

Project: DeGarmo Community Park

Location: Chico, California

Project Requirements

Design DeGarmo Community Park for daily recreational use, organized sports and large community events.

- **Large Open Turfgrass Areas**
- **Children's Play Area and Group Picnic Facilities**
- **Lighted Sports Fields for Organized Sports**
- **Amphitheater for Outdoor Concert Area**
- **Aquatic Complex**
- **Concession/Restroom Facilities**
- **Native Plant Restoration**

Specify a central control system that can be managed by Chico Area Recreation District (CARD) from a remote location or on site.

Design central control system to interface with irrigation, duplex pump station, fertigation, lighting, restroom doors, automated gates.



Coordinate design and specification efforts between electrical engineer, sports-lighting engineer and landscape architect.

Design an irrigation system that meets the watering requirements of large turfgrass areas, sports fields and heavily used public space.

Philosophy

Specify a central control system that is simple to operate and can be operated from a remote location; design an irrigation system that addresses water conservation, field playability under heavy use, public safety and liability concerns, and minimizes maintenance needs.



Programming

Multi-use play fields were designed and developed to be used for many different recreation activities. Soccer, softball and little league were the standard uses, and then the other uses; ultimate Frisbee and lacrosse were thrown into the programming.

The size of this project does allow the maintenance and operation crew to rotate fields allowing for turf regeneration. In-house coordination between operations and programming was key to maintaining a good turf crop.



Maintenance and Operation

This park was equipped with the state-of-the-art maintenance and operation systems. An onsite crew maintains the site year around and they are housed in a new 5,000-square-foot maintenance facility along with:

- **Central Control System**
- **Duplex Pumping System**
- **Chemigation System**
- **Weather Station**
- **Rain Bucket**
- **Dual Master Valve and Flow Sensor Assembly**
- **Automatic Restroom Door Locks**



Significance

This project positively impacts the perception of the irrigation profession by providing a lead role that coordinates all the electrical components of the project, thus creating a checks-and-balance for overall quality. In addition, the project supports the irrigation contractor by writing specifications that guarantee fair bidding on a sophisticated and complex irrigation project.

This project is innovative in using a central control system with onsite weather station for managing irrigation, a duplex pumping system and a chemigation system. The ability to schedule irrigation to ET along with water conserving products reduces water loss through over-irrigation of plant material, overspray of rotors and spray heads, water loss from low-head drainage, and surface runoff. The lighting options provided to CARD allow them to manage events in a way where they have data for invoicing billable hours for their users.

