

ALFATECH

INNOVATIVE IDEAS | INTEGRATED SOLUTIONS | SUSTAINABLE PARTNERS

- 01 OVERVIEW / Profile & Services
- 02 Sustainability
- 03 Markets & Relevant Projects



01

OVERVIEW

Profile & Services

OVERVIEW

The San Francisco Bay Area and Silicon Valley have been experiencing a real estate renaissance over the past several years, driven by a number of factors. Talent pool is a big part: Silicon Valley technology firms are expanding to San Francisco to attract employees who desire the urban lifestyle, while expansion to the East Bay to attracts employees for other reasons, and so forth.

Many new developments are underway, some quite sizable and with complex teaming structures, and more in the planning which will attract more movement to other parts of the Bay Area. Rental rates continue to climb and housing prices continue to rise as a reflection of this.

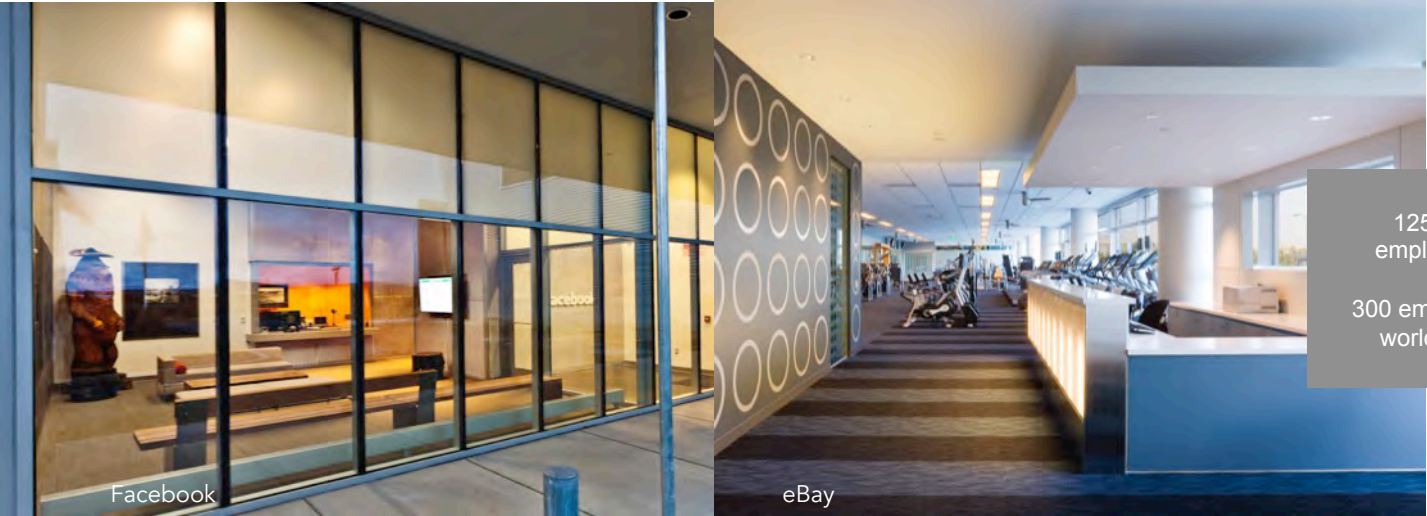
While eyes continue to be on the San Francisco Bay Area/Silicon Valley real estate market, many companies with a broader reach are driving expansion across California, throughout the United States and around the world.

Many of our clients continue to rely on AlfaTech's resources and knowledge base as a valued team player while they are making important decisions about their facility needs whether locally or globally.



By 2050,
70%
of the world's
population will be
living and working in an
urban environment

PROFILE



125 US employees
300 employees worldwide

AlfaTech has built its reputation on providing the most innovative and sustainable engineering solutions for all levels of urban residential development, from master planning through construction administration.

Our presence is not only California and Atlanta, but also internationally. Our clients include numerous large multi-national firms, many ongoing clients we've been serving for years.

We strive to provide intelligent and innovative strategies starting with project inception, in order to provide maximum benefit to our clients during the entire development process whether it be new residential villages, mixed use projects or revitalization of existing communities.

Our team provides the most appropriate engineering design solutions which are highly efficient and cost effective, and promotes the greatest possible return on investment for our clients.

Our goal is to build the most dynamic relationships, be attentive to the needs of our clients and partners, and be true team players. With this mindset, we've built a stellar list of clients.



- United States:*
 - San Francisco
 - San Jose
 - Los Angeles
 - Atlanta
- International:*
 - Dublin
 - Singapore
 - Sydney
 - Queensland
 - Hong Kong
 - Shanghai
 - Taipei
 - Abu Dhabi
 - Dubai

CLIENTS

3M Company
 AARP
 Abbott Biotherapeutics
 Abbott Laboratories
 Abbott Vascular Inc
 Abgenix
 Abt Associates Inc
 ACCO Engineered Systems
 Adaptec Inc
 AOC
 Adobe Systems
 Advanced Micro Devices Inc
 Advantest America, Inc.
 Advent Software, Inc.
 Aetna Inc
 Affymetrix
 Agilent Technologies Inc
 Airgas
 Akamai Technologies
 Alcoa Inc
 Allen, Matkins et al
 Alliance Bernstein LLP
 Alta Bates Health System
 Altera Corporation
 Alum Rock School District
 Alza Corporation
 Amazon/Lab 126
 Ambiance Associates
 Ambiance Interiors Pvt Ltd.
 Amdocs
 American Express Company
 Amgen Inc
 Amprius
 Amstein + Walther
 Anixter
 Applied Dynamics Inc
 Applied Materials
 Atmel Corp
 Autodesk Inc
 Avaya
 Avid Technology Inc
 Avidex
 BAE Systems Inc
 Bank of America
 Banuazizi Architects
 Bayer
 Bechtel Corporation
 Bell, Rosenberg et al
 Berryessa USD
 Bingham McCutchen LLP
 Bio-Rad Laboratories
 BioGenex
 BioMed Realty Trust Inc
 Bloom Energy
 BMC Software
 Booz Allen Hamilton Inc
 Boston Properties
 Boston Scientific
 Bradford Schools Inc
 Brewer, Fraser & Holland
 Brian L. Cochran Associates
 Bristol-Myers Squibb
 Broadcom Corporation
 Broadreach Capital Partners
 Brocade
 Cadence Design Systems
 Cal Pacific Med Center
 California Pacific Orthopedic Sports & Medicine
 CarrAmerica Development
 Chabot Las Positas Community College District
 Charles Schwab
 Chevron
 Children's Hospital Oakland
 Chinese Hospital
 Chiron Corporation
 Cisco Systems Inc
 Citigroup Realty Services
 College of Contra Costa
 College of Marin
 Colliers International
 Computer Associates Int'l
 Compuware
 CoreSite
 Cornell University
 County of Monterey
 County of Sacramento
 County of San Mateo
 County of Santa Clara
 Credence
 CSAA
 CSU Northridge
 Daughters of Charity Health
 Dell
 Delta Products
 Deloitte Consulting LLP
 Desert Troon Companies
 Digital Realty Trust
 Dignity Health
 Dominican Hospital
 Dupont
 East Side Union HSD
 eBay
 Eli Lilly & Company
 El Camino Hospital
 Elsevier Inc
 Emirates National Oil
 Empire State Development
 Equinix
 Equis Corporation
 Ericsson
 Ernst & Young LLP
 Exelixis
 Facebook
 Ferrari Maserati of Silicon Valley
 Fidelity Investments
 Fireman's Fund Insurance
 First Franklin Financial Corp
 Flextronics
 Foundry Networks
 Franklin Templeton Investments
 Genentech
 General Dynamics
 General Electric Co
 General Services Administration
 Genzyme Corporation
 Gilead Sciences Inc
 Goldman Sachs & Co
 Good Samaritan Hospital
 Google
 GSA
 Hayward USD
 Hewlett Packard
 Highland Hospital
 Hitachi America Ltd
 IBM
 Impax Laboratories Inc
 Informatica Corporation
 Intel
 InterMune
 Intuit
 J&W Scientific
 JDS Uniphase Corporation
 John Muir Medical Center
 Johnson & Johnson
 Johnson Controls
 JP Morgan Chase
 Juniper Networks Inc
 Junipero Serra High School
 Kaiser Permanente
 Kasowitz, Benson et al
 Kimpton Hotels
 KLA-Tencor Corp
 Lam Research
 Laney College
 Lawrence Berkeley Lab
 Letterman Digital Arts
 Levi Strauss & Company
 Linear Technology
 LinkedIn
 Lockheed Martin Corp
 Logitech
 Longs Drug Stores
 Los Gatos Saratoga HSD
 Lucas Film LTD
 Marriott International
 Marvell Semiconductor Inc
 Maxim
 McKesson
 Medarex
 Menlo Park City School District
 Microsoft Corporation
 Molecular Devices Corporation
 Monterey Peninsula College
 Morgan Hill USD
 Morgan Stanley Corporation
 Morrison & Foerster LLP
 Motorola
 Mountain View School District
 MW Zander
 NAI Global
 NASA-Ames
 National Semiconductor
 Network Appliance
 Nokia
 Nortel Networks
 Northrop Grumman Corp.
 Novartis
 Novell Inc
 Novellus Systems Inc
 NVIDIA
 Ohlone Community College
 OptiSolar Inc
 Oracle Corporation
 Orchard Properties
 Pacific Bell
 Pacific Gas & Electric
 Panattoni Europe
 Pfizer Inc
 Philips Semiconductor
 Pitney Bowes Inc
 Polycom
 Port of San Francisco
 Presidio Trust
 Price Waterhouse Coopers
 Prudential C.R.E.S.
 Qualcomm
 Queens Medical Center
 RAMBUS
 Raytheon Company
 Rensselaer County IDA
 Riverbed Technologies
 Robert Half International
 Roche Bioscience
 Ross Stores Inc
 Sacramento Municipal Utility District
 Safeway Inc
 Saint Louise Regional Hospital
 Salesforce.com
 Samaritan Medical Center
 Samsung
 San Francisco Center For Economic
 Development
 San Francisco City Hall
 San Francisco Center For Economic
 Development
 San Francisco International Airport
 San Francisco USD
 San Jose Redevelopment Agency
 San Jose State University
 San Mateo Community College
 San Mateo County Office of Education
 Sandia Laboratories
 Santa Clara University
 SAP Labs LLC
 Saratoga USD
 Savvis
 Seagate Technology
 Sequoia Hospital CHW
 Sequoia Union HSD
 Siemens
 Skywalker (Lucas Film)
 SLAC National Accelerator Laboratory
 Solectron Corporation
 Sony America
 Spansion
 Sprint
 SRI International (Stanford Research)
 St. Agnes Medical Center
 St. Francis Memorial Hospital
 St. Joseph Hospital
 St. Mary's Hospital
 Stanford Healthcare & Clinics
 Stanford University
 Stanford University Medical Center
 Stion Corporation
 Stryker Endoscopy
 Stubhub
 Sun Microsystems Inc
 SunPower
 Sutter Health
 Sybase Inc
 Symantec
 Synopsys Inc
 Sysorex
 T-Mobile
 Tencent
 Tesla Motors
 The Gap
 Twitter
 UC Berkeley
 UC Davis
 UC San Francisco
 UC Santa Cruz
 UCLA
 Ultratech
 University of Colorado Hospital
 URS
 Verisign
 Verizon Communications
 Veteran's Administration
 Visa International
 VMware
 Wachovia Bank
 Yahoo

SERVICES

SUSTAINABILITY

Sustainability Planning (Organizational and Infrastructural)
LEED / Green Building Consulting
Masterplanning
Life Cycle Cost Assessment
Occupant Wellness and Comfort

MECHANICAL ENGINEERING DESIGN

HVAC
Heating Systems Water and Gas
Cooling Systems / Chilled Water
Dehumidification Systems
Contamination Sensitive Areas
Industrial Hygiene Systems
Low Tolerance Temp Control
Title 24 Analysis and Design
Heat Recovery Systems
Central Utility Plants
Air Handlers HVAC System Controls
PLC Programming
Fire Protection and Plumbing

ADVANCED SIMULATIONS

Façade Engineering
CFD / Wind Studies
Wind Studies
Thermal Stratification Studies
Energy Concept Studies

ELECTRICAL ENGINEERING DESIGN

Power Systems
Emergency & Standby Power
Lighting and Lighting Controls
Security Systems
24 / 7 Power Systems (UPS)
Power Monitoring Systems
Toxic Gas Monitoring

ELECTRICAL ENGINEERING DESIGN (Continued)

Graphic Control and Alarm Panels
Grounding and Bonding
Energy Management
Energy Conservation
Fire Alarm Systems
Public Address Systems
Plug Loads Control

DESIGNER LIGHTING

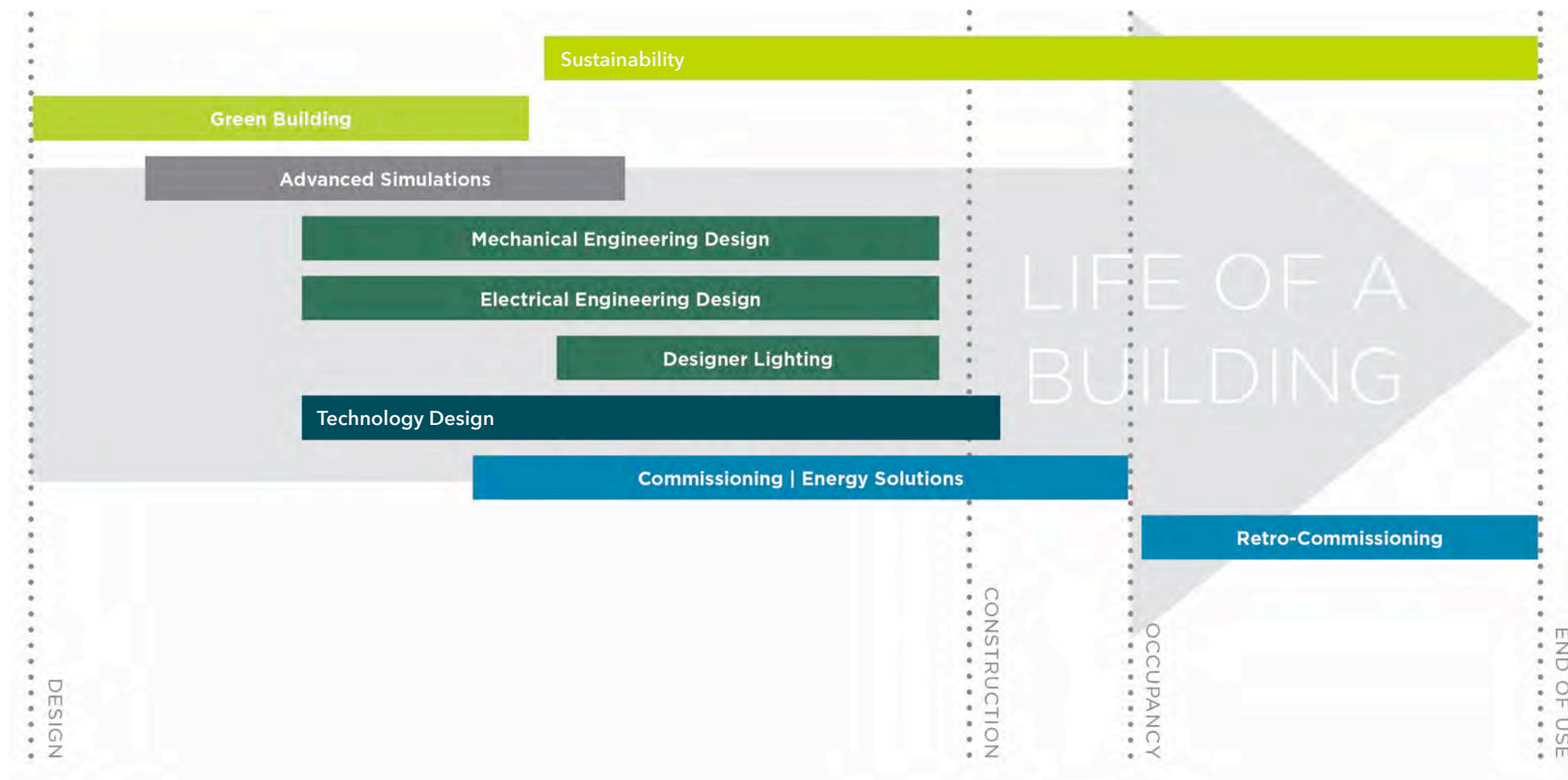
Lighting and Lighting Controls
Lighting Calculations
Customized ROI Calculations
Sustainable Lighting Design
Energy Savings Analysis
Custom Lighting Fixtures
Design for finishes, fabrics and light sources

TECHNOLOGY DESIGN

Low Voltage Design
Security Design
Audio Visual Design
Wireless Design & Modeling
Strategic Consulting
Project Management
Relocation & Migration

COMMISSIONING | ENERGY SOLUTIONS

Early Quantifiable Energy Study
Incentives
Energy Star® Assessments
Retro-commissioning (RCx)
Monitoring Brand Continuous Commissioning (MBCCx)
ASHRAE Level 1, 2 and 3 Energy Audits
Measurement and Verification (M&V) of installed projects
Energy Modeling
Net Zero Energy Budgeting
HVAC/Chilled Water Plant Optimization





02


SUSTAINABILITY

SUSTAINABILITY

At **AlfaTech**, we have a multidisciplinary team of experts to assess and design projects with a holistic approach. Working along with owners, architects and other stakeholders, we examine every project in a comprehensive, systematic approach to meet the client's sustainability, energy, water and environmental quality goals.

AlfaTech goes beyond engineering – our suite of energy, water and sustainability assessment services creates projects that benefit the triple bottom line – people, plant and profit. We provide expert studies in all qualitative aspects of the built environment such as day lighting, thermal comfort, advanced lighting control design, and technology integration.

Our offices in the San Francisco Bay Area are a testimonial to our commitment to promoting sustainable practices. We have implemented measures in daylight harvesting and advanced lighting controls to optimize electricity usage, and have put in measures to reduce overall waste and beat San Francisco's overall recycling rates.

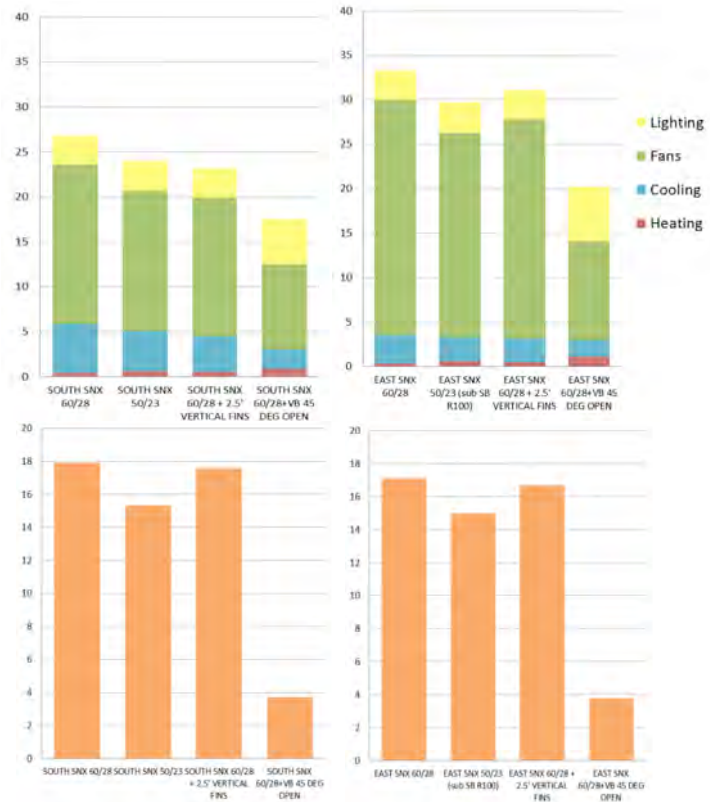


We examine every project with a comprehensive systematic approach to meet the client's sustainability, energy, water and environmental quality goals.

ADVANCED SIMULATIONS

We provide various advanced computer simulations to study wind patterns, thermal stratification and comfort issues in spaces, building façade studies and energy modeling to aid architects and owners make key decisions during the early stages of design.

- Façade Engineering
- CFD/Wind Studies
- Thermal Stratification Studies
- Energy Concept Studies
- Energy Modeling



FAÇADE LOAD STUDY



URBAN WIND STUDY

CASE STUDY:

UBER – MISSION BAY HEADQUARTERS San Francisco, CA

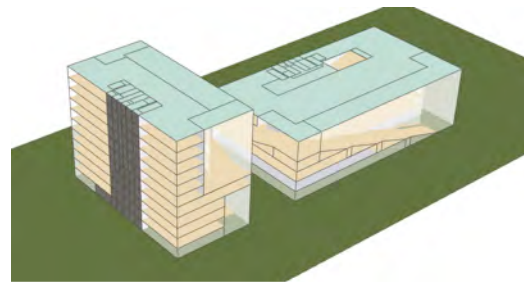
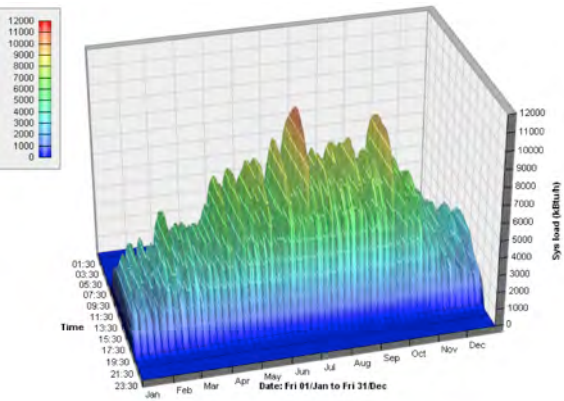
Type: New Campus
Size: 420k SF

AlfaTech is currently involved in this confidential client's new San Francisco presence which is a new 420,000 square-foot, ground up office building in the Mission Bay area in San Francisco. Our scope of work includes mechanical, electrical, plumbing, technology, security, and sustainability services. AlfaTech assisted the architectural design team with optimizing performance by assessing various utility, façade and wind studies. The project is designed as an innovative, ultra-high performance building that includes a façade that responds to programmatic needs, an under floor air distribution system, a "winter garden" which acts as the main social space incorporating natural ventilation, and a proposed geothermal system to substantially reduce cooling equipment needs.

AlfaTech has been providing MEP Engineering and Technology services for this client in the US and Globally for ten sites, including the new corporate headquarters in San Francisco. This is a state of the art new campus with over 420k SF of offices, a full kitchen and cafeteria. The project will include evaluation of all available sustainability features.

Sustainability goals:

- Significant reduction of building energy cooling needs by the use of geothermal exchange systems
- Aggressive rainwater capture and retention
- Natural ventilation for main atrium social areas, creating a pleasant, open experience for employees and visitors
- Maximize use of day lighting to optimize workspace quality



CASE STUDY:

LENNAR CANDLESTICK POINT & HUNTER'S POINT MASTER PLAN San Francisco, CA

Type: New Developments
Size: 702-Acre New Developments

The Candlestick Point and Hunter Point Shipyard is a 702-acre development that has the potential to bring most dynamic companies into the area and develop whole communities. This area will house R&D facilities, commercial spaces, multi-use buildings and retail spaces. Parks, trails, and open spaces will be additional features that will attract and enhance the community. The new development will add over 10,000 new residential units in the form of condominiums and low-, mid- and high-rise buildings. There will be over a million square feet of commercial space made available, over three million square feet for Research and Development, as well as over 300,000 square feet of property devoted to community activities.

AlfaTech views this holistic approach to community development as an opportunity for Lennar Urban to be at the vanguard of urban design by creating a community infrastructure focused on environmental sustainability, technology, and self-sustaining. This means taking advantage of existing technologies to generate energy with the lowest environmental impact.

We conducted a series of sustainable mechanical studies in a master plan scale to help the owners understand the options available to explore the feasibility of netzero energy for the new development. Proposed strategies involve the following:

- Geothermal heat rejection systems
- High performance chillers and thermal energy storage
- Biodigestion system for heat recovery and energy generation
- Solar photovoltaic array for electricity generation
- Rainwater and graywater capture and treatment





LEED
PLATINUM



NET ZERO

CASE STUDY:

DELTA PRODUCTS HEADQUARTERS LEED PLATINUM / NET ZERO Fremont, CA

Type: SF Campus
Size: 250k SF

Delta Products desired a new headquarters highlighting sustainability and energy efficiency with primary goals to showcase Delta Products' innovation in a state of the art building blending the natural surroundings with sustainable building design.

The Delta Americas Headquarters is a three-story 250,000 SF campus consisting of private offices, administrative, open workspace, conference/auditorium facilities, kitchen/dining areas, labs, office and warehouse. AlfaTech provided sustainable mechanical electrical plumbing engineering design services for this project focusing on the client's desire to maximize natural ventilation and daylighting reduce water and energy consumption with a geothermal central plant and utilize radiant systems for primary space conditioning.

AlfaTech conducted extensive CFD modeling to assist with sizing and locating windows around the building and their integration into a thermal tower ventilation strategy. The project also encompasses a photovoltaic system to balance energy consumption and achieve Net Zero Energy.

Some of the features included are:

- Ground source heat pumps
- Solar energy system
- Natural ventilation
- Active chilled beam
- LED lighting
- Spectrally selective glazing
- Grass and native plants
- Ecological ponds
- EV chargers
- Rainwater harvesting
- Elevator power regeneration systems
- Energy efficient HVAC system
- Energy storage solutions
- Hydronic bidirectional heating/cooling flooring systems



03

MARKETS & Relevant Projects

EDUCATIONAL | Higher Education

SANTA ROSA JUNIOR COLLEGE

Santa Rosa, CA

Type: New Construction

Size: 80,000 SF

Project: Student Services Building

The firm provided mechanical and electrical engineering design for this project which is slated for USGBC LEED certification, including a geothermal underground / renewable energy HVAC system. The building incorporates sustainable design elements, and the program includes offices, food service, kitchen, student dining, information services, and a bookshop. The building features two heavy use kitchen areas with a combined capacity to serve 420 faculty, staff, and students. Both kitchens have type I (grease) and type II (vapor) exhaust systems. All the type I exhaust hoods feature UV lamps to reduce overall grease exhaust and the exhaust systems feature Halton fans with Pollution Control Units to further reduce the amount of grease exhausted to outdoors due to sidewall discharge. Make up air to the kitchens is provided through the general building outside air make up system which uses energy recovery units (enthalpy wheels) to provide increased outside air (300% beyond code minimum) to each zone air conditioned by heat pump units. The heat pump units are coupled with a closed loop geothermal field, with vertical bores 250 feet deep, and provide air conditioning for the whole building.

Type: New Construction

Size: 70,000 SF

Project: Culinary Arts Building

This building includes four restaurant grade kitchen/classroom areas, student lecture classrooms, and office area for administrative staff. The building features four teaching kitchen areas each with a capacity for approximately 25 students. All kitchens have type I (grease) and type II (vapor) exhaust systems. All exhaust systems for the kitchens feature Variable Flow Hoods which considerably reduces exhaust fan energy consumption. All kitchen make up air is provided by a 50,000 CFM Air Handling Unit with FanWall technology that allows the air flow range to vary from 700 CFM to 50,000 CFM by using an asymmetrical VFD assignment to the FanWall fan array. This type of airflow volume flexibility allows the Air Handling Unit to provide make-up air to one hood in the entire kitchen or all the hoods in the four kitchens. Air conditioning is achieved through the use of zoned heat pump units water cooled through two closed circuit cooling towers. The building will be equipped with a solar thermal array sized to provide all domestic hot water needs of the building, including the kitchens.



OHLONE COMMUNITY COLLEGE

Newark, CA

Type: New Construction

Size: 130,000 SF

The firm provided mechanical and electrical engineering master planning and full design services for the new, 130,000 gross square foot, 81-acre, multi-building campus in Newark.

Our energy efficient design included the use of solar energy with roof-mounted PowerGuard 450kW photovoltaic panels, a large geothermal loop system for heating and air conditioning, highly efficient plumbing fixtures and an enthalpy wheel heat/energy recovery system. The MEP systems alone were responsible for 33 of the 55 of the LEED points attained to achieve a LEED-NC Platinum certification for this project (the first LEED Platinum Community College in the country). The systems will help to save more than \$2.6M in operating expenses over the next 25 years.

- *Building Design and Construction Magazine*
2009 Gold Team of the Year Award
Health Science and Technology Center
- *CCC/IOU Partnership's Community College*
Sustainability Best Practices Award
Overall Sustainable Design Category of New
Construction and Major Rehabilitation
- *Community College Facility Coalition (CCFC),*
Design Award of Merit, August 1, 2008
- *Silicon Valley/San Jose Business Journal*
Structures, Best Green Project, October 1, 2008
- *US Environment Protection Agency (EPA), Environmental*
Awards, Environmental Hero, February 1, 2008
- *California Construction Magazine*
Best of 2008 Awards Program
Winner, Green Building Category



COLLEGE OF MARIN

Kentfield and Indian Valley, CA

Type: New Construction, Additions and Modernizations

Size: 170,000+ SF

Projects:

- Physical Education Building Remodel (Kentfield) – 44,000 SF
- Science/Math/Central Plant Complex (Kentfield) - 60,000 SF
- Transportation Technology Complex (IVC) – 10,000 SF
- Main Building Complex (IVC) – 36,000 SF
- Campus Master Planning for Kentfield and Indian Valley Campuses

The firm was selected to provide all up-front engineering services relating to all planned bond projects including the master planning, district-wide energy modeling, district-wide mechanical, electrical and plumbing facility assessments and design standards for the District with projects totaling over 170,000 SF.

We provided engineering design services and design and construction administration for the renovation of the Diamond P.E. existing complex. The project included new HVAC and electrical distribution. An energy management control system (EMCS) links directly to the new central campus EMCS system on the central part of the Kentfield campus. The project also includes a photovoltaic system which will either provide electrical for distribution in the building or supplemental hot water for the swimming pool.

The Science/Math/Central Plant on the Kentfield campus includes a new energy efficient, geothermal underground / renewable energy HVAC system. The new 650-Ton, 340 vertical bore geothermal system provides heating and cooling via ground coupled water source heat pumps to the new Complex and Fine Arts buildings as well as two campus pools. The field was designed and phased for future expansion to support the entire Kentfield campus.

The Transportation Technology facility on the Indian Valley campus required the total renovation of 10,000 SF which includes automobile technology repair facilities and instructional offices. The facility includes a radiant floor heating system and a solar thermal system to provide domestic hot water. In addition, the firm is working with the Kentfield campus on the Larkspur Annex to upgrade the electrical services and distribution to create a staging area for future campus construction.



HIGHER EDUCATION

SOKA UNIVERSITY OF AMERICA

Aliso Viejo, CA

Type: Campus Expansion

Size: 200,000 SF

The firm is providing mechanical, electrical, and plumbing design services for this university campus expansion project located near Irvine, CA.

The Engineering / Science / Lab / Admin Building will be 4 stories and approximately 100,000 SF with classrooms, administrative offices, and wet and dry labs. The Resident Housing will be 4 stories and comprised of approximately 75 to 80 rooms.

Both proposed projects will be designed to accommodate a LEED Gold Building Certification, and an exterior architectural design pallet that will respect the current design features, landscaping and cultural aspects of the campus.



STANFORD UNIVERSITY, CLARK CENTER

Palo Alto, CA

Type: New Construction

Size: 200,000 SF

Projects: R&D, Biotech Facility, Office and Administrative Space

This award-winning project is a multi-story building on the Stanford University campus dedicated to biotechnology research and development. It is a state-of-the-art facility designed to bring together researchers of different disciplines in order to foster new ideas as opposed to the process of traditional research facilities.

The firm is responsible for the design of the mechanical systems, and peer review of the plumbing/process piping systems.



UNIVERSITY OF SAN FRANCISCO
John Lo Schiavo, S.J. Center for Science + Innovation
San Francisco, CA

Type: New Construction
Size: 59,000 SF

For the University of San Francisco, this 59,000 SF, five-level center, near the middle of the campus off Masonic Avenue, will serve more than 6,000 students required to take one science and math course during their undergraduate time at USF.

It will be a focal point for USF's 1,239 students majoring in the environmental sciences, health sciences and computer sciences.

This project achieved LEED Gold certification.



CITY COLLEGE OF SAN FRANCISCO

San Francisco, CA

Type: New Construction

Size: 537,000 SF

The firm provided master planning and infrastructure design services for the City College of San Francisco's new Ocean Avenue campus. The campus will house eight new buildings including a performing arts center, advanced technology building, joint use facility, central plant (part of joint use building), classroom building, dormitory, and bookstore totaling 437,000 SF.

The College's project goals included the buildings be designed and certified to a minimum LEED Silver rating. We also provided MEP, and sustainable design for the AIA Award Winning, new performing arts complex spanning 100,000 SF. Targeting LEED Silver.

Green Features:

Radiant Heating & Cooling

Green Roofs

Natural Ventilation

Photovoltaics



UNIVERSITY OF CALIFORNIA, DAVIS GRADUATE SCHOOL OF MANAGEMENT

Davis, CA

Type: New Construction

Size: 83,000 SF

This 83,000 SF complex houses the UC Davis Conference Center and Maurice J. Gallagher Jr. Hall, home of the UC Davis Graduate School of Management (GSM). The first LEED Platinum-certified MBA facility in California, the GSM offices comprise three stories and the two-story conference center includes a restaurant, office space, meeting rooms, and a one-story ballroom. It also includes a geothermal system.



MONTEREY PENINSULA COLLEGE

Monterey, CA

Type: New Construction and Modernizations

Projects:

- New Child Development Center Building
- Modernization of Administration Building
- Modernization of Computer/Business Center
- Modernization of Lecture Forums
- Modernization of Gymnasium
- Modernization of Humanities Building
- Modernization of Performance Art/Theater Building

MPC is an ongoing client. The firm provided MEP and Technology engineering design services for this project. One project included providing design for new site utilities upgrades including new 21KV distribution system, new communications and power distribution to building, gas, water, storm drain, and grey water systems coordination. Also provided energy efficient gym lighting, theater lighting, exterior lighting and energy control systems for targeted areas on campus. Designed lighting with integrated occupancy sensors, photosensors and building management system control for maximum energy savings.



HIGHER EDUCATION

WEST VALLEY COLLEGE

San Jose, CA

Type: New Construction
Size: 30,000 SF

The firm provided MEP and Technology engineering design services for this new, two-story 30,000SF technology building featuring a mechanical data room, classrooms, computer labs, distance learning labs, laboratories, lecture hall, and multi-purpose spaces.

YUBA COMMUNITY COLLEGE

Clearlake, CA

Type: New Construction
Size: 27,000 SF

The firm provided mechanical engineering services for 3 new construction projects, including main, student services, and science buildings for a total of 27,000 SF. Buildings designed to LEED-Silver certification standards.

MISSION COLLEGE

Santa Clara, CA

Type: New Construction
Size: 100,000 SF

The firm provided mechanical engineering services for the Main Building, a new 3-story, approx. 100,000 SF general classroom facility. The project was designed to a minimum LEED Silver standard.

DE ANZA COMMUNITY COLLEGE

San Jose, CA

Type: Modernizations
Size: 12,000 SF

Projects:

- Faculty Buildings
- Classrooms
- Administrative Offices
- Multipurpose Buildings
- Advanced Technology Center

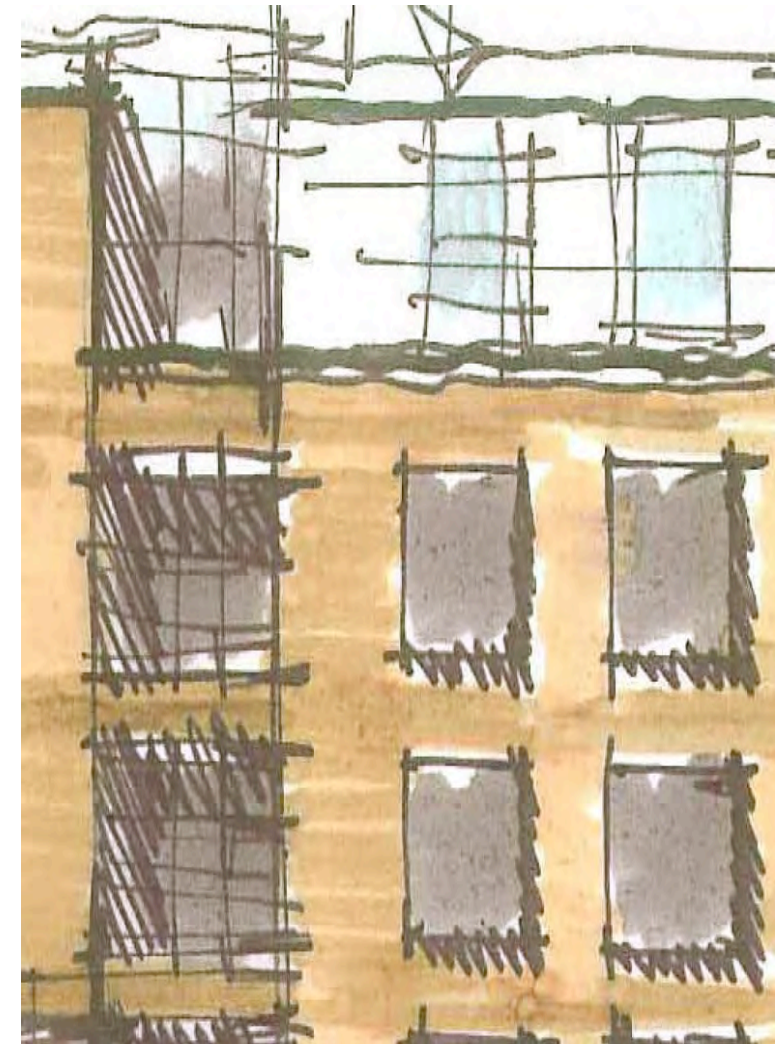
The firm provided engineering design services for the modernization and engineering systems for eight existing faculty buildings, six existing quad classroom buildings, administration, multipurpose buildings, Advanced Technology Center, and restrooms upgrade. This included mechanical, plumbing, electrical and telecommunications services.

CHABOT COMMUNITY COLLEGE - LEED Silver

Hayward, CA

Type: New Construction
Size: 40,000 SF

The firm provided mechanical, electrical, and plumbing systems design for the modernization of the new Mathematics/Science Learning Center.



HIGHER EDUCATION

CHABOT-LAS POSITAS COMMUNITY DISTRICT

Livermore, CA

Type: New Construction and Modernizations
Size: 24,000 SF

We have provided mechanical and electrical engineering services for numerous projects at Chabot-Las Positas Community College District, including a new Technology and Operation maintenance Buildings at Las Positas College and modernization of the Math and Science Building 1700 and 1800 at Chabot College.

NAVAL POSTGRADUATE SCHOOL

Monterey, CA

Type: New Construction
Size: 120,000+ SF

The firm provided mechanical and electrical engineering for a library addition that included a special vault for important documents. The new Academic Instruction Building houses the departments of oceanography, meteorology, and mathematics, as well as a secure computer area. The facility features classrooms, teaching labs, lecture halls and an auditorium.

UNIVERSITY OF SAN FRANCISCO

San Francisco, CA

Type: Building Survey
Size: 1,115,000 SF

Survey and evaluation of mechanical and electrical systems in 18 academic buildings for condition and code compliance. A report was assembled detailing recommendations for upgrades and remedial actions.

UNIVERSITY OF CALIFORNIA, IRVINE

Irvine, CA

Type: New Construction
Size: 226,000 SF

The firm provided comprehensive design of mechanical and electrical systems for six new residence halls, accommodating 120 students each and one new dining hall with upper level seating for conferences, lectures and performing arts.

HARTNELL COLLEGE

Salinas, CA

Type: Modernizations
Size: 34,000 SF

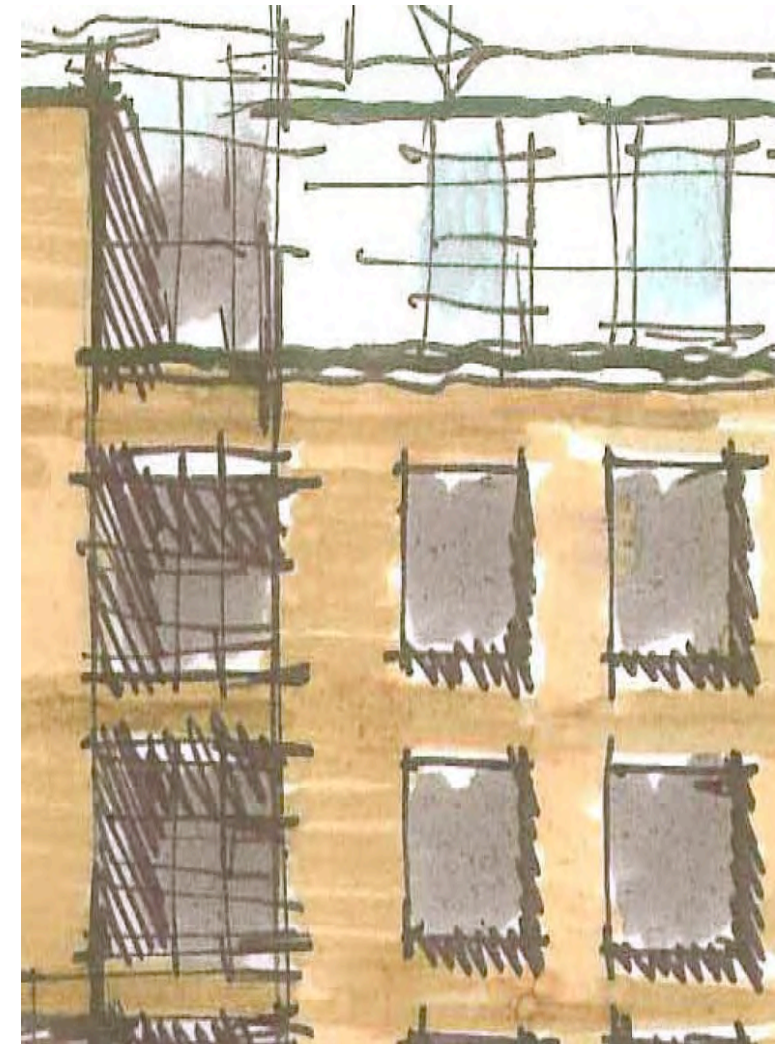
The firm provided design for the modernization of an existing one-story, 34,000 SF building. The project consists of the Book Store, Steinbeck Room, Conference Rooms, Common Areas, Game Room, Offices and Restrooms.

SAN JOSE STATE UNIVERSITY

San Jose, CA

Type: Modernizations
Size: Various

The firm provided engineering design services for modernization of the Ceramic Art and Industrial Art Building and design of the campus site domestic water system and piping.



HIGHER EDUCATION

CALIFORNIA STATE UNIVERSITY, BAKERSFIELD

Bakersfield, CA

Type: New Construction
Size: 153,000+ SF

The firm provided full engineering design for the new Stern Library. This library features a workshop space with a clean booth, a television studio, and a sound recording booth. All new engineering systems were connected to central campus facilities, which included mechanical, electrical and plumbing systems.

CONTRA COSTA COLLEGE

San Pablo, CA

Type: New Construction and Modernizations
Size: 83 Acres

The firm provided mechanical and electrical engineering master planning services and full design for all new and renovated buildings for Contra Costa College including a modernization of existing music building.

SOLANO COMMUNITY COLLEGE

Vallejo and Vacaville, CA

Type: New Construction

The firm provided mechanical and electrical engineering design services for a new community college campus in each city on newly acquired sites. Each campus houses classrooms, science labs, offices, lecture halls, and multi-purpose rooms.

SAN FRANCISCO STATE UNIVERSITY

San Francisco, CA

Type: Design Review and Existing Conditions Study, Remodel
Size: Various

Projects:

- Mary Ward Hall
- Franciscan Building - 14,000 SF
- Administration Building

The firm completed the design of mechanical and electrical systems for several projects for San Francisco State University. For Mary Ward Hall, the firm was engaged to do the peer review of the design-build contractor's mechanical and electrical construction drawings, specifications and product submittals for compliance with the stated scope of work outlined by the University.

The firm provided engineering design services for the complete mechanical and electrical plan-and-specification design of interior remodel/improvements of the first and second floor office area, approximately 7,500 SF, located in the Administration Building of the SFSU campus.

MILLS COLLEGE

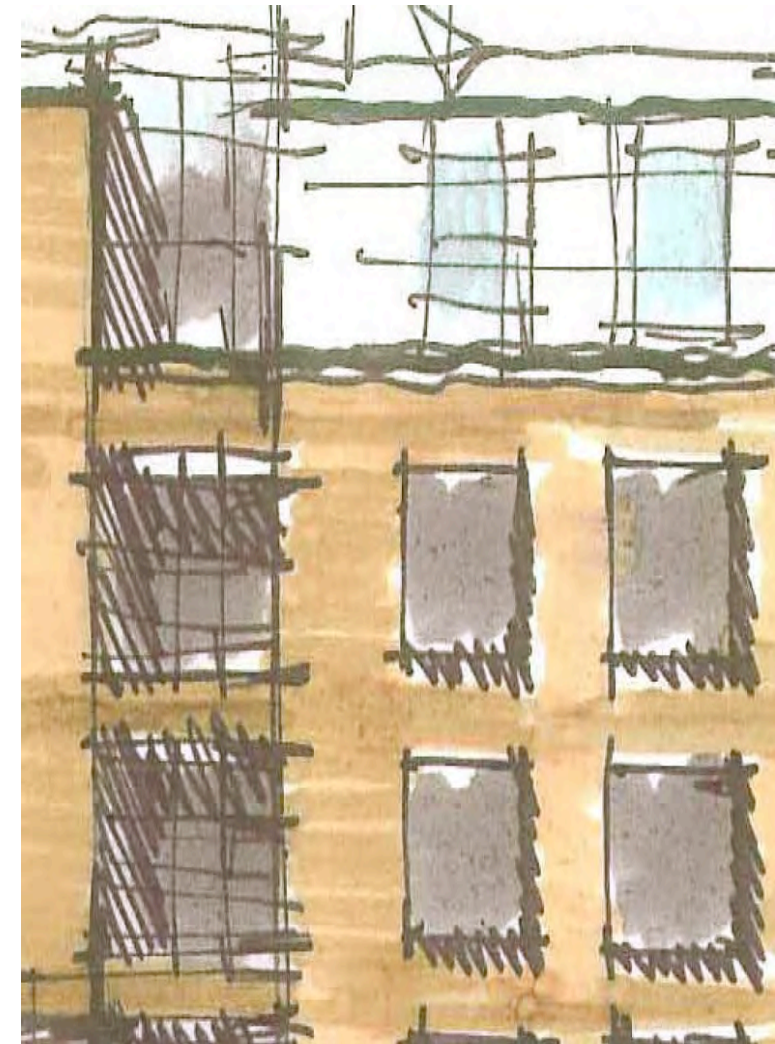
Oakland, CA

Type: New Construction and Renovations
Size: 120,000+ SF

Projects:

- Aron Art Center Heating System
- Campus Heating System Master Plan
- Carnegie Building Renovation
- Carnegie/Sage Boiler Plan
- Central Heating/Cooling Plant Study
- Mills Hall Renovation
- Olin Library
- Olney Hall Renovation

The firm provided engineering services for numerous projects at Mills College. Key projects include a Boiler Plant, new plant which supplies steam to Carnegie & Sage Halls, conversion of old library to office space in the Carnegie Building, renovation of the historic Mills Hall, a New Olin Library featuring a rare book area that requires 24-hour precision temperature and humidity control, and the renovation of a historic student residence hall.



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