



New Carrollton City Park Revitalization Master Plan

July 2016



New Carrollton City Park Revitalization Master Plan



City of New Carrollton

Created by:

Vincent Che-Wei Yi, Landscape Designer
Miranda Braatz, Project Supervisor

Acknowledgements:

Thanks to:

Andrew Hanko, Mayor
Sarah Potter Robbins, Councilmember
Lincoln Lashley, Councilmember
Richard Bechtold, Councilmember
Duane H. Rosenberg, Councilmember
Katrina R. Dodro, Councilmember
~~FORMER~~
Graham Waters, ~~Immediate past~~ City Administrative Officer
Miranda Braatz, ~~Immediate past~~ Assistant City Administrative Officer
Susan Hartmann, ~~past~~ Economic Development Coordinator
Doug Barber, City Clerk
Wilson Cochran, Director of Department of Public Works
Andre Triplett, Assistant Director of Department of Public Works

POLICE?

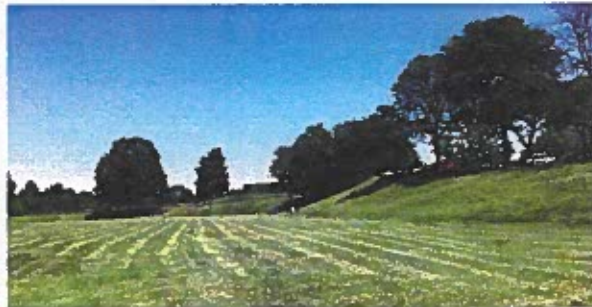
Table of Contents

INTRODUCTION & GOALS	01	Bicentennial Park & Garden.....	42
1 INVENTORY & ANALYSIS	03	Library Field.....	44
Context.....	05	Veterans Park.....	49
Demographics.....	06	Riverdale Woods.....	50
Circulation.....	08	Mahoney Woods.....	52
Existing Recreational Opportunities.....	10	Police Woods.....	56
City Landscape.....	12	89th Avenue Park.....	56
Stormwater Management.....	14	Beckett Field.....	58
2 COMMUNITY INPUT	17	85th Avenue Park.....	64
3 PARK DESIGNS & RECOMMENDATIONS	23	4 PLANT SCHEDULE	69
Youth Memorial Park.....	26	Canopy Trees.....	71
Turner Field.....	28	Evergreen Trees.....	72
Lamont Woods.....	32	Ornamental Trees.....	73
Oak Lane Park.....	34	Shrubs.....	74
West Field.....	38	Perennials.....	76
Longbranch Tot Lot.....	41	Ornamental Grasses & Ferns.....	77
		5 REFERENCES	79

Introduction & Goals

The City of New Carrollton and the communities surrounding it are about to undergo dramatic changes. The new Purple Line, which has its eastern terminus at the city, will create a east-west connection across Montgomery and Prince George's counties, and construction for the 2.7 million-square-foot development adjacent to the New Carrollton metro station is scheduled to start in 2016. With renewed interest from developers and the county's focus on transit development, the City of New Carrollton has seized the opportunity to revitalize its commercial district along Annapolis Road and plans to become a premier urban center, regional destination, and gateway to Prince George's County.

Improving the quality of life for the city residents continue to be a priority for the city as well, and a crucial component of the economic revitalization effort is a strategy to update the city parks. Well-designed and maintained parks offer the city a variety of benefits. Park spaces can provide recreational opportunities, encourage healthy lifestyles, and help strengthen the sense of community and place by providing amenities that encourage interactions between residents. Improved city parks can also aid the economic development efforts by increasing property value and attracting visitors to the city shops and restaurants. The city can also become greater stewards of the Chesapeake Bay and the environment in general by improving its parks. Park vegetation can help mitigate air and water pollution, reduce erosion, and provide habitat for wildlife. Park spaces, with well-placed education signs, can also offer the chance for people to learn about and connect with nature, which can encourage them to become stewards of the environment.



Design Process

- 1 City Parks Inventory & Analysis
- 2 Community Engagement
- 3 Park Designs & Recommendations

City Parks Revitalization Goals

- 
Health and Wellness
 Promote health and wellness of city residents by offering amenities and opportunities for active recreation as well as venues for stress relief.

- 
Community
 Encourage interactions between the diverse population of New Carrollton to create a stronger sense of community and place

- 
Environmental Stewardship
 Create stronger connections between residents and nature through the use of environmentally friendly practices and providing opportunities for sustainability education



Inventory & Analysis

Context

The City of New Carrollton is located in central Prince George's County and 4 miles northeast of the District of Columbia. The city occupies 1.53 square miles of land and is mostly residential aside from the retail corridor on Annapolis Road. The majority of the city sits just inside the Capital Beltway, and is bordered by the Baltimore-Washington Parkway to the west and train tracks to the south. In addition to its easy access to major highways, the city is also well-connected through train and metro because of the New Carrollton transit station at the city's southern border.

Maryland



Physiographic Province

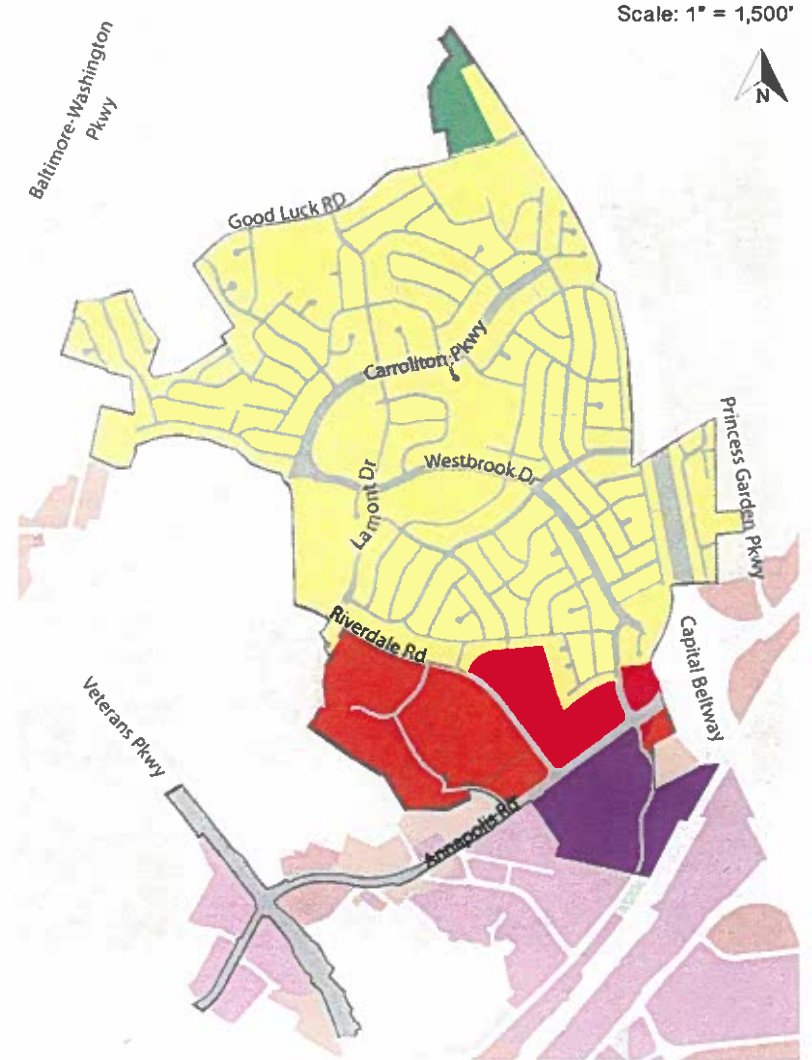


Prince George's County



Zoning Key

- Detached single-family residential
- Multi-family residential
- Commercial
- Mixed-use
- Open Space



City Demographics

The City of New Carrollton is home to a diverse population of approximately 13,000 residents. Over a third of the city residents were not born in the U.S., and almost a quarter speak a language other than English at home. The city parks should offer opportunities to celebrate the diversity of New Carrollton and encourage interaction between all the residents to foster a stronger sense of community.

Quick Facts

Total Population (2014): 12,708
Population Change (2010 to 2014): 4.7%
Median Resident Age: 34.3

Households: 4,141
Owner-occupied housing unit rate: 56.7%
Persons per household: 2.99
Households with children: 32.5%

Median Household income: \$59,438
Unemployment rate (September 2015): 5.1%
Poverty rate: 11.2%

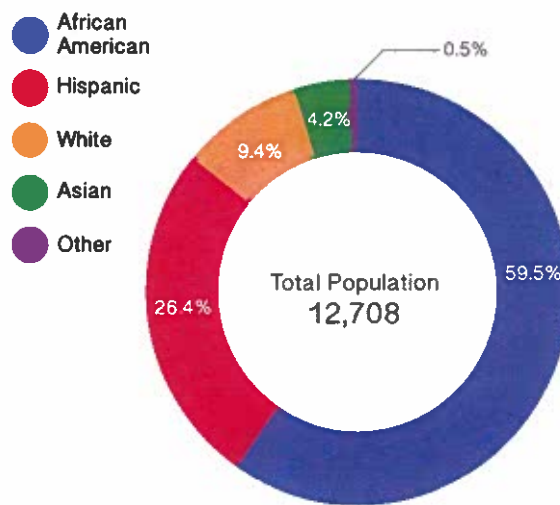


Food gardens can be a way to improve food security and foster interaction across the diverse cultural groups of New Carrollton.



Events like National Night Out and the Easter Egg Hunt attract young families of New Carrollton.

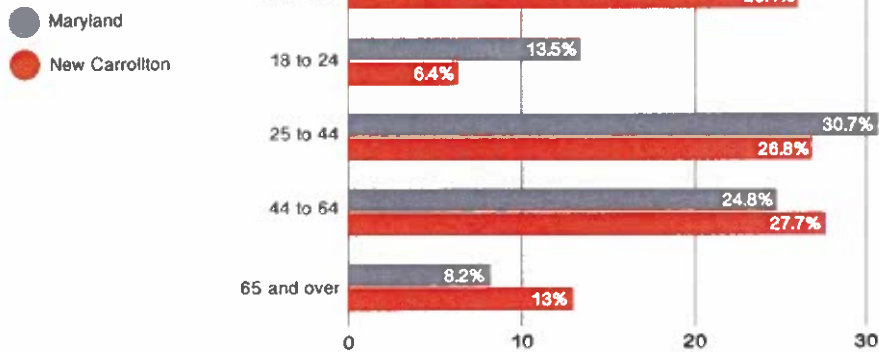
Race Distribution



The percentage of people under the age of 18 and the percentage of households with children in New Carrollton are higher than the Maryland and county average. The median age of 34.3 for city residents is also lower than the median age of 38.1 for Maryland residents. This means while parks should offer amenities and recreational opportunities for people of all ages, an effort should be made to ensure families with children and teenagers have access to well-designed and well-equipped play spaces.

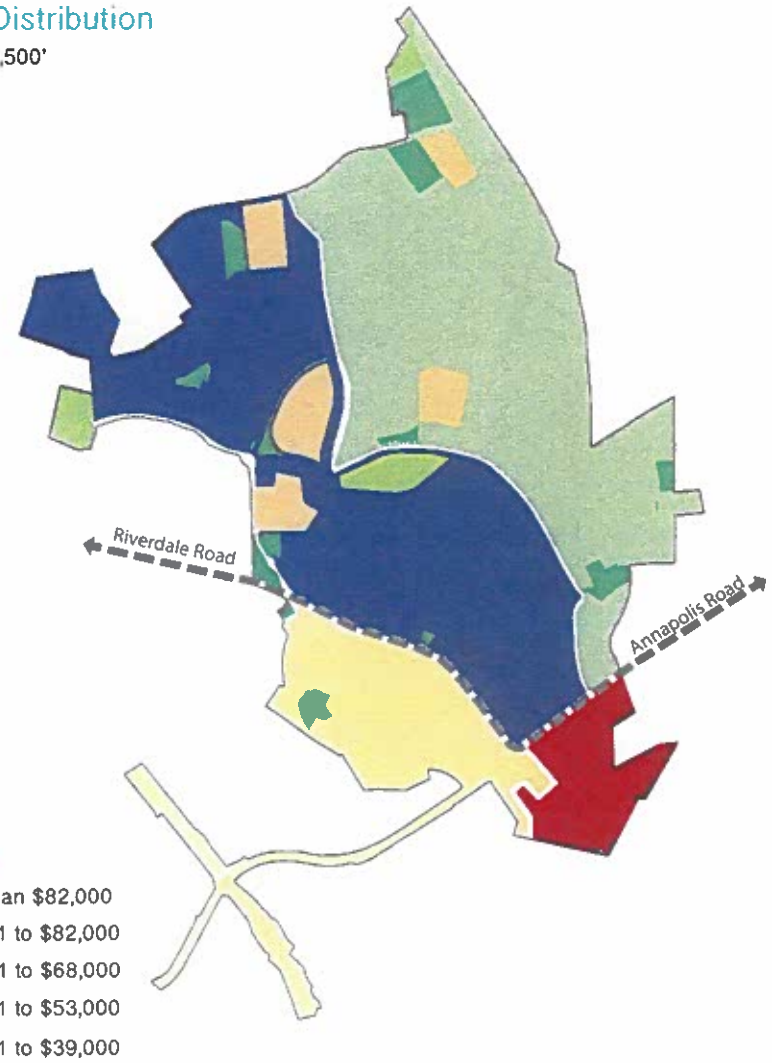
Another noteworthy pattern in the city is the geographic distribution of multifamily housing and median household income. All of the apartments and condominiums in the city are located south of Riverdale Road and Annapolis Road. These roads also create a dividing line for the city's median household income, as the households on the south side of these major roadways are much lower than the households on the north side.

Age Distribution



Income Distribution

Scale: 1" = 1,500'



Circulation

Vehicular Circulation

Roadways play a significant role in New Carrollton, which lies inside a triangle created by the Capital Beltway, Baltimore-Washington Parkway, and U.S. Route 50. While the major roads through and adjacent to the city provide easy access for commuters, several major roadways actually act as a barrier between parts of the city. The vast majority of the city land, for instance, is separated from the city police station and the municipal center by the Capital Beltway. Annapolis Road also creates a significant barrier for pedestrians who wish to cross this major roadway and, along with Riverdale Road, divides the city into separate north and south regions, which vary greatly in population density, median household income, and park access. This barrier is a challenge the city must address to ensure equal access to its parks for all of its residents.

Public Transit

The city of New Carrollton is well served by public transit. Currently, the city is connected to the greater DC-Maryland-Virginia area via the Orange Line of the Washington Metro. The Maryland Purple Line, which will also have its eastern terminus at New Carrollton, is scheduled to begin construction in 2016 and be completed by 2021. The Purple Line will be a 16-mile light rail that stretches east-west across Montgomery and Prince George's County and provides connections to the Orange, Red, and Green Lines.

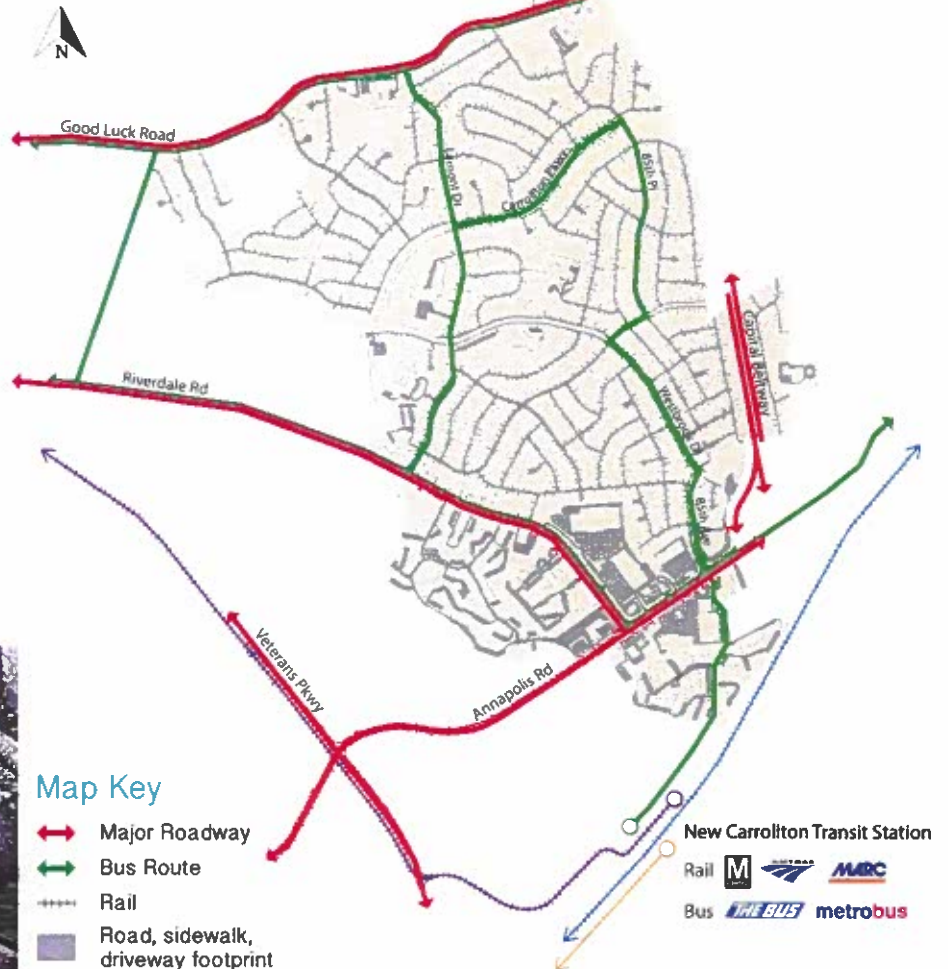
The city is also well connected to the northeast United States through the Penn Line of the Maryland Area Regional Commuter (MARC) Train Service and the Northeast Corridor of the Amtrak, which runs through major cities such as Washington D.C., Baltimore, Philadelphia, and New York City to its final destination of Boston.

Several bus routes runs through the city as well, including Prince George's County's The Bus and the WMATA's Metrobus.



City Transit Map

Scale: 1" = 1,500'





Loop trail at West Field in the summer (left) and fall (right).

Trails

An extensive trail network provides connections between destinations and gives city residents the opportunity to be physically active. One of the goals in Prince George's County's Formula 2040 Plan is residents should be able to access a trail within a 15 minute walk. Currently, the only existing trail in the City of New Carrollton is the loop trail at West Field. The trail is well-used by joggers and dog walkers, and residents have expressed interest in similar trails throughout the city. A map of the trail system proposed by the Maryland-National Capital Park and Planning Commission is on the right. For more information on trails and its future in the city and county, see the Trails Master Plan for Prince George's County by M-NCPPC.

Planned Trails System Map

Scale: 1" = 1,500'



Map Key

- Planned Trails (M-NCPPC)
- Possible Park Connection
- City Park
- County Park
- School

Existing Recreational Opportunities

Currently, the Department of Public Works maintains 16 parks totaling 43.3 acres. The parks differ greatly in character and use. Some, like the Longbranch Tot Lot and 89th Avenue Park, offer families and children a place to play and socialize while others, like Bicentennial Garden and Veteran's Park, provide quiet atmospheres for relaxation and meditation.

Active Recreation

Providing amenities for active recreation is crucial for promoting healthy lifestyles for city residents. One of the strengths of the city parks system is the large amount of fields for sports. Beckett Field, Turner Field, and Sports Field all have regulation sized fields for organized football and soccer games while West Field and Library Field

provide open lawn spaces for casual play. However, city parks do lack amenities for other popular activities such as basketball, volleyball, and skateboarding, and its baseball backstops, while not lacking in number, are generally in poor condition.

New Carrollton is also in need of an extensive trail network for people who want to walk, jog, bike, or dog walk safely. There are several trail routes proposed by the Maryland-National Capital Parks and Planning Commission (MNCPPC) that run through the city. However, the only trail currently in the city is the quarter mile loop trail located at West Field, which is also home to the vita course, dog park, and community garden. This



trail is well-used by city residents, who have requested more trails throughout the city.

City Parks Inventory Currently, the city of New Carrollton has 16 parks to serve its residents and visitors. The size of the parks and park amenities are summarized in table #, and a map of the city parks can be found on figure # on page # of the report.

Park Name	Address	Acres	Category	Amenities
85th Avenue Park	85th Ave.	0.15	Undeveloped	None
89th Avenue Park	89th Ave.	0.2	Playground	Playground, swings, benches, picnic tables, basketball court
Beckett Field	Westbrook Dr. & Legation Rd.	4.62	Sport Field	Playground, swings, benches, bleachers, 2 backstops
Bicentennial Garden	Westbrook Dr. & Verona Dr.	1.9	Garden	None
Frenchmen's Creek	Karen Elaine Dr.	3.42	Playground	Playground, swings, benches
Lamont Woods	Good Luck Road	3.74	Undeveloped	None
Library Field	Lamont Dr.	2.05	Field	1 backstops
Longbranch Playground	Longbranch Dr. & Carrollton Pkwy	0.26	Playground	Playground, swings
Mahoney Woods	Riverdale Rd. & Mahoney Dr.	0.82	Undeveloped	None
Oaklane Park	Harland St. & Rycroft Ave.	1.71	Undeveloped	None
Police Woods	Princess Garden Pkwy	1.8	Undeveloped	None
Riverdale Woods	Riverdale Rd. & Lamont Dr.	0.77	Undeveloped	None
Sports Park	Good Luck Rd. & Cathedral Ave.	9.48	Sport Field	Field with lights, goals, irrigation
Turner Field	Good Luck Rd. & Cathedral Ave.	5.91	Sport Field	2 backstops, football goals
Veteran's Park	Riverdale Rd. & Lamont Dr.	2.94	Garden	None
West Field	Carrollton Pkwy & Westbrook Dr.	3.53	Playground	Vita course, loop trail, dog park, community garden, benches

Passive Recreation

Park designs must also consider and accommodate passive recreational activities such as picnicking, relaxation, meditation, and other social activities that can take place in a park setting. These activities can reduce stress, improve mood, and build stronger relationships within the city. To support these activities, tables, benches, and shelters (pavilions, gazebos, and picnic shelter) can be placed strategically near points of interest like creeks, canopy trees, and play equipment.

Park Distribution

As discussed in the Circulation inventory section, the city is divided into northern and southern halves because of the pedestrian barrier created by Annapolis Road and Riverdale Road. In spite of the fact that one third of the city population live in the multi-family housing in the southern half of the city, only 1 of the 10 developed city parks is located there. Additionally, all schools, which also have recreational amenities, and county parks are located north of the aforementioned roadways. Addressing this disparity in park distribution must be a priority for the city park system.

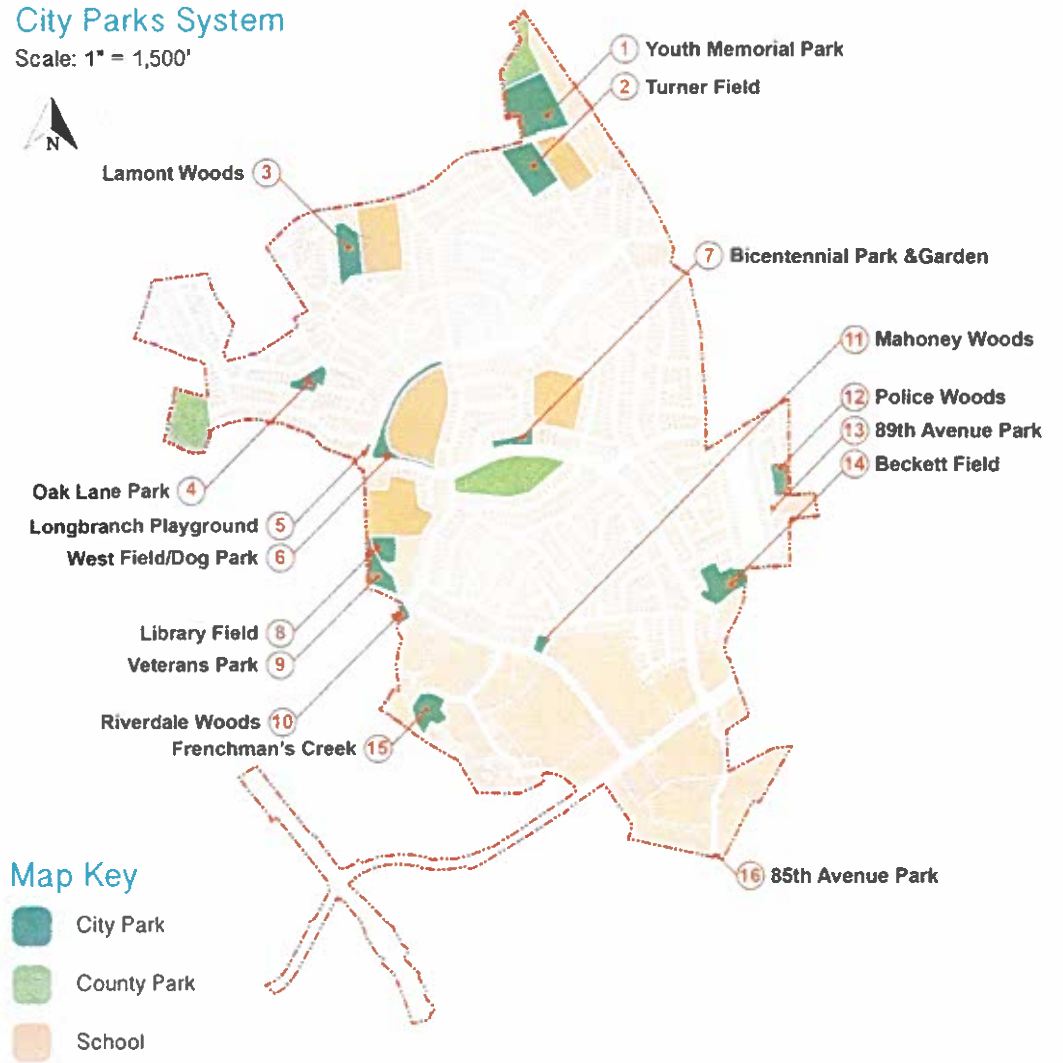
Breakdown by Category

Park Category	Number of Parks	Acres
Sport Field	4	22.1
Undeveloped	6	8.99
Playground	4	7.41
Garden	2	4.84
Total	16	43.3



City Parks System

Scale: 1" = 1,500'



City Landscape

As a planned suburban community, the City of New Carrollton is known for its picturesque landscape of ornamental trees, flowers, and manicured lawn. The city has won multiple Beautification Awards and been named a Tree City USA Community by the Arbor Day Foundation eight times. Some notable gardens in New Carrollton include the Bicentennial Gardens across from Vera Cope Weinbach Neighborhood Park on Westbrook Drive and Veteran's Park on Riverdale Road. Wide street medians along 85th Avenue and Lamont Drive have also been utilized for ornamental planting displays.

While the existing ornamental plantings are an attractive sight for residents and visitors, the gardens should be updated to serve more than just beautification purposes. Currently, the majority of the plants selected are non-native or invasive and almost all plantings utilize bulbs or annuals that offer little ecosystem services but require intensive maintenance. Selecting native plants for future plantings will reduce the level of required maintenance and give wildlife valuable habitat and food resources.



Weeping cherry in full bloom at Bicentennial Park and Garden.

City Tree Canopy

Native canopy trees are inexpensive and easy to plant and maintain. They offer many environmental benefits and help improve quality of life for city residents. Canopy trees provide food and shelter for wildlife and intercept rainwater to reduce flooding and erosion. They also clean polluted air, increase property values, and help residents save on energy bills during the hot summer months. Today, Prince George's County has a rebate program for planting native trees but does not have a goal for tree canopy cover. The District of Columbia, on the other hand, currently has a tree canopy cover of 35 percent and has a goal of reaching 40 percent by 2032. According to the county tree canopy gis data, the City of New Carrollton has a tree canopy cover of just 23.6 percent, so an effort should be made to plant more native trees in city parks.

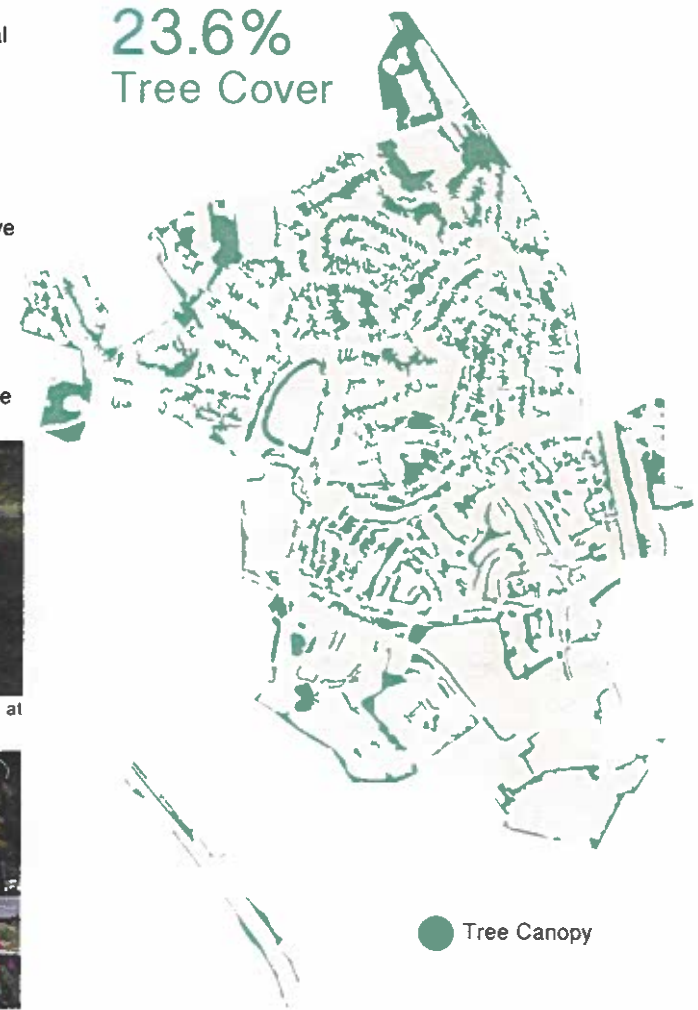


Mayor Hanko, Councilmember Dodro, and Public Works staff at the Arbor Day Tree planting at Veterans Park.



Tulips frame the welcome sign at the city municipal center.

23.6%
Tree Cover



Invasive Plants

Invasive species are organisms that are not native and cause environmental and economic harm to an area because of its fast growth, reproduction, and spread. An example of an invasive plant that is widespread in New Carrollton is *Pyrus calleryana*, the Callery pear. Although it is a beautiful sight in the spring, Callery pear, also commonly referred to as Bradford pear, is a highly aggressive and invasive species. The tree was planted throughout the city for its spring flowers, predictable shape, and fall colors. However, the pear tree's aggressive nature crowds out native trees, and its high growth rate and branching pattern makes it susceptible to storm damage.

The other common invasive species found in New Carrollton and their characteristics are summarized below.



White flowers of Bradford pears emit an unpleasant odor in the spring.

Common Invasive Plants in New Carrollton



Hedera helix
English-ivy

English-ivy used to be planted as an ornamental species, but has been labeled as an invasive species because of its ability to crowd out other plants, including shrubs and trees.



Celastrus orbiculatus
Oriental bittersweet

Oriental bittersweet was introduced from eastern Asia as an ornamental plant and for erosion control. This aggressive vine wraps its stem around trees, which can be toppled by the vine's weight.



Ailanthus altissima
Tree of heaven

Tree of heaven is a fast-growing tree that was planted as an ornamental and shade tree. Its flowers release a particularly offensive smell.



Rosa multiflora
Multiflora rose

Multiflora rose is native to China, Japan, and Korea and used to be planted for erosion control and its flowers.



Morus alba
White mulberry

White mulberry is the primary diet for silkworms. This tree's leaves have variable shapes, and its fruits are edible.



Quercus acutissima
Sawtooth oak

The early acorn production of sawtooth oaks have some suspecting it is displacing native oaks. This oak earned its name from the toothed margins of its leaves.



Alliaria petiolata
Garlic mustard

Garlic mustard was brought over to the U.S. from Europe for food and medicinal use, but now covers forest floors and crowds out native species.



Albizia julibrissin
Mimosa tree

Mimosa trees have very showy pink flowers that bloom from June to July, but its aggressive nature prevents native plants from establishing.



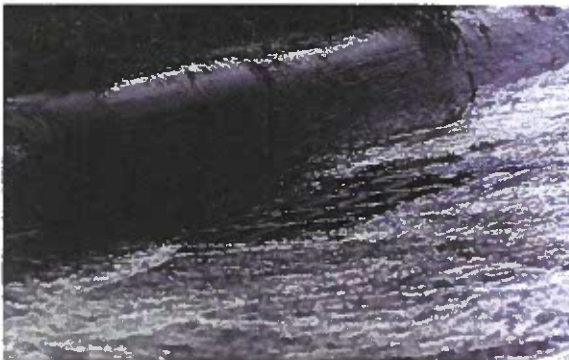
Lonicera maackii
Amur honeysuckle

Amur honeysuckle is highly adaptable and will invade any disturbed habitat. These shrubs form dense thickets and shade out native species.

Stormwater Management

Stormwater runoff in developed landscapes is a major concern and has significant impacts on the health of the Chesapeake Bay. Every day trash, oils, chemicals, and other pollutants accumulate on our roads, roofs, and parking lots. When it rains, these pollutants are washed away and carried through storm pipes into the bay. The rapid increase in impervious cover associated with urban and suburban development has also led to a larger and more rapid discharge of stormwater, resulting in more frequent flooding and erosion damage to streams.

In April 2012, The Watershed Protection and Restoration Program was signed by then governor Martin O'Malley. The law created a program that collected fees from the nine counties and the city of Baltimore to address the issue of stormwater runoff. In response to the mandate, Prince George's County passed two pieces of legislation in 2013. The first bill, CB-45-2013, established a Clean Water Program and created the Local Watershed Protection and Restoration Fund, which would be used for improving stormwater management systems, educating the public on stormwater and stream and wetland restoration, and providing grants to nonprofit organizations for watershed restoration or rehabilitation projects. The second bill, CR-59-2013, established the schedule of fees to be collected to fund the program.



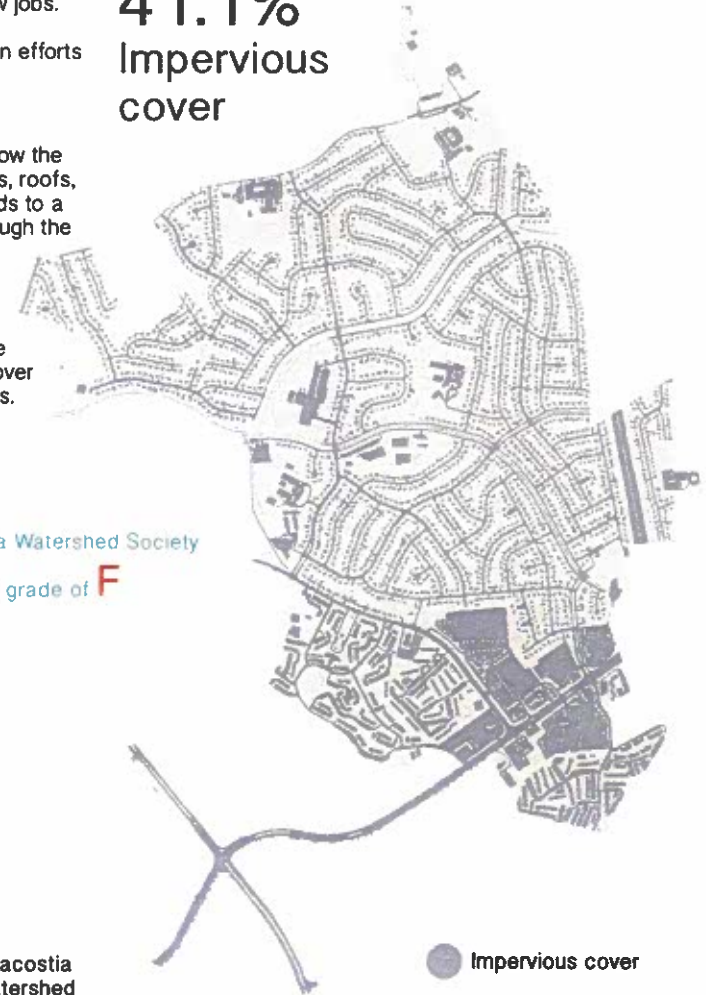
Traditional gray infrastructure, like storm drains, channelize and discharge the stormwater runoff into streams as quickly as possible

With the Local Watershed Protection and Restoration Fund, the county is able to revitalize aging neighborhoods and launch a green economy to create 5,000 new jobs. The county will also be able to partner with local institutions and communities to expand restoration efforts and clean up the bay.

Impervious Cover

Impervious cover is any surface that does not allow the infiltration of water into the soil such as sidewalks, roofs, and streets. An increase in impervious cover leads to a reduction in the amount of water percolating through the soil and an increase in the quantity of surface runoff and its pollutants. During the warmer months, hot surface runoff can also result in increases in stream temperature, which can stress the inhabitants of the stream. Studies have shown that even small increases in impervious cover can lead to adverse effects for stream inhabitants. Just 4 percent of impervious cover, for instance, could lead to the absence of brook trouts.

41.1%
Impervious
cover



● Anacostia watershed

● Impervious cover

Low Impact Development Techniques

Low impact development (LID) is a cost-effective stormwater management approach modeled after natural systems. Today, most rainfall is directed into an expansive and costly network of sewers, pipes, and channelized streams, which only serves to quickly dispel the polluted water into our streams. Before human development, rainfall is uniformly captured, infiltrated, and filtered close to the source in micro-scale systems. LID techniques like planting canopy trees, installing rain gardens and bioswales, and implementing permeable pavers attempt to mimic this process.

Canopy Tree

\$
Native canopy trees can provide a variety of benefits. The leaves and branches of large canopy trees will intercept rainfall and allow it to infiltrate into the soil. This decreases the volume of runoff and reduces erosion and flooding. Canopy trees also provide a variety of other benefits, such as providing wildlife habitat, reducing noise pollution, and acting as a natural air-conditioner in the summer and windbreak in the winter.



The recently planted willow oaks at Turner Field can grow up to 75' tall and 50' wide.

Rain garden

\$\$
Rain gardens are planted depressions that water flows into during rain events. They are planted with grasses, perennials, shrubs, and small trees that can withstand periods of drought and inundation. Rain gardens can be used to collect and hold water from roofs, parking lots, sidewalks, and other impervious surfaces and allow it to infiltrate into the ground. If native vegetation is utilized for the rain garden, the rain garden can also provide habitat and food resources for wildlife.

Bioswale/Dry riverbed

\$\$
Bioswales and dry riverbeds are similar to rain gardens in that they are planted depressions that collect runoff. However, while some infiltration and filtering will occur in a bioswale or dry riverbed, it is not the main objective. Instead, its main job is to slow the flow of the runoff as it is conveyed to its final destination, which can be a rain garden or a storm drain. Bioswales and dry riverbeds are natural alternatives to storm sewers and are generally cheaper to construct and maintain.



Swale in the median of a parking lot (left) and a rain barrel (right) capture runoff from impervious surfaces.



Permeable paver demonstration (left) and a rain garden in a Beltsville parking lot (right).

Rain Barrel/Cistern

\$
Rain barrels and cisterns are usually connected to the end of a downspout or channel for the purpose of collecting and temporarily storing rainwater. The captured rainwater can be utilized later for watering lawns, trees, and gardens and should be emptied within a week of the rain event. By intercepting rainwater during storms, rain barrels and cisterns can slow down the discharge of runoff and help reduce flooding and erosion damage.

Permeable pavement

\$\$\$
Permeable pavement allows rain to seep through the surface and infiltrate into the ground and are often more attractive than traditional surfaces. Different types of permeable pavement are available including porous asphalt, pervious concrete, permeable pavers, resin-bound paving, as well as other materials. Permeable pavement relies on the porosity of the material to infiltrate the rainwater, so it is not suitable for locations that experience high sediment loads, which will clog up the pores.



Community Input

Community Input

The city park master plan should reflect the needs of the residents of New Carrollton, so their input is important for determining what recreational opportunities are missing and which park amenities are needed in city parks. Involving the public throughout the process of developing the city parks can also create awareness of the improvement efforts and foster a sense of ownership and support for the plan.

City Resident Survey 2015

The New Carrollton resident survey was conducted from the fall of 2014 to the spring of 2015 to understand the priorities and needs of the residents. The survey was made available at city events like Community Day, National Night Out, and Election Day and posed questions about the city in general. The survey also included park-related topics such as the maintenance of parks, beautification in the city, and park usage.

The survey takers were asked about their level of satisfaction with park maintenance, and most of the

respondents felt that the maintenance is good or excellent (30.4% and 24.1%, respectively). However, when asked how often they visited their local parks, 46.5% of the respondents answered never or rarely, and only 21.1% and 11.4% answered they used the parks often or very often, respectively. Some of the comments from the survey takers reveal clues as to why many are not using their parks. One respondent pointed out that not enough has been done to improve the parks, while many point to the lack of programming and events to draw people to the parks. There was a particular emphasis on offering recreational opportunities for children. Some environmentally conscious residents also requested more native plants, rain gardens, and the removal of invasive Bradford pears.

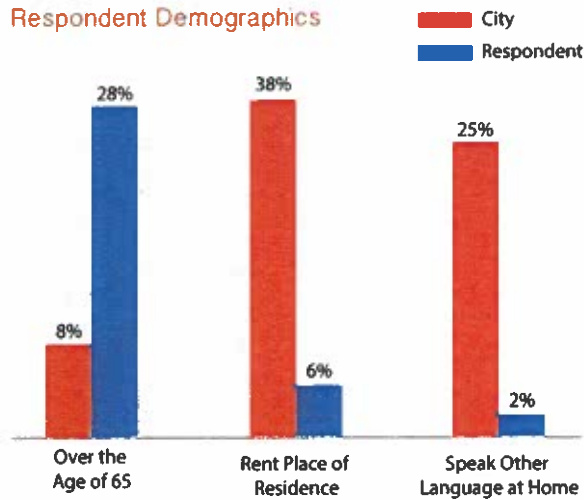
It is crucial to point out, however, that the demographic of the survey respondents is vastly different from city's actual demographic. For instance, only 6% of the respondents rent their place of residence, which is far

lower than the actual number of 38%. In addition, only 2% of the respondents answered that they spoke a language other than English at home when in reality close to a quarter of city residents do so. This discrepancy demonstrates the need to reach out to all populations of New Carrollton in future community engagement efforts.

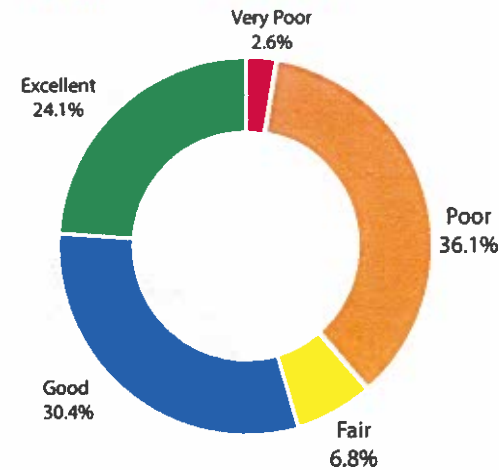


Survey Results

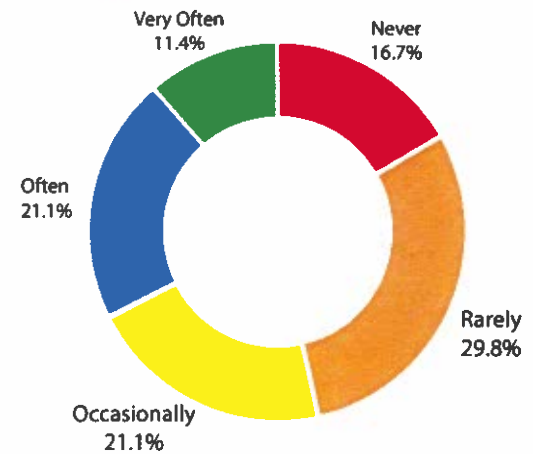
Respondent Demographics



Park Maintenance Satisfaction



Park Visit



National Night Out Table- August 4, 2015

At National Night Out, city residents who visited the New Carrollton table were invited to submit their ideas on how to improve the city parks. The results are summarized in the table to the right.



City staff talking to residents about their city parks at National Night Out.



National Night Out and Community Day are two of the most popular events organized by the city and provide a variety of activities for residents to enjoy.

What do you want to see in your parks?

1. Public Pool/Water Play	18.9%
2. Playground Equipment	10.6%
3. Trails	8.2%
4. Soccer	7.1%
5. Basketball	5.9%
6. Gathering/Picnic Space	5.9%
7. Plantings	4.7%
8. Skatepark	3.2%

Programming & Event Suggestions

- Outdoor concerts
- Food truck
- Farmers market
- Flea market
- Temporary public art display
- Summer work for teens
- Summer camp for kids

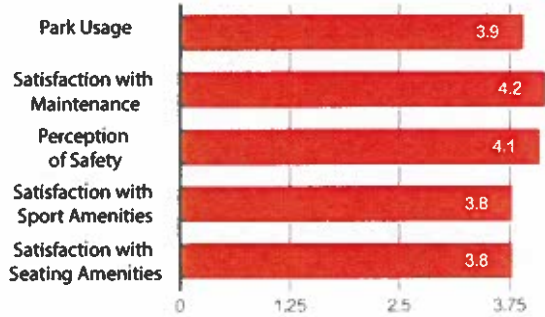
Easter Egg Hunt Table- March 26, 2016

Findings from the demographics inventory and analysis indicate that New Carrollton has a larger proportion of children and young families when compared to the state and county, so it was important to focus on the recreational needs of parents and children. With this information and goal, city staff set up a table at the annual Easter Egg Hunt and invited parents to fill out a survey regarding city parks.



Easter Egg Hunt at Vera Cope Weinbach Neighborhood Park

Easter Egg Hunt Survey Results max value: 5



Other Comments:

"Parks should be updated and made more interactive/colorful for kids of all ages"

"More basketball courts and swings"

"Better lighting"

"More activities for kids"



Mayor Andrew Hanko and city residents

City Parks Open House- April 19, 2016

On April 19, 2016, city residents were invited to attend an open house at the municipal center, where the multipurpose room was set up with park design boards, and talk with city staff about the conceptual designs. The conversations led to changes in the designs and additional concepts for the parks.



Future Community Engagement Effort

Improving city residents' quality of life should be the main goal for the city park system, so their involvement should be included as a part of the ongoing park planning, design, and development efforts.

City Park System Survey

The survey distributed in 2015 was about the city in general and only included a few questions about city parks. A new survey focused on city park system should be conducted to get a better idea of city residents' use and satisfaction with their parks. The city should make sure that the surveys are accessible to all populations of New Carrollton, regardless language or income barriers, to get a more comprehensive understanding of their recreational needs.

Design Charrettes at City Schools

Students and children are often the primary users of parks, so it is important to understand their needs. Surveys for the students of New Carrollton as well as design charrettes at the schools will provide valuable insights as the city continues to develop their parks.





Park Designs & Recommendations

New Carrollton City Parks System Recommendations

1. Improve visibility of the city parks

Currently, all parks in New Carrollton use the same type of entrance signage, so it can be difficult to distinguish city parks from M-NCPPC parks. New Carrollton parks should establish its own identity that conveys the character and history of the city. As the city continues to renovate and upgrade its parks, it should develop a palette of signage, seating amenities, and play equipment so city parks are easily recognizable.



The city should develop a palette of signage and amenities so city parks are easy to recognize.

2. Increase the variety of active recreational opportunities

Most developed city parks are catered towards field sports like football, soccer, and baseball. The city parks system only has one basketball court and loop trail to serve its almost 13,000 residents and does not have any volleyball courts or skate parks. As the city continues to update its parks, it should make an effort to diversify the amenities and activities it offers.



New Carrollton has many fields for football and soccer but needs to diversify its recreational opportunities.

3. Improve the comfort level of parks for users

Since many of the developed city parks are grass fields for sports and have few canopy trees, park users are often exposed to the elements. Planting more canopy trees and constructing shade shelters in high-use parks would provide much needed cover. Installing additional picnic tables, barbeque grills, benches, and trash cans would also make the parks more attractive and user-friendly to city residents.

4. Provide recreational and cultural amenities for the diverse population of New Carrollton

New Carrollton has a population with diverse backgrounds. The city should reinforce this diversity through the promotion of ethnic food gardens, public art, and special public events to celebrate the different heritages of city residents.

5. Ensure equitable distribution of park resources

New Carrollton must make an effort to develop park resources and provide recreational opportunities to residents who live south of Annapolis and Riverdale Road. In addition, providing trail connections between park spaces so residents can walk or bike to parks would ensure residents can access their city parks more easily.



Playgrounds and fields in New Carrollton are often exposed to the sun and could benefit from shade of canopy trees.

Map & Diagram Key

Site Inventory Key

Street	City Park Boundary
Sidewalk	Wooded Area
Stream	Ornamental Planting
View to Enhance	Existing Asphalt

Slope Map Key

<2%	8% to 12%
2% to 5%	12% to 33%
5% to 8%	>33%

Water Flow Diagram Key

City park	School
Impervious surface	Contour line
Major flow	Stream
Secondary flow	Pond

Youth Memorial Park

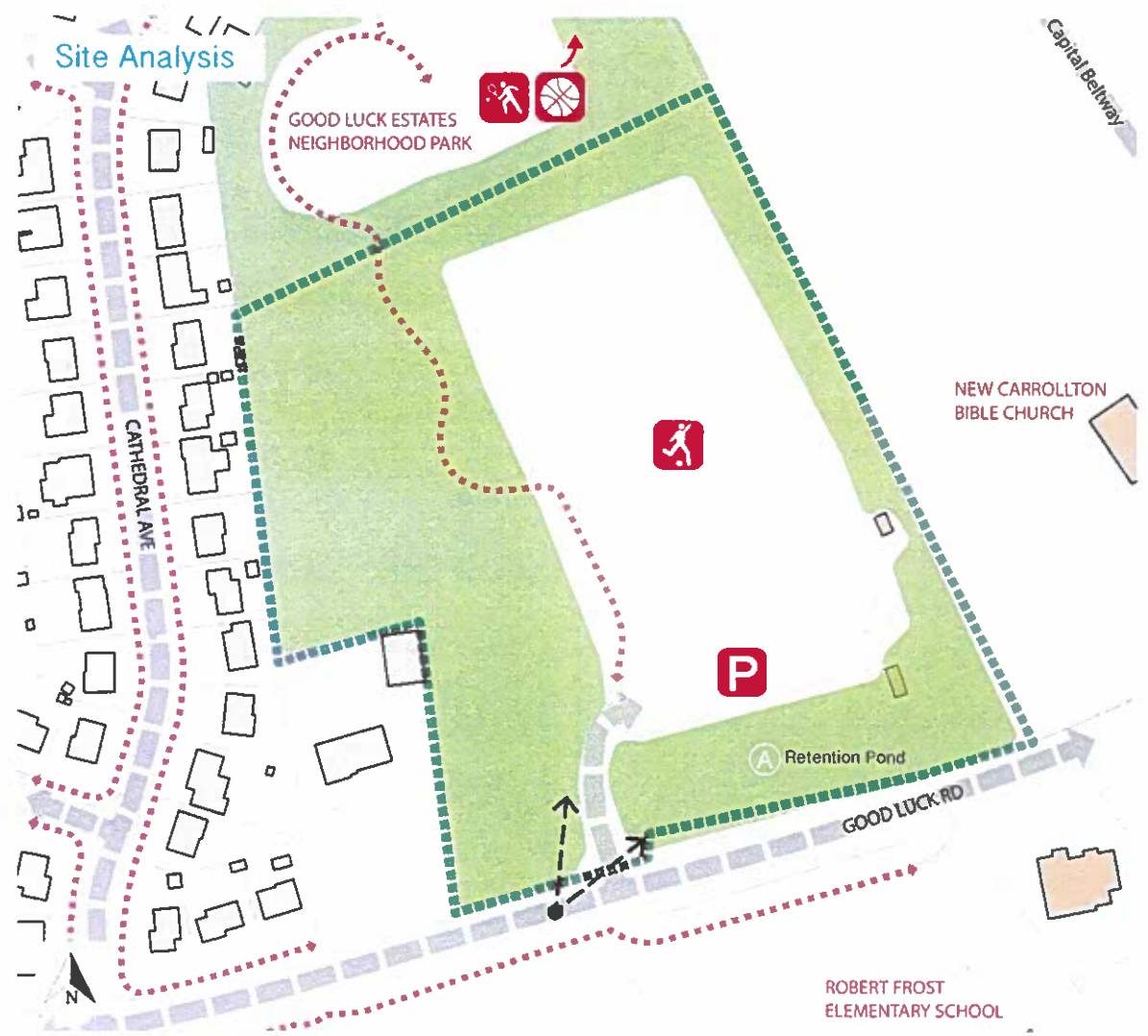
Youth Memorial Park, also called Sports Park, is located along Good Luck Road and directly south of the Good Luck Estates Neighborhood Park. The park is home to the only regulation sized soccer field in New Carrollton with both lights and an irrigation system. The field itself is in excellent shape. However, the parking lot is in poor condition, and the adjacent wooded areas are overgrown with invasive plants and poison ivy. The overgrown wooded areas at the entrance and the berm on the south side of the soccer field restrict the view into the park, which makes the park easy to miss and hard to secure. A fence was erected around the soccer field due to the concerns about the limited view, and currently, the field is used only by the New Carrollton Boys and Girls Club.

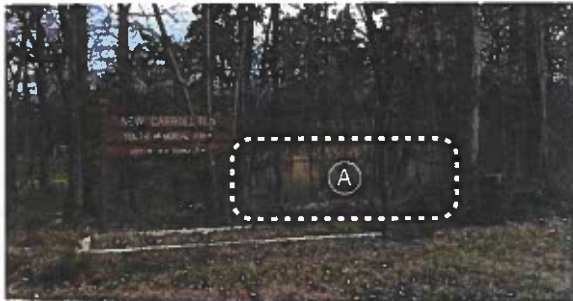


Undergrowth in the summer obstructs the view from Good Luck Road into Youth Memorial Park.



Lack of undergrowth in the winter reveals the site as a potential picnic space.





People driving by Youth Memorial Park could easily miss the entrance signage. The stormwater retention pond (A) in the background is overgrown with phragmites.



The trail through the woods connects to the Good Luck Estates Neighborhood Park.



Trash in the wooded area of Youth Memorial Park.

Recommendations

Improve visibility of the park

It is easy to pass by Youth Memorial Park without noticing it when driving down Good Luck Road. The existing park entrance sign blends into the surrounding woods, and the dense undergrowth in the summer obscures views into the park. Clearing the undergrowth, installing a new welcome sign, and marking a crosswalk across Good Luck Road will help make Youth Memorial Park more visible to city residents and potential visitors.

Provide additional recreational opportunities

The only existing recreational amenities at Youth Memorial Park are the soccer field and a trail through the woods, which are both fenced off from the public. The only reason someone would visit the park is for organized soccer games. However, the park has great potential for woodland picnicking and exploring. Youth Memorial Park is also connected to the Good Luck Estates Neighborhood Park through the woodland trail, and this county park has two tennis courts, a basketball court, playground, and an open lawn area. So even if it is necessary for the field to be fenced off for maintenance purposes, the trail should be accessible at all times as a way to reach the county park.

Renovate existing stormwater management pond

There is an existing stormwater retention pond (marked A in top left photo and on the site analysis diagram) in the wooded area along Good Luck Road. This pond is currently fenced off and is most likely capturing runoff from the field. However, it does not appear to be well-maintained and is overrun by invasive phragmites. A renovated bioretention with native plants could be used as an educational opportunity for park users and students.

Precedent Images



Picnic areas in the woods could also serve as outdoor classrooms.



Wayfinding in the woodland trails.



Rain gardens and bioretention basins offer great educational opportunities for park users.

Turner Field

Turner Field is located on Good Luck Road across from Youth Memorial Park. It is also located adjacent to Robert Frost Elementary School and is utilized by the students and the New Carrollton Boys and Girls Club.



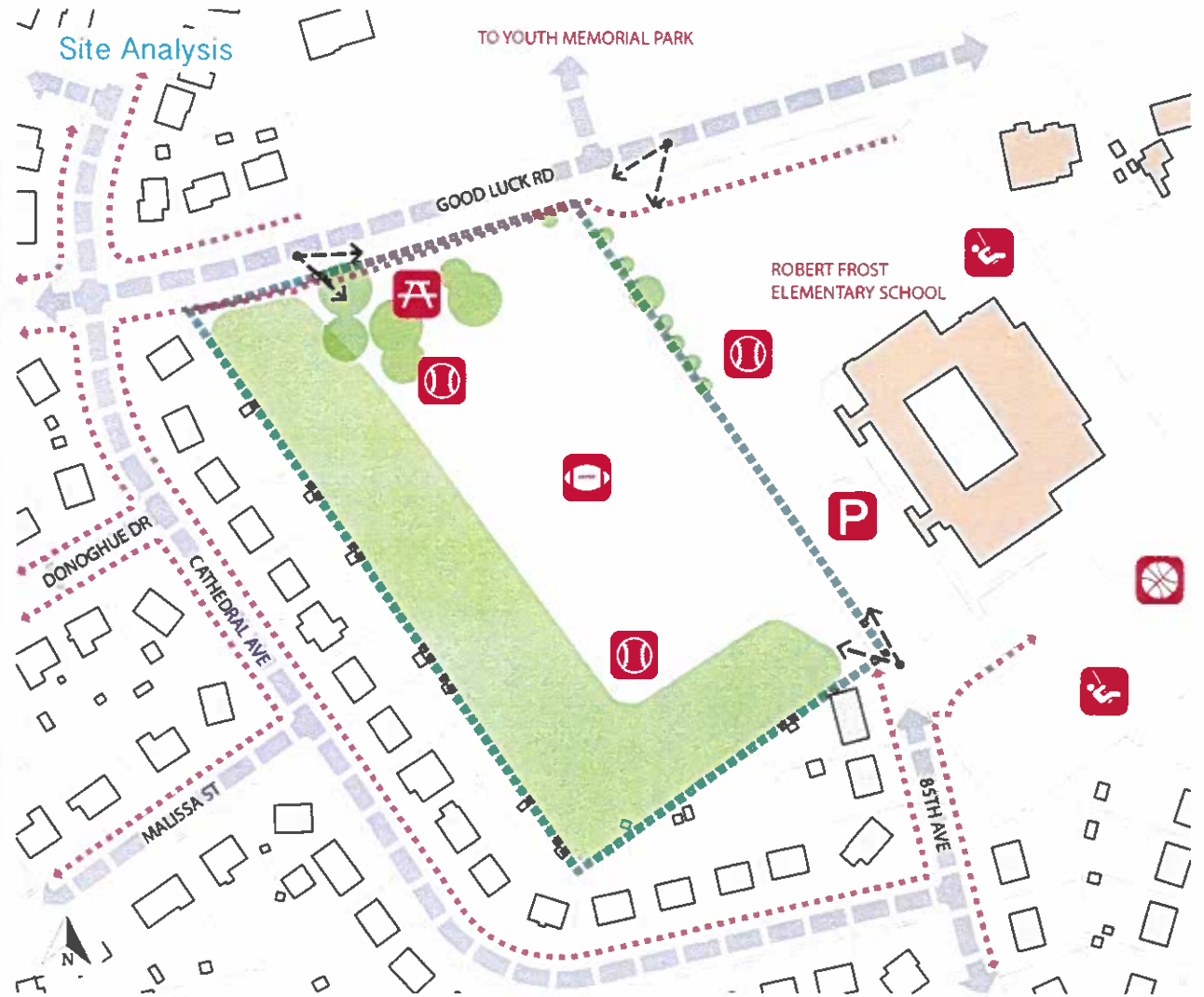
Sign at park entrance should be more welcoming. All residents should be allowed to use the park.

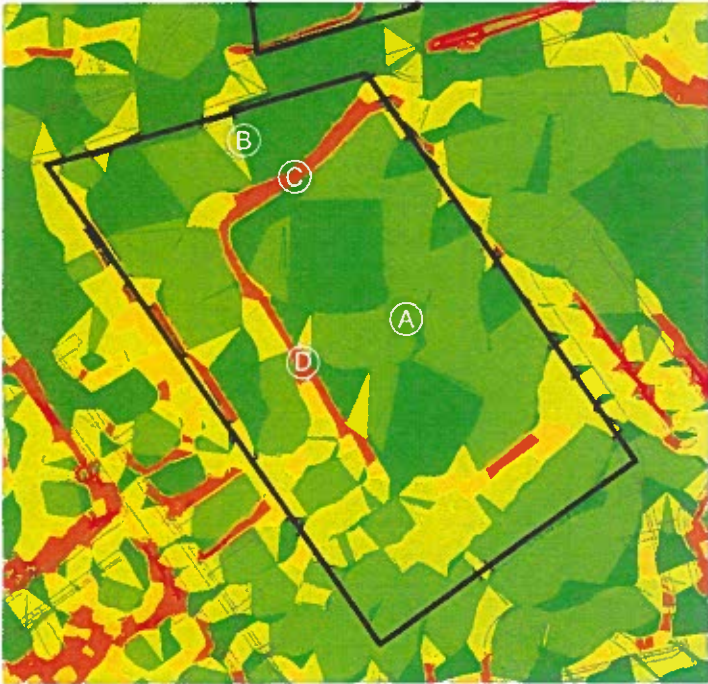


Recently planted Quercus phellos, willow oaks, will provide shade for students and athletes as it matures



Both baseball backstops at Turner Field are in poor condition and should be removed or replaced.





Slope Analysis

Turner Field is mostly flat aside from the hill on the north (C) and west (D) sides of the ball field. The ball field (A) is currently sloped at 0 to 5 percent, which is appropriate for field sports, but has evidence of ponding in a few spots. The area (B) on top of the north hill is also fairly flat and currently serves as a picnic area with grills.



Water Flow

Water in Turner Field generally flows to the southeast. However, there is some evidence of water ponding on the field, especially at the bottom of the north hill (C) and underneath the goal posts. This can be addressed by strategically locating rain gardens to capture some of the water during rain events, but a re-grading of the field will be needed to solve the drainage issue completely.

Multipurpose Field & Loop Trail

Objectives:

Improve accessibility into and throughout the park

Currently, Turner Field does not have any walkways, which makes it difficult for people with physical disabilities to access. The layout of the sidewalks in this design are ADA compliant and allow people with disabilities to access the field. The design also includes a loop trail for park visitors and students of the nearby elementary school to use.

Provide educational opportunities for adjacent elementary school

A rain garden at the bottom of the north hill will help intercept some of the rainwater running across the field and provide an opportunity for the students of Robert Frost Elementary School to learn about stormwater management and native plants.

Improve existing picnic area

Planting more canopy trees on top of the hill for shade and screening will help improve the comfort level of park users.

Precedent Images



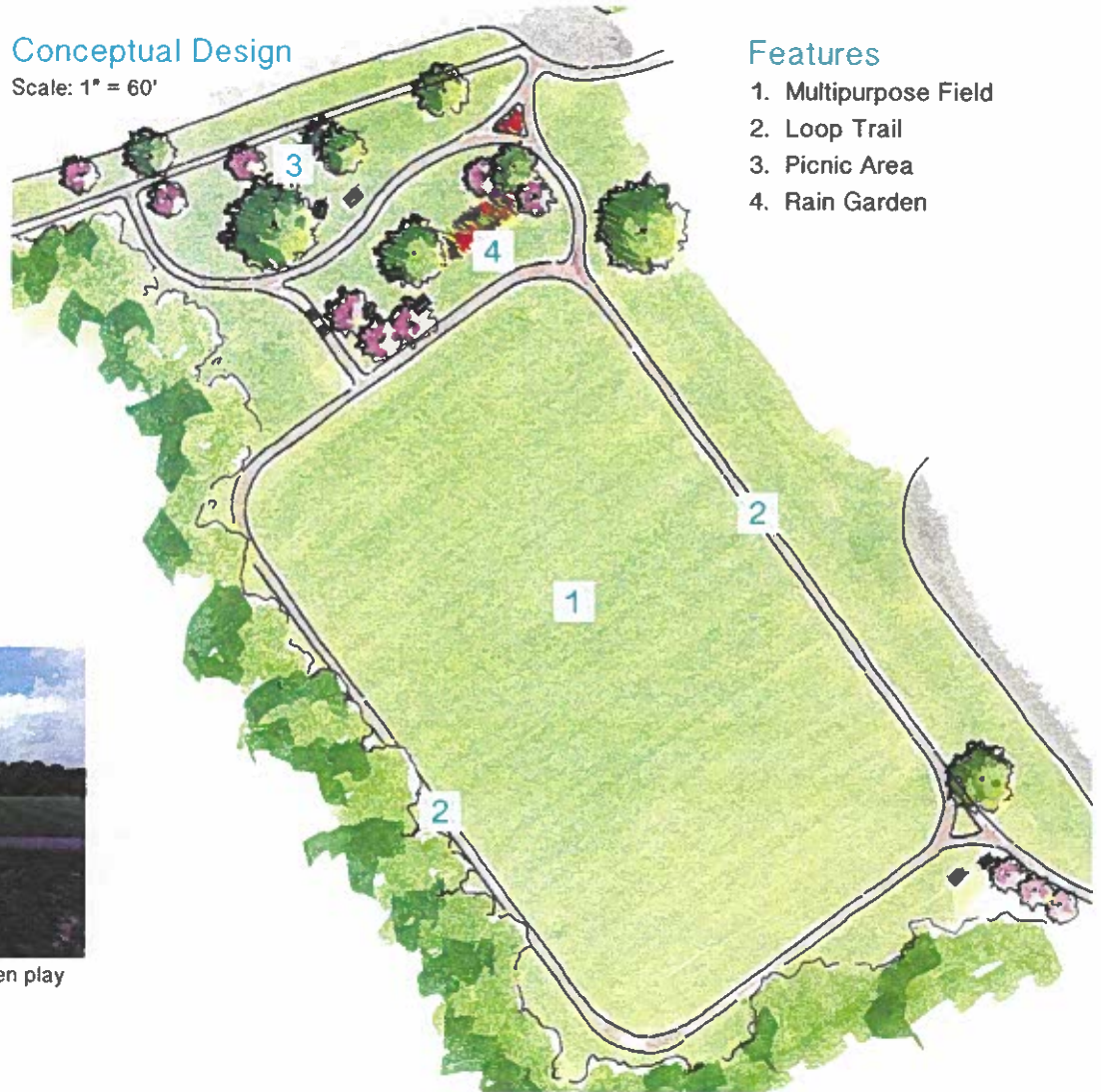
Small picnic shelter located in shade of canopy tree.



Loop Trail surrounding open play field.

Conceptual Design

Scale: 1" = 60'



Features

1. Multipurpose Field
2. Loop Trail
3. Picnic Area
4. Rain Garden

Picnic Shelter & Multipurpose Field

Objectives:

Improve existing active recreational amenities

The two existing baseball backstops in Turner Field are in poor condition, and so is the backstop at Robert Frost Elementary School. The city should replace the existing backstops.

Create a park-like setting

Planting more canopy trees will provide more shade for park users in the hot summer months. Planting trees along the property line with the school also distinguishes the city park as separate from school property, but does not actually impede access into the park. Improving the picnic area and constructing a picnic shelter will also attract more visitors to Turner Field.

Provide recreational amenities and educational opportunities for adjacent elementary school

Studies have shown that tree cover can help the academic performance of students. An updated Turner Field can also provide additional recreational amenities and environmental educational opportunities for the students.

Precedent Images



Rain garden



Use of Turner Field for organized games may require larger picnic shelters.

Conceptual Design

Scale: 1" = 60'



Features

1. Multipurpose Field
2. Baseball Backstop
3. Picnic Shelter
4. Picnic Area
5. Bleachers
6. Rain Garden

Lamont Woods

Lamont Woods is located just south of the Trinity Moravian Church and west of Lamont Elementary School. It is an undeveloped park and has no clear entry points. The park is wooded and is overgrown with invasive species like white mulberry, english-ivy, and oriental bittersweet. Dense undergrowth limits access and views into the park.

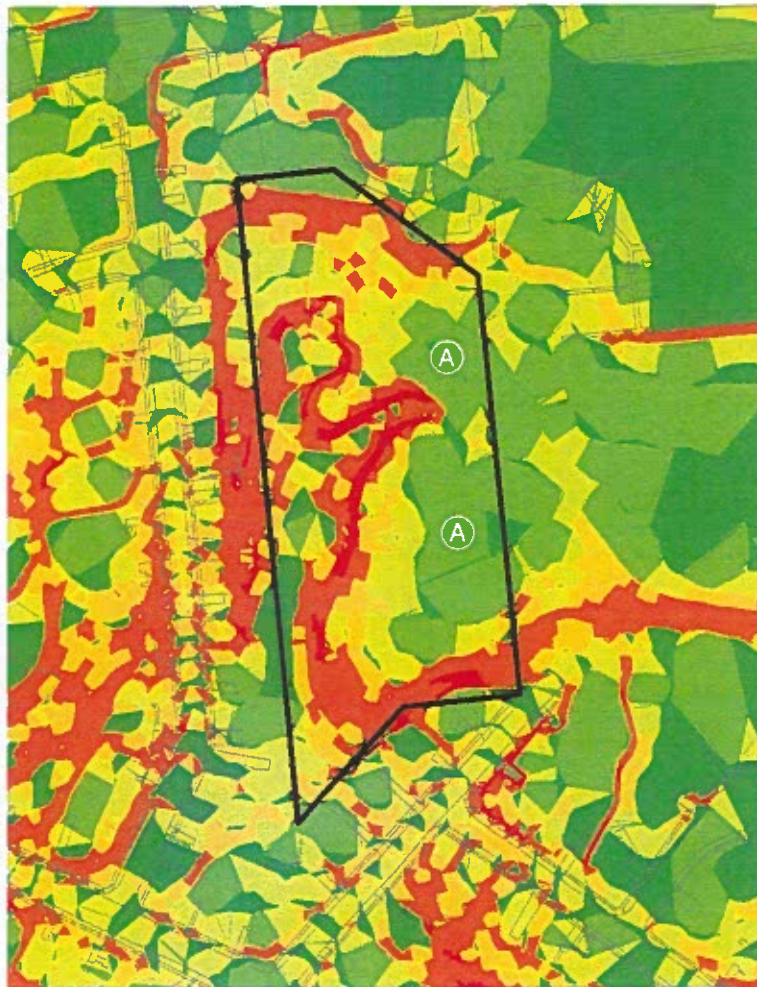




Dense undergrowth of Lamont Woods makes the park difficult to access and limits views into the park



Young crape myrtle at the south side of Lamont Woods



Slope Analysis

In addition to the dense undergrowth, the steep slopes throughout Lamont Woods makes it difficult to access and use. But there are large flat areas (A) that could potentially serve as picnic spaces or outdoor classrooms/laboratory for the adjacent school.

Recommendations

Clear undergrowth and invasive species

Lamont Woods is difficult to access because of the dense vegetation, so the first step in developing the park for use is to clear the undergrowth of poison ivy and invasive groundcover, shrubs, and vines.

Improve accessibility and visibility

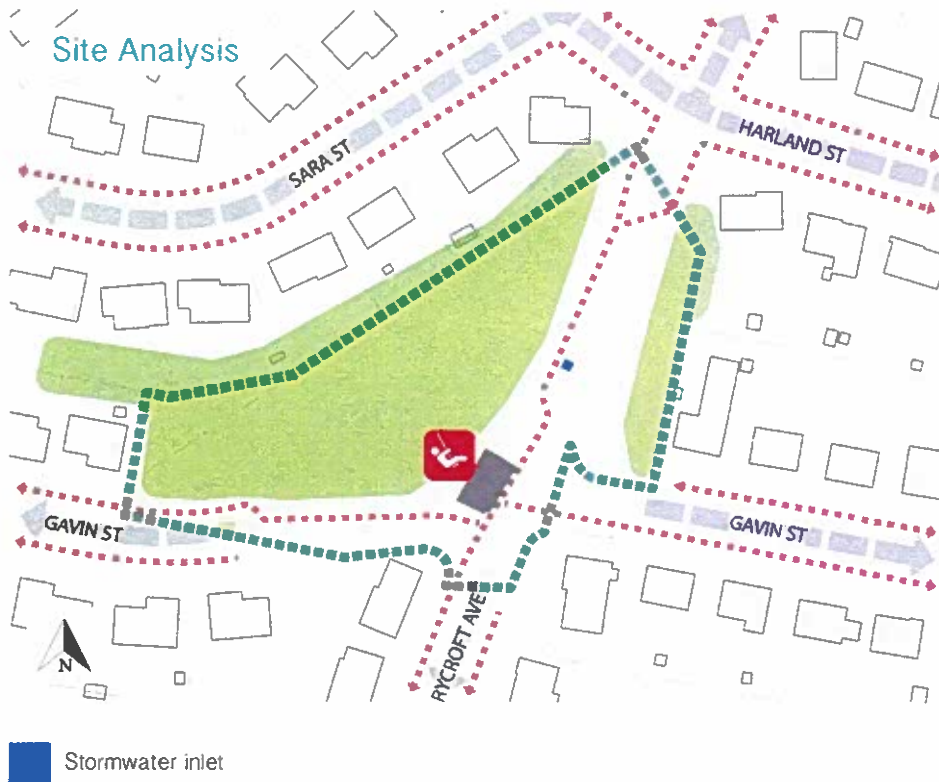
Removing the undergrowth will help improve visibility and accessibility, but signage will help people recognize it as a city park. Trails running through the park will help make it accessible for users.

Use existing park resource to provide educational opportunities for adjacent elementary school

Since most of the park is wooded, Lamont Woods could potentially be used for environmental education by Lamont Elementary School. As indicated by the slope analysis, there are large flat areas (A) in the woods that can be accessed once trails are created. These could serve as outdoor classrooms once the undergrowth is cleared.

Oak Lane Park

Oak Lane Park is located in a residential neighborhood in northwest New Carrollton. Visitors who drive to the park will have to park on the street, but sidewalks running through it provide a pedestrian connection between the dead ends of Gavin and Rycroft streets. Most of the park is lawn, and at the center of the park, there is a rusty swing set and asphalt pavement, which currently does not serve any clear purpose. The northwest side of the park is wooded with native pines and canopy trees, but the usual invasive shrubs and groundcovers are also present.



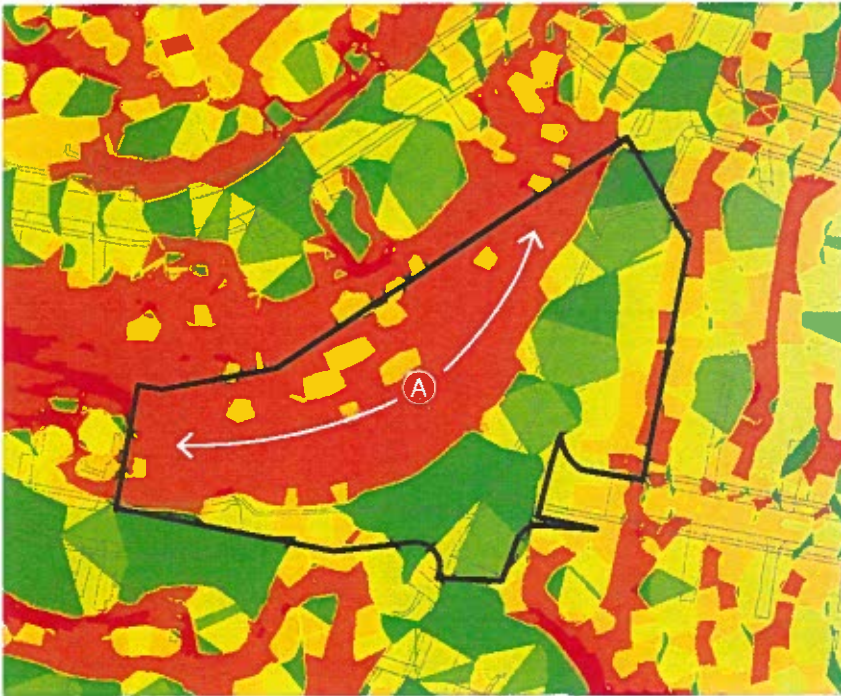
The swing set at Oak Lane Park is rusty and missing most of its seats. The acidity of the pine needles keeps the undergrowth in control.



Oak Lane Park is mostly lawn, but spaces are not flat or large enough to construct any regulation sized courts



The asphalt pavement in Oak Lane Park is located adjacent to the swing set but does not appear to serve any clear purpose.



Slope Analysis

The wooded area (A) of Oak Lane Park is more steeply sloped than the rest of the park, which consists of mostly 0 to 5 percent slope. This is ideal for use as gathering or picnic space and as an open play area. This slope study for Oak Lane Park also indicates that there is no suitable space within park boundaries for parking or any regulation sized sport field or court, including volleyball and basketball. So open lawn spaces should just be kept for casual play and park users will need to walk or bike to the park or park along the streets.



Water Flow

Oak Lane Park is shaped like a swale. Water flows down the hills on the west and east sides of the park and joins at the base of the swale, which is located just east of the north-south sidewalk. Most of the runoff flows into the large stormwater inlet (see site analysis for page 34 or stormwater inlet location), but the rest bypasses the inlet and continues its flow south onto Rycroft Avenue.

Multipurpose Field & Loop Trail

Objectives:

Update amenities at Oak Lane Park

Currently, there is little to attract people to visit Oak Lane Park aside from the open lawn space. So providing seating and a new playground and improving comfort by planting canopy trees will encourage people from the surrounding neighborhood to use their local city park.

Reduce the amount of lawn by increasing the variety of plantings

Most of Oak Lane Park is lawn, which requires a regular maintenance. Reducing the amount of lawn by planting meadow gardens, rain gardens, and canopy trees will increase the level of interest in the park and provide wildlife resources for pollinators and birds.

Treat stormwater runoff flowing into the park

The rain gardens (4) proposed should intercept the water flowing north to south through the park and allow it to infiltrate into the soil. In addition to helping the recovery of the Chesapeake Bay, these rain gardens can also provide an opportunity for residents and park visitors to learn about stormwater management techniques and native plants.

Nature Play Space

The new playground at Oak Lane park could be a nature play space. Instead of the typical cookie-cutter metal and plastic play structures, nature play spaces use natural materials like logs, boulders, and leaves so children can explore and connect with their environment. Studies have shown that children are more creative and engaged when playing and learning in natural environments.



Nature play space at the Robinson Nature Center in Howard County, MD.

Conceptual Design

Scale: 1" = 50'

Features

1. Playground
2. Existing Sidewalk
3. Meadow With Secondary Path
4. Rain Garden
5. Open Play Area
6. Artistic Bollards



Picnic Shelter & Multipurpose Field

Objectives:

Create an aesthetically pleasing neighborhood park
 Installing a gazebo near the center of the park and planting ornamental trees, flowering shrubs, and perennials can help improve the attractiveness of Oak Lane Park.

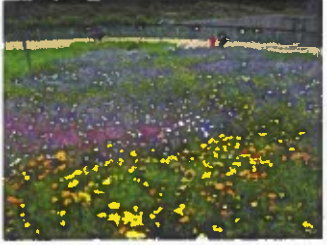
Address a need for playgrounds in city parks
 One of the most requested amenities from the National Night Out and the Easter Egg Hunt survey was more play structures. The existing asphalt pavement should be removed and be replaced with a new playground, which can be traditional play structures or a nature play space, as suggested in the previous concept page.

Treat stormwater flowing into the park
 A rain garden at the bottom of the north hill will help intercept some of the rainwater running across the field and provide an opportunity for the students to learn about stormwater management and native plants.

Inspiration



Artistic Bollard



Meadow



Gazebo



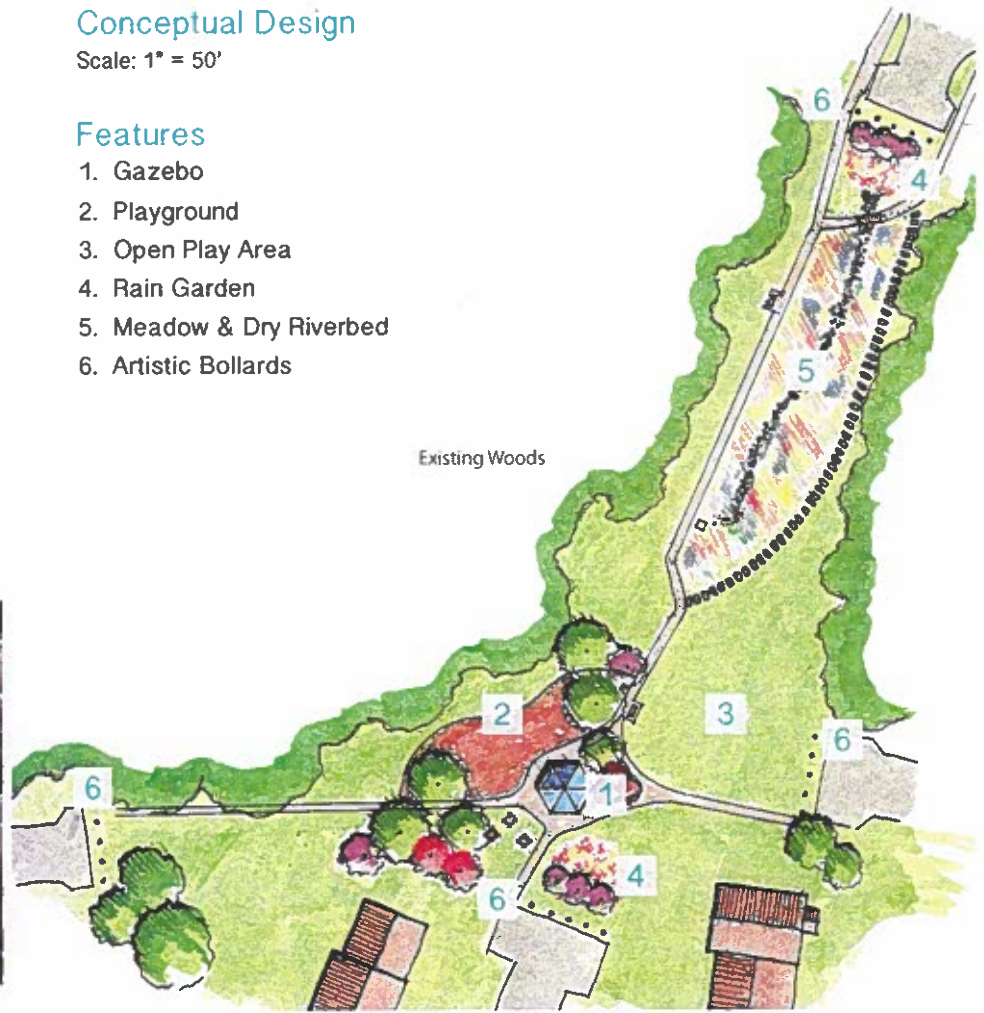
Dry Riverbed

Conceptual Design

Scale: 1" = 50'

Features

1. Gazebo
2. Playground
3. Open Play Area
4. Rain Garden
5. Meadow & Dry Riverbed
6. Artistic Bollards



West Field

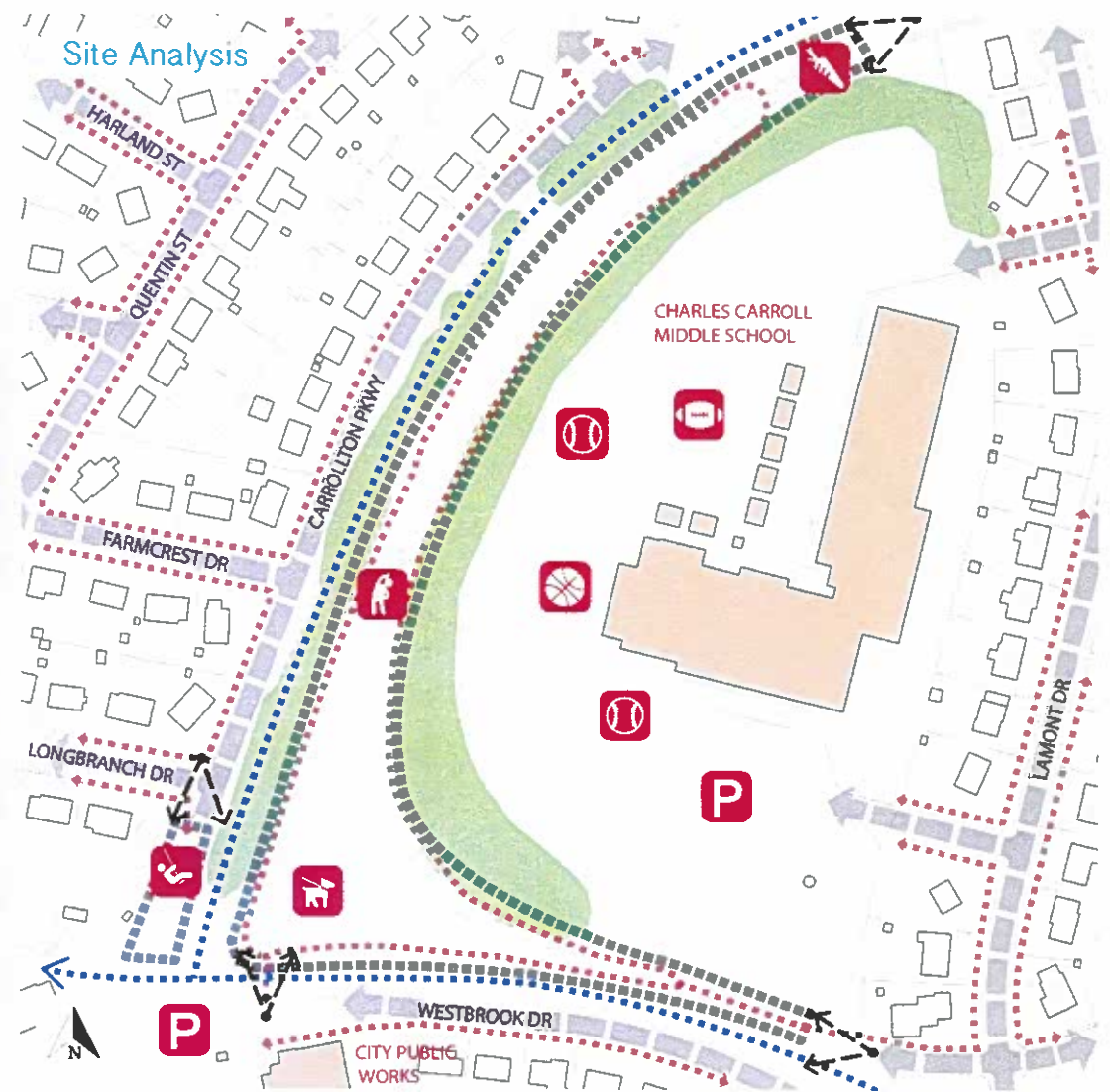
West Field is a unique park in New Carrollton. It is home to the only loop trail, dog park, and vita course in New Carrollton and has vegetable garden plots near the northern entrance of the park. The park also has open lawn spaces, but these patches of lawn are not large enough to support any organized sports and are too close to the creek on the west side of the park. The wooded hill along the eastern border of the park is steeply sloped and overgrown with invasive species.



The vita course is well-used by the local residents to exercise



The dog park at West Field could use a few canopy trees to give the playing pups and their owners some shade.



Water Flow

West Field experiences large volumes of stormwater runoff in rain events because of its location downhill from Charles Carroll Middle School. Rain that falls on school property either flows west down the steep hill or is captured by stormwater pipes, which empty at the bottom of the hill, on its way into the stream. Several asphalt channels cutting through the lawn are meant to carry the water quickly into the stream, but sedimentation along the trail indicates ponding during rain events.



Evidence of ponding at the end of one of the asphalt channels. Water is coming from the forested hill on the right.



Sedimentation along the trail diminishes the park user's experience.



Forest Food Garden

Objectives:

Reinforce the existing character of the park

The existing character of West Field is the promotion of health and wellness through the loop trail, dog park, vita course, and vegetable gardens. So efforts to upgrade the park should reinforce this idea and give park users additional amenities and opportunities to live a healthy and active lifestyle.

Install pollinator gardens for environmental education and wildlife habitat

Pollinator gardens require a similar level of maintenance as lawn but provide much greater visual interest for park users. In addition, the flowers of pollinator gardens will attract butterflies, bees, and hummingbirds, which can help pollinate the vegetable garden nearby. Teachers of the adjacent Charles Carroll Middle School could also use the pollinator garden in their environmental studies curriculum to teach students about native plants and pollinators.

Forest Food Garden



Amelanchier canadensis
serviceberry



Asimina triloba
Paw paw



Diospyros virginiana
Persimmon



Morus rubra
Red mulberry



Sambucus canadensis
American elder



Vaccinium corymbosum
Highbush blueberry

Conceptual Design

Scale: 1" = 60'

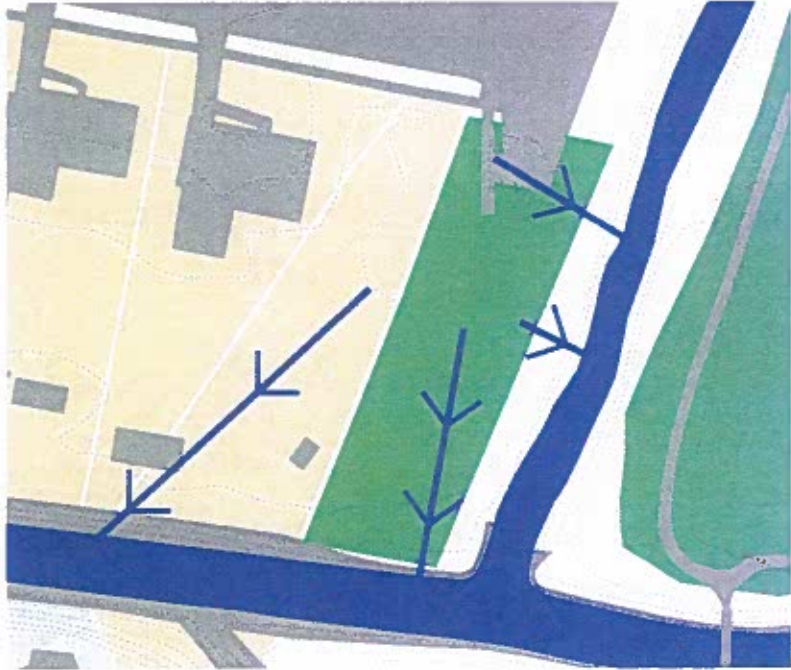


Features

1. Forest Food Garden
2. Pollinator Gardens
3. Play Mounds
4. Dry Riverbed
5. Existing Vegetable Garden

Longbranch Tot Lot

Longbranch Tot Lot is located at the western terminus of Carrollton Parkway. It is a small fenced tot lot with a playground, swing set, and picnic table. There are several canopy trees in the park, but most of the trees are located on the northeast corner of the park. As a result, they do not actually provide shade for the play equipment. In addition to the play equipment, there is also a 30' x 35' lawn area at the south end of the park.



Water Flow

A gutter at the park's entrance intercepts any water coming from the street and directs it into the adjacent creek. Rain that falls on Longbranch Tot Lot is shed off the park and into the creeks.



The picnic table in the tot lot is shaded but the play structure is exposed to the hot summer sun.



Lawn space at the back of the park.



Guardrail and gutter at the front of the tot lot



Benches provide a place for parents to sit but need cover from the sun

Recommendations

Improve comfort level of park users

The play amenities at the Longbranch Tot Lot are in fairly good condition, but additional seating amenities and canopy trees for shade would benefit the parents who are watching their children.

Install pollinator plot on the lawn space at the back of tot lot

In its effort to become greater stewards of the environment, city parks system should reduce the amount of lawn it maintains and plant native flowering plants when appropriate. Installing a pollinator garden at the back of the park will create separation between the play space and the creek as well as provide habitat and food for wildlife.

Bicentennial Park & Garden

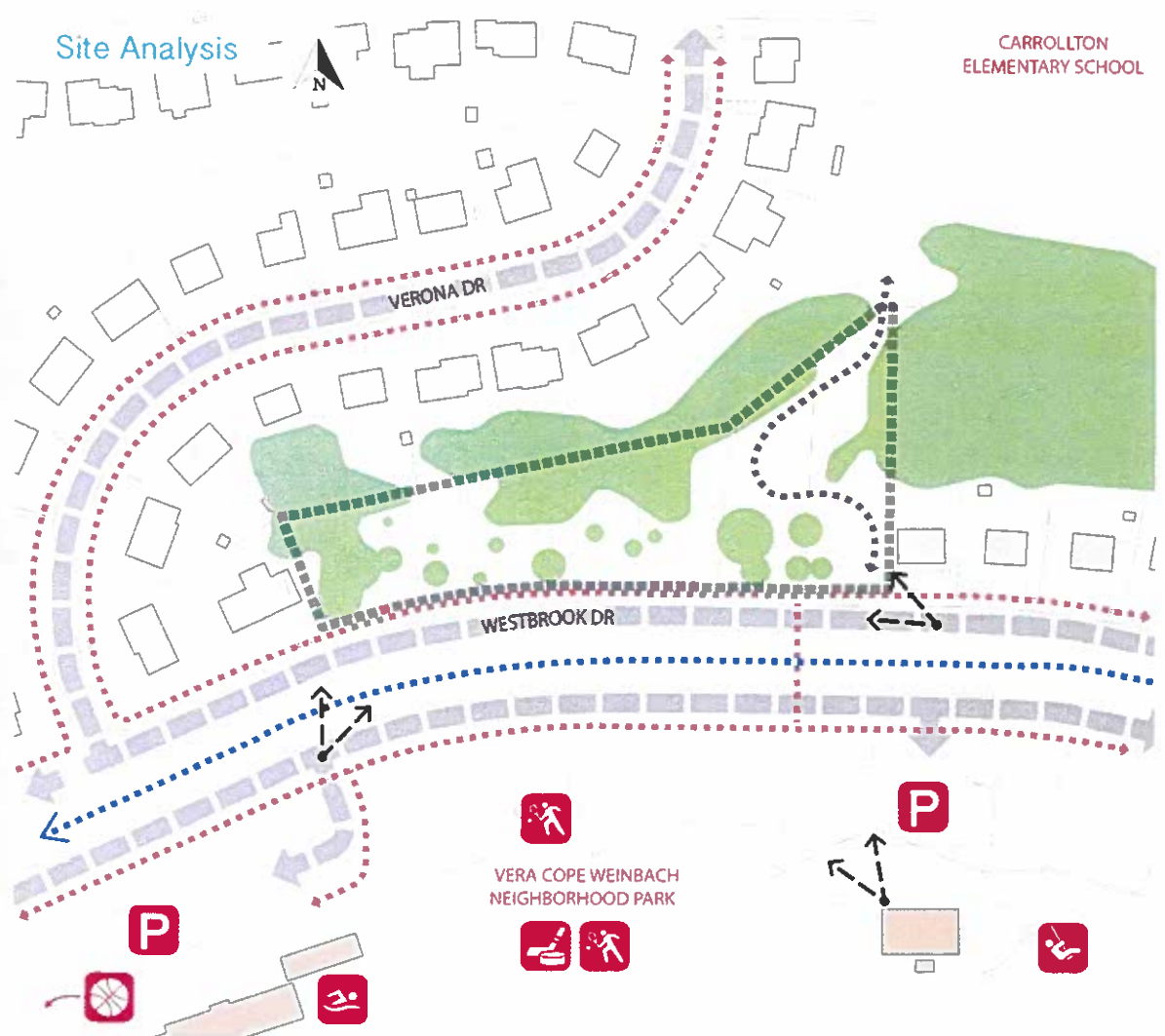
Bicentennial Park & Garden is located directly across from the Vera Cope Weinbach Neighborhood Park. It is home to the "New Carrollton"-shaped hedge loved by the city residents and a spectacular planting display. The pink flowers of the weeping cherries in the spring is one of the most beautiful sights in New Carrollton. Currently, the park does not have any recreational amenities or opportunities, and its steep slope limits its potential for future development.

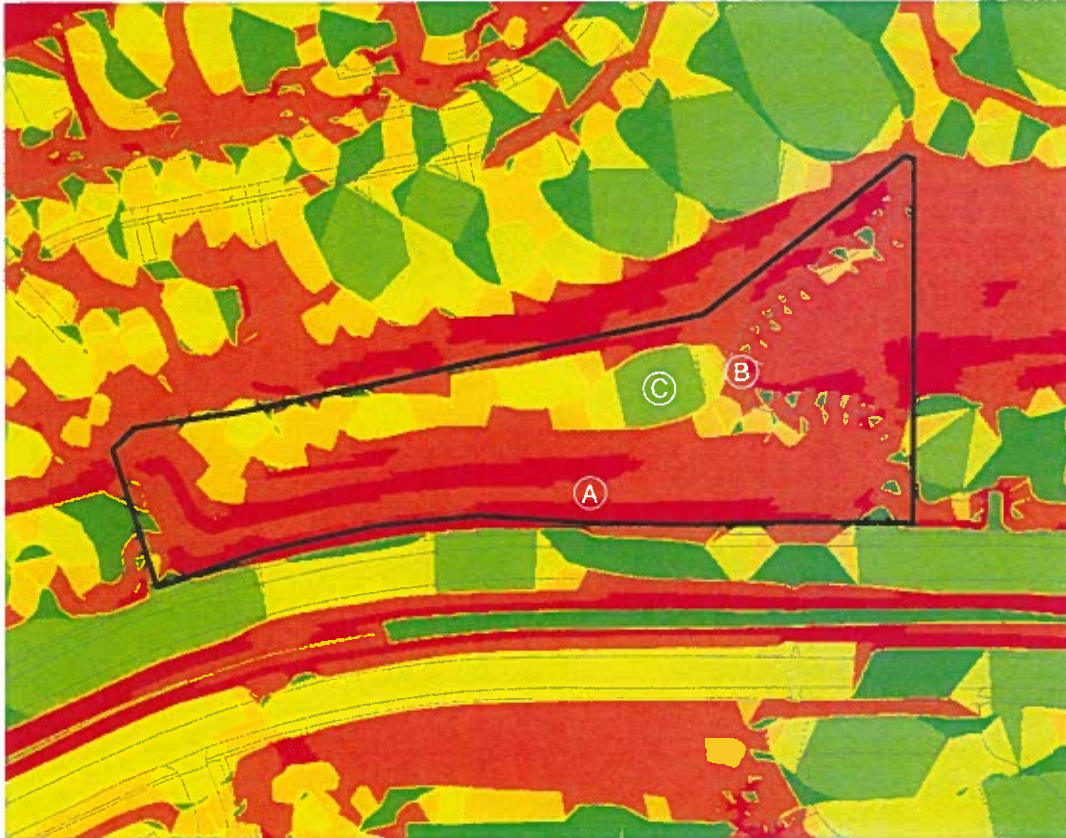


Park entrance sign welcoming visitors to the Bicentennial Park & Garden.



The pink blooms of the weeping cherries and the "New Carrollton" hedge in an aerial view of the park.





Slope Analysis

The majority of the land in Bicentennial Park & Garden is over 12 percent slope. This means the park is difficult to access and few recreational activities can actually take place inside park boundaries. There is a flat area (C) just above the "New Carrollton"-shaped hedge (A). This flat space could potentially be a picnic area, as it is a quiet space that offers a great vantage point over the creek and the Vera Cope Weinback Neighborhood Park. To reach this area, however, one would have to walk up or down the asphalt path/gutter (B), which has a slope of over 12 percent, so the space would not be accessible to many.

Recommendations

Continue the park's current use as a planting display

The steep slopes at Bicentennial Park & Garden makes access very difficult for people with physical disabilities and limits the park's potential for recreation. The only usable area in Bicentennial Park & Garden is a flat lawn space (C) at the center of the park, but it would require visitors to walk up a path with over 12 percent slope. In addition, Vera Cope Weinback Neighborhood is located just across the street and offers a variety of recreational opportunities.



The flat lawn area above the "New Carrollton" hedge offers a great vantage point but can be difficult to access



The walkway/gutter is very steep and in poor condition

Library Field

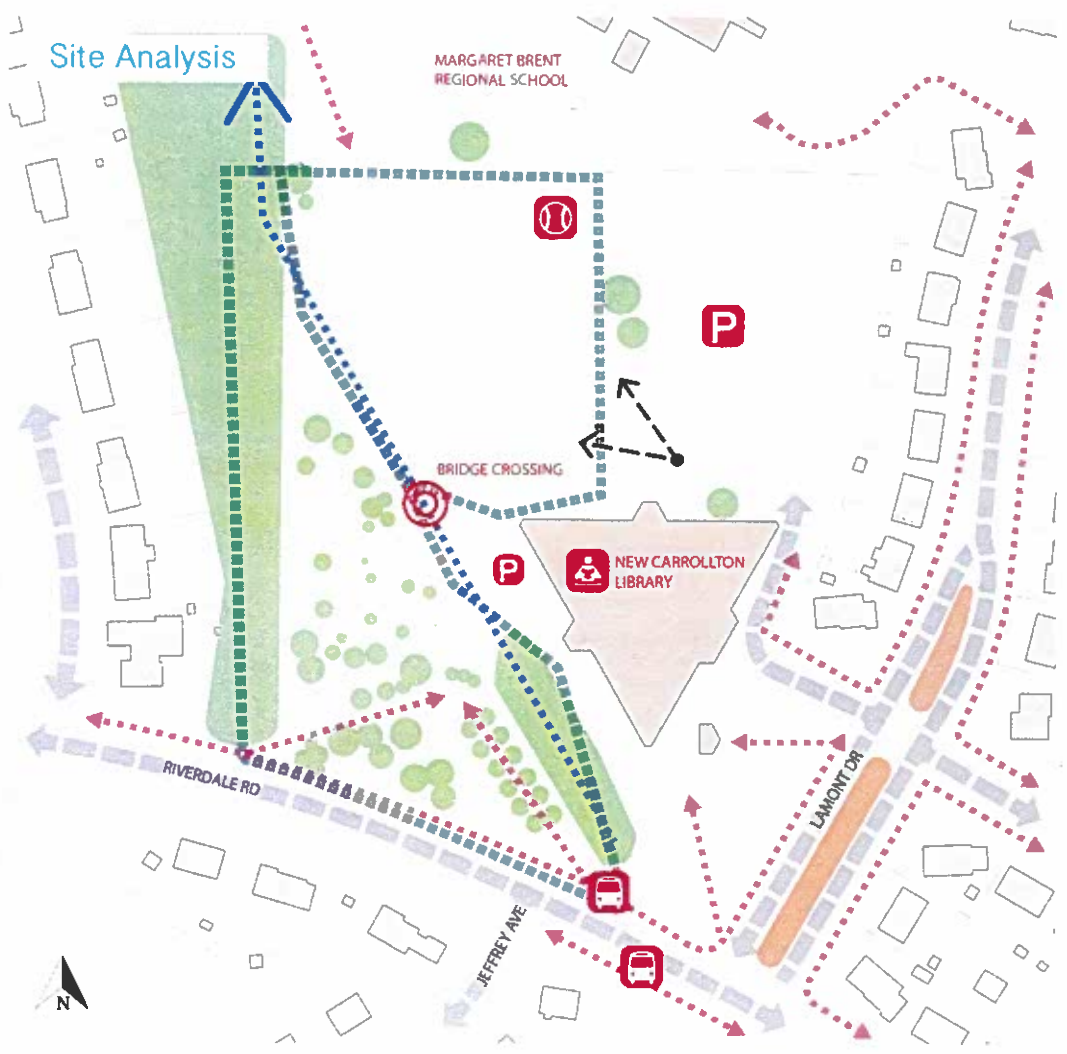
Library Field is located just north of the New Carrollton Library. The library parking overlooks the park, which is a grassy field with a baseball backstop on the northeast corner of the field. The backstop is in poor condition and should be removed or replaced. At the southwest corner of the park, a pedestrian bridge connects Library Field to Veterans Park. Similar to other fields in the city, Library Field needs canopy trees to provide park users some relief from the hot summer sun and would benefit from additional play and seating amenities.



As its name suggest, Library Field is a grassy field with no canopy trees



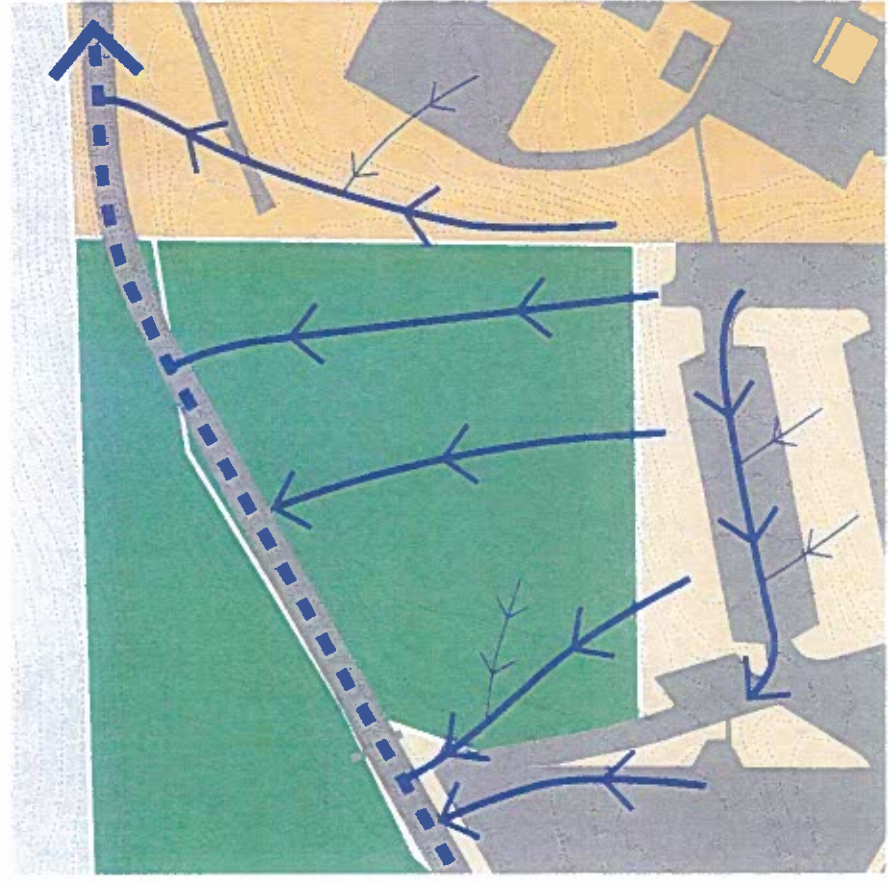
Bridge connecting Library Field and Veterans Park





Slope Analysis

The open lawn space (A) of Library Field is very flat and ideal for field sports. This flat field is flanked on the east and west side by the parking lot hill (B) and the hill going down to the stream (C), respectively. The "entrance" (D) to Library Field from the library leads to a hill with a slope of over 12 percent, but it is possible to align a walkway that is ADA compliant down this hill.



Water Flow

Rain that falls on Library Field generally flows from east to west and into the channelized stream on the west side of the field. The stream flows north into Brier Ditch, which eventually empties into the Anacostia River.

Outdoor Reading Room

Objectives:

Support and enhance the programs of the library
 Library Field is located adjacent to the New Carrollton Library, so it makes sense that the park would be developed to support the library's programs. An outdoor reading room, for instance, would be a great resource for the library and offer visitors a place to read while surrounded by nature.

Provide environmental education opportunities
 Installing meadow plots and rain gardens would offer students and library visitors opportunities to learn about native plants, stormwater, and pollinators outside and complement what they are learning inside the library.

Address other recreational gaps in the city park system
 Library Field is largely a blank canvas to be redeveloped, so it is an opportunity to address the recreational needs of city residents. Requests such as playground, trail, and picnic space could be accommodated in a redevelopment of Library Field.

Outdoor Reading Room



Conceptual Design

Scale: 1" = 50'



Features

1. Outdoor Reading Room
2. Open Play Area
3. Playground
4. Loop Trail
5. Bridge to Veterans Park
6. Meadow Planting
7. Rain Garden

Outdoor Classroom

Objectives:

Promote outdoor learning

Library Field is bordered by a school to the north and a library to the south, so the city should create a park where children and adults can learn while they play. Meadow plots, rain gardens, native trees, outdoor classrooms, and a food garden could all be used by teachers for environmental education.

Provide an accessible park for people for all abilities

It is important for all city residents, regardless of physical abilities, to have equal access to park amenities. This means paying attention to the slope of walkways, material of play surfaces, and having play structures that were designed to be accessible. Wood chips and gravel, for instance, are not accessible for people who have wheelchairs, so rubber-based surfaces should be used instead.

Precedent Images



Hadley's Park in Potomac, MD is a park specially designed for children with special needs.



Pollinator gardens are educational opportunities.



Pierce's Park in Baltimore, MD has many different types of non-traditional play structures.

Conceptual Design

Scale: 1" = 50'



Features

1. Open Play Area
2. Play Mounds
3. Outdoor Classroom
4. Interactive Play Space
5. Bridge to Veterans Park
6. Community Garden
7. Rain Garden

Skatepark at Library Field

Objectives:

Address the need for a skatepark in the city

Skatepark was the 8th most requested amenity from the National Night Out survey. The closest skateparks to New Carrollton are Melrose Skatepark in Hyattsville and Greenbelt Skatepark in Greenbelt, but both are over 5 miles away. Even though 5 miles may not seem far for those who can drive, for kids who walk to their local parks, this translates to an hour and a half walk to the nearest skatepark. So having a skatepark near the center of New Carrollton at Library Field would be a great addition for kids who want to skateboard.

Precedent Images



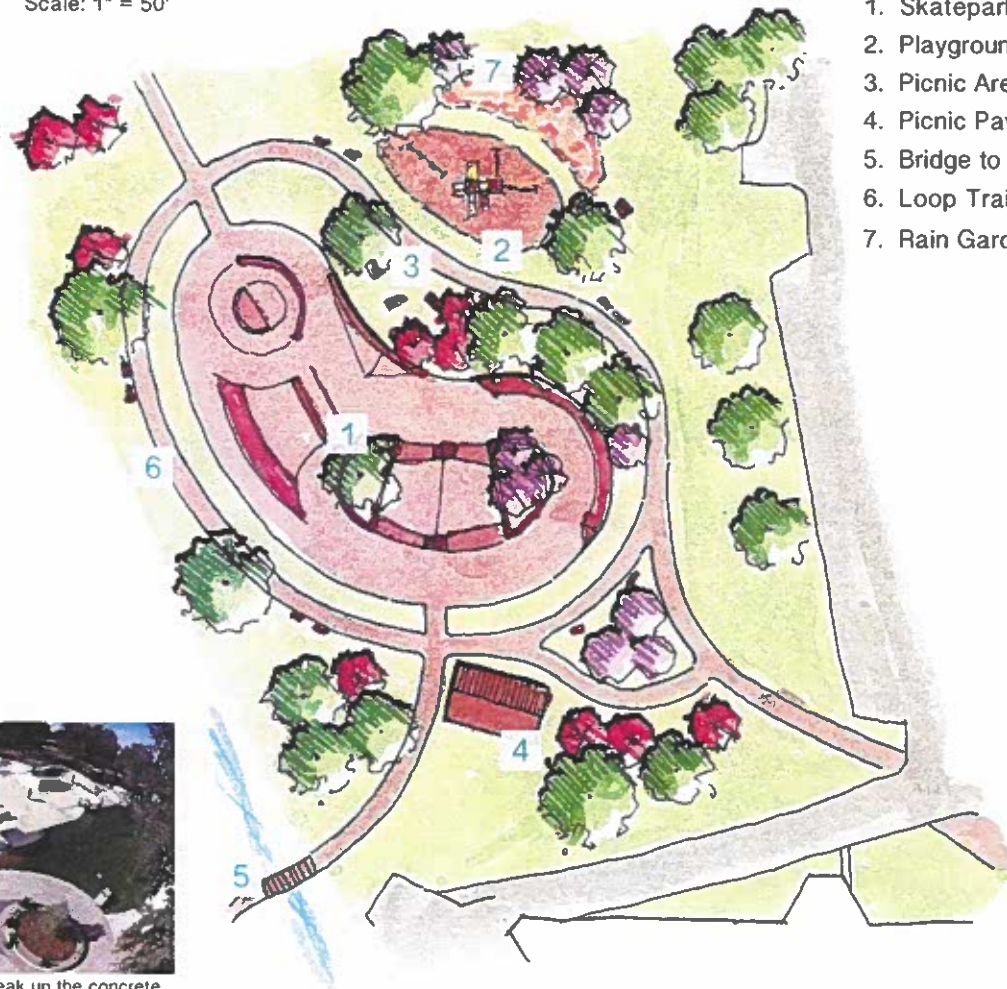
Shade structures like the one above can be used to provide shade if space is not suitable for canopy tree planting.



A new skatepark at Library Field should have plenty of green space to break up the concrete jungle of typical skateparks.

Conceptual Design

Scale: 1" = 50'



Features

1. Skatepark
2. Playground
3. Picnic Area
4. Picnic Pavilion
5. Bridge to Veterans Park
6. Loop Trail
7. Rain Garden

Veterans Park

Veterans Park is located along Riverdale Road and across a small creek from the New Carrollton Library and Library Field. In addition to honoring and remembering veterans, the park also serves as a planting display with many ornamental and evergreen trees. The park has a pair of paved paths that lead to the flag, but does not have any recreational amenities. However, there is an opportunity to use the lawn spaces for picnicking, especially further inside the park, where the road noise is screened by trees.



Existing Walkway Proposed Walkway Potential Picnic Area



The American flag at Veterans Park



Flat area could serve as a picnic area if the city provided tables, benches, trashcans, grills, or even a picnic shelter



Veterans Park needs a paved path to access the bridge connecting Library Field and Veterans Park.

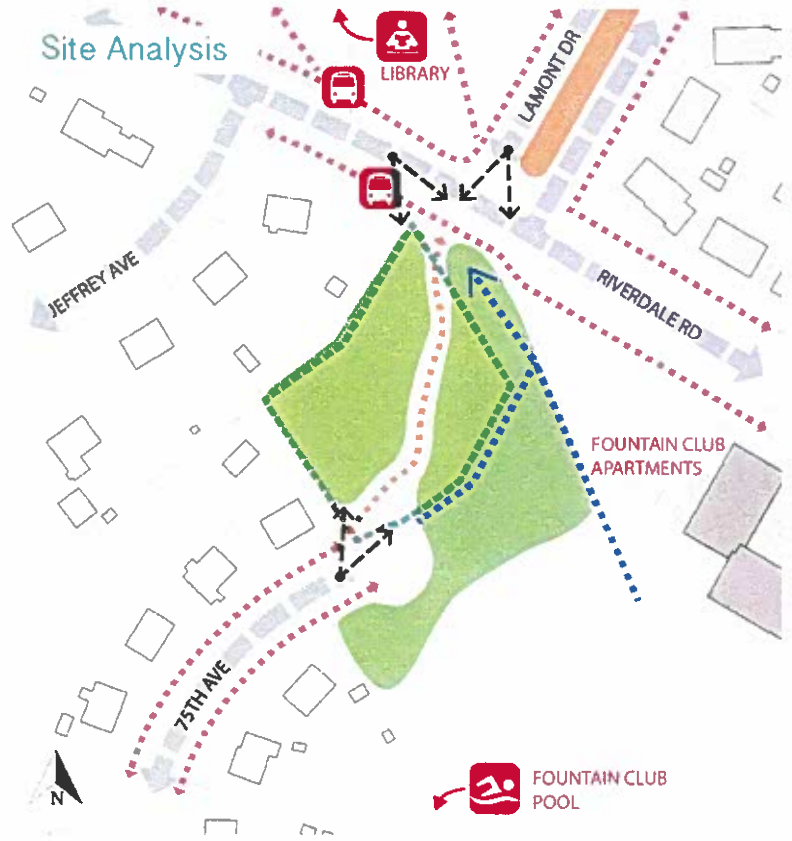
Recommendations

Improve connectivity between city parks
An existing bridge spans the creek separating Library Field and Veterans Park, but no paved paths are connected to the bridge on either side. Since one of the main goals for the city park system is to improve connectivity, a path should be provided to link Library Field and Veterans Park.

Utilize the existing lawn spaces
Existing trees in Veterans Park provide shade for the lawn spaces, which could potentially be used for picnicking and other gatherings if amenities were provided. Installing pollinator plots in the sunny parts of the park could also add further interest to the park and provide wildlife habitat and food.

Riverdale Woods

Riverdale Woods is a wooded lot located across Riverdale Road from the New Carrollton Library. The undeveloped park sits on the same parcel as the Fountain Club Apartments pool, but is separated from the pool club by a line of dense vegetation. As an undeveloped park, Riverdale Wood does not have any recreational amenities. People do use the lot as a shortcut to 75th Avenue from Riverdale Road, and this has created a dirt path running through the center of the park. Neighbors of this park have reported illicit activities taking place at the park, but have also commented that clearing the undergrowth significantly reduced these occurrences.



A neighbor of Riverdale Woods has been mowing to keep drug dealers away from the lot.



The groundcover of Riverdale Woods in the winter (left) and summer (right).



Aerial views of Riverdale Woods in 2007 (left) and 2015 (right) shows the dirt path created by people cutting through the park.



Slope Analysis

The only steep slopes at Riverdale Woods are the side slopes of the creeks that run through the park. The rest of the park is fairly flat, so it is suitable for recreational activities if the park is to be developed.

Recommendations

Improve the safety and convenience for people cutting through the park

People will continue to use Riverdale Woods as a shortcut from Riverdale Road to 75th Avenue, so the city should do its best to ensure their safety. Creating a more permanent walkway, installing lights, and clearing the undergrowth and invasive species in the park would be great first steps to upgrading Riverdale Woods.

Involve the neighbors in the design and development process

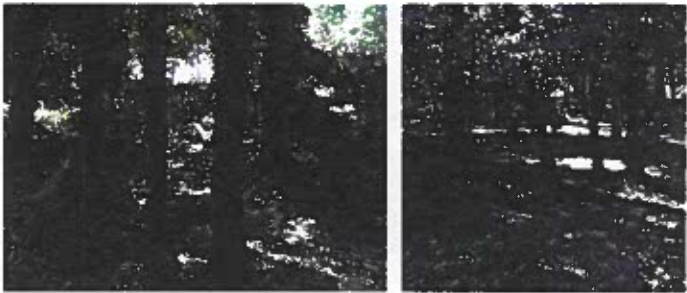
The neighbors of Riverdale Woods have had to watch while illicit activities took place at Riverdale Woods. Some have even risked their own safety to drive away drug dealers. Any design for Riverdale Woods should go through an extensive engagement process with the neighbors before it is implemented.

Mahoney Woods

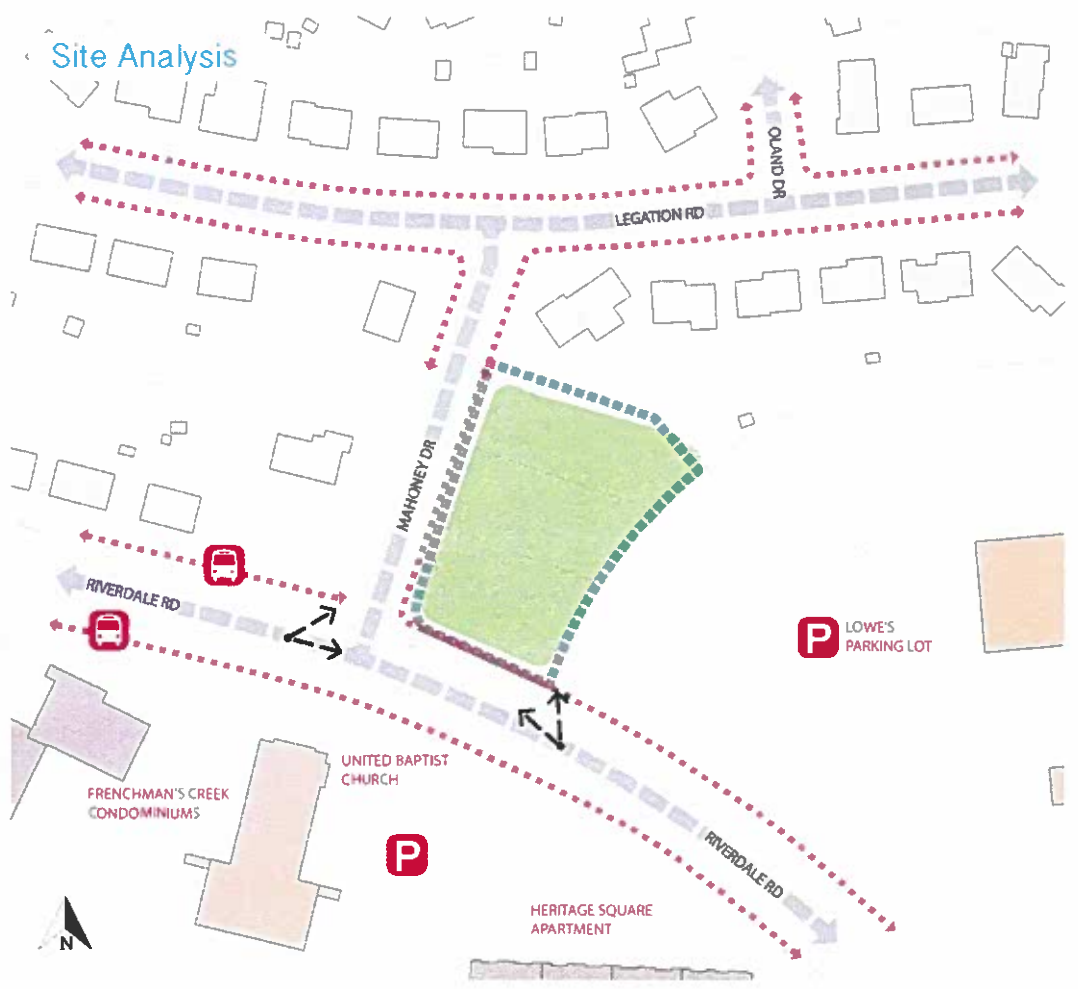
Mahoney Woods is a wooded lot located west of the Lowe's parking lot on Riverdale Road. The park is also located across the street from the United Baptist Church as well as several apartment and condominium complexes. The lot is heavily shaded by mature canopy trees, and the undergrowth is maintained by city public works to preserve visibility for public safety reasons. Mahoney Woods is an important park for the city because of its location. The park marks the transition from residential areas to the commercial corridor in New Carrollton and can be a welcoming sight for those commuting to work in the commercial corridor. It is accessible to a significant portion of the city residents because of its proximity to high-density housing, the church, and the bus stop. Creating a beautiful gathering space at Mahoney Woods would benefit the surrounding residents and the city greatly.



View from Mahoney Woods towards Riverdale Road and the United Baptist Church



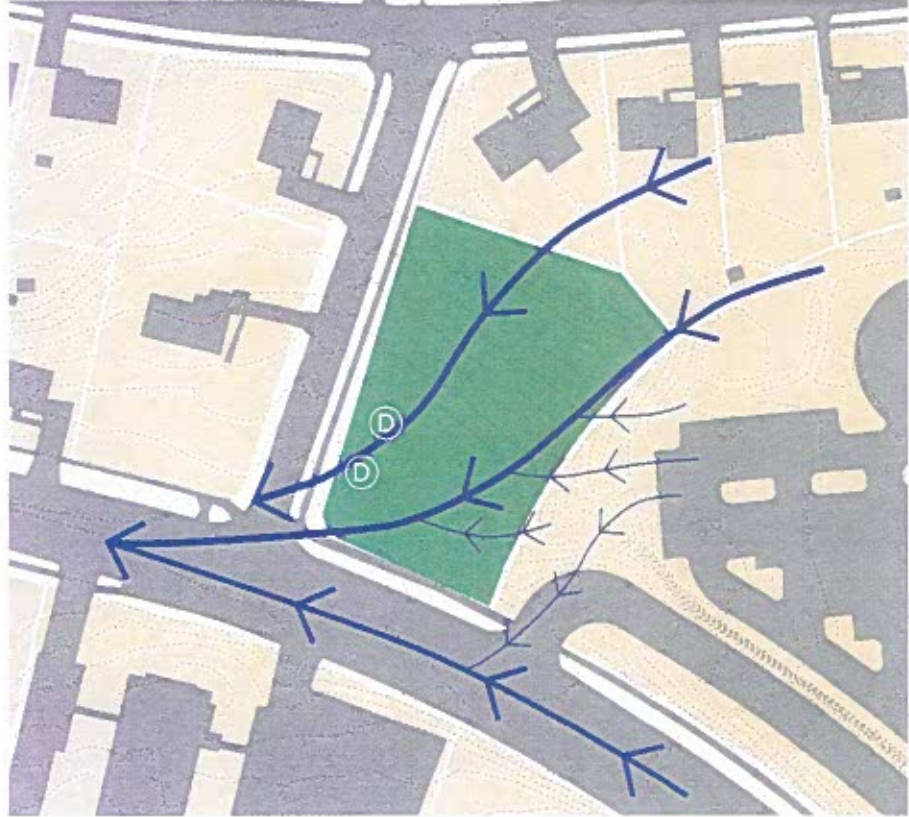
Ground plane and tree trunks of Mahoney Woods is overrun with English ivy





Slope Analysis

Mahoney Woods' border (A) along the Lowe's parking lot is steeply sloped and covered with invasive english ivy. The rest of the park is divided into two zones in terms of slope. The northern half (B) is more steeply sloped at 8 to 33 percent, while the southern half (C) is flatter at 0 to 8 percent. This indicates that most of the amenities and activities should be located in the southern half, where they would be easier for people of all abilities to access.



Water Flow

Stormwater runoff from the neighboring residences to the north and parts of the Lowe's parking lot flows southwest through Mahoney Woods towards the intersection of Riverdale Road and Mahoney Drive. There are several existing depressions (D) on the southwest corner of the park that may be capturing and holding some runoff and allowing it to infiltrate. These existing depressions can potentially be converted into rain gardens.

Wooded Picnic Space

Objectives:

Create a beautiful entrance for people visiting the city commercial corridor
 Many people pass by Mahoney Woods on their way to the shops and restaurants in New Carrollton's business district. Mahoney Woods could be a beautiful park that welcomes them into the city's commercial core by clearing the undergrowth and invasive vines and planting flowers at the park entrance.

Improve accessibility and visibility

There are no existing walkways running through Mahoney Woods, so if the park is to be developed, sidewalks will be needed. Due to the existing steep slopes at the northern half of the site, it may be difficult to make the walkway ADA compliant without significant disturbances. However, accessing the southern half of the park, which is much flatter, from Riverdale Road should be easier.

Provide passive recreational opportunities

Shade, which can take the form of shelters or canopy trees, is one of the most requested amenities for city parks. Since Mahoney Woods already has a large number of mature canopy trees, it is a great location for picnics and other outdoor events.

Precedent Images



Ferns thrive under shaded conditions and can create a calm and relaxing atmosphere.



Picnic tables should be located under shade and near amenities like grills and trashcans.

Conceptual Design

Scale: 1" = 20'



Features

1. Picnic Area
2. Open Lawn Space
3. New Sidewalk
4. Fern Garden Walk
5. Rain Garden

Forested Amphitheater

Objectives:

Create a beautiful entrance for people visiting the city commercial corridor

Similar to the other concept for Mahoney Woods, this design also aims to create a beautiful park that welcomes commuters into the city's commercial core. In addition to cleaning up the invasive plants in the park, signage and flowers at the park entrance near the intersection will help make Mahoney Woods a more attractive sight.

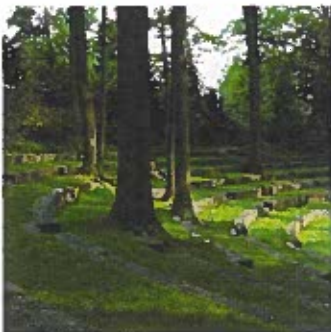
Create a gathering space for events

Some residents at National Night Out requested spaces for gathering, and a small amphitheater at Mahoney Woods can help address this need. The church across the street, for instance, could hold outdoor events at the amphitheater, and small musical performances or poetry slams could also be held at this amphitheater.

Treat stormwater runoff flowing into the park

The proposed fern garden and dry riverbed (5) should intercept the water flowing from the northeast through the park and allow it to infiltrate into the soil. A rain garden (6) at a lower point in the park would capture the water flowing off the stage of the amphitheater. In addition to aiding the recovery of the Chesapeake Bay, these low impact development techniques can also provide an opportunity for residents and park visitors to learn about stormwater management techniques and native plants.

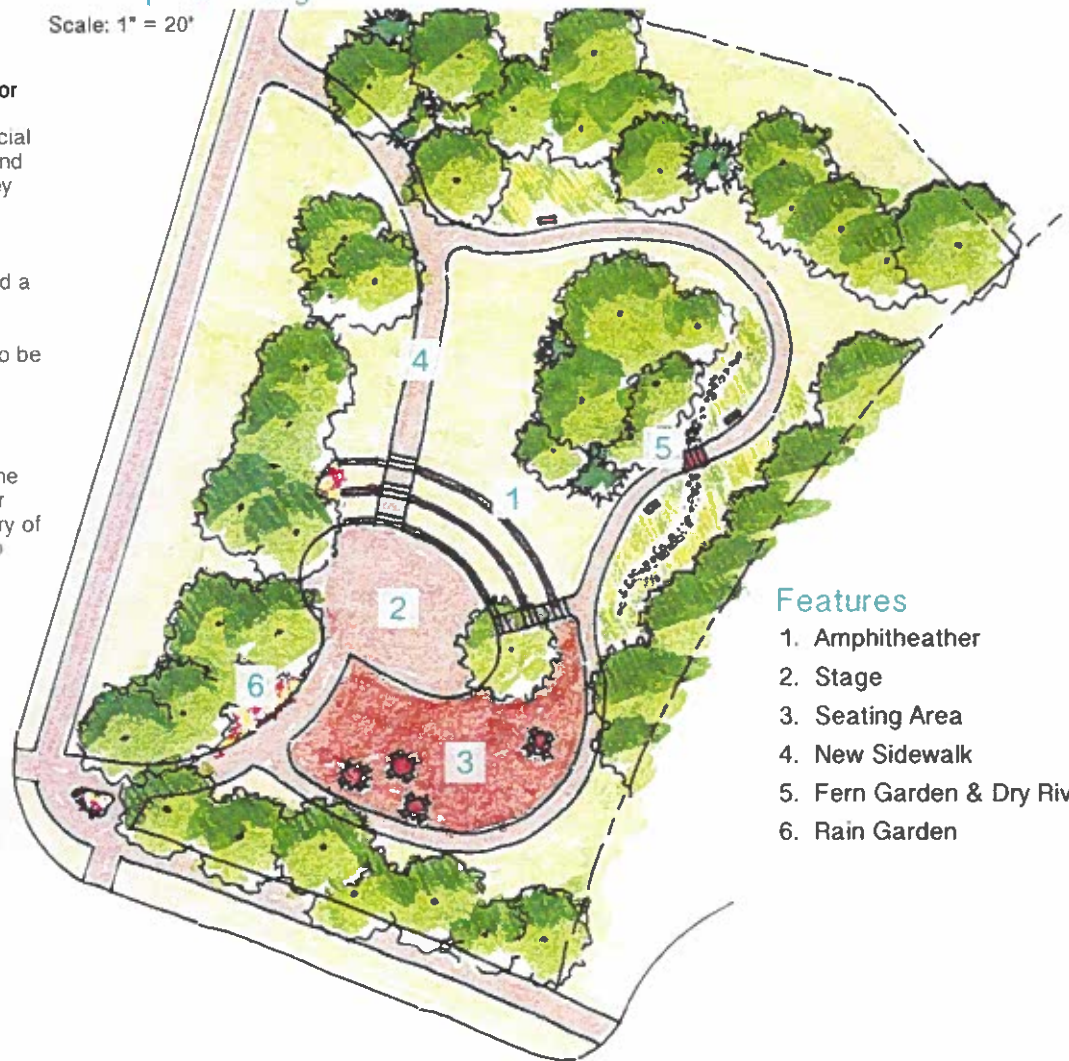
Precedent Images



Grass Amphitheaters

Conceptual Design

Scale: 1" = 20'



Features

1. Amphitheater
2. Stage
3. Seating Area
4. New Sidewalk
5. Fern Garden & Dry Riverbed
6. Rain Garden

Police Woods & 89th Avenue Park

Police Woods

Police Woods is a wooded, undeveloped park located just north of the New Carrollton Police Station. The park has an entrance at 89th Place and is also accessible through the parking lot of the city police station. At the center of the park, there is a stormwater retention pond, which only holds water during storm events. The rest of the park is wooded and unlike other developed parks, mostly free of undergrowth, so it is not difficult to walk around.

89th Avenue Park

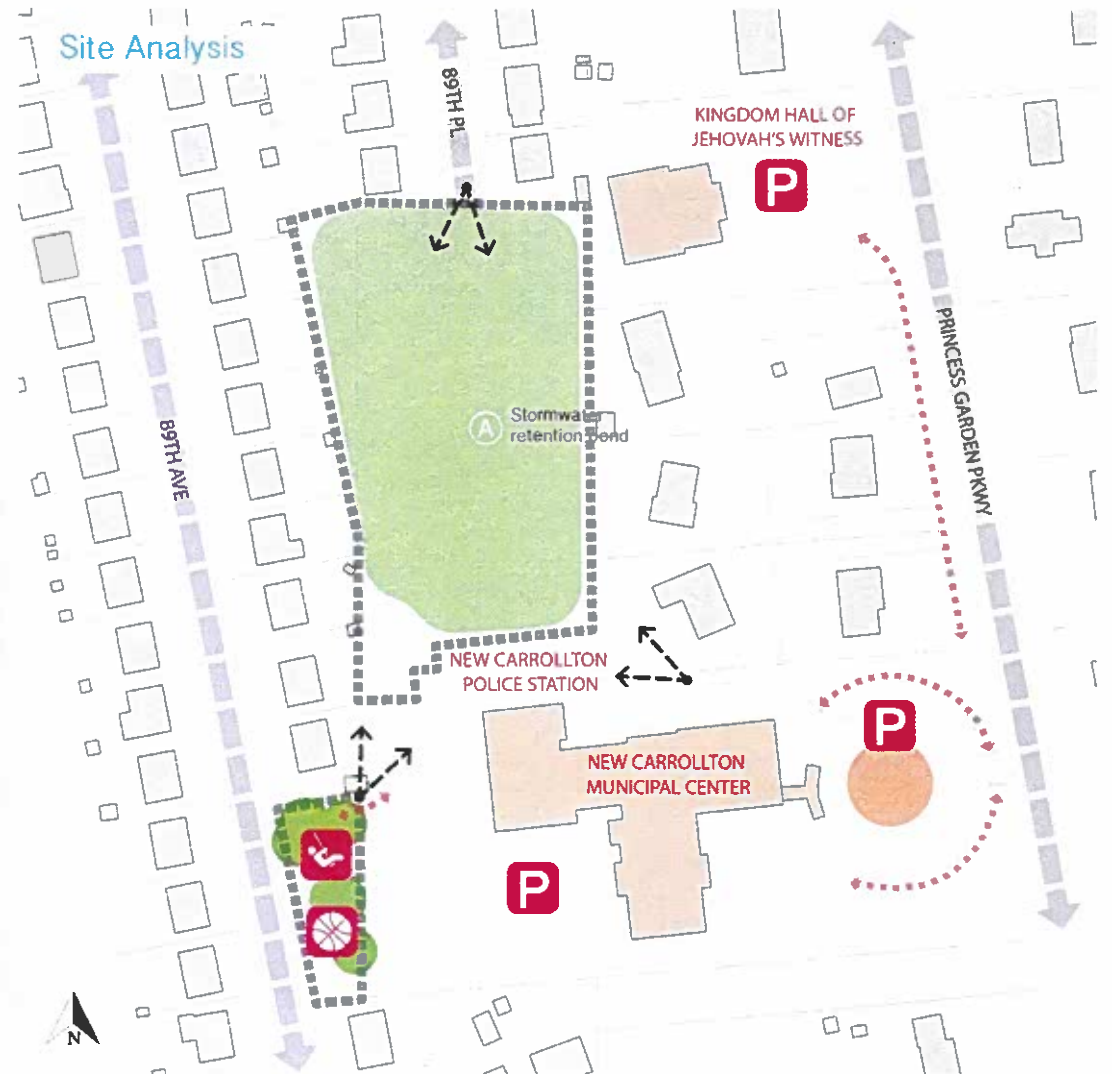
89th Avenue Park is a small neighborhood park with a playground structure and a full basketball court, which is the only one in the city park system. The layout of the park uses its small space efficiently, and the amenities serve the needs of the surrounding community. Unlike other city parks, it has canopy trees to shade the play space and has benches and picnic tables to serve park users.



Stormwater retention pond (left) of Police Woods in the winter.



Basketball court and play structure of 89th Avenue Park.





Slope Analysis

Slope in Police Woods varies greatly. The side slopes of the retention pond (A) and the area south of the pond are fairly steep, and so is the entrance from 89th Place (B). The areas marked (C) and (D), on the other hand, are flatter and can support passive recreational activities like picnicking.

Recommendations

Provide a loop trail and gathering space

A loop trail under the trees of Police Woods would provide neighbors and city staff a place to walk for exercise as well as stress relief. The variations in slope at Police Woods could also appeal to those who find flat trails uneventful.

Small dog park

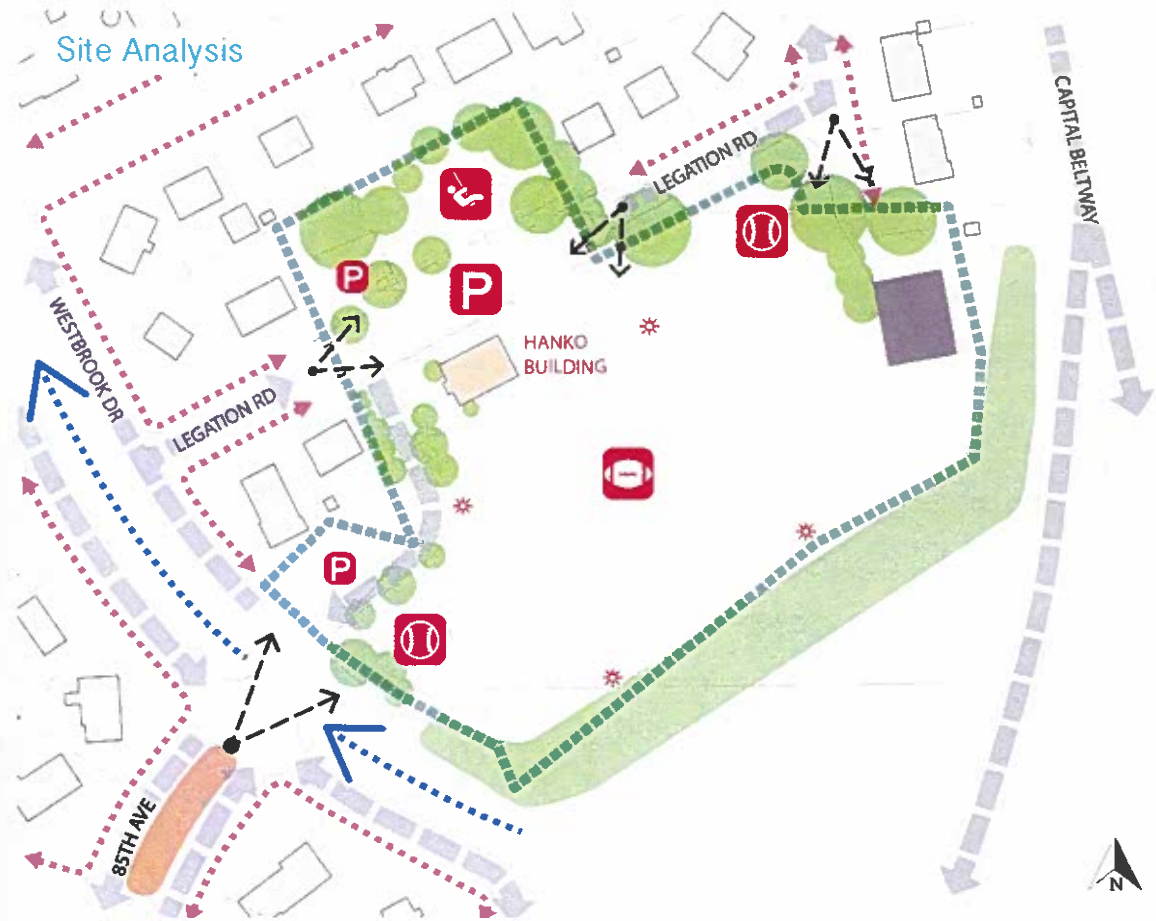
Currently, the only city dog park is located at West Field. The West Field dog park is large and well equipped with play structures for dogs, but is open and exposed to the elements. A dog park at Police Woods, on the other hand, would be a completely different experience. Instead of playing on lawn with plastic structures, dogs would be able to run around trees and use natural materials as their toys. The shaded environment may also appeal to dog owners who need relief from the sun.

Precedent Images



Beckett Field

Beckett Field is one of the most popular parks in the city of New Carrollton. It hosts the annual National Night Out and Community Day events and is used by the New Carrollton Boys and Girls Club for home football games. The park has two distinct areas. To the northwest is a playground and picnic area with some canopy trees. Unfortunately, most of the trees are located north of the playground, so the play equipment does not actually receive much shade. The rest of the park is equipped for organized field sports like football, soccer, and baseball and has lights, scoreboards, bleachers, and goals. The park also used to have basketball courts on the northeast corner of the park, but the baskets have been removed and the courts have fallen to disrepair.

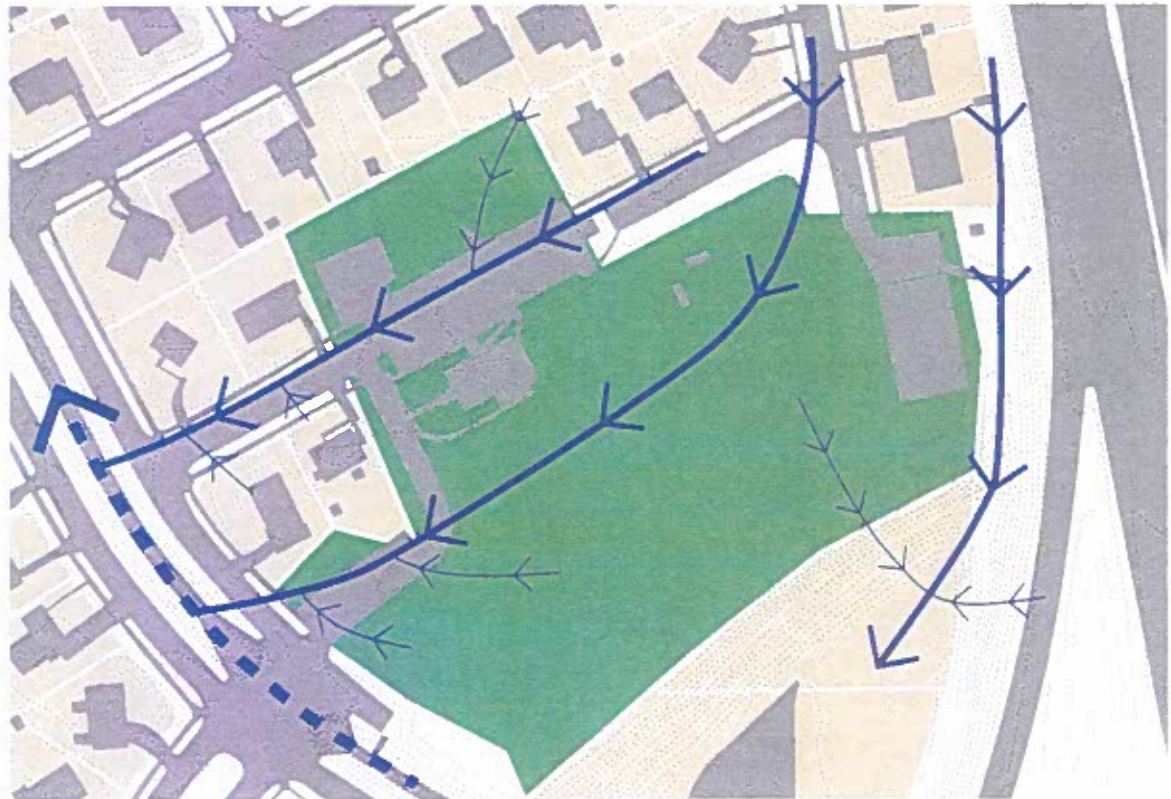




Canopy trees should be planted on the south side of the play structures to provide shade for children who are playing.



High-use parks like Beckett Field should have more permanent structures for restrooms.



Water Flow

Rain water that falls on Beckett Field generally flows from east to west towards the creek on Westbrook Drive. The water flow diagram also reveals potential locations for rain gardens to intercept and hold the runoff instead of allowing it to flow into the creek.

Picturesque

Objectives:

Create a beautiful park that fits in with the city's picturesque landscape

Right now, Beckett Field is a football field surrounded by a chain-link fence. The park has very few trees and plantings in general, and the main parking lot separates the playground from the field. This concept removes the main parking lot to link the two sides of the park together and introduces more canopy and ornamental trees and flowering perennials to improve the aesthetics of the park. The proposed gazebo, loop trail, and open lawn space also adds to the picturesque feel of the concept.

Inspiration



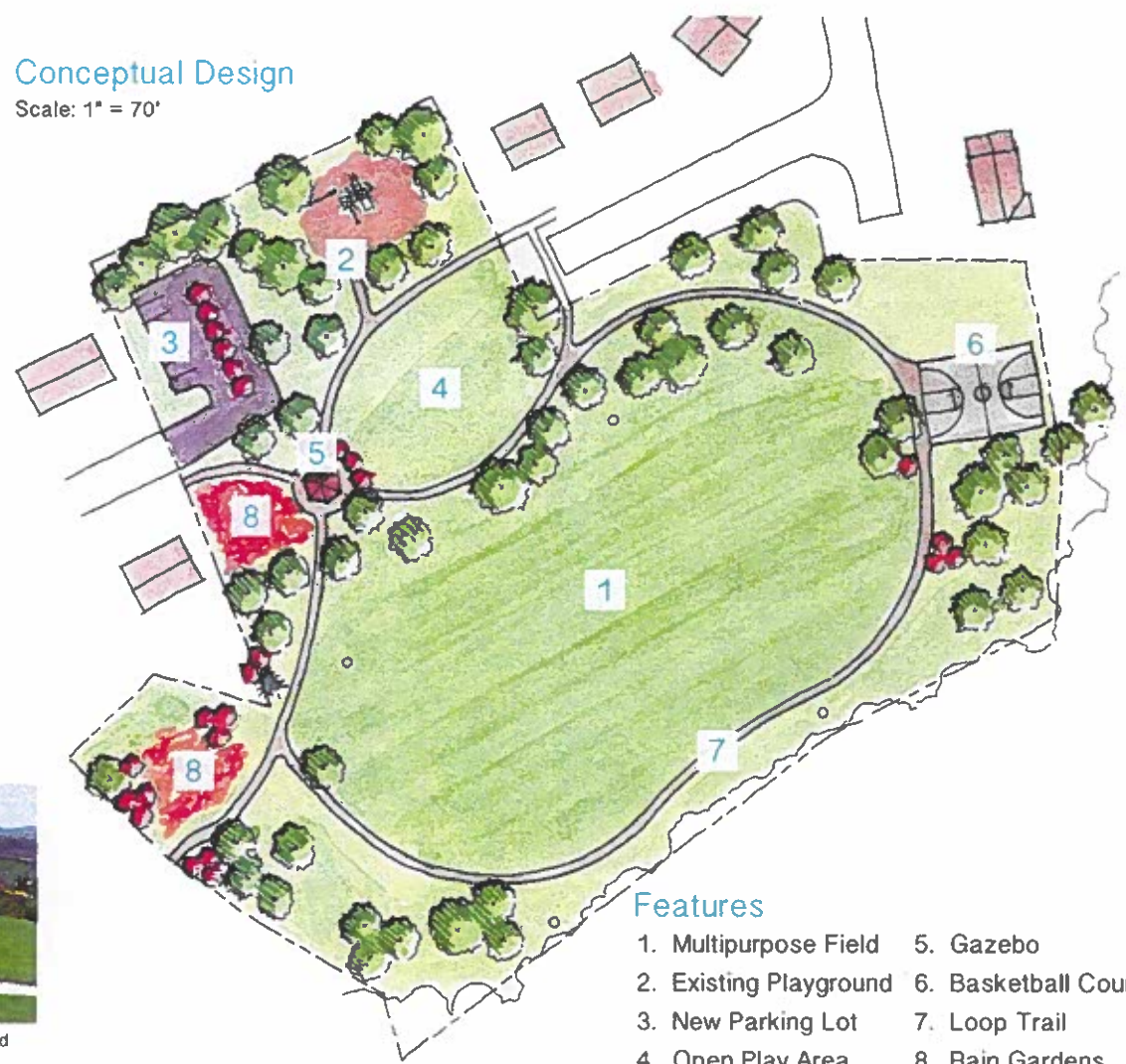
Canopy trees provide shade, and some species, like the sweetgums in the photo, have brilliant fall colors



Gazebo and planting displays can help improve the aesthetics of Beckett Field

Conceptual Design

Scale: 1" = 70'



Features

- 1. Multipurpose Field
- 2. Existing Playground
- 3. New Parking Lot
- 4. Open Play Area
- 5. Gazebo
- 6. Basketball Court
- 7. Loop Trail
- 8. Rain Gardens

Sport Complex

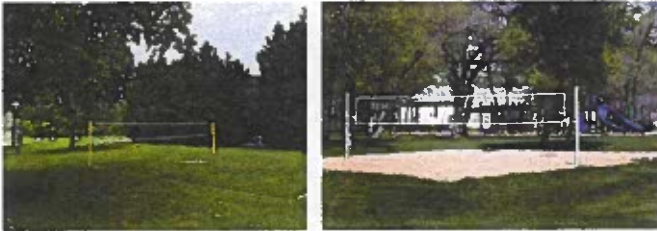
Objectives:

Enhance the existing use of Beckett Field as an active recreational park

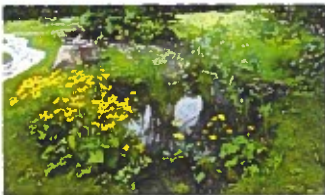
Beckett Field is one of the most visited parks in New Carrollton. One of the reasons is that the park is accessible and there is plenty of parking spaces. In addition, the city's Boys and Girls Club hosts home football games at the park's field, which has goal posts, a scoreboard, lights, and bleachers. The baseball backstop at the southwest corner of the park is also in much better condition than any other backstop in the city. The park used to have two full basketball courts, but the hoops were removed for safety concerns.

This concept will upgrade and renovate Beckett Field in a way that enhances its current identity as a sports hub by repaving the basketball courts and replacing the hoops and adding volleyball courts.

Inspiration



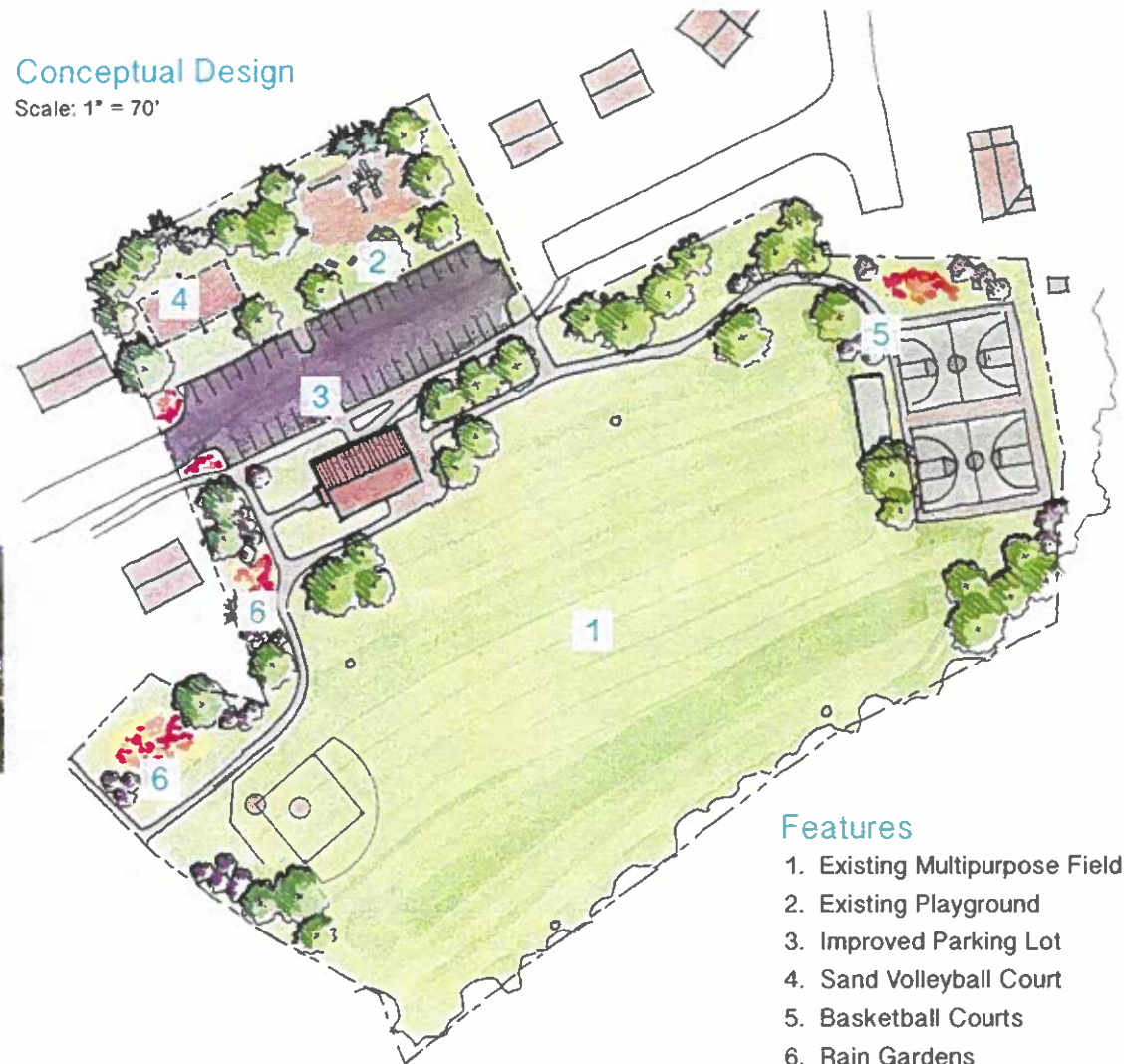
Adding a volleyball court will increase the variety of recreational activities offered by city parks.



Rain gardens with native plants can help improve the health of the bay

Conceptual Design

Scale: 1" = 70'



Features

1. Existing Multipurpose Field
2. Existing Playground
3. Improved Parking Lot
4. Sand Volleyball Court
5. Basketball Courts
6. Rain Gardens

Beckett Park

Objectives:

Provide a variety of recreational opportunities for the growing population of New Carrollton

Beckett Field can offer more than just active recreational opportunities for city residents. This design keeps the existing multipurpose field for organized sports and renovates the basketball courts, but also creates a variety of spaces for gathering and socializing.

Offer environmental education opportunities

Rain gardens, meadow plantings, native plantings, and the green roof on the proposed community center all offer visitors the opportunity to learn about environmentally friendly practices.

Address gaps in recreation needs

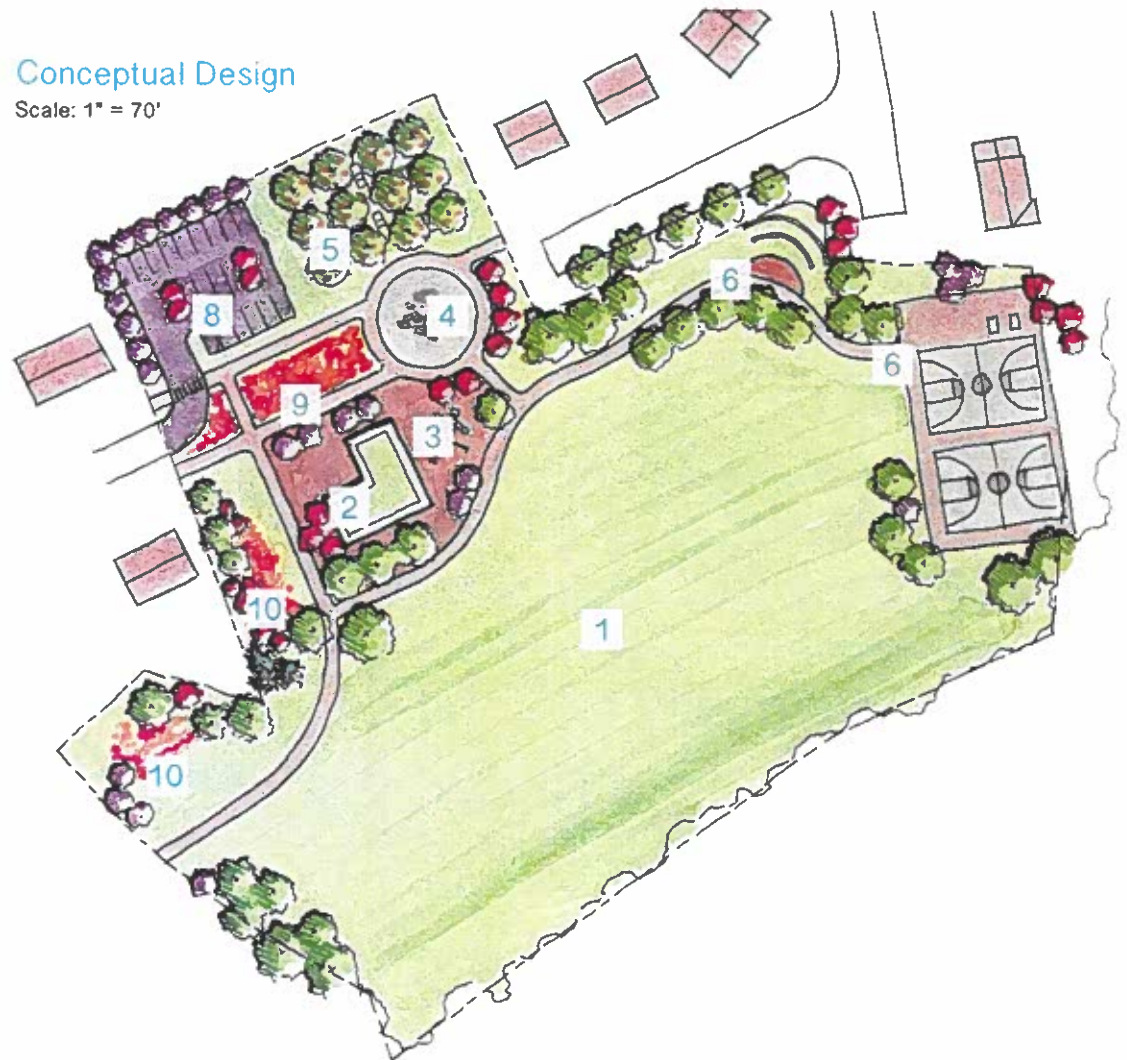
The most requested amenity by city residents at National Night Out was some sort of public pool or splash park. This concept proposes an interactive water fountain area, which can be converted to an ice rink in the winter. The concept also proposes a variety of gathering spaces, like the honey locust bosque, small amphitheater, and seating areas by the basketball courts.

Features

1. Existing Multipurpose Field
2. New Community Center with Green Roof
3. Playground
4. Interactive Water Fountain
5. Honey Locust Bosque Seating Area
6. Small Amphitheater
7. Basketball Courts
8. New Parking Lot
9. Pollinator Gardens
10. Rain Gardens

Conceptual Design

Scale: 1" = 70'



Precedent Images



This temporary but creative park in Australia demonstrates how a basketball court can be much more. It's also called A'Beckett Urban Square!



The seating area under a honey locust grove at the University of Maryland is a popular spot for lunch



Small amphitheaters like this can be a gathering area as well as a performance space



The interactive water fountain at Canal Park in Washington D.C. transforms into a beautiful ice rink in the winter.



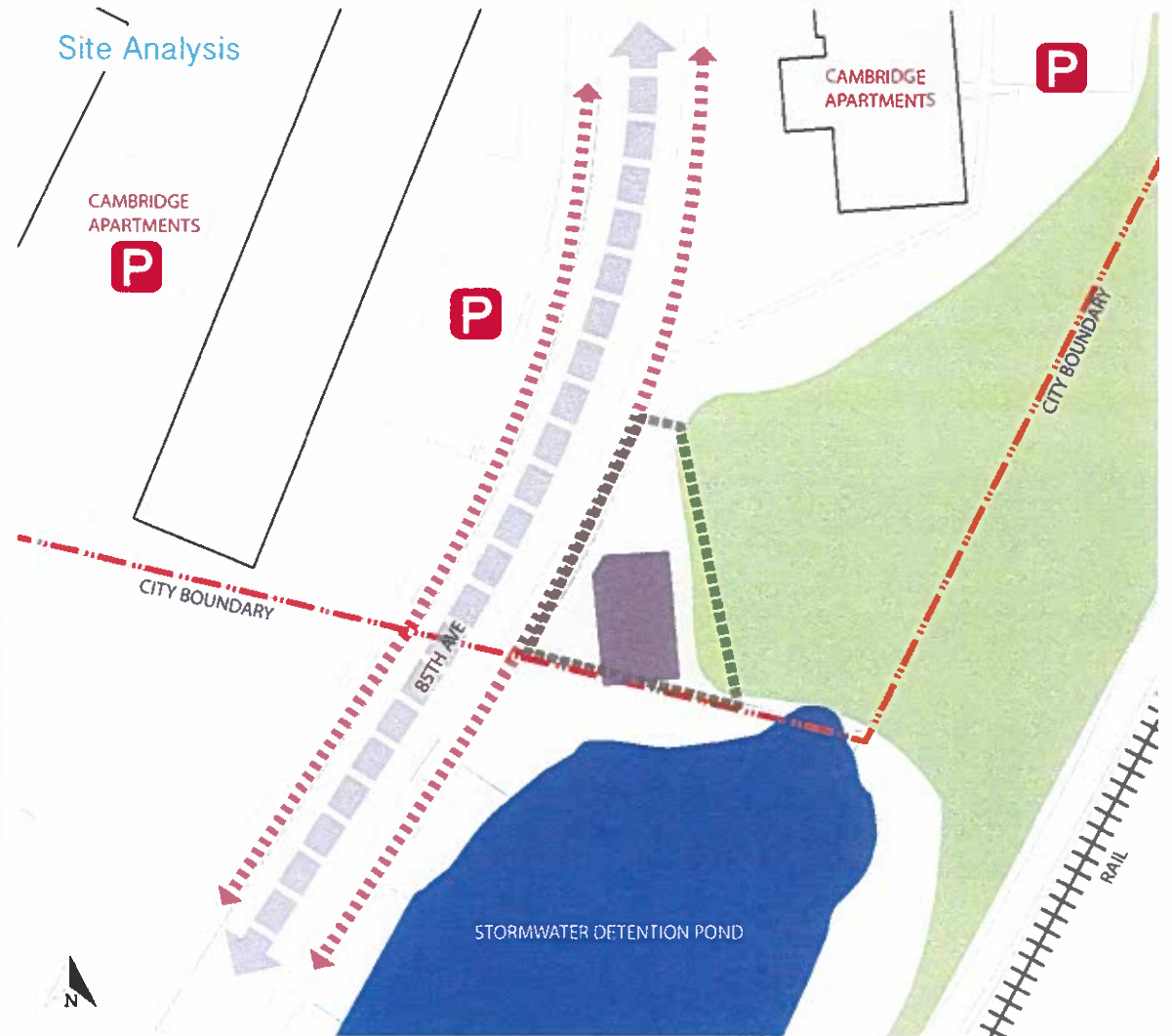
85th Avenue Park

85th Avenue Park is a small undeveloped park located just south of the Cambridge Apartments on 85th Avenue. There was a basketball hoop at the park, but it was taken down for safety concerns. The asphalt pavement from the basketball court remains. Land for 85th Avenue Park is not owned by the city. Instead, any development for the park will be done in partnership with the Cambridge Apartments management.

Safety is a chief concern for 85th Avenue Park because it is located adjacent to a busy road and a detention pond. There are no barriers separating the park and the road, so balls could easily bounce out to the street. However, there is a chain-link fence separating the park from the stormwater retention pond and creek to the south and east of park, respectively.



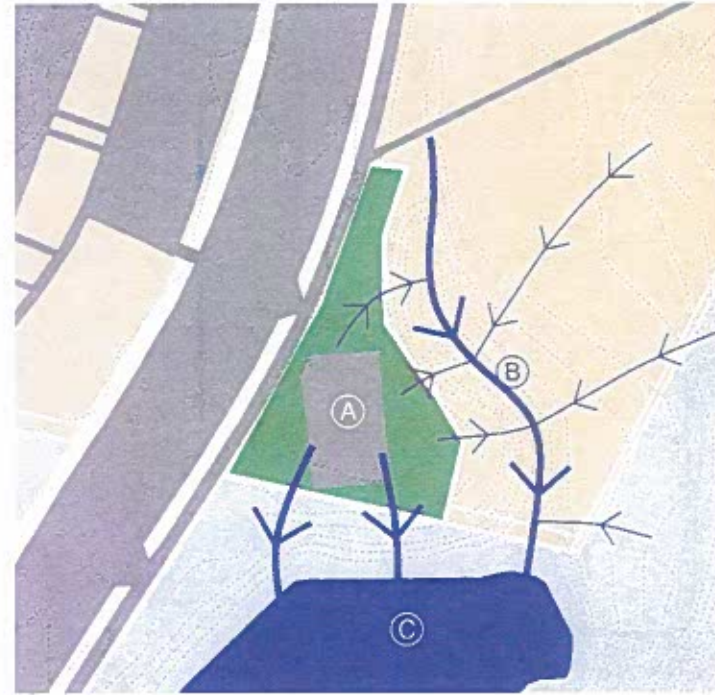
A barrier between the park and 85th Avenue will be necessary when 85th Avenue Park is developed.





Slope Analysis

The existing asphalt pavement area (A) is very flat at 0 to 2 percent, but the lawn surrounding it is much steeper. The steep slopes surrounding the main space of the park makes it even more likely someone can trip and fall onto the street. The base of the adjacent creek (B) and detention pond (C) can be easily identified by their flat bases.



Water Flow

Rain that falls on 85th Avenue park will be shed off to the creek (B), detention pond (C), or the street, but it would still be more environmentally friendly to capture the rainfall on site using permeable pavers or rain gardens.

Food Truck Park

Objectives:

Create a flexible space that can be used for a variety of occasions

This design envisions a flexible space that can be used for many different events. The repurposed asphalt pavement could host food trucks or even farmers market trucks while people sit and eat in the adjacent seating area, which is located under canopy trees and surrounded with ornamental plantings.

Why not address the need for play spaces at 85th Avenue Park?

For several reasons, even though playgrounds for children are needed in this area, 85th Avenue Park is not an appropriate location for a playground. First, the space available is simply too small. Even the smaller play structures require a fall zone that exceeds the amount of space at 85th Avenue Park. Second, the park is located adjacent to a busy road, which is also slightly lower. This means even with a fence, the likelihood of a child accidentally leaving the park and running onto the street is too high. Lastly, the park space is bordered on the east and south side by steep hills that lead to a creek and a detention pond, respectively.

Food Truck Park



Conceptual Design

Scale: 1" = 10'

Features

1. Repurposed Existing Pavement
2. Seating Area
3. Rain Garden



Community Garden Park

Objectives:

Promote healthy food choices through food garden

Support one of the main goals of the city parks by encouraging healthy food choices. The food garden can provide local residents with fresh fruits and vegetables, and gardening can provide a venue for stress relief. Food gardens are also a great opportunity to teach children about where their food comes from.

Create gathering and seating spaces

Seating and gathering spaces around the community food garden provide comfortable and beautiful places for people to socialize. They can help create a stronger sense of place and stronger ties between the city residents.

Community Garden

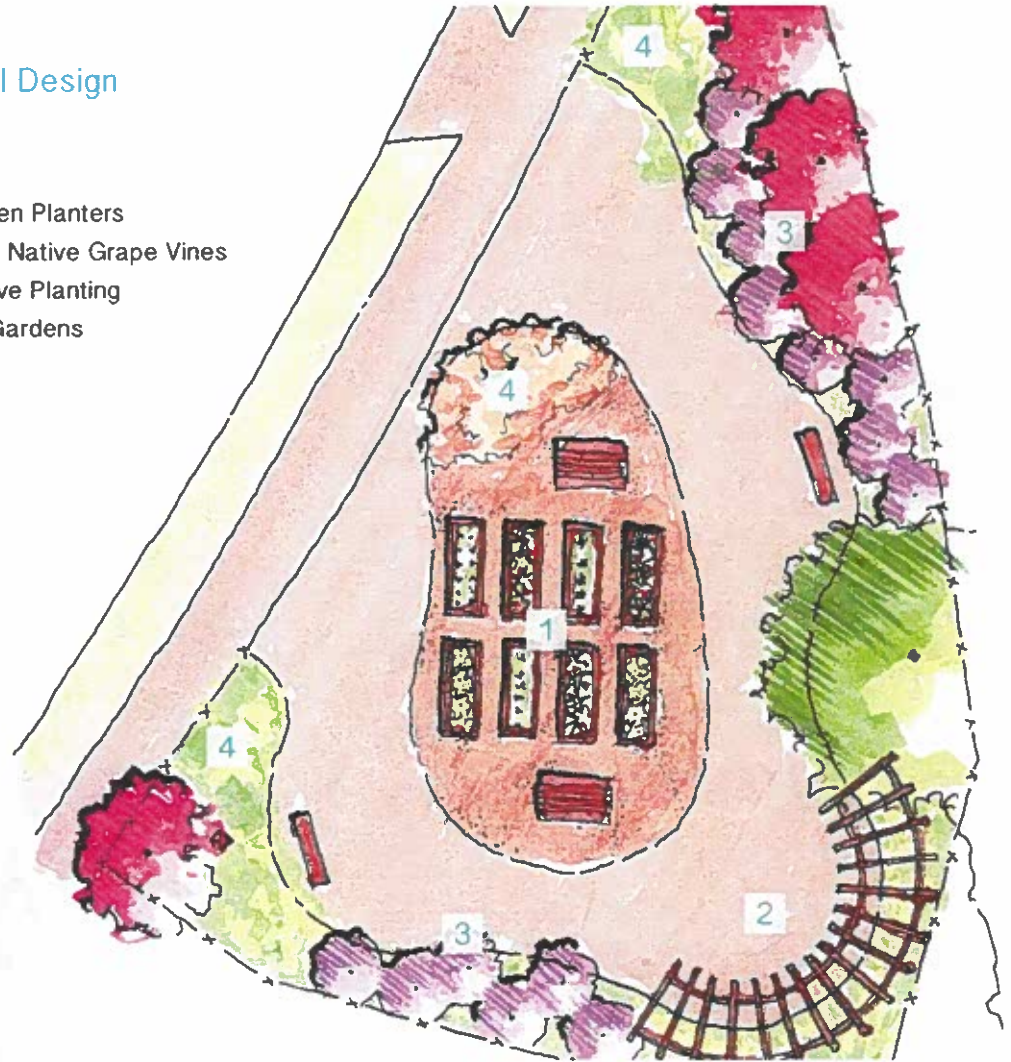


Conceptual Design

Scale: 1" = 10'

Features

1. Food Garden Planters
2. Trellis With Native Grape Vines
3. Edible Native Planting
4. Pollinator Gardens





Plant Schedules

Canopy Trees

Scientific Name	Common Name	Size (WxH)	Molsture	Light	Tolerance	Interest	Landscape Use	Notes
<i>Acer rubrum</i>	Red maple	30x40	M/W	F/P	Wet soil, air pollution	Fall color, red flowers in March	Street tree, shade tree, rain garden	Attracts songbirds
<i>Betula nigra</i>	River birch	40x40	M/W	F/P	Deer, drought, clay, wet soil, air pollution	Exfoliating bark	Shade tree, rain garden	High wildlife value
<i>Carpinus caroliniana</i>	American hophornbeam	20x20	M	P/S	Clay	Yellow to orange fall color	Street tree	Attracts songbirds
<i>Carya glabra</i>	Pignut hickory	25x50	M	F/P			Street tree, shade tree	Attracts songbirds
<i>Carya ovata</i>	Shagbark hickory	50x70	M	F/P	Clay	Attractive peeling bark	Shade tree	Attracts songbirds
<i>Celtis occidentalis</i>	Hackberry	40x40	M/W	F/P	Drought, clay, wet soil, air pollution		Street tree, shade tree, rain garden	High wildlife value
<i>Fagus grandifolia</i>	American beech	40x50	M	F/P	Deer	Attractive smooth bark	Shade tree	High wildlife value
<i>Gleditsia triacanthos var. inermis</i>	Honey locust	60x80	M	F	Deer, drought, clay, air pollution	Yellow fall color	Street tree	Use thornless variety
<i>Gymnocladus dioica</i>	Kentucky coffee tree	40x60	M	F	Drought, air pollution	Smooth bark, yellow fall color	Street tree, shade tree	
<i>Liquidambar styraciflua 'Rotundiloba'</i>	Sweetgum	20x80	M	F/P	Rabbit, deer, clay	Brilliant fall color	Street tree, shade tree	Use Rotundiloba cultivar
<i>Liriodendron tulipifera</i>	Tulip tree	30x80	M	F	Rabbit, deer, clay	White flowers May to June	Shade tree	Attracts songbirds, hummingbirds
<i>Nyssa sylvatica</i>	Blackgum	20x30	M/W	F/P	Clay, wet soil	Red fall color	Street tree, shade tree, rain garden	High wildlife value
<i>Ostrya virginiana</i>	Eastern hop hornbeam	20x25	M	F/P	Deer, drought, clay	Showy fruit	Street tree, shade tree	Attracts songbirds
<i>Platanus occidentalis</i>	Sycamore	75x75	M/W	F	Deer, air pollution	Exfoliating bark	Shade tree	Attracts songbirds
<i>Quercus alba</i>	White oak	50x50	D/M	F	Drought, clay, dry soil, shallow-rocky soil	Fall color	Shade tree	High wildlife value
<i>Quercus bicolor</i>	Swamp oak	50x50	M/W	F	Wet soil	Fall color	Shade tree, rain garden	High wildlife value
<i>Quercus coccinea</i>	Scarlet oak	40x50	D/M	F	Drought, dry soil	Red fall color	Street tree, shade tree	High wildlife value
<i>Quercus falcata</i>	Southern red oak	40x80	D/M	F	Drought, air pollution		Shade tree	Accoms for wildlife
<i>Quercus palustris</i>	Pin oak	35x80	M/W	F	Wet soil	Red fall color	Street tree, shade tree	High wildlife value
<i>Quercus phellos</i>	Willow oak	25x40	M/W	F	Clay, wet soil air pollution		Street tree, shade tree, rain garden	Accoms for wildlife



River birch



Sweetgum



Kentucky coffee tree



Blackgum



Eastern hop hornbeam



White oak

Canopy Trees

Scientific Name	Common Name	Size (WxH)	Moisture	Light	Tolerance	Interest	Landscape Use	Notes
<i>Quercus rubra</i>	Red oak	50x50	D/M	F	Drought, dry soil, air pollution	Red fall color	Shade tree	High wildlife value
<i>Quercus stellata</i>	Post Oak	35x35	M/D	F	Drought, dry soil, shallow-rocky soil	Fall color	Street tree, shade tree	High wildlife value
<i>Taxodium distichum</i>	Bald cypress	20x50	M/W	F	Deer, clay, wet soil, air pollution	Showy fruit, orange fall color	Rain garden	
<i>Tilia americana</i>	American linden	30x50	M	F/P	Drought, clay	Pale yellow flowers in June	Street tree, shade tree	Attracts butterflies
<i>Ulmus americana</i> 'Princeton'	American elm	30x50	M	F	Drought, air pollution	Attractive vase form	Street tree, shade tree	Use Princeton for disease resistance

Evergreen Trees

Scientific Name	Common Name	Size (WxH)	Moisture	Light	Tolerance	Interest	Landscape Use	Notes
<i>Ilex opaca</i>	American holly	15x20	M	F/P	Deer, clay, air pollution	Persistent red fruit	Ornamental, screening	Attracts songbirds
<i>Juniperus virginiana</i>	Eastern red cedar	10x40	D/M	F	Deer, drought, erosion, dry soil, air pollution	Winter interest	Ornamental, screening	Attracts songbirds
<i>Magnolia grandiflora</i>	Southern magnolia	30x80	M	F/P	Air pollution	White flowers May to June	Ornamental, canopy	Bracken's Brown Beauty' more cold hardy
<i>Pinus rigida</i>	Pitch pine	20x80	D/M	F	Dry soil, shallow-rocky soil	Winter interest, pine cones	Ornamental, screening	High wildlife value
<i>Pinus strobus</i>	Eastern white pine	20x80	M	F/P	Rabbit, deer	Winter interest, pine cones	Ornamental, screening	High wildlife value
<i>Pinus taeda</i>	Loblolly pine	20x80	M/W	F	Deer	Winter interest, pine cones	Ornamental, screening	High wildlife value
<i>Pinus virginiana</i>	Scrub pine	20x50	M	F	Dry soil	Winter interest, pine cones	Ornamental, screening	High wildlife value
<i>Thuja occidentalis</i>	American arborvitae	10x20	M	F/P	Clay, air pollution	Winter interest	Ornamental, screening	Attracts songbirds



Bald cypress



American holly



Southern magnolia



Eastern white pine



American arborvitae

Ornamental Trees

Scientific Name	Common Name	Size (WxH)	Moisture	Light	Tolerance	Interest	Landscape Use	Notes
<i>Amelanchier canadensis</i>	Downy serviceberry	15x25	M	F/P	Clay	White flowers April to May, fall color	Ornamental	Attracts songbirds
<i>Amelanchier arborea</i>	Shadlow serviceberry	15x15	M	F/P	Clay, air pollution	White flowers March to April, fall color	Ornamental	Attracts songbirds
<i>Amelanchier laevis</i>	Allegheny serviceberry	15x15	M	F/P	Air pollution	White flowers April, fall color	Street tree, ornamental	Attracts songbirds
<i>Asimina triloba</i>	Paw paw	15x15	MW	F/P	Wet soil	Large edible fruit	Rain garden	Attracts songbirds, butterflies
<i>Cercis canadensis</i>	Redbud	25x20	M	F/P	Deer, clay	Pink flowers April, fall color	Street tree, ornamental	Attracts butterflies, butterflies
<i>Chionanthus virginicus</i>	Fringetree	12x12	M	F/P	Clay, air pollution	White flowers May to June, fall color	Ornamental	Attracts songbirds
<i>Cornus florida</i>	Flowering dogwood	15x15	M	F/P	Deer, clay	White flowers April to May, fall color	Ornamental	High wildlife value
<i>Crataegus viridis</i> 'Winter King'	Green hawthorn	25x25	D/M	F	Drought, clay, dry soil	White flowers May, fall color	Ornamental	Attracts songbirds, butterflies
<i>Magnolia virginiana</i>	Sweetbay magnolia	10x10	MW	F/P	Clay, wet soil, air pollution	White flowers May to June	Ornamental, rain garden	Attracts songbirds, butterflies
<i>Malus augustifolia</i>	Southern crabapple	12x20	M	F/P	Clay, air pollution	White flowers April to May	Ornamental	High wildlife value
<i>Malus coronaria</i>	Sweet crabapple	12x20	M	F/P	Clay, air pollution	White flowers April to May	Ornamental	High wildlife value



Serviceberry



Paw paw



Redbud



Fringetree



Sweetbay magnolia

Shrubs

Scientific Name	Common Name	Size (WxH)	Moisture	Light	Tolerance	Interest	Landscape Use	Notes
<i>Alnus serrulata</i>	Smooth alder	10x15	M/W	F/P	Clay, wet soil	Flowers March to April	Rain garden	High wildlife value
<i>Aronia arbutifolia</i>	Red chokeberry	4x8	M	F/P	Erosion, clay	White flowers April, fall color	Rain garden	Attracts songbirds
<i>Callicarpa americana</i>	American beautyberry	4x4	M	F/P	Clay	Lavender flowers June to August, fruit	Hedge	Attracts songbirds
<i>Cephalanthus occidentalis</i>	Buttonbush	6x8	M/W	F/P	Erosion, wet soil	White flowers June	Rain garden	Attracts butterflies
<i>Clethra alnifolia</i>	Sweet pepperbush	5x8	M/W	F/P	Heavy shade, erosion, clay, wet soil	White flowers July to August, fruit	Rain garden, hedge	Attracts songbirds, butterflies
<i>Cornus amomum</i>	Silky dogwood	8x8	M/W	F/P	Deer, erosion	White flowers May to June	Rain garden, hedge	High wildlife value
<i>Cornus racemosa</i>	Gray dogwood	12x12	M	F/P	Deer	White flowers May to June	Rain garden, hedge	High wildlife value
<i>Cornus sericea</i>	Red twig dogwood	10x6	M/W	F/P	Deer, erosion, clay, wet soil	White flowers May to June, red twig	Rain garden, hedge	Attracts songbirds
<i>Fothergilla gardenii</i>	Dwarf fothergilla	2x2	M	F/P		White flowers April to May, fall color	Ornamental, hedge	
<i>Hamamelis virginiana</i>	Witch hazel	16x18	M	F/P	Deer, erosion, clay	Yellow flowers October to December	Rain garden, hedge	Attracts songbirds
<i>Hydrangea arborescens</i> 'Annabelle'	Smooth hydrangea	5x4	M	P	Rabbit, erosion, clay, dry, wet soil	White flowers June to September	Rain garden, hedge	
<i>Hydrangea quercifolia</i> 'Alice'	Oakleaf hydrangea	6x6	M	F/P		White flowers June to July	Hedge	Attracts songbirds
<i>Hypericum prolificum</i>	St. John's wort	3x4	M	F/P	Drought, erosion, clay	Yellow flowers June to August	Erosion control	Attracts songbirds
<i>Ilex glabra</i>	Inkberry	6x8	M/W	F/P	Rabbit, deer, erosion, wet soil, air pollution	Evergreen	Rain garden, hedge	High wildlife value



American beautyberry



Sweet Pepperbush



St. John's Wort



Witch hazel



Dwarf fothergilla

Shrubs

Scientific Name	Common Name	Size (WxH)	Moisture	Light	Tolerance	Interest	Landscape Use	Notes
<i>Ilex verticillata</i>	Winterberry	6x6	MW	F/P	Erosion, clay, wet soil, air pollution	Persistent red fruit	Rain garden, hedge	High wildlife value; need male/female
<i>Itea virginica</i>	Virginia sweetspire	2x2	MW	F/P	Heavy shade, erosion, clay, wet soil	White flowers June to July, fall color	Rain garden, hedge	Attracts songbirds
<i>Kalmia latifolia</i>	Mountain laurel	10x10	M	P	Rabbit, deer	White flowers May	Hedge	Attracts songbirds
<i>Lindera benzoin</i>	Spicebush	10x10	M	F/P	Deer, drought, heavy shade, clay	Yellow flowers March, red fruit	Rain garden, hedge	High wildlife value
<i>Myrica pensylvanica</i>	Southern bayberry	8x8	D/M	F/P	Drought, erosion, wet soil	Yellowish green flowers May, fragrant leaf	Rain garden, hedge	High wildlife value
<i>Physocarpus opulifolius 'Diabolo'</i>	Ninebark	6x6	D/M	F/P	Drought, erosion, clay, dry soil	Pinkish white flowers May to June, fruits	Hedge	Attracts songbirds
<i>Rhododendron viscosum</i>	Swamp azalea	4x4	MW	P	Rabbit, wet soil	White flowers May to July	Hedge	Attracts hummingbirds, butterflies
<i>Rhus aromatica</i>	Fragrant sumac	8x4	D/M	F/P	Rabbit drought, erosion, clay, dry soil	Yellow flowers April, fall color, fragrant leaf	Hedge, erosion control	High wildlife value
<i>Rhus glabra</i>	Smooth sumac	10x10	D/M	F/P	Rabbit drought, erosion, dry soil	Yellow flowers June, fall color, fruit	Erosion control	High wildlife value
<i>Rhus typhina</i>	Staghorn sumac	25x20	D/M	F/P	Rabbit drought, erosion, dry soil	Yellow flowers June to July, fall color, fruit	Erosion control	High wildlife value
<i>Rosa palustris</i>	Swamp rose	6x6	MW	F/P	Wet soils	Pink flowers May to June	Rain garden, hedge	High wildlife value
<i>Veccinium angustifolium</i>	Lowbush blueberry	2x2	D/M	F/P	Acidic soil, drought	White flower May, fruit	Hedge	High wildlife value
<i>Viburnum Acerifolium</i>	Mapleleaf viburnum	3x5	M	F/P		White flowers June, fall color	Hedge	High wildlife value
<i>Viburnum dentatum</i>	Arrowwood	8x8	M	F/P	Clay	White flowers May to June, fall color	Rain garden, hedge	High wildlife value
<i>Viburnum prunifolium</i>	Black haw	8x12	D/M	F/P	Drought, clay, air pollution	White flowers May to June, fall color	Hedge	High wildlife value



Winterberry



Mountain laurel



Ninebark



Swamp azalea



Swamp rose

Perennials

Scientific Name	Common Name	Size (WxH)	Moisture	Light	Tolerance	Interest	Landscape Use	Notes
<i>Asclepias incarnata</i>	Swamp milkweed	1x3	M/W	F	Deer, clay, wet soil	Pink flowers July to September	Rain garden	Attracts butterflies
<i>Asclepias syriaca</i>	Common milkweed	1	D/M	F	Deer, drought, erosion, dry soil	Pink flowers June to August	Meadow	Attracts butterflies
<i>Asclepias tuberosa</i>	Butterflyweed	1x2	D/M	F	Deer, drought, dry soil	Orange flowers June to August	Rain garden, meadow	Attracts butterflies
<i>Chelone glabra</i>	White turtlehead	2x3	M/W	P	Erosion, wet soil	White flowers August to October	Rain garden	Attracts butterflies, hummingbirds
<i>Conoclinium coelestinum</i>	Mistflower	2x2	M	F/P		Blue flowers July to October	Meadow	Attracts songbirds, butterflies
<i>Coreopsis verticillata</i>	Threadleaf coreopsis	2x3	D/M	F	Deer, drought, dry soil	Yellow flowers June to September	Meadow	Attracts butterflies
<i>Echinacea purpurea</i>	Purple coneflower	2x4	D/M	F/P	Deer, drought, clay, dry soil	Purple pink flowers June to August	Rain garden, meadow	Attracts butterflies
<i>Eupatorium perfoliatum</i>	Boneset	4x8	M/W	F/P	Deer, clay, wet soil	White flowers July to September	Rain garden, meadow	Attracts songbirds, butterflies
<i>Eutrochium dubium</i>	Joe Pye weed	3x4	M/W	F/P	Deer, clay, wet soil	Mauve flowers July to September	Rain garden, meadow	Attracts songbirds, butterflies
<i>Heliopsis helianthoides</i>	Oxeye sunflower	4x6	D/M	F	Drought, erosion, clay, dry soil	Yellow flowers June to August	Meadow	Attracts butterflies, hummingbirds
<i>Heuchera americana</i>	Alumroot	1x2	M	F/P	Drought	White flowers June to August	Ornamental groundcover	
<i>Hibiscus moscheutos</i>	Swamp hibiscus	2x3	M/W	F	Deer, wet soil	Red flowers July to September	Rain garden	Attracts hummingbirds
<i>Iris versicolor</i>	Blue flag	2x2	M/W	F/P	Deer, wet soil	Violet blue flowers May to June	Rain garden	Attracts songbirds
<i>Liatris spicata</i>	Blazing star	1x3	M	F	Drought, clay	Purple flowers July to August	Rain garden, meadow	Attracts songbirds, butterflies
<i>Lobelia cardinalis</i>	Cardinal flower	2x4	M/W	F/P	Rabbit, deer, wet soil	Red flowers July to September	Rain garden, meadow	Attracts songbirds, butterflies, hummingbirds
<i>Lobelia siphilitica</i>	Blue cardinal flower	1x3	M/W	F/P	Deer, heavy shade, wet soil	Blue flowers July to September	Rain garden, meadow	Attracts songbirds, butterflies, hummingbirds
<i>Mertensia virginica</i>	Virginia bluebells	1x2	M	P/S	Rabbit	Blue flowers March to April	Ornamental groundcover	Plant goes dormant mid-summer
<i>Mimulus ringens</i>	Monkey flower	1x2	M/W	F/P	Deer, wet soil	Lilac flowers June to September	Rain garden	
<i>Monarda didyma</i>	Beebalm	2x3	M/W	F/P	Rabbit, deer, clay, wet soil	Red flowers July to August	Rain garden, meadow	Attracts butterflies, hummingbirds
<i>Penstemon digitalis</i>	Beardtongue	2x4	D/M	F	Deer, drought, clay, dry soil	White flowers April to June	Rain garden	Attracts hummingbirds
<i>Phlox divaricata</i>	Woodland phlox	1x1	M	P/S	Deer, drought, clay, dry soil	Lavender flowers April to May	Ground cover	Attracts butterflies



Purple coneflower



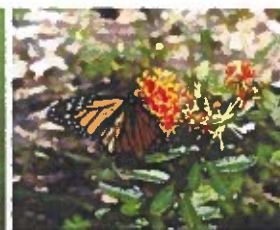
Swamp hibiscus



Blazing star



Cardinal flower



Butterflyweed



Beebalm

Perennials

Scientific Name	Common Name	Size (WxH)	Moisture	Light	Tolerance	Interest	Landscape Use	Notes
<i>Rudbeckia fulgida</i>	Orange coneflower	2x3	D/M	F	Deer, drought, clay, dry soil, air pollution	Yellow flowers June to October	Rain garden, meadow	Attracts songbirds, butterflies
<i>Rudbeckia hirta</i>	Black-eyed susan	2x3	M	F	Deer, drought, clay	Yellow flowers June to September	Meadow	Attracts songbirds, butterflies
<i>Solidago speciosa</i>	Goldenrod	3x3	D/M	F	Deer, drought, clay	Yellow flowers July to September	Meadow	Attracts songbirds, butterflies
<i>Symphoricaricum novae-angliae</i>	New England aster	3x5	M	F	Clay	Purple flowers August to September	Rain garden, meadow	Attracts butterflies
<i>Symphoricaricum oblongifolium</i>	Aromatic aster	2x2	D/M	F	Drought, erosion, clay, dry soil	Purple flowers August to September	Meadow	Attracts songbirds, butterflies
<i>Vernonia noveboracensis</i>	New York ironweed	4x5	M/W	F	Deer, clay, wet soil	Purple flowers August to September	Rain garden, meadow	Attracts butterflies

Ornamental Grasses & Ferns

Scientific Name	Common Name	Size (WxH)	Moisture	Light	Tolerance	Interest	Landscape Use	Notes
<i>Adiantum Pedatum</i>	Northern maidenhair fern	1.5x2	M	P/S	Heavy shade		Groundcover	
<i>Andropogon gerardii</i>	Big bluestem	3x6	D/M	F	Deer, drought, erosion, dry soil, air pollution	Fall color	Meadow, erosion control	
<i>Andropogon virginicus</i>	Broomsedge	3x6	M	P	Drought, erosion, dry soil	Fall color	Meadow, erosion control	Attracts songbirds
<i>Carex pensylvanica</i>	Sedge	1x1	D/M	P/S	Heavy shade, wet soil		Rain garden, groundcover	Attracts songbirds
<i>Carex stricta</i>	Tussock sedge	2x3	M/W	F/P	Deer, erosion	Flowers May to June	Rain garden	Attracts songbirds
<i>Carex vulpinoidea</i>	Fox sedge	1x3	W	F/P	Deer		Rain garden	High wildlife value
<i>Elymus virginicus</i>	Virginia wild rye	2x4	M	F/P	Deer, erosion		Meadow	
<i>Juncus effusus</i>	Common rush	3x3	W	F	Erosion, wet soil	Flowers June to August	Rain garden	
<i>Osmunda cinnamomea</i>	Cinnamon fern	3x3	M/W	P/S	Rabbit, heavy shade		Groundcover	Attracts songbirds
<i>Osmunda regalis</i>	Royal fern	3x3	M/W	P/S	Rabbit, heavy shade, wet soil		Rain garden, groundcover	
<i>Panicum virgatum</i>	Switchgrass	4x4	M/W	F/P	Drought, erosion, dry, wet soil, air pollution	Flowers July to February, fall color	Meadow, rain garden	Attracts songbirds, many cultivars
<i>Polystichum acrostichoides</i>	Christmas fern	2x2	D/M	P/S	Rabbit, deer, drought, heavy shade, erosion, dry soil	Evergreen	Groundcover	
<i>Schizachyrium scoparium</i>	Little bluestem	2x4	D/M	F	Deer, drought, erosion, dry soil, air pollution	Flowers August to October, fall color	Meadow, rain garden	
<i>Sorghastrum nutans</i>	Indiangrass	2x4	D/M	F	Drought, erosion, dry soil, air pollution	Bloom September to February	Meadow	



Goldenrod

Tussock sedge

Cinnamon fern

Switchgrass

Little bluestem

Christmas fern

Indiangrass



References

References

Benefits of Parks

Fresno County, California. "Health Benefits of Urban Agriculture." accessed at [http://www.co.fresno.ca.us/uploadedfiles/departments/behavioral_health/mhsa/health%20benefits%20of%20urban%20agriculture%20\(1-8\).pdf](http://www.co.fresno.ca.us/uploadedfiles/departments/behavioral_health/mhsa/health%20benefits%20of%20urban%20agriculture%20(1-8).pdf)

National Wildlife Federation. "What is Nature Play?" accessed at <https://www.nwf.org/What-We-Do/Kids-and-Nature/Programs/Nature-Play-Spaces.aspx>

NC State University. "Research Regarding the Benefits of Community Gardens." accessed at <https://nccommunitygardens.ces.ncsu.edu/nccommunitygardens-research/>

The Trust of Public Land. "The Benefits of Parks: Why America Needs More City Parks and Open Space." accessed at http://www.eastshorepark.org/benefits_of_parks%20tpl.pdf

University of Georgia. "Healthy parks, healthy people." accessed at http://www.uga.edu/about_uga/profile/healthy-parks-healthy-people/?utm_content=buffer48c0d&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer

City Demographics

City of New Carrollton. "Market Datastory." accessed at <http://mdgeoshare.maps.arcgis.com/apps/MapJournal/index.html?appid=76cc03d139d24dd2af08784ae5612690>

U.S. Census. American FactFinder. accessed at <http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

Vegetation

Arlington County, Virginia. "Recommended Trees." accessed at <https://environment.arlingtonva.us/trees/plant-trees/recommended-trees/>

Government of the District of Columbia. "District of Columbia Urban Tree Canopy Plan." accessed at http://doee.dc.gov/sites/default/files/dc/sites/ddoe/page_content/attachments/Draft_Urban_Tree_Canopy_Plan_Final.pdf

U.S. Fish & Wildlife Service. "Native Plants for Wildlife Habitat and Conservation Landscaping: Chesapeake Bay Watershed." accessed at <https://www.nps.gov/plants/pubs/chesapeake/pdf/chesapeakenatives.pdf>

Stormwater Management

Anacostia Watershed Society. "State of the Anacostia River: 2016 Report Card." accessed at <http://www.anacostiaws.org/programs/publicaffairs/2016-state-river-report-card>

California Water & Land Use Partnership. "How Urbanization Affects the Water Cycle." accessed at <http://www.coastal.ca.gov/nps/watercyclefacts.pdf>

Chesapeake Bay Trust. Prince George's County Rain Check Rebate. accessed at <http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/SedimentandStormwaterHome/Documents/Chapter%20151%20Watershed%20Protection%20and%20Restoration%20fact%20sheet.pdf>

Maryland Department of Environment. "Stormwater Management Watershed Protection and Restoration Program." accessed at <http://www.mde.state.md.us/programs/Water/StormwaterManagementProgram/SedimentandStormwaterHome/Documents/Chapter%20151%20Watershed%20Protection%20and%20Restoration%20fact%20sheet.pdf>

