

MILLS PARK

Concept Plan



TOWN of CARY



STEWART

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Project Introduction

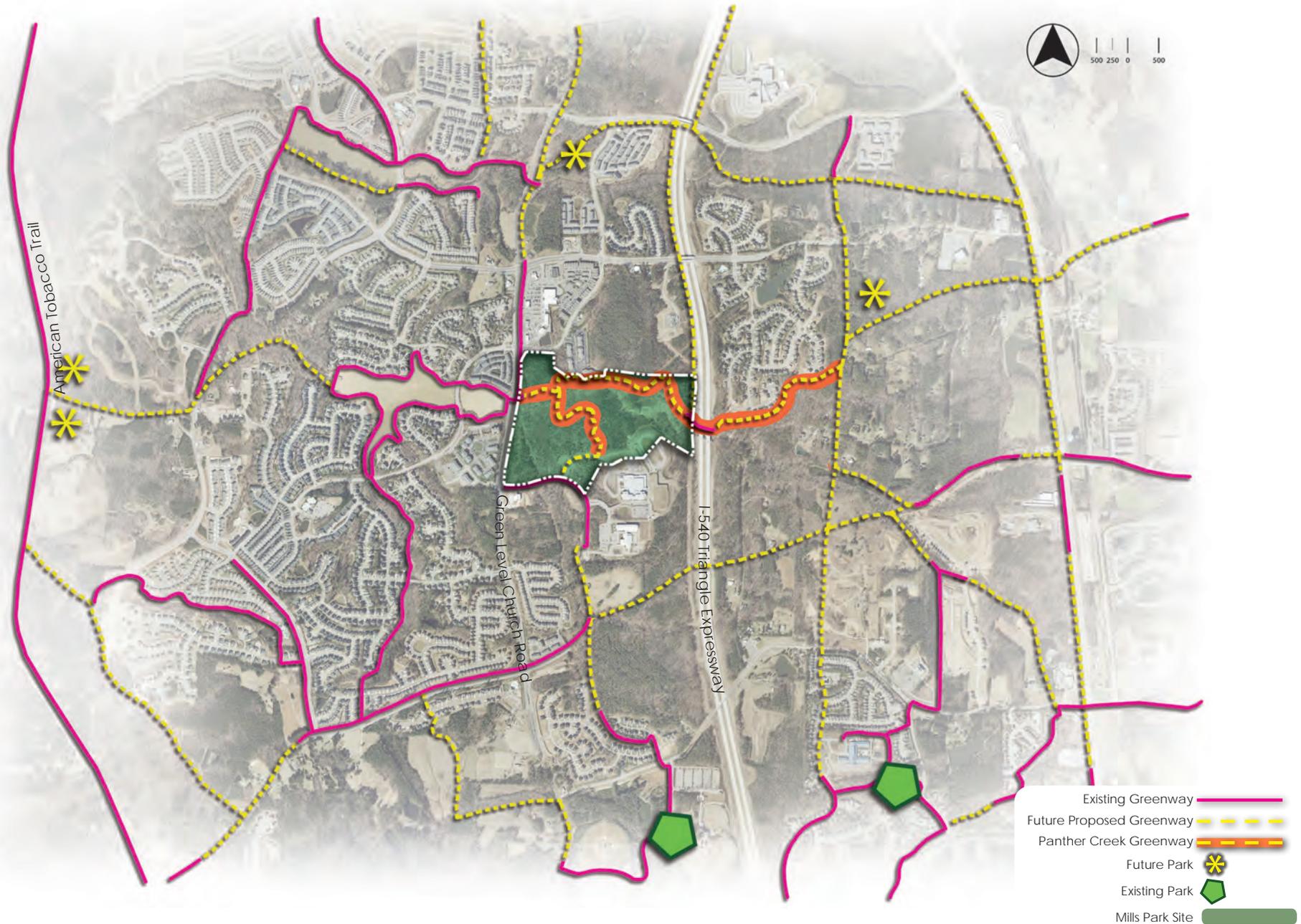


IMAGE: Park Context and Area Greenways

Project Overview

Mills Park - Project Background

In January 2000, the Town purchased the 240-acre Hawes tract, located in west Cary on Green Level Church Road. At the time of the purchase, it was intended to provide land for a Town park as well as other potential uses.

In January 2007, the Town agreed to the subdivision of the Town-owned 240-acre Hawes tract with the Wake County Public Schools System (WCPSS) for the purpose of locating an elementary and middle school. In September 2008, the Town Council approved the Mills Park Joint School Park Agreement. The Middle School was designed to include facility enhancements that would provide recreation opportunities for residents, including three multi-purpose fields, a softball field, a running track and basketball courts. These facilities were completed in 2010. This is considered to be “Phase one” of Mills Park.

Panther Creek Greenway - Background

The Panther Creek Greenway is a major component of the Town's greenway system, with this particular section connecting numerous residences, parks, trails and schools. The trail project will extend from the Cameron Pond PDD, utilizing the existing boardwalk under I-540 and connecting to the existing pedestrian tunnel located at Green Level Church Road, an approximate distance of 1.2 miles. A connection will also be made to Mills Park, a distance of 0.3 miles. These two segments will complete gaps in the Panther Creek Greenway, creating a continuous trail between Cameron Pond and Cary Park developments. The project will be completely constructed on Town property or easements the Town currently possesses.

Project Introduction

PHASE 1



PHASE 2



Concept Diagram from the 2011-2012 Parks, Recreation, and Cultural Resources Master Plan

-  Playground
-  Open Space
-  Picnic Shelter
-  Restrooms
-  Walking Trails
-  Ball Field
-  Disc Golf
-  Greenway
-  Greenway Connection
-  Tennis
-  Community Center

..... Programmatic Elements

Mills Park Planning Overview

Mills Park is designated as a Community Park by the Town of Cary. According to the Parks, Recreation and Cultural Resources Master Plan, a Community Park is defined as a park that typically serves residents within a two-mile radius and allows for group activities and recreational opportunities not feasible or desirable at the neighborhood level. Community parks are meant to serve the active recreational needs of residents and offer opportunities for the Town to create distinct facilities that respond to national trends or unique Town needs.

As with Neighborhood Parks, Community Parks should be developed for both active and passive recreation activities, a portion of which may be set aside as undeveloped land to remain in a natural condition or be restored to a naturalistic character. Community Parks should be linked to the Town's greenway system.

The 2011-2012 PRCR Master Plan also identified appropriate park program elements for Phase two of Mills Park. These were based upon a needs assessment by the Town and public input.

IMAGE: Initial Mills Park Concept + Program

Mills Park Planning Overview

Based on the concept diagrams in the PRCR Master Plan, these are the program elements to consider for Mills Park:

- *Children's play area*
- *Reservable picnic areas with a mix of single, double, and large group sizes/areas*
- *Basketball courts*
- *Community gardens*
- *Athletic fields (including: Little League fields (lighted); softball fields (lighted); soccer fields (lighted))*
- *Restrooms*
- *Off-leash dog park*
- *Community center/recreation center (with gymnasium, fitness area, etc.)*
- *Parking (adequate level to serve the park facilities)*
- *Landscaped open space areas*
- *Paths and trails (connecting to neighborhoods and open space)*
- *Trailheads (if adjacent to open space or a path/trail)*
- *Spray Ground*

Examples of existing Community Parks in Cary are Robert V. Godbold Park, Ritter Park, and North Cary Park. Parks that are planned for future Community Parks are Jack Smith Park, Raftery Park, Roberts Road School/Park, and Shaffer Park.

Mills Park Town Planning and Process

The location of this site was identified in the approved 1998 Parks, Greenways and Bikeways Master Plan as a recommended site for a community or metro

park. The Panther Creek corridor is located along the northern edge of the site and was also identified as one of four natural open space corridors to be protected within the Town's Northwest Area Plan, approved by the Town in 2002. With the acquisition of this site over 200' of natural corridor will be protected, even after development of this parcel into a park. Mills Park, located east of Cary Park Planned Development District (PDD) in west Cary, was originally purchased in 2000. At the time of the purchase it was 240 acres in size. It was intended to provide land for a future Town park as well as for future civic uses. The Town had agreed to provide a 20 acre elementary school site on the Hawes tract at no cost to WCPSS. Additionally, it was agreed that the Town would provide the opportunity for WCPSS to purchase a portion of the Mills Park for a middle school site, at the per acreage cost that the Town had paid in 2000. In that agreement the Town transferred the 20 acre Mills Park Elementary School property to WCPSS at no cost. WCPSS purchased from the Town the approximately 30 acre Mills Park Middle School site at the Town's 2000 per acre cost.

Additionally, the Town agreed to share the cost of a new collector road and a water line. The Mills Park Elementary School opened in 2009 and the Middle School in 2010.

Park Description & Development Issues

The Middle School was designed to include facility enhancements that will provide recreation opportunities for residents. These enhancements included three multi-use fields, one softball field, restrooms and basketball courts. The Town provided approximately \$1.6 million towards the construction

of these facilities. Wake County contributed \$250,000. These existing shared facilities will complement the future phases of Mills Park.

The second phase of Mills Park and the Panther Creek Greenway segment are proposed to link to Mills Park and Mills Park elementary and Middle Schools. The Panther Creek Greenway will be located along the northern edge of the park site and link to a pedestrian underpass located under Green Level Church Road which will provide direct access to Cary Park residents, with approximately 3,000 units of housing. The Mills Park Greenway will provide access for residents as far south as Thomas Brooks Park. As such, this park site and open space will be well linked within the Town of Cary greenway system. The Northwest Area Plan requires the protection of over 200' of natural buffer along the Panther Creek, which the greenway trail will help to achieve.

Project Introduction

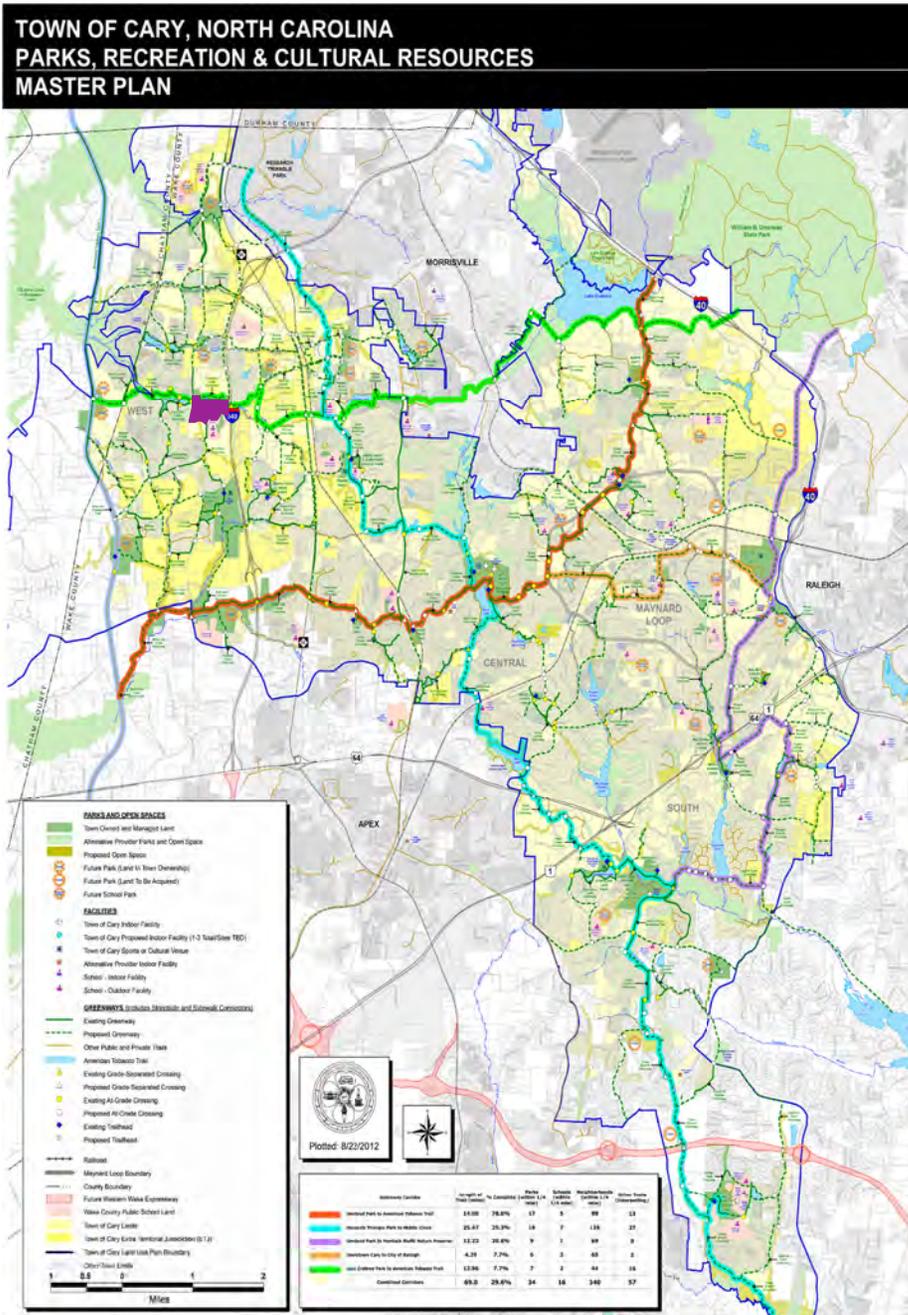


IMAGE: Parks, Recreation, and Cultural Resources Master plan

Mills Park Planning Overview

The 2011-2012 Parks Recreation and Cultural Resources (PRCR) Master Plan (see page 10) was developed to help the Town assess its recreational needs, develop a plan for maintaining and expanding existing parks, and develop an overall vision and strategy for future parks and recreation. Within the PRCR Master Plan a conceptual master plan was created to show the proposed future development of Mills Park (on this page). This concept plan included public input and input from Town staff to determine the priorities for the next phases of the park in order to meet the recreational needs of the community.

Based upon public and Town input and demographic and trend studies, the concept plan identified the program items needed for the future build-out of Mills Park. The 2011-2012 PRCR Master Plan recommended the following facilities for future phases of Mills Park:

- *Two reservable picnic shelters*
- *8 lighted tennis courts*
- *Community gardens*
- *Children's play areas and splash pad*
- *Additional restroom*
- *Future location for 50,000-75,000 sf community center*
- *Ball fields*
- *Greenway trail head and connections*
- *Paved loop walking trail*
- *Infrastructure required to support the above facilities, including utilities, lighting and stormwater treatment.*
- *Two parking lots*

PARK SITE SUMMARY:	PARK DESCRIPTION AND DEVELOPMENT ISSUES:	LEGEND:
<p>Class: Neighborhood Park Total Size: 102 acres</p> <p>PROPOSED PARK ELEMENTS:</p> <ul style="list-style-type: none"> • 2 Shared parking lots • Recommended New Facility - 1 Reservable Picnic Shelter (Capacity 35-50 - 6 tables). To be located adjacent to existing restroom • Future designated location for community center (50,000 - 70,000 SF) • 1 Reservable Picnic Shelter (Capacity 75-100 - 12 tables) • 8 Tennis Courts (Lighted) - Clay Courts • Community Gardens • Children's Play area <ul style="list-style-type: none"> o 2-5 yr old Playground o 5-12 yr old Playground • Restroom Facility (In addition to existing restroom) • Paved Loop Trail • Trail Access/Connections - Panther Creek Greenway will travel across the northern section of the park from the underpass at Green Level Church Road on the west to a grade-separated crossing under the Triangle Expressway on the east. Green Level Greenway goes south from Panther Creek Greenway to link up with Mills Park Drive which brings it to the edge of school land and on past the neighborhoods to the south. A connecting street-side trail goes to Mills Park Schools. • Parking <ul style="list-style-type: none"> o 150-175 spaces (16 spaces tennis/33 spaces shelter/20 spaces baseball/100 spaces Community Center) • Develop as trail head including kiosk • Road Access • Access to will be off the access drive to the Middle School. It is assumed that a new drive and parking lot will be developed off of this access drive if a community center is developed at this location. • Support Infrastructure (Utilities, Lights, SWM) 	<p>Background: The location of this site was identified in the approved 1998 Parks, Greenways and Bikeways Master Plan as a recommended site for a community or metro park. The Panther Creek corridor is located along the northern edge of the site and was also identified as one of four natural open space corridors to be protected within the Town's Northwest Area Plan, approved by the Town in 2002. With the acquisition of this site over 200' of natural corridor will be protected, even after development of this parcel into a park. Mills Park, located east of Cary Park Planned Development District (PDD) in west Cary, was originally purchased in 2000. At the time of the purchase it was 240 acres in size. It was intended to provide land for a future Town park as well as for future civic uses. As part of the original approval of the Cary Park Planned Unit Development, the developer agreed to provide the amount of \$5,500,000 for the construction of an elementary school on the Mills Park site. The Town had agreed to provide a 20 acre elementary school site on the Heaves tract at no cost to WCPSS. Additionally, it was agreed that the Town would provide the opportunity for WCPSS to purchase a portion of the Mills Park for a middle school site, at the per acre cost that the Town had paid in 2000, a cost substantially lower than the current market value. In that agreement the Town transferred the 20 acre Mills Park Elementary School property to WCPSS at no cost. WCPSS purchased from the Town the approximately 30 acre Mills Park Middle School site at the Town's 2000 per acre cost, a considerable savings to WCPSS. Additionally, the Town agreed to share the cost of a new collector road and a water line. The Mills Park Elementary School opened in 2009 and the Middle School in 2010.</p> <p>Park Description & Development Issues: The Middle School was designed to include facility enhancements that will provide recreation opportunities for residents. These enhancements include 3 multi-use fields, 1 softball field, restrooms and basketball courts. The Town provided approximately \$1.6 million towards the construction of these facilities. Wake County contributed \$200,000. These community use facilities will complement and be integrated into the future 50 acre park that is adjacent to the middle school. The future Mills Park and Panther Creek Greenways are proposed to link to Mills Park and Mills Park elementary and Middle Schools. The Panther Creek Greenway will be located along the northern edge of the park site and link to a pedestrian underpass located under Green Level Church Road which will provide direct access to Cary Park residents, with approximately 3,000 units of housing. The Mills Park Greenway will provide access for residents as far south as Tom Brooks Park. As such this park site and open space will be well linked with the Town of Cary greenway system. The Northwest Area Plan requires the protection of over 200' of natural buffer along the Panther Creek.</p> <p>Future Expansion: No future expansion of the park is planned.</p>	<p>EXISTING:</p> <ul style="list-style-type: none"> STREAM/WATER/WW PROPERTY LINE EXISTING ENTRANCE DRIVE OFF-SITE PEDESTRIAN CONNECTION PEDESTRIAN CONNECTION <p>PROPOSED:</p> <ul style="list-style-type: none"> PARKING AREA LAWN NATURAL AREA GARDENS COURTS/FIELDS BMP RESTROOM/PICNIC STRUCTURE PLAY AREA SPLASH PAD PARK ICON



LandDesign.

MILLS PARK
CONCEPT DIAGRAM | CARY, NORTH CAROLINA



Project Introduction



IMAGE: Mills Park - Phase One

Mills Park Phasing

Mills Park – Phase one

Phase one of Mills Park was installed in 2010, and included three multi-purpose fields, a softball field, a running track, basketball courts, and a picnic shelter/rest room building. Based upon the 2007 agreement with Wake County Schools, Phase one of Mills Park was a joint-use facility with Wake County Public Schools. The facilities in phase one are shared by Mills Park Elementary and Mills Park Middle School.

Mills Park – Phase Two

The second phase of Mills Park will be entirely on Town property and will consist of several new amenities, as defined by the previously described 2011-2012 PRCR Master Plan report. The exact facilities included in phase two have been determined by available funding. Panther Creek Greenway is being designed and built in conjunction with Mills Park because the park will serve as greenway access and the greenway will provide pedestrian connections within the park.

Mills Park Phase 2- Project Scope

The Town reviewed the recommended program items as listed in the 2011-2012 PRCR Master Plan and enlisted a consultant to hold additional public input sessions with residents. These public input sessions and further study of existing facilities and future growth by the Town led to a list of preferred facilities to include in phase two of Mills Park.

It was determined that the project scope for future phases may include:

- *Two picnic shelters*
- *Restroom*
- *New children's play area*
- *Additional lighted combination baseball field with multi-purpose field*
- *Open Space for varied casual use*
- *Disc golf*
- *Additional parking*
- *Greenway trail access and connections*

Funding for this project was approved by voters as part of the 2012 Community Investment Bonds referendum. The estimated total budget for phase two is approximately \$1 million for construction. Available funding and final construction costs will determine the final facilities included in this phase.

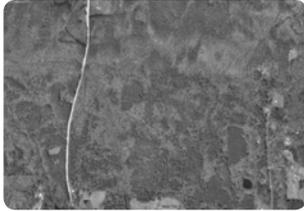
Panther Creek Greenway - Project Scope

Panther Creek Greenway is being designed in conjunction with phase two of Mills Park because the park will provide greenway access. The greenway will extend approximately 1.5 miles from the Cameron Pond Development (PDD) to Cary Park Lake.

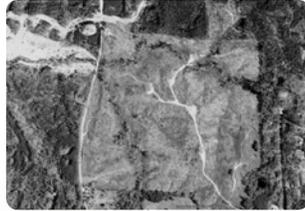
The estimated total budget of the greenway is \$1,700,000, which includes design and construction costs. Funding for this project was approved by Cary voters as part of the 2012 Community Investment Bonds referendum.

Project Introduction

Historical Aerial Photos



1993



1998



2009



2013



IMAGE: Mills Park Site

Project Site

The remaining Mills Park site includes over 104 acres of land located adjacent to the Mills Park Elementary and Middle Schools and phase one of Mills Park. An extensive site inventory and analysis was completed of the site to determine the best areas to locate facilities, as shown in the next sections of the report. As shown in the historical aerial photos, the Mills Park location and surrounding area has changed considerably over the past 20 years. As the 1993 aerial shows, the site and surrounding area was undeveloped forest. The 1998 aerial shows that the Mills Park property was logged and some development was beginning to occur in nearby parcels. By the early 2000's several neighborhoods had developed around the park land and Green Level Church Road was widened. By 2009, the elementary and middle schools were constructed, along with much of phase one of Mills Park, which included the joint-use athletic facilities. These historical aeriels illustrate two points clearly:

1. Mills Park is an important jewel in the Town of Cary park system that has managed to stay intact through intense development in the surrounding parcels. This park is critical in providing recreational uses to the nearby residents and the growing community in west Cary.

2. Much of the future Mills Park site is located in a successive forest. Because of the logging that occurred in the late 1990's, the only old-growth hardwood trees on the site are surrounding the creek. The remaining vegetation is largely pine trees and scrub, with smaller hardwood trees emerging.

As the present-day aerial shows, the Mills Park site is surrounded by residential neighborhoods, commercial development, major thoroughfares and public schools. The future development of Mills Park will strengthen the surrounding community. A community park that is accessible to neighborhoods, schools, and major roads will provide a much needed recreational opportunity for Cary residents throughout the Town, but particularly in West Cary where additional facilities are needed to meet the growing population demands.

One of the unique aspects of Mills Park is the joint-use agreement, as previously discussed. This agreement benefited both the Town and the County by providing land to the County for needed schools at a reduced cost and shared cost for the athletic facilities. This is a win-win situation for the County and Town residents, making great use of tax dollars. The sports fields and parking are available for public use after school hours and on weekends.

Phase two of Mills Park will be entirely on Town land. Yet in the planning for phase two, parking and vehicular circulation is a critical item to study to ensure that there is no conflict with the school circulation and parking. The Design Team and the Town studied best routes for vehicular and pedestrian circulation in order to reduce conflict and limit confusion for Town residents wishing to use the park during school hours.

The Panther Creek Greenway will connect gaps between existing greenways located near the site. The Town of Cary planned ahead and used NCDOT funding to build a boardwalk under I-540 when that

thoroughfare was constructed in 2012. This section of 540/Triangle Expressway was completed in December, 2012. This section of boardwalk travels under the 540 overpass providing a safe and attractive means of travel for bicyclists and pedestrians. Until the Panther Creek Greenway is extended east to Cameron Pond and west to Green Level Church Road, there is not a clear path to access the boardwalk.

There is also an existing pedestrian tunnel under Green Level Church Road that connects to neighborhoods west of the road, but the greenway does not continue to the east. This section of Panther Creek Greenway is only a mile and half long, but will provide important connections to the existing tunnel and boardwalk and from there, nearby neighborhoods. In addition to connecting these neighborhoods to the larger greenway system, this section of Panther Creek Greenway will also connect to the future Mills Park.

Mills Park will act as a trailhead for the greenway as well as an access point for greenway users to reach the schools. Children will be able to safely bicycle and walk to school from their neighborhoods on the greenway system. Many neighbors and students who attended the public input sessions were most excited about this opportunity.

Project Process

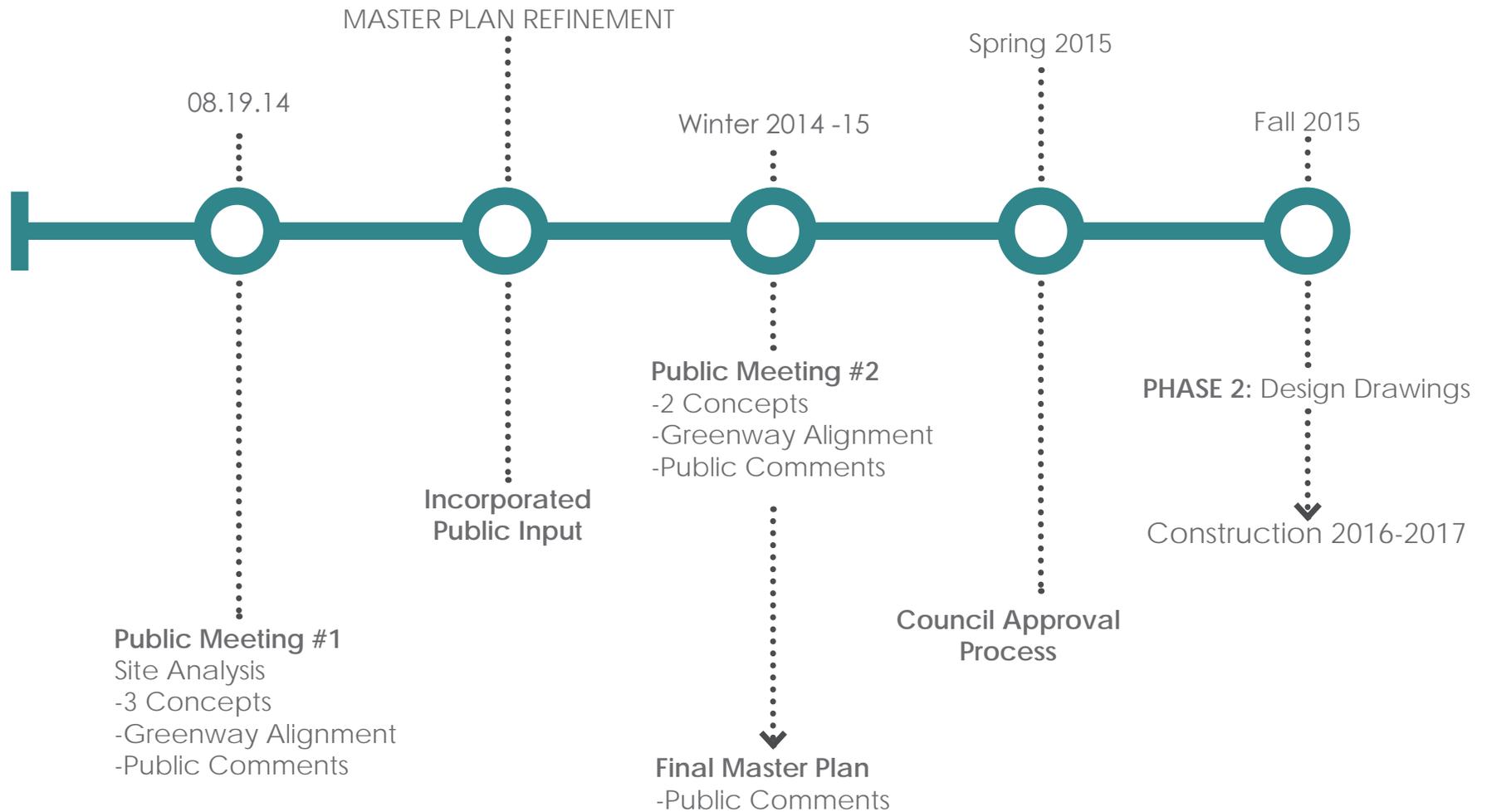


IMAGE: Project Process Diagram

Design and Planning Process

The Mills Park phase two process has included a reassessment of the program elements defined in the 2011-2012 PRCR Master Plan. Additional Town and public input was gathered on conceptual designs from spring 2014 – late fall 2014.

Town staff from both design and facilities management were consulted to confirm the current needs of the Town. Two public input sessions were also held to show concept plans and receive input and valuable feedback from the community on their preferences, desires and needs. Concept plans were provided on the Town Website to provide an additional avenue for public engagement. Nearby neighborhoods were alerted to public meetings to try to encourage public input and make residents aware of the design process. After gathering input from the Town and the community, the proposed program elements of the future park were slightly altered to include:

1. A multi-purpose field in the baseball outfield. Many residents expressed a need for additional soccer and lacrosse fields, so providing this additional amenity will help meet the needs of all residents. Town of Cary Parks and Recreation staff agreed that lacrosse is an emerging sport that is gaining in popularity in the area. The staff still felt that an additional baseball field was needed at the site, but concluded that providing a multi-purpose field in the outfield would meet both needs with minimal additional cost to the project.

2. An open space area that is approximately 1.5 acres and includes varied topography to meet the needs of casual recreation, without providing another recreational field. Many of the Town residents liked the idea of open space for multiple and varied uses.

A detailed study of Town of Cary existing parks led the design team to determine that 1.5 acres is the appropriate size for a community park open space area.

Based upon approval from the Town, the master plan was presented a final time to the public for final comments. After Town Council approval, design drawings will begin with final construction drawings to be completed in fall 2015 and construction projected to begin in summer of 2016.

Design and Planning Process: Overview

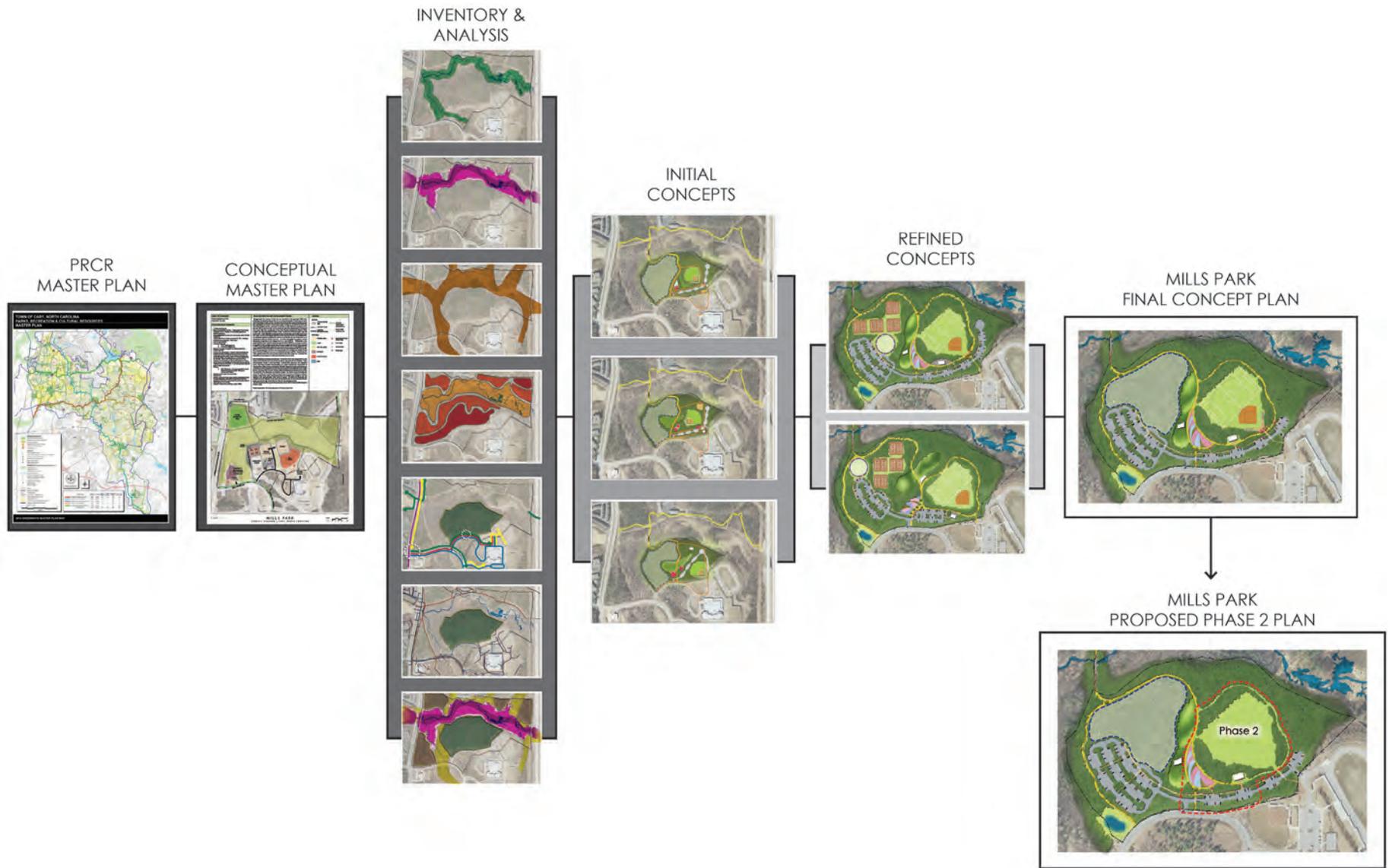
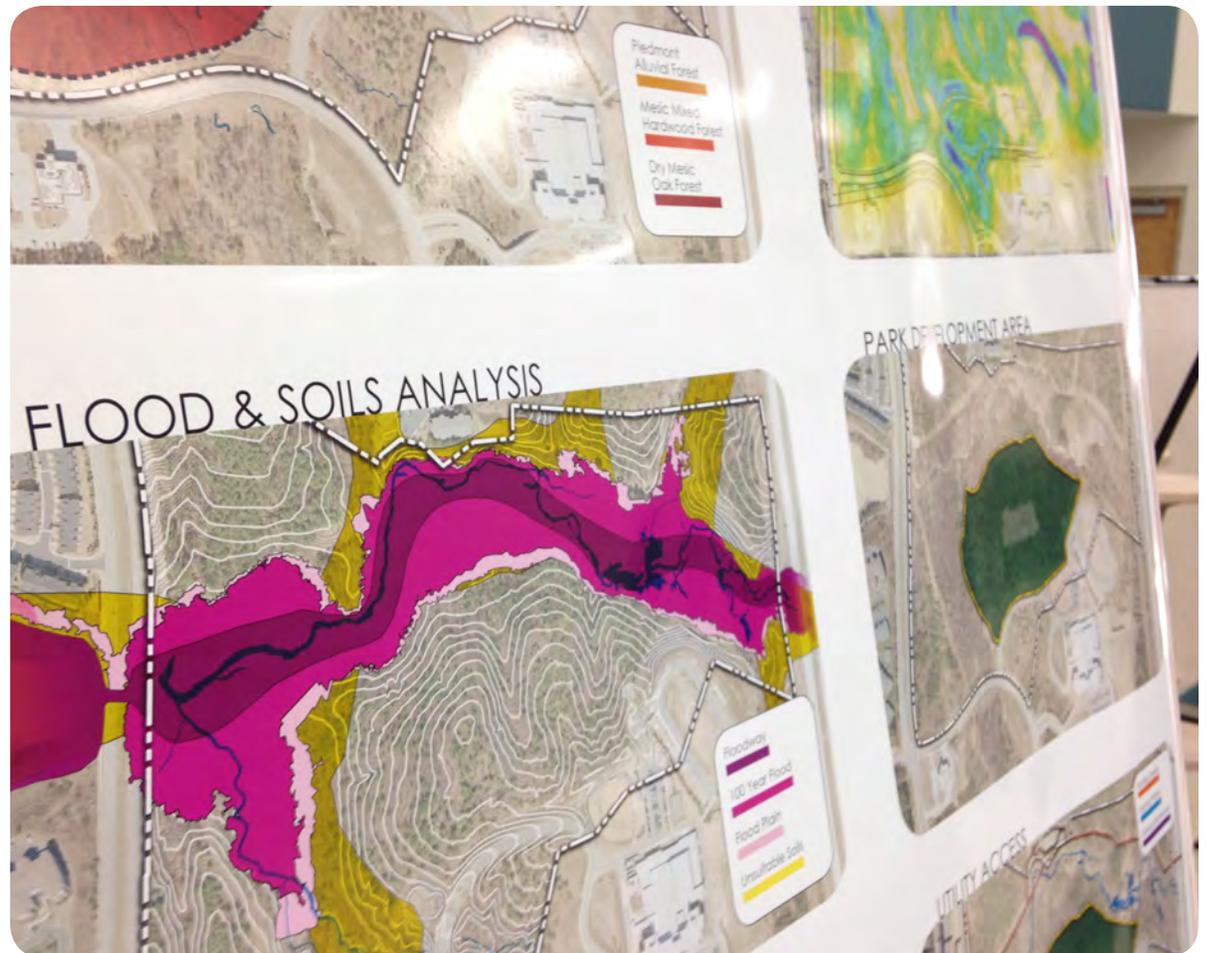


IMAGE: Design Process Diagram

Site Inventory

To begin the design process, a thorough site inventory was conducted of the entire 104-acre site to understand existing conditions and help determine the best places to build the program elements to reduce impact to the environment and to the Town's budget. The following pages illustrate the inventory and analysis conducted of the site that informed design decisions.



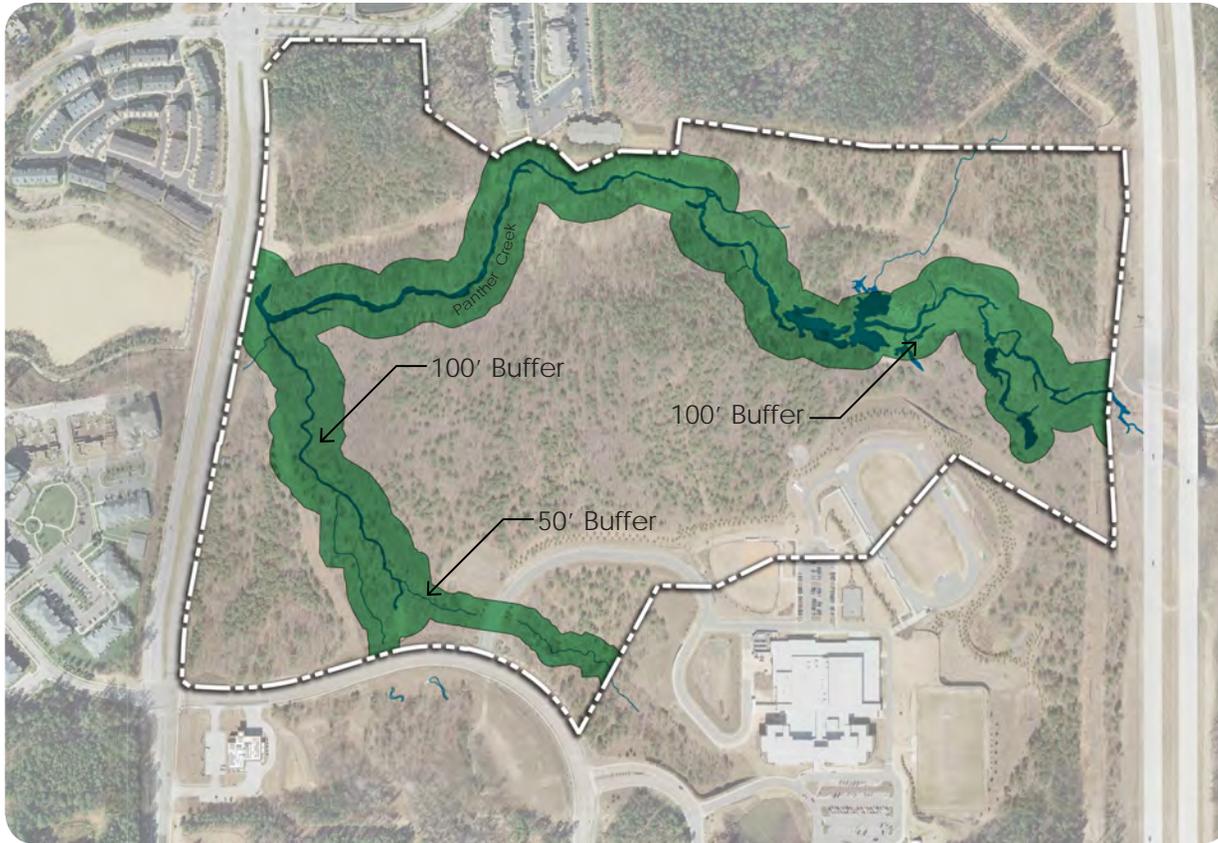


IMAGE: Streams + Buffers

Streams

Panther Creek runs through the project site, along with several tributaries. The Streams + Buffers graphic illustrates required 100' buffers required around creeks on site, as well as a 50' buffer required on a smaller tributary. In addition to highlighting sensitive areas that should be preserved, these buffers have construction requirements and restrictions that must be observed. These streams and their buffers define where buildable areas cannot occur. The streams are generally confined to the central portion of the site area, preserving this central core and leaving the rest for potential development.

The site is located within the Jordan Lake Watershed. According to the Jordan Lake Watershed Buffer Rules, 50 feet of riparian area is required on each side of waterbodies, including stream channels. In addition to the watershed buffer, the Town of Cary has implemented additional buffers on intermittent and perennial streams, lakes, and ponds.

The buffers shown are interpreted from page 5 of the Ecological Engineering Natural Resource Findings Report. For additional information see the Ecological Engineering Natural Resource Findings Report in the Appendix.

Stream Buffer



Floodway + Floodplain

Along with the stream buffers, existing floodways limit where development can occur based upon the probability of flooding. Structures should be built outside the 100 year flood line and above the Base Flood Elevation. Again, these floodplain lines further define where the buildable limits should occur onsite. As can be seen in the graphic, the floodplain surrounds the creek and requires that a considerable amount of land in the central, lower area around the creek be left undisturbed on the site.

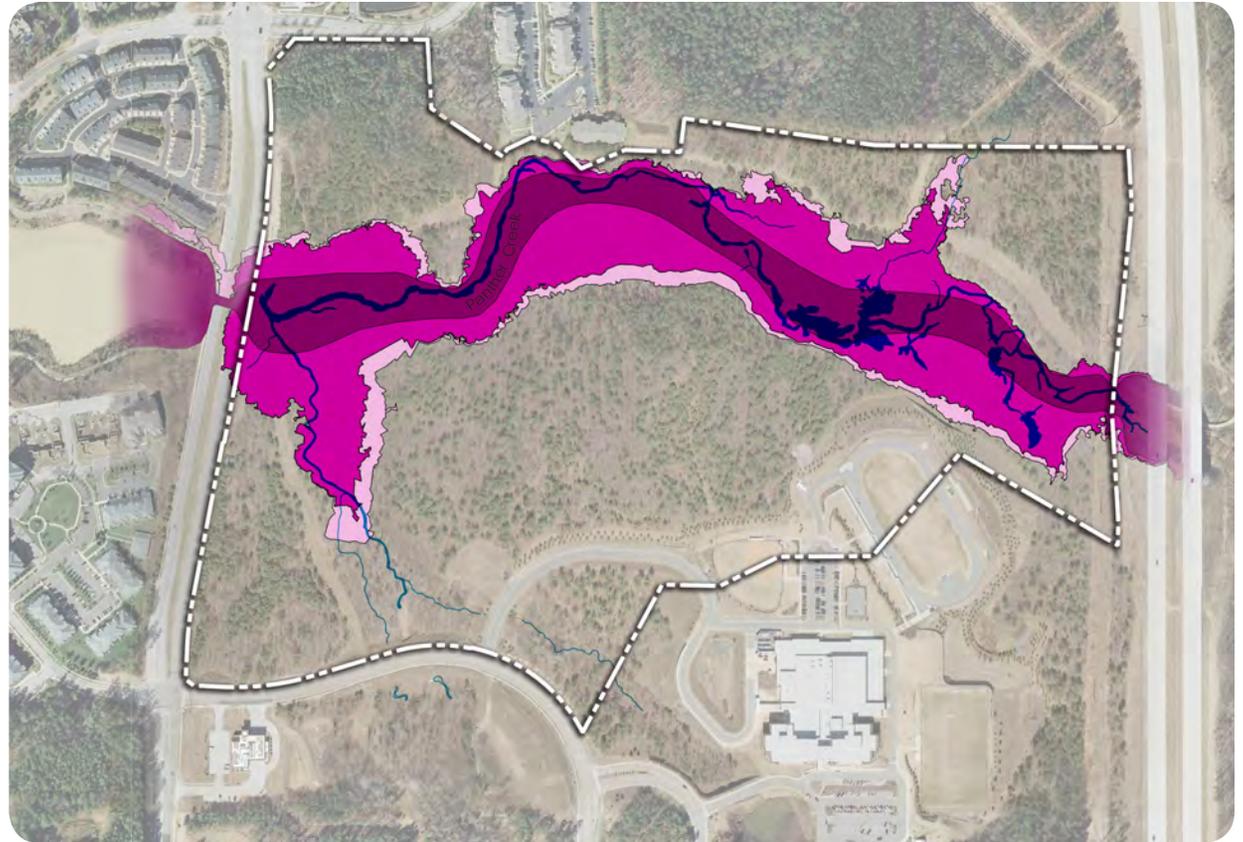


IMAGE: Floodway + Floodplain



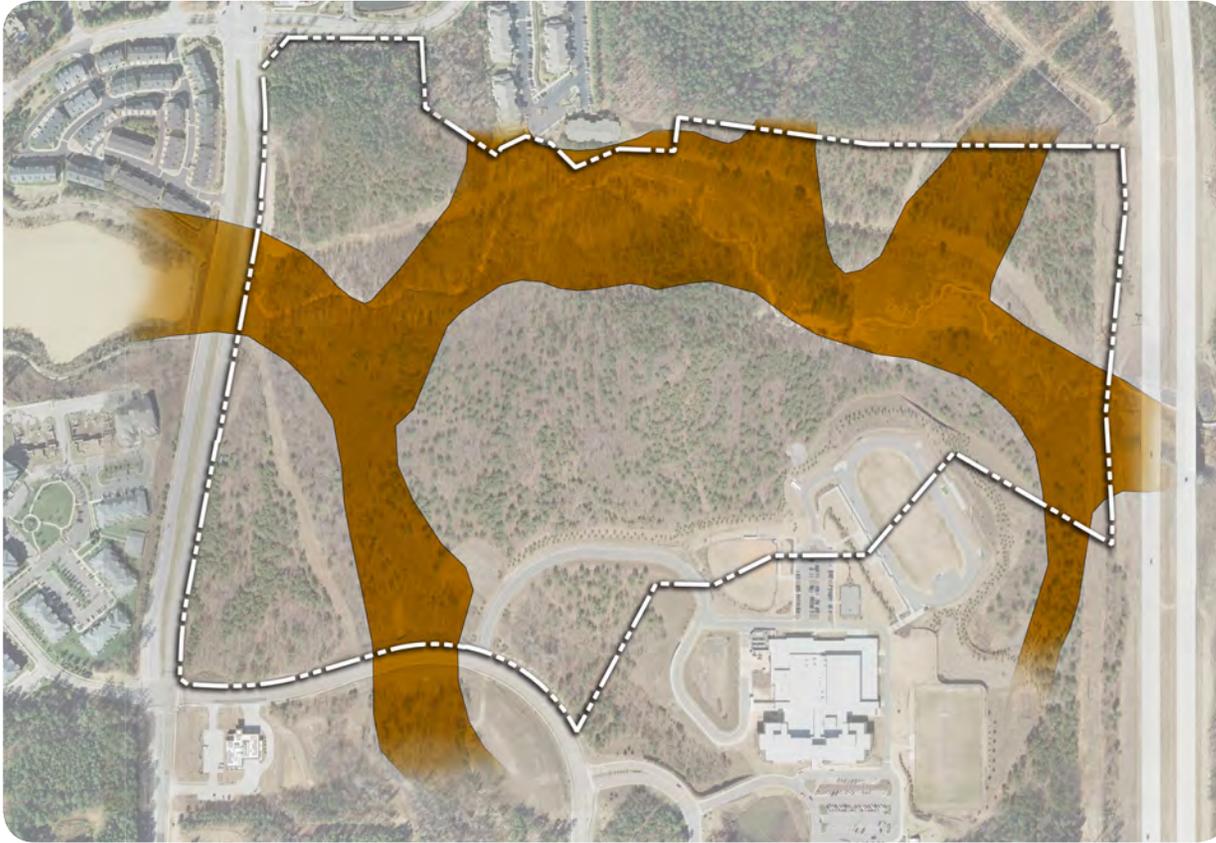


IMAGE: Unsuitable Soils

Unsuitable Soils



Soils

Soils onsite are indicative of the floodplain. Poor or unsuitable soils are generally unstable and poor for construction. Major construction of buildings or other structures should avoid these areas if possible. Again, the poor soils generally follow the stream location and leave the remaining portion of the site available for development.

Vegetation

As the earlier historical aerial discussion illustrated (See page 14), many of the trees onsite were cut down in the late 1990's, except for those near the stream. As such, most of the existing trees onsite are successive growth pine trees with scrub and smaller hardwood trees emerging. The result is that construction of the park will not require the elimination of many larger trees. Although attention will be given to preserving as many trees as possible to create a feeling of a park nestled in the woods, most of the trees that will be removed to construct the park facilities are smaller and are not champion trees. As most of the larger hardwood trees are closer to the stream, this analysis falls in line with the previous studies showing that the best area to build the park and preserve the most sensitive portions of the land are away from the stream corridor. The graphic shows the general types of forest growing on the site, but again, most of the trees in the upper portions (Mesic Mixed Hardwood and Dry Mesic) are actually successive growth pines.

The forest typologies shown are interpreted from page 5 of the Ecological Engineering Natural Resource Findings Report. For additional information see the Ecological Engineering Natural Resource Findings Report in the Appendix.

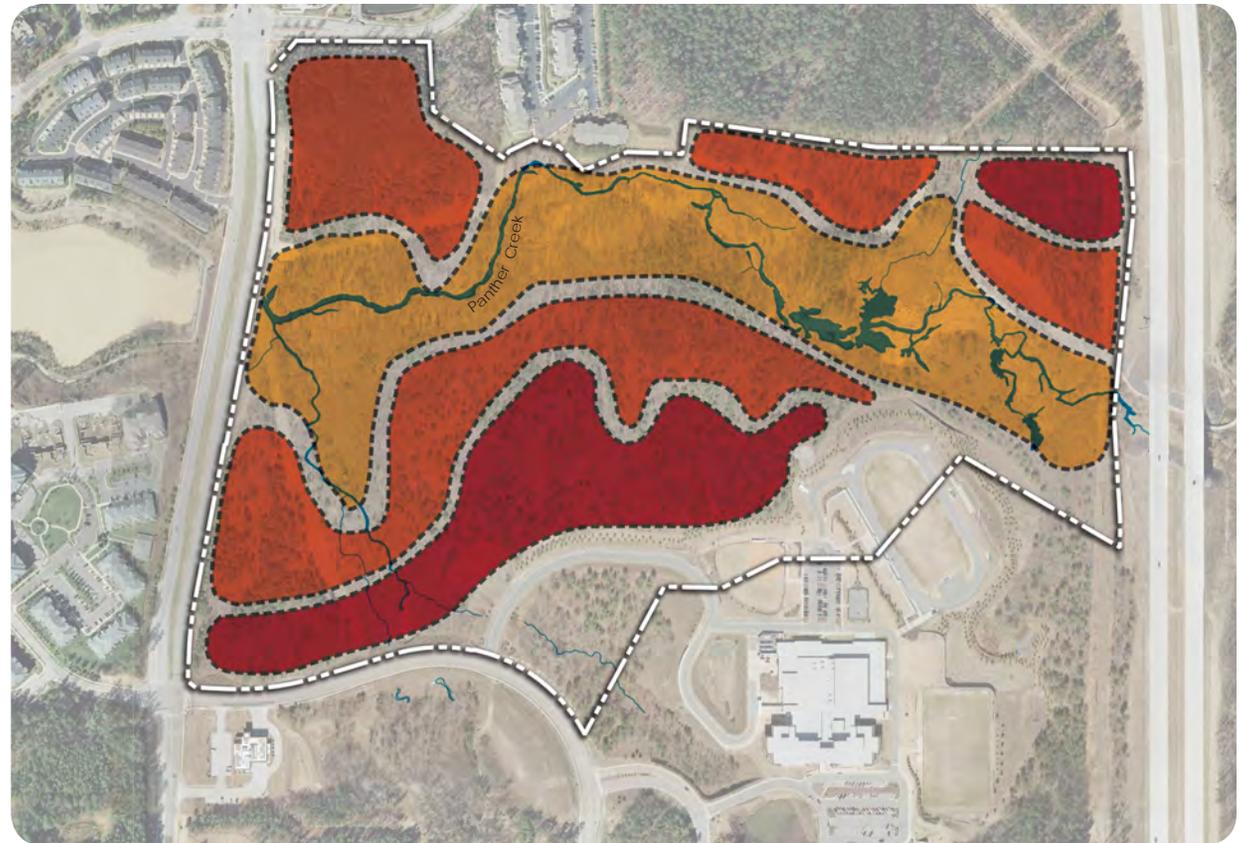


IMAGE: Forest Typology

- Piedmont Alluvial Forest
- Mesic Mixed Hardwood Forest
- Dry Mesic Oak Forest

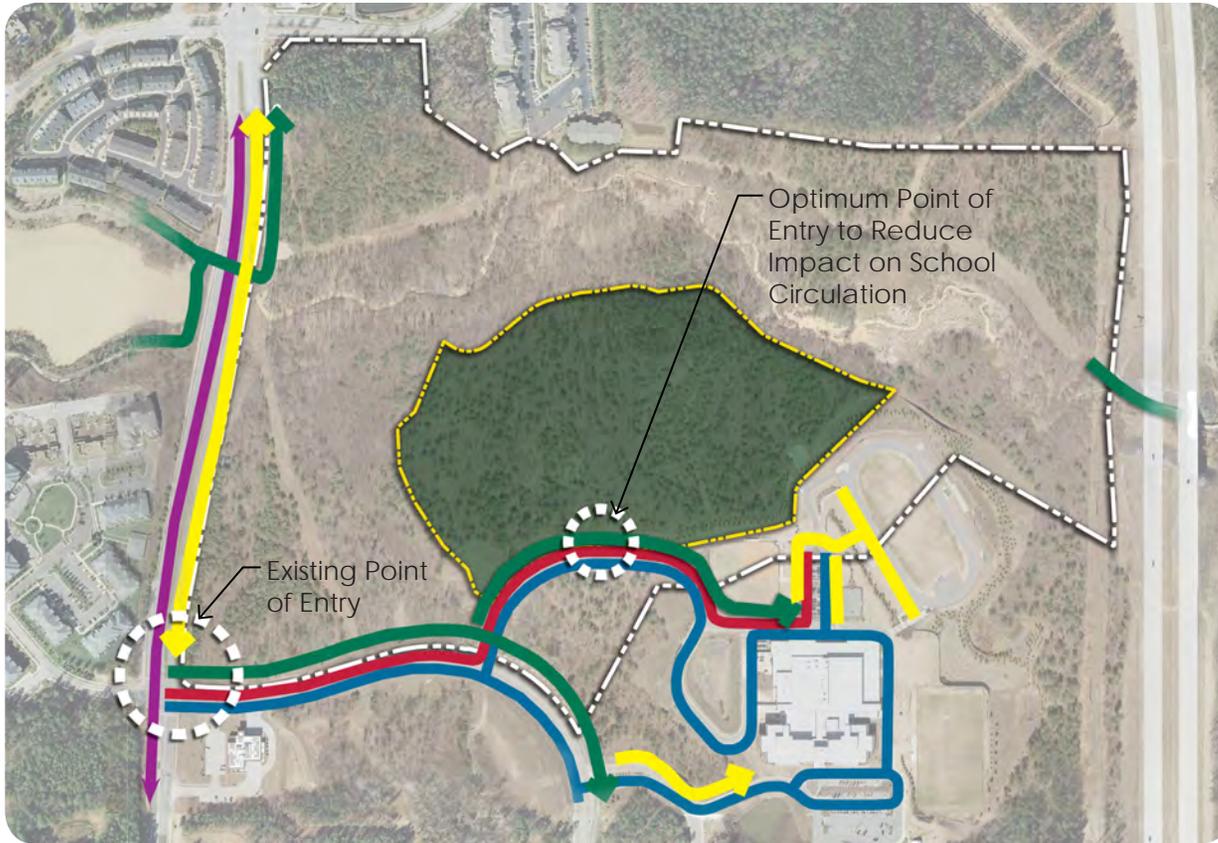


IMAGE: Vehicular and Pedestrian Circulation

Existing Greenway



Existing Sidewalk



Park Vehicular Circulation



Mixed Vehicular



School Vehicular Circulation



Circulation

Existing sidewalks provide connections to the park and the adjacent schools. The proposed greenway will connect to the existing sidewalks and greenways. Vehicular circulation for the school shows a pattern that allows movement to public parking lots, to a bus drop off and to a teacher-only parking lot. These circulation patterns will need to be considered in park plans to allow for smooth and safe connections from the greenway to the school for children, as well as easy access by residents from nearby neighborhoods.

As shown in the graphic and discussed earlier, eliminating conflict between school vehicular functions and park visitors will be critical. The school parking lot north east of the existing middle school is solely for teacher use and will not be available during school days for park users. Finding a way to clearly demarcate this and reduce unauthorized use will be critical in the design of the park.

As with most school properties, unauthorized people walking around the campus are also discouraged for the safety of the students. Therefore, creating clear signage and greenway connections that provide alternate routes that do not lead directly into the school property from the park will be necessary.

Utilities

Utilities are located near the park site and are provided from the roadway or from the existing schools. Existing water and reclaimed water are located in the road adjacent to the park. Existing sewer runs along the stream near the park. Stormwater lines are located throughout the existing athletic facilities and school property. An existing bioretention pond is also located on the Town property. This pond is not designed to handle the proposed park amenities so an additional stormwater device (or devices) may be required.

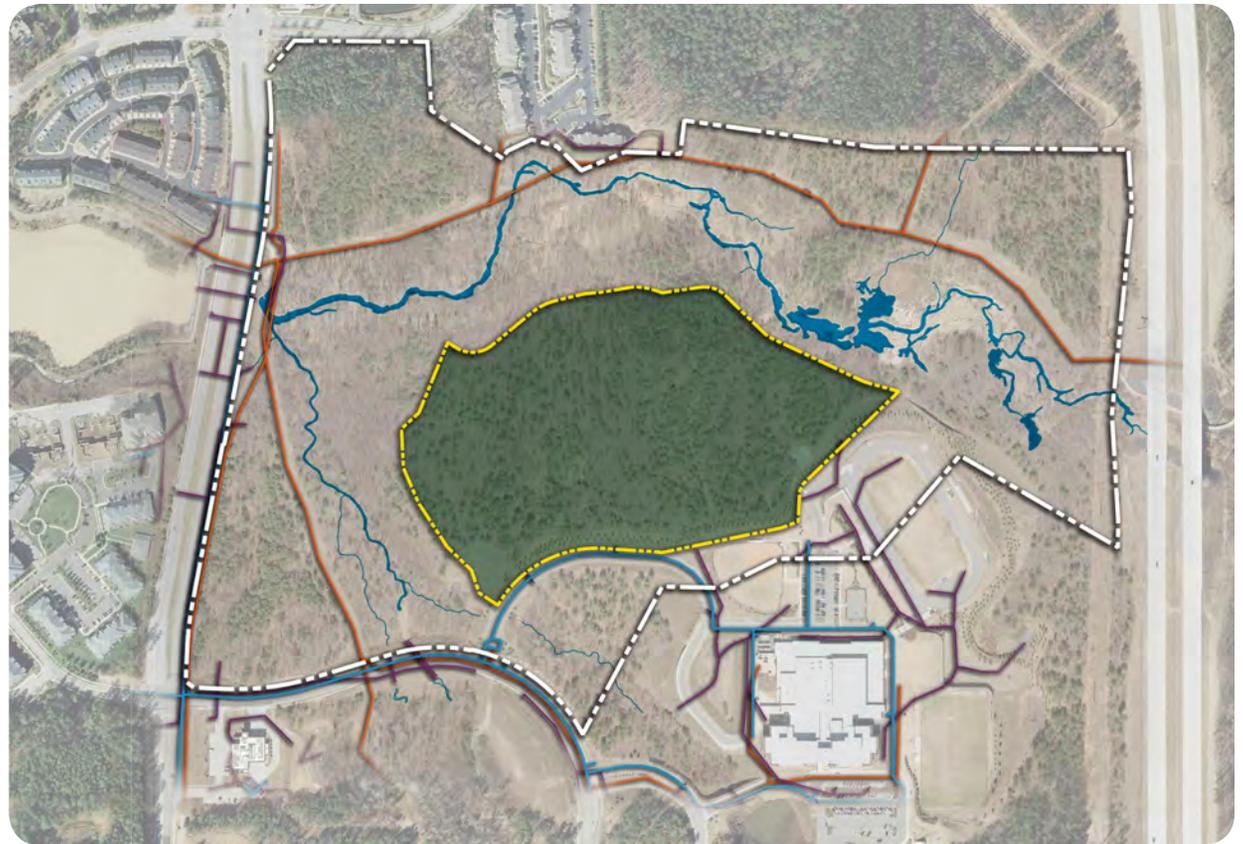
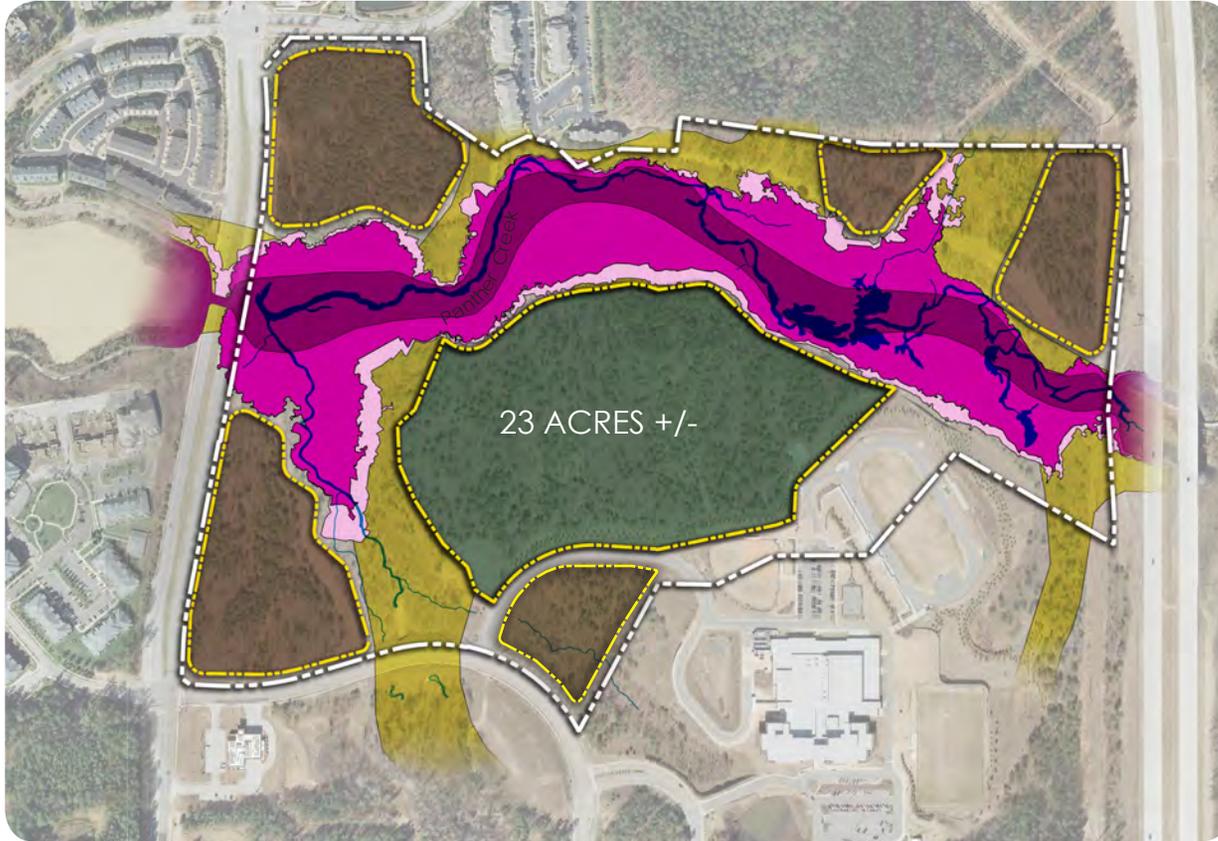


IMAGE: Utilities Map

- Existing Sewer
- Existing Water
- Existing Stormwater

Site Analysis



Unsuitable Soils

Core Park

Potential Future Park Areas

Floodway

100 Year Flood

Flood Plain

IMAGE: Buildable area to minimize environmental impacts

Site Analysis/Synthesis

After conducting the site inventory for the park site, it became apparent that the driving forces in locating the park were the environmental factors on site, particularly Panther Creek and its surrounding buffers and floodplain. In order to protect sensitive environmental areas and keep built elements out of unsuitable portions of the site, certain areas on site were located as potential park areas.

Park Site/Buildable Areas

After studying the site inventory and analysis as a whole, the Design Team and Town determined that the best area for the park is a contiguous 23-acre core within the park land. As seen in the graphics, these 23-acres are adjacent to the school property and phase one of the park, providing a clear link to existing facilities. The 23-acres are also the largest swath of land in the park that are unbroken by unbuildable areas. There are five other pockets of land in the corners of the property that are also buildable, but will not fit all of the proposed park facilities. These can be used for future park expansion or other stand-alone facilities that can be less connected to the park core.

After studying the site, the Design Team moved forward with the intention to develop Phase Two of Mills Park in this 23-acre swath of land on the park site.

Design and Planning Process: Precedent Studies



Precedent Studies

The consultants and Town staff toured existing Town of Cary parks for examples of how Mills Park should “feel.” The examples given by the Town as relevant examples to use for Mills Park were Harold D. Ritter Park and Sears Farm Road Park.

Ritter Park is a good example of a larger Community Park that tucks larger program elements, such as baseball fields and parking into the trees to make the visual effect of the park less impactful.

Sears Park is an example of a park that utilizes unique topography to create elements of play within the open space. Both parks show Town of Cary typical standards for playground equipment and materials and restroom/picnic shelters.

The design team also visited Thomas Brooks baseball complex with Town staff and were told this was not the look they were interested in for Mills Park. The idea is to soften the elements and not create a large complex. The resulting direction of the park was to make it feel “nestled in the trees.”

-  Playground
-  Open Space
-  Picnic Shelter
-  Restrooms
-  Walking Trails
-  Ball Field
-  Disc Golf
-  Greenway
-  Greenway Connection
-  Tennis
-  Community Center



The location of the Town’s preferred program elements were sited for phase 2 in the Buildable Area, utilizing the topography of the site in the most desirable fashion to reduce their environmental impact.

The design team created a “scale relationship diagram” to show how the program items could fit on the site and how they would relate to one another when placed within the buildable area. The baseball field and future community center were the largest elements and were sited on the less steep areas of the site to reduce grading as much as possible and to reduce their large visual impact.

After the initial scale relationship diagram, the design team created two diagrammatic concepts illustrating potential layouts for the park. These initial diagrammatic concepts considered the site analysis and the precedent studies, as well as Town input on desired program items and general layout preferences.



Initial Park Concepts



IMAGE: Concept A

Concept A: Nestled

The “Nestled” concept builds upon the Ritter Park precedent of tucking the larger facilities into the trees, creating a more appealing “park feeling.” The parking lot was divided into several smaller bays connected with tree lined drive aisles. The baseball field was pushed farther out into the site.

The other elements were also tucked amongst the trees, creating an intimate feeling park. The proposed baseball field is shown in an orientation that connects it more to the existing baseball field, allowing for shared picnic shelters and easier pedestrian connection between the two.

The baseball field orientation also separates the portion of the field where spectators and players gather away from the additional shelter and restroom. This was in response to Town concerns over use of the picnic shelter, which becomes difficult to reserve when located close to a baseball field. The players tend to use the shelter and make it unusable for others.

Concept B: Meadow

The “Meadow” concept connects the second phase of Mills Park to the future phase with the community center with a large open space area known as “The Meadow.”

The concept also shows a more “ideal” rotation for the baseball field with a northeast alignment for the batter. However, this ballfield rotation reduces the connection between the existing and proposed field and places the more active portion of the field closer to the restroom and picnic shelter in the park.



IMAGE: Concept B

Initial Park Concepts



IMAGE: Concept C

Concept C: Park Beside a Complex

The “Park Beside a Complex” concept pushes the proposed baseball field closer to the existing ball field, allowing for better connection between the two and better shared facilities. Moving the ballfield closer to the existing athletic facilities essentially creates a larger athletic complex and then separates the other park elements with the proposed parking lot. The other park elements are tucked farther into the woods.

Public Meeting #1

Building upon the site analysis, the required program elements as determined by the 2011-2012 PRCR Master Plan and further input from the Town, the Design Team developed three initial concepts for the park design, as shown on the previous pages. These concepts showed possible locations of the proposed facilities, general layouts for scale purposes, and greenway connection opportunities.

Public participation at the first meeting in August presented the Town residents with the site analysis, three concepts and a greenway alignment. Attendance at the meeting was substantial, with approximately 40 people in attendance for a presentation by consultants and an informal discussion with exhibits posted throughout the space. The meeting was held at the Mills Park Middle School.

The feedback was generally enthusiastic and supportive. Some concerns or thoughts that were raised included:

1. *Discussion of greenway alignment. The consultants explained how the site analysis and existing Town easements identified the placement of the greenway. Most residents who have property abutting the greenway easement were already informed and aware of the future greenway alignment, thus reducing any substantial concern.*

2. *As discussed earlier, several residents expressed a desire for a lacrosse or soccer field instead of a baseball field. Many felt that the nearby Thomas Brooks Park provided ample baseball and that other needs were in more demand at this site. Town representatives*

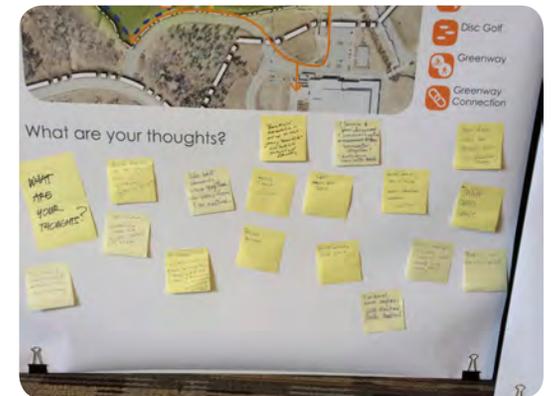
explained that the thorough needs assessment and public participation process for the 2011-2012 PRCR Master Plan determined that a baseball field was needed at Mills Park. However, because of the needs brought up by residents for additional lacrosse and soccer fields, the Town decided to include a multi-purpose field in the baseball outfield for flexibility of use.

3. *Other minor comments were made by residents, including:*

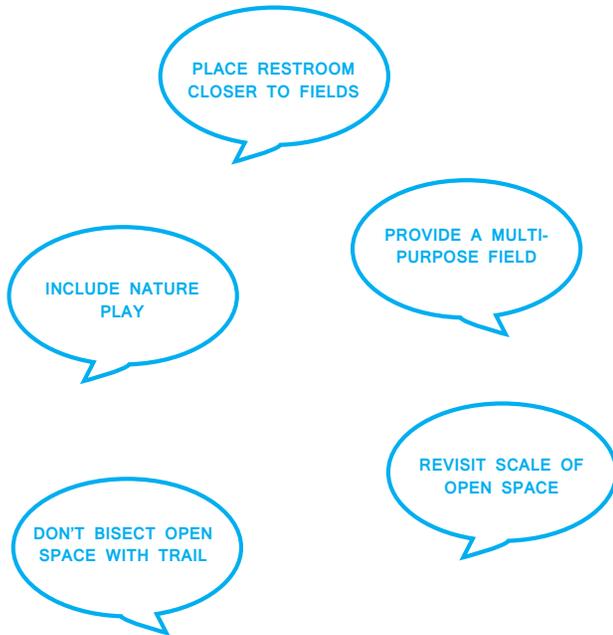
- *The desire to see the community center sooner rather than later.*
- *Questions about a pool facility that had been discussed with the 2011-2012 planning process.*
- *Greenway connection points within the park.*
- *Studying the size of the open space.*
- *Providing more nature play opportunities with the creek.*

4. *Overall, the public liked all three plans, but seemed to prefer the more “nestled” concept that tucked the proposed facilities into the woods and separated them with vegetated buffers. Most people particularly liked tucking the parking into the woods to reduce its visual impact on the site.*

5. *Some members of the public preferred the concept that brought the proposed baseball field closer to the existing field in an effort to create efficiencies in management and game attendance.*



WHAT WE HEARD...



Refinements and Input from Town

The open space was further refined and developed based upon public input and Town comments. An approximate size of 1.5 acres for the open space was determined to be a reasonable goal based upon precedent parks studied. Since public meeting #1, the design team had analyzed 3 Town of Cary parks to develop an open space strategy. These three parks were North Cary Park, Sears Park, and Walnut Street Park. The analysis determined that in order to create an effective open space that can be used for less organized recreation, several elements should be considered:

1. Create an open space that is approximately 1.5 acres in size. This is large enough to allow for multiple uses and create varied spaces.
2. Provide topography that varies the experience, creates playful opportunities and prevents organized play.
3. Provide vegetation within and on edges to create unique spaces and discourage organized play.
4. Provide a greenway that runs either adjacent to or bisects the open space. This helps to enliven the space and creates opportunities for cyclists or walkers to stop and relax.

The Town does not wish for the open space to be used for organized play, but rather as a gathering area for residents to use for lighter uses that do not degrade the turf. Such uses can be flying kites, throwing a Frisbee, picnicking, sunbathing, watching a concert, sledding, etc. This size is large enough to provide variation in topography and vegetation to prevent organized play and provide unique features, yet small enough to not overtake the park.

The design team also studied how to incorporate a multi-purpose field into the baseball field, per comments from the public on the need for more lacrosse and soccer space. Precedent parks were considered, as well as input from Town staff.

Design and Planning Process: Concept Refinement



1.08 ACRES

CONCEPT A-2 "NESTLED"



NORTH CARY PARK
1.4 ACRES



WALNUT CREEK PARK
1.5 ACRES



1.22 ACRES

CONCEPT C "PARK BESIDE A COMPLEX"



SEARS FARM ROAD PARK
.86 ACRES



ORIGINAL PROGRAM
BASEBALL

+



ADDED PROGRAM
MULTI-PURPOSE
FIELD

=



NEW PARK ELEMENT
BASEBALL +
MULTI-PURPOSE

Refined Concepts

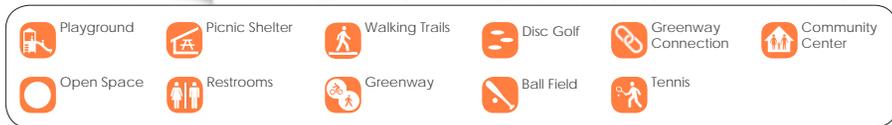


IMAGE: Concept A-2

Concept A-2

This concept refined the “Nestled” plan from public meeting #1. After the public feedback and Town input mentioned previously, the design team added a multi-purpose field to the baseball field to provide more recreational opportunities. The open space was refined and resized per the open space study.

The greenway trail runs adjacent to the open space and it will be graded to allow a slope in front of the picnic shelter that can be used for open air performances. The topography will provide unique interest to the park and recreational opportunities, while also discouraging organized play. The restrooms are combined with another picnic shelter that is located closer to the proposed ballfield, but still close to the playground to provide easy access for users from both facilities.

The concept shows a layout for the future community center higher on the top of the hill and closer to the entrance with tennis courts terracing down the slope toward the creek. The greenway trail loops around the ball field and the future park elements, providing connections to both the school and the sidewalk along the school access road. The playground is shifted back slightly from the main entrance to provide a clear view of play elements while also providing an opportunity for park signage at the entry.

The community center, tennis and additional parking will not be included in phase two of Mills Park, but in a future phase.

Concept C-2

This concept refined the “Park Beside a Complex” concept. The open space was reconfigured and resized based upon the earlier open space study. The greenway bisects the open space to discourage organized play and the grades will be sculpted to provide playful opportunities.

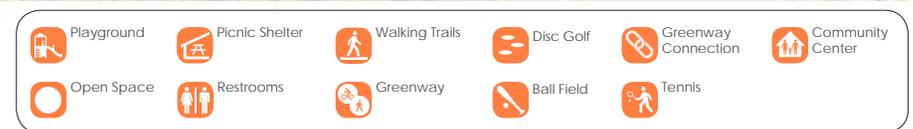
The ballfield includes a multi-purpose field in the outfield per public input and a direct pedestrian connection is made between the existing ballfield and the proposed. The parking is less “nestled” than Concept A-2 and ends at the restroom/picnic shelter to eliminate separation between the athletic facilities and the rest of the park.

The concept shows a layout for the future community center lower on the slope to reduce its prominence when driving into the site and create views of the creek from the community center. The tennis courts provide the connection between phase two of the park and the future phase. The greenway trail loops around the ball field and the future park elements, providing connections to both the school and the sidewalk along the school access road. The playground is centered at the entrance to the park to provide an opportunity for an iconic artful element at the entrance.

The community center, tennis and additional parking will not be included in phase two of Mills Park, but in a future phase.



IMAGE: Concept C-2



Design and Planning Process: Public Meeting #2



Public Meeting #2

The second public meeting held for future Mills Park planning showed two concept plans that were altered based upon feedback from public meeting #1 and Town input. These two concepts further developed the preferred plans showing a “nestled” park in the woods and a “park next to a complex” that pulled the proposed facilities closer to the existing facilities.

The second public meeting was held at the Mills Park Drive Fire Station. Attendees at this meeting were able to review the final two concept plans and final proposed greenway alignment and ask questions from both consultants and Town representatives. These concept plans included the future community center location and tennis courts, although they will likely not be in the next phase of the park construction due to budget constraints.

After comments from the public at the last public meeting, the Town decided it was helpful to show all of the future elements to help with layout of the park and allow the public to see the final likely park build-out. The park elements that will be included in the next phase will be determined by available funding and construction costs.

The overall feedback regarding the park concepts and greenway alignment were positive and that residents are anxious for the construction to begin. The “nestled” park concept seemed slightly preferred, but the two were generally both well liked.

Some comments from attendees included:

- 1. The “nestled” concept does a better job of separating the future park from the existing joint-use park. This might be helpful in reducing confusion over what facilities are available for public use during the school day.*
- 2. The combined baseball/multi-use field was received with positive support for its ability to meet everyone’s needs.*
- 3. The open space was also viewed positively in both its size, layout and possibilities for play and recreation.*

Concept Plan

After the final public meeting, the Town and design team moved forward with refining Concept A-2 (formerly “nestled”). This concept was slightly preferred by the Town and the public and met the initial design goal of creating a nestled park with minimal impact.

The concept plan as illustrated in the graphic on page 41 goes beyond Phase two. This was done to ensure that the phase 2 elements would not negatively impact the planned programmatic elements as currently envisioned. Future planning effort will be needed as funding becomes available to further define these future park elements and review the current standards that will need to be met including parking and stormwater requirements.

The overall concept plan for Mills Park shows the following:

- Children’s Playground (Image A, p. 43)
- Parking
- Restroom and picnic shelter combination building (Image C, p. 43)
- Baseball/multi-purpose field (Image E, p. 43)
- Panther Creek Greenway connections and paved walking loop around ballfield (Image D, p. 43)
- Open space for passive recreation (Image B, p. 43)
- Art and additional signage
- Stand-alone picnic shelter that could also serve as a bandstand for concerts
- 50,000-100,000 square foot community center/ field house (Image F, p. 43)
- 8 lighted Tennis courts
- Community Garden (p. 43)
- Spray Ground (p. 43)
- Future Recreation Sites (p. 43)

Stormwater Review

Initial stormwater calculations, along with preliminary permitting meetings with the Town, indicate that there will be no required stormwater ponds or treatment devices required for the park, as shown. This determination is based upon the overall master plan program elements, with the following assumptions:

- A 50,000 square foot building footprint for the future community building/field house
- Parking for approximately 250 cars
- The diffuse flow is required before the buffer at Panther Creek. This can be achieved through level spreaders or other devices, such as bio-retention, that slow the flow of water off site.
- The off-site adjacent roadways do not count toward the phosphorus and nitrogen nutrient load calculations.
- The stormwater calculations are analyzing the site based upon current standards:
 - Maximum impervious cannot exceed 12%
 - Maximum nitrogen threshold - 2.2 lb/ac/yr
 - Maximum phosphorus - .69 lb/ac/yr



Concept Plan Elements



IMAGE A

Playground

The playground is centrally located between the unprogrammed open space with picnic shelter, the restrooms, and the multi-purpose field. It will be composed of play structures for both younger and older children and children of all abilities. The playground will include natural areas to provide opportunities for planting seasonal flowers and canopy trees for shade.



IMAGE B

Passive Open Space

The passive open space is approximately 1.5 acres in size with varying topographic features to create unique playful experiences but deter organized play. The open space is defined by the greenway connector path on its east side and a natural forested woodland to the west. A picnic shelter that may serve as an amphitheater stage is included within the open space, located adjacent to the playground.



IMAGE C

Picnic Shelter & Restrooms

The main picnic shelter and restroom building is situated between the multi-purpose field and the playground along a multi-modal path. This central location will provide easy access for users from the playground and ball fields, as well as an accessible route from the parking lot.



IMAGE D

Greenway Connection

The greenway path connects the Panther Creek Greenway to the existing greenway along Mills Park Drive utilizing the new bridge and boardwalk crossing over Panther Creek. The greenway connection alignment aims to work with the existing topography in order to minimize slopes and promote universal accessibility.



IMAGE E

Multi-Use Athletic Fields

The master plan includes a multi-purpose athletic field as well as a baseball field. Both fields will be artificial turf in the future. The addition of a multi-purpose field was the direct result of feedback received during public meeting #1. It is included in the master plan in order to meet the town's need for additional lacrosse and soccer fields.

The multi-purpose field is 220 feet wide by 360 feet long and the baseball field measures 300 feet from home plate to the fence following both the first and third base foul lines.



IMAGE F

Community Center / Parking

The master plan reserves acreage for a community center or field house between 50,000 and 100,000 square feet. Adequate space for future parking is also reserved for the future addition which may also include tennis courts, additional signage/wayfinding, picnic shelters, greenway trail loop and disc golf.



IMAGE G

Future Recreation Areas

Areas of the site that are outside of the stream buffers but not connected to the central park core are available for future recreation as identified by the Town. These areas are shown in green and labeled to the left. These Future Recreation Areas could be used for stand-alone amenities, such as a dog park, a skate park, or additional parking.

The area in purple was previously identified as a location for a community garden or a location for a Kids Garden and/or a Safe Play Area such as a “Safety Town”. This was identified due to its proximity to the existing Fire Station. However, based on future needs this could change to some other type of recreation area and would be further vetted at that time.

DETAILED CONCEPT PLAN (PHASE 2)

Based upon available funding, phase two of Mills Park will include the following (see next page):

- A Playground with play elements for older and younger children
- Approximately 30 parking spaces for the park and greenway
- A restroom building and a picnic shelter
- Grading and seeding for an open field.
- The Panther Creek greenway connection through the site. This greenway will connect to the existing greenway trail on the school entrance drive.
- Sidewalk connections along the parking lot.
- Plantings in the playground and throughout the park.
- Site amenities such as benches and water fountains.

Phase 2 elements are within the red dashed line in the graphic on the following page. All other park elements are shown for reference only.

Detailed Concept Plan: Mills Park Phase 2



IMAGE: Detailed Master Plan

Mills Park Phase 2 will be an incredible amenity for residents on the western side of Cary. The construction of the park with Panther Creek Greenway provides a unique opportunity to connect residents to neighborhoods, schools, and the park. By designing and constructing these new features together, the park and greenway have been able to guide the layout of each, providing a cohesive design that meets the needs of the community and fits to the site topography.

The Town of Cary's park planning process has allowed for extensive public input - from the initial comprehensive planning and needs assessment phase to the detailed design and layout phase. By listening to the needs and desires of the growing community, the Town has ensured the success of this future Town park. Cary residents will have a new place to play, enjoy nature, and recreate with additional amenities planned for future park expansion as funds become available.



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July 11, 2014

Ms. Iona Thomas, AICP
Stewart, Inc.
421 Fayetteville Street, Suite 400
Raleigh, NC 27601

**Re: Section Jurisdictional and Natural Resource Findings
Mills Park Phase 2 & Panther Creek Greenway Project
Wake County, North Carolina**

Dear Ms. Thomas,

Ecological Engineering, LLP (Ecological Engineering) sincerely appreciates the opportunity to provide services, including jurisdictional stream and wetland determinations for the abovementioned project in Wake County, NC. This findings report describes our methodology, assessment and recommendations regarding the potential to adversely impact jurisdictional resources under Sections 404 and 401 of the Clean Water Act, as amended, as well as additional state buffer requirements. In addition, other natural resources including natural communities, invasive species, and federally protected species or their habitats regulated under the federal Endangered Species Act or the Bald and Golden Eagle Protection Act are described herein.

The Site consists of two primary study areas in western Wake County; the Mills Park property and the proposed Panther Creek greenway corridor. The Mills Park study area is located on the east side of Green Level Church Road (SR 1625) southeast of its intersection with Cary Glen Blvd. and west of I-540. The proposed Panther Creek greenway study area includes a portion of the Mills Park property, and continues east of I-540 along Panther Creek and its tributaries. Please refer to Figure 1 for a vicinity map of the project site. Study areas totaling approximately 109 acres were evaluated per guidance provided by Stewart Engineering of Raleigh, NC. Field assessments were performed between July 1 and July 8, 2014, and followed standard protocols associated with the US Army Corps of Engineers (USACE) and the NC Department of Water Resources (NCDWR) requirements. These specifically include the 1987 Corps of Engineers Wetland Delineation Manual with regional supplement and current NCDWR requirements for stream and buffer determinations.

Waters on-site drain to Panther Creek in the Cape Fear River basin. The 12-digit hydrologic unit code (HUC) of all site waters is 030300020605 (Northeast Creek subbasin).

Jurisdictional Findings

Field studies at and adjacent to the subject property identified the presence of fifteen stream channels (nine of which are both located on-site and jurisdictional) and seven jurisdictional wetland areas. Streams on-site include Panther Creek and unnamed tributaries (UTs) of Panther Creek. These resources

are briefly described below and summarized in the following chart. Please refer to the attached Stream & Wetland Sketch Map for the locations of streams on and adjacent to the evaluated area.

JURISDICTIONAL RESOURCES

Feature Name	Classification	Flag Nos.	Approximate Size/ Length in Study Area
Panther Creek	Perennial	SP-01 through SP-64	3,975 linear feet (not all of which was flagged)
Stream A	Intermittent	SA 25 through SA 01	665 linear feet (+ approx. 150' piped)
Stream B	Ephemeral	SB 01 through SB 05	150 linear feet
Stream C	Intermittent	SC 01 through SC 06	80 linear feet
Stream C	Perennial	SC 06 through SC 44	1,285 linear feet (+ approx. 150' piped)
Stream D	Perennial	SD 01 through SD 36	855 linear feet (+ approx. 150' piped)
Stream E	Ephemeral	Not flagged	No channel
Stream F	Intermittent	SF 01 through SF 10	215 linear feet
Stream G	Perennial	SG 01 through SG 13	435 linear feet
Stream H	Ephemeral	SH 01 through SH 08	240 linear feet
Stream I	Intermittent	SI 01 through SI 19	385 linear feet
Stream J	Ephemeral	SJ 01 through SJ 04	70 linear feet
Stream K	Ephemeral	SK 01 through SK 05	No channel on project area
Stream X	Intermittent	SX 36 through SX 01	No channel on project area
Stream Y	Intermittent	SY 01 through SY 32	20 linear feet on project area
Stream Z	Ephemeral	SZ 01 through SZ 16	520 linear feet
Wetland A	Palustrine forested	WA 01 through WA 28	0.31 acres
Wetland B	Palustrine forested	WB 01 through WB 31	0.14 acres
Wetland C	Palustrine forested	WC 01 through WC 23	0.27 acres
Wetland D	Palustrine forested	WD 01 through WD 06	0.02 acres
Wetland E	Palustrine forested	WE 01 through WE 17	0.34 acres
Wetland F	Palustrine forested	WF 01 through WF 62, WF 63 through WF 81, and WF 82 through WF 133	9.06 acres on project area (1.69 acres delineated outside project area)
Wetland G	Palustrine forested	WG 01 through WG 41	0.006 acres on project area (0.69 acres delineated outside project area)

Data pertaining to the vegetation, soil, and morphological descriptions of the delineated systems within the target area were collected by Ecological Engineering. This data will be necessary in moving forward with the Section 404/401 permitting process and buffer process, if applicable, and if any impacts are anticipated that would require initiating the permitting process. Photographs and accompanying field notes of jurisdictional features were also collected during the site visit to aid in regulatory coordination.

Ecological Engineering strongly recommends obtaining USACE and NCDWR verification of the delineations/determinations prior to committing significant resources to the site or commencing construction work. Due to the bio-degradable nature of the flagging utilized to field-mark these boundaries, verifications should be done as soon as possible. Only the USACE and NCDWR can make final wetland and stream determinations. The NCDWR will make appropriate buffer determinations. Please note that before any federal personnel can access the property, a letter granting authorization must be provided to the agency representative(s). Any site planning and/or development without obtaining regulatory verification would be done at the owner's risk. Our staff has extensive experience with similar projects and excellent relationships with many of the regulatory personnel throughout the State of North Carolina. We are fully capable of performing all permitting-related services to ensure your overall project goals are satisfied.

Permitting Overview

Section 404/US Army Corps of Engineers

Streams, open waters, and wetlands are considered “Waters of the United States.” Construction activities within waters of the U.S. are regulated by USACE under the Clean Water Act, as amended (33 U.S.C. 1344).

Certain types of minor impacts or fill activities may be eligible for permitting under the Nationwide Permit (NWP) program; however, applicable NWP’s only allow up to 0.5 acres of jurisdictional waters/wetlands impacts and 300 linear feet of perennial, intermittent, and ephemeral stream impacts for single and complete projects. Please be aware that the NWP thresholds are cumulative in nature; meaning that all impacts, filling of wetlands and/or piping of streams, cannot exceed 0.5 acre of wetland and/or 300 linear feet of stream.

Should jurisdictional impacts be unavoidable, proposed development of the site would be eligible for a NWP if impacts are below 0.5 acres of wetland and/or less than 300 linear feet of stream. A Pre-Construction Notification (PCN) would be required for most site development impacts to waters of the U.S. The PCN must include applicant information, project location and description, purpose and need statement, limits of proposed impacts, mitigation plan (if applicable), and information regarding endangered species and cultural resources. Once submitted, the USACE has approximately 45 days to determine the completeness of the permit application. In North Carolina, the USACE Wilmington District provides a relatively quick response as compared with other districts. The USACE must make a permit decision by the end of the 45 day period or request additional information prior to the 45 day expiration period. No fees are required as part of the federal process.

Compensatory mitigation is generally required for projects that result in adverse impacts to 0.1 acre or more of wetlands and/or more than 100 linear feet of stream. In North Carolina, ephemeral stream impacts do not require mitigation. For most NWP projects, compensatory mitigation is provided through the purchase of credits from an approved mitigation bank that services the project area. Impacts in excess of 0.5 acres of wetlands or 300 linear feet of stream require an Individual Permit (IP). If no mitigation banks are available, North Carolina also offers an in-lieu fee program through the NC Department of Environment and Natural Resources.

An IP requires a jurisdictional wetlands/waters delineation, endangered species and cultural resources surveys, and detailed discussions concerning project purpose/need, alternatives analysis, avoidance/minimization, and compensatory mitigation. Furthermore, a public notice and comment period and coordination with other state and federal agencies is required. The IP process typically requires nine to twelve months to complete, providing favorable agency review is received.

Section 401/NC Division of Water Resources

Based on existing jurisdictional features at the project site, Section 401 permitting will be conducted concurrently with Section 404 permitting. It is anticipated that the NCDWR will request a review and verification of the existing streams and wetlands to concur with stream classifications and identified wetland boundaries. A water quality certification will be issued if unavoidable impacts to jurisdictional resources occur as a result of overall project implementation. The application fees are noted below:

NCDWR APPLICATION FEES

Description	Fee
Major water quality applications: Greater than or equal to one acre of wetlands/waters AND/OR greater than or equal to 150 feet of streams (intermittent or perennial)	\$570
Minor water quality applications: Less than one acre of wetlands/waters AND less than 150 feet of streams (intermittent or perennial)	\$240

In accordance with 15A NCAC 02H .0506(h) and 15A NCAC 02H .1305(g), the NCDWR requires compensatory mitigation for losses of streams and wetlands (404 jurisdictional wetlands as well as isolated and other non-404 jurisdictional wetlands) as follows:

- For all non-linear public transportation projects, mitigation shall be required for impacts equal to or exceeding 150 linear feet of perennial and intermittent streams or impacts equal to or exceeding one acre of wetlands.
- For linear public transportation projects, mitigation shall be required for impacts equal to or exceeding 150 linear feet per stream or one acre of wetlands.

Jordan Lake Watershed Buffer Rules/ NC Division of Water Resources

The buffer protection rule associated with activities occurring in the Jordan Lake watershed requires that existing vegetated riparian buffers in the watershed be protected and maintained on both sides of intermittent and perennial streams, lakes, and ponds shown on either the most recent version of the 1:24,000 scale USGS topographic quadrangle or the most recent printed version of the NRCS county soil survey. This rule does not establish new buffers unless the existing use in the buffer area changes. The footprints of existing uses such as agriculture, buildings, commercial and other facilities, maintained lawns, utility lines, and on-site wastewater systems are exempt. A total of 50 feet of riparian area is required on each side of waterbodies, specifically stream channels. Within this 50 feet, the first 30 feet, referred to as Zone 1, is to remain undisturbed with the exception of certain activities. The outer 20 feet, referred to as Zone 2, must be vegetated, but certain additional uses are allowed. Specific activities are identified in the rule as "exempt", "allowable", "allowable with mitigation" or "prohibited".

Examples of "exempt" activities include driveway and utility crossings of certain sizes through zone 1, and grading and re-vegetation in zone 2. "Allowable" activities and "allowable with mitigation" activities require review by NCDWR staff and include activities such as greenways, new ponds in drainage ways and water crossings. Two other buffer rules also exist. They are the buffer mitigation rule and the buffer program delegation rule. The mitigation rule defines the process applicants would follow to gain approval for activities that are identified in the buffer protection rule as "allowable with mitigation." It also outlines acceptable mitigation measures. The delegation rule lays out the criteria and process for local governments to obtain authority to implement the buffer rules within their jurisdictions.

Town of Cary Urban Transition Buffer (UTB) Rules

The Town of Cary has implemented additional buffers on intermittent and perennial streams, lakes, and ponds. Waters shown on the most recent version of the 1:24,000 scale USGS topographic quadrangle are subject to a buffer of 100 feet on each side. Waters shown on the most recent printed version of the NRCS county soil survey (but not shown on the USGS quadrangle) are subject to a buffer of 50 feet on each side. Buffer widths are measured from the top of bank of surface waters.

Below is a table depicting the streams within and adjacent to the evaluated area. Based on NCDWR and Town of Cary definitions, at least seven stream channels would fall under buffer rule regulations, assuming NCDWR (and/or Town of Cary) verification.

STREAMS POTENTIALLY SUBJECT TO RIPARIAN BUFFER RULES

Stream ID	Classification	Shown on NRCS Soils Map	Shown on USGS Quad Map	Expected Jordan Buffer Width	Expected Town of Cary UTB Width
Stream A	Intermittent	Yes	No	50'	50'
Stream B	Ephemeral	No	No	N/A	N/A
Stream C	Intermittent/Perennial	Yes	Yes	50'	100'
Stream D	Perennial	Yes	No	50'	50'
Feature E	Ephemeral (No Channel)	Yes	No	None, pending NC-DWR verification	None, pending Town of Cary verification
Stream F	Intermittent	Yes	No	50'	50'
Stream G	Perennial	Yes	Yes	50'	100'
Stream H	Ephemeral	Yes	No	None, pending NC-DWR verification	None, pending Town of Cary verification
Stream I	Intermittent	Yes	No	50'	50'
Stream J	Ephemeral	Yes	No	None, pending NC-DWR verification	None, pending Town of Cary verification
Stream K	Ephemeral	Yes	No	None, pending NC-DWR verification	None, pending Town of Cary verification
Stream X	Intermittent	Yes	Yes	50'	100'
Stream Y	Intermittent/Perennial	No	No	N/A	N/A
Stream Z	Ephemeral	Yes	No	None, pending NC-DWR verification	None, pending Town of Cary verification

Plant Community Types

Plant community types on-site vary throughout the site with available moisture and changes in elevation. Community types include Dry-mesic Oak-hickory forest, Mesic Mixed Hardwood forest, and Piedmont Alluvial Forest (Weakley 1990). These community types are described below.

Uplands at higher elevations within the project area consist of Dry-mesic Oak-hickory forest. The canopy in this community type consists primarily of oaks and hickories, with Northern red oak (*Quercus rubra*), Southern red oak (*Q. falcata*), White oak (*Q. alba*), and Mockernut hickory (*Carya tomentosa*). Other common canopy hardwoods include Tulip poplar (*Liriodendron tulipifera*) and Sweet gum (*Liquidambar styraciflua*). Portions of this community type that have been harvested in recent years consist primarily of Loblolly pine (*Pinus taeda*). The subcanopy and understory in the Dry-mesic Oak-hickory forest include smaller specimens of the canopy species as well as small tree and shrub species such as Beautyberry (*Callicarpa americana*), American holly (*Ilex opaca*), and Persimmon (*Diospyros virginiana*).

Mesic Mixed Hardwood forest occurs on lower slopes. Canopy trees include Beech (*Fagus grandifolia*), Red maple (*Acer rubrum*), Sweet gum, and Tulip poplar. Smaller tree and shrub species include Witch hazel (*Hamamelis virginiana*), Slippery elm (*Ulmus rubra*), and Deciduous holly (*Ilex decidua*). Herbs include Christmas fern (*Polystichum acrostichoides*), Spotted wintergreen (*Chimaphila maculata*), and Jack-in-the-pulpit (*Arisaema triphyllum*) at transitional areas between Mesic Mixed Hardwood forest and

Piedmont Alluvial forest. Vines include Trumpet creeper (*Campsis radicans*), Poison Ivy (*Toxicodendron radicans*), and Roundleaf greenbrier (*Smilax rotundifolia*) as well as small areas of the invasive Japanese honeysuckle (*Lonicera japonica*).

Piedmont Alluvial forest occurs in the floodplain of Panther Creek and its larger tributaries. The canopy in this community type consists primarily of Green ash (*Fraxinus pennsylvanica*), River birch (*Betula nigra*), and American sycamore (*Platanus occidentalis*). Large specimens of Black willow (*Salix nigra*) occur in wetter areas. Sapling and shrub species include Ironwood (*Carpinus caroliniana*), Spicebush (*Lindera benzoin*), Elderberry (*Sambucus nigra*), and Deciduous holly, with Alder (*Alnus serrulata*) occurring in wetter areas. The herb layer is dominated by invasive Japanese stiltgrass (*Microstegium vimineum*) in places. Other herbs include Nettle chain fern (*Woodwardia areolata*), Sensitive fern (*Onoclea sensibilis*), and Lady fern (*Athyrium filix-femina*), with Lizard's tail (*Saururus cernuus*) in the wetter and lower-lying areas. Vines include Crossvine (*Bignonia capreolata*), Poison Ivy, and Roundleaf greenbrier.

Managed areas occur throughout all community types on-site in sewer, road, and power line rights-of-way. These areas are frequently mowed, and consist primarily of herbaceous species and low-growing shrubs such as Winged sumac (*Rhus copallinum*). These managed areas and their edges with adjacent forest contain the highest diversity of invasive species observed on-site. Invasive species include Chinese privet (*Ligustrum sinense*), Sericea lespedeza (*Lespedeza cuneata*), Japanese honeysuckle, and the Red imported fire ant (*Solenopsis invicta*).

Federally Protected Species

The United States Fish and Wildlife Service (USFWS) and NHP list four federally protected species in Wake County, NC. These are the Bald eagle (*Haliaeetus leucocephalus*), Red-cockaded woodpecker (*Picoides borealis*), Michaux's sumac (*Rhus michauxii*), and Dwarf wedgemussel (*Alasmidonta heterodon*).

Potentially suitable habitat for species protected by the federal Endangered Species Act and the Bald and Golden Eagle Protection Act was investigated on-site within the study area. In addition, North Carolina Natural Heritage Program (NHP) records within a two-mile radius of the study areas were evaluated utilizing the most recent NHP element occurrence records (NHP 2014).

Potentially suitable habitat for Michaux's sumac was found on-site within the periodically managed rights-of-way and in select other uplands on the site which exhibit an open canopy. Potentially suitable summer roosting habitat for the Northern long-eared bat was found on-site, and includes the majority of the forested areas (see NOTE below for a discussion of the Northern long-eared bat).

The results of on-site and NHP records searches are detailed in the table below.

WAKE COUNTY, NC FEDERALLY PROTECTED SPECIES

<u>Species</u>	<u>Listing Status</u>	<u>County Status</u>	<u>NHP Documented w/in 2 miles?</u>	<u>Preferred Habitat</u>	<u>Suitable Habitat On-site?</u>	<u>Biological Conclusion</u>
Bald eagle	Fed – BGPA NC – T	Wake – Current (NHP, USFWS)	No	Large trees within 1 mile of open water (nesting)	No	No effect
Red-cockaded woodpecker	Fed – E NC – E	Wake – Historical (NHP), Current (USFWS)	No	Pines, usually Longleaf, 80+ years old (nesting). Open character pine/wiregrass (foraging)	No	No effect
Michaux's sumac	Fed – E NC – E	Wake – Current (NHP, USFWS)	No	Intermittently disturbed herbaceous areas and open, fire-maintained woodlands	Yes – no specimens observed	Unresolved (plant-by-plant survey not performed)
Dwarf wedgemussel	Fed – E NC – E	Wake – Current (NHP, USFWS)	No	Large streams in the Neuse and Tar-Pamlico Basins	No – site is in Cape Fear Basin	No effect
Northern long-eared bat (see NOTE)	Fed – PE NC – E	Wake – Historical (NHP), Current (USFWS)	No	Summer roosting: trees over 3" dbh, trees with loose bark, hollow trees, old structures.	Yes	Unresolved (target surveys not performed)

NOTE: One additional species, the Northern long-eared bat (*Myotis septentrionalis*) (NLEB), is proposed for federal endangered status and is documented by NHP and USFWS to occur in Wake County. The USFWS has suggested that formal bat surveys be conducted within and near any projects that could potentially affect areas of potentially suitable NLEB summer roosting and foraging habitats. Although the species is currently proposed for federal endangered status and has not yet been formally listed, if project construction is not initiated prior to the formal endangered listing, the Owner will be required to determine effect of the project on the NLEB. Ecological Engineering strongly recommends initial habitat assessments and acoustic surveys to determine the need for more intensive mist net and roost surveys. Ecological Engineering is capable of performing these surveys, at the Owner's request, under a separate agreement.

Conclusions

Ecological Engineering appreciates the opportunity to provide environmental consulting services. If you have any questions or require any additional information regarding this letter report, please do not hesitate to contact us at 919-557-0929.

Respectfully submitted,

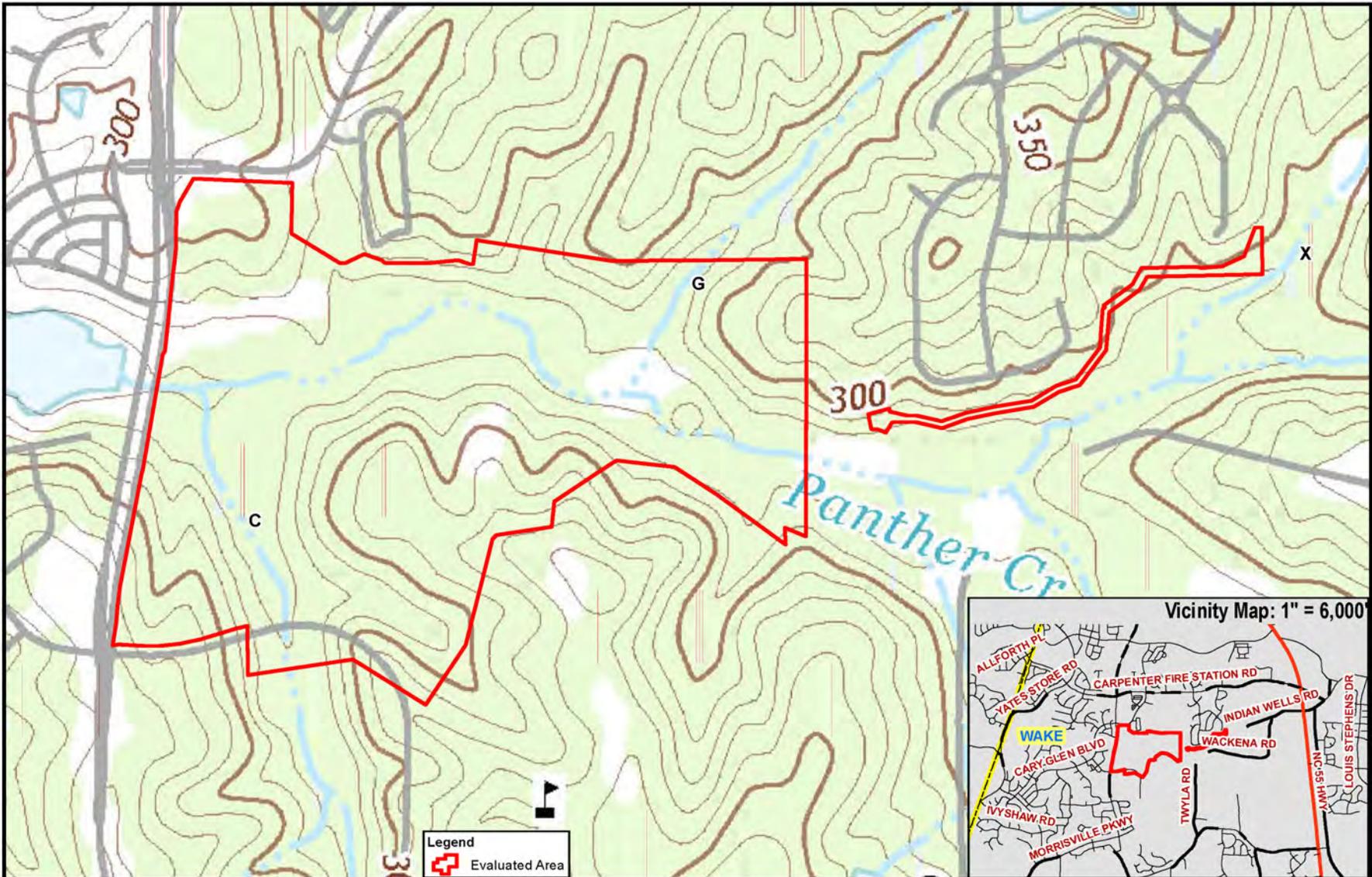
ECOLOGICAL ENGINEERING, LLP



David G. Cooper
Environmental Scientist

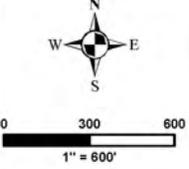
cc: Michael Taylor, Stewart, Inc.
Michael Batts, Stewart, Inc.
File

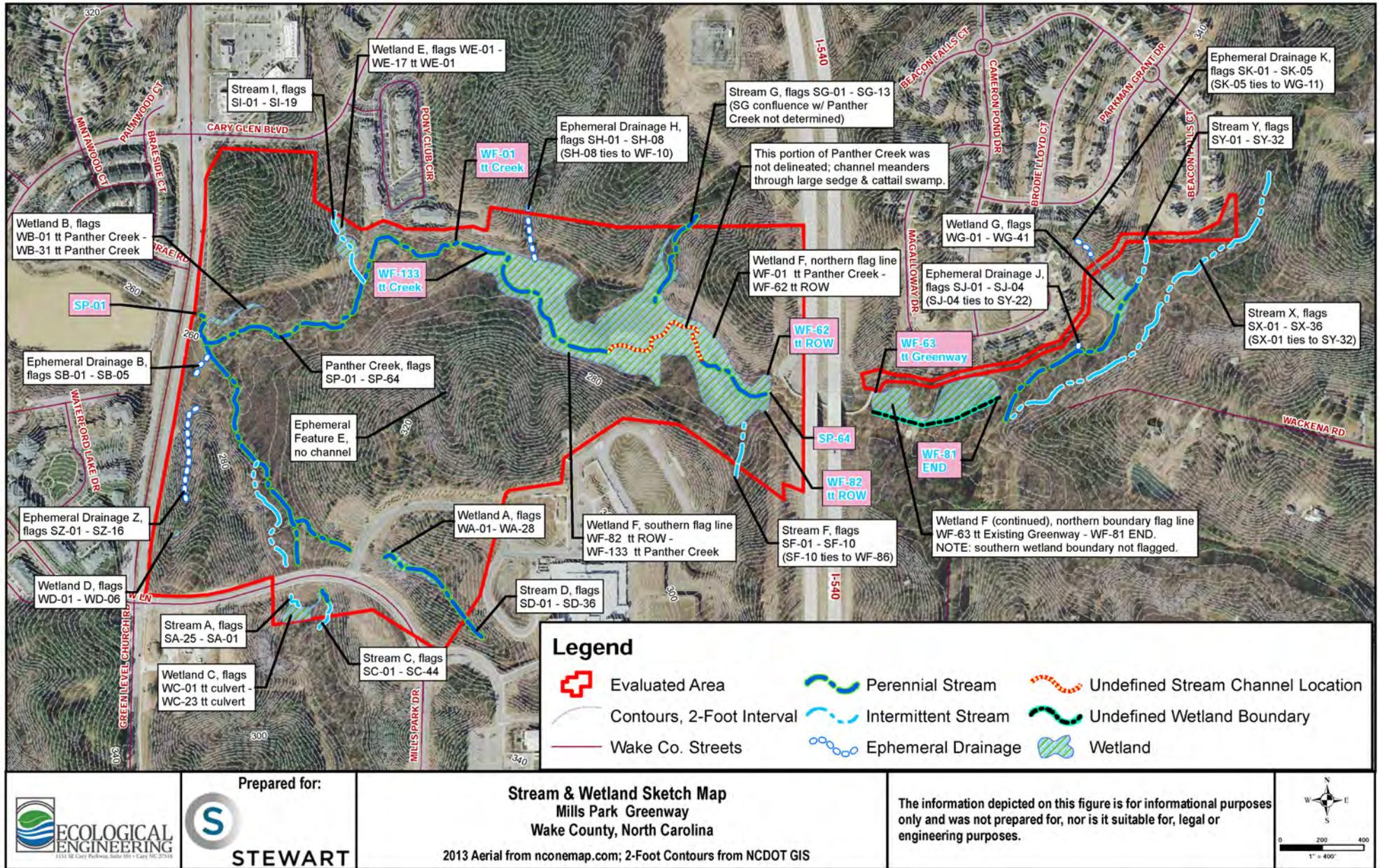
Attachments: 1. USGS Vicinity Map
2. Soil Survey Map
3. Stream & Wetland Sketch Map



**USGS Vicinity Map
Mills Park / Panther Creek Greenway
Wake County, North Carolina**

2013 Green Level USGS Quadrangle







STEWART

MEETING NOTES

DATE: May 27, 2014
TIME: 9:00am-10:30am
PROJECT: Mills Park & Panther Creek Greenway
Re: Kick-Off Meeting

ATTENDEES:

Doug McRaine, Director, Town of Cary, Parks Recreation and Cultural Resources
Paul Kuhn, Town of Cary, Facilities Design & Transportation Services
Sarah Alexander, Town of Cary, Facilities Design & Transportation Services
Dwayne Jones, Town of Cary, Parks Recreation and Cultural Resources
William Davis, Town of Cary, Parks Recreation and Cultural Resources
John Jenkins, Manager, Land Planning and Design, Stewart
Iona Thomas, Manager, Transportation, Stewart
Mike Taylor, Raleigh Transportation, Stewart
Michael Batts, Raleigh Land Planning and Design, Stewart
Jennifer Wagner, Raleigh Land Planning and Design, Stewart

1. Introductions

2. Goals

- a. Park: A "nestled park" – not a complex politically – a success if perceived as a park and not as a ballpark/complex/collection of fields
 - i. Carefully consider relationship between fields, parking and shelter.
- b. Greenway: Connect Cameron Pond, Mills Park and Green Level Church Road Pedestrian Culvert with 10' Greenway Trail
 - i. Potentially no need to have a CLOMR
 - ii. Hardest area will be the squeeze behind the existing homes
 - iii. Find shade (easement is wide open)

3. Park Discussion

- a. Program (desires, no-no's and pet-peeves)
 - i. \$1.3 Million bond for park – Sarah will help determine construction budget
 - ii. Project is on property all owned by the Town or existing easements
 - iii. Community Center (50,000 SF) and Parking
 1. Middle Creek could be precedent
 2. 7-8 years down the road
 3. Plan for it to be possibly bigger (70,000 sf) – maybe an aquatic component
 4. Precedent – Carmichael at NCSU (3-story)
 5. They have footprints of a building that was master planned here they can send us for planning purposes.
 6. Bond Parks' community center is 29,000 sf and has 110 spaces (not enough parking)



STEWART

- iv. Baseball Field (preferred)
 - 1. Softball field or tee ball is an “in lieu” option
 - 2. Lighting is preferred if in budget
 - 3. Want the nestled feel of fields – like Bond Park or Ritter Park
- v. Play Area
 - 1. Accommodate little and big kids
 - 2. Poured in place surfacing is TOC standard
 - 3. Sarah will send us specs for Kids Together surfacing
- vi. Open Lawn Area
- vii. Restroom Building
 - 1. Entrance to restroom should be from back or side of building if combined with shelter so that people do not have to go through the shelter to use the restroom.
 - 2. Locate restroom near field.
- viii. Picnic Shelter
 - 1. Can be combined with restroom or not. Options for both.
 - 2. Not sure of preferred size. TOC to determine.
 - 3. Middle Creek is an example of a bad relationship between restrooms and shelter – fields dominate parking and the shelter.
- ix. Park Parking and Circulation
 - 1. Control access to school but share parking if possible
 - 2. Possible existing teacher parking could be overflow parking
 - 3. Main access to park farther west of teacher parking to separate uses.
 - 4. Break parking into separate areas to create nestled feeling. Meander through with planted areas between.
 - 5. Possibly site parking across access road from community center with mid-block crossing.
 - 6. May occur in phases due to budget. Existing parking may be the first phase parking.
- x. Stormwater
 - 1. Prefer one BMP instead of multiple small devices.
- xi. Misc.
 - 1. Signage to indicate school hours and no entry for park.
 - 2. Verify sewer connection.
 - 3. Add 8 clay tennis courts near community center per master plan.
 - 4. Connection between greenway and park very important
 - 5. Views downhill to stream and Cary Park Lake important. Preserve views within park and greenway.



6. Possible greenway trailhead in 8 acres in NW corner of site.
7. Existing lower field will be converted to artificial turf

b. Analysis Discussion

- i. Doug agreed that slope analysis indicates community center should be sited on west portion of site.
- ii. Need to understand utility connections

c. Scale Relationship Diagram

- i. General layout seems good
- ii. Parking is critical, both phasing and location for access and views.
- iii. Like a single entrance for the community center and the park
- iv. Possibly place overflow parking south of loop?

d. Schedule Overview

- i. Add a 3rd public meeting in January to show the public the final plan to present to Council
- ii. Add greenway/advisory board meetings throughout (TOC can handle presentations)

e. Next Steps

- i. Stewart to create a detailed schedule
- ii. Stewart to finalize analysis
- iii. Stewart and Town to schedule an internal concept design workshop

4. Greenway Discussion

a. Analysis

b. Preliminary Routing

- i. Iona reviewed the preliminary route as determined by walking the site with Sarah and studying the topography.
- ii. Took trail off the easement or on the edge of the easement to find shade.
- iii. Create connections to existing trail spurs at developments.
- iv. Two possible options for connection at culvert – Town prefers splitting the difference to make the route easier to navigate for students while also keeping some shade. This might depend upon budget.
- v. Possible trailhead at NW corner of site. Would need up to 40 parking spaces and drinking water.

c. Next Steps

- i. Full stream delineations
- ii. Finalize alignment per comments.
- iii. Make connections to park.



MEETING NOTES

DATE: July 10, 2014
TIME: 1:00pm-4:00pm
PROJECT: Mills Park & Panther Creek Greenway
Re: Park Charette with Town

ATTENDEES:

Doug McRainey, Director, Town of Cary, Parks Recreation and Cultural Resources
Paul Kuhn, Town of Cary, Facilities Design & Transportation Services
Sarah Alexander, Town of Cary, Facilities Design & Transportation Services
Dwayne Jones, Town of Cary, Parks Recreation and Cultural Resources
Michael Batts, Raleigh Land Planning and Design, Stewart
Jennifer Wagner, Raleigh Land Planning and Design, Stewart

1. Goal of Charette

- a. The group agreed the goal is to develop 2 to 3 conceptual alternatives that meet the project goals and programming needs.
- b. The design team needs to clearly understand the Town's needs with regard to phasing, programming, and shared use agreements.

2. Analysis Update: review of Ecological Engineering's Findings

- a. Stream buffers do not affect the 23 "buildable acres" for the park.
- b. Utility analysis was reviewed:
 - i. Connections are available near the school or in the road.
 - ii. Need to confirm reclaimed water location
 - iii. Confirm sanitary sewer service line options: grinder pump around east of school; sanitary sewer line in main road; pull sanitary sewer line for future community center.
- c. The existing stormwater pond was sized for the school and roads and will not be able to handle additional runoff. The pond could be enlarged to handle the stormwater runoff from the future community center.
- d. An additional stormwater pond will need to be sized for the park. The Town prefers one stormwater pond to reduce maintenance.
- e. Parking analysis was reviewed:
 - i. 290 spaces needed per Code for community center and ball field.
 - ii. "Park" is labeled "Schedule C" which states that parking may vary widely and that the Planning Director will apply standards most similar or the applicant may propose other recommendations based upon a parking and loading study.
 - iii. Town recommended aiming for 300-350 spaces.

3. Review Preliminary Planning Studies

- a. Stewart showed a preliminary concept plan of where the park program elements could be located based upon the following:

- i. The concept of a nestled park, as determined at the kick-off meeting with the Town. This concept led the design to place the largest park elements (community center, baseball field and existing baseball field) away from each other so that they could be nestled in the woods and not create a "complex".
 - ii. Parking broken into smaller lots.
 - iii. Community center on high point for views.
 - iv. Play and open space central to the park to connect the community center and the athletic field.
 - v. Picnic shelter/restroom combo near play area and somewhat near ball field.
 - vi. Ball field oriented to proper sun orientation.
 - vii. Tennis terraced down slope behind community center. Less tennis was provided than originally asked for with a possible option of providing additional tennis on the other side of the road inside the loop.
 - b. Feedback on the preliminary concept plans:
 - i. Tennis courts need to be closer to the athletic side of the park and 8 courts are needed adjacent to one another for tournament play. These will be clay courts.
 - ii. Restroom/picnic – debate on where to best locate based upon concerns of baseball users "taking over" the shelter so it cannot be reserved. Consider separate shelter for elsewhere.
 - iii. Interest in changing orientation of baseball field to create an active node closer to the active node of the existing field, possibly with restroom between.
 - iv. The space inside of the loop is difficult to use because it needs to be something that can stand on its own. For now, the Town chooses to reserve it for a future use. Possible uses discussed were: dog park; community garden; overflow parking.
 - v. The area at the corner of Green Level Church Road, across from the Fire Station was discussed. This area will be left untouched for now. Possible uses discussed were: dog park; community garden; "Safety Town".
 - vi. The area across from the creek in the upper northwest corner was also discussed and agreed for now to leave it untouched for possible future use. It's location makes it hard to integrate into the park. Possible use discussed previously was: trailhead parking.
- 4. Develop Alternative Planning Studies**
- a. The group came up with three concept plans to explore farther:
 - i. Concept A – Nestled Park
 - 1. Community center and athletic area connected by greenway/open space/playground
 - 2. Restrooms closer to baseball fields

- 3. Tennis terraced behind community center
 - 4. Water play and playground at entrance – iconic
 - ii. Concept B – Terraced Community Center
 - 1. Tennis closer to athletic area
 - 2. Community center pulled closer to Green Level Church Road
 - 3. Athletic field and community center connected by lawn/open space and play
 - 4. Possible additional play farther away with shelter
 - 5. Restroom between fields
 - iii. Concept C – Building off the existing complex
 - 1. Move baseball field closer to existing field to increase efficiency and require less land disturbance by tucking the remaining park elements into the landscape.
 - 2. Other elements similar to concept B
- 5. Public Survey and Public Meeting Discussion**
- a. The Town advised that rather than a survey questionnaire, a comment card will be provided to solicit input.
 - b. The public meetings were discussed to determine the most effective way to garner public input and keep the park process moving along efficiently. The following was decided:
 - i. Public Meeting #1 – August 19; Mills Park cafeteria; 5:30-7:00
 - 1. Discuss history/big picture of site and park.
 - a. Master Plan Concept approved by Council.
 - b. Program meets needs of a neighborhood park and what Town determined was needed.
 - c. Site already has athletic facilities – park will build off of them.
 - d. Joint Use Agreement with School
 - 2. Emphasize existing greenway trails and how this section of trail will connect to a larger system.
 - 3. Show Site Analysis.
 - 4. Review 3 concepts.
 - 5. Discuss limited funding and public priorities for park – Preference ranking of program items.
 - 6. Provide comment cards
 - 7. Town to advertise: HOA's; school; Town website
 - ii. Public Meeting #2 – end of September/October– Date to be determined (call for school ballgame; grocery store; greenway)
 - 1. Go out to school ballgame; grocery store; greenway
 - 2. Present site analysis boards
 - 3. Present 2 concept plans (narrowed down from first meeting), with a preferred plan.
 - 4. Provide comment cards
 - iii. Public Meeting #3 –



1. Brief history of process.
2. Show Preferred Concept for review.

6. Schedule/Next Steps

- a. July 31 - The team agreed to review concepts and a draft of the public meeting presentation.
 - i. Stewart to refine 3 concepts
 - ii. Stewart to create a storyboard of presentation
- b. August 19 – Town and Stewart present at Public Meeting #1
- c. August 28 – meet to discuss what we learned at the public meeting so that team can narrow down to two concept plans.
- d. September 8 – Town presents information from public meeting to PRCR Advisory Board
- e. End of Sept/Oct – Town and Stewart present at Public Meeting #2
- f. 3-week review process with Town to review concept plan before third public meeting
- g. 3rd Public meeting and 30% drawings and costs – early 2015
- h. Stewart will refine and finalize schedule and send to Town.



STEWART

MEETING NOTES

PROJECT NAME	TOWN OF CARY MILLS PARK	ATTENDEES
PROJECT #	C-14020	Doug McRaney, Director, Town of Cary, Parks Recreation and Cultural Resources
MEETING DATE	October 6, 2014	Paul Kuhn, Town of Cary, Facilities Design & Transportation Services
MEETING TIME	12:30-2:00	Sarah Alexander, Town of Cary, Facilities Design & Transportation Services
MEETING LOCATION	TOC, 3 rd floor	Dwayne Jones, Town of Cary, Parks Recreation and Cultural Resources
RE	Revised park Concepts: A-2 and C-2	William Davis, Town of Cary, Parks Recreation and Cultural Resources
		Michael Batts, Raleigh Land Planning and Design, Stewart
		Jennifer Wegner, Raleigh Land Planning and Design, Stewart

NOTES:

1. **RECAP OF PUBLIC MEETING**
 1. MULTIPURPOSE FIELD
 2. FUTURE PARKING FOR COMM CTR
 1. SHOW BUBBLE ON NEXT MASTER PLAN
 3. FUTURE COMMUNITY CENTER/TENNIS
 1. SHOW BUBBLES ONLY ON NEXT MASTER PLAN
2. **PRCR COMMENTS**
 1. IS THERE GOING TO BE PUBLIC ART?

1 of 3
NOTES BY: MBATTS

2. DO WE REALLY NEED ANOTHER BASEBALL FIELD?

3. REVIEW OF REVISED MASTER PLAN STUDIES

1. CONCEPT A-2
 1. REVIEW PARKING STRATEGY – phase in?
 2. PICNIC SHELTER SHOULD MOVE TO OTHER SIDE OF OPEN SPACE TO REDUCE CONFLICT WITH MP FIELD
 3. SHELTER COULD BECOME AN IMPROMPTU EVENT PAVILION AND PEOPLE COULD USE LAWN FOR CASUAL SEATING
 4. LIKE PLAY NEAR PARKING
 5. PROVIDE WALKING LOOP AROUND FIELD
 6. PLAYGROUND/OPEN SPACE IS ALONG THE GREENWAY WHICH BENEFITS PARENTS USING GREENWAY
2. CONCEPT C-2
 1. CONCERNED WITH RESTROOM LOCATION VS PLAY LOCATION (FAR)
 2. PAUL HAS CONCERN ABOUT ISOLATION OF NATURE PLAY WITH THIS PROJECT PHASE
 3. NATURE PLAY AT REAR WILL BE SHOWN AS FUTURE PHASE WITH PLAYGROUND CLOSER TO FRONT
 4. ISSUE WITH SCHOOL PARKING MAY OCCUR BECAUSE FIELD USERS WILL MOST LIKELY PARK IN EXISTING PARKING LOT
 5. WHICH ONE ALLOWS FOR MORE COST EFFECTIVE GRADING?
 6. CAN WE EXTEND THE EXISTING PARKING FROM THE EXISTING SCHOOL LOT AND GATE IT TO AVOID USER CONFLICT
 7. PLAYGROUND/OPEN SPACE IS ALONG THE GREENWAY WHICH BENEFITS PARENTS USING GREENWAY
 8. PROVIDE WALKING LOOP TRAIL

4. REVIEWED OPEN SPACE PRECEDENT

1. OPEN SPACE SHOULD BE FOR FREE PLAY AND FOR THE EXPERIENCE
 1. SEARS PARK- .8 acres
 1. HOW BIG IS LARGE CIRCLE AREA?
 2. WALNUT CREEK PARK- 1.5 acres
 1. THIS COULD BE A NICE SCALE FOR MILLS
 2. HILL BECOMES AN IMPROMPTU SLEDDING HILL
 3. PLAZA SPACE OFFERS ADDITIONAL FLEX SPACE
 3. NORTH CARY PARK- 1.5 acres
 1. NEGATIVE- BALLS GO DOWN HILL

2 of 3

NOTES BY: MBATTS

2. PEOPLE LIKE THE VIEWS TO THE OPEN SPACE
3. GREAT PICNICKING AREA
4. FRED FLETCHER PARK- baseball with multi-purpose field
 1. OUTFIELD HAS A FENCE
 2. MILLS MP FIELD PROGRAM
 1. 300' BASEBALL FIELD ALL THE WAY AROUND
 2. 195' x 330' SHOWN ON PLANS FOR MULTI-PURPOSE FIELD
 3. 220' x 360' MULTIPURPOSE FIELD PREFERRED
2. **NEXT STEPS**
 1. SEND BUBBLE DIAGRAM OVERLAYS TO SARAH
 2. 10/27 MTG- FINAL REVIEW WITH OWNER (CONCEPTS AND PRESENTATION)
 3. NEXT PUBLIC MEETING
 1. AT FIRE STATION
 2. CLEARLY SHOW THE DIFFERENCES BETWEEN 2 CONCEPTS
 3. HAVE MINOR PRESENTATION TELLING
 1. WHAT WE HEARD
 2. HOW WE RESPONDED
 3. WHAT YOU ARE GOING TO SEE ON THE BOARDS

END OF MEETING NOTES

3 of 3
NOTES BY: MBATTS



STEWART

MEETING NOTES

PROJECT NAME	Mills Park	ATTENDEES
PROJECT #	C14020.00	Doug McRainey, Director, Town of Cary, Parks Recreation and Cultural Resources
MEETING DATE	10/27/14	Lori Cove, Director, Town of Cary, Transportation & Facilities
MEETING TIME	10-1130am	Paul Kuhn, Town of Cary, Facilities Design & Transportation Services
MEETING LOCATION	Town of Cary, 1 st floor	Sarah Alexander, Town of Cary, Facilities Design & Transportation Services
RE	Review of Public Mtg 2 Deliverables	Dwayne Jones, Town of Cary, Parks Recreation and Cultural Resources
		William Davis, Town of Cary, Parks Recreation and Cultural Resources
		Michael Batts, Raleigh Land Planning and Design, Stewart
		Jennifer Wagner, Raleigh Land Planning and Design, Stewart
		Michael Taylor, Transportation, Stewart

PURPOSE:

1. Schedule
1. December 4, 2014 is next public meeting, an open house format.
2. December 22, 2014: Draft Master Plan Report (text in Word format for Town review)
3. February 2, 2014: Advisory Board review (send Master Plan report two weeks prior)

1 of 3

NOTES BY: MBATTS

4. Town will release Stewart to begin 25% plans after public mtg 2 (Dec 4) to determine cost and scope of Phase 2

5. Public Mtg 3: early February 2015 (Town Staff will handle final public meeting)

6. March 2, 2015: Town Council review final master plan report

2. Greenway update:

1. Made connections to future town homes

2. Cameron pond area connection is being adjusted to connect to a developer built greenway in this area

3. Stewart has been studying the flood model for the bridge design

4. We are studying an all-fill design instead of boardwalk on the park side of the creek

3. Change to "Walnut Street park" on open space slide

4. Look at sewer and water connections for restrooms

5. Option 1 Revisions:

1. Include vehicular link to school parking lot and future parking

2. Include future community center, parking and tennis in master plan

3. Include future greenway loop around west side of community center phase

4. Study future parking expansion around east side of field to assure trail works

5. Eliminate greenway spur to street

6. Move sidewalk connection to cross "park side" of parking lot

7. It is difficult to know if open space is viable without knowing the community center location and its impact on the open space

8. Look at slightly lowering fields a to allow sloped grass seating

9. Look at east trail becoming closer to field to keep an eye on kids

6. Option 2 Revisions:

1. community center parking access needs to be accommodated

2. Include future community center, parking and tennis in master plan

3. Need ability to expand parking

4. Adjust parking to allow for T intersection for future community center access

5. Duplication of trail should be reduced

6. Move the restroom to the mid-point of the baseball field (too far from playground)

7. Greenway

2 of 3

NOTES BY: MBATTS

1. Add Board with information about bridge crossing and zoom into greenway for more detail

8. Next steps

1. Send overlay of original community center master plans
2. Only bring boards for public meeting, there will not be a presentation
3. Remove "Final" from plan titles on boards
4. Draft Master Plan Report 12/22 (reference Carpenter Farm Master Plan for format)
 1. 8-1/2 x 11 format will fold out
 2. Send text to town for review in word format as early as possible.

END OF MEETING NOTES

3 of 3
NOTES BY: MBATTS



STEWART

MEETING NOTES

DATE: August 19, 2014

TIME: 5:00 pm-8:00 pm

PROJECT: Mills Park

LOCATION: Mills Middle School Cafeteria

Re: Public Meeting #1

ATTENDEES: approx. 35 people attended

- Thoughts from the public:
 - a. Who is going to police trail?
 - i. Including greenways
 - ii. White Oak Trail Parking lot – issues in past
 - b. Emergency call boxes?
 - c. Lacrosse on open lawn
 - d. Cedar Point- 2 turf fields
 - e. Would like a turf field (one is coming)
 - f. (Guy on greenway committee)
 - g. We heard there would be a water park
 - h. Nature Play along stream
 - i. Size of Bond Park in comparison?
 - j. Like the idea
 - k. High School Athletic Director Panther Creek HS – huge demand for Lacrosse
 - l. How are field programming needs determined? (Programming determined baseball was most needed a few years ago - William Davis- commented on 2012 planning, there is demand for both-all)
 - m. Demand for Lacrosse and open fields
 - n. Do we really need a baseball field with Brooks park so close?
 - o. 8 years ago we had big meetings about indoor recreation space/aquatic center/splash park?
 - p. Soccer/ Lacrosse Multi-field
 - q. How will the Cameron Pond easement be screened?
 - r. How does the location of the greenway get determined within the easement?
 - s. Are the “future greenways” designed or scheduled for construction?
 - i. (Most likely will be with future development projects)
 - t. It would be good to see Phase 3 in context of Phase 2.
 - i. What is included in phase 3?

- ii. Future Phase bubbles will include the community center element.
 - u. Need Aquatics Center – should be a priority; nothing on this side of town
 - v. Ex. Greenway curb cuts don't meet ADA Standards
 - w. Where are the Bike Routes?
 - x. Nature play at rear area on the stream edge
 - y. Durham Park- Dinosaur
 - z. Red Hawk Owls are present on site near proposed vehicular entrance
 - aa. Security – greenway
 - bb. Topo- vegetation should inform site and meadow location
 - cc. Greenway- come in most direct/ least topo- no switchbacks
 - dd. Closest shelter? (Bond Park)
 - ee. Great location for a Dog Park – closest is New Hope Church
 - ff. This could be an opportunity for a Cary West Park- like Bond Park. (Paul pointed out Bond Park is a Metro Park, this is a Community Park)
 - gg. Be careful putting any shelters, etc. out in the woods. There might be issues with vandalism/graffiti.
- Lessons Learned (internal)
 - a. Work flow
 - b. Name tags
 - c. Easels and boards
 - d. Simplify bubble diagram
 - e. Pointer/ advancer
 - f. Look at cost estimate



STEWART

MEETING NOTES

DATE: December 04, 2014

TIME: 5:00 pm-8:00 pm

PROJECT: Mills Park

LOCATION: Mills Drive Fire Station #8

Re: Public Meeting #2

ATTENDEES: approx. 15 people attended

- Thoughts from the public:
 - a. The “nestled” concept (A-2) does a better job of separating the future park from the existing joint-use park. This might be helpful in reducing confusion over what facilities are available for public use during the school day.
 - b. The combined baseball/multi-use field was received with positive support for its ability to meet everyone’s needs.
 - c. The open space was also viewed positively for its revised size, layout and possibilities for play and recreation.
 - d. Excited for the greenway connections between the neighborhoods and schools.
- The Town emphasized that the final buildout of the park will be determined by available funding and construction costs.
- Feedback was positive. Residents are anxious for construction to begin, particularly students who hope to use the greenway trail to access school.
- The “nestled” concept (A-2) seemed slightly preferred, although they were both well liked.



MEETING MINUTES

DATE: March 5, 2015

TIME: 2:30pm-4:30pm

PROJECT: Mills Park and Panther Creek Greenway

Re: Review Meeting

Attendees:

Stewart

Michael Batts
Jennifer Wagner
Joe Puckett
Nataile Carmen
Michael Taylor

Town of Cary

Doug McRainey PRCR
Paul Kuhn FD&TS
Dwayne Jones PRCR

A. Phase 1 Review

1. Stormwater Update

1. Treatment requirements are not required until the impervious surface for Mills Park Drive, Green Level Church Road and 540 are added to the calculations
 1. Ordinance requires calculations to include ½ transportation impervious (Green Level Church Road, 540, Mills Park Dr., and Cary Glen Blvd.)
 2. Stewart to continue investigating if any of those roads are already being treated, this can be eliminated from calculations.
2. Nutrient Buy down
 1. Potential nutrient buy down may exceed \$350,000 based on the current estimates from land banks
 2. Cost would be reduced if no credits are available in the Jordan basin and the project would purchase credits from the EEP at reduced rates
 3. Creating a land bank is a possibility to offset stormwater requirements
 1. The off-parcel land bank requires a conservation easement to be dedicated on an existing parcel of land to offset the stormwater requirements of the project's parcel
 2. This is a possible strategy for this site
3. Stormwater calculations are accounting for natural turf rather than artificial turf for the future ball fields. Calculations can also show the potential impact if the fields are artificial turf instead.
4. Owner preference is to create 1 large BMP, in lieu of 2, if possible
5. Include the additional 20 spaces and turnaround at the end of the parking bay in the final stormwater calculations



6. Provide basic estimate of future phase stormwater requirements including:

- 1. 50,000 SF footprint
- 2. Parking
- 3. Tennis
- 4. Walkways allowance
- 5. Artificial turf instead of natural turf at the fields

2. Grading

- 1. Potentially eliminate the rough grading for field to reduce costs
- 2. BMP grading and installation would be required even though field rough grading would not be included

3. Costs

- 1. Current Budgets
 - 1. Greenway: 1.4M
 - 2. Park: 1M
 - 3. Greenway/trailhead: 1M (federal funds pending grant approval)
- 4. **Total budget: 3.4M**

2. Greenway Costs

- 1. Budget: 1.4M
- 2. Current design: 1.7M

3. Park Costs

- 1. Budget: 1M
- 2. Current owner preferred phase 1 design: 2.6M (including estimated soft costs at \$400k approx.)

4. Additional alternates:

- 1. 1.5M for artificial surfacing, lights and field amenities.

5. Need to add additional soft costs:

- 1. CA fees
- 2. Stormwater nutrient buy down costs

6. Preferred Base Bid to get close to budget is as follows: *(highlighted elements are preferred to be included in the greenway/trailhead budget if feasible)*

- 1. 30 parking spaces
- 2. Restroom/shelter
- 3. Sewer/water
- 4. Greenway trail and grading
- 5. Stormwater treatment devices
- 6. Phased playground with rubber surfacing
 - 1. Rubber surfacing under swings and slides is required
- 7. Minimal sidewalks necessary to connect phase 1 elements

7. Investigate which portions of the greenway within the park are in the greenway budget vs. the greenway/trailhead budget

8. Add parking lot lights

- 1. Lights will be leased from Duke Energy

4. Utilities

- 1. Sanitary Sewer



1. Preference is to install a smaller service line for the restroom building in lieu of a main sewer line.
 2. Preference for the future community center is to connect the sewer service to the existing sewer line along the creek Stewart to study if there is a connection point that would work for the current phase and future phase
 2. Water service
 1. Preference is to reduce the length of water line service
- B. Master Plan Review**
- a. Master Plan Report completion is pending the final resolution of the phase 1 budget and scope.

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STEWART BY DESIGN

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MEETING MINUTES

DATE: March 11, 2015
TIME: 10:30am-11:00am
PROJECT: Mills Park and Panther Creek Greenway
Re: DRC Meeting, Town of Cary

Attendees:

Stewart
Jennifer Wagner
Joe Puckett
Michael Taylor

Town of Cary
Sarah Alexander, Project PM

Town of Cary DRC staff:

Ricky Barker
Matt Flynn
Priyatham Konda
Douglas Loveland
Sandi Bailey
Jamie Bissonnette

- A. Trees
 - 1. Ensure there is a tree survey indicating any champion trees.
- B. Transportation
 - 2. Make sure any ADA ramps along the park access road meet NCDOT standards.
- C. Utilities
 - 1. Reclaimed water line exists in the park access road loop (6" or 8").
 - 2. Show a public line with manholes up to the property line and a service beyond.
- D. Stormwater
 - 1. Clearly show flood plain and stream buffers
 - 2. Erosion Control plan will go through DENR.
 - 3. The thoroughfare roads surrounding the site do not need to be included in the nutrient calculations for TP and TN for the park. The roads only count towards total impervious and TSS nutrient calculations
 - 4. Based upon the proposed elements of this second phase of the park, it is assumed that neither a stormwater device nor buy-down will be required. This will be confirmed when calculations are submitted in the report for site plan approval.