

Designing for maintenance

THE THURSTON COUNTY/CITY of Lacey Regional Athletic Center (RAC) is not just a sports complex. Already regarded as one of the finest outdoor sporting venues in Washington state, the 100-acre complex features six regulation soccer fields, including one with all-weather turf and lighting; four regulation softball fields with synthetic turf infields and lighting; one minor-league-rated baseball field with synthetic turf infield and lighting; electronic score boards; two concession buildings; five large group picnic shelters; spec-

tator seating; parking for 500 vehicles; three playgrounds; two miles of walking and jogging paths; a kite-flying hill; three half-basketball courts; and a six-acre outdoor event and festival area. In addition, nearly 20 acres have been preserved to protect native oak savannahs.

The project was developed jointly by the City of Lacey and Thurston County. It was designed by the Tacoma landscape architecture firm Bruce Dees & Associates and constructed by Ceccanti, Inc. With its second phase reaching completion just last year, the award-winning complex has filled a

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major void in the recreational needs of the community. A central element in the design of the RAC was a focus on maintenance. To help achieve this, maintenance personnel played an active role in the design.

The intent to “Waste Nothing” became the spirit of the RAC project. Strippings from all graded areas were screened and recycled for topsoil. Tailings from the screenings were then used to shape the west side of “Kite Hill,” a natural feature of the site. To accommodate the massive earthwork, two of the six fields that lay on a naturally raised elevation were

used as a dynamic soil reservoir for balancing cut and fill and as borrow after discoveries of unsuitable soil left behind by the previous land owner. As excavation revealed buried deposits of unsuitable soil, the material was removed and used as non-structural fill to enhance the shape of Kite Hill and the two field areas provided structural replacement fill. By recycling material on site, economic and ecologic savings were realized through eliminating the need for exporting or importing soil, thus reducing fossil fuel consumption as well.

Pre-design geotechnical studies were used to influence layout of activities and support facilities. Areas with high infiltration rates became locations for the athletic fields, while less intensive uses were placed on areas of lower permeability. The majority of the two miles of trails are pervious asphalt, and the pervious concrete ball field complex plaza allows infiltration directly under it. As a result, the cost of expensive storm water facilities for collection and conveyance is avoided. With direct infiltration of the fields and pervious paving, storm water infiltration pond size was minimized while active recreation space was maximized.

All infields and one of the soccer fields were constructed with synthetic turf to extend use throughout the year, virtually eliminating rainouts and maximizing field rental revenue. Since no watering or



mowing is required and no infield prep necessary before each ball game, daily operational costs are kept to a minimum.

Ease of maintenance of the natural grass areas was considered as well. For grass fields and passive-use locations, the majority are accessible by gang mowers with mow strips provided adjacent to fences and structures. Furthermore, preserving the native white oak savannahs and their under story was a key design precept and avoided potential maintenance.

Minimizing water and power use was carefully considered. Irrigation master valves help avoid water loss by shutting down the system in the event of leaks. All lines are the requisite purple pipe to allow the use of reclaimed water from a future sewage treatment plant north of the park. Floodlighting of all the ball fields is state-of-the-art 1,500 watt shielded metal Halide luminaries with reduced reflecting surfaces to reduce off-site light spill.

Maintenance is supported by a 2,100SF maintenance building with shop, storage, office, restrooms, and lunch room for staff. Equipment wash-down and material storage are contained within the 20,000SF fenced yard. The park manager and support staff are adjacent in the 1,630SF events building, which includes a reception area, staff offices and meeting rooms.

All these cost saving features enhance the overall design and the park is recognized as one of the finest athletic complexes in Washington. The park received the 2009 Washington Recreation & Park Association's Best Sports Complex Award, the 2010 International Northwest Park and Recreation Association Design of the Year, and the Washington Concrete & Aggregates 2010 Pervious Concrete Design Award. "This is a tremendous facility and a great place to bring the family," says Lacey resident Jay Rasmuson, "Before this our options were quite limited. The RAC is an amazing addition to our community."

Discussions for designing an additional 20-acre Phase III are in progress. ■

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