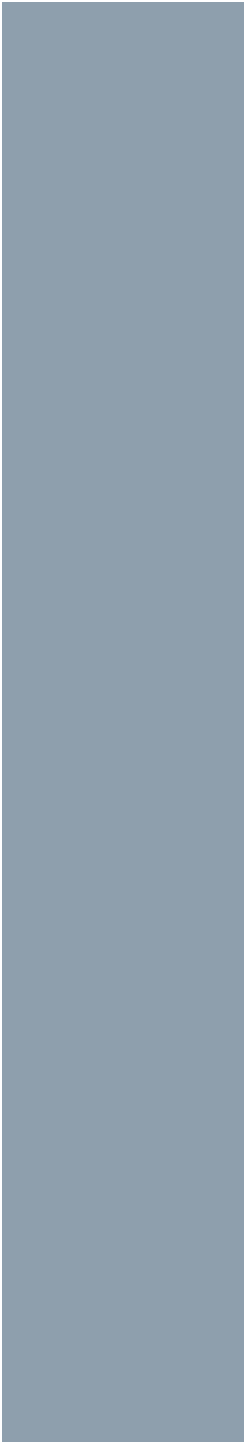


# FRAMEWORK PLAN

## & DESIGN GUIDELINES REPORT

ADOPTED DECEMBER 16, 2017

# BENJAMIN BANNEKER PARK



BENJAMIN BANNEKER PARK



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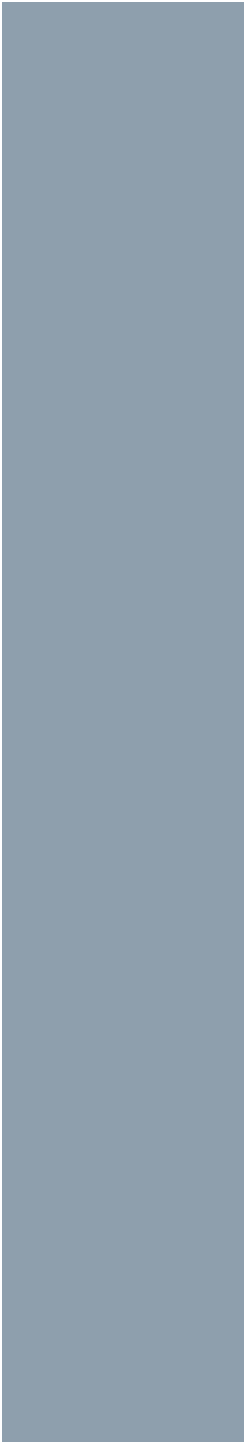
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BENJAMIN BANNEKER PARK

## 1.0 Park Overview

Benjamin Banneker Park is cherished by the community as a place where they connect with nature, recreate and can seek relief from their busy lives. Four Mile Run crosses through the wooded park and is a dynamic natural feature of the park. In other areas, visitors may enjoy playing with their children at the playground, picnicking, unleashing their dogs to run within a fenced dog park, playing games on the athletic field, sledding, biking, walking or sitting. The park is also home to a historic boundary stone, designated a National Historic Landmark in 1976. The stone commemorates the contributions of Benjamin Banneker, a son of freed slaves and self-taught mathematician, who played a key role in the survey of the original boundary of the District of Columbia. In 1996, the County Board voted to rename a portion of the existing East Falls Church Park to Benjamin Banneker Park to commemorate his contributions to the growing nation.

The 12.5-acre park features the following recreational amenities: Four Mile Run trailhead; a section of the Northern Virginia Regional Park Authority (NOVA Parks) Washington & Old Dominion Trail (W&OD); a dog park; playground; picnic facilities; a parking lot off of N. Sycamore Street and a

rectangular athletic field. Natural areas predominate the park and include Four Mile Run, forested areas, natural springs and a managed meadow, which supports a diversity of plants and wildlife. A historic boundary stone within the park attests to the rich history of Arlington from a time when the land was part of the District of Columbia.

## 2.0 Planning Background

### 2.1 Project History

The Department of Parks and Recreation's initiative to create a Framework Plan for Benjamin Banneker Park generated from a need to update aging park infrastructure, determine uses for acquired parcels along the park's northern boundary, and to improve the Four Mile Run Trail from its west trail head through the park. Over a twenty-year period, the County has strategically acquired approximately 1.8 acres along the south side of 18th Street N. to expand the park. The acquisitions were identified in the 1994 Open Space Master Plan and the 2005 Public Spaces Master Plan as potential public acquisition sites.

In 2016, the County acquired the final two properties along 18th Street N. completing the planned park expansion along the northern park boundary. The two homes, which are still standing, are planned for demolition and the properties graded and seeded as an open grass area. These additional parcels and other open areas of the park are included for consideration in the planning of the park improvements.

Funds for park improvements were designated in the FY2015 bond from the Parks Maintenance Capital Program. For the improvements to the Four Mile Run and W&OD Trails, funds were allocated from the FY2015 Trail Modernization Program.



Park aerial



## 2.2 Project Description & Goals

In the fall of 2016, the Department of Parks and Recreation (DPR) kicked-off a community engagement effort to learn about community park use and interests, their suggested improvements and feedback on additional park amenities to be considered in future phases. These efforts culminated in the development of the Benjamin Banneker Park Framework Plan presented within this report.

The Benjamin Banneker Park Framework Plan is a consolidated concept illustrating both funded near term park improvements, which will be designed and constructed in 2017–2019, and for possible new park elements. Funding for new Framework Plan elements may be identified in future CIPs. The resulting plan provides the long term vision for the park.

### **Capital Improvement Plan (CIP)**

*This plan identifies the capital needs of the community over a ten-year period. This plan not only identifies the immediate needs but also seeks to capture longer-term capital needs.*

### **Resource Protection Areas**

*Extremely sensitive areas within 100 feet of a stream, river or water body. In an effort to protect and improve the quality of these waterways, sensitive areas along streams throughout Arlington have been designated as Resource Protection Areas:*

*<https://building.arlingtonva.us/chesapeake-bay-preservation-ordinance/>*

### **Trail Modernization Program**

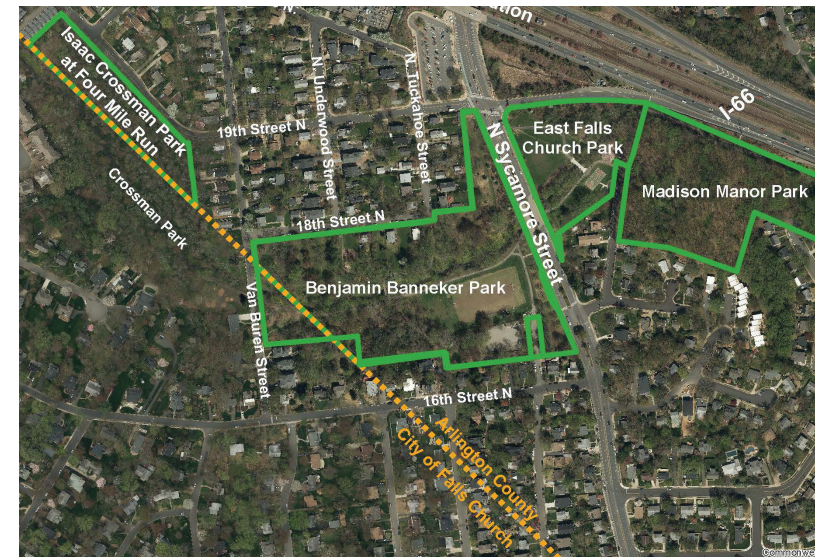
*The program focuses on replacement and major renovation of the County's off-street multi-purpose trails approaching the end of their useful life. The program covers project management, design and construction for trail replacement as well as milling and repaving, extending the life of existing trails. During trail replacement, trails will be brought up to standard including appropriate sub base, paving, shoulders, striping, drainage, signage, safety markers, and site furnishings. The program also replaces existing trail lighting.*

## 3.0 Existing Site Conditions

### 3.1 Park Context

Benjamin Banneker Park is located at the western edge of Arlington, south of the East Falls Church Metro Station and adjacent to the City of Falls Church. The western portion of the park extends beyond the County boundary into the City of Falls Church. Single family homes and residential streets abut the park boundary.

- East of Benjamin Banneker Park is the 2-acre East Falls Church Park. These two parks are connected by Four Mile Run Trail/ W&OD Trail which runs under the Sycamore Street underpass. East Falls Church Park is primarily a grassy open space with a lighted basketball court.
- West of Benjamin Banneker Park, entering the City of Falls Church, is the 7-acre, Isaac Crossman Park. This park features a playground, grill, park benches and picnic tables.



Benjamin Banneker Park context



View of Four Mile Run stream

## 3.2 Site Analysis – Ecological Amenities

### 3.2.1 Topography

The majority of Benjamin Banneker Park is relatively flat with a gently sloping incline towards 18th Street. A significant steep slope transitions west into the park from North Sycamore Street. The stream bank is steep and shows signs of erosion, in particular adjacent to the multi-use trail.

### 3.2.2 Hydrology & Soils

The park is classified as an Acidic Seepage Swamp, a flooded forest, that functions as a nutrient deficient wooded wetland fed by underground saturated streams. The majority of the park is made up of loamy soils. Portions of the park are commonly inundated and retain excess moisture following storms.

### 3.2.3 Resource Sensitive Areas

Riparian and environmentally sensitive areas encompass approximately 75% of Benjamin Banneker Park. A Resource Protection Area (RPA) is established around Four Mile Run to protect the stream while both a floodplain and floodway have been established in conjunction to the RPA. Development and encroachment in the floodplain, floodway

and RPA is restricted and regulated by various ordinances: Federal Emergency Management Agency (FEMA) Floodplain Management, Chesapeake Bay Preservation Ordinance and Arlington County Floodplain Ordinance.

### 3.2.4 Vegetation

Benjamin Banneker Park is a heavily vegetated park within a Coastal Plain/Piedmont Seepage Swamp ecological group. The fragmented hardwood forest is classified as Red Maple-Blackgum Swamp Forest with red maple (*Acer rubrum*) and blackgum (*Nyssa sylvatica*) as the dominant overstory species in the park. Other lowland floodplain canopy species include: Silver maple (*Acer saccharinum*), Oaks (*Q. palustris/phellos*) and Green ash (*Fraxinus pennsylvanica*). Urban forestry assessment has identified that

**Floodplain-** is any area of land that is susceptible to being inundated by unusual and rapid accumulation of water from any source. A relatively flat or low land area adjoining a river, stream, or watercourse which is subject to partial or complete inundation or an area subject to unusual and rapid accumulation of runoff of surface waters from an source. The Floodplain Ordinance in Chapter 48 of the Arlington County Code regulates development in flood zones.

#### **Floodway**

A "Regulatory Floodway" means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height. Communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations. For streams and other watercourses where FEMA has provided Base Flood Elevations (BFEs), but no floodway has been designated, the community must review floodplain development on a case-by-case basis to ensure that increases in water surface elevations do not occur, or identify the need to adopt a floodway if adequate information is available.

-- FEMA <https://www.fema.gov/floodway>





Existing wildlife



Existing stream bank erosion

#### Significant tree:

Tree identified by staff as a tree of unusual species (hybrids, rare, out of range, etc.), or particularly large size, without being a champion tree.

#### Champion tree:

Tree measured using American Forests standards, and recognized as the largest in its species, within a specific geographic area (county, state, nation, world).

<http://www.americanforests.org/explore-forests/americas-biggest-trees/champion-trees-national-register/>

the Ash trees in the park are showing signs of decline and stress, which could be hazardous over time, due to the impact from the Emerald Ash Borer Beetle on the Green Ash tree population. Other tree species in the park are in good general health condition. Urban Forestry will be monitoring long term management strategies to address the overall health of trees in the park but in particular with the Ash trees.

Several trees within Benjamin Banneker Park are documented as trees with notable qualities and value to the urban forest from a size and species standpoint. The trees are acknowledged and recognized by staff following the American Forests standards. The park has a County Champion Black Gum (*Nyssa sylvatica*) and a Significant Tree Silver Maple (*Acer saccharinum*). A colony of Turks Cap Lily (*Lillium superbum*) has been historically documented within the forested area south centrally located amongst the seepage springs.

A large stand of invasive plant species, primarily running bamboo, is present in the south central area of the park between Four Mile Run trail and the southern park boundary.

A managed meadow occupies the northeastern most corner of the park from the W&OD Trail to the intersection of 19th Street North.



Natural footpath through managed meadow restoration

Ornamental plantings are limited to the buffer zone between the dog park and the sports field.

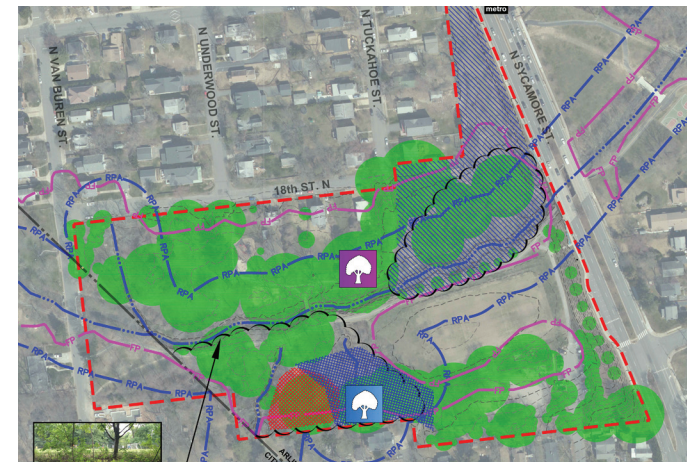
### 3.2.5 Wildlife

Benjamin Banneker Park and Four Mile Run are natural riparian corridors connecting species between infrastructure-disrupted habitats. Common species found in Arlington County can be found in the park: squirrels, rabbits and deer. The presence of the woodlands and stream in the park would infer the likely presence of salamanders. Slimy Salamanders had been historically recorded in the adjacent neighborhood of Madison Manor but believed to be extirpated in the County. A Barred Owl has been documented living in the forested area amongst the springs.

## 3.3 Site Analysis – Recreational Amenities

### 3.3.1 Athletic Field

The athletic field is a 36,000SF natural turf field (Bermuda grass) with irrigation. The field is currently designated as a “youth, permit only use field” in spring and fall (April to June and September to mid-November). Future reclassification of the field to become a “youth permit takes priority field” will be implemented. A set of spectator seating is located south of the field on the sloping grass. There is a lack of connectivity and



Natural Features Analysis site inventory



ADA access to and from the field from the parking lot and other access points within the park. A four-foot-high fence buffers the field from the trails to the north.

3.3.2 Dog Park

The dog park is a fenced in area of 23,800SF with a separate space designated for smaller dogs. The stone dust surfacing is in fairly good condition with limited erosion and grading challenges. The dog park is relatively flat with a few LED light poles and trees. The western edge of the dog park shows signs of minor inundation following heavy storms.

A large maple tree is showing signs of stress and age and needs close monitoring. The water fountain does not meet current County standards. The existing chain link fence is only partially screened which results in unwanted interaction between the dog park users and sports users. There are 2 entrances into the dog park, the primary entrance is located on the parking lot side, and the secondary at the western fence edge.

3.3.3 Multi-Use Trails

The Four Mile Run and Washington and Old Dominion Trails (W&OD) run through Benjamin Banneker Park. The Four Mile Run trailhead is located at the western edge of the Park

at N. Van Buren Street. Four Mile Run Trail is joined by the W&OD trail starting at the foot bridge continuing east towards the Sycamore Street bridge underpass. The W&OD trail crosses north over the stream, where the trail meanders to N. Tuckahoe Street. Both trails pass through tree canopy coverage, providing temperature comfort during summer and winter months. Adjacent vegetation is dense at the N. Tuckahoe Street leg of the W&OD trail. The pavement of the east-west trail alignment is asphalt and approximately 8’ wide. The W&OD towards N. Tuckahoe is also asphalt and ranges in width from 9’ to 7.5’ wide.

Sections of the existing pavement are buckling from tree root interference. The trails are heavily used by both recreational users and daily commuters, cyclists, runners, walkers among others. Signage and amenities along the trail need to be improved.

3.3.4 Playground

The existing playground is divided into two areas. The main playground structure and sand area are located north and east of the paved pedestrian path while the swings are south of the path, adjacent to the stream edge and within the floodplain and RPA. The existing play structure is dated and the configuration and equipment do not meet current County



Existing Athletic Field

**Permit Takes Priority:**  
*Must have Permit for any games, practices and organized activities. When not in use, drop-in, unstructured use for up to 10 participants, is welcome.*

**Youth Only:**  
*Use of these fields is limited to youth under the age of 14.*



Existing Dog Park



Existing Playground



Existing Multi-Use Trails





Boundary Stone SW-9

*The inscriptions on the four sides of the stone are as follows: on the west side facing Van Buren Drive "Jurisdiction of the" is all that can be read since the stone is sinking in the ground; on the north side facing a set of trees and 18th Street the date "1791" is seen; on the east side facing the interior of the park meadow area is the state name "Virginia"; on the south side the "variance" are illegible.*

Courtesy of The National Register of Historic Places Inventory Nomination Form, Lynne Gomez Graves, Historical Projects Director, Afro-American Bicentennial Corporation, February 3, 1976.

standards and national playground safety regulations. The playground area consists of a water fountain, bike rack and two benches. The playground receives excess stormwater runoff from N. Underwood Street resulting in occasional flooding and standing water throughout the area. The paths surrounding the playground are heavily traveled by both pedestrians and many bicyclists using the trail for their daily commuting needs.

### 3.3.5 Picnic Area

The existing picnic area is located in the northwest corner of the park nestled beneath canopy shade trees within a flat open lawn area. The picnic area features include fixed grills, benches, moveable picnic tables and a horseshoe court. The area is bordered by N Van Buren Street to the west and a vegetated branch buffer to the east, visually and physically separating it from the majority of the park. The area is located within the RPA and floodplain.

### 3.3.6 Open Lawn Areas

The park area north of Four Mile Run functions primarily as a casual use space. Besides the playground, the majority of the northern parcels are lawn and canopy tree spaces. Portions of the open space and lawn are within the RPA and frequently result in soggy wet soils due to the hydrology of the site in a floodplain.



Existing open lawn areas. Maintenance storage in former pump house building beyond

### 3.3.7 Furnishings

Site furnishings, including signage, maps, seating, markers and other furnishings, are intermittent and scarce throughout the park. Existing furnishings are isolated to facility use zones, for example 1-2 benches are located at the playground but not within trail or paved pedestrian path circulation. Lighting is limited to the parking lot/field edge, the dog park, and several low wattage lights along the Four Mile Run trail. Split rail fence is intermittent along the northeast corner around the Boundary Stone and the picnic area leading to the playground and adjacent to one edge of the playground.

## 3.4 Site Analysis – Architectural Elements

The building structures in the park are limited to an existing former pump house along N. 18th Street. It is used as a storage facility for DPR maintenance and will continue to be used for maintenance purposes. There is also a stairway that leads into the park from N. Sycamore Street. The stair risers and handrails do not meet current building code.

## 3.5 Site Analysis - Historic Elements

### 3.5.1 Historic Boundary Stone

The Benjamin Banneker SW-9 Intermediate Boundary Stone of the District of Columbia is located in the northwest corner of the park inside the picnic area. The stone is enclosed within an iron fence, approximately four and one-half feet high, and it stands 15 inches above the ground and is made of sandstone.

The boundary stone is one of 40 stone monuments placed along the original boundary to delineate the District of Columbia from Maryland and Virginia. It was designated as a National Historic Landmark in 1976 and accordingly listed on the National Register of Historic Places. The boundary stone designation honors Benjamin Banneker who served as a scientific assistant under the leadership of Major Andrew Ellicott to survey the site chosen for the new Federal City. He used his skills to make the astronomical observations and calculations necessary to establish the first monument at Jones Point Park in Alexandria, Virginia. Benjamin Banneker is recognized for his work as a farmer, surveyor, inventor, astronomer and writer as well as other vocations throughout his lifetime.

## 3.6 Site Analysis – Circulation and Access

### 3.6.1 Surrounding Street Network

The close proximity of Benjamin Banneker Park and the surrounding neighborhood to the East Falls Church Metrorail Station, Interstate 66, several arterial streets, Four Mile Run Trail and the W&OD Trail area are important transportation linkages that connect the community to the region through various modes of transportation such as walking, biking and driving. The neighborhood streets, lined with single family homes, have multiple modes of traffic competing for the same space resulting in conflicts between pedestrians, vehicles and bicyclists.

Neighborhood streets approaching the park entrances have irregular sidewalk sections along them and there are no traffic calming features for pedestrians walking to the park. In particular the park entrances on 16th Street N. and 18th Street N. are not connected to sidewalks while there are no existing sidewalks on 18th Street N. itself.

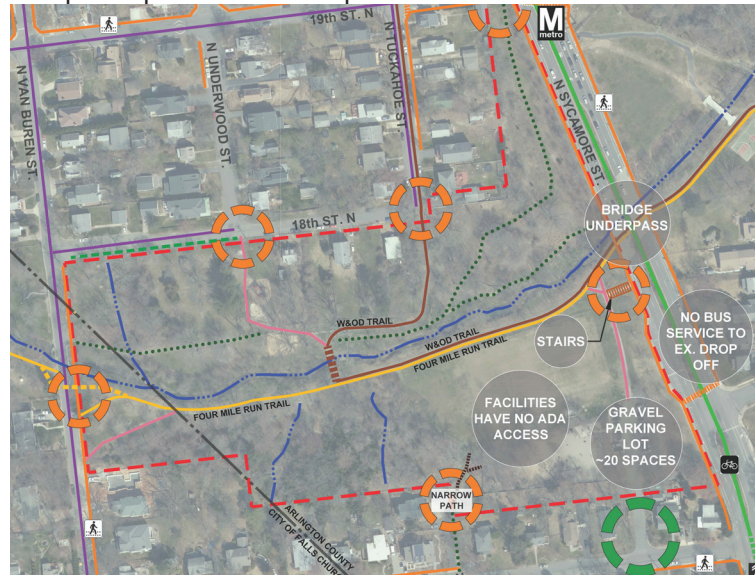
Along the west side of N. Sycamore Street/N. Roosevelt St. there is a bus drop off area adjacent to the park within 50 feet of the stairs into the park.

### 3.6.2 Park Entrances

Visitors may access the park by walking, biking and driving (See Circulation Map).

*Pedestrian Entrances*— There are six pedestrian access points dispersed along all sides of the park. These access points are both official entrances with asphalt trails or unofficial footpaths.

A stairway from N. Sycamore Street provides an entrance into the park and a connection to the network of trails and paved paths within the park.



Circulation and Access site inventory map



Park entrance at 18th from N. Underwood Street, playground beyond



Stairs into park from N. Sycamore St.





Four Mile Run trail



Paved paths from bridge towards 18th St N



Parking lot edge conditions

***Bicyclist Entrances*** – Four designated access points into the park include Four Mile Run Trail on the west boundary, the W&OD Trail on the north boundary, the Sycamore Street underpass on the east boundary, and the park driveway on the south boundary.

***Vehicular Entrances*** – The parking lot is accessed from 16th Street N. for onsite parking. The parking lot is adjacent to the dog park and the sports field. There is limited street parking along the south side of 18th Street N. and along N. Van Buren Street.

### 3.6.3 Internal Circulation - Paths & Trails

Four Mile Run Trail - the trailhead of Four Mile Run Trail begins at N. Van Buren Street and runs east to west through the park. It is the main stem for internal park circulation and is connected to the W&OD Trail and paved paths. This trail is heavily used by bicyclists, runners and pedestrians. A pinch point occurs for trail users at the bridge crossing over Four Mile Run stream where the W&OD Trail intersects with Four Mile Run Trail.

W&OD Trail – a segment of the W&OD trail is routed through the park from N. Tuckahoe Street and 18th Street N. The entrance of this trail segment begins at the end of N. Tuckahoe Street and is not easily visible due to overgrown vegetation. People traveling the W&OD Trail may inadvertently use the path which connects 18th Street N. with a bridge over Four Mile Run or travel on N. Van Buren Street to Four Mile



Walkway entrance from 16th Street adjacent to dog park

Run Trail from N. Van Buren Street. The lack of clear signage and delineation between the multi-use trails and paths contributes to conflicts between people using the park facilities versus people commuting through the park.

**Paved Paths** - An internal system of paved paths connect with Four Mile Run and W&OD Trails. They provide connections to park facilities. N. Underwood Street visually continues into the park as a paved path after crossing 18th Street N. This path connection is a frequent point of conflict between bicyclists and children at the playground due to its proximity and where children are walking and playing.

**Four Mile Run Bridge** – there is one bridge crossing over Four Mile Run which connects the north and south areas of the park. The W&OD Trail is routed onto the bridge where the trail begins its connection with Four Mile Run Trail towards the east.

**Footpaths** – pedestrians have created a network of worn paths through the park. The predominant footpaths in the park include a footpath from the intersection of 19th Street N. and N. Sycamore Street intersection, indicating a desire line for commuters between the neighborhood and the Metro Station, and a footpath connection from N. Van Buren Street provides an east/west connection and connects with a paved path.

### 3.6.4 Parking Lot

The parking lot, off of 16th Street N., has the capacity for approximately 21 vehicles. Its surface consists of an asphalt drive aisle and loose, unlined gravel surface for the parking bay spaces. It does not meet ADA standards nor have a designated accessible space. There is sidewalk along the fence at the front of the dog park but it does not continue around the perimeter of the parking lot.

## 4.0 Community Engagement

The Department of Parks and Recreation (DPR) led the community engagement process for developing the park framework plan. A key goal for the public outreach plan was to encourage robust participation in the planning process and to seek input from a broad group of park users. Project notifications were sent to the local civic associations, stakeholder groups, advisory groups, NOVA Parks, and City of Falls Church Park and Recreation Department and notices were distributed through County media. Stakeholders were given a number of public feedback opportunities through multiple public meetings, online feedback forms and presentations to multiple advisory groups. (See Benjamin Banneker Park Planning/Renovations Project Timeline below).

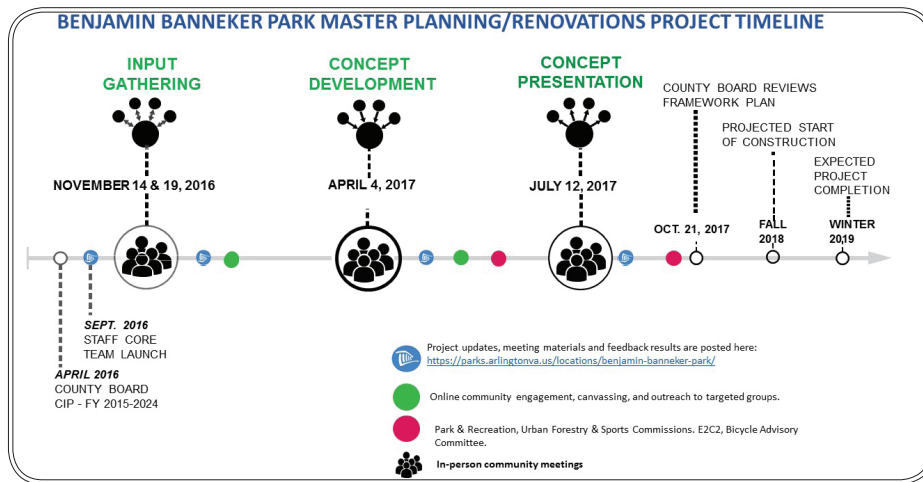
The public outreach process evolved from input gathering to concept development and concluded with a staff presentation of the final concept at an open house. Community meetings and online feedback opportunities were crucial for staff to provide information about the existing park, to inform the community about the project and to solicit their ideas about potential improvements for the park.

## 4.1 Community Process

Community engagement events began with a public meeting, park tour and an online questionnaire. The intent of these public forums was to present existing park conditions, determine how the community uses the park, hear their concerns, and to gather ideas for park improvements. A second round of civic engagement events, a concept development meeting and an online questionnaire, focused on presentation of preliminary concept schemes to the community to gather participant input on proposed improvements for both capital improvements and future phases.

Additionally, DPR gathered input from stakeholders and multiple advisory groups (Park and Recreation Commission, Urban Forestry Commission, Bicycle Advisory Committee, Sports Commission and the Environmental and Energy Conservation Commission) for the preliminary concepts. The extensive comments gathered were used to guide the development of a consolidated design for the framework plan.

At an open house the Benjamin Banneker Park Framework Plan was presented to the community along with general improvements and recommendations for future



Public engagement Planning and Renovation timeline



Meeting #1 site tour

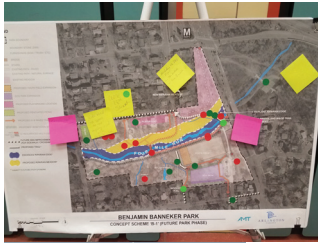


Meeting #2 presentation



Meeting #2 presentation





Meeting #2 dot exercise

studies. Additionally, public input from the previous meeting and the online questionnaire were presented with details on how public input influenced the development of the framework plan.

## 4.2 Summary of Community Input

### Parking Lot

The community expressed a desire for overall improvements to vehicle and pedestrian circulation in and

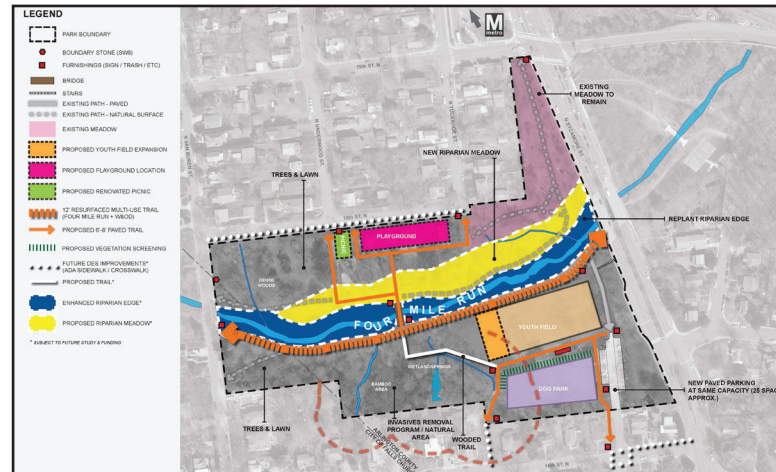
around the parking lot. Concerns cited were: safety and a lack of signage for traffic and wayfinding.

### Multi-use Trail

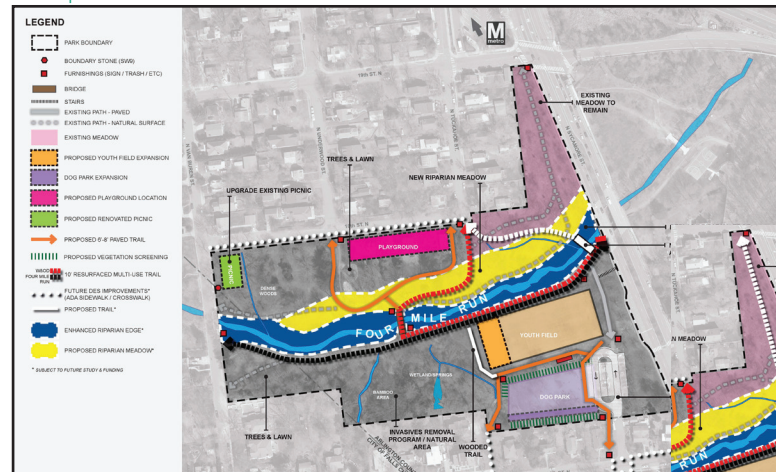
The community acknowledged that their highest concern was user safety on the existing trails due to limited trail width, and the intensity of use from W&OD traffic. However, a few individual comments expressed concerns regarding the impact on natural resources due to potential trail widening modifications. Overall, the community would prefer to have the W&OD trail connected directly to the Metro and away from the neighborhood streets. They expressed interest in the addition of trail amenities such as seating, trash and recycling receptacles, directional signage, water fountains, etc. and enhancement of existing trail lighting.

### Playground

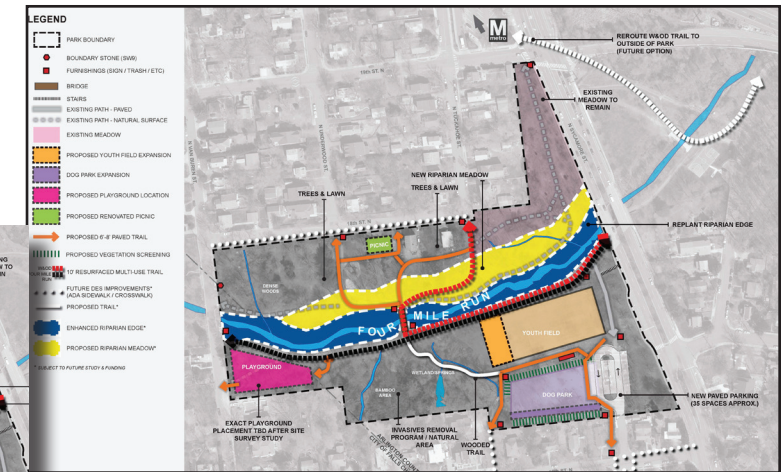
Playground users stated that they would like the playground to have a blend of natural elements with traditional out of the box materials and ideas which would complement the natural park setting. Feedback highlighted adding basic features such as benches and tables and providing shade with structures or trees. There was interest in having features that



Concept Scheme A



Concept Scheme B1-B2 (W&OD alignment)



Concept Scheme C



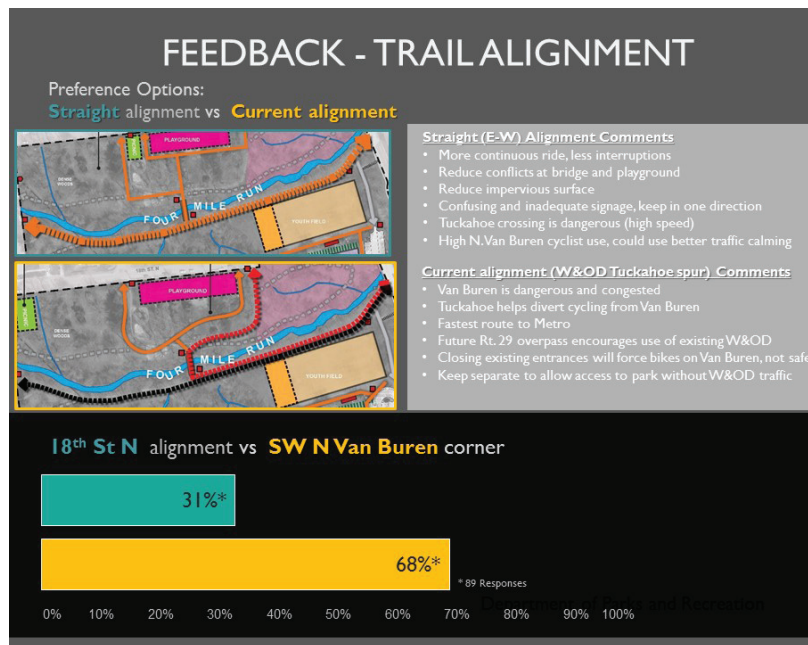


## Dog Park & Athletic Field

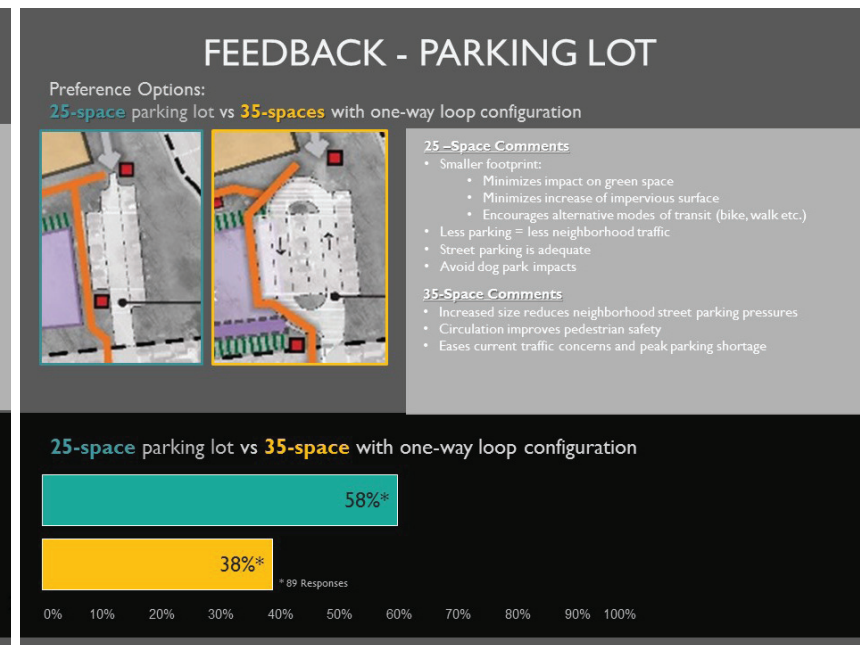
Both recreational amenities did not require feedback on proposed spatial improvements.

### Future Uses Pedestrian and Trail Access:

Public feedback favored the placement of the W&OD trail outside of the park. This placement was viewed as a significant improvement that would address the high traffic challenges of the current trail within the park and reduce conflicts and speed concerns with passive users. External transportation challenges around and leading into the entire park were also seen as critical future improvements, primarily with connections into the park with Sycamore and 16th street entrance improvements being of greatest interest and need. The 18th St North parking/sidewalk and curb configurations was a close second.



Meeting #2 public feedback summary



Meeting #2 public feedback summary





Existing entrance, dog park, parking lot and paved path



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## 5.0 Framework Plan

### 5.1 Planning and Design Context for Near Term Improvements and Future Park Projects

The presence of significant environmental designations, including an RPA, floodway and floodplain limit the types of and extent of development within the park. Any new built development within the floodway that impacts elevations is subject to approval, by FEMA in conjunction with Arlington County DES. Structures and development in the floodplain are also subject to ordinance and zoning considerations.

These environmental flood limitations, in addition to the program requirements, are critical and strongly inform the types of and placement of park amenities. The scheme concepts reflect general site conditions plus spatial and design possibilities within the confines of these limitations.

The immediate near term park improvements are currently funded in the FY2015 budget and the future projects will need to be identified in future CIP's.



Stormwater Zones- Floodway, Floodplain and RPA

### 5.2 Preferred Scheme Development

Built upon site analyses and preliminary feedback from the public, the County staff and consultants developed multiple concept schemes that lead to an overall framework plan for Benjamin Banneker Park. Each concept scheme explored ways to improve vehicular, pedestrian and bicycling access within and around the park, improvements needed to meet the regulations under the Americans with Disabilities Act (ADA) and other circulation improvements. Each concept addressed potential improvements to the conditions of the multi-use trails to safely accommodate a variety of users, by increasing the trail width while taking into consideration adjacent stream edge conditions and other environmentally sensitive areas.

Site furnishings (trash, seating, wayfinding and traffic/circulation signage, kiosk, fountains etc.) are required as an integral upgrade under the capital improvements scope of the project and implied for each of the concepts. Site appropriate landscape vegetation is also a component of the site improvements.

The Framework Plan incorporates favored design elements of each of the various concept schemes. The Framework plan has a phased implementation approach: Near term improvement implementation reflects near term improvements already funded in CIP, and future phases reflect potential later improvements that will be dependent upon future studies, funding, and County Board approval.



An aerial map of the Four Mile Run park area in Columbia, Missouri. The map shows the river flowing through the center, with various colored zones and labels indicating planned improvements and existing features.

**Key Features and Labels:**

- Streets:** 19th ST. N, 18th ST. N, 16th ST. N, N UNDERWOOD ST., N TUCKAHOE ST., N SYCAMORE ST., N VAN BUREN ST.
- Proposed Riparian Meadow:** A large pink area along the riverbank.
- Enhanced Riparian Edge:** A blue area along the riverbank.
- Playground + Shelter:** A yellow area near the center.
- Playground:** A pink area near the center.
- Youth Field:** An orange area near the bottom right.
- Dog Park:** A purple area near the bottom right.
- Wetland/Springs:** A blue area near the bottom center.
- Bamboo Area:** A green area near the bottom center.
- Invasives Removal Program / Natural Area:** A green area near the bottom center.
- Pedestrian Path:** A white line near the bottom center.
- Boardwalk Section:** A white line near the bottom center.
- Sw-9 Intermediate Boundary Stone of the District of Columbia:** A line near the bottom left.
- City of Falls Church:** A line near the bottom left.
- Arrested Stormwater:** A label near the top right.
- Re-route W&OD Trail to Outside of Park:** A red dashed line near the top right.
- Existing W&OD Trail to Remain Until Phased Relocation is Complete:** A red dashed line near the top right.
- Existing Meadow to Remain:** A label near the top right.
- Trees & Lawn Areas to Remain:** A label near the top left.
- Upgraded Existing Picnic Facilities:** A label near the top left.
- Picnic:** A green area near the top left.
- Dense Woods:** A label near the top left.
- Trees & Lawn:** A label near the bottom left.
- New Paved Parking (Approx. 25 Spaces Including ADA):** A label near the bottom right.



## 5.3 Elements of the Framework Plan

The framework plan overall creates a cohesive user experience through Benjamin Banneker Park. The plan responds to improved access and connectivity to the various park amenities while creating opportunities for increased exploration and relaxation and general education of the park.

## 5.4 Near Term Park Improvements (Funded in FY2015)

### **Parking Lot**

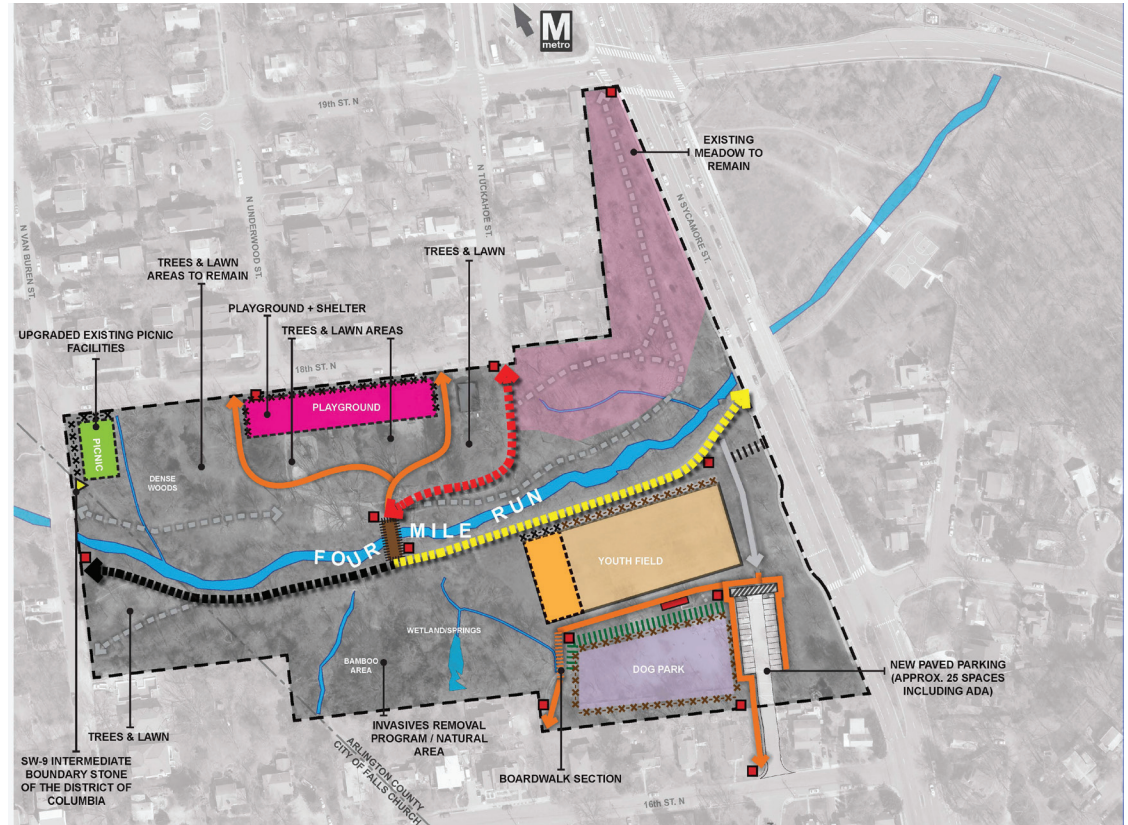
The preferred parking lot entrance design, approximately 25-spaces, articulates a defined configuration with aisle striping, an accessible parking space and access aisle, and hammerhead turnaround zone at the end of the drive. The travel lanes width has been narrowed to 11' each direction, decreasing the overall parking lot area from 9,600SF to roughly 8,500SF +/- . New sidewalks around the parking lot perimeter allow for safe access and connectivity for pedestrians and bicyclists. Stormwater management considerations will determine the surface material for the parking lot.

### **Dog Park**

The dog park configuration remains the same in the framework plan, with no increase or decrease to the overall size. Improvements remain internal to materials (fencing, vegetation), furnishing (seating, kiosk, fountains, gates) and surface updates (grading).

### **Athletic Field**

The athletic field expands west up to a total of 6,000 SF, where there is currently existing irrigation, to encourage rotating play areas periodically to help minimize turf degradation. The turf will be assessed to determine if re-sodding (Bermuda grass) is necessary. Improvements also include upgrading the irrigation controller box and providing new accessible seating areas.



Framework Plan Near Term Improvements

### **Playground**

The framework plan introduces a linear playground zone parallel to 18th street N and central to the park north of Four Mile Run. The playground will meet current Playground Safety and Arlington County regulations and standards. The playground includes new play equipment, separated into age appropriate play zones, for ages 2-5 and ages 5-12. The age separation provides varied experience for users of different abilities. Playground improvements will address drainage in and around the play area. A small overhead shade structure will be incorporated within or adjacent to the playground and include tables and seating.



### ***Multi-Use Trails***

Figure 1 consists of two diagrams: a plan view (top) and a section view (bottom). The plan view shows a dog park layout with a 'bleachers' area, a '3% SWALE SLOPE', and a 'dog park fence'. A red arrow indicates a 'NOTICE' area. The section view shows a cross-section of the dog park with a 'DOG PARK FENCE', a 'FLOODPLAIN ELEVATION', and a '1.50' depth. The plan view also includes a '3% SWALE SLOPE' and a 'dog park fence'.

## NJAMIN BANNEKER PARK

### **General Park Circulation**

## Framework Plan internal circulation routes

## Casual Use Spaces

Areas within the park, primarily north of the stream, will remain as casual use spaces with canopy trees. The casual use spaces will continue to be areas of free, exploratory play and recreational respite uses. Arlington Urban Forestry standards will be consulted and followed in tree management of the site.

## Park Signage and Furnishings

A series of furnishings are planned for the improvements within the park. Seating, trash and recycling receptacles, water stations, signage (park entrance and wayfinding, historical, ecological educational elements) and kiosk will be located within recreational areas as well as along

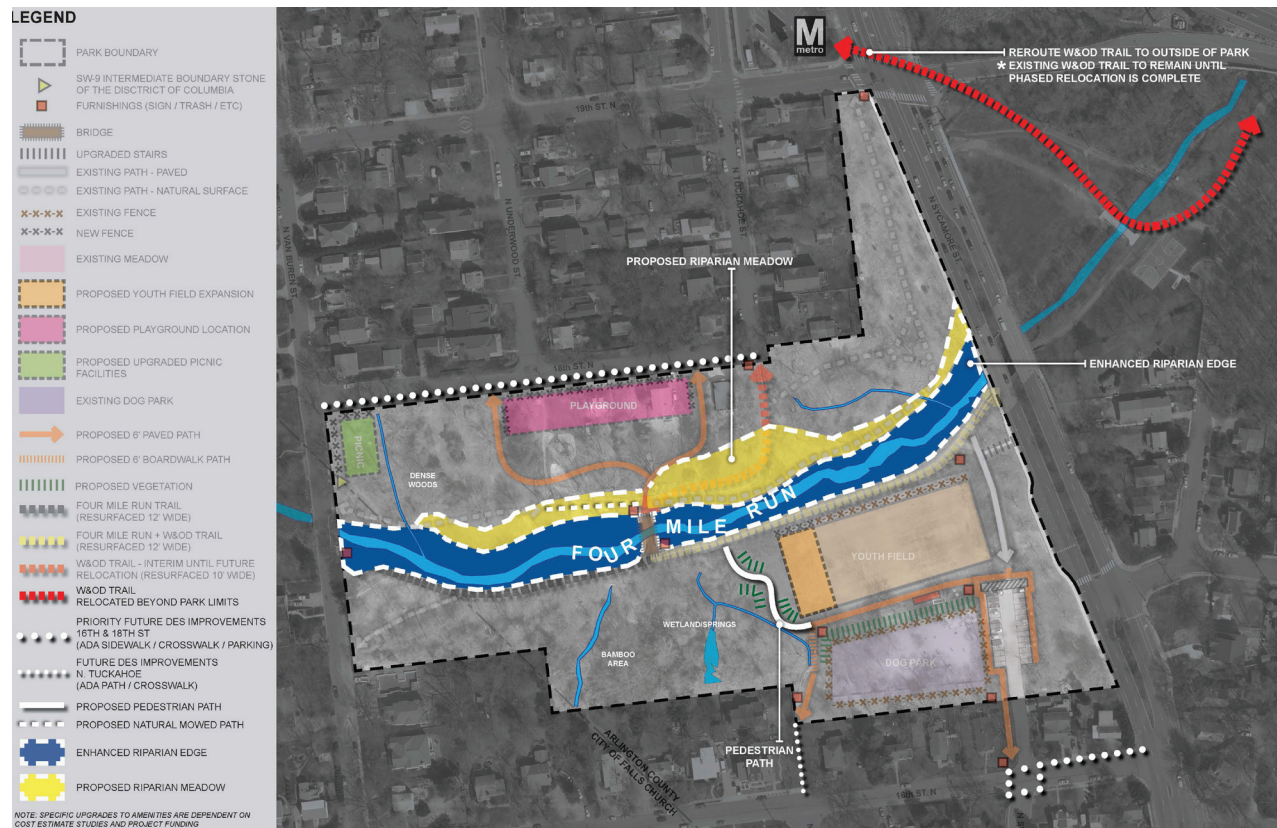
pedestrian paths. Signage along the multi-use trails will be focused on travel and directional orientation for users to ensure safer usage.

## Invasive Plant Management Program

Benjamin Banneker Park is currently identified as a Remove Invasive Plant (RiP) location under the Invasive Plant Program. Clearing and eradication of the bamboo stand to the south will be occurring as part of the overall invasive species removal in the park.

## Other Improvements:

Additional improvements to take place within the Near Term Improvements, all subject to available funding, include:



Framework Plan- Future Phases Park Improvements



a permanent enclosure for the portable toilet near the sports field and parking lot. Additional upgrades, per building codes, include the replacement of the stairs from Sycamore Street into the park and the existing foot bridge railing.

## 5.5 Future Phases Park Improvements – Recommendations

### ***Vegetation Improvements***

Vegetation clearing and replanting is envisioned in the upper flat areas of the floodplain and the stream bank, to establish a functioning sunny wet meadow plant community to stabilize the plantable areas of the RPA. Within the RPA vegetation of shrubs, perennials, grasses, and bulbs will demonstrate regional native species selection tolerant and responsive to the wet to dry conditions within the existing mature shade tree canopy.

Extensive riparian planting using native grasses, rushes and sedges along the sloped stream edge is proposed to encourage stabilization and habitat restoration to the current conditions of the stream as a result of erosion.

### ***Internal Trail Connection***

An additional path from 16th Street N. is envisioned to connect to the multi-use trails, from behind the dog park. This trail will slightly meander between the woodland edge of the forest, downhill from the expanded sports field.

### ***Interpretive Signage***

Add interpretive signage to highlight plant communities, notable species and habitats, riparian zones and conditions to expand the educational learning opportunities within the park.

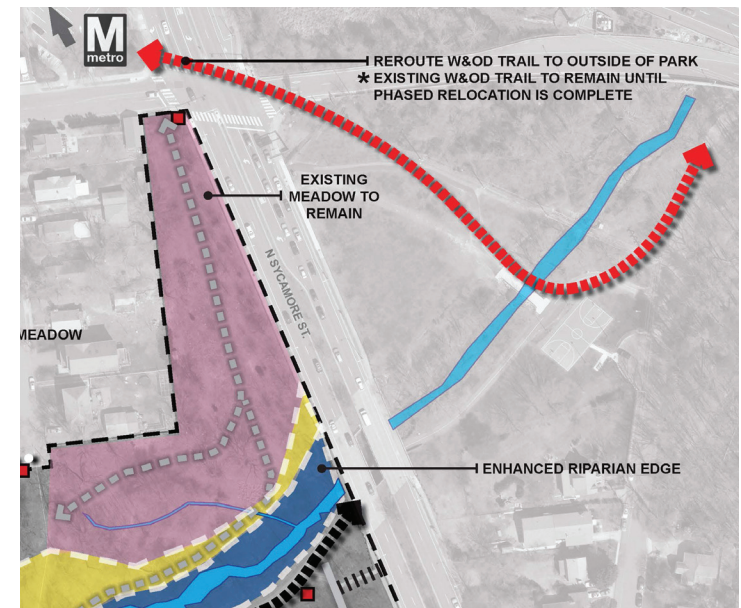
### ***Realignment of the W&OD Trail***

Community input indicated that the stakeholders would prefer to have the W&OD Trail moved east outside Benjamin

Banneker Park. Many community members added the caveat that they would only support this option if there was a safe, grade separated crossing at the intersection of N. Sycamore Street, 19th Street and the I-66 ramp.

Two other proposed realignment concept alternatives presented to the community would keep the trail within the park but would align it directly to Four Mile Run. A new bridge, engineered to meet standards for structures within floodways, would be required to connect the trail with Four Mile Run Trail on the south side of the stream and would be subject to approvals by the County and FEMA.

A feasibility study should be conducted to assess potential alignments for the W&OD Trail. This study should be coordinated in the future between Arlington County and NOVA Parks.



Preferred future alignment of the W&OD trail

### ***Improve Street Connections to Park***

Based on public input about park access concerns, DPR asked the community to rank three access points outside the park boundary where they believed the improvements were most critical. The input from the rankings was intended to inform prioritization of future street improvement projects at park access points.

The rankings were almost even between community desire for street improvements at 16th Street N. and 18th Street N. to make the streets safer for park access through new sidewalks and parking access on 18th Street N. Improvements to the access trail from 16th Street N. to existing trail inside the park was ranked as the least critical in need of improvements.

### ***Expand Parking***

The community shared their concerns regarding safety and congestion due to the capacity of the current parking lot and the lack of space for vehicles to turn around when the parking lot was full. The parking lot improvements planned in the near term improvements will add sidewalks and a turnaround area for vehicles providing relief for these issues. However, the County should consider opportunities to acquire additional parkland to expand parking in the future.

## 5.6 Conclusion

The framework plan for Benjamin Banneker Park represents an overall future vision of the park in conjunction to upgrading existing amenities in need of renovation and improvements. The newly acquired parkland along 18th Street N. will include the relocated and upgraded playground and will be enhanced as a natural area.

Sustainable and high quality design demonstrate Arlington County's commitment to create meaningful parks for communities while responding to a sites environmental sensitivities and characteristics. The framework plan will achieve a balance of casual use and recreational areas within the park while paying homage to the park's namesake, Benjamin Banneker, through historical interpretation.

Materials and furnishings along the multi-use trail system will begin the dialogue for future trail improvement standards in the County. General park materials, vegetation and furnishings will reflect the natural and physical characteristics of the parks and the park uses.



View into park from N. Sycamore Street





Illustrative Rendering- Framework Plan

## 6.0 Design Guidelines

Benjamin Banneker Park will incorporate contemporary site sensitive design aesthetics that adhere to aesthetic standards within Arlington County Parks. Cohesive furnishings and materials will create a sense of unity throughout the park and highlight park characteristics and significant features, including but not limited to site history, unique habitats, general wayfinding and more.

Design elements will follow various standards, codes and green infrastructure solutions necessary for specific features for the multi-use trail updates, stormwater management, access and seating, functional planting, playground design and more. Design elements will be chosen with the intention of creating a unified park and to guide future aesthetics and goals within the site.



## Dog Park

Improvements to the dog park include regrading and leveling of the existing surface. Surface exploration will include the option of a turf area separated by site furnishings (seating, boulders etc.) from the crushed stone park. Additional materials will explore structural interest pieces for all forms of exploration and use. Integrating trees along edges, and potentially within, of the park will provide shade and create a comfort for dog park users. Improved fence material and gate/lock systems will enhance the overall experience from a safety perspective.

Trees in Park



Vertical structures



Upgrade existing stone dust



Turf and Structures



Chain-link with screening



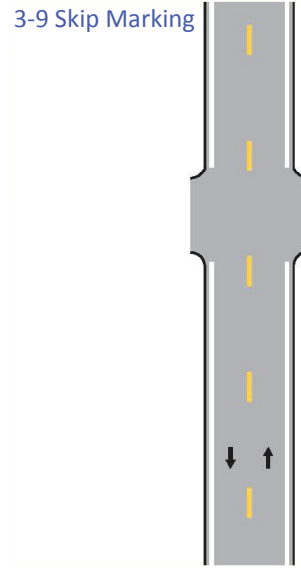
## Multi-Use Trail

The multi-use trails will be updated to allow for improved circulation and user experience within and through the park. Trail-friendly amenities will create new opportunities along the trails and increase user awareness and destination wayfinding. Improvements will result in improved comfort and places for safe passing for all users on the trail. Sustainable lighting solutions will be explored for areas of the trails.

Directional markings



3-9 Skip Marking



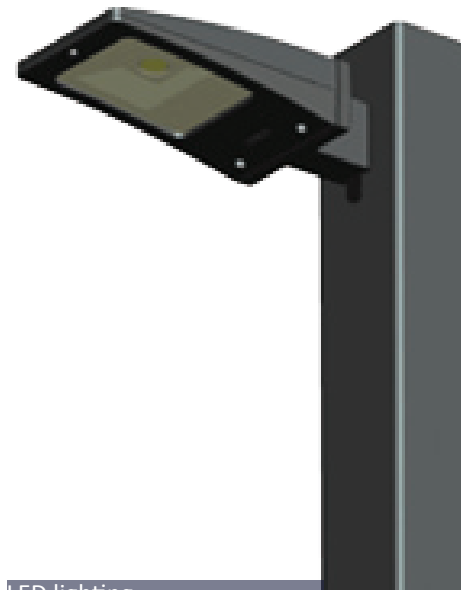
In-grade solar lights



Seating



Decomposed granite overflow



LED lighting



## Playground

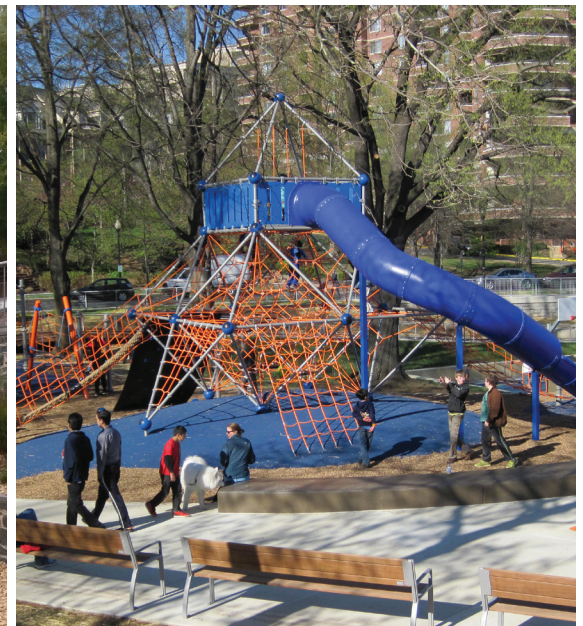
The playground will blend a variety of experiences for the user, ages 2-12 in addition to opportunities for the older child. Play elements will be explored to include a combination of nature-inspired structures in addition to modern, challenging elements. Previous play experiences will be integrated within the design: swings, slides, climbing and digging. Historical attributes of the park's namesake, Benjamin Banneker, may be explored as part of the experience of the playground in addition to ecological characteristics of the park.



Nature-inspired play



Re-envisioned traditional play/Climbers/Slides





## Athletic Field

Amenity improvements to the sports field will include improved and accessible viewing seating areas connected to the greater park circulation. Fencing will remain or adjust location to create a safe play zone from other recreational activities.



Viewing seating



## Parking Lot

The revised parking lot will explore means to include vegetated zones around and within the parking lot as well as explore surface material that effectively supports storm water management best practices. Engineering and Hydrology calculations will determine the appropriateness of SWM materials.



Pervious paving and striping



Vegetated parking pockets



## Site Furnishing

Site furnishings, including benches, bike racks, signage and others will enhance the aesthetics of the park and user experience within the park. Furnishing materials will meet Arlington County park standards in materials that exhibit high durability and require less maintenance. Furnishings proposed will meet the overall aesthetics of the park while providing functional qualities currently missing. Fencing and handrails will be designed for improved safety for access to the amenities within the park. Furnishings will also provide wayfinding opportunities within the park.



Seating



Receptacles



Kiosk/Information Center



Historical signage/Interpretation



Signage



# Site Furnishings



Fountain/Bottle filler



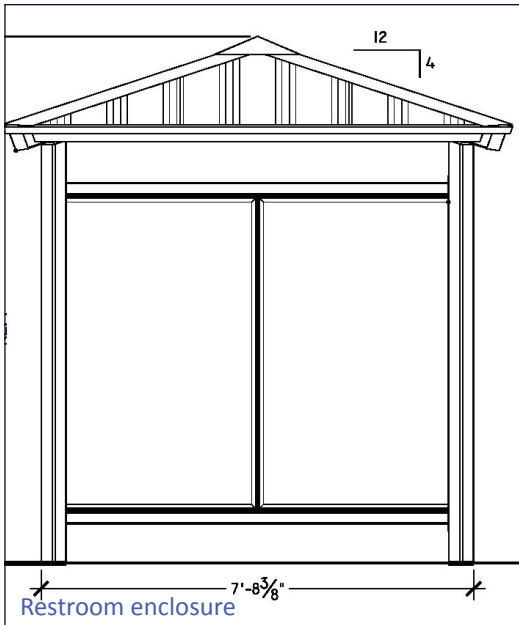
Bike repair



Bike Rack



Shelter/Pavilion



Restroom enclosure

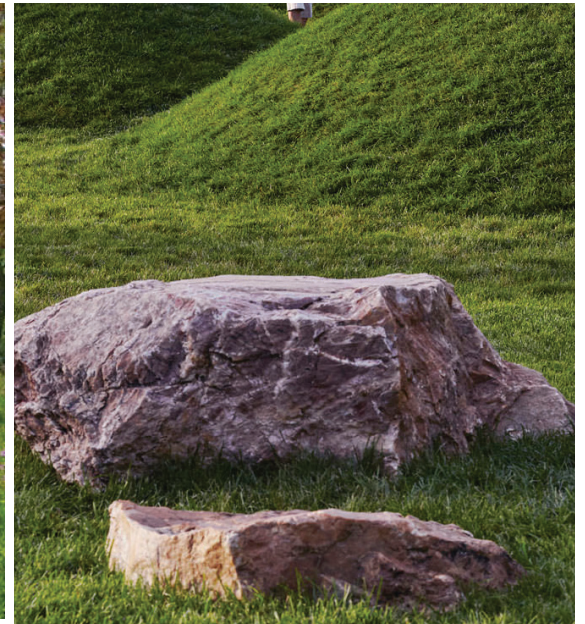


Habitat Signage

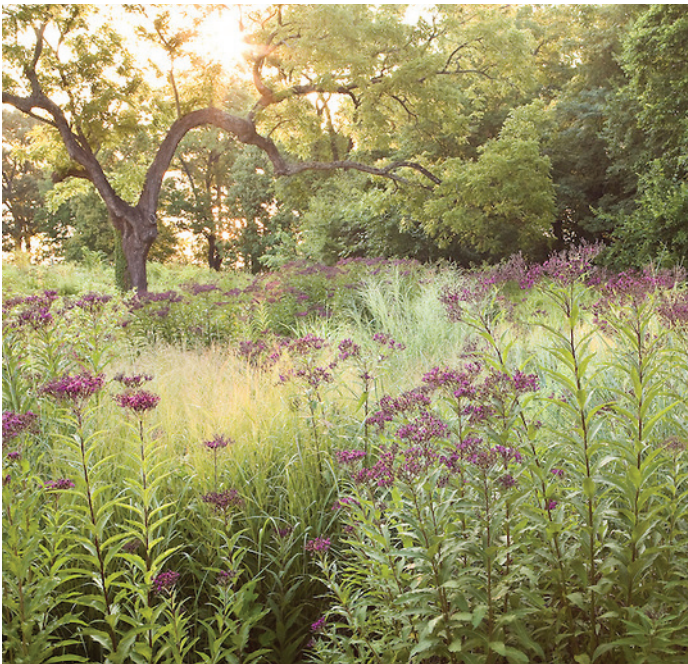
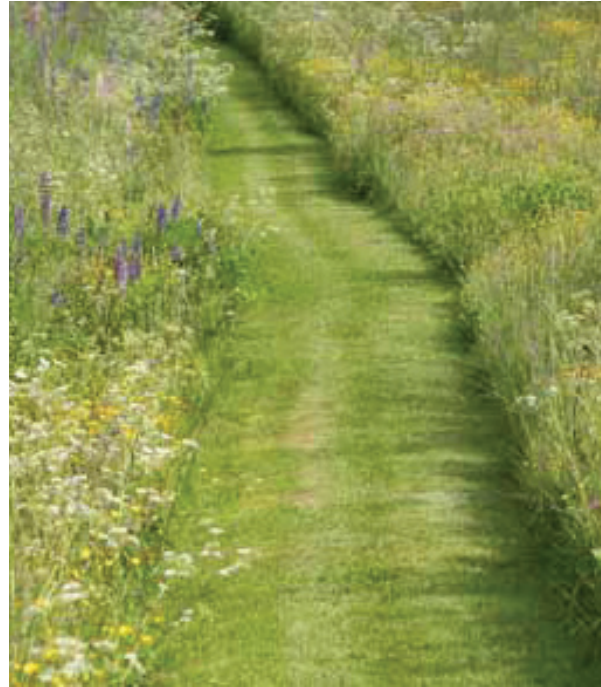


## Vegetation

Site vegetation will explore plant typologies that reflect the nature of the park in addition to its ecological characteristics. Vegetation and plantings will focus on locally native plants that have evolved with the wildlife to be adapted to the conditions. Non-invasive plantings may be used where otherwise needed for other purposes. Planting typologies will explore sustainable solutions to restore and create an educational and interactive landscape park.











BENJAMIN BANNEKER PARK

# Appendices

## List of Appendices

Appendix A- Framework Plans

A1- Framework Plan - Overall

A2- Framework Plan Near Term Improvements

A3- Framework Plan Future Phases

A4- Framework Plan - Stormwater Overlay

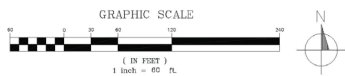
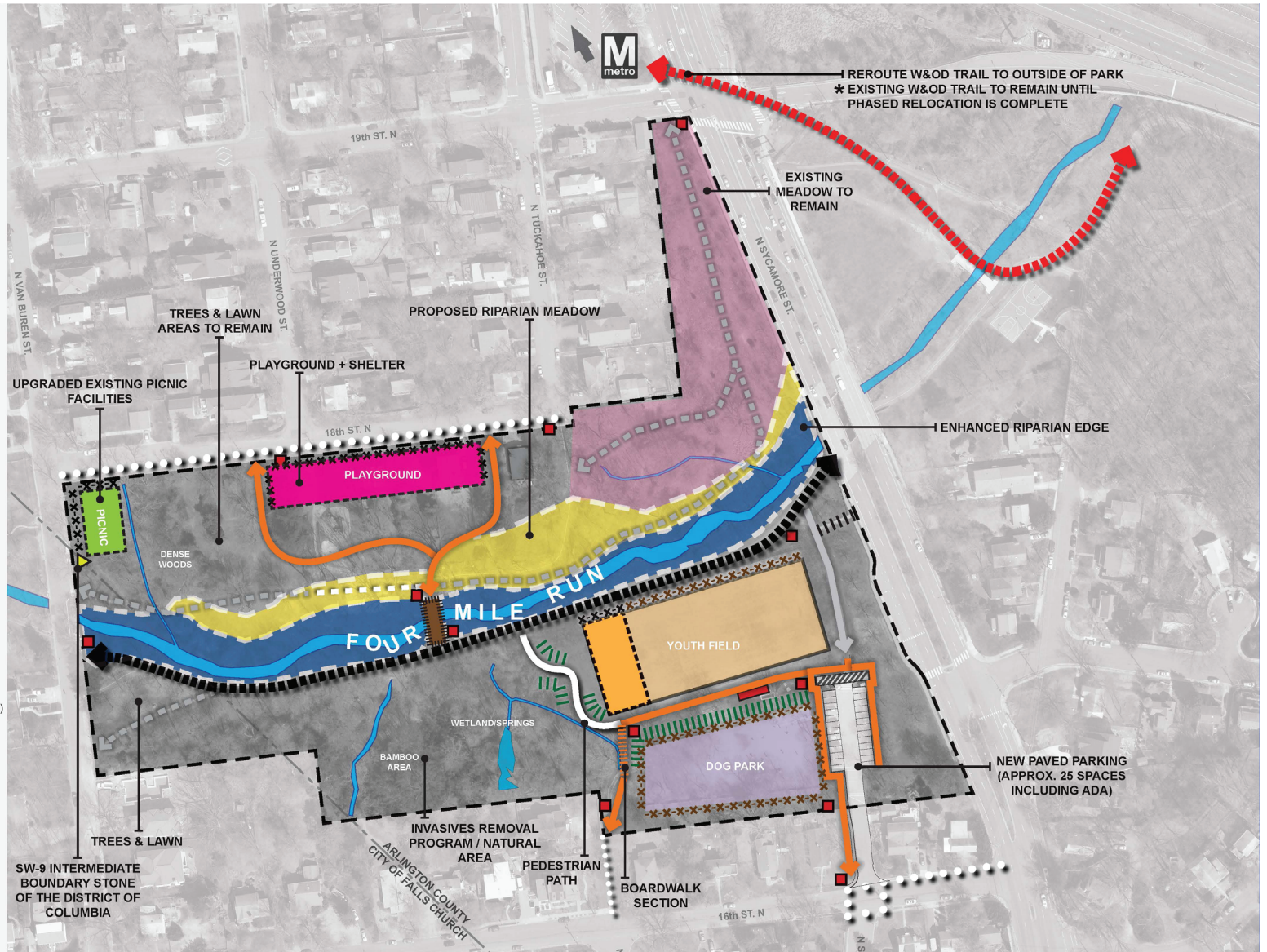


# Framework Plan - Overall

## LEGEND

-  PARK BOUNDARY
-  SW-9 INTERMEDIATE BOUNDARY STONE OF THE DISTRICT OF COLUMBIA
-  FURNISHINGS (SIGN / TRASH / ETC)
-  BRIDGE
-  UPGRADED STAIRS
-  EXISTING PATH - PAVED
-  EXISTING PATH - NATURAL SURFACE
-  EXISTING FENCE
-  NEW FENCE
-  EXISTING MEADOW
-  PROPOSED YOUTH FIELD EXPANSION
-  PROPOSED PLAYGROUND LOCATION
-  PROPOSED UPGRADED PICNIC FACILITIES
-  EXISTING DOG PARK
-  PROPOSED 6' PAVED PATH
-  PROPOSED 6' BOARDWALK PATH
-  PROPOSED VEGETATION
-  FOUR MILE RUN TRAIL (RESURFACED 12' WIDE)
-  W&OD TRAIL RELOCATED BEYOND PARK LIMITS
-  PRIORITY FUTURE DES IMPROVEMENTS 16TH & 18TH ST (ADA SIDEWALK / CROSSWALK / PARKING)
-  FUTURE DES IMPROVEMENTS N. TUCKAHOE (ADA PATH / CROSSWALK)
-  PROPOSED PEDESTRIAN PATH
-  PROPOSED NATURAL MOWED PATH
-  ENHANCED RIPARIAN EDGE
-  PROPOSED RIPARIAN MEADOW

NOTE: SPECIFIC UPGRADES TO AMENITIES ARE DEPENDENT ON COST ESTIMATE STUDIES AND PROJECT FUNDING



## BENJAMIN BANNEKER PARK FRAMEWORK PLAN

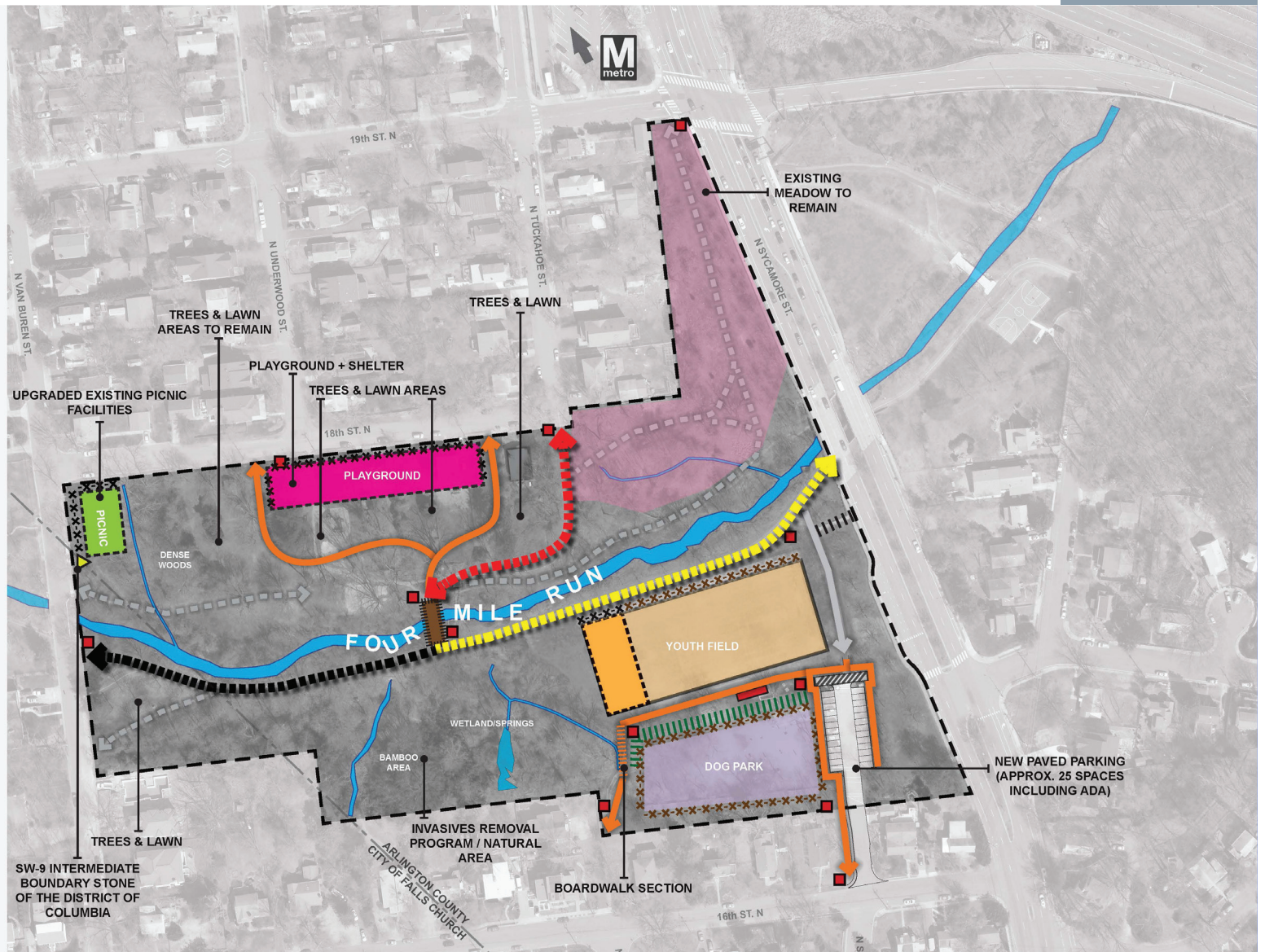




## LEGEND

-  PARK BOUNDARY
-  SW-9 INTERMEDIATE BOUNDARY STONE OF THE DISTRICT OF COLUMBIA
-  FURNISHINGS (SIGN / TRASH / ETC)
-  BRIDGE
-  UPGRADED STAIRS
-  EXISTING PATH - PAVED
-  EXISTING PATH - NATURAL SURFACE
-  EXISTING FENCE
-  NEW FENCE
-  EXISTING MEADOW
-  PROPOSED YOUTH FIELD EXPANSION
-  PROPOSED PLAYGROUND LOCATION
-  PROPOSED UPGRADED PICNIC FACILITIES
-  EXISTING DOG PARK
-  PROPOSED 6' PAVED PATH
-  PROPOSED 6' BOARDWALK PATH
-  PROPOSED VEGETATION
-  FOUR MILE RUN TRAIL (RESURFACED 12' WIDE)
-  FOUR MILE RUN + W&OD TRAIL (RESURFACED 12' WIDE)
-  W&OD TRAIL - INTERIM UNTIL FUTURE RELOCATION (RESURFACED 10' WIDE)

NOTE: SPECIFIC UPGRADES TO AMENITIES ARE DEPENDENT ON COST ESTIMATE STUDIES AND PROJECT FUNDING



## BENJAMIN BANNEKER PARK FRAMEWORK PHASE I

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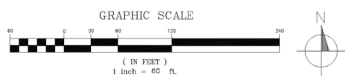
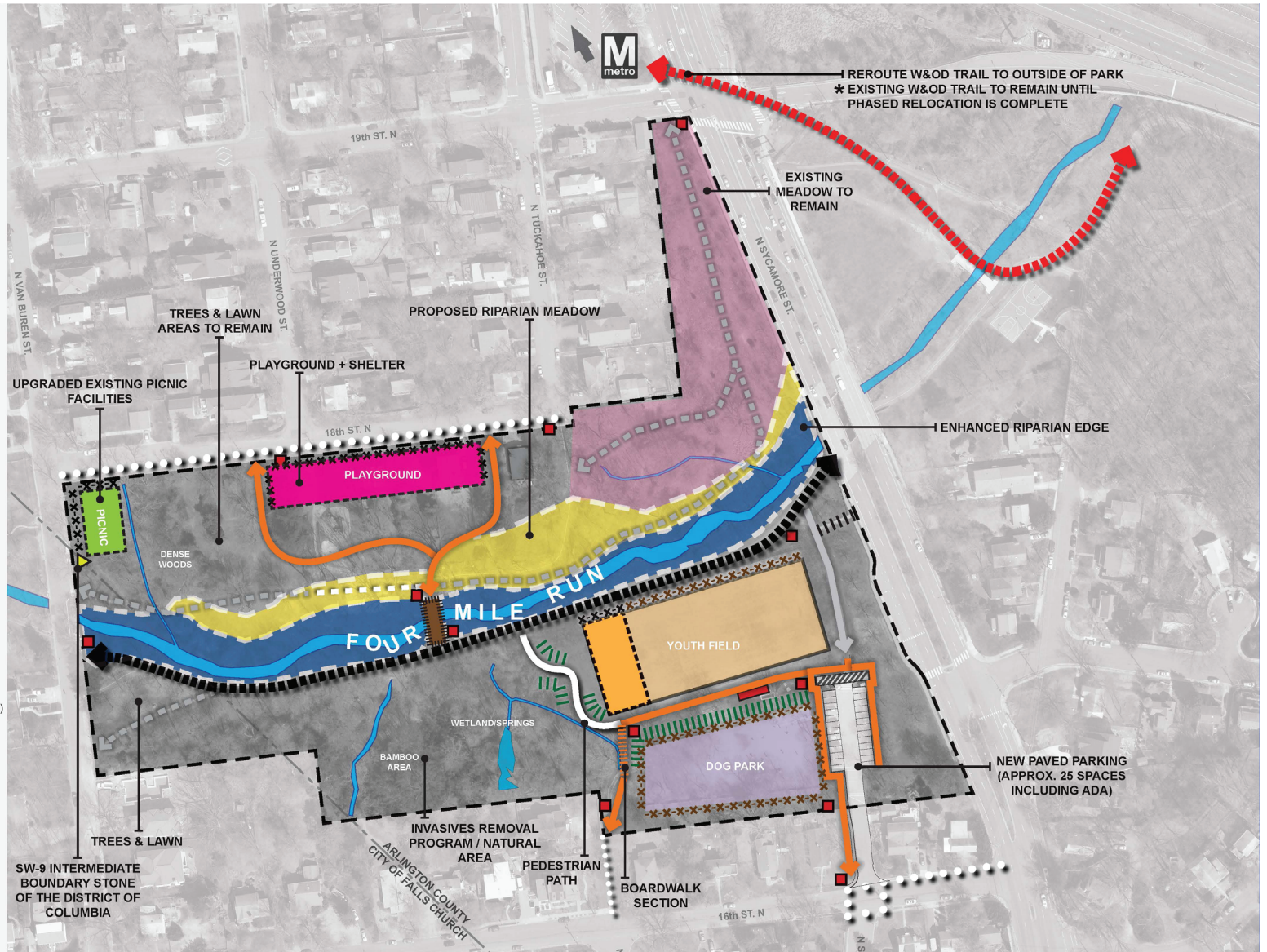


# Framework Plan - Future Phases

## LEGEND

-  PARK BOUNDARY
-  SW-9 INTERMEDIATE BOUNDARY STONE OF THE DISTRICT OF COLUMBIA
-  FURNISHINGS (SIGN / TRASH / ETC)
-  BRIDGE
-  UPGRADED STAIRS
-  EXISTING PATH - PAVED
-  EXISTING PATH - NATURAL SURFACE
-  EXISTING FENCE
-  NEW FENCE
-  EXISTING MEADOW
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-  PROPOSED NATURAL MOWED PATH
-  ENHANCED RIPARIAN EDGE
-  PROPOSED RIPARIAN MEADOW

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## BENJAMIN BANNEKER PARK FRAMEWORK PLAN

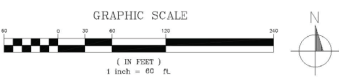
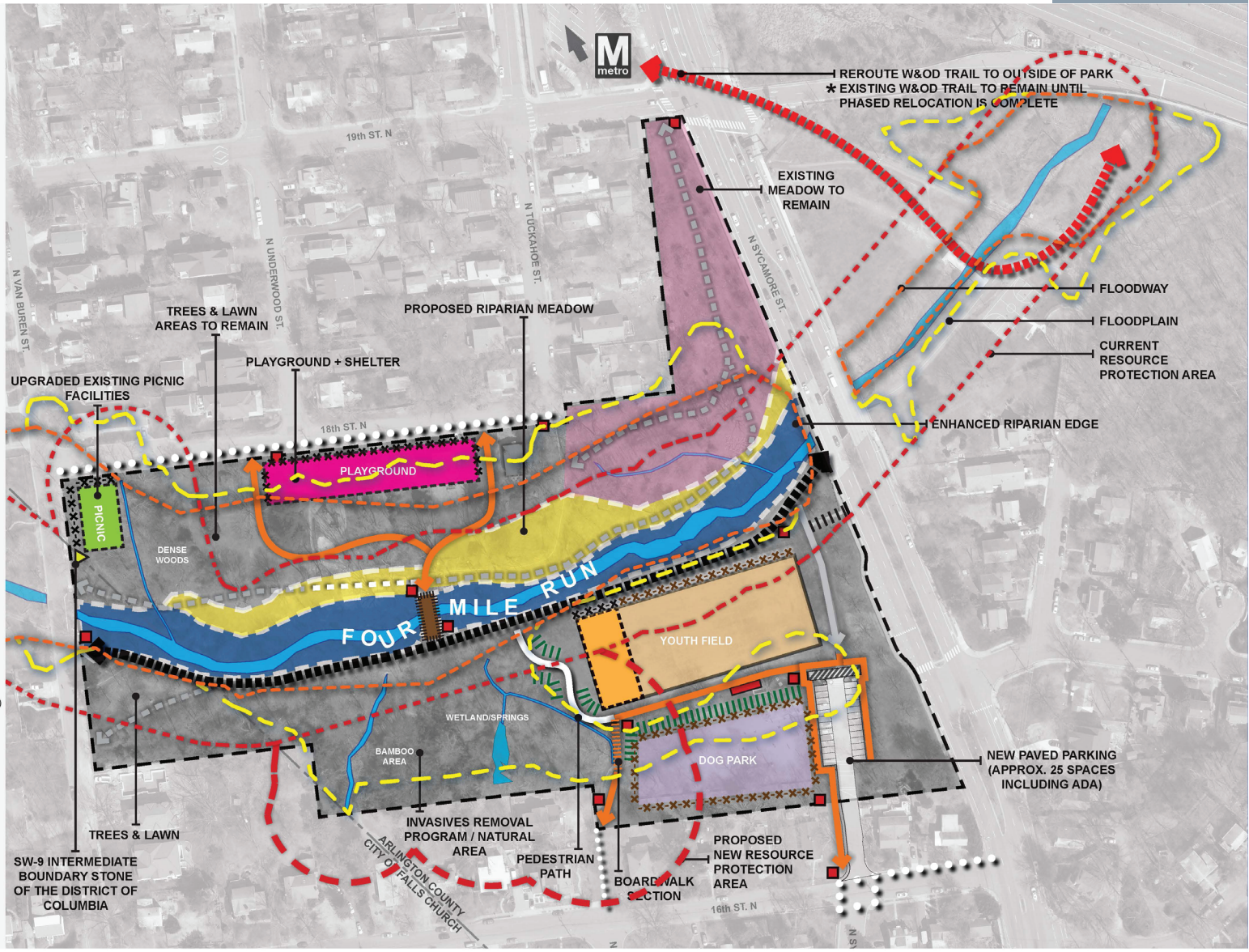




LEGEND

- PARK BOUNDARY
- SW-9 INTERMEDIATE BOUNDARY STONE OF THE DISTRICT OF COLUMBIA
- FURNISHINGS (SIGN / TRASH / ETC)
- BRIDGE
- UPGRADED STAIRS
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- PROPOSED 6' BOARDWALK PATH
- PROPOSED VEGETATION
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BENJAMIN BANNEKER PARK  
FRAMEWORK PLAN

