

# High Point

## Seattle, Washington, U.S.A.

Residents of the High Point Affordable Housing Community did not want the stigma of "public housing" to continue. Also, the community was isolated and run-down. Seattle's Housing Authority, with support from the U.S. Department of Housing and Urban Development (HUD), decided to create a new, greener master plan for the 120-acre site. One of the major concerns was how to mitigate the environmental effects of the housing community, which was contributing significant, polluted run-off to one of the few functioning salmon-bearing creeks in the area.

The new High Point includes a 34-block residential neighborhood with a mix of incomes, ethnicities, and household structures. The redevelopment occupies roughly 8 percent of Seattle's Longfellow Creek watershed, an urban salmon-bearing stream that is one of only four remaining in the city. Seattle Public Utilities realized that the redevelopment of the 1940s-era site provided the potential to mitigate a significant source of contaminated urban runoff. To address the environmental impact of the previous housing community, creative low-impact development strategies were utilized for each urban block and a natural drainage system was employed for the whole neighborhood.

High Point replaces a post-World War II public housing project of 716 units with a community of 1,600 new housing units. Forty-five percent of these new units are affordable and low-income rentals being constructed by the housing authority, Providence Senior Housing, and 55 percent are for-sale, market-rate units.

High Point's natural stormwater management system begins at the houses, channeling the roof runoff across splashblocks draining to furrows, channels, dispersion trenches, rain gardens, and pervious pavements. Twenty-two-thousand linear feet of swales, developed with engineered soil (a mixture of gravel and compost),

are graded with periodic berms to allow water to pond and slowly filter through the plantings into the soil. Drainage is managed within the blocks, and overflow at each block is piped to the stormwater pond for additional treatment. This distributed block-scale drainage system provides much greater opportunity to cleanse, cool, and filter stormwater runoff than the traditional piped and centralized management approach.

Small pocket parks throughout High Point are situated so that parents and caregivers inside their homes can easily monitor children playing outside. The shared green spaces are conducive to more social interaction and in turn to more security through the direct and constant supervision of residents. The open plan includes community garden spaces and a large market garden where residents can grow and sell produce.

Considerable effort was made to design narrower streets to reduce impervious surface area, encourage slower driving speeds, and contribute to a safer community. High Point also includes one of Seattle's first "Complete Streets"—a street designated by the city of Seattle that that serves multiple functions (i.e. pedestrians, bikes, cars, and ecological systems). The reconfigured street system now joins the city's existing grid, inviting physical and social connections between High Point and the surrounding neighborhood and eliminating the perceived barriers created by the area's previous layout. High Point also connects with the Longfellow Creek Legacy Trail, a 4.2 mile system, one of four salmon bearing streams remaining in the city of Seattle.

Native, drought-tolerant, and site-suitable plants minimize the need for irrigation and pesticides. Amended soils improve water retention, while a computerized irrigation management system adjusts water supply based on plant needs, solar orientation, and local weather information. The addition of more

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than 3,000 trees effectively tripled the number of trees on the site. More than 100 mature trees were carefully preserved on-site, thus retaining the character of a mature neighborhood. As an added benefit, the zones of saved trees created pockets of open space that total more than an acre.

Allergen-free landscape guidelines were developed. Due to a unique opportunity to have a control group of existing residents who returned to High Point, research by the King County Health Department was able to document a 67 percent reduction in urgent emergency room visits after families moved back in. This represents significant cost savings to taxpayers, insurance companies, employers, and a substantial improvement in quality of life for residents.

During construction, there was a focus on reusing existing materials. During the first phase of development, a portion of existing housing units were deconstructed and materials were salvaged for reuse either on-site or other locations in the area. During later phases of the redevelopment, the existing concrete pavement was demolished and then ground up and reused for utility trench backfill. Trees, when not preserved, were cut and chipped and used as mulch around the existing vegetation and trees. Local regional materials were used (when possible) for the landscape, paving and building systems. Existing rockeries were reused for constructing new rockeries, and boulders found during excavation operations were reused on site in the parks and other landscape areas. In addition, during construction, best management practices for temporary erosion and sediment control were applied to control and treat construction stormwater on-site. Lastly, some construction equipment was run on biodiesel fuel.

For future operations and preservation of the system, a landscape maintenance manual for the Natural Drainage System Open Space and Right-of-Way was developed. The intention of the manual was to provide information on how to maintain the landscape systems in a sustainable way and provide flow control and water quality treatment over the long term. The manual covers

everything from maintenance of porous pavements, rain gardens, infiltration trenches, to tree pruning and soil amending. Sustainable practices for weed management such as hand weeding, dense plantings and mulching on semi-annual basis are also included. Site maintenance crews are reusing wood chips from pruning operations on site. In addition, household recyclables and site-wide yard waste are collected for reuse. Pesticides and herbicides cannot be used in landscape areas.

## Project Resources

### OVERALL MASTER PLANNING, ARCHITECTURE, SITE DESIGN AND LANDSCAPE ARCHITECTURE

Pond Park, North Park, Bataan Park

### DESIGN TEAM

#### Mithun

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### PRINCIPAL CIVIL ENGINEER AND RIGHT OF WAY NATURAL SYSTEMS AND LANDSCAPE

#### PE SvR Design Company

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### HOUSING LANDSCAPE ARCHITECT

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