2019 BUILDING SUSTAINABLE SOLUTIONS

Solutions for Success VANIR

Kings County, Hanford Courthouse
LEED Silver

ABOUT VANIR

At Vanir, we pride ourselves on partnering with our clients to achieve their sustainability goals, ensuring delivery of an accountable and sustainable project every time.

Vanir is an award-winning program, project, and construction management corporation operating strategically throughout the United States. As a **minority and woman-owned** company, Vanir is a leading provider in program and project management services for commercial, public facilities, healthcare, and educational facilities nationwide.

For more than 39 years, Vanir has worked to become a leading project management firm. During that period, we have helped public agencies manage more than $22 billion in projects. Vanir's annual revenue currently exceeds $84 million. Our financial strength has led *Engineering News-Record* to list us among the "Top 100 PM Firms" for the past 25 years.

WE ARE COMMITTED TO SUSTAINABILITY

Not only do we have internal sustainability leadership to support our clients, projects, and staff, but we also believe in giving back to our communities and industry by volunteering our time to help move the needle forward. We are deeply embedded in the sustainability community around us, providing thought leadership to the architecture, engineering, and construction industry's top nonprofit organizations and associations leading the way.

Construction Management Association of America (CMAA)

CMAA is an industry association dedicated to the practice of professional construction management. It represents more than 16,000 members, including federal/state/local government and private sector owners, construction consultants, technology suppliers, academia, and legal organizations, all with a common goal: to improve our nation's infrastructure.

Vanir's Chief Sustainability Officer, Randy Britt, serves as National Chair of the CMAA Sustainability Committee. In his capacity as Chair, he developed the first guidance on Energy and Building Resilience for the agency's Sustainability Guidelines in 2015. Randy will be a co-presenter at CMAA's 2019 National Conference, speaking on the "importance of resilience in energy."

Vanir team members are leading the effort to update CMAA's guidelines on resilience and sustainability through a validation process that is currently underway.

Building Resilience Los Angeles (BRLA)

The Vanir team is committed to incorporating resilience into each of its projects and programs. Our Sustainability Leaders, Randy Britt and Jenny Whitson, served on the Steering Committee for the BRLA program and primer development from 2015-2017, responding to market needs for a cohesive resilience framework for communities and buildings in Los Angeles.

BRLA developed the Primer for Facilities Guidebook to help owners and operators of buildings integrate resilience into their design, operations, and end user collaboration. The guide offers a step-by-step process to better prepare for disasters by providing business continuity during or shortly after an emergency event, while also improving the buildings and communities we exist in every day.

For more information or to download the Primer for Facilities Guidebook, please visit: http://www.resilience.la/#intro.

U.S. Green Building Council (USGBC)

USGBC is a nonprofit organization with a mission to transform the way buildings and communities are designed, built, and operated—enabling an environmentally and socially responsible, healthy, and prosperous environment that improves the quality of life. Vanir supports USGBC's mission by serving on the Board of Directors for local chapters as well as encouraging our staff to achieve LEED Professional Accreditation and continuing education.

RANDY BRITT
Chief Sustainability Officer
Served as a Board Member
USGBC-LA from 2010-2012

JENNY WHITSON
Sustainability Project Manager
Served as a Board Member
USGBC-LA since 2017

ELIZABETH CHAVIRA
Sustainability Project Engineer
USGBC-LA Member since 2019

SUSTAINABILITY EXPERTISE

Sustainability is not just a differentiator, but an expectation. We work with our clients to align sustainable project elements with the goals and requirements.

Sustainability Master Planning

Implementing a strategy based on sustainability is necessary to ensure all activities within the project align with your goals. For long-term sustainability programs, we develop a sustainability master plan to identify and prioritize sustainability goals and objectives, requirements, codes, and regulations that may become more stringent over time or by phase.

Sustainability Program Management

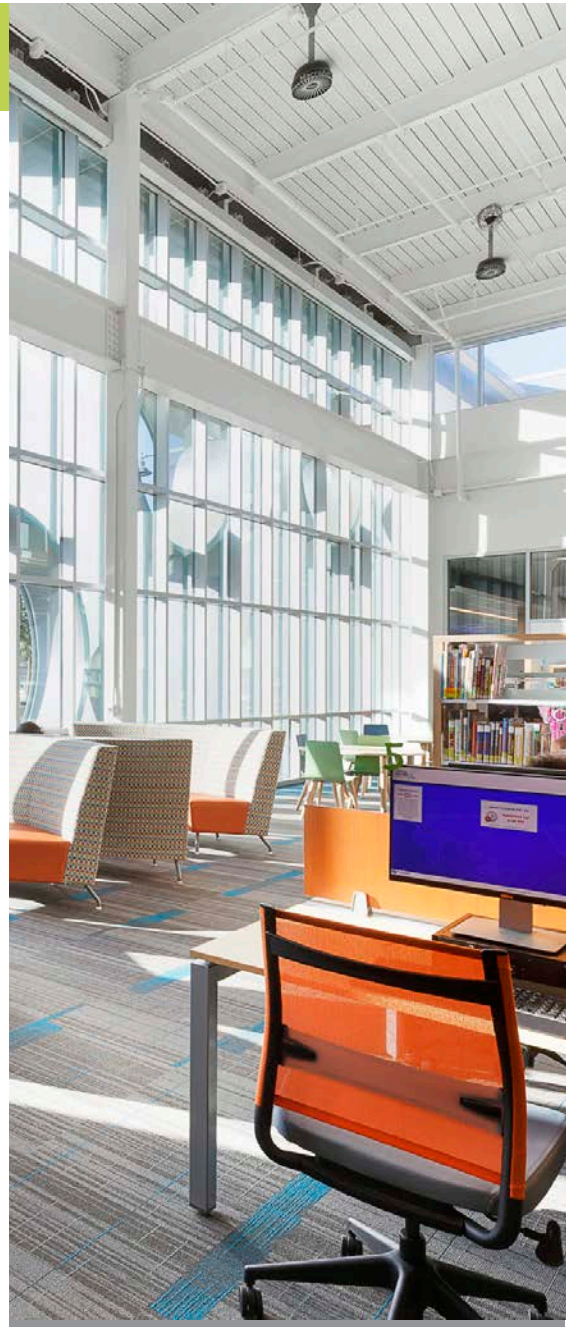
We utilize internal and external sustainability tools that provide our teams and clients with the proper reporting and management capabilities, including management coordination and administration support for third-party green building rating systems and sustainability infrastructure certifications.

Design Services | Virtual Modeling

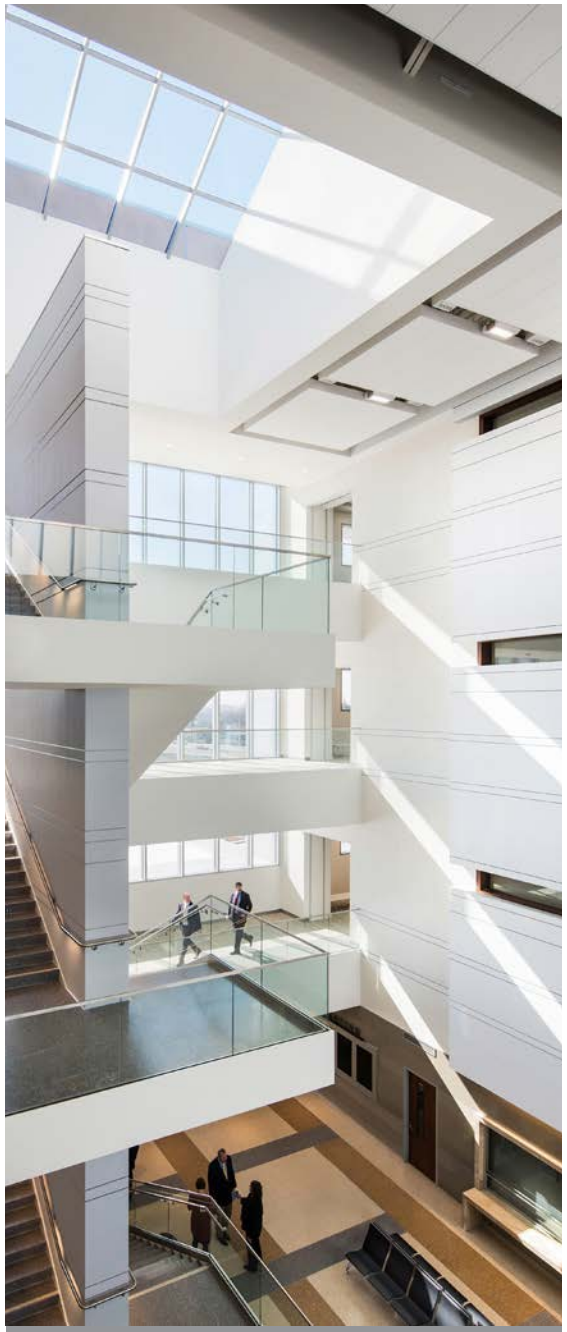
We use Building Information Modeling (BIM) to provide a virtual model of the project, not only for design and coordination, but also to complete design performance analyses to find the best life cycle solutions possible for materials, operational costs, and end user satisfaction.

Energy Master Planning and Audits

Our team provides energy master planning and audits to assess, identify, and prioritize capital improvement projects for aging facilities and campuses.



Long Beach Public Library
Michelle Obama Branch | LEED Silver



Kings County
Hanford Courthouse | LEED Silver

Renewable Energy Project Development and Implementation

We offer feasibility studies, project siting, program and project management, utility interconnection coordination, regulatory compliance, procurement and contract administration, commissioning, and monitoring services for renewable energy projects.

Water Efficiency, Management, and Optimization Planning

Water touches every part of life in a community and is a critical element to the creation of healthy living. Our expertise in water conservation drives innovative solutions that minimize our clients' water footprint. Our water management experts offer a range of strategies and design approaches to meet specific requirements for operational needs, ranging from healthcare facilities serving sensitive populations, to corporate clean room settings, to schools and libraries serving our communities.

Vulnerability and Risk Assessments

Vanir performs resiliency services, including vulnerability and risk assessments paired with advanced mitigation strategies, to ensure your built environment and its end users have the capacity to resist constant stressors or recover quickly from an extreme event. Whether it be a natural disaster or a cyber attack, a resilient strategy can reduce or eliminate the time your business operations will be down, while simultaneously improving the building efficiency and empowering its users more effectively.

Commissioning

We offer commissioning services in compliance with third-party certifications, local code compliance, renewable energy projects, and retro-commissioning for existing facilities.

OUR SERVICES

Our team of experts are well-versed in developing and executing sustainability programs for public facilities, education, judicial, water/wastewater, and transportation markets.

Throughout our nationwide presence, we are proud to offer a strong team of LEED Accredited Professionals and Green Associates, Certified Energy Managers, Certified Energy Auditors, and Commissioning Experts. Vanir's sustainability experts have backgrounds in energy, architecture, engineering, and construction.

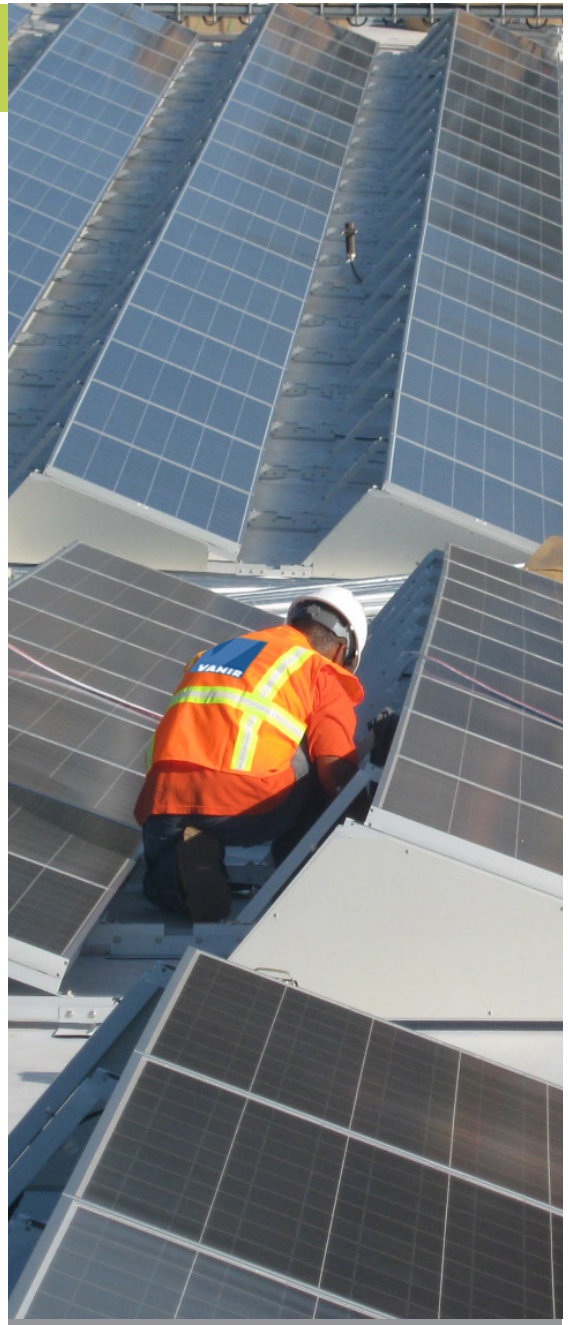
Our customized services start with design support and utility regulations compliance, and extend through procurement, contract administration, construction management, commissioning, and monitoring.

Our Services

- Feasibility Studies and Assessments
- Sustainability Master Planning
- Sustainability Program Management
- Design Services/Virtual Modeling
- Energy Master Planning and Audits
- Renewable Energy Project Development and Implementation
- Water Efficiency, Management, and Optimization Planning
- Vulnerability and Risk Assessments
- Commissioning Oversight and Coordination

Your Benefits

- Hands-on industry experience with technical sustainability knowledge
- Advanced delivery methods to ensure cost savings and high performance
- Maximized paybacks and savings by coordinating local, state, and federal incentives
- Compliance with third-party rating systems
- Integrated process for maximizing sustainable design and construction opportunities
- Compliance with regulations, standards, and codes



CA Department of General Services, Inland Empire Transportation Management Center LEED Gold

List of Services

Sustainable Buildings & Infrastructure

- Building Information Modeling (BIM)
- Zero Net Energy/Net Positive Energy Buildings
- Third-Party Certifications: LEED, Envision, Living Building Challenge
- Healthy Materials Red List Screening
- Resiliency and Advanced Mitigation
- Sustainability Program Development
- Sustainability Workshop Facilitation
- Sustainable Buildings Design
- Sustainable Design Technical Reviews
- Sustainable Infrastructure Design
- Sustainability Master Planning

Renewable Energy

- Solar Feasibility Studies and Project Siting
- Tax Exempt Municipal Leases (TEMLs)
- Design/Build/Finance/Own/Operate
- Power Purchase Agreements (PPAs)
- Renewable Energy Consulting
- Renewable Energy O&M
- Renewable Energy Systems Monitoring
- Solar Photovoltaic Generation Systems
- Solar Thermal Heating and Cooling
- Energy Storage Systems

Carbon Management

- Strategic Guidance on Reducing Carbon Footprint
- Carbon Footprint Reporting

Sustainable Master Planning

- Corporate Social Responsibility Alignment
- Sustainability Master Plans

Energy Efficiency

- Building Controls
- Energy Assessments & Capital Improvement Reports
- Energy Management Systems
- HVAC Optimization
- Deep Energy Retrofits

Financing/Incentives

- Manage Capital Outlay
- Federal/State Tax Credits
- Power Purchase Agreements (PPAs)
- Private Financing
- Property Assessed Clean Energy
- Utility Rebate Procurement
- Feed-In Tariff

Resiliency

- Advanced Mitigation Strategies
- Resiliency Assessments
- Vulnerability Assessments
- Resilience Planning for Design & Occupancy

Construction Services

- BIM Management
- Commissioning
- Commissioning Agent Procurement
- Construction Management
- Equipment Procurements
- Project Management
- Waste Management Planning
- Regulatory Compliance

OUR APPROACH

	1 Discover	2 Assess & Evaluate	3 Collaborate	4 Implement	5 Measure
NEW PROJECTS	Typically performed in the pre-design phase, we collect any relevant data to the project, including sustainability requirements and corporate social responsibility requirements, and determine if any third-party certifications are desired.	We will assess the data and documentation collected in the previous stage in order to identify relevant benchmarks and set minimum sustainability goals for your project.	From the start of the concept design phase, a workshop is held to coordinate stakeholder and multi-disciplinary team input to develop a road map for feasible sustainability strategies that align with the goals identified in the previous phase.	During design and construction, we oversee the sustainability aspects of the project so they are correctly implemented into the project. At each major milestone, we provide technical design reviews to ensure that the owner's sustainability requirements are reflected accurately in the design drawings and specifications. During construction, our team reviews RFIs, RFCs and submittals for sustainability performance and criteria.	Post-occupancy data is critical to determine whether the project goals and targets were met and if the building or campus will perform as designed. We offer services to track and monitor project performance during operations.
EXISTING PROJECTS	For existing buildings or campuses, we collect relevant data and perform surveys or audits to document existing performance and establish a baseline.	We will evaluate the data collected in the previous phase and work with project stakeholders to develop a prioritized list of recommended mitigations or improvements using a life cycle approach.	We work with or manage all disciplines and specialists needed to inform the technical approach for implementing sustainability strategies into an existing project.	To implement the list of prioritized mitigations or improvements, we provide staff support or program management to execute the plan across multiple project phases and provide technical reviews throughout project milestones.	We offer services to track and monitor your performance and we can assist you with training staff and continuously improve your building or campus performance during operations.

Countu of Alameda, Highland Hospital Acute Tower Replacement | LEED Gold

LEED CERTIFICATIONS

Our teams manage the overall process for LEED certifications, including the initial strategy planning; project team credit coordination between the consultants, contractor, and owner; and the submission to USGBC.

LEED GOLD

Alameda County- Highland Hospital Acute Tower Replacement
Alameda County- Juvenile Justice Center
AZ DEMA- Papago Park Readiness Center
CA DGS- DDS- Porterville Dev Center- New Main Kitchen & Admin Building
CA DGS- Inland Empire Transportation Management Center
Cal Poly SLO- Student Housing North
CDCR- CSP Los Angeles County- EOP GP
CDCR- HCFIP- San Quentin State Prison- Central Health Services
CDCR- Salinas Valley State Prison- EOP GP
City of Los Angeles- New Police Admin Building Project
City of Redwood City- Crossing 900
Contra Costa Admin Building & Emergency Operation Center
Fort Logan Northgate School
JPL- Flight Projects Center
San Diego County- Las Colinas Detention & Reentry Facility
San Mateo County Sheriff's Maple Street Correction Center
Sheridan School District 2- Fort Logan Elementary School
UC Davis Moore Hall School of Nursing
UC Davis Eye Center
UOD- Al Maraya- Dubai Waterfront Project
US GSA- Mariposa Land Port of Entry

LEED PLATINUM

CA DGS- CARB- Testing and Research Facility
CAISO- Iron Point Project
LAUSD Playa Vista Elementary School

LEED SILVER

CDCR- California Health Care Facility
CDCR- California Medical Facility- EOP
CDCR- Central California Women's Facility- EOP GP
CDCR- DeWitt Nelson Correctional Annex
City of Tacoma- Police Headquarters
Houston ISD- 2012 Bond Program- Planning Staff Augmentation Services
JCC- Butte County Courthouse
JCC- Delano / Porterville / Los Banos Courthouses
JCC- Hanford Courthouse
JCC- Menifee Justice Center
JPL- Administration & Education Complex
City of Long Beach- Michelle Obama Library
Placer County- South Placer Adult Correctional Facility
Riverside County- John J. Benoit Detention Center
VA DBHDS- New Western State Hospital

COMMUNITY CHOICE ENERGY

Community Choice Aggregation

Local governmental agencies throughout the U.S. are moving toward the creation of Community Choice Aggregation (CCA) entities, including development of a Joint Powers Authority to manage them. This is a significant shift in utility services for customers in those states that allow customer choice in energy providers.

Community Choice Aggregation allows local governments and some special districts, such as water districts and joint powers authorities, to pool (or aggregate) their electricity load to purchase and develop energy resources on behalf of their residents, businesses, and municipal accounts.

Reasons local government agencies are moving to this model include:

- Provide lower utility pricing; operated as nonprofit entities
- Design of their own wholesale power supply portfolios
- Implement their own customer end-user incentive program
- Allow utilization of other local government funding sources

Distributed Energy Resources

Distributed Energy Resources (DERs) are defined as distribution-connected generation resources, including energy efficiency, energy storage, electric vehicles, and demand response technologies. DER programs are supported by a wide range of Public Utilities Commissions (PUCs) across the U.S. and provide funding for developers targeted in areas where local utilities and PUCs are requesting additional generation and efficiency resources for smarter grids.

As DER projects are a key component to the success of CCAs, deploying DERs in a widespread, efficient, and cost-effective manner is critical and requires complex integration with the existing electricity grid. Vanir is at the forefront of CCA and DER implementation and our expertise helps to streamline our client's process in the creation of a CCA or facilitate joining an existing one.

We identify and resolve the challenges of integration and facilitating a smoother transition for our clients moving into the next age of electricity infrastructure.

Vanir CCA and DER Service Offerings

Vanir can support you by focusing on the implementation of CCA and DER programs and projects as your representative. Vanir's CCA and DER expertise includes the following services:

- Commissioning and On-going Commissioning
- Energy Data Management and Monitoring Services
- Customer Program Development
- Coordination with Investor-Owned and Municipal Utilities
- Transportation Electrification
- Financing, Incentive and/or Grant Program Support
- Start-up, Operations, and Maintenance Services
- Energy Efficiency Assessments
- Feasibility Studies and Project Siting for Renewable Energy, Energy Efficiency, and Energy Storage
- Direct Access Energy Procurement Services
- Procurement Support for Renewable Energy and Energy Efficiency Projects
- Contract Development and Negotiation
- Project and Construction Management for Energy Efficiency and Renewable Energy Projects

Potential Challenges	Our Sustainable Solutions
Renewable Energy Capacity	Feasibility Studies, Site Selection, and Lifecycle Cost Analysis Report
Energy Efficiency Baseline	Energy Efficiency Assessments and Reports
Energy Procurement	Direct Access and Utility Energy Procurement
Rate Setting	Utility Rate Analysis and Appropriate Rate Development
Energy Specific Contracts	Develop Direct Access, Renewable Energy PPAs and Purchase Contracts
Public Program Development	Development of Public Programs designed to meet regional needs
Changes in Regulations	Regulatory Intervention and monitoring of relevant legislation

Community Choice Aggregation | Project Overview

The Vanir Team tracks the progress of potential CCAs and their status of filing implementation plans, completed feasibility studies, partnering municipalities, and board approvals.

Our staff coordinates activities in the development of partnership opportunities with the Local Capacity Requirements (LCRs) of Investor-Owned Utilities, as well as their Requests for Offers (RFOs). We provide technical assistance to existing CCAs in developing programs that support the CPUC Energy Efficiency Program, LCR RFO and other DER programs.

Location
Los Angeles County
City of San Jose
Orange County
San Diego County Cities

Sites
Municipalities

Construction Cost
Task orders pending

Completion Date
In Progress

Client	Project Name	Municipalities
City of Huntington Beach	CCA Feasibility & Regulatory Implementation	1
County of Los Angeles & Surrounding Cities	Clean Power Alliance of Southern CA Feasibility & Regulatory Implementation	31
City of San Jose	Clean Energy CCA Feasibility & Regulatory Implementation	1
City of Irvine	CCA Feasibility & Regulatory Implementation	1
City of Encinitas/ Carlsbad/ Del Mar	CCA Feasibility & Regulatory Implementation	3

PROJECT EXPERIENCE

California Air Resources Board | Southern California Consolidation Project

Project overview

Vanir is providing project and construction management services for the California Air Resources Board's (CARB) new Emissions Testing and Research Facility in Riverside, California. The new facility includes approximately 380,000 gross square feet that will support approximately 400 staff. The campus will be located on an 19-acre site adjacent the University of California Riverside.

The project will accommodate CARB's southern California operations and include program areas for: light- and medium-duty vehicle testing, heavy-duty vehicle testing, portable emissions measurement systems, chemistry laboratories, offices and shared operations, as well as administrative services.

Goal of LEEDv4 Platinum and Zero Net Energy

Our Sustainability Team was included in the project starting in the pre-design phase to ensure CARB's sustainability mission and goals were reflected in all aspects of the project. The project requirements incorporated stringent air-quality management and sustainability into the design and specifications to achieve LEEDv4 Platinum, Zero Net Energy Certification, and CalGreen Tier 2.

Location
Riverside, California

Client
State of California
Department of General Services

Master Architect
HED

Contractor
Hensel Phelps

Architect of Record
ZGF

Delivery Method
Design-Build

Square Footage
380,000 SF

Total Cost
$420 million

Construction Cost
$377 million

Completion Date
2021

Contra Costa Administration Building & Emergency Operation Center

Program overview

Vanir is providing construction management services for the new County Administration Building, which will replace the current McBrien Building with a more efficient and welcoming facility.

Designed to achieve LEED Gold, the four-story structure will be approximately 70,000 square feet and it will house the Board Chamber, County Administration Offices, Clerk's Office, County Counsel Offices, Human Resources Offices, District 5 Offices, and other administrative functions.

The project also includes demolition of an old County Crime Laboratory building to expand and develop a new 150-stall parking lot for the Administration Building employees.

Zero Net Energy Gap Analysis

Our team was brought on during the construction drawings Phase to determine what the gap analysis was in order to achieve Zero Net Energy (ZNE). After collecting the latest performance data for the project, our team determined two possible pathways to achieve ZNE that would result in minimal impacts to the project budget.

Location
Martinez, California

Client
Contra Costa County Public Works

Bridging Architect
KMD Architects

Design-Build Architect
Fentress Architects

Design-Builder
Hensel Phelps

Delivery Method
Design-Build

Square Footage
70,000 SF

Construction Cost
$50 million

Completion Date
2020

New International Airport of Mexico City*

AWARDS/CERTIFICATIONS

LEED Platinum Certification (in progress)

Program overview

The New International Airport of Mexico City is designed to be the first LEEDv4 Platinum New Construction Airport and the most sustainable airport on the planet.

Vanir Team Members managed the design phase for the sustainability and LEEDv4 Platinum program activities from pre-design through construction documentation phase, and provided project administration support to teams in both the United States and Mexico. Additional scope included renewable energy feasibility studies for all new terminals and service buildings, and the development of a preliminary Sustainability Action Plan for the Airport.

The Airport will utilize clean and renewable sources of energy and will operate with sustainable technologies and promote efficient uses of water and energy. The Airport is targeting the first LEEDv4 Platinum New Construction Airport and is designed to be the most sustainable airport in the world.

Location
Distrito Federal, Mexico

Client
Secretariat of Communications and Transport (SCT)

Size
8 million SF

Program Budget
$11 billion

Completion Date
2020

* Sustainability Team Experience Non-Vanir Project

UC Davis, Betty Irene Moore Hall and Eye Medical Center

AWARDS/CERTIFICATIONS

Betty Irene Moore Hall: Certified LEED Gold

Project overview

Betty Irene Moore Hall

Vanir provided program and construction management services for the Betty Irene Moore Hall, School of Nursing project for the UC Davis Health System. The three-story building provides state-of-the-art facilities, with the latest in technology for collaborative learning, including simulation spaces to allow students to imitate clinical care experiences.

Certified LEED Gold, this is the first building on campus to be 20% more efficient than new Title 24 Code energy requirements and utilize whole building energy modeling. It houses instructional, administration, and support services for students, faculty, and staff for the Betty Irene Moore School of Nursing.

ACC Expansion/Eye Center

Vanir is working with the UC Davis Health System, as its project and construction manager, to deliver a world-class Eye Center at the UC Davis Medical Center. Our range of services include planning, criteria development, and bidding, through design, construction, and warranty phases. The new building will house clinical, research, administration, and support services for patients, faculty, and staff for the Ophthalmology Department at UC Davis.

Vanir provided sustainable design criteria services and will remain on the project during the design and construction phase to ensure the design-build entity will comply with the University's policies for green building design, clean energy standards, and sustainable transportation practices.

Location
Sacramento, California

Client
UC Davis Health System

Architects
WRNS Studio
Architectural Nexus
Vanir (Sustainable Design Criteria)

Contractors
McCarthy Building Companies
ACC Expansion/Eye Center: TBD

Delivery Method
Design-Build

Square Footage
Betty Irene Moore Hall:
71,500 SF
ACC Expansion/Eye Center:
86,000 SF

Project Cost
Betty Irene Moore Hall: $54 million
ACC Expansion/Eye Center: TBD

Completion Date
Betty Irene Moore Hall: 2017
ACC Expansion/Eye Center: 2021

County of Alameda, Highland Hospital Acute Tower Replacement

AWARDS/CERTIFICATIONS

Phase 1: LEED Gold Certified

2016, CMAA National Project Achievement Award, Phase II, Buildings, New Construction

2016, WCCC, Owner's Project Excellence Awards, Significant Project, Phase II

2014, CMAA Northern California, Project Achievement Award, Buildings, New Construction

2012, DBIA, Project in Process Award

Project overview

The Highland Hospital Acute Care Tower Replacement (ATR) is the largest construction program ever undertaken by the County of Alameda. As program and construction manager, Vanir has worked hand-in-hand with the County's General Services Agency to deliver on its promise to provide state-of-the-art healthcare facilities, while mentoring and growing local small businesses, and keeping residents involved along the way.

The ATR project is broken into three key phases:

- **Phase I**: New three-story, 80,000 square foot Highland Care Pavilion, LEED Gold Certified
- **Phase II**: New nine-story, 318,000 square foot Acute Care Tower and Central Utility Plant
- **Phase III**: Demolition of the existing Acute Care Tower and construction of a new Link Building and Courtyard

It was identified early on that the project would be significantly challenging since the property was already developed, required complex phasing, needed extensive demolition of existing buildings, and had no staging space. All work was to be performed while the existing tower and surgery building remained operational.

Phase I and Phase II have been completed, laying the groundwork for a successful program completion.

Location
Oakland, California

Client
County of Alameda, General Services Agency

Architects
Smith Group JJR
Ratcliff Architects
Shaw Kawasaki Architects
Clark Construction Group, Inc.

Design-Builder
Clark Design/
Build of California, Inc.

Delivery Method
Design-Build Bridging
(Best-Value Selection)

Design + Construction Cost
$668 million

Completion Date
Phase One: 2013
Phase Two: 2015
Phase Three: 2018

Michelle Obama Neighborhood Library

AWARDS/CERTIFICATIONS

2017 CMAA Southern California Project Achievement Award, Public or Private Projects with Constructed Value $11M-$50M
Certified LEED Silver

Project overview

The Vanir Team is proud to have served as the construction manager for the Michelle Obama Branch Library. The new single-story library is certified LEED Silver and serves 90,000 residents and 18 schools. Previously, a 6,800-square-foot library had been serving this entire population.

The new library was constructed on the site of the former Atlantic Theater, a historic structure and city landmark dating back to 1942. Residents of the Long Beach community considered the theater's 75-foot tower and its tremendous diamond-lit finial to be one of the area's most iconic pieces. Through the City of Long Beach and Vanir's collaboration, the original spire was restored, preserving a piece of the theater's architecture and its cultural significance to the community.

Successful and on-time delivery

" I was extremely happy with the services provided by Vanir Construction Management...the management, planning and logistical tools utilized by the team produced a state-of-the-art facility on time and under budget."

—**Glenda Williams,** Director of Library Services
Long Beach Public Library

Location
Long Beach, California

Client
City of Long Beach

Architect
LPA, Inc.

Contractor
Woodcliff Corporation

Delivery Method
Design-Bid-Build

Square Footage
24,655 SF

Construction Cost
$12.1 million

Completion Date
2016

Los Angeles Unified School District

Program overview

Vanir has served the Los Angeles Unified School District (LAUSD) continuously for nearly 30 years, helping manage bond programs totaling more than $22 billion. Our project and construction management services have consistently improved quality, advanced project schedules, and reduced costs on many complex phased projects occurring at fully occupied schools. Currently, we are managing design, construction, sustainability, commissioning, and Prop. 39 projects for the latest Measure Q Bond Program.

Representative LAUSD projects include:

- **Robert Kennedy Community Schools:** Historic preservation project; constructed at the site of the former Ambassador Hotel; comprised of an elementary, middle, and high school; serves 4,400 students; $410 million; completed 2010.
- **Critical Repair HVAC Replacement Program:** Replacement of critical HVAC and Fire Alarm Systems at 25+ campuses; $300 million; ongoing.
- **Comprehensive Modernization Program:** Modernization of 11 existing high schools; includes new campus-wide utility infrastructure replacement; $1 billion; ongoing.
- **Seismic Projects:** Replacement and/or retrofit of existing seismically deficient buildings; projects ranging from $10-$20 million; ongoing.

Location
Los Angeles, California

Client
Los Angeles Unified School District

Architects + Contractors
Various

Delivery Method
Design-Bid-Build, Design-Build, Job Order Contracting

Program Size
Multiple campuses,
Total SF for District is 75 million+

Program Budgets
Measure K: $3.35 billion
Measure R: $3.87 billion
Measure Y: $3.9 billion
Measure Q: $7 billion

Completion Date
Ongoing since 1988

Judicial Council of California

AWARDS/CERTIFICATIONS

Hanford & Madera Courthouses - Certified LEED Silver

Project overview

Vanir joined the Judicial Council of California (JJC) team in 2007 to provide project and construction management services for various court facilities throughout California. To date, we have worked on 19 different projects. Our services have ranged from estimating, condition assessment, scheduling, and staff augmentation to full project and construction management. We have supported JCC on traditional as well as design-build and CMAR projects.

A few feature projects include five new courthouses:

Hanford Courthouse, Kings County: Four-story building with ten courtrooms, a jury assembly room, subterranean parking, and an underground tunnel that connects to the nearby county jail—LEED Silver.

Madera Courthouse, Madera County: Four-story building with full basement, four-story parking garage, ten courtrooms—LEED Silver.

Porterville Courthouse, Tulare County: Nine-courtroom facility, replacing existing three-courtroom Porterville Government Center.

Los Banos Courthouse, Merced County: Replacing the existing one-courtroom facility, the courthouse includes two courtrooms and support spaces.

Menifee Justice Center, Riverside, CA: Three-story new construction courthouse targeting LEED Gold (in progress).

Location
California Counties - Kings County, Madera, Tulare, Merced, and Riverside

Client
Judicial Council of California

Architects + Contractors
Various

Delivery Method
Design-Bid-Build, Design-Build, CMAR

Square Footage
Combined Total: 474,266 SF

Construction Cost
Hanford: $83 million
Madera: $74 million
Porterville: $67 million
Los Banos: $18 million
Menifee: $63 million

Completion Date
2016

County of Los Angeles, Internal Services Department–Energy and Sustainability Programs

AWARDS/CERTIFICATIONS

ISD Headquarters: Certified LEED EBOM Silver

Project overview

Vanir has served the County of Los Angeles Internal Services Department (ISD) Energy Management Division since 1998. In addition, Vanir was a proud partner in ISD's County Office of Sustainability's Environmental Initiatives Division from 2008-2016, which led the way in environmental initiatives for the County.

Our services span a broad spectrum of project types, including lighting and HVAC upgrades, achieving LEED EBOM Silver for ISD's Headquarters, retrofitting of constituent homes with **Energy Upgrade California,** and developing the **Regional Energy Network's** building programs. We acted as an advisory resource for management controls on the **Property Assessed Clean Energy (PACE)** financing program and also provided program management on the **Water Savings** programs.

Vanir's support services have included: energy project and construction management, retro-commissioning, condition assessments, LEED for Existing Buildings project management, scheduling and technical support, Sustainability Program Management, grant administration, utility savings energy database and maintenance, estimating, and as-needed services.

We have worked with many County departments, including: Public Libraries, Probation, Department of Health Services, Department of Public Works, Superior Courts, the Hall of Administration, Chief Executive Office, Board Executive Office and many Cities within Los Angeles County.

Location
County of Los Angeles

Client
County of Los Angeles
Internal Services Department

Architects + Contractors
Various

Delivery Method
Various

Energy Retrofit
Construction Cost
$100+ million

Sustainability/Grant Programs
$150+ million

Completion Date
Energy Management:
1998-present

Environmental Initiative
2008-2016

Eastern Municipal Water District, Solar Photovoltaic Installation Projects*

Program overview

The Eastern Municipal Water District (EMWD) project consisted of five one-MW solar photovoltaic installation across five reclamation facility sites. Vanir Team Members provided renewable energy services, including feasibility, design, project management, procurement, and construction administration support. The investment saves ratepayers more than $1 million annually over the life of the systems.

The solar generation systems were constructed at regional water reclamation facilities in Perris, Moreno Valley, Temecula, San Jacinto, and Sun City to provide energy to power the reclamation and desalination processes. The five solar generation systems produce 1,000 kilowatts of power at each site, which is used at the respective facilities and surrounding supporting infrastructure to offset energy consumption. Each facility has an average of 30 percent of its energy usage provided through the solar facilities. The Sun City system provides power to EMWD's groundwater desalination facilities.

Vanir Team members coordinated with local utilities for interconnection and assisted EMWD with the California Solar Initiative (CSI) application for state rebates.

Exceeding expectations

The team produced a financial pro-forma reporting $37.7 million in energy costs avoided, and EMWD received $6.1 million in incentives from the California Solar Initiative based on kilowatt hours produced in the first five years of the project.

Location
California: Moreno Valley, Perris Valley, San Jacinto Valley, Sun City, Temecula Valley

Client
Eastern Municipal Water District

System Size/Sites
5.5 MW /5 Sites

Project Budget
$14.6 million

Completion Date
2016

* Sustainability Team Experience Non-Vanir Project

Fort Logan Northgate School

AWARDS/CERTIFICATIONS

Certified LEED Gold

Project overview

Vanir served as the owner's representative for the construction of the new Fort Logan Northgate School, a partial two-story structure that is LEED Gold certified. The school combined students from the existing Fort Logan Elementary and Sheridan Middle schools, creating a new grades 3-8 school. This project also included a major renovation of Sheridan Middle School to house the District's Early Childhood Center.

Vanir's services helped keep the phased project within the approved grant funding, and on schedule for school openings. The elementary and middle school academic wings on the campus are joined in a central core, consisting of common spaces (such as the cafeteria, gymnasium, and art rooms). Sitework involved the PE/athletic field, playground area, bus loop/lane, parking lot, and new water line main.

Fort Logan Northgate School was funded by Colorado's BEST Grant Program, in an effort to provide a safe and inviting school environment while lowering ongoing maintenance costs for the District.

Serving the District for a decade

Vanir was initially hired by the District to correct issues on previous construction projects. Over the course of nearly 10 years, we have provided comprehensive owner's representative services on various projects, as well as management of the District's 2012 bond program. Our services have included budget and schedule tracking, change order validation, contract administration, and management of the architect.

Location
Denver, Colorado

Client
Sheridan School District #2

Architects
Wold Architects and Engineers, in association with Larson Incitti Architects

Contractor
Saunders Construction, Inc.

Delivery Method
CMAR

Square Footage
102,000 SF

Construction Cost
$25.7 million

Completion Date
2015

Playa Vista Elementary School, CRES #22

AWARDS/CERTIFICATIONS

2013 CMAA Southern California Chapter Project Achievement Award
2010 Westside Urban Forum Award for Change in Urban Landscapes
Certified LEED Platinum

Project overview

The Vanir/LiRo joint venture team provided agency construction management services for construction of the new Playa Vista Elementary School, a certified LEED Platinum project. The K5 school seats 650 students and consists of three buildings of recycled structural steel. Despite several unique construction challenges, including a 275 percent above normal rainfall in December 2010, we were able to meet the "kids in seats" deadline—a critical element for any LAUSD project.

The school includes:

- An open entry plaza that links the three buildings, and an interior courtyard that provides a learning landscape area.
- Two, two-story classroom buildings that contain 20 classrooms, two science classrooms, four kindergarten classrooms, restrooms, administration facilities, and a library/teacher training center.
- A one-story multipurpose building.

Serving the District for a decade

" Playa Vista Elementary School is deeply appreciative to the attention and care that Vanir in joint venture with The LiRo Group executed...their workmanship will have a positive impact for many generations of elementary school children, staff and community."

—**Karina Salazar,** Principal
Playa Vista Elementary School, LAUSD

Location
Playa Vista, California

Client
Los Angeles Unified School District

Architect
Osborn Architects

Contractor
Hensel Phelps

Delivery Method
Lease-Leaseback

Square Footage
63,450 SF

Construction Cost
$30 million

Completion Date
2012

Victor Valley Wastewater Reclamation Authority, 1 Megawatt Photovoltaic Solar System*

Program overview

The Victor Valley Wastewater Reclamation Authority (VVWRA) sought to install a 1 MW ground-mounted photovoltaic solar system at two separate locations on its wastewater reclamation site in Victorville, California. The requirements included that the facility must be funded through a Power Purchase Agreement, and that the excess generation must take advantage of the Renewable Energy Self-Generation Bill Credit Transfer (RES-BCT) program.

In the development of the feasibility study, Vanir Team Members were able to determine that because the VVWRA was a Joint Powers Authority (JPA), it was unable to take advantage of the RES-BCT program under Southern California Edison's tariff requirements. Rather than abandon the effort, we recommended that VVWRA pursue a petition to modify the tariff, to allow the JPA to participate in the RES-BCT program. That effort is currently in progress.

Added value

Vanir Team Members' experience in California Utility Regulatory Affairs provided the key guidance to the VVWRA to pursue a petition to modify (PTM) that would enable it to move forward with the project.

Location
Victorville, California

Client
Victor Valley Wastewater Reclamation Authority

System Size/Sites
2 MW/2 Sites

Project Budget
$7 million

Completion Date
2016

* Sustainability Team Experience Non-Vanir Project

California State University, Sacramento, Solar Photovoltaic Generation Facilities

Program overview

Vanir was awarded a contract to design, construct, finance, own, and operate two solar photovoltaic generation facilities on the California State University, Sacramento (CSUS) campus. The first was a 228.48 kW DC facility installed on the roof of the Wellness Center, and the second was a 275.52 kW DC facility installed on the roof of the Library. Both facilities can be used by CSUS to offset approximately 775,000 kW (combined) on an annual basis.

A rebate program provided by Sacramento Municipal Utility District helped enhance project economics and made it possible for Vanir to build the solar system with no capital outlay required from CSUS. Utilizing a 20-year Power Purchase Agreement, CSUS was able to establish energy independence through onsite electricity generation, while creating an energy hedge against future price increases.

Location
Sacramento, California

Client
California State University, Sacramento

Contractor
Vanir

Delivery Method
CMAR

System Size
Wellness Center Facility
228.48 kW

Library Facility
275.52 kW

Project Budget
Wellness Center Facility
$970,000

Library Facility
$1.3 million

Completion Date
2012

Inland Valley Development Agency, Solar Photovoltaic Carport System

Project overview

Vanir completed a solar photovoltaic carport system for Inland Valley Development Agency (IVDA) under a lease agreement. The scope of the project consisted of covered parking around the new IVDA/San Bernardino International Airport Authority (SBIAA) headquarters. The 196 kW DC solar photovoltaic system generates approximately 250,000 kWh annually, offsetting 80-100% of IVDA's expected electric demand.

The system was designed to function as a covered parking area for occupants, incorporating LEED concepts and an architecturally-appealing structure that blends with the current architecture and other covered solar parking projects at the airport. By implementing this design, IVDA was able to extend its available footprint for a solar array while adding covered parking for 62 cars.

Environmental win-win solution

Vanir is proud to have played an important role in adding solar shade structures around the IVDA/SBIAA headquarters—a major step towards reducing the urban heat islanding effect, mitigating heat buildup, and providing an added measure of energy independence through onsite electricity generation. The end result was an economic and environmental win-win solution for IVDA.

Location
San Bernardino, California

Client
Inland Valley Development

Contractor
Vanir

Delivery Method
CMAR

System Size
196 kW

Project Budget
$1.6 million

Completion Date
2011

Los Angeles Bureau of Sanitation, Lopez Canyon Landfill*

Project overview

Vanir Team Members evaluated the feasibility of constructing and operating a 4 MW photovoltaic solar power generation system for the Lopez Canyon Landfill site (the landfill is no longer in operation). The goal was to:

- Determine the optimal locations within the landfill to place the system;
- Evaluate electrical connection infrastructure;
- Discuss visibility and public perception concerns;
- Analyze shade impacts to the overall solar power generation;
- Provide a financial pro forma; and
- Identify the environmental impacts.

The team coordinated utilizing the Los Angeles Department of Water and Power Feed-in-Tariff (FIT) as part of the comprehensive feasibility study. Study findings identified the preferred mounting systems determined by the site constraints and soil conditions, which ultimately maximized the system size to 4 MW. The financial pro-forma included initial capital costs, O&M costs, and FIT incentives for a 20-year lifespan, resulting in a $5 million net benefit to the project.

After completion of the original project, the budget was increased to include shading studies to identify and quantify any possible interference with solar production; an analysis to mitigate line of sight concerns from the public; and outreach efforts to explain the project to members of the local community.

Location
Lake View Terrace, California

Client
City of Los Angeles Bureau of Sanitation

System Size/Sites
4 MW/2 Sites

Project Budget
$300,000

Completion Date
2010

* Sustainability Team Experience Non-Vanir Project

California Independent Systems Operator (CAISO), Iron Point Headquarters

AWARDS/CERTIFICATIONS

2011, Certified LEED Platinum, CMAA Northern California, Building of the Year

2011, DBIA Western Pacific Region, Excellence Award

2011, AIA Central Valley, Merit Design Award

2011, WCCC, Chairman's Award

Project overview

The California ISO (CAISO) new headquarters facility was a very important project for our client and a good example of using local resources and achieving the highest level of energy efficiency. Originally designed as a LEED Gold project, Vanir recommended the addition of a 305 kWh photovoltaic energy system which, in turn, achieved LEED Platinum status for the project.

Vanir worked closely with the entire team to provide the best project management services possible, delivering this state-of-the-art complex ahead of schedule and under budget. The headquarters operates as a reliable and secure building to serve California's energy needs—it includes an operations complex, a conference and training center, and a three-story corporate headquarters.

Successful collaboration with design-build team

"Your team was very responsive to the ISO's needs and worked throughout the project in a highly collaborative manner. Particularly noteworthy, was how the Vanir team worked so well with the Clarke Design-Build team and that collaboration was instrumental in keeping the project ahead of schedule and well under budget."

—Steve Berberich, CEO
California Independent System Operator (CAISO)

Location
Folsom, California

Client
California Independent System Operator Corporation

Architect
Dreyfuss & Blackford Architects

Contractor
Clark Design/Build of California

Delivery Method
Design-Build

Square Footage
278,000 square feet

Construction Cost
$118.6 million

Completion Date
2010

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OUR PROMISE

While the sustainability needs of our clients continually evolve, Vanir's promise remains the same —we provide the best people and the best resources to deliver your project.

With a commitment to transparency and collaboration, we provide services through all project phases as an agent focused on representing your interests. Whether it's strategizing to meet zero net energy goals, optimizing energy efficiency, or developing a renewable energy project, our sustainability experts are highly qualified and ready to get started.

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