

WHY PAVERS?

CASE
STUDY



BREA SPORTS PARK – BREA, CALIFORNIA



A New Vision for the 26-acre Brea Sports Park

The 26-acre Brea Sports Park (BSP) fulfills a long-standing vision of community leaders and creates recreational opportunities that address the needs and interests of the developing community. BSP is a symbol of community pride for the City of Brea featuring a dedicated baseball field, a youth baseball field, an adult softball field, a full size soccer/football field, basketball courts, a practice multi-purpose field, two overlay soccer fields, batting cages, a youth play area (tot lot), passive park area, a walking trail extending around the periphery of the sports park, and a 3,700-square-foot concession/restroom building.

Many sustainable elements were integrated into the park design to ensure the regional impact went beyond the athletic events that took place on the site. For example, the park had a depressed area which had been partially channelized and was strewn with trash, debris, invasive plant materials, and collected runoff not only from the active oil well areas on site, but from the oil properties to the north of the project. This low area was removed and replaced with a true bioswale meeting the requirements of the Water Quality Management Plan, Storm Water Prevention Plan, Best Management Practices, and other various agencies.

The team worked with environmental consultants and government agencies including the Army Core of Engineers, Fish and Game, and the Regional Board to redirect the first flush storm water and low flow of both of the site and the regional water shed to a passive park area that was planted with native grasses, sycamores, poplars, and alders which will promote natural verses mechanical water treatment and will clarify all water before it leaves the site. In the process, the majority of the water is allowed to percolate into the soil and regenerate ground water.



The park incorporates other sustainable elements such as:

- Precast pavers were used throughout the site to allow substantially higher rates of water percolation over concrete or asphalt paving.
- Recycled materials were used throughout the site. The majority of these key elements were manufactured regionally.
- The community building uses energy saving features such as sunshades on the south face of the building, operable windows, natural daylighting, recycled content carpet, durable and low maintenance materials, and low VOC paints and materials.
- All pathway lights use cut off fixtures to limit light spill and no uplights were used on the site to help meet Dark Sky requirements.
- All athletic fields use a subdrain system with a sand layer to help clarify water before it enters the storm drain.
- The subdrain systems were designed to allow storm water percolation into the soil and regenerate groundwater with only excess water going into the storm drain.

All fields were designed with a sand and organic material rootzone. This proprietary blend of planting median encourages quick and deep rooting of the turf. By combining this plant median with a full subdrain system on each field, allows for shorter less frequent watering. The park is tied into the City's central control irrigation system and incorporates 'smart' controllers, which set watering times for the actual needs of the park and are adjusted based on atmospheric requirements. Flow and rain sensors are also integrated in order to shut off all or portions of the system if it rains or there is a line break. These systems provide a more cost-effective and sustainable solution for the maintenance of Brea Sport Park.

Additional Photos



All Photography by Cris Costea
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