Part C / Section I

Project Summary

project overview

Grout Elementary, a Portland Public School in inner southeast Portland serving a diverse student body, has launched a Rain Garden Project. This is the second phase in a multi-year project to transform the playing field from a drab, muddy field to an engaging play space and learning environment, usable year around by neighborhood groups, children, and walkers. This phase involves designing and constructing a rain garden, disconnecting downspouts, hooking up a rainwater cistern, and building a diversionary asphalt berm to direct rainwater into the raingarden and away from the covered play area and drains.

an extension of larger vision

The Rain Garden Project will extend a garden project that began in late 2009 when a group of parents and teachers decided they could turn the muddy field into something better. Early in 2010, Grout parent and public artist James Harrison created a long-term design for that playground approved by the Grout Garden Committee and Nancy Bond at Portland Public Schools. Over the past year, volunteers built raised beds and a fence demarcating a vegetable garden area, created a sculptural outdoor classroom using materials from a recycled baseball backstop, rotated the soccer field, built an outdoor classroom with garden beds on an unused cement patio, painted the border walls of the playground in bright colors, and constructed a berm to add height variety to the field. We have also submitted a grant application to Nike for a walking track around the outside of the field to increase exercise options, even in muddy conditions.

watershed health benefits

The Rain Garden Project aims to contribute to the health of the Willamette watershed, supporting the Portland Watershed Management Plan strategy of managing stormwater. Rainwater accumulated on the school basketball court roof and blacktop will be filtered by the rain garden planted with native plants. Rainwater from the Grout Elementary school roof will also be redirected into a 2500 gallon cistern, and used to water the gardens, also filtering that water before it returns to the watershed.

educational benefits

The rain garden and stormwater management will educate Grout Elementary students about watershed health and stewardship, revealing the interconnectedness between rainwater, surfaces at Grout elementary, and the Willamette River watershed. Third-grade teacher Lisa Van Clock has developed a rain garden lesson plan for her class. Grout Elementary 4th & 5th grade classes study watershed issues at Oaks Bottom through a partnership with Portland Environmental Services, and the rain garden will connect those off-site lessons to the spaces they use daily, through formal lesson plans and informal play. Grout Elementary is also a SUN Community School site, and these summer classes will incorporate rain garden maintenance into their curriculum. Abigail Rotwein, Playworks site coordinator at Grout, emphasizes the importance of the rain garden project to support her mission of promoting positive play and exercise at Grout.

The early phases of the Garden Project began to shape spatial boundaries for the kids as they navigate their own play boundaries, and the nature-scaping creates an emotionally nourishing space. This next phase will extend those benefits and, additionally, create a safer, drier space. The playground blacktop basketball court and the playing field are sloped toward one sewer drain where water frequently puddles into standing water. Water also travels across the basketball court, creating a slippery surface for the children. These portions of the playground can be unpleasantly slick and muddy. This project will redirect that rainwater so that the kids can stay dry and have more play space regardless of the weather.

a technically feasible project

Daniel Kapsch, a representive from the Bureau of Environmental Services Stormwater Retrofits, surveyed the site in November 2010 and determined that there is ample area to install a rain garden that will safely manage run-off. He determined that the cistern overflow can be routed into the new rain garden as well as the other garden. In addition, the garden committee performed percolation tests with the 4th grade class, determining that the soil has adequate percolation. We have also discussed the feasibility with several professionals with years of experience in storm water management, and all say our plans are very good for dealing with our water issues and will also improve the playing field appeal and usability.