

Terrace Park School



Terrace Park School entry at twilight.
Photo courtesy of INTEGRUS Architects.

FLOOR SPACE: 72,664 ft.²
BUDGET: \$11.4 million for construction; \$18.2 million total budget (\$156.88/ft.²)
BUILDING POPULATION: 700 students (Grades K - 8)
CONSTRUCTION DATES: Completed December 2001
OWNER: Edmonds School District #15
ARCHITECT: INTEGRUS Architecture
LANDSCAPE ARCHITECTURE: The Berger Partnership
MECHANICAL ENGINEER: Hultz/BHU/Cross Engineers
ELECTRICAL ENGINEER: Sparling
COMMISSIONING: Wood Harbinger

PROJECT NOTES

SITE AND WATER

- **Stormwater:** A site drainage system, comprising sculptural cisterns and landscaped drainage swales, collects and distributes stormwater runoff from the roof and site. Water collected in cisterns can be used for irrigation. Wetland plants in the swales provide treatment before the water reaches Lyons Creek and eventually Lake Washington. Fire lanes are paved with reinforced grass turf, not asphalt.
- **Education.** Outdoor learning areas to provide hands-on education about watershed management and native plants and insects.

ENERGY AND ATMOSPHERE

- **Energy Efficiency:** Measures include energy efficient motors, CO₂ sensors to control ventilation in the gymnasium, multipurpose room, library, and administrative spaces. Equipment efficiencies exceeded code where appropriate.
- **Standardization:** Equipment components and controls are standardized with District standards to reduce maintenance training and stocking of parts.

INDOOR ENVIRONMENTAL QUALITY

- **Daylighting:** Daylighting of classrooms, flex areas, and the commons is accomplished through the generous use of windows, clerestories, and light shelves to reflect sunlight deeper into the classroom spaces. On south-facing windows, solar heat gain and glare are reduced by the use of sunshades.
- **Careful Product Selection:** Casework and furnishings are free of urea formaldehydes, and to the extent possible, paints, finishes and sealers used low levels of volatile organic compounds (VOCs) to

MATERIALS AND RESOURCES

- **Minimal Finishes:** Concrete floors, ground faced concrete block walls, and wood beams and ceilings were left exposed in many areas. Minimizing finishes saved material and waste, both during initial construction and throughout the building's life cycle. Also, exposed materials enhance student and staff learning about building systems.
- **Sustainably Harvested Wood:** Certified lumber from sustainably harvested forests was used for much of the structural framing and interior finishes.
- **Salvaged Materials:** Glulam beams salvaged from the existing school were refinished and used as treads for the central stair, stage extension, and benches throughout the school.
- **Durable Materials:** The facility incorporates extra durable materials in keeping with the District's 50-year occupancy programmatic requirements.
- **Closing the Loop:** Crushed concrete from the slab of the existing school was reused as fill for the new building. Pulverized asphalt from the old parking lot was used as subbase for the new parking lot.



Main stairway.
Photo courtesy of Integrus Architects

EXPANDING THE OPPORTUNITIES FOR LEARNING

Constructed in 2001, Terrace Park School is home for a 700-student community, comprising K - 8 students drawn from the surrounding neighborhood, combined with a 1st – 6th grade “Challenge” program for highly capable students from throughout the school district. It replaces a junior high school building originally constructed on the site in 1954. The site is located adjacent to the city’s recreation facility and borders on a wooded ravine with a salmon-bearing stream.

An important guiding principle throughout the planning process was to create a building designed to expand the range of available learning activities by accommodating those that cannot readily occur in the classroom. Particular attention was given to developing the site to further expand the range of learning activities beyond the traditional playgrounds and playfields. Two day-long workshops focused on how the site could enhance the curriculum – from these arose the quiet outdoor learning environments close to classroom clusters, incorporating native plant and butterfly gardens, student garden areas and compost bins, work tables, benches, and seating areas. Multi-purpose “flex areas” have generous daylight and direct connections to the outdoor learning areas.

The School District and architects also recognized the new US EPA Endangered Species Act salmon listings as an opportunity to tell the story of the salmon’s role in the Pacific Northwest ecosystem. Thus, celebrating the presence of the region’s ubiquitous rain became the organizing metaphor influencing both building form and site design. Multiple features collect, treat, and distribute stormwater in ways that visually capture and communicate how everyday activities decisions affects the water that salmon and people need to survive.



Terrace Park School’s major roof forms are pitched toward their centers in a “butterfly” form designed to capture rainwater and direct it to where it is most visible. The rain falls onto the roof, flows into scuppers, and then into concrete cisterns. Overflow from the cisterns pours into swales, that slowly release water into the site’s drainage system. Wetland plants in the swales treat the water by filtering out toxins and sediment before the water reaches the nearby creek.

Photo courtesy of INTEGRUS Architects.

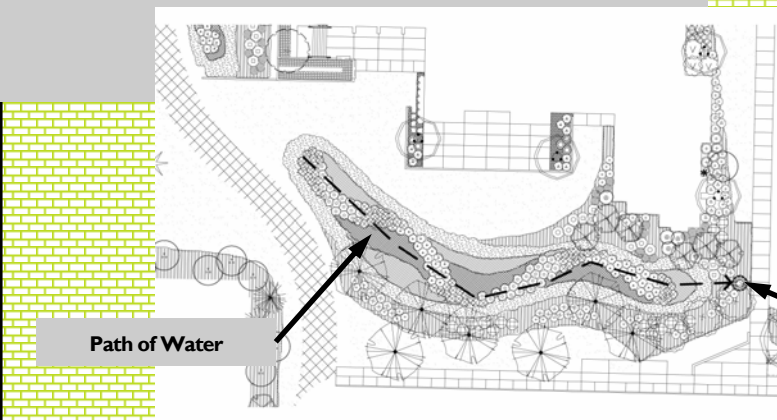
The swale south of the school’s library ultimately drains into an interpretive control structure which calls attention to the flow of water off the site and places the school site within the context of its watershed. From here the water flows into detention chambers beneath the parking lot before it enters the city storm water system, then Lyons Creek and eventually Lake Washington on its way to Puget Sound. The pond next to the gym also collects and filters rain water from the north side of the school before the runoff enters the detention chambers. All of these gestures respond to the community’s request that the school be “designed to be conscious of and responsive to the natural environment and the surrounding site.”

Drawing courtesy of INTEGRUS Architects.



Stormwater Control Structure The drain grate shows the pattern of the Lyons Creek Watershed in the Puget Sound region and the location of the school.

Photo courtesy of INTEGRUS Architects



Path of Water

Control structure

Acknowledgements: The information used in this case study was provided by Edmonds School District No. 15 and INTEGRUS Architects.