



*“...specifically trained in preparing bridge advance planning studies and the analysis and design of bridges, sound walls, retaining walls, and buildings”*

#### Consulting Services

- Study and Analysis
- Bridge Advance Planning Studies
- Bridge Planning/Feasibility Studies
- Bridge Evaluations
- Bridge Inventory and Operating Rating Study
- Bridge Sufficiency Rating Analysis
- HBRR (now HBP) Funding Application

#### Bridge Preliminary Engineering

- Bridge Type Selection Report
- Bridge Preliminary Design
- Seismic Retrofit Strategy Report

#### Design and Construction

- Local Bridge Replacement/Rehabilitation
- Freeway Overcrossing, Undercrossing and Ramp
- HOV Bridge Widening
- Railroad Bridge and Grade Separation
- Bridge Seismic Retrofit

**Willdan provides complete structural engineering support** for the design, analysis, inspection, and evaluation of structural systems. We provide these services for a wide variety of structures including airport facilities, industrial and commercial developments, recreational facilities, transportation-related infrastructure, and water and wastewater utilities.

Our experienced staff performs bridge advance planning studies, and the analysis and design of bridges, sound walls, retaining walls, and buildings. We have an extensive working knowledge of all related agency criteria and methodology for the design of new bridges and bridge widenings, including the latest seismic analysis and design procedures. In addition, our staff has in depth knowledge of various federal, state, and local requirements for the preparation of project development documents, design, construction documents, and processing. We note that our structures staff has had tremendous success obtaining HBP funds for a number of cities in California.



City of Indian Wells  
Miles Avenue Bridge



City of Rosemead  
Garvey Avenue Bridge

**Willdan** has had two primary objectives since our inception in 1964—ensuring the success of our clients and enhancing our surrounding communities. Working steadily toward these goals we gained a notable reputation for technical excellence, cost effectiveness, and client responsiveness in providing superior engineering and planning consulting services. In recent years Willdan has expanded our service offerings into several vital areas including financial and economic analysis, homeland security, environmental remediation, and sustainability. We have crafted this set of integrated services so that, in the face of our evolving environment—whether economic, natural, or built—Willdan can continue to extend the reach and resources of our clients.

**Willdan Engineering** offers a full complement of professional engineering and planning consulting services that encompass city and special district engineering, municipal planning, plan checking, building and safety, program/construction management, public works inspection, disaster recovery, survey and mapping, geotechnical and earthquake engineering, and infrastructure design. Our infrastructure design capabilities are wide-ranging and include traffic and transportation, water resources, flood control and drainage, structures, and landscape architecture. Unique to Willdan is our understanding of public agency needs and issues. Willdan professionals often serve to extend our clients' staff in the capacity of city engineers and other public agency positions. Additionally, many provide the added value of having served in public agency management positions prior to joining Willdan. With this depth of experience, expertise, knowledge, and resources, Willdan offers comprehensive solutions that are timely, cost effective, and tailored to meet the needs of individual communities.

**Willdan Engineering**  
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**City of Indian Wells, Miles Avenue Bridge Replacement, San Bernardino County, California**

—Willdan provided services throughout every phase of this project, from securing funding, environmental documentation, wetlands permits, and geotechnical investigation to final PS&E for roadway engineering, channel improvements, traffic, and bridge design and construction management. The new bridge is a 550-foot-long, five-span, curved, cast-in-place, prestressed-concrete, box-girder structure.

**City of Rosemead, Garvey Avenue over the Rio Hondo Channel HBRR Bridge Replacement, Los Angeles County, California**

—Willdan provided engineering design, survey, geotechnical engineering, hydrological/ hydraulic evaluation, environmental documentation, utility coordination, contract administration, construction observation, and federal labor compliance services for the HBRR-funded replacement of the Garvey Avenue Bridge over the Rio Hondo Channel. The new 655-foot-long bridge ranges in width from 52 feet to 100 feet (including shoulders and sidewalks) and includes channel slopes and a bike path. A state-of-the-art spliced precast concrete bulb tee girder design was adopted for the replacement structure. Project construction cost was estimated at \$10 million.

**U.S. Army Corps of Engineers, Los Angeles River Bridges Project of the Year, APWA**

—Willdan performed planning and design for a new 755-foot, four-span Union Pacific Railroad bridge over the Los Angeles River and a 282-foot, three-span bridge over Dominguez Channel with hydraulic parapet walls and retaining walls on the right-of-way. The aggressive schedule required final PS&E in six months. The bridge replacement was part of an extensive U.S. Army Corps of Engineers flood control project, managed by Willdan, which was awarded 2002 Project of the Year in the category "Disaster or Emergency Construction/Repair, More than \$10 million" by the national American Public Works Association.

In addition, Willdan designed modifications to a total of 24 bridges over the Los Angeles River, including the replacement of a pedestrian/equestrian steel truss bridge and hydraulic and seismic loads and demolition plans for Horseshoe Bridge.

**City of Mission Viejo, Clear Acrylic Sound Walls, Orange County, California**

—For the City of Mission Viejo and the Orange County Transportation Authority, Willdan prepared a feasibility study and PS&E and coordinated with homeowners for the innovative design of transparent sound walls (a first in California) along the northbound Interstate 5. The City and OCTA constructed 2,700 linear feet of 14-foot-high sound walls of clear acrylic panels and concrete masonry block pilasters.

**City of Pinole, Prune Street Pedestrian Bridge Replacement, Pinole, California**

—Willdan provided engineering design, design surveys, geotechnical engineering, environmental study, and utility coordination for the replacement of the Prune Street Pedestrian Bridge Over Pinole Creek. An 85-foot long, prefabricated, steel Pratt Truss bridge with enhanced entrance features consisting of rock pillars and tapered walls topped with decorative lighting as well as colored and textured asphalt paving on the trail leading the structure were used to provide the citizens of Pinole with a neighborhood park bridge of which they could be proud.



*City of Pinole  
Prune Street Pedestrian  
Bridge Replacement*



*City of Mission Viejo  
Sound Walls*

