



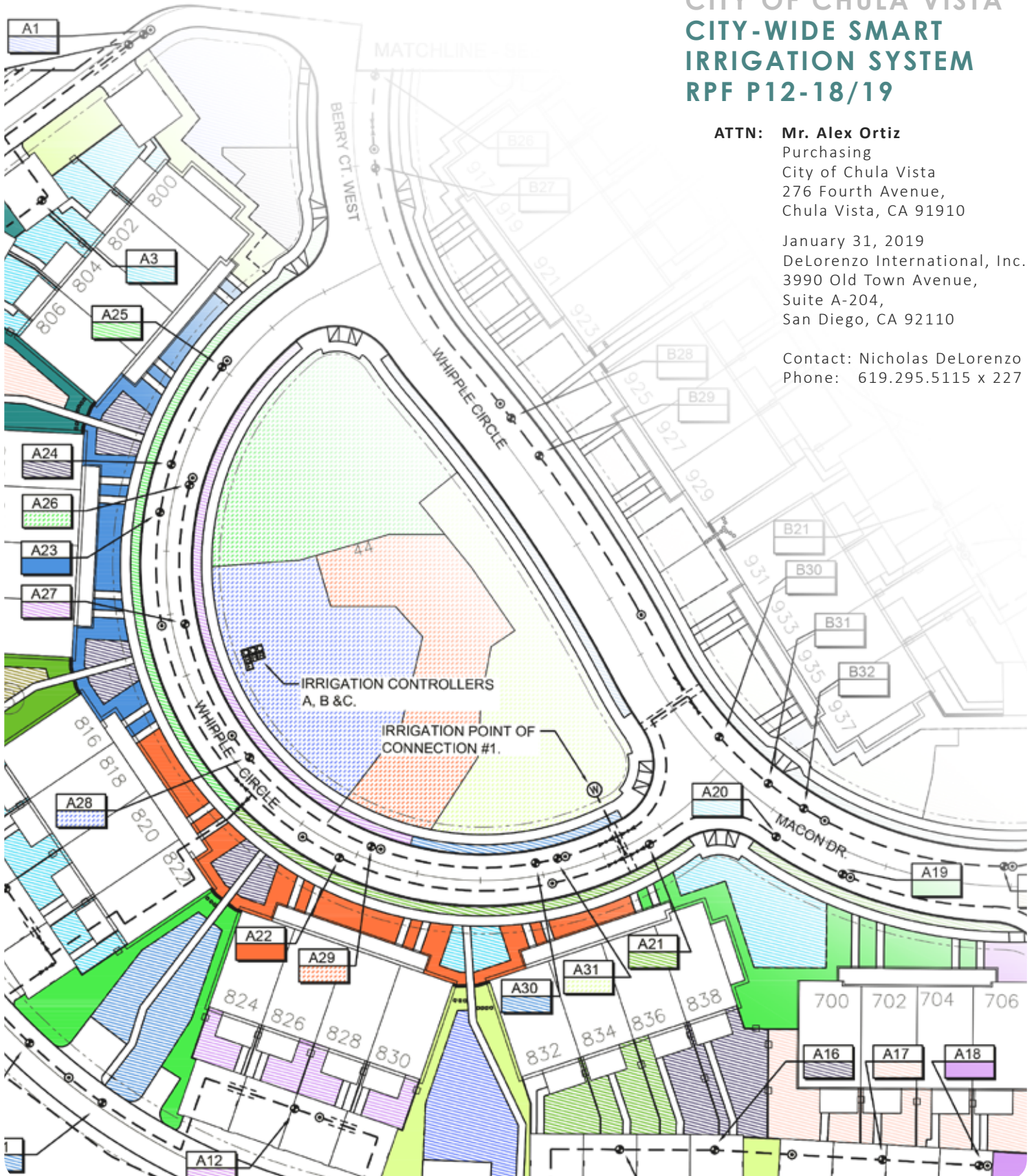
# REQUEST FOR PROPOSALS

## CITY OF CHULA VISTA CITY-WIDE SMART IRRIGATION SYSTEM RPF P12-18/19

**ATTN: Mr. Alex Ortiz**  
Purchasing  
City of Chula Vista  
276 Fourth Avenue,  
Chula Vista, CA 91910

January 31, 2019  
DeLorenzo International, Inc.  
3990 Old Town Avenue,  
Suite A-204,  
San Diego, CA 92110

Contact: Nicholas DeLorenzo  
Phone: 619.295.5115 x 227



### DeLorenzo International

Planning + Landscape Architecture | [www.delorenzo-intl.com](http://www.delorenzo-intl.com)





January 31, 2019

Mr. Alex Ortiz  
Purchasing  
City of Chula Vista  
276 Fourth Avenue,  
Chula Vista, CA 91910

**RE: Request for Proposals, City-wide Smart Irrigation System,  
RFP P12-18/19 – 90600 Architectural Services, Professional**

Dear Mr. Ortiz,

DeLorenzo International is a landscape architectural and land planning firm located just minutes from Chula Vista in Old Town, San Diego. We are excited to submit our proposal for city-wide smart irrigation system, architectural and professional services to the City of Chula Vista. Because our team has designed many parks for the city as a landscape architectural/consultant, completed numerous irrigation system renovation / conversion projects, and prepared irrigation system audits we believe we are well qualified to perform the services described in the Request for Proposals. Our extensive experience includes:

- Design for the conversion of 82 irrigation controllers to Calsense central control and reclaimed water use at MCAS Miramar.
- Design for the conversion of 27 irrigation controllers to Calsense central control and potable water use at Balboa Naval Hospital.
- Design for the conversion of 22 controllers from Rain Master to Calsense central control for Barona Resort and Casino in Lakeside.
- Prepared Smart Landscape Master Plans for nine Navy bases in the western U.S., each with landscape and irrigation assessments and 10 prioritized projects with construction cost estimates.

Our staff is exceptionally diverse in talent, background and expertise, we pride ourselves on recognizing opportunities while finding the best solutions to challenges. We have an outstanding record working within an allotted budget, keeping our projects on schedule and meeting city contract requirements and deadlines.

You will find detailed descriptions of our staff's qualifications contained in the following pages, as well as brief descriptions of relevant projects. Our team is ready to start immediately.

Sincerely,

A handwritten signature in black ink that reads "Nicholas DeLorenzo". The signature is fluid and cursive, with the first name being more prominent.

Nicholas F. DeLorenzo, RLA 1388  
President, DeLorenzo International, Inc.

## 2) PROJECT TEAM'S ORGANIZATION

DeLorenzo International will be the prime consultant of a highly qualified design team, led by licensed landscape architect Nick DeLorenzo as Contract Manager. With over 50 years' experience in the industry, Mr. DeLorenzo specializes in the organization and management of effective, multi-disciplinary teams selected for innovative master planning, recreational planning, water conservation and irrigation renovation planning and design, and landscape design projects. His experience not only includes numerous projects around the City of Chula Vista, but also includes his volunteer work such as the Chula Vista Bayfront Citizen's Advisory Committee, and North City Urbanizing Area committee, and founding and co-chairing the San Diego Council of Design Professionals.

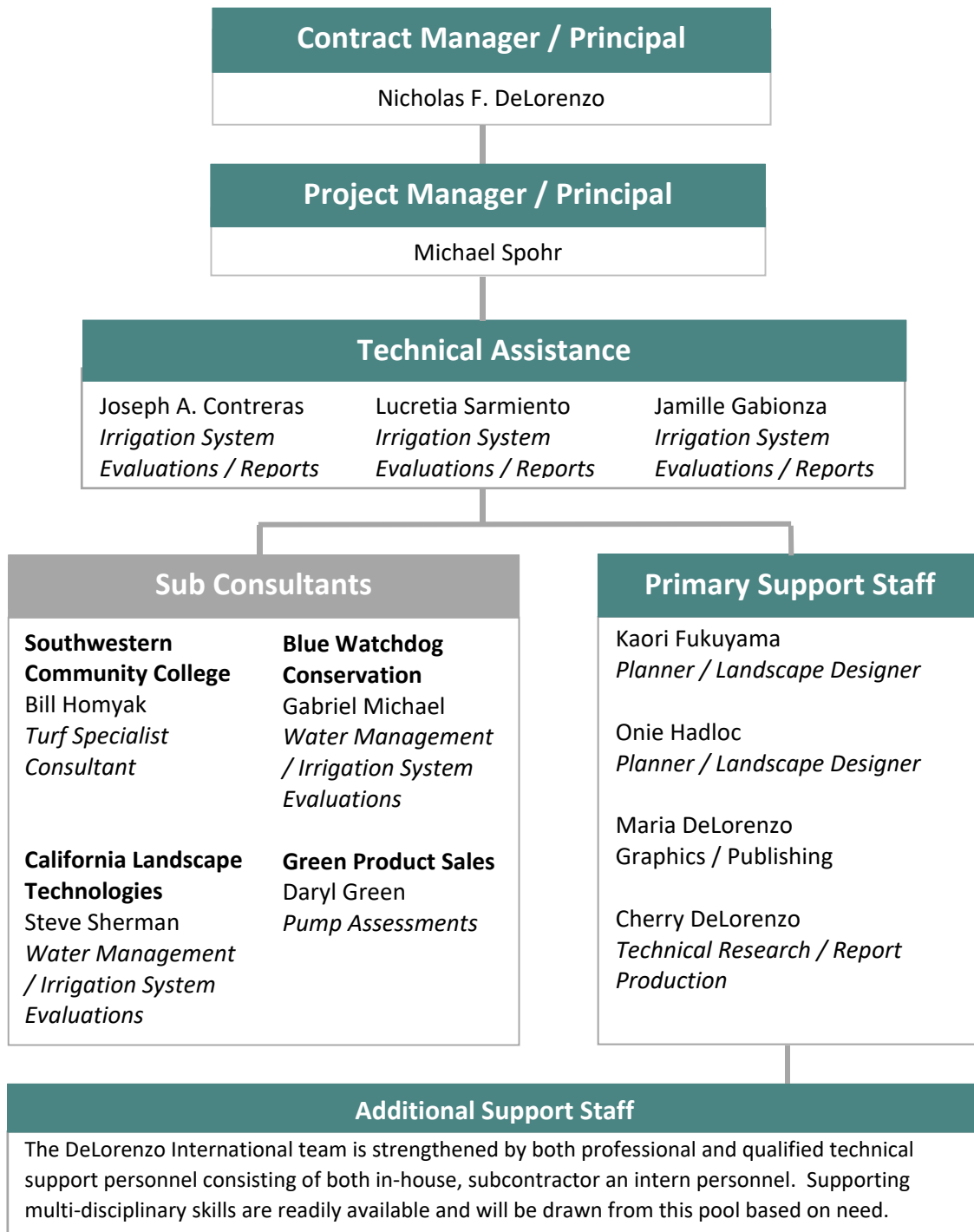
The project will be managed by licensed landscape architect Michael Spohr. Mr. Spohr has worked with Nick DeLorenzo for 32 years and has managed numerous park and open space projects including Montecito Park and Escaya Park in Chula Vista, Balboa Naval Hospital Water Conservation Project in San Diego, New Replacement Naval Hospital at Camp Pendleton, and MCAS Miramar irrigation conversion project.

The primary support for Mr. DeLorenzo and Mr. Spohr will be Joseph Contreras, Lucretia Sarmiento and Jamille Gabionza who will assist with system assessments, baseline water use estimation, report preparation, renovation recommendations and renovation cost estimating and prioritizing. Our CEO Joseph A. Contreras provides water management technical and data base support as a result of his experience with a number of major Calsense, Rain Master and Tucor central irrigation control systems. Lucretia Sarmiento is QWEL certified and is currently monitoring water use and conservation for several large Navy family housing communities. She also played a significant role in managing our recent award-winning WaterSmart Landscape education program for the San Diego County Water Authority and is experienced in water use estimating and report preparation. Ms. Gabionza is a landscape architect with experience in irrigation design, reclaimed water irrigation systems and multi-controller irrigation systems. Her most recent experience includes the Barona Casino Resort irrigation upgrade project as well as assisting Mr. Spohr with the preparation of construction documents for Chula Vista's Montecito Park and Escaya Park in the Otay Ranch community.

Assisting DeLorenzo in-house staff will be our sub-consultants. Mr. Bill Homyak, former head of the Southwestern Community College horticulture department, will assist with turf assessments. Mr. Steve Sherman of California Landscape Technologies has over 30 years of irrigation design experience and over 27 years' experience as an Irrigation Association Certified Landscape Irrigation Auditor. Gabriel Michael of Blue Watchdog, an irrigation and water auditing firm, worked on the SDCWA WaterSmart program with DLI and has extensive water auditing and water conservation assessment experience. His firm is a Disabled Veteran Business Entity (DVBE) firm.

In addition to the creative synergy of our project design staff and sub consultants, we are enhanced by utilizing the supplemental services of Southwestern and Cuyamaca Community Colleges' landscape architecture students as interns, allowing us to provide a hands-on working experience for the next generation of designers while also allowing us more flexibility to meet the deadlines identified in this RFP.

ORGINIZATIONAL CHART





## 3A) PROJECT TEAM'S CAPABILITIES - RESUMES

### NICHOLAS F. DELORENZO, ASLA

***President/Principal-in-Charge - DeLorenzo International, Inc.***  
***Role: Program Manager***

EDUCATION – Bachelor of Landscape Architecture, Cal Poly Pomona, 1971

REGISTRATION –California Registered Landscape Architect (RLA) #1388

#### INVOLVEMENT

- Co-Founder and former Co-Chair San Diego Council of Design Professionals.
- Member - Chula Vista Bay Front Master Plan, CAC
- Adjunct Faculty - Advanced Landscape Design at Cuyamaca Community College



Mr. DeLorenzo provides overall planning, design coordination, consulting, and management on a diverse range of projects throughout the West Coast of the United States. He specializes in the organization and management of multi-disciplinary teams and has extensive experience in site planning, street enhancement, park planning and design, and specializes in sustainable designs and maintenance techniques for saving water, energy and reducing green waste.

#### **Replacement Naval Hospital – Camp Pendleton, CA**

Principal-in-charge for the landscape design of Replacement Naval Hospital, Camp Pendleton. Prepared design-build construction documents for over \$12M of hardscape, green roof, irrigation and landscape improvements for the 67-acre site. The irrigation system included five reclaimed water controllers sharing a 6-inch main and pump system and two potable water systems serving the hospital green roof and a wetlands restoration area.

#### **SDG&E Century Park Campus Irrigation Upgrade Program – San Diego, CA**

Landscape principal-in-charge for the planning, design and construction observation of sustainability improvements at SDG&E's 7 building, 17-acre campus. Sustainability projects included assessing the campus irrigation system, converting all campus controllers to Calsense web-based controllers and preparing database of baseline water use and water costs for past 3 years.

#### **Barona Resort & Casino Water Management Program – San Diego, CA**

Landscape principal-in-charge for irrigation design and site evaluations, reports, cost estimates, and plans for renovating an existing 139-acre resort campus landscape to reduce water use and maintenance costs. Tasks included preparing an assessment report, comparing three central control systems, recommendations, cost estimate and priority list. He is currently overseeing the conversion of the resort master irrigation system from Rain Master DX2 to Calsense.

**MICHAEL SPOHR, ASLA, LEED-AP**

***Project Manager/Principal - DeLorenzo International, Inc.***  
***Role: Project Manager / Evaluations & Reports / Cost Estimating***



EDUCATION – BS Landscape Architecture, Texas A & M University, 1981

REGISTRATION –California Registered Landscape Architect (RLA) #4468

U.S. Green Building Council, LEED Accredited Professional (AP)

Mr. Spohr has extensive experience in landscape architecture and planning for park and recreation facilities, streetscapes, and master planned communities. In addition to being irrigation designer for the Replacement Naval Hospital, Camp Pendleton, his past relevant experience includes, Harbor Drive Streetscape, EastLake Woods Streetscape, Salt Creek Restoration, and Rolling Hills Ranch Slope Erosion Control and Streetscape.

**Balboa Naval Hospital Irrigation Retrofit Project – San Diego, CA**

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Mr. Spohr was the project manager and lead designer for the preparation of a site assessment, construction cost estimates, recommendations, and construction documents for a converting 27 irrigation controllers from stand-alone Rain Bird to central control Calsense.

**MCAS Miramar Water Conservation and Retrofit Project – San Diego, CA**

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Mr. Spohr was the project manager and lead designer for converting 82 stand-alone potable water system irrigation controllers from various manufacturers to central control Calsense reclaimed water systems. The work included preparation of a site assessment, recommendations, construction cost estimates, and construction documents. Begun in 2006, the latest phase completed in 2018 included preparation of construction documents for review and approval by County DEH and City of San Diego Water Department staff.

**Montecito Park – Chula Vista, CA**

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Mr. Spohr was the project manager and lead designer for the preparation of construction documents for a new 7.4 acre, \$4.5M turn-key park for Baldwin and Sons Development and the City of Chula Vista. Montecito Park includes a comfort station, two full size soccer fields, lighted tennis and basketball courts, two picnic shelters, separate small and large dog parks, playgrounds, two full size soccer fields. The park is irrigated by two reclaimed water systems with pumps and Rain Master Eagle-Plus two-wire central control controllers. The project was recently constructed at 6 percent under the design budget.

**Escaya Park – Chula Vista, CA**

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Mr. Spohr is the project manager and lead designer for the preparation of construction documents for a new 8.1 acre, \$5.1M turn-key park for HomeFed Development and the City of Chula Vista. Escaya Park includes a comfort station, lighted soccer fields, basketball court, a group picnic shelter, amphitheater, a playground, and extensive walking paths. The park is irrigated by two reclaimed water systems with Rain Master Eagle-Plus two-wire central control controllers. Phase I of the project is currently in the City for the 90 percent design plan check.

**JOSEPH A. CONTRERAS**

**CEO - DeLorenzo International, Inc.**

**Role: Evaluations & Reports / IT / Data Base**

EDUCATION - Bachelor of Science Accounting, Pacific Coast College, 1987

REGISTRATION - Microsoft Certified System Engineer, University of Phoenix, 2004

Irrigation, AutoCAD & Landscape Design, Cuyamaca Community College, 2008



Mr. Contreras is the Chief Executive Officer for the company he makes the corporate decisions, manages the overall operations and administrator of the company. In addition, he is the firm's Information Technology (IT), Geographic Information System (GIS), drone pilot and site reconnaissance photography specialist. Mr. Contreras also develops data bases and annual reports for cost estimating and in-house irrigation central control water management for DeLorenzo International clients. His irrigation management reporting includes analyzing data from all major controller vendors including Calsense, Rain Master and Tucor.

**The Villages at Moffett Field – California Military Communities – Mountain View, CA**

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Mr. Contreras is providing long range water management analysis and tracking for 181 military family housing units located in the Mountain View area of northern California. This work has included tracking monthly and annual water usage, identifying baseline water usage, and creating a database and summary charts allowing easy executive management and decision-making for sustainability and strategic planning purposes.

**The Parks at Monterey Bay – Monterey Bay Military Housing – Monterey, CA**

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Mr. Contreras is providing long range water management analysis and tracking for more than 2,500 military family housing units located in the Monterey Bay area of northern California. This work has included monitoring Tucor web-based central control irrigation systems, tracking monthly and annual water usage and creating a database and summary charts allowing easy executive management and decision-making for sustainability and strategic planning purposes.

**SDG&E Century Park Campus Irrigation Upgrade Program – San Diego, CA**

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Mr. Contreras is providing long range water management analysis and tracking for sustainability improvements at SDG&E's 7 building, 17-acre campus. Sustainability projects included assessing the campus irrigation system, converting all campus controllers to Calsense web-based controllers and preparing database of baseline water use and water costs for past 3 years.

**Barona Resort & Casino Water Management Program – San Diego, CA**

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Assisted in the preparation of site evaluations, reports, cost estimates, and plans for renovating an existing 139-acre resort campus landscape to reduce water use and maintenance costs. Tasks included research and preparation of spreadsheets comparing features.



**LUCRETIA SARMIENTO, QWEL**

***Business Manager/Designer - DeLorenzo International, Inc.***  
***Role: Evaluations & Reports / Project Coordinator***

EDUCATION - Sustainable Landscape Architecture, Southwestern College, 2013-present

REGISTRATION – Qualified Water Efficient Landscaper (QWEL), 2016



As business manager, coordinator and water management expert Ms. Sarmiento provides unique combination of technical, sustainability and water management experience with her administrative and management skills and allocating DeLorenzo international staff appropriately to the firm’s diverse project portfolio. Relevant projects that she is currently or has recently included as a part of the team include:

- The Parks at Monterey Bay – Water Tracking, Monterey Bay, CA
- Wescoat Villages at Moffett Field – Water Tracking, San Jose, CA
- San Diego Gas & Electric (SDG&E) – Water Tracking, San Diego, CA
- El Rancho Verde, Katterra Affordable Housing – Water Tracking, San Jose, CA

**The Villages at Moffett Field – California Military Communities – Mountain View, CA**

Ms. Sarmiento is providing long range water management analysis and tracking for 181 military family housing units located in the Mountain View area of northern California. This work has included tracking monthly and annual water usage, identifying baseline water usage, and creating a database and summary charts allowing easy executive management and decision-making for sustainability and strategic planning purposes.

**The Parks at Monterey Bay – Monterey Bay Military Housing – Monterey, CA**

Ms. Sarmiento is providing long range water management analysis and tracking for more than 2,500 military family housing units located in the Monterey Bay area of northern California. This work has included monitoring Tumor web-based central control irrigation systems, tracking monthly and annual water usage and creating a database and summary charts allowing easy executive management and decision-making for sustainability and strategic planning purposes.

**WaterSmart Landscape Makeover Series – San Diego, CA**

WaterSmart Landscape Makeover Series is an award winning, innovative water conservation and turf replacement program for the San Diego County Water Authority consisting of a series of four classes for the residential market. As Educational Coordinator and in-house Project Manager, Ms. Sarmiento meticulously performed many organizational and management functions of the program to achieve a smoothly running system resulting in extremely high participant satisfaction. She managed enrollment for the Series and tracked and reported on enrollment for each class. She coordinated venues and instructors for the Series and worked as a design coach. She also maintained the Series website, updates class offerings and collects and compiles Series data, surveys and statistics.

**JAMILLE GABIONZA**

***Landscape Architect - DeLorenzo International, Inc.***  
***Role: Evaluations & Reports / Drafting***

**EDUCATION** – Bachelor of Landscape Architecture, University of the Philippines

Ms. Gabionza brings international master planning experience and adds her creative design style to the team. Formally trained in landscape architecture, she has primarily focused on international resort development and multi-family housing projects, where she incorporates her highly creative style with a solid foundation in western-style construction practices. She has been instrumental in the conceptual design and construction documentation of local park projects for DLI. Ms. Gabionza also has extensive 3D visual simulation skills and incorporates the technique of combining 3D imagery with hand drawing to create accurate simulation modeling that also conveys the inherent artistry of a designed space.




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**The Villages at Moffett Field – California Military Communities – Mountain View, CA**

Ms. Gabionza provided irrigation mapping and drafting for the long-range water management analysis and tracking for 181 military family housing units located in the Mountain View area of northern California. This work has included tracking monthly and annual water usage, identifying baseline water usage, and creating a database and summary charts allowing easy executive management and decision-making for sustainability and strategic planning purposes.

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**San Diego Gas & Electric (SDG&E) – San Diego, CA**

Mr. Gabionza provided irrigation mapping and drafting for the long-range water management analysis and tracking for sustainability improvements at SDG&E's 7 building, 17-acre campus. Sustainability projects included assessing the campus irrigation system, converting all campus controllers to Calsense web-based controllers and preparing database of baseline water use and water costs for past 3 years.

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**WaterSmart Landscape Makeover Series – San Diego, CA**

WaterSmart Landscape Makeover Series is an award winning, innovative water conservation and turf replacement program for the San Diego County Water Authority consisting of a series of four classes for the residential market. Ms. Gabionza provided landscape and irrigation evaluation including measuring, soil collection, PSI testing along with the DLI team. She assisted with the design and development of all the base sheets that are provide to the homeowners during the series of classes, along with assisting with workbook printing and collation, and assisting at the scanning table during the Design Coaching sessions. Ms. Gabionza played a key role with design and graphic support for WaterSmart Landscape Makeover Series a \$855,532 public education and awareness program to achieve water efficiency and sustainability, with over 2,800 people trained. ASLA San Diego Chapter Merit Award, 2014.

## Subconsultants

### **BILL HOMYAK**

***Southwestern Community College Department Head (Retired) –  
Adjunct Professor Landscape Courses  
Role: Turf Specialist Consultant***

EDUCATION – Bachelor’s Degree - Ornamental Horticulture,  
California State University, Fresno 1974  
Master’s Degree – Plant Science, California State University,  
Fresno 1976



### **Instructor for Horticulture Courses - Southwestern Community College**

Mr. Homyak provides instruction for: Landscape Contracting and Estimating, Soils, Landscape Construction, Turf Management, Sprinkler Design, Sprinkler System Repair, Sustainable Landscape Practices, Sustainable Landscape Water Auditor, Horticultural Business Practices, Introduction to Computer-Aided Landscape Design, Plant Identification courses, Landscape Management, Plant and Horticulture Science.

### **Professional History – California**

- Grounds Maintenance Superintendent, Del Mesa Carmel, 1976-1980
- Full-time Professor, Landscape and Nursery Technology, Southwestern College, 1980-2012
- Department Coordinator, Landscape and Nursery Technology, 1980 to 2015.
- Department Chair, Applied Technologies, Southwestern College, 2011-2012
- Adjunct Professor, Landscape and Nursery Technology, Southwestern College 2012 – 2018
- Golf Course Players Assistant, Bonita Golf Club, 2017

### **Achievements – California**

- Expansion of the Landscape and Nursery Technology program at Southwestern College.
- Origination, with Meredith Sinclair, of the South Bay Botanic Garden at Southwestern College.
- Burt Kallman Award for Outstanding Community College Horticulture Instructor for California, 1992.
- Member of numerous trade organizations including San Diego Golf Course Superintendents Association, San Diego Landscape Contractors Association, Sports Turf Managers Association, California Association of Pest Control Advisers.
- Responsible for developing courses to train individuals in passing the California Applicators exams for licensing and providing continuing education courses for these licensees.

**STEVE SHERMAN, IA-CLIA**

***Principal - California Landscape Technologies***

***Role: Evaluations & Reports***

EDUCATION - BSLA, University of Oregon

REGISTRATION –California Registered Landscape Architect #2887

Arizona Registered Landscape Architect # 45769

Irrigation Association Certified Landscape Irrigation Auditor (CLIA)

#13617

EPA Water Sense Partner



As the founder and Principal Landscape Architect of California Landscape Technologies, established in 1992, Mr. Sherman has been recognized for his landscape design ability and involved at the ground level in the implementation and auditing of water conservation measures throughout the region. He is a core instructor and design coach in the SDCWA WaterSmart Landscape Makeover Series and has also been instrumental in adding his irrigation assessment experience to the program’s irrigation curriculum to make irrigation renovation easy to understand and implement by the non-technical, residential participant.

- Residential, HOA community and commercial design
- Landscape architectural and water auditing services
- Water management specialist
- Olivenhain Water District (OMWD) Smart Landscape Water Survey Program
- OMWD Lecture Series: Fix-a-Leak, Irrigation Repair, Landscape Design, WaterSmart Program, Waterwise Plants

**SDG&E Century Park Campus Irrigation Upgrade Program – San Diego, CA**

Mr. Sherman provided site observation, system testing and as-built condition mapping for sustainability improvements at SDG&E's 7 building, 17-acre campus. Sustainability projects included assessing the campus irrigation system, converting all campus controllers to Calsense web-based controllers and preparing database of baseline water use and water costs for past 3 years.

**OMWD Smart Landscape Survey Program – San Diego, CA**

Mr. Sherman principal in charge of Smart Landscape Survey Program for Olivenhain Municipal Water District. As a sub-consultant to district, Mr. Sherman provides ongoing water use evaluations and water audits for OMWD customers. Includes providing evaluation and field testing for large scale water users including HOA’s, commercial sites, school sites and large parks. Includes providing catch can testing for large sites and controller programming recommendations for all projects.

**GABRIEL MICHAEL, IA-CLIA**

**CEO - Blue Watchdog Conservation (BWD)**

**Role: Evaluations & Reports**

EDUCATION - AA Landscape Architecture, MiraCosta Community College

REGISTRATION –Certified Landscape Irrigation Auditor, IA-CLIA  
Certified Landscape Water Manager, IA-CLWM  
Certified Water Manager Expert, CLCA-CWME  
Watershed Wise Landscape Professional (WWLP)  
Qualified Water Efficient Landscaper (QWEL)



Mr. Michael has a strong background in performing all types of water use evaluations (residential, commercial both indoor and outdoor), landscape measurements, and customer education programs. During the first 2 years of the company, BWD completed irrigation upgrade projects exclusively in the estate community of Rancho Santa Fe, California completing over 65 projects on sites from 1 acre to 20 acres in size. BWD, in its 7 years also conducted over 1,000 audits on small residential sites and large highly complex commercial sites such as schools, hospitals, universities, and estates.

**WaterSmart Landscape Makeover Series – San Diego, CA**

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WaterSmart Landscape Makeover Series is an award winning, innovative water conservation and turf replacement program for the San Diego County Water Authority consisting of a series of four classes for the residential market. As the lead field technical, Mr. Michaels provided site visits, measuring, and drafting services for the WaterSmart Landscape Makeover Series. This included turf removal techniques, disposal of removed turf, plant selection, irrigation system retrofits, implementation and maintenance.

**WaterSmart Landscape Efficiency Program – San Diego, CA**

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Mr. Michael assisted landscape contractors participating in the WSLEP program with field consulting and education services. Along with the BWD team he created water meter service maps and water budgets historical consumption and a water budget in in hundred cubic feet and annual inches. Conducting post-installation inspections of qualified projects to ensure proper installation, also had an instructor role, educating the participating contractors in the Smart Water Efficiency Landscape Learning (SWELL) program.



**DARYL GREEN**

***Owner – Green Product Sales***

***Role: Pump Assessment***

EDUCATION – Bachelor of Science - Ornamental Horticulture, Landscape Contracting, California Polytechnic State University, San Luis Obispo, 1985



REGISTRATION – American Society of Irrigation Consultants, ASIC Class-27 (C27) Landscape Construction License for the State of California

Mr. Green has technical design and evaluation experience in booster pumps and all irrigation controls systems. That experience includes designing over 5,000 booster pump systems throughout the West Coast including hundreds of systems in the San Diego area including City of Chula Vista, San Diego Unified, Caltrans, and many cities, school districts, colleges, and private entities. In addition, he has planned, managed and/or designed hundreds of central control systems throughout California.

**Shady Canyon and Quail Hill Master Planned Communities – Irvine, CA**

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Mr. Green provided evaluation reports for 34 existing booster pump systems throughout these communities to determine the effective operation and repair/replacement requirements in comparison to the intended needs of each location.

**City of Chula Vista – Chula Vista, CA**

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Mr. Green assisted the City in selecting and designing the first central control irrigation system used in the City. Specifically providing technical design and support for over 100 controllers. In addition, assisted in the design of booster pump systems located throughout the City for both public and private agencies.

**San Diego City Schools – San Diego, CA**

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Mr. Green assisted the School District in selecting and designing the first central control irrigation system used by the District. He specifically provided design, planning, and technical support for approximately 200 sites. In addition, assisted in the design of booster pump systems located at multiple schools.

**Poway Unified School District – Poway, CA**

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Mr. Green assisted the School District in selecting and designing the first central control irrigation system used by the District on over 33 school sites. In addition, assisted in the design of booster pump systems located at many of these schools.

# 3B) PROJECT TEAM'S CAPABILITIES - PORTFOLIO

## 1. MCAS MIRAMAR CALSENSE RETROFIT AND RECLAIMED WATER CONVERSION PROJECT

SAN DIEGO, CA

Reference: Paul Lachut, Pro-Tech Plumbing (client for 2016-2017 retrofit project)  
(760) 788-8324, paul@ptp.sdcoxmail.com

Total Fees: DLI Fees: \$63,213 (2006); \$73,000 (2016-2017)

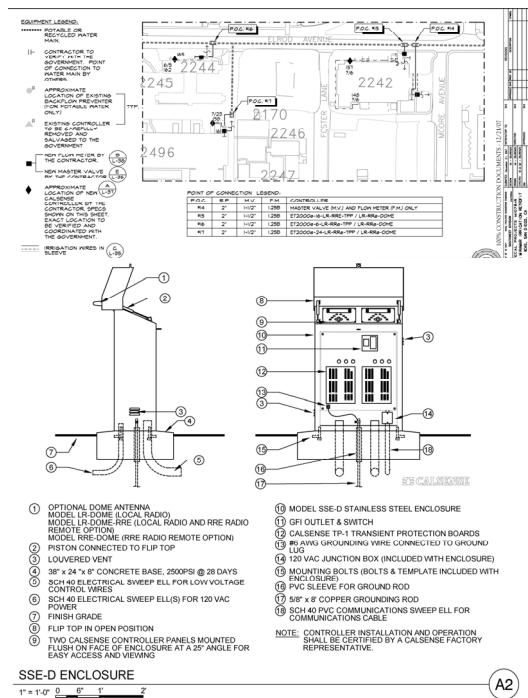
Date: 2006 - 2017

In 2006, DeLorenzo International prepared a base-wide irrigation system analysis, construction documents and cost estimates for the conversion of 82 irrigation controllers of various makes and configurations into a unified Calsense central control system. This project was the first phase in a multi-phase project for the U.S. Marine Corps to convert systems to reclaimed water and retrofit the controllers. The analysis included identifying the need for master valves, flow sensors, communication options, opportunities to consolidate multiple sites into one controller, electrical service, sleeving, and pavement cut and patch.

In 2016, we were hired by Pro-Tech Plumbing who had been awarded the most recent phase contract for installing reclaimed water distribution piping, converting existing irrigation systems to reclaimed water, and retrofitting the controllers to Calsense. DeLorenzo prepared construction documents for converting four areas of the base to reclaimed water – the Aviation Museum Area, U.S. Navy Brig, the Theater Area and Miramar Way Area. The work included designing over 4,600 feet of 6-inch to 12-inch C900 PVC distribution piping, 14 new points of connection, and 4 new and 10 existing Calsense controllers. In addition, the plans were prepared to County of San Diego Department of Environmental Health, Reclaimed Water section standards, and reviewed and approved by both DEH and City of San Diego Water Department.

MCAS Miramar Irrigation Retrofit- POC # 2 (Sheet L-6) 100% Cost Opinion Submittal

Item	Unit	Quantity	Unit Cost	Cost	Total Cost
<b>Site Improvements and Irrigation Work (Contractor to purchase &amp; install equipment from Calsense)</b>					
1 Excavation to install Master valve & Flow Meter (Assume an area 5ft wide x 20 ft long)	SF	100	\$5.00	\$500.00	
2 Master Valve (MV)	Ea	1	\$750.00	\$750.00	
3 Calsense Flow Sensor (FM) 1.25B	Ea	1	\$1,500.00	\$1,500.00	
4 Cut Pipe & Repair for MV & FS	LS	1	\$500.00	\$500.00	
5 Calsense Controller system: Controller price: 2.5 to 3 times Calsense list price					
a- Controller 'A' ET2000e-16	Ea	1	\$5,050.00	\$5,050.00	
b- Controller 'B' ET2000e-8	Ea	1	\$3,300.00	\$3,300.00	
c- Local Radio-Option (LR)	Ea	1	\$3,830.00	\$3,830.00	
d- Antenna compatible w/Calsense RRe enhanced radio remote receiver board (RRe-Dome)	Ea	2	\$450.00	\$900.00	
e- Integrated Radio Remote Receiver-Option (RRe)	Ea	2	\$425.00	\$850.00	
f- TFP Wall mount enclosure with one each TP-1, TPB, and TP-110 & pre-wired	Ea	2	\$1,980.00	\$1,980.00	
6 Electric Connections	LS	0	\$300.00	\$0.00	
7 # 14 UF Irrigation Wire in Landscape Areas (Includes excavation, install direct buried wire, backfilling & compaction. No landscape repair)	Lf	1,540	\$3.00	\$4,620.00	
8 Wires in Sleeve under Pavement: (Assume an area of 4ft wide x 100ft)					
a- Saw Cutting	Lf	110	\$2.50	\$275.00	
b- Sidewalk demolition (Includes demolition, removal, hauling & off-site disposal)	Sf	220	\$5.00	\$1,100.00	
c- Two 4" PVC Sch 40 Sleeve & Wire installation (Includes excavation, backfilling & compaction)	SF	220	\$6.00	\$1,320.00	
d-New Sidewalk Concrete pavement (Plan grey concrete w/slicing-Non-reinforced)	SF	220	\$7.00	\$1,540.00	
9 Plastic Splice Box	Ea	4	\$50.00	\$200.00	
10 Wire Conduit against and above Buildings	Lf	0	\$12.00	\$0.00	
<b>Hard Cost Subtotal</b>				<b>\$28,215</b>	
<b>General Conditions, Overhead &amp; Profit (20%)</b>				<b>\$5,643</b>	
<b>Hard Cost Contingency (10%)</b>				<b>\$2,822</b>	
<b>Total Cost Opinion per Point of Connection (POC)</b>				<b>\$36,680</b>	



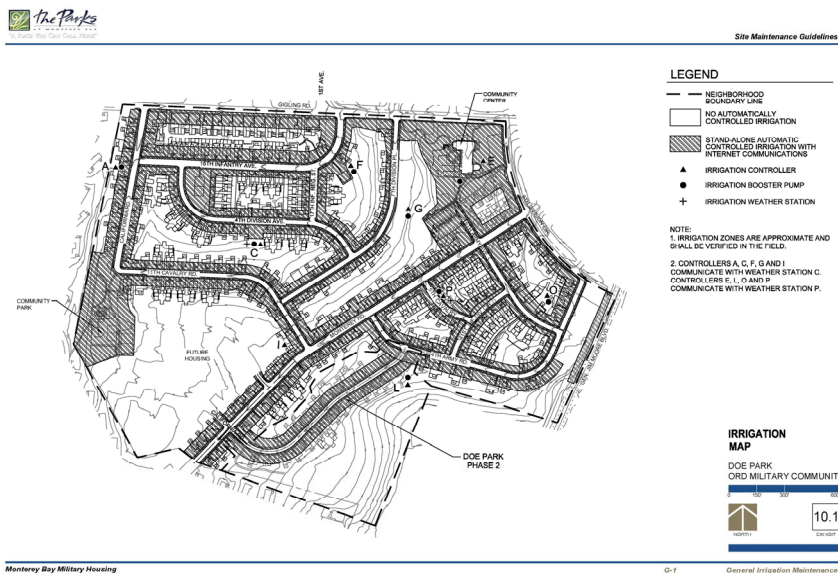
**2. MONTEREY BAY MILITARY HOUSING (MBMH) WATER TRACKING MONTEREY, CA**

Reference: Fran Coen, Monterey Bay Military Housing (MBMH), LLC, Clark Realty Capital (831) 583-2710, fran.coen@clarkrealty.com  
 Total Fees: DLI Fees: \$213,000  
 Date: 2010 - Present

DeLorenzo International is providing on-going water conservation and site maintenance consulting services for Monterey Bay Military Housing (MBMH) for more than 2,500 military family housing units and park sites in Monterey, California. In 2010 and 2012 we prepared construction drawings including a robust ten controller, two-wire Tucor smart controller system. Also in 2010, we prepared site maintenance guidelines which were incorporated into the projects site maintenance contract. Utilizing our original landscape and irrigation plans, we prepared color coded irrigation controller charts, monthly irrigation schedules based upon historic climate data, and calculated total estimated water use for each irrigation point of connection. Water bills are tracked on a monthly basis, logged into our data base, and compared with the estimated water use to verify if the correct amount of water is being applied for the needs of the plants (see chart below).

Site inspections are provided on a quarterly basis. During these walkthroughs we review the properties for conformance of the maintenance with the bid documents. We review the contractor’s implementation of the previous quarter’s irrigation schedule adjustments, discuss the current quarter’s performance and review maintenance schedules and other mandatory forms.

For the current quarter’s inspections, we review the detailed punch lists prepared for the contractor to identify items not in conformance, provide recommendations for correcting deficiencies, and identify other areas of concern. These walkthroughs also give us an opportunity to identify site improvements and landscape renovations that may be included in the maintenance scope of work. This technique allows minor modifications costs to be absorbed within existing maintenance budgets.



**3. REPLACEMENT NAVAL HOSPITAL, CAMP PENDLETON**

**OCEANSIDE, CA**

Reference: MCB Camp Pendleton, Oceanside, CA  
 Carlos Gonzales, Clark Construction, 310-272-8339  
 Total Fees: DLI Fees: \$681,150 | Construction Cost (Landscape): \$12,000,000 (est.)  
 Date: 2010 - 2016

DeLorenzo International was Landscape Architect of Record for the design-build construction of a new replacement Naval hospital on this 67-acre, coastally located raw land site. We provided services such as schematic design, master planning, construction document preparation, and construction phase services. DLI was responsible for over \$12M of improvements including all pedestrian hardscape, site furnishings and amenities, landscape, irrigation, coastal sage scrub restoration, wetlands restoration, green roofs, and an indoor raked-gravel Zen garden. This project included healing gardens, an exercise course, and a physical therapy course. Over 80 percent of the plants used on the site were regionally native. With an overall construction budget in the range of \$450,000,000, this LEED Gold certified project was the largest Department of Defense stimulus project in the country.

The recycled water irrigation system was designed with five Calsense controllers utilizing one point of connection and a looped 6-inch reclaimed water line pressurized by a 25 hp variable speed pump. Because the building and parking garages could interrupt radio signals, the Calsense central control system communicated through a mix of Ethernet connection, spread spectrum radio and data cable. The recycled water system irrigated the majority of the site utilizing spray heads, MP Rotators and rotor heads. The Calsense system also included two controllers operating potable water systems for the restoration landscapes and green roof. Potable irrigation included MP rotators in the restoration area and subsurface drip irrigation for the one-acre green roof.



Replacement Naval Hospital, Camp Pendleton, CA



#### 4. BARONA VALLEY RANCH CASINO WATER MANAGEMENT AND LANDSCAPE RENOVATION

LAKESIDE, CA

Reference: Jesus (Chuy) Martinez, Barona Resort and Casino  
619-328-3660, jemartinez@barona.com

Total Fees: DLI Fees: \$84,000

Date: 2015 - Present

DeLorenzo International is providing Smart Landscape master planning, mapping and design services for the 139-acre resort, hotel and casino grounds. The Team prepared new color-coded maps of the extensive existing irrigation systems, an irrigation assessment and recommendations report for upgrading the master control system and increasing system efficiency, turf evaluation and removal design studies, designs for a new desert garden, irrigation pond water quality enhancement recommendations, and on-going landscape and irrigation management and maintenance recommendations.

DeLorenzo International prepared an irrigation assessment report that reviewed the existing spray and rotor head irrigation and compare three central control system options. We compared modifying Barona's existing mid-level Rain Master DX2 system with purchasing a new full capability Rain Master DX2 Oasis system and purchasing a new Calsense CS3000 system. The assessment concluded that the Calsense system, while slightly more expensive than Rain Master, had far more functionality through spread spectrum radio which would eliminate the need for trenching through roads and pavements to install a data cable required to tie the Rain Master controllers together. This would save thousands of dollars. As a result of DeLorenzo International's recommendations, Barona is replacing all 22 of its controllers and central control computer with new, state-of-the-art Calsense system that will accurately record all irrigation water use and will send automatic alerts to maintenance staff when sprinklers or irrigation lines are broken. In addition, the Team is providing on-going landscape and irrigation maintenance consulting to help the resort reduce water use, chemical use, green waste generation and maintenance labor man-hours.



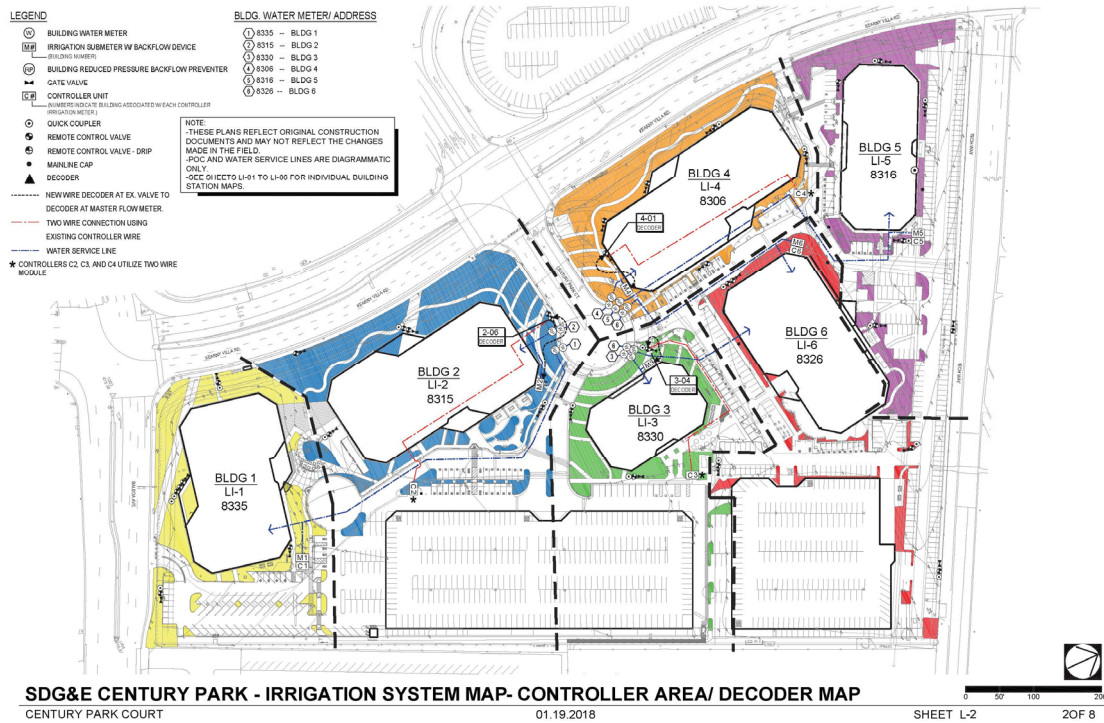


5. SDG&E IRRIGATION AND LANDSCAPE UPGRADES

SAN DIEGO, CA

Reference: John Ritter, San Diego Gas & Electric  
 (858) 654-1108, JCRitter@semprautilities.com  
 Total Fees: DLI Fees: \$17,182.50; Construction Cost: \$50,000  
 Date: 2017 - 2018

DeLorenzo International team provided irrigation and landscape upgrade recommendations, design and mapping services for the San Diego Gas & Electric (SDG&E) Century Park 7 buildings, 17-acre campus. The Team prepared new color-coded maps of the extensive existing irrigation systems, an irrigation assessment and recommendations report for upgrading to a Calsense web-based central control system, bid specifications, construction details and bid exhibits. We attended a pre-bid conference with the contractor and SDG&E construction and contracts personnel to ensure that the contractor understood the scope of work, schedule and timing. We assisted SDG&E in soliciting bids from several landscape contractors and reviewed the bids once they were received. Our team also assisted during the construction phase with review of RFIs, coordination with Calsense, and construction observation to ensure that the transition and implementation were successful.



## 4) PROJECT APPROACH

We propose the following approach to assist the city in implementing a Smart Irrigation System:

### **Phase 1 – Evaluate Existing Irrigation Systems:**

DeLorenzo International will field three assessment teams, each working from a common assessment checklist and reporting form. Each team will have an irrigation assessment specialist and an assessment recorder. In addition, we will require a city maintenance staff member with knowledge of the irrigation system being assessed who will provide access to the controller, turn controller stations on and off as requested, and provide background and information regarding the site's irrigation issues. The assessment data will be completed on a tablet using a standard PDF form. The form will include site information, all pertinent system components, a Google Earth image with controller locations, ample area for notes, comments, and final recommendations, as well as spaces for scanned sketches or photographs. Sprinkler assessments will be comprised of representative sample of 15% to 20% of the control valves that includes turning on the valve, observing sprinkler operation, visually assessing coverage and performance, and preparing simple freehand sketches of head location adjustments if necessary. The assessment team will also inspect the condition of the grass and pumps.

### **Phase 2 – Develop Condition Assessment Report:**

The condition assessment report will consist of:

- The field evaluation form for each site
- A master spreadsheet of conditions
- An Executive Summary

We will also update the Master Irrigation Controls Inventory at this time.

### **Phase 3 – Develop City-wide Smart Irrigation Systems Recommendations:**

We will prepare the city-wide recommendations by:

- Preparing repair, renovation and retrofit recommendations for each site.
- Prepare cost estimate for each site and a master summary sheet.
- Estimate baseline water use, estimate future water use and identify potential water cost savings.
- Identify available rebates.
- Prioritize projects based on maximum water savings at the lowest repair / retrofit cost, including rebates.
- Prepare turfgrass evaluations and recommendations.

### **Phase 4 - Three Public Meetings**

We will attend three public meetings to present and discuss our findings.

### Team Approach / Roles and Responsibilities

To produce an accurate, efficient, biddable and constructible Smart Irrigation System requires a team approach between DeLorenzo International and the City. Each will have specific roles and responsibilities. Our proposal described in the pages above clearly define DeLorenzo International's roles and responsibilities as the City's consultant. The City's role and responsibilities are just as important. For a successful project we need the City to:

- Provide a City maintenance staff member at each site assessment to provide access to the controller and equipment (backflow enclosures, pumps, etc.) and turn stations on or off as requested. It is imperative that the City staff member have working knowledge of the site and irrigation system.
- Bring each site up to fully accessible and operational condition so when we visit the site, we are not wasting time trying to access equipment, get valves to operate, or dealing with zones that have breaks, missing heads, or other problems that prevents an efficient assessment.
- Make available as-built irrigation plans site data and water use data where they exist.

In addition, the following conditions will apply:

- Irrigation efficiency will be determined by visual observation of a representative sample of irrigation zones looking at perceived pressure, nozzle selection and head to head coverage.
- Not every valve system will be operated and observed, and general repair punch lists will not be prepared.
- No catch can tests will be performed.
- Baseline water use estimates will be calculated by determining the approximate general area of turf and shrubs from a Google Earth image of each site and applying historic ETo, an assumed average plant factor and an assumed average system efficiency.
- Underground conditions, such as pipe sizing and layout, cannot be known and won't be used in the assessment.
- Static pressure may be tested where system pressure appears to be an issue if there is reasonable access to backflow test cocks, etc. where an accurate reading may be taken.
- Assessment will not include destructive testing, disassembling equipment or excavations.

## 5A) COST PROPOSAL

This offer, including all pricing proposals, will remain in effect through the duration of the professional services agreement.

Cost Proposal	
1. Evaluate Existing Irrigation Systems	\$184,000
2. Develop Condition Assessment Report	\$23,000
3. Develop City-Wide Smart Irrigation Scope of Work	\$50,000
4. Three Public Meetings	\$5,000
5. Evaluate Pumps and Develop Specifications	\$18,000
<b>Total Fees</b>	<b>\$280,000</b>

## 5B) SCHEDULE OF STANDARD HOURLY RATES

Staff Rates	
Principal	\$200
Project Managers/Landscape Architects	\$150
Project Designers/Auditors	\$110
CADD Drafting	\$85
Word Processing/Non-technical Staff	\$75

## 6) CLIENT REFERENCES

- 1) Project: MCAS MIRAMAR RETROFIT AND RECLAIMED CONVERSION PROJECT  
Client Name: Pro-Tech Plumbing (client for 2016-2017 retrofit project)  
Mailing Address: P.O. Box 279, Ramona, CA 92065  
Contact Name: Mr. Paul Lachut, President  
Telephone Number: (760) 788-8324  
Email Address: [paul@ptp.sdcoxmail.com](mailto:paul@ptp.sdcoxmail.com)
- 2) Project: MONTEREY BAY MILITARY HOUSING (MBMH) WATER TRACKING  
Client Name: Monterey Bay Military Housing (MBMH), LLC, Clark Realty Capital  
Mailing Address: 328 Hatten Road, Seaside, CA 93955  
Contact Name: Mr. Fran Coen, Director  
Telephone Number: (831) 583-2710  
Email Address: [fran.coen@clarkrealty.com](mailto:fran.coen@clarkrealty.com)
- 3) Project: REPLACEMENT NAVAL HOSPITAL, CAMP PENDLETON  
Client Name: Construction Group  
Mailing Address: 7500 Old Georgetown Rd., Bethesda, MD 20814  
Contact Name: Mr. Carlos Gonzales, Senior V.P., Western Region – South Clark  
Telephone Number: (310) 272-8339  
Email Address: [Carlos.Gonzalez@ClarkConstruction.com](mailto:Carlos.Gonzalez@ClarkConstruction.com)
- 4) Project: BARONA RESORT AND CASINO WATER MANAGEMENT  
Client Name: Barona Resort and Casino  
Mailing Address: 1932 Wildcat Canyon Road, Lakeside, CA 92040  
Contact Name: Jesus (Chuy) Martinez, Facilities Manager  
Telephone Number: (619) 328-3660  
Email Address: [jemartinez@barona.com](mailto:jemartinez@barona.com)
- 5) Project: SDG&E IRRIGATION AND LANDSCAPE UPGRADES  
Client Name: San Diego Gas & Electric  
Mailing Address: 8330 Century Park Court, San Diego, CA 92123  
Contact Name: John Ritter, Facilities Operations Manager  
Telephone Number: (858) 654-1108  
Email Address: [JCRitter@semprautilities.com](mailto:JCRitter@semprautilities.com)