	H= 60- 80' S= 30- 40'	Graceful and upright, elegant Fine texture, attractive branching
9. Sophora japonica Japanese Pagoda Tree	H= 50- 70' S= 40- 50'	Vase shaped, wide branching attractive flower, fine textured
10. Tilia cordata 'Greenspire' Greenspire Littleleaf Linden	H= 50- 70' S= 20- 25'	Pyramidal and dense attractive flower, nice form
11. Zelkova serrata Japanese Zelkova	H= 50- 70' S= 40- 50'	Vase shaped, ascending branches Elegant form, good fall color
12. Ulmus parviflora Lacebark Elm	H= 40- 50' S= 40- 50'	Vase shaped, ascending branches Dutch Elm resistant, good fall color

