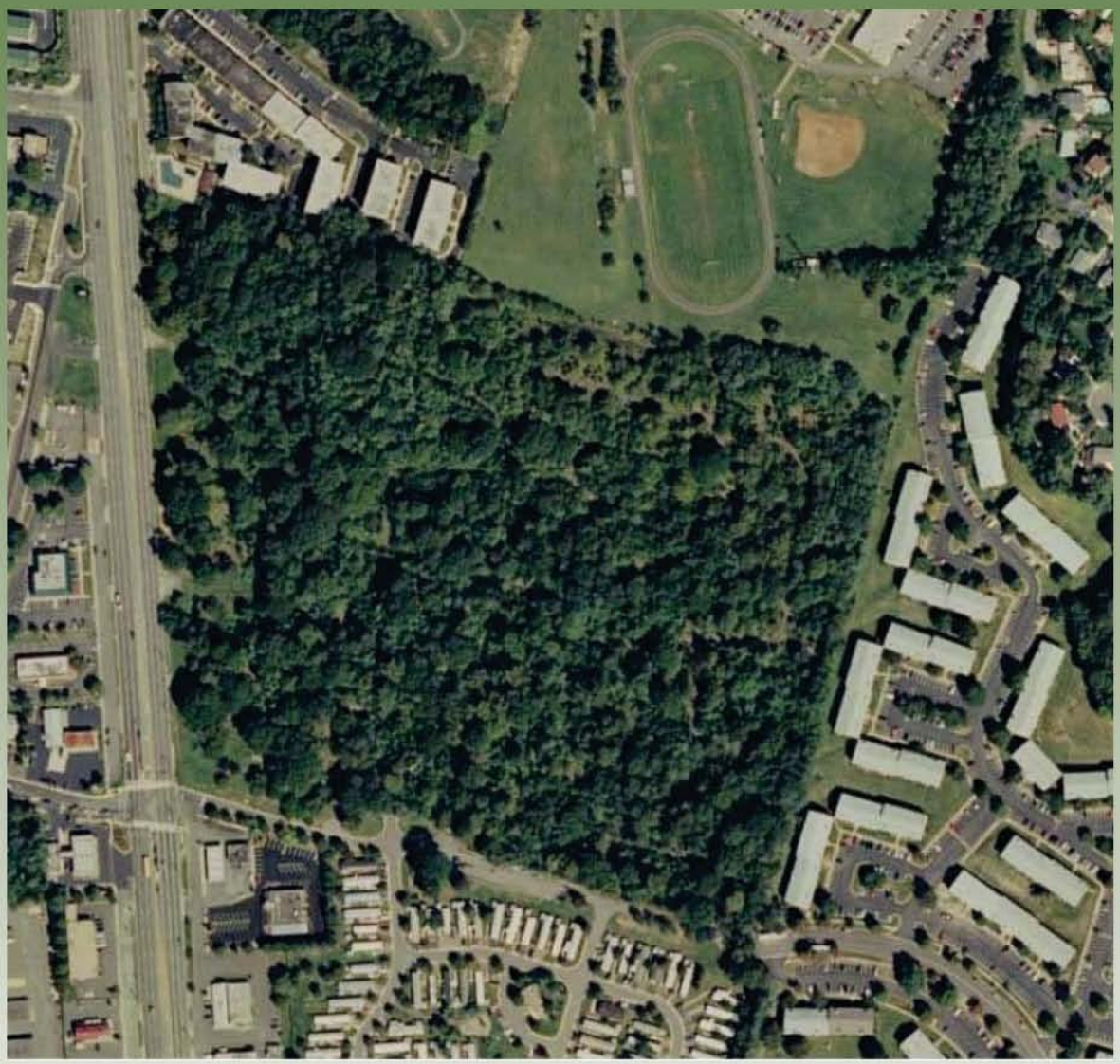
North Hill Park Masterplan

FAIRFAX COUNTY PARK AUTHORITY



APPROVED

February 24, 2010

ACKNOWLEDGEMENTS

Fairfax County Park Authority

North Hill Park Master Plan

Approved February 24, 2010

Fairfax County Park Authority Board

William G. Bouie, Chairman, Hunter Mill District
Harrison A. Glasgow, Vice Chair, Member-at-Large
George E. Lovelace, Secretary, Member-at-Large
Frank S. Vajda, Treasurer, Mason District
Edward R. Batten, Sr., Lee District
Kevin J. Fay, Dranesville District
Gilbert S. McCutcheon, Mount Vernon District
Harold Y. Pyon, Springfield District
Ken Quincy, Providence District
Marie Reinsdorf, Member-at-Large
Winifred S. Shapiro, Braddock District
Harold L. Strickland, Sully District

Senior Staff

John W. Dargle, Jr., Director
Cindy Messinger, Deputy Director/Chief Operating Officer
David Bowden, Director, Planning & Development Division
Todd Johnson, Director, Park Operations Division
Barbara Nugent, Director, Park Services Division
Cindy Walsh, Director, Resource Management Division
Judith Pedersen, Public Information Officer

Project Team

Cynthia Ianni, Director, Design, Development & Construction Division, Department of Housing and Community Development
Tom W. Armstrong, Senior Design and Construction Manager, Department of Housing and Community Development
Sandy Stallman, Manager, Park Planning Branch, Fairfax County Park Authority
Scott Sizer, Senior Park Planner, Park Planning Branch
Ricardo Cabellos, Community Connections, Park Services Division
Meghan Fellows, Naturalist, Resource Management Division
Joe Nilson, Area 3 Manager, Park Operations Division
John Rutherford, Archaeologist, Resource Management Division

TABLE OF CONTENTS

I. INTRODUCTION
- A. Project History 1
- B. Plan Purpose 1

II. PARK BACKGROUND AND EXISTING CONDITIONS
- A. Location and General Description 1
- B. Park Classification 3
- C. Previous Site Uses 3

III. EXISTING SITE CONDITIONS
- A. Environmental Assessment 5
- B. Natural Resources 5
  - a) Soils and Topography 5
  - b) Watershed 5
  - c) Hydrology 5
  - d) Vegetation 7
  - e) Tree Inventory 8
- C. Site History & Cultural Resources 8

IV. RECREATION NEEDS 9

V. PARK MANAGEMENT & CONCEPTUAL DEVELOPMENT PLAN
- A. Park Purpose 9
- B. Desired Visitor Experience 9
- C. Management Objectives 10
- D. Conceptual Development Plan-Description of Plan Elements 10
  - a) Urban Core 10
    - i) Urban Plaza 12
    - ii) Picnic Shelter 12
    - iii) Playground Area 12
    - iv) Basketball Court Facility 12
    - v) Parking Lot 13
  - b) Wooded Areas 13
    - i) Trails 13
    - ii) Woodland Management 14
    - iii) Cultural Resources Area 15
  - c) Recreation Support Area 15
    - i) Treed Lawn 15
    - ii) Tot Lot 15
  - d) Picnic Areas and Parking 15
  - e) Treed Lawn 16
  - f) Off Leash Dog Area 16

VI. DESIGN CONCERNS
- A. Safety Considerations 17
  - a) Active Perimeter 17
  - b) Entrances & Primary Trail Routes 17
  - c) Visibility & Sight Distance 17
  - d) Formal and Informal Surveillance 18
- B. Future Richmond Highway Improvements 18
- C. Little Hunting Creek Watershed 18
- D. Tree Preservation 18

APPENDICES

Appendix A - Phase I Environmental Site Assessment
Appendix B - Natural Resources Report and Tree Inventory
Appendix C - Phase I Archeological Survey

MAPS & GRAPHICS

Figure 1 Existing Surrounding Land Use 2

Figure 2 Bryant AHS Recreation Facilities..... 4

Figure 3 Existing Slope Analysis..... 6

Figure 4 Conceptual Development Plan 13

Chart 1 Percentage of Trees Greater than 7” dbh..... 8

Chart 2 Percentage of Trees by Condition 8

I. INTRODUCTION

A. Project History

In 2007, Fairfax County proceeded to re-plan the approximately 33-acre North Hill site. The direction was to provide for a local park on approximately 21 acres and redevelop the remaining approximately 12 acres for affordable manufactured home units.

Cunningham | Quill Architects was retained by the Fairfax County Redevelopment & Housing Authority (FCRHA) in November 2007, to work in conjunction with the Fairfax County Park Authority (FCPA) to develop the North Hill Park Master Plan and Conceptual Development Plan (CDP). The North Hill Park Master Plan that follows applies only to the park portion of the site.

A joint public process was conducted in which community input was solicited from many stakeholders including potential park users, local residents, local school officials and citizens with an interest in the environment. Public meetings held on April 28, September 30, October 28, 2008, and May 6, 2009, provided input from the community. This input guided the development of the master plan which includes a description of plan elements, design concerns and a CDP that illustrates the general location of recommended facilities.

B. Plan Purpose

The purpose of a Master Plan is to create a long-range vision for the park. During the planning process, the site is considered in the context of the surrounding neighborhood and as one park of many within the Fairfax County Park Authority system. When approved, this document will serve as a long-term decision making tool to be referred to during project design and construction, and resource management programming activity initiation. As with all master plans, this document should be updated periodically to reflect changes that have occurred both within the park and the neighborhood context.

Photo 1: View from Richmond Highway, North Hill Park is on the right

II. PARK BACKGROUND AND EXISTING CONDITIONS

A. Location and General Description

The area designated as North Hill Park is located at 7201 Richmond Highway in Alexandria, Virginia (Tax Map: 92-4 ((1)) 82A), located between the Beacon Hill and Hybla Valley areas of the Mount Vernon Supervisory District. The 20.88 acres are bounded on the east by the Mount Vernon Square apartment complex, on the north by the Bryant Alternative School and the Cherry Arms apartments, on the west by Richmond Highway and on the south by Dart Drive and the future Residences at North Hill manufactured home community.

The immediate context is a mix of single family neighborhoods, garden apartment complexes and strip commercial centers. (**Figure 1 – Existing Surrounding Land Use**).

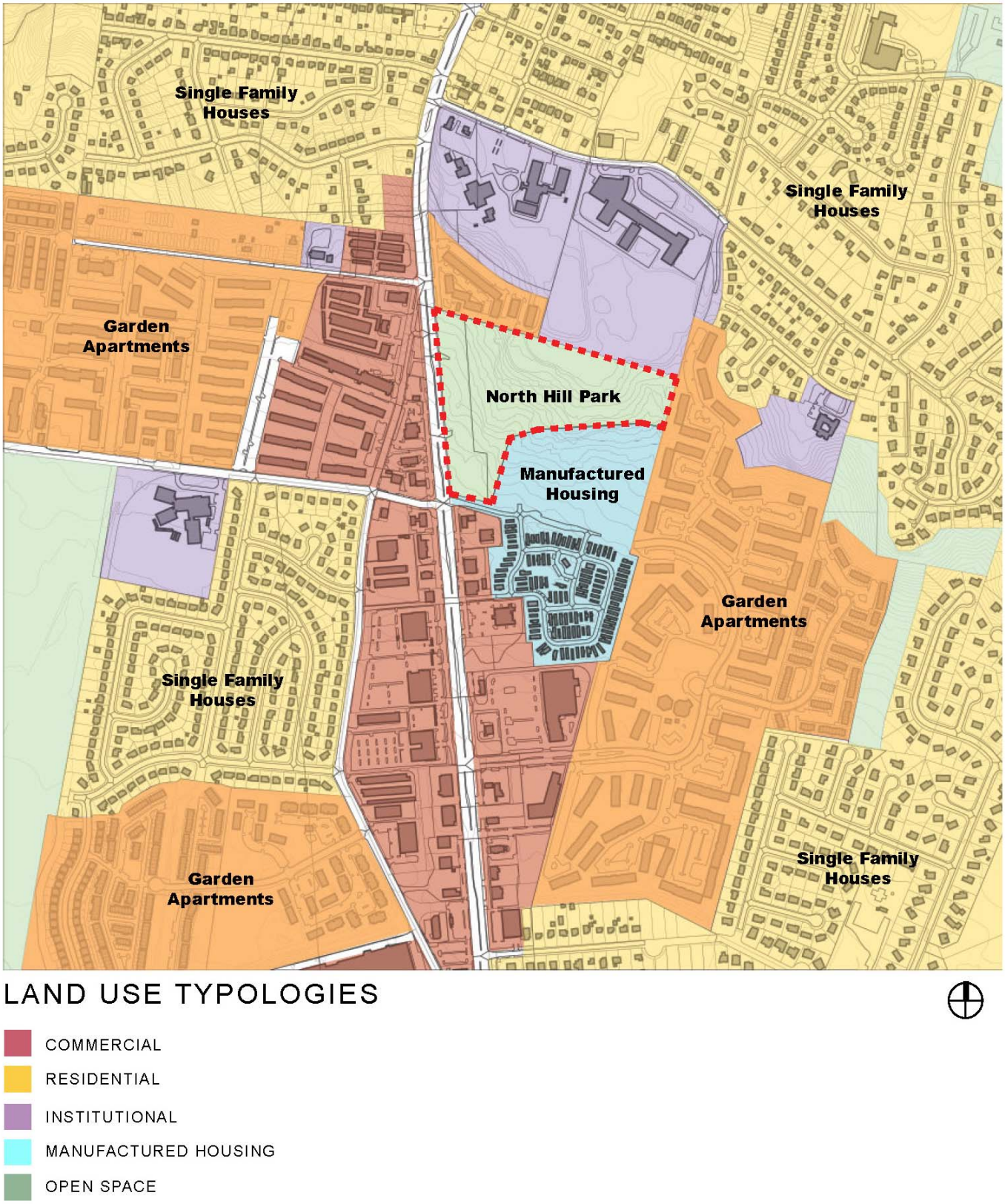


Figure 1: Existing Surrounding Land Use

The adjacent Bryant Alternative High School provides a number of active recreation facilities to the community. Athletic facilities include one lighted, synthetic turf rectangular field, one lighted 90' diamond field, one additional rectangular field and a gymnasium. **(Figure 2 – Bryant AHS Recreation Facilities)**

This 22-acre site represents one of the few public park opportunities along the Richmond Highway corridor. The site is densely wooded with varied topography from gently rolling to steep.

Public transportation is also available in close proximity with Metro bus stops located at Richmond Highway and Dart Drive and Richmond Highway and Beddoo Street.

B. Park Classification

North Hill Park is designated as a Local Park in the Park Authority's classification system. Local Parks primarily provide a variety of active and/or passive recreation opportunities to serve local residential and employment centers. Areas designed for natural and/or cultural resource protection may also be included within these parks. Local Parks should be located to serve local residential neighborhoods, broader residential communities and/or urban employment or mixed use centers. Whenever feasible, Local Parks should be located adjacent to schools to maximize co-location of recreation facilities. Park size will typically be at least 2.5 acres and less than 50 acres. Depending on the park size and facilities, the Local Park service area may be up to 3 miles.

Local Parks provide facilities for scheduled and unscheduled recreation activities and social gatherings places. Typical facilities may include open play areas, playgrounds, courts, athletic fields, game areas, trails, trail connections, natural areas, picnic facilities and facility lighting.

The park's location along the Richmond Highway commercial strip development makes incorporation of urban-scale elements appropriate in response to the surrounding context. Features of urban-scale Local Parks may include urban style plazas, mini-parks, and trail connections.

C. Previous Site Uses

North Hill Park is a portion of a 48.6-acre parcel (Tax Map: 92-4 ((1)) 82A) owned by the Fairfax County Redevelopment and Housing Authority (FCRHA). The entire parcel was previously operated as the Woodley Nightingale Mobile Home Park, which was developed on the site some time between 1953 and 1968. Under this use, eventually more than 550 mobile homes with supporting transportation and other residential infrastructure were developed within the parcel. In 1981, the 48-acre parcel was acquired by FCRHA and no additional mobile homes were allowed into the park. The number of mobile homes on site was decreased between 1982 and 1994. A new redeveloped mobile home park, Woodley Hills Estates, with 115 mobile home sites was later The number of mobile homes on site was decreased between 1982 and 1994. A new redeveloped mobile home park, Woodley Hills Estates, with 115 mobile home sites was later constructed on the southern 14 acres of the site which continue to operate. The remaining 33 acres have remained vacant since a partial cleanup effort done through the early 1980s and 1990s.

Bryant Alternative High School
Recreation Faciliites

2007 Aerial Image
Copyright Commonwealth of Virginia

Figure 2: Bryant AHS Recreation Facilities

III. EXISTING SITE CONDITIONS

A. Environmental Assessment

A Phase I Environmental Site Assessment was completed in May 2008 for the site by Environmental Consultants & Contractors (ECC).

The 20.88-acre park site is predominately covered in undeveloped wooded land with scattered concrete pads and deteriorating asphalt roadways. No adverse environmental conditions, such as above-ground storage tanks or evidence of underground storage tanks were observed. While scattered demolition debris associated with the former trailer park exists, such as concrete pads, concrete blocks, etc, no accumulated debris or chronic dump sites were observed.

For a full accounting of the Phase I report, including site photographs refer to Appendix A.

B. Natural Resources

An extensive Natural Resources Survey was completed for the site by Greenhorne & O'Mara, dated March 2008. Please refer to Appendix B for the full report.

a) Soils and Topography

North Hill Park is located within the Coastal Plain Physiographic Province. The Coastal Plain accounts for approximately 25% of Fairfax County and consists of unconsolidated sand, clay, silt, and gravel strata. The topography is generally varied with areas ranging from relatively flat, to moderately steep slopes. There is about a 120-foot drop across the site from north to south, with highs ranging from approximately 80 feet above mean sea level (msl) to approximately 200 feet msl.

The highest point in the park is along the northern edge adjacent to the Bryant Alternative High School site sloping generally southwest to the low point at the intersection of Richmond Highway and Dart Drive. (**Figure 3 – Existing Slope Analysis**)

b) Watershed

The Little Hunting Creek Watershed Plan (LHCWP) was approved on February 7, 2005, by the Board of Supervisors. A watershed management plan serves as a tool to identify and address the issues affecting the environment and provides proposals to protect and restore the county's streams and other water resources. The headwaters of Little Hunting Creek are located in Huntley Meadows Park. The low end of Sub-basin LH-LH-0008 consists of 31 acres located on the east side of Richmond Highway. This sub-basin extends to a portion of the North Hill site, Cherry Arms Apartments, and portions of the church and school sites located to the north. The LHCWP recommends the addition of a storm water facility to treat a one-year rainfall event in this sub-basin that includes North Hill Park. Specifically, it recommends that the facility be located at the northeast corner of Richmond Highway and Dart Drive. The facility has not been funded or designed and may include one large facility, a series of smaller facilities or be collocated with future park facilities.

c) Hydrology

A wetland determination was completed in September 2008. No waters and/or wetlands, as defined by the United States Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act, were found on site.

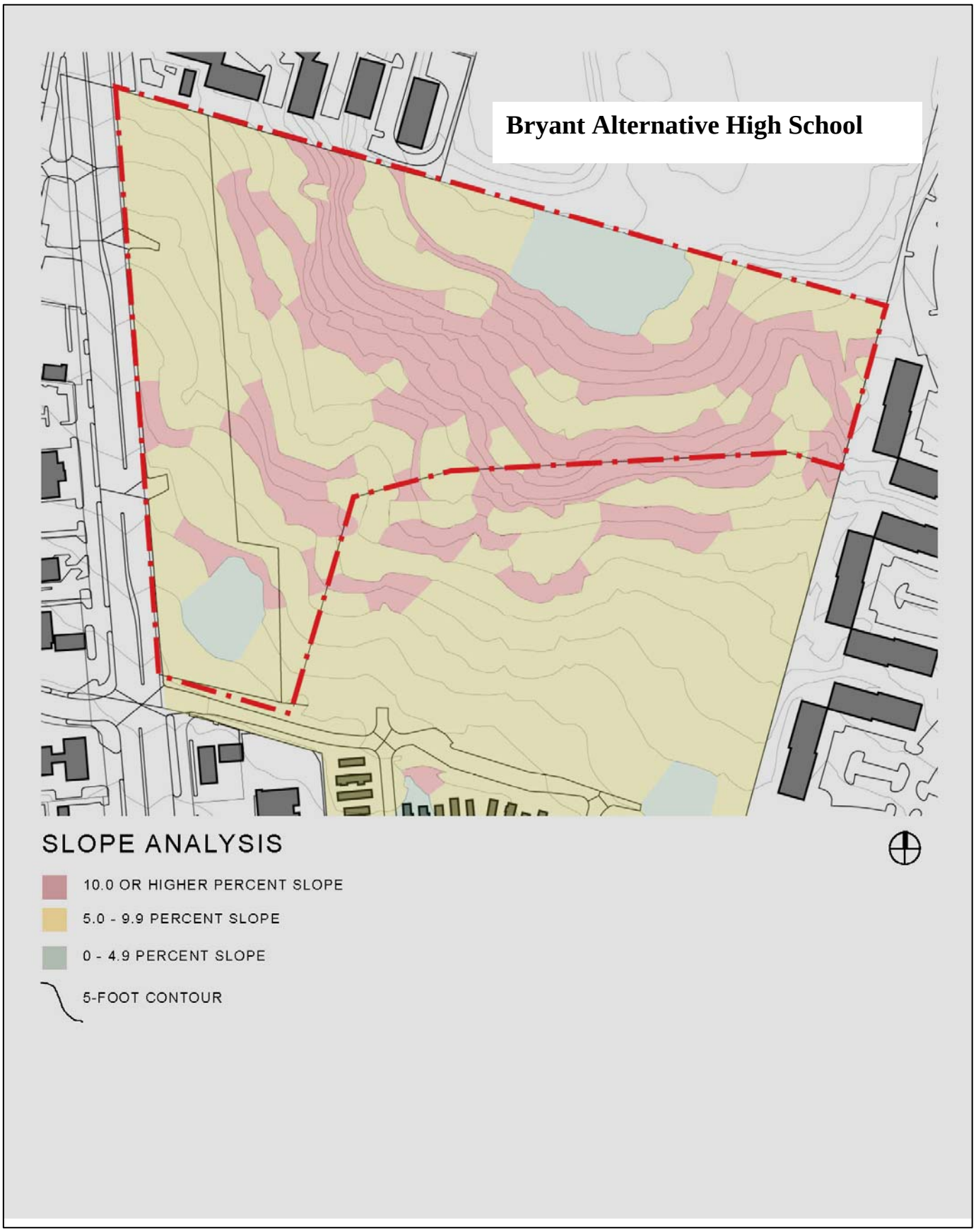


Figure 3: Existing Slope Analysis

d) Vegetation

A total of 40 tree species were identified on the site. The most abundant tree species within North Hill Park include black locust, willow oak, red maple, white oak, American elm, black cherry, and sweet gum.

The site's previous use as a residential community has significantly impacted the vegetation community on the site. Much of the site consists of relatively young successional regrowth of hardwoods with pioneering species such as sweetgum and black locust dominating. Most of these younger regrowth areas are heavily invaded by English ivy and wisteria, as well as other invasive species including tree-of-heaven. Some fairly large canopy trees are scattered throughout even these areas where they were probably left as shade trees when the site was used for mobile home sites.

Photo 2: Typical view of vine-covered trees on site.

Most of the evergreen species onsite, such as the pines and larger cedars were undoubtedly planted since they occur in neat rows. Other anomalous species such as cultivated junipers and forsythias, as well as daffodils, are found scattered throughout the site. This is clearly the result of ornamental plantings associated with the previous residential use.

Photo 3: Site condition adjacent to Bryant Alternative School

The site also contains an abundance of numerous vine species and invasive plants as listed by the Virginia Department of Conservation and Recreation. The most common invasive species present on site is English ivy. English ivy is excessive in certain locations and is common almost over the entire site. In many locations, English ivy has grown up to the top of trees, which pose serious problems to tree longevity.

Common periwinkle, Japanese wisteria, and several stands of bamboo were found throughout the site.

e) Tree Inventory

As North Hill Park is predominately treed, a tree inventory was conducted from December 2007 through February 2008. The inventory area included the FCRHA Residences at North Hill Park residential area as well as North Hill Park. All trees with a diameter at breast height (dbh) of 7.0 inches or greater were identified, mapped using GPS, and evaluated for condition.

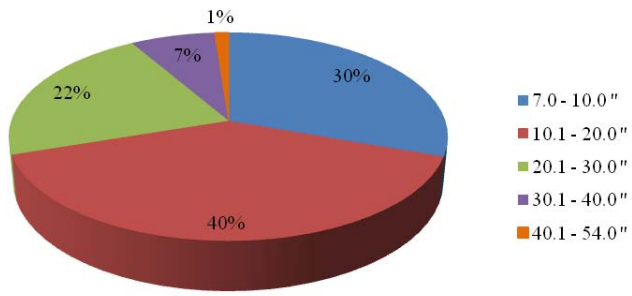


Chart 1: Percentage of Trees Greater than 7" dbh.

Charts 1 and 2 illustrate the distribution of tree size and quality found onsite. Within the inventory area, 1,427 trees of greater than 7 dbh were identified. Sizes of the trees ranged from 7 to 54 dbh, with 17 trees with a dbh of 40.1 – 54 inches identified.

A total of 6% of the trees on site were classified as in Excellent condition (69 trees) or Very Good condition (16 trees). A total of 6% of the trees on site were of the lowest quality, either Dead (58 trees) or Very Poor condition (28 trees). The remaining trees were classified as either in Good, Fair, or Poor condition.

Three invasive plant tree species were noted on the North Hill site; tree-of-heaven, Bradford pear, and princess tree. There were significant large specimens of each tree found; with 50 tree-of-heaven and 20 Bradford pear trees larger than 7 inches of diameter at breast height (dbh) found onsite. All of the results of the survey and a map depicting their locations are included in the Natural Resources Survey included as Appendix B.

C. Site History & Cultural Resources

A Phase I Archeological Survey was completed for the site in May 2008 by Greenhorne & O'Mara. The inventory area included the FCRHA Residences at North Hill Park residential area as well as North Hill Park. Please refer to Appendix C for the full Phase I survey results.

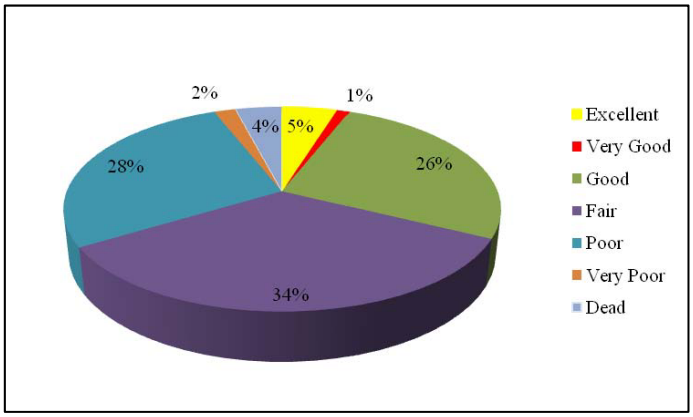


Chart 2: Percentage of Trees by Condition.

The archaeological investigations led to the recovery of 1,388 artifacts. Most of these artifacts date to the twentieth century and are present throughout the property. The twentieth century artifacts were mostly domestic in nature, including items such as bottles and household items. The locations of an additional 20 prehistoric Native American pieces of chipping debris are widely scattered across the property and are similar to artifacts found in other areas of Fairfax County. No additional archaeological investigations are recommended at the location of the twentieth or prehistoric Native American artifact sites.

In a compact 20' x 15' area, 28 early nineteenth century artifacts were located. Given the density of material associated with the early nineteenth century artifacts, additional test excavations and/or the preservation of this location may be in order.

IV. RECREATION NEEDS

- The need for park and recreation facilities is determined through long range planning efforts. The Fairfax County Park Authority tracks inventory of facilities, looks at industry trends, surveys, County citizen recreation demand, and compares itself with peer jurisdictions to determine park facilities needs. The most recent Needs Assessment was completed in 2004.

- As part of the Needs Assessment process, the Fairfax County Park Authority Board adopted countywide service level standards for parkland and park facilities. Facility standards for typical local park facilities include those for playgrounds (1 per 2,800 people), multi-use courts (1 per 2,100 people), dog parks (1 per 86,000 people), rectangle fields (1 per 2,700 people), youth baseball fields (1 per 7,200 people), and reservable picnic areas (1 site per 12,000 people).

As a result of the Mount Vernon area's extensive residential development in the 1950s, 1960s and 1970s, many of the smaller local parks were developed before organized sports were prevalent and do not adequately provide currently needed facility types for athletic group use. Fairfax County Schools supplement facility needs with the creation of athletic fields, courts, gyms, and playgrounds on school property that are available for community use in the Mount Vernon District.

Bryant Alternative High School is adjacent to North Hill Park and provides athletic field facilities within the community. No public parks currently exist with access along Richmond Highway.

V. PARK MANAGEMENT & CONCEPTUAL DEVELOPMENT PLAN

A. PARK PURPOSE

Park purpose statements provide an umbrella for planning and decision making. If a proposed use conflicts with any one of the purposes listed, it is considered an incompatible use. By establishing a park purpose, future plans for a park remain flexible as legislative requirements and visitor preferences may change.

The purpose of North Hill Park is;

- To preserve and enhance the natural and cultural resources within the park, with a special emphasis on the large trees found within the park;

- To provide local-serving leisure opportunities for a range of interests and ages; and

- To provide facilities for safe and enjoyable family gatherings and small-scale community events.

B. DESIRED VISITOR EXPERIENCE

- North Hill Park is envisioned to draw users from the adjacent residential communities, the commercial centers along Richmond Highway, and the athletic facility users who utilize the recreation fields at Bryant Alternative High School.

- The intention is to provide a park that offers supporting uses to the active recreation facilities at Bryant Alternative High School, appropriate neighborhood and community recreation facilities and passive recreation opportunities attracting a wide-range of users including children and families who want to enjoy playground and picnic areas in addition to individuals interested in a quiet walk through the woods. Through interpretive displays, visitors may learn about natural and cultural resources on site and how the site relates to the other environmental areas of Fairfax County, such as Huntley Meadows Park and Dyke Marsh. It is anticipated that a typical user visit would last from thirty minutes to two-hours.

C. MANAGEMENT OBJECTIVES

- In order to achieve the park's purpose, the following objectives have been developed to guide specific actions and strategies for dealing with management issues:

- North Hill Park should capitalize on its location. The park should support the activities which take place at Bryant Alternative High School; this includes supporting both the athletic field uses as well as the primary education

mission. As Richmond Highway is an important transportation and commercial corridor, the park should maximize the use of the extensive frontage along Richmond Highway to create a focal point along the Richmond Highway corridor and be a space for community-building activities.

- Park visitors should have universal access to any future park facilities when access is possible and feasible. This includes accessibility facilities and accessible connections between different areas of the park.

- Preservation, protection, interpretation, and enjoyment of natural and cultural resources are integral to the North Hill Park experience. Every effort should be made to balance the stewardship of these resources with recreation and community-building facilities.

D. CONCEPTUAL DEVELOPMENT PLAN – DESCRIPTION OF PLAN ELEMENTS

The Conceptual Development Plan (CDP) text and graphic describes recommendations for future park uses and facilities. The CDP contains descriptions of the concept plan elements, design concerns, and graphically displays the general location of the recommended projects. The park facility locations depicted in the CDP are generalized locations. Actual locations will be determined by more detailed site analysis, design and engineering that will be conducted when funding is available and include consideration of site conditions such as topography, natural resources, tree preservation, drainage and County codes and permitting requirements. (**Figure 4 - Conceptual Development Plan**).

Figure 4: Conceptual Development Plan

a) Urban Core

The proposed Urban Core is located to provide a flexible community gathering space in a high visibility area. It is prominently located at the corner of Richmond Highway and Dart Drive, a local collector street providing access to the Woodley Hills Estates manufactured housing community. This intersection has traffic and pedestrian controls and will provide the main vehicular access to North Hill Park. The space consists of an urban plaza with hardscape and landscaped elements, a picnic area with an open shelter, a basketball court and playground area. These elements are intentionally located at the most visible location to draw users into the park, at the most accessible topography, and along a pedestrian corridor to allow access to all. The Park Authority is committed to providing facilities accessible to all populations and all efforts should be made to design and develop the urban core to meet and exceed the requirements of the Americans with Disabilities Act.

NORTH HILL PARK CONCEPTUAL DEVELOPMENT PLAN

FEBRUARY, 2009

ACCESSIBLE TRAILS (NEW)
ACCESSIBLE TRAILS (EXISTING)
OTHER TRAILS (NEW)
OTHER TRAILS (EXISTING)

PARK PROGRAM AREAS
WOODED AREAS
URBAN CORE

This area of the site is shown as the general location of a storm water facility in the Little Hunting Creek Watershed Plan. The facility has not been designed and may include one large facility, a series of smaller facilities, or be collocated with future park facilities. As the park or storm water facilities are more fully designed and engineered, opportunities for coordination and collaboration between the Fairfax County Park Authority and other appropriate County agencies to accommodate innovative design of both facilities should be pursued.

i) Urban Plaza

An urban plaza at southwest corner of the park is intended to function as a primary gathering space consisting of a pedestrian entrance node, community plaza and a pedestrian link to the park beyond. The community plaza is proposed to accommodate small neighborhood events and gatherings and to create a welcoming presence along Richmond Highway. The plaza area should consist of decorative hardscape with benches and seat walls. Perennial planters and trees in wells are envisioned to add texture, color and seasonal interest. Small-scale architectural elements such as information kiosks or sculptures may also be incorporated to enrich the environment. Potentially, a rain garden or other innovative stormwater management feature could be incorporated into the plaza space as long as its design is integrated within the plaza, sustainable and maintainable, provides water quality benefits, and does not create unusable space during winter months.

ii) Picnic Shelter

A medium-sized picnic shelter with hardscape paving, 4-6 picnic tables, grills and trash receptacles is proposed to accommodate families and other social gatherings. The picnic shelter offers shade and weather protection in close proximity to the urban plaza, playground, and basketball court facilities.

iii) Playground Area

Given its proximity to dense residential areas the playground area provides an area for outdoor play targeted for youth users. The location is also intended to enhance the use of the picnic shelter by providing opportunities for youth activities during family gatherings or events.

iv) Basketball Court Facility

Up to two (2) basketball courts could be constructed in this area. Given its proximity to dense residential areas these basketball courts provide an area for outdoor play targeted for youth users to augment other facilities available at public schools in the area. The location is placed along a pedestrian corridor to allow for access by youth users, many of whom are too young to drive or do not have access to a vehicle to provide access to other court facilities located outside the service area.

The location is also intended to enhance the use of the picnic shelter by providing opportunities for youth activities during family gatherings or events. The location is visible from Richmond Highway and the park parking lot which should allow for adequate monitoring of the area.

As an option, the basketball courts may be lit to allow for extended evening use and increase monitoring ability. If lighting is added to the basketball court facilities, extreme care is required to minimize potential impacts to the surrounding residential areas and roads. All issues related to lighting should be evaluated carefully. Light use should also be limited to no later than 11 p.m.

v) Parking Lot

A parking lot providing approximately 40 spaces is provided within the Urban Core area. Access to the parking lot is provided off of Dart Drive, which has a signalized intersection with Richmond Highway. While most of the park users for the site are anticipated to

access the site via non-vehicular means, a parking lot should be provided to allow for accessible parking and access to the site and to the proposed program elements. Consideration should be given to the use of pervious paving and/or Low Impact Development (LID) structures to manage and reduce storm water runoff from the site.

b) Wooded Areas

The majority of the site is to remain wooded with trails and benches throughout to accommodate passive recreation. Directional and interpretive signage is proposed throughout this area to enhance learning opportunities. Particular attention should be paid to integrate the natural areas with educational opportunities provided at Bryant Alternative High School.

Management of the existing vegetation, including the many significant large trees, invasive vegetation, and low quality understory vegetation, will be a significant focus of the park management.

i) Trails

Trails should accommodate both pedestrian and non-motorized uses and provide interpretive signage and benches and/or other pedestrian refuge areas. The trail system should also be developed in such a way to provide access to all of the program areas within the park, as well as providing pedestrian connections between the adjacent land uses. This would allow for better integration of the residential, commercial, and public land uses surrounding North Hill Park.

The park includes existing remnants of the asphalt-paved roadways of the former trailer park. This network provides general access to most portions of the site. These roadways form the basis for paved pedestrian trails to take advantage of their siting with respect to existing topography and tree cover.

A portion of the existing abandoned roadway is located on the portion of the site identified for the 'Residences at North Hill'. Subject to approval by FCRHA, conversion of this roadway to a pedestrian trail would provide a primary east-west connector connecting the Mount Vernon Square apartments to the east to the Richmond Highway corridor along the western edge of the site. If conversion of this path conflicts with use of the adjacent residential site, a new trail should be provided in this general location within North Hill Park.

Provision of accessible trails was studied as part of the CDP. Despite the steep topography, all of the proposed program areas are believed to be fully accessible with implementation of the proposed trail system when accessed from one of the defined pedestrian entrance nodes. However, additional trails providing for more natural trail experiences or use by non-motorized methods should also be developed within these areas.

Possible trail connections are depicted on the CDP, but all trails should be field located and designed to work with the natural topography, preserve trees within the park, and minimize impact to cultural resources.

ii) Woodland Management

Managing vegetation within North Hill Park should be consistent with maintaining the health and longevity of

the specimen trees and natural resources present. Safety concerns, creating a network of accessible passive use trails, and preserving significant cultural resources should also drive management objectives.

Primary vegetation management objectives include;

- A forest treatment plan to determine the best methods of opening up the forested areas to provide the intended experience, while maximizing ecological value should be developed. Forest treatment plan should address the following;
    - Regular landscape maintenance will be required to serve the programmatic feature needs. This includes thinning of understory for safety and access and keeping trail areas cleared of encroaching vegetation.
    - The desired site programming may conflict with maintaining a naturally regenerating forest free of ecosystem threats. Cleared areas decrease natural tree germination and establishment and encourage non-native invasive plant pests.
- Trees in excellent and very good condition (as evaluated in the 2008 or subsequent Tree Surveys) with 20+ dbh should be preserved if at all possible. Smaller trees should also be preserved to ensure character and tree replacement is maintained. Additional tree plantings may be considered to increase tree density in suitable areas. Several unusual specimen trees were identified on site. While these species were likely planted, such as Butternut and American Elm, they provide an unusual character and provide biodiversity in this area.
- Invasive species are a significant component of the vegetation within this park. The goal should be to remove those non-native invasive species that are most threatening to the health of the trees. Given the size and scale of the invasive plant communities, removal and control efforts will have to be phased and initial efforts should be targeted to specific areas.
- While poison ivy is a native species, it can act in an aggressive manner within sites which have been heavily disturbed by human activities, such as North Hill Park. Long-term impacts of large vines on large, mature, healthy trees under stress from multiple factors are unknown, but may be detrimental to tree longevity and health. Poison ivy on trees of poor to fair health should be evaluated for removal.

The key to a successful management plan is to strike a balance between preserving large, healthy trees with the programmatic uses within the park. The full set of tree preservation recommendations are provided with the Tree Inventory Results in Appendix B. These recommendations may not be consistent with Fairfax County Park Authority best management and practices and should be used as a general guide for woodland management within North Hill Park.

iii) Cultural Resources Area

The significant 19th century archaeological site is located within the Woodland Area. This site should be protected from development/redevelopment and interpreted as appropriate. This may include interpretive signage and trail access if not detrimental to the site's condition. This site has been registered with the Virginia Department of Historic Resources as site number 44FX3311.

c) Recreation Support Area

A large grassy area, approximately 2.1 acres, is located at the northern edge of the site and provides direct physical and visual access from the adjacent Bryant Alternative High School athletic facilities which serves the community-at-large. Athletic facilities include one lighted synthetic turf rectangular field, one lighted 90' diamond field, one additional rectangular field and a gymnasium.

Existing barriers between the school and park should be removed to allow for visual and pedestrian access between the two public facilities. Creating pedestrian access between the school and park will enhance the use of open space area during sporting events at the school.

The area should be managed to maintain the existing treed lawn character of this area and provide facilities that will support the athletic field users. They include;

i) Treed Lawn

The existing vegetation includes a number of large, shade providing trees with grass or very little understory beneath. These grassed areas should be mowed and the trees should be managed to continue to provide a pleasant shady area for families to picnic and observe athletic field activities.

ii) Tot Lot

A tot lot should be provided within this area to provide opportunities for casual recreation for younger children and family members of field users. The tot lot could also serve as an outdoor recreation area for the Bryant Early Learning Center.

d) Picnic Areas and Parking

In addition to the facilities provided at the Urban Core area, two picnic areas are proposed in the northern portion of the park. The larger picnic area is approximately .69 acres and could incorporate picnic tables, grills and trash receptacles. This area is large enough to accommodate a reservable picnic shelter if one can be installed while preserving quality trees.

The smaller picnic area is approximately .28 acres and should include the site furnishings noted above, but with no available areas for a reservable picnic shelter. While these two picnic areas are close together, they are separated by steep topography. Consideration should be given to constructing a site stair to link these areas, providing flexibility to accommodate larger groups.

A parking lot is proposed in the northern part of the park to conveniently serve both picnic areas. This northern parking lot should accommodate parking for approximately 20 vehicles and will be accessed via a future extended service road planned to the north.

The location of this lot should be coordinated and constructed with anticipated Richmond Highway improvements planned by VDOT as access to Richmond Highway will not be provided until the Richmond Highway improvements are done and the proposed realignment of Holly Hill Road is completed. The service drive will also be extended from the Cherry Arms apartments south to this access point and is also expected to occur with the planned Richmond Highway improvements.

Consideration should be given to the use of pervious paving and/or Low Impact Development (LID) structures to manage and reduce storm water runoff from the site.

e) Treed Lawn

A large grassy area, approximately 2.1 acres, currently exists along the western edge of the site with direct physical and visual access to Richmond Highway. With this visual prominence, this area provides for an inviting "front yard" transition space into the park. This area is proposed to be utilized in a manner that takes advantage of existing conditions such as topography and existing trees. These grassy areas should be mowed and the trees should be managed to continue to provide a pleasant shady area appropriate for flexible casual recreation.

f) Off Leash Dog Area

As part of the community review and input process, a desire was expressed for an off-leash dog area within the park. Due to the high number of multi-family residential structures, there is a lack of enclosed open areas for family pets to be off leash. In addition, many off-leash dog areas become focal points for community activity and help to build community.

A minimum size of 0.25 acre and a preferred size of 0.5 acre or larger is recommended for an off-leash dog area. The location shown on the CDP was chosen due to its relatively shallow topography, its proximity to parking provided within the Urban Core and its separation from other program areas to help mitigate any potential noise issues.

The area will be enclosed with a five-foot high galvanized chain link fence (black vinyl coated). The chain link fabric

shall be crimped at both the top and bottom to assure safety to both dogs and people. The chain link portions shall be adequately entrenched or appropriately anchored to assure that no dog may burrow under. Double gated entryways will be provided for safety and to provide a neutral zone for dogs to be leashed/unleashed. The neutral zones shall be more than adequate in size to contain handlers and dogs. Single, large, gated openings will be installed to allow access to mowing and maintenance vehicles. During fence installation, every reasonable effort will be taken to preserve existing trees in excellent and very good condition. Access to water should be made available for the dog park.

Fairfax County Park Authority dog parks are operated as public/private partnerships, developed in cooperation with sponsoring organizations of pet owners. The sponsors are the agency's liaison between facility users and local residents, Animal Control and the Police Department. They monitor and clean the facilities, publicize dog park rules and regulations, and report maintenance needs.

Currently there is no private group or club who has been identified as a partner for the proposed off-leash dog park at North Hill Park. If no partner can be found to assist in the operation of this facility, this area could be utilized as an additional picnic area.

VI. DESIGN CONCERNS

A. Safety Considerations

The current condition of the site raises several safety concerns which require remediation before the park can be used by the public. The extended unused duration of the site in combination with the over growth of vegetation leaves much of the interior of the site obscured from public view leading to the opportunity for illicit activities. Currently visibility is very poor within the site and the park does not have a strong or inviting presence on its perimeter. The proposed CDP intends to improve and promote park safety by creating an active perimeter, clearly marking entrances and main routes, increasing visibility and site distance and developing opportunities for informal surveillance in and around the park.

a) Active Perimeter

New pedestrian points of entry are intended to open the park to adjacent land uses. The point of entry at the northern edge opens the park to the Bryant Alternative High School to the north and the urban core area in the south opens the park to Richmond Highway. The activity within these spaces will be visible from surrounding areas, encouraging additional users to engage in park activities allowing the park to have a more

visible presence in the neighborhood.

Additional pedestrian access points are intended to facilitate foot traffic into the park from the Mount Vernon Square apartments to the east, Cherry Arms Apartments to the north, and the future Residences at North Hill.

b) Entrances and Primary Trail Routes

Park entrances should be clearly visible from outside the park and, to the greatest extent possible, from inside the park. Overgrown and dense vegetation should be cleared along the main trails and at entrances to increase sight distance. Plantings along the primary trails within the park should not exceed three feet in height within four feet of the path on either side to maintain visibility.

c) Visibility and Sight Distance

Visibility has proven to be a key component in developing a sense of security within the park by reducing the number of isolated areas where users feel uncomfortable or unsafe. Regular landscape maintenance is recommended to increase visual connectivity and extend sight lines into and through the wooded portion of the site. The specific clearing, enhancement, and on-going maintenance treatment of the wooded area should be described in the forest treatment plan.

Lighting of the basketball court(s) would also increase the visibility of the Urban Core area during the twilight and nighttime hours.

d) Formal and Informal Surveillance

Sense of security is increased when people feel that others can see and/or hear them. By increasing the visibility into and within the park, users and adjacent residents can monitor the activity within the site. Programs such as the Adopt a Park or Park Watch may be appropriate at North Hill Park to aid in maintaining a high quality of service and safe operation of the park facilities.

B. Future Richmond Highway Improvements

As a result of the VDOT's Richmond Highway-Route 1 Corridor Study, a number of transportation improvements are planned. These improvements have not been funded at the time of this master plan, but the planned improvements have been considered as part of the master plan. Specific improvements include:

- Approximately 40 feet of right-of-way will need to be dedicated along the Richmond Highway frontage of North Hill Park. This area has been kept clear of proposed park improvements and dedication is expected to occur with the first proposed improvements within the park.
- VDOT design plans show a proposed realignment of the Holly Hill Road and Richmond Highway intersection. When realignment occurs, the full access entrance to Richmond Highway from the Cherry Arms complex will be reduced to a right turn only entrance. The full service intersection will be moved south into North Hill Park. This will require an extension of the service road from Cherry Arms south to this access point. These improvements are expected to occur with the planned Richmond Highway improvements. The northern parking lot should be constructed in conjunction with future VDOT improvements. The northern Richmond Highway park access will not be available until these improvements are constructed.

C. Little Hunting Creek Watershed

The Little Hunting Creek Watershed includes a portion of the North Hill site, Cherry Arms Apartments, and a portion of the church and school sites located to the north. The Little Hunting Creek Watershed Plan recommends the addition of a stormwater facility to treat a one-year rainfall event in the sub-basin that includes North Hill. Specifically, it recommends that the facility be located at the northeast corner of Richmond Highway and Dart Drive. The facility has not been funded or designed and may include one large facility, a series of smaller facilities or be collocated with future park facilities. As the park or stormwater facilities are more fully designed and engineered, opportunities for coordination and collaboration between the Fairfax County Park Authority and other

appropriate County agencies to accommodate innovative design of both facilities should be pursued.

D. Tree Preservation

Throughout this Master Plan, the importance of tree preservation at North Hill Park has been incorporated into the recommendations. Planned park facilities are shown in generalized locations on the Conceptual Development Plan. When facility design and site engineering occurs, the recommendations in the Woodland Management section of this Plan should be used for guidance, additional tree survey and condition analysis should be conducted, and negative tree impacts should be avoided.