ROCK CREEK PARK

A COMMUNITY VISIONING PROCESS

Prepared By: Temple University Master of Landscape Architecture Students
For: Cheltenham Township and Its' Residents
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Introduction and Site Context

Background

During the fall semester of 2012, second-year graduate students enrolled in Temple University's Master of Landscape Architecture prohgram partnered with Cheltenham Township to review potential design solutions for a 21.81 acre area surrounding Rock Creek in Cheltenham, PA. Once a beautiful, natural space for the community, the site's environmental condition has suffered in recent years, and it is no longer ecologically healthy. Based on meetings with the public and a detailed inventory and analysis process, students were tasked with developing master plan alternatives for the area, including detailed design spaces addressing specific program requests.

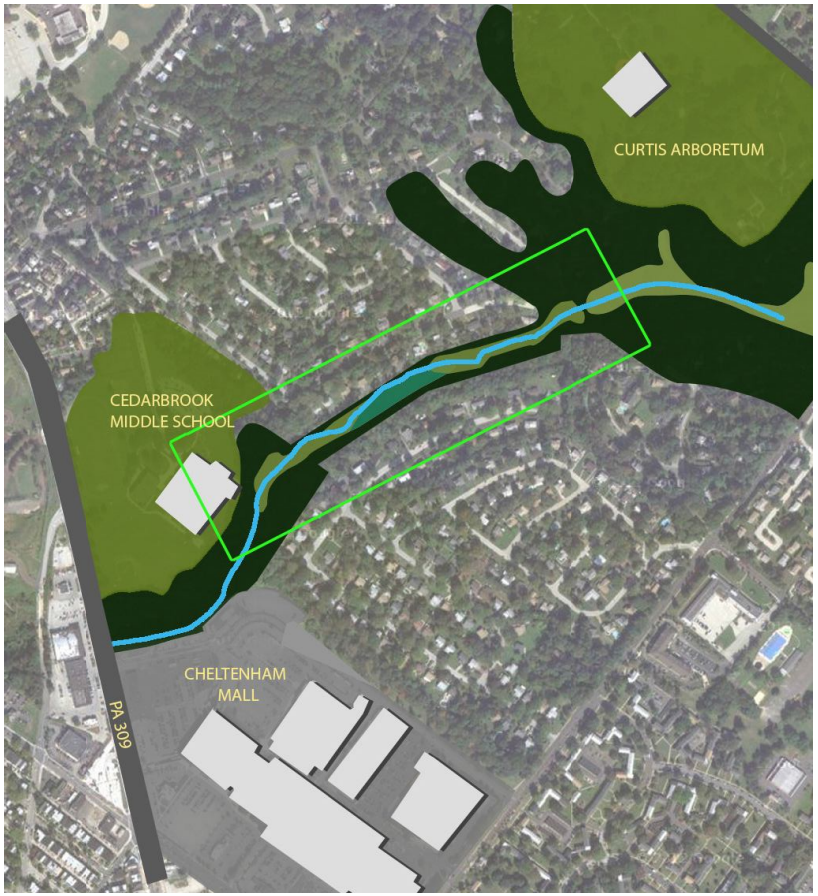
The project site abuts Cedarbrook Middle School and Curtis Arboretum at its western and eastern termini. Residential properties along Green Valley Road and Rock Creek Drive sit in between the two public areas. Historically, the site was a beautiful natural space that connected to the arboretum and surrounding neighborhoods, making it a valued resource. Recently, the woodland has become dominated by invasive plant species, and the creek is plagued by poor water quality, flooding and erosion.

Encroaching development from a new highway, strip mall and mega-store parking lots narrowed the creek valley and increased the volume of storm water runoff entering the ecosystem, increasing erosion of soils and trash along the banks. Severe flooding downstream of the site has damaged residences in the recent years. This has resulted in interest in water quality from residents and local and national agencies.

Process

The design process began with a site visit to gain an understanding of the existing conditions. This was followed by research and development of case study precedents and site inventory and analysis. Findings were presented at two public meetings, which included distribution of surveys. Survey comments were used to develop a range of design alternatives. Students began constructing master plans that addressed various design themes related to ecological restoration, education, celebration of cultural history, and tole of water through the landscape.

Four alternatives with varying elements were presented to the community at the end of the semester to aid in the continued visioning process for the space. It is hoped that this compilation of the semester's work can guide the township in making decisions for this public land, and help to secure grants. Rock Creek Park can provide outdoor education and serve as a biological corridor between larger green spaces or greenways that are linked to a larger network of pedestrian/cycling routes.



Greenway Precedents

San Antonio Greenway
San Antonio, TX

The San Antonio Greenways Development Project, is a linear park and open space system consisting of over 41 miles of hiking, walking, and cycling trails along three major rivers. It is built in response to a devastating 100+ year flood which killed 11 residents and caused over $500 million in property damage. The flood showed area residents and government officials that some areas simply are not suited for development because they are along watersheds and could potentially flood.

The design intent included a series of objectives that focused on conservation of natural processes and facilitating regional storm water management to prevent future flooding. These objectives included enhancement of the appearance and function of the linear green corridors, improving water quality, providing new and varied recreational opportunities, facilitating neighborhood revitalization, and community pride, conserving and interpreting cultural resources, protecting natural resources and wildlife habitat, creating alternative transportation corridors, and providing economic development opportunities.

The design style is simple in form and construction methods were chosen to respect natural processes. In most cases, the greenway trails consist of a single 8-10 ft wide cycling and walking path that meanders alongside waterways and with frequent river crossings. Choice of materials varied according to environmental and topographical considerations and include both solid and permeable concrete and asphalt, as well as raised boarwalks.

Greenway Precedents

Black Rock Sanctuary
Phoenixville, PA

Black Rock Sanctuary in nearby Chester County offers several components to consider for the Rock Creek area of Cheltenham Township. Black Rock Sanctuary was designed by KMS Design Group, LLC based in Phoenixville, PA as an environmental restoration project with a focus on education and storm water management.

Located in a bend of the Schuylkill River and adjacent to a residential neighborhood, the project transformed a degraded and polluted landscape into a beautiful park with wildflower meadows, woodlands, wetlands and an abundance of wildlife habitat. Black Rock Sanctuary includes ADA accessible trails that wind through the park, leading the visitor to explore a series of educational and interactive kiosks and scenic overlooks that build appreciation and understanding for the ecological systems at work.

The trails traverse the upland meadows, through the woodlands and around the wetlands, eventually leading to the lowlands along the river bank. Through a series of constructed vegetated wetlands and ponds, the park is hable to capture, hold and infiltrate all storm water on the site. Aside from adding beauty and wildlife habitat, this system serves the critical functions of recharging the water table, preventing floods and cleansing pollutants from storm water before it enters the river.

Greenway Precedents

Darby Creek Greenway
Newtown Square, PA

The Darby Creek flows from Darby into the Delaware River. The Greenway is a network of trails designed to direct focus on the preservation and enhancement of the creek area, and to provide a focal point for residential and community environmental groups while preserving existing and historic sites to encourage more residential visitors. Areas such as the John Heinz Wildlife Management Area and the East Coast Greenway are to be linked to suburban neighborhoods of Philadelphia creating hubs of the greenway. The "greening" of existing roadways, transit networks, and blueways (riparian areas, streams, and creeks) provide a base structure for the greenway system.

The beautification and ecological stabilization of the Darby Creek system is also designed to improve the natural capacity to handle storm, thereby decreasing flows into the sewage system. To this end, design features include wetland areas, vegetates swales, raingardens and curbside bumpout gardens. Thes features allow for stormwater to return to the subsoils and recharge the groundwater flow.

A mixed use of existing paved trails, dirt trails, roadways, transit corridors and blueways are incorporated into the network. New trails, both paved and dirt are used to connect to the existing parks and roadways of the surrounding neighborhoods.

The Darby Creek Greenway network provides prime opportunity to connect the urban with the rural. Through bicycle routes and public transportation, anyone can enjoy this long flowing creek. Roads connecting with trails, trails connecting with waterways, waterways connecting with parkland, and parkland connecting with people.