

The Willowbrook Walking Path



Introduction

The Willowbrook Walking Path is a 0.6 mile urban health and fitness loop trail with connections to Carver Park, the Watts-Willowbrook Boys and Girls Club, and Carver Elementary School. A portion of the walking trail is directly adjacent to Compton Creek. The quality of our neighborhoods, and communities has a substantial impact on our daily lives. This urban walking path has significantly increased walking opportunities for the community while at the same time it has greatly improved the water quality, wildlife and plant habitat of the Compton Creek portion adjacent to the path.

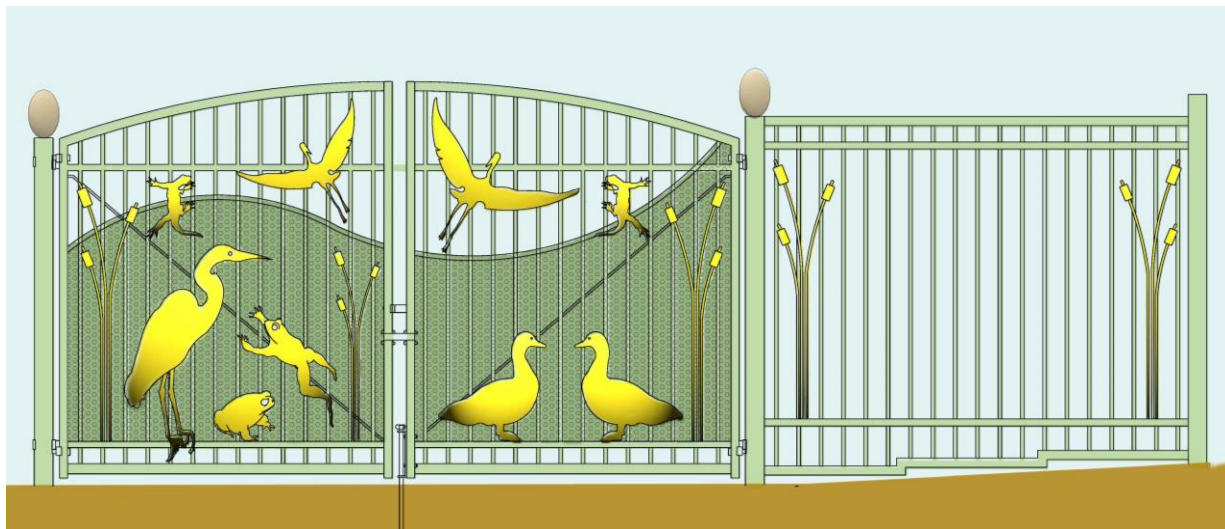
As an example of an “integrated design approach” we improved the overall visual character of the neighborhood by eliminated the signs of decay like graffiti, trash and weeds; while implementing measures that reduce and sequester carbon dioxide, address heat island effect, remove water pollutants and recharge the ground water. This project is an example of sustainable design in a tightly constrained, high-use urban environment.

Site and Context

Compton Creek is a major tributary of the Los Angeles River. The stream drains a watershed of 42.1 square miles and is the last major tributary to enter the Los Angeles River before it enters the Pacific Ocean. The stream begins just east of South Main Street between 107th and 108th Streets in Los Angeles. Compton Creek passes through Willowbrook and runs 8.5 miles in total.

This is a home to most common species of birds found in urbanized Los Angeles which include: crows (*Corvus brachyrhynchos*), pigeons (*Columba livia*), mourning doves (*Zenaidura macroura*), house finch (*Carpodacus mexicanus*), northern mockingbird (*Mimus polyglottos*), California towhee (*Pipilo crissalis*), and scrub jay (*Aphelocoma coerulescens*). A number of wintering birds also utilize the area during migration including Townsend’s warbler (*Dendroica townsendi*), yellow-rumped warbler (*Dendroica coronata*), lesser goldfinch (*Carduelis psaltria*), white-throated swifts (*Aeronautes saxatalis*), and cliff swallows (*Hirundo pyrrhonota*). Along with the raptors, lizards have adapted quite well to this urban environment. Species that could be present

within this urban setting include: side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), and Southern alligator lizard (*Gerrhonotus multicarinatus*).



The Gate and Fencing Conceptual Sketch

Opportunities and Challenges

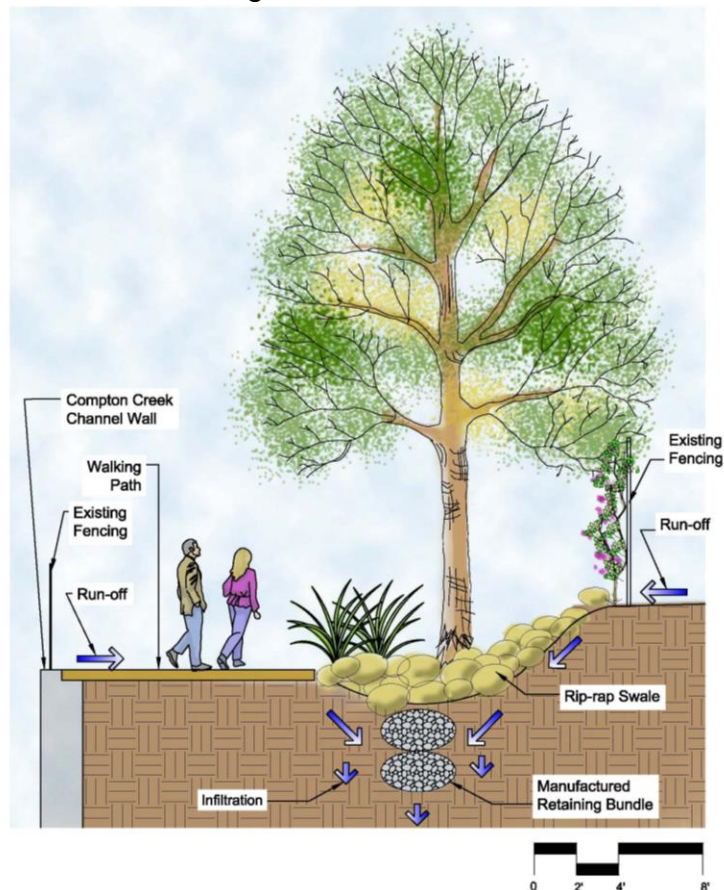
This project presented us with the opportunity to improve the quality of the neighborhood, the health of the community's residents and the health of the watershed. The Willowbrook Walking Path utilizes existing sidewalks on the North, South and East sides of the project site. The trail section to the west, adjacent Compton Creek includes access gates, a rip rap bio swale, decomposed granite paving and native shade trees, grasses and vines. The path creates a loop around the block and connects to par course exercise equipment, mile markers and a trail head with educational signage. The signage features health and diet tips, a site map showing the connecting loop, and information on how the design of this project helps to capture and clean the storm water runoff before it enters the creek.

This project was a collaboration between several partners. The County of Los Angeles Department of Parks and Recreation provided the design. To support the design the County of Los Angeles Department of Public Works replaced the concrete on the existing sidewalks with integral colored concrete that matched the color of the decomposed granite used on the path adjacent to Compton Creek. This gave the loop a stronger sense of consistency and connection. The portion of the project adjacent to the creek was constructed by a non-profit organization, the Los Angeles Conservation Corp, the new fencing area along the property lines and the creek wall was installed by the County of Los Angeles Flood Control. Last but not least the County of Los Angeles Department of Parks and Recreation constructed the trail head and exercise area.

Design Strategy

The existing conditions of Compton Creek were poor, the easement adjacent to the creek was paved with patches of asphalt and covered with invasive exotic plant material (weeds). The adjacent properties slope toward the creek sending all of the stormwater runoff, silt and pollutants into the creek during each storm event. The major focus for sustainable methods, techniques and materials was on this portion of the project.

We covered the slope with un-mortared rip-rap, this served to stabilize the slope, prevent erosion and slow down the run-off consequently helping the water to penetrate the soil and/or evaporate. Above the slope's surface and between the rip-rap we planted riparian native trees and grasses. At the bottom of the slope and below the surface we placed pre-manufactured water retaining bundles which hold 10 gallons of water per linear foot. The water flows down the slope over the rip-rap and into a shallow ditch then percolates into the retaining bundles where it will sit until the water infiltrates the ground. This action filters the water by removing heavy metals, suspended solids and petroleum products. It also recharges the groundwater and reduces thermal pollution which can impact fish and other wildlife that depend on cold water streams to live and breed. The California Sycamore tree (*Platanus Rasemosa*) was selected as the Willowbrook Walking Path shade tree. This tree is native to California and grows in riparian areas such as floodplains, along streams and rivers. Reaching heights to 100' feet and canopy spreads up to 70' at full maturity, a single, fully grown tree transform 26 pounds of carbon dioxide into life-giving oxygen every year. Within the tree's life time it will remove nearly half of its weight in carbon dioxide. Below the Sycamore trees we planted a native riparian grass called Deer Grass (*Muhlenbergia rigens*). This grass grows naturally on the banks of seasonal creeks making it a good choice for Compton Creek. The leaves on this beautiful grass range in color from light silver-green to purple and reach up to three feet in height with two foot plumes (flowers). The grass seeds provide food for many diverse bird species and during the winter it hosts many species of moths, butterflies and ladybugs. In addition its dense stands and extensive roots act as biofilters, effective for the removal and breakdown of herbicides, pesticides and particulates found in stormwater run-off. Additional sustainable elements incorporated into the project design include a solar irrigation controller and low flow irrigations devices.



Conclusion

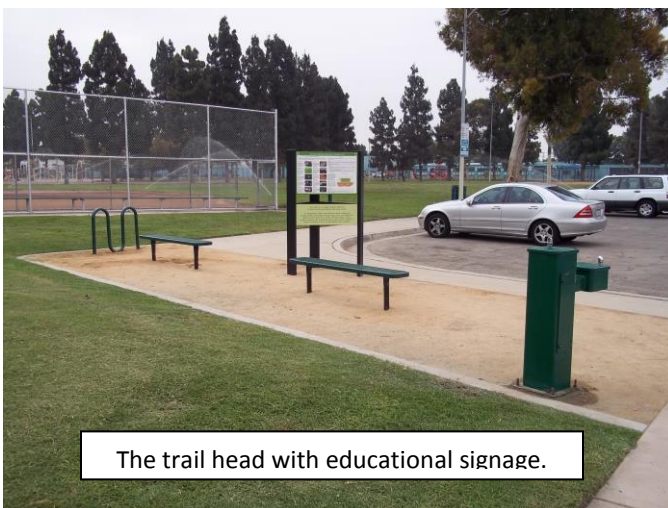
The Willowbrook Walking Path demonstrates to other municipalities and designers the benefits of employing a complete integrated design process oriented toward healthy communities and the health of our environment.



Entry to walking path adjacent to Compton Creek



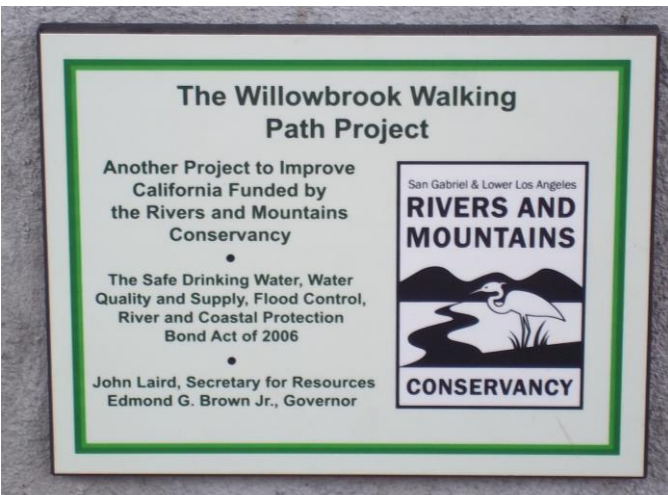
The rip rap and newly planted trees and grasses.



The trail head with educational signage.



The exercise area with educational signage.



The Willowbrook community.