



*DEDICATED TO  
PROVIDING EXCEPTIONAL  
ENGINEERING SERVICES*

**STATEMENT OF QUALIFICATIONS**



*With TEAMWORK,  
PROFESSIONAL COMMITMENT,  
FINANCIAL STRENGTH,  
and CARE FOR OUR COMMUNITY,  
We strive to DELIVER the  
HIGHEST QUALITY SERVICE with INTEGRITY,  
and FOCUS ON OUR CUSTOMERS' NEEDS*



### **Dedicated to Providing Real Solutions**

*“California’s aging infrastructure and public facilities require renovations and expansions to improve the quality of life for the people of our communities.*

*Because of this, we have dedicated our company to providing services that will meet the exacting needs of our customers.”*

*– Jorge Ramirez, President/CEO*

## **HISTORY**

SAFNA’s roots began in 1974, when its parent company, Heateflex Corporation, successfully took on the challenges of designing and engineering products for the semiconductor and related high-technology industries. As Heateflex grew financially, it began to diversify its portfolio of products into enhanced engineering services, the fabrication of tanks, and specialized solutions for fluid heating, both through organic growth and through the acquisition of SAFNA in 2010. For over four decades, the company has maintained a strong focus on customer satisfaction.

Today, SAFNA has evolved into a full-service engineering services and product company, with strong financial backing. Corporate headquarters are in Arcadia, CA, with production facilities in San Dimas, CA.

# COMPANY PROFILE

SAFNA Engineering & Consulting (SAFNA) has a long legacy of providing a wide range of professional engineering services and products to public and private clients. With offices in Arcadia and San Dimas, the company has a work force of over 40 employees providing engineering and consulting services in program management, engineering design, and implementation of infrastructure projects.

We are an industry leader in the product design and fabrication of custom carbon and stainless steel storage tanks, pressure vessels, and filter housings, manufactured in a National Board-Certified facility located in San Dimas, California. SAFNA has successfully engineered, designed, and constructed several innovative systems for municipality projects including water treatment, landfill, and desalination applications.

We place tremendous value on the integrity of our company, and strive to provide the highest quality services to our customers by employing the highest work ethics in delivering our services. Innovation motivates us, demonstrated by more than 40 years of successfully delivering world class services, backed by 9 patents developed by our own employees.



### SAFNA CERTIFICATIONS

*SAFNA is a certified Minority Business Enterprise (MBE) with the City of Los Angeles, Southern California Minority Business Development Council, and the California Public Utilities Commission. SAFNA is also a certified Small Business Enterprise (SBE) with the Metropolitan Water District, City of Long Beach, and Port of Long Beach. Additionally, certifications by National Board (NB) of Boiler & Pressure Vessel Inspectors and the American Society of Mechanical Engineers (ASME).*



## MEET OUR TEAM

The people at SANFA have an extensive portfolio of experience in meeting the latest service requirements of our customers. Our management team brings a diverse background of leadership and experience. They lead a team of over forty talented employees and bring the highest level of service to our clients. Below are highlights of our management team.



### **Jorge Ramirez // President & CEO**

*Jorge has 28 years of experience in management and marketing at the national and international level. As the CEO and President of SAFNA, Jorge is responsible for marketing, strategic planning, and implementation of new services and products. He also serves as the company's client service manager for all international clients. Jorge received his B.S. degree in electrical engineering from California State University, Los Angeles, as well as his B.S. degree in business management and an MBA from the University of Redlands.*



### **Reymundo Trejo, P.E. // Executive Director, Chief Engineer**

*Mr. Trejo brings a broad range of experience in the municipal infrastructure projects business to his new role at SAFNA. Over the course of more than 20 years in both private and public sector organizations, Trejo has overseen advanced water treatment, conveyance infrastructure, waste water conveyance, and regional-scale recycled water programs valued at nearly \$1B. He brings extensive experience in the planning, operations, budgeting, grant funding, and staffing of large infrastructure projects, and is a proven manager of complex and innovative programs. He holds a Bachelor of Science degree in Civil Environmental Engineering from the University of Southern California, and is a professionally-registered civil engineer.*

### **Hector Castañeda // VP of Engineering**

*In his 20 years with the company, Hector has played an active role in developing new products and restructuring the engineering department for greater effectiveness. He was granted four U.S. patents and has a variety of patent applications pending. Hector is responsible for management of the technical effort, testing and vendor qualifications. His B.S. degree in mechanical engineering was completed at California State University, Long Beach.*

## SAFNA PROFESSIONAL STAFF

Under the leadership of our management team, SAFNA's staff are dedicated individuals bringing a strong work ethic, exceptional knowledge, and readiness to serve our clients. Below is a list some of the key staff professionals as SAFNA.

NAME	POSITION	DEGREE	INSTITUTION
Melissa Tiongco Matsuoka	Sr. Mechanical Engineer	B.S. Mechanical Engineering	California State Polytechnic University, Pomona
Ruben Llanos	Mechanical Engineer	B.S. Mechanical & Manufacturing Engineering	California State University, Los Angeles
Benny Sandoval	Mechanical Engineer	B.S. Mechanical & Manufacturing Engineering	California State University, Los Angeles
Marcelino Torres	Mechanical Engineer	B.S. Mechanical Engineering	California State Polytechnic University, Pomona
Richard Mendoza	Mechanical Engineer	B.S. Mechanical Engineering	California State Polytechnic University, Pomona
Maria Martinez	Engineering Coordinator	A.Ap.S. Computer-Aided Drafting	ITT Technical Institute
Jose Nieves	Drafter	A.Ap.S. Computer-Aided Drafting	ITT Technical Institute

# OVERVIEW OF OUR SERVICES

ENGINEERING	PLANNING	WATER REUSE	PROGRAM MANAGEMENT	CONSTRUCTION MANAGEMENT
AutoCAD Microstation	Feasibility Studies	Program Development	Program Management	Constructability Review
Utility Research	CEQA/NEPA Support	CIP Implementation	Budget Control	Construction Observation
Utility Design	Grant Strategic Planning	Customer Development	Program Schedule	Contract Administration
Drainage Design	Grant Applications	Retrofit Design	Owner's Representation	Resident Engineer
Water Design	Grant Administration	Permitting	RFP Development & Procurement	Reporting
Sewer Design	Utility Relocation Planning	Stakeholder Coordination	CIP Management & Execution	Document Control
Permits		Engineering Reports	Conservation Program Management	Closeout Administration
		Regulatory Support	Stakeholder Coordination	Utility Coordination

## ENGINEERING AND PLANNING SERVICES

We believe it is important to understand our clients' engineering needs, and having a team with extensive public sector experience allows for an in-depth understanding of the scope and quality of services, budget, and schedules as they pertain to our clients' needs, allowing us to meet and exceed our clients' expectations. With our exceptional leadership and public/private sector experience, together with more than 40 years of the SAFNA legacy, we offer a variety of engineering support services.

Our engineering professionals can support clients in strategic planning and feasibility studies. We believe that conducting a review of existing plans and studies may help determine if alternative solutions may become available. We can collaborate with clients and planning teams to bring a fresh perspective on agency strategic objectives and provide recommendations.



### UTILITY RESEARCH AND DESIGN

The State of California is undergoing tremendous infrastructure renovation and expansion of facilities, utility infrastructure and transportation corridors. One of the most important tasks in selecting the pipeline alignments, modification of underground structures and preparing the design plans is the location of other utilities within the project site. Performing a thorough investigation will allow utility constraints to be identified during the alignment studies and may help avoid potential conflicts during construction, resulting in cost savings and time saved. Our team can provide utility design support services for the following:

- Utility Research
- Utility Design
- Drainage Design
- Water and Sewer Design
- Utility Relocation Planning



## CAD DESIGN SERVICES

Our engineering staff is fully capable in Bentley, AutoCAD and Revit platforms and has experience working with various agency standards. We have experience in the use of drafting programs, including Autodesk's Revit, to develop detailed drawings and to produce construction documents as an aid in structural analysis and detailing for various structures. We can utilize Microstation/ AutoCAD drafting and design production to develop engineering plans with plans and profiles, grading plans, mechanical and structural details, electrical, and P&IDs. Our capabilities also include Advanced 3D design modeling and 2D & 3D visualizations.



## PERMITTING SERVICES

Our professionals understand the permitting process and level of coordination required to effectively complete design and construction projects. We bring a comprehensive and disciplined approach to identifying, tracking, managing and acquiring permits. Our services include preparation of permitting applications, detailed status monitoring, and direct coordination with each agency to ensure timely receipt of permits and other required project documentation. We bring a tremendous amount of experience in permit support efforts with major utility agencies, county agencies, federal agencies, regulatory agencies, and state agencies throughout California.

## GRANT WRITING SERVICES

Many of the infrastructure agencies rely on some level of grants funding to fund design and construction of projects. Our understanding of the funding process has helped agencies obtain millions in grants and loans for project development and implementation. These programs include Proposition 50, Chapter 8; U.S. Bureau of Reclamation Title XVI; California Clean Water State Revolving Fund; Proposition 84; Proposition I Water Bond; Measure M; and others. We continue to seek upcoming opportunities in state and federal funding and can assist our clients by providing the following services:

- Grant Strategic Planning
- Application Preparation
- Grant Administration



## WATER REUSE PROGRAM DEVELOPMENT AND IMPLEMENTATION

With drought as a major focal point in our state, cities and municipalities are continually challenged with water shortages. Water Reuse has become a major consideration for existing and new users. The state recently passed a major water bond, offering funding opportunities to Southern California and making it possible to continue making major investments in Water Reuse development. SAFNA Engineering & Consulting understands the need for talented and effective leaders to provide superior services in Water Reuse program development.

We recently brought on-board one of the state's highly respected water reuse engineers, Reymundo Trejo, P.E., to lead our Water Reuse services. As our Chief Engineer, Mr. Trejo brings over two decades of experience developing and implementing water recycling infrastructure projects, as well as developing a groundwater Indirect Potable Reuse program in Los Angeles County. He has worked directly with staff at the US Army Corps of Engineers, the Sanitation Districts of Los Angeles County, the Metropolitan Water District, the Los Angeles County Department of Public Health, the California Division of Drinking Water, the Los Angeles Regional Board, the Department of Water Resources, the United States Bureau of Reclamation, and the State Water Resources Control Board. Mr. Trejo has demonstrated industry leadership in advancing reuse projects throughout Southern California, further strengthening SAFNA's existing team of water purification experts and engineering services.



The support services that we offer include:

- Water Reuse Program Development and Management
- Capital Improvement Program Implementation
- Customer Development and Coordination
- Site Retrofit Design Support and Coordination
- Permit Support for County and State Requirements
- Coordination with Local Agencies and Stakeholder
- Engineering Reports
- Regulatory Compliance Coordination with Local, State, and Federal Agencies

## PROJECT AND PROGRAM MANAGEMENT SERVICES

Multifaceted construction programs have complex challenges that require successful team integration. Compiling a highly skilled and effective team to manage your project is crucial to your success. SAFNA Engineering & Consulting provides project and program management support services for large complex projects, capital improvement programs, and short term project management assignments. Our experienced engineers and project managers provide immediate service and offer flexible schedules to support as-needed project needs and milestones. Our team's immediate focus is to identify issues and resolve conflicts before they become problems by establishing priorities and coordinating activities with the client to ensure that projects are delivered safely, on time, and within budget. As our client's representative, we minimize design and construction costs, project delivery time, and facility life cycle costs while maximizing project flexibility and value through strong communication and process development.



Our project and program management services include:

- Program Development and Program Management on All Infrastructure Projects
- Integrated Management of Staff, Consultants, and Contractors as Owner's Representative
- RFP Development and Procurement Support
- Program Management Team Support
- Capital Improvement Program Management and Execution
- Conservation Program Management
- Grant Funding Reporting and Coordination
- Agency and Stakeholder Coordination
- Permit Management
- Budget Controls and Scheduling

## CONSTRUCTION MANAGEMENT SERVICES

Our company provides construction management services as well as owner's representative services for infrastructure projects during the planning, design, construction, and close-out phases of projects. We can assist on short term assignments or large scale assignments. We are available to work from field offices to assist and coordinate in all activities of construction management, reporting, document control or permit coordination. Our staff have personally been involved with numerous projects involving facilities, streets, pipelines, pump stations, water storage tanks, and recycled water conveyance systems.



Our construction management services include:

- Owner's Representative
- Constructability Review
- Construction Observation
- Contract Administration
- Resident Engineer
- Engineering Support
- Reporting
- Document Control
- Agency and Stakeholder Coordination
- Permit Management

## STAFF AUGMENTATION SERVICES

In certain cases, hiring permanent employees is necessary. However, when an agency has short term projects and assignments, hiring temporary skilled engineering professionals is a cost effective means to achieve these goals. SAFNA Engineering & Consulting provides engineering professionals to meet short-term and long-term project assignments at various levels of experience.

Our management team will work closely with the client to assess each specific need and provide recommendations as to the best approach in effective professional staffing. We do this by assigning a client service manager who carefully selects the dedicated level of engineering professional and matches it up with the client's work assignments and expectations for the duration of the project. Having a dedicated client service manager to support staff assigned to the project ensures safety, quality service, proper adherence to local agency rules and regulations, and delivery of cost effective service. We are devoted to offering proper training and continued coaching and teaching as necessary to further develop our employees and ensure continued growth in our services to our clients.



Our staff augmentation services are flexible, and include the following services:

- Part time or Full Time Entry-Level, Mid-Level, or Senior-Level Professionals
- As needed Technical Experts
- As needed Inspectors
- Engineering Interns
- Interim Executive Management
- Ongoing Staff Augmentation Coaching and Training

## PROJECT EXPERIENCE

SAFNA has completed many projects for notable clients in a variety of industries. Our staff has also brought prior project experience from numerous programs throughout Southern California. Following is a summary of SAFNA's recently-completed projects as well as our staff's prior project experience.



### IRVINE RANCH WATER DISTRICT - MICHELSON WATER RECYCLING PLANT - BIOSOLIDS AND ENERGY RECOVERY FACILITIES

Irvine, California

The Michelson Water Reclamation Plant treats thousands of gallons of wastewater to produce reclaimed water for irrigation applications. The wastewater treatment process also produces a nutrient rich by-product referred to as biosolids. This new facility will utilize a biological and heat process to convert the biosolids into fertilizers, and utilize the resulting biogas as a fuel to generate electricity. SAFNA was responsible for designing and fabricating two stainless steel utility water tanks (8,600 gallons each) along with one sodium hydroxide storage tank (CS) as part of the project. Engineers estimate that this facility will save IRWD customers \$10 million a year over the next 20 years.

Below are some of the design aspects of the tasks assigned to SAFNA:

- Engineered to API Standard
- Used API Modeling Software to confirm design conformity
- Seismic Calculations for Tank Anchors
- Hydrostatic Testing
- Prepared All Manufacturing Drawings and Weld Maps using AutoCAD
- Design and Fabricated Tanks at the SAFNA San Dimas, CA Facility



## CARLSBAD DESALINATION PROJECT

Carlsbad, California

As one of SAFNA's premier projects, the Carlsbad Desalination plant provides 50 MGD of water to approximately 300,000 residents in San Diego. One of the most critical processes and components of the plant was the selection and design of a pre-treatment process. SAFNA was part of the design-build team responsible for designing innovative pre-treatment filtration vessels (patent-pending) that extend the life of the plant's Reverse Osmosis equipment and meet NSF 61 requirements. Running high corrosive seawater through treatment equipment at 250 psi of pressure posed water quality and structural integrity challenges. The experienced SAFNA team selected natural polypropylene as the internal structural cage. A total of 17 multi cartridge filter vessels were designed and manufactured at the SAFNA facilities in San Dimas, CA. The vessels were made of carbon steel and lined with Endura-flex, offering several benefits to the project including cost savings, reduced maintenance, and equipment longevity.

Among the key design services provided by SAFNA's engineers:

- Design of Pressure Vessel Using ASME CODE, Section VIII, Division I
- ASME Design and Code Verification Software
- SolidWorks modelling and simulation to determine internal material deflection and wear based on variable flow rates and water pressure
- Utilized SolidWorks to Create 3D Model
- Stress Analysis
- Prepared all Seismic Calculations
- Developed Torque and Setting Specifications
- Generated Operations Manual
- Hydrostatic Testing
- Prepared Manufacturing Drawings and Weld maps using AutoCAD
- NSF-61 Certification, Design and Testing
- Fabrication of All Vessels at SAFNA's San Dimas, CA Facility



## **METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA F.E. WEYMOUTH TREATMENT PLANT**

La Verne, California

The Metropolitan Water District completed the F.E. Weymouth Treatment Plant in 1940. It serves the county residents of Los Angeles and Orange. To enhance its output and lower the amount of chlorine, a plant retrofit was planned to disinfect primarily with ozone. Construction is underway for an ozone water treatment process, which when completed in 2017, will make Weymouth the final Metropolitan treatment plant retrofitted for ozone disinfection. Compared to chlorine, ozone destroys a wider range of micro-organisms, produces fewer byproducts and removes unpleasant tastes and odors more effectively. When using ozone, bromate is produced as a byproduct and requires additional treatment to manage it.

SAFNA designed three very specific and customized 10,600-gallon sulfuric acid storage tanks, made with carbon steel (CS), to address this issue.

The in-house design and production of the project tanks included:

- Engineered to API Standard
- Used API Modeling Software to Confirm Design Conformity
- Prepared all Seismic Calculations for Tank Anchors
- Hydrostatic Testing
- Prepared All Manufacturing Drawings and Weld Maps using AutoCAD
- Design and Fabricated Tanks at the SAFNA San Dimas, CA Facility





## **SANTA BARBARA COUNTY - TAJIGUAS LANDFILL**

Santa Barbara, California

Operational since 1967, the Tajiguas Landfill processes up to 23.3 million cubic yards of waste over 118 acres. Landfill gas emissions consist of methane, carbon dioxide and hydrogen sulfide, which abide by air- quality EPA requirements, but can be dangerous at high levels. SAFNA created a treatment solution that lowered these gas emissions.

- Structural integrity engineering with formed tubular members to withstand vacuum/pressure conditions
- Calculated 4G lifting lugs
- Prepare Seismic Calculations and Footing Recommendations
- Hydrostatic Testing
- Drafting with AutoCAD – Final Manufacturing Drawings and Weld Maps

## STAFF EXPERIENCE

SAFNA has completed many projects for notable clients in a variety of industries. Our staff has also brought prior project experience from numerous programs throughout Southern California. Following is a summary of SAFNA’s recently-completed projects as well as our staff’s prior project experience.

PROJECT	ENGINEERING	PLANNING	WATER REUSE	PROGRAM MANAGEMENT	CONSTRUCTION MANAGEMENT
City of Long Beach	√	√	√	√	
West Basin MWD			√		
City of Ontario		√	√	√	
Upper San Gabriel MWD		√	√	√	√
City of Los Angeles			√	√	
Irvine Ranch Water District	√				
Metropolitan Water District	√	√			
City of Simi Valley	√				
City of West Covina		√	√		√
City of Rosemead			√		
City of Industry		√	√		
South El Monte		√	√		





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