BRETT BARNETT, PE, CCM

Education
B.S. Civil Engineering, California State Polytechnic University, Pomona, 1986

Registration
Civil Engineer - CA No. 45482 (1989)
Certified Construction Manager, CMAA (2005)
Qualified SWPPP Developer (45482) 2014

Key Qualifications
Brett Barnett has over twenty-five years construction management, design and business development experience on transportation and building projects in Southern California. For the majority of his career, he has provided construction oversight (including schedule management, contract change orders, and claim management) of highway and railroad bridges; airport facilities; retaining walls and sound walls; and port facilities including wharves, container yards, and rail yards. In the process of managing more than $3B (current value) in construction, he has monitored new construction, widening, or demolition of over 185 bridges, including construction of five full freeway to freeway interchanges, and an equal number of retaining walls, acting in the capacity of Project Manager, Resident Engineer or Structures Representative. Barnett has extensive experience directing the work of more than twenty field engineers, negotiating change orders, resolving contractor claims, reviewing CPM schedules, and clarifying plan document discrepancies. He has participated in constructibility reviews, designed and implemented training classes, and been trained in total quality management. Barnett is very familiar with Caltrans construction management methods and procedures through direct experience and the training of construction field engineers.

Consulting Experience

- California State High-Speed Rail Authority, Construction Package No. 1 – Project/Construction Manager - The primary goal of the PCM team is to manage delivery of this section of the High-Speed Train System through the first design-build contract, while at the same time building relationships with CHSRA, the CHSRA Project Management Team, the City and County of Fresno, the City of Madera, local residents and businesses, and local farms and agriculture interests. This first project of the California High Speed Rail Authority will be constructed by a Design-Build team, which combines a fairly new contracting method with a new-to-California facility. Our role is to verify the D-B contractor's Quality Control/Quality Assurance processes and procedures are created, implemented, and documented to verify the quality of all constructed elements. Our responsibility is not to provide inspection, but oversight and verification of the contractor's quality system instead.

  The CP-1 Project for the Madera to Fresno section, from south of Avenue 17 in Madera County to south of East American Avenue in Fresno County, is the first section of California's High Speed Rail network being constructed. Construction Package CP-1 starting in 2013 will prepare subgrade for the first section along the approved Hybrid alignment that begins along the west side of the BNSF Railway turning south across the San Joaquin River and the Union Pacific Railroad and continuing along the west side of the UPRR. The alignment along the west side of the UPRR uses the existing Golden State right of way, requiring relocation of the Golden Gate Boulevard and adjacent State Route 99, with Caltrans cooperation. This section of the CHSTP System route will be constructed at-grade, on embankment, in open below grade trenches, and on elevated structures.

- Southern California Construction Management Discipline Manager

- Los Angeles Metropolitan Transportation Authority (Metro), I-405 Sepulveda Pass Widening Project. Deputy Project Director providing project and construction management oversight services on this $1.034 billion project. The I-405 Sepulveda Pass Widening Project features include: adding a 10-mile HOV lane on the northbound I-405 between the I-10 and US-101 freeways; removing and replacing the

Skirball Center, Sunset Blvd. and Mulholland Dr. Bridges; realigning 20 on and off ramps; widening 20 existing overcrossings and structures; and constructing approximately 18 miles of retaining wall and sound walls. Through Brett's experience on other Caltrans design/build projects, he was made responsible for oversight of the Quality Management System development and implementation; establishment of the project office and development of roles, responsibilities and procedures; resolution of right-of-way, construction, and design issues; responding to correspondence, requests for change and potential claims; evaluation and recommendation of alternate construction methods and mitigation of public impacts; represented the project and Project Director at meetings with the public and other agencies as required. He worked closely with the City of Los Angeles bureau's and County of Los Angeles on improvements and plan acceptance, and Caltrans District 7 on Right-of-Way acquisition. The project started in May 2009 and construction is expected to complete at the end of 2012. Brett's is currently only at 50% and is being scaled back as construction gets further along. Brett is doing this work as a Harris & Associates employee. Reference: Michael Barbour, Project Director, Highway Project Management, LAMTA, (310) 846-3522.

- City of Pico Rivera, Passons Boulevard Grade Separation Project. Project Director for this $43 million project improvement consisted of construction of a reinforced concrete underpass structure for Passons Blvd, utility relocations, bridge removal, roadway reconstruction, and placement of a two-track, shoo-fly railway configuration. Harris assisted the City with pre-construction services including E76 document, a biddability/constructability review and community outreach. In addition tor full construction management services, including BNSF railroad coordination.

- City of Moreno Valley, Sunnymead Boulevard Revitalization. Project Manager. Mr. Barnett was the project manager on this project that includes the replacement of the existing waterlines with an 18-inch PVC pipeline including service connections in the east bound Sunnymead Boulevard lanes from east of Frederick Street to Perris Boulevard. The second phase is the replacement of failed curb and gutter, construction of color PCC sidewalk and driveway approaches, irrigation, parkway planting of trees and planters, bus shelters, arch gateway sign and Indian Street signal modifications. Phase three included construction of the hardscape and landscape medians, color PCC paved continuous turn lane and color PCC paved intersections.

- City of Oceanside, Pacific Street Bridge over San Luis Rey River. Project Sponsor for this four span cast-in-place concrete box girder bridge across the active San Luis Rey River. The project included construction of mechanically stabilized embankment walls to raise South Harbor Drive, constructing the new South Harbor Drive and portions of Pacific Street, reconstructing portions of a six-inch sanitary sewer force main and gravity line, constructing a ten-inch and sixteen-inch water main, constructing a utility trench, revegetating a nearby mitigation area, providing traffic control and temporary shuttle transportation.

- Project Manager for the University Parkway / State St. Grade Separation for SANBAG, San Bernardino, CA. This $16 project included construction of a 412' by 92' wide, three span, cast-in-place prestressed box girder bridge over three BNSF tracks, placed a new roadway just east of the existing alignment, and included soil-nail walls, MSE walls, re-alignment of local roads, new signalized intersections, a new BNSF rail signal, and additional capacity for the growing traffic demands in north San Bernardino.

- Resident Engineer/Bridge Resident Engineer for the OCTA-sponsored Garden Grove Freeway SR-22 Design-Build Project, a $450M widening of the entire alignment between SR-55 and I-405. This project is the first design-build project to widen and improve a California freeway corridor. The project included 35 bridges, either new, widened, or replaced, a new pumping plant and 73 retaining walls and soundwalls. Project responsibilities include program management/construction management of the bridges, walls, and pump plant on the project, as part of the Program Management Consultant team. Worked closely with the Cities of Westminster, Garden Grove, and Orange. Provided leadership of program management/ construction management staff of 15 for structures work on the project, with oversight of 45 quality assurance inspectors, and evaluation of the work product of 700+ craft workers. As this is considered the first design-build project within existing Caltrans right-of-way, extensive work is required to meet the expectations of Caltrans within the framework of the design-build contract

(acceptance requirements, survey responsibilities, line and grade responsibilities, etc. were all issues requiring extensive coordination and negotiation). Also established and led inspection training classes for program management oversight staff and Contractor's quality assurance staff. ASCE Region 9 awarded the SR-22 project "2007 Project of the Year."

- City of Riverside, La Sierra Interchange and Grade Separation. Project Director. Mr. Barnett oversaw on-call inspection services for this project which replaced the existing freeway and railroad overpasses on La Sierra Avenue at State Route 91 and the BNSF railroad with new six-lane bridges with dual left turn lanes at the freeway on ramps. The freeway on and off ramps were widened to three lanes with a diamond configuration. The project also widened La Sierra Avenue to six lanes between Indiana Avenue and Diana Avenue/Montlake Drive.

- County of Riverside, I-15 New Freeway Interchange at Cantu-Galleano Ranch Road. Mr. Barnett provided a B/C review for the I-15 at Cantu-Galleano Ranch Road Interchange project which provided four lanes of traffic over the freeway crossing at I-15. Work included a 129.0 meter long and 40.37-45.67 meter wide, 2 span, cast-in-place, prestressed concrete, haunched, box girder bridge, supported on Class 900 driven piles at the abutments and bent 2. Construction of ramps included new northbound and southbound on-ramp loops, northbound off-ramp and southbound on and off-ramps. Northbound and southbound I-15 inside and outside lanes and shoulder were constructed to accommodate new ramps and loops.

- Caltrans District 8, On-Call Roadway Construction Engineering/Inspection Services (08A1480). Project Manager. Mr. Barnett is overseeing the team providing expert construction inspection, office engineering, and construction office assistance for the I-215 Widening Project (Segment 3), I-15 median upgrades from Yermo to the state line. Other projects include the rehabilitation of SR-58 near Barstow. Mr. Barnett provided project support as requested, and provided four inspectors within two days to support the emergency contracts required by the wildfires of 2008.

- Caltrans District 7, On-Call Construction Management and Support Services (07A2200). Project Manager. Mr. Barnett oversaw the Harris team that provided qualified construction inspection, construction office assistance, and materials testing personnel on an on-call basis to perform various types of construction contract administration services. The scope of the contract included field inspection, plan and estimate review, safety reviews, SWPPP reviews, permit application and reviews, change order processing review and tracking, progress payments, extra work bill processing, support to the automated Daily Diary system, preparing and analyzing progress schedules, assisting with the resolution of claims, and general office support.

- Project Manager/Construction Manager for the Port of Long Beach Pier G Megaterminal project in Long Beach, CA. The $50M first phase of this project consists of a new secondary gate constructed while the terminal was in operation, a new rail yard with 17000 feet of storage, eight entrance gates equipped with scales, a new 1300' wharf equipped for container cranes, and eight acres of backland constructed by clamshell and hydraulic dredged fill. Follow-on projects included additional wharfs, dredging, improvements to existing terminals, and a new primary gate structure.

- Project Manager for Caltrans Districts 7 and 8 On-Call Contracts. Provided construction inspection staff as needed to Caltrans, for work in greater Los Angeles, and supported the I-15 widening project near Baker, in northeast San Bernardino County.

- Project Manager for the Alameda Corridor East Grade Separation projects in Pomona, CA. These five grade separations, ranging from $20M to $60M in construction cost, improved the safety and traffic flow along the Alameda Corridor East right of way.

- Project Manager for the Etiwanda Ave./Interstate 10 Improvement projects in Fontana, CA. These two projects, totaling $18M, reconfigured Valley Blvd. and the existing on- and off-ramps at the Etiwanda Interchange to improve traffic flow and provide access to a newly-constructed industrial park and distribution complex being constructed by the Catellus Commercial Group, a division of BNSF. The

project includes two bridges, one on outrigger bents, storm drain improvements, and extensive roadway construction, concurrent with the development project.

- Project Manager for March Air Reserve Base Category 2 ILS Upgrades in Moreno Valley, CA. This $3.2M project upgraded the centerline and edge lighting on the main 13,200 foot runway, in order to meet the minimum FAA standards for a commercial cargo airfield. The March Inland Port now shares the airfield with the Air Force, creatiung an all-cargo airport to serve the Inland Empire and reduce cargo traffic at other local airfields.

- Construction Manager for the City of Fontana Robert W. Weddle. PE Improvement Projects. This extensive capital improvement project, budget to include $80M to $160M of road, storm drain, and bridge construction projects, and Barnett was responsible for creation of the master schedule and assessment of the current status of design and construction projects within the city. These projects range in size from $250K to $22M, are at various stages of planning, design, or construction, and the work is being performed by a combination of city staff and eight different consultant firms.

- Project Manager of the Newport Road/I-215 Interchange in Menifee, CA. This $6.6M project involved modification of the existing Newport Road / I-215 interchange. This project added two lanes to Newport Road in both the east and west-bound directions; widened the diamond exit ramps; provided ramp metering at the diamond entrance ramps; as well as signalization at the ramp termini. The new Newport Road Overcrossing is a two-span, cast-in-place, prestressed concrete box girder bridge 285'-2" long and 53'-9" wide, with a superstructure depth of 5"-6".

- Operations Manager on the $4.9M Carmen Drive/Route 101 Interchange in Camarillo, CA. The project involves relocation of a frontage road, modified freeway on/off ramps, traffic signals and utilities relocation in a congested business area. Barnett supports a field CM team of three and provides Quality Assurance oversight of our CM services.

- Project Manager for Caltrans District 7 and 8 On-Call Contracts. Teamed as a subconsultant, providing construction inspection staff as needed to Caltrans, for work in Ventura County and the Inland Empire area of San Bernardino County.

- Project Manager for San Bernardino County On-Call Inspection Services: Provided inspectors for various road construction projects within San Bernardino County, including projects at Trona Road, 20 Mule Team Road, and Barstow-Daggett Airport.

- Civil Construction Manager on Palm Springs International Airport ASR-9 Radar Installation. This $5M project involves the installation of 15000 feet of fiber optic cable, environmental control units, electronics equipment trailer, installation of ASR-9 sail and ATCBI-5 beacon, upgrade of the existing tower, and required connections to air traffic control tower and terminal radar approach control. This new radar facility was installed and in operation within seven weeks.

- Project Manager on the Johnson Drive Grade Separation, Ventura, CA. The $7.2M project involved a new pre-cast girder railroad bridge, improved and new ramps to Highway 101, utilities relocations and local roadway improvements. Key project elements included traffic maintenance, realignment for the southbound US 101 on-and-off-ramps, and relocation of high voltage overhead power lines and underground fiber-optic cables. Barnett managed a four-person staff, and provided oversight of potential claim and change order analysis.

- Project Manager – Main Street Bridge in San Jacinto: This project involved the construction of a two frame cast-in-place prestressed bridge over the San Jacinto River for the City of San Jacinto. The eight span bridge is 316.5m long and 17.04m wide, with a superstructure depth of 1.68m. The bridge is support by seven two-column bents, and will provide an all-weather river crossing to the Soboba Indian Reservation and Soboba Springs residential subdivision for the City. The total cost of the project was $6 million, and included roadway improvements, channel levee construction and the

installation of retaining walls and City water lines through the bridge. Barnett managed a three-person staff and reviewed change orders, correspondence and potential claim analysis and response.

- Project Manager/Resident Engineer - Anaheim Street Grade Separation: This grade separation structure is the last of a series of grade separations in the Port of Long Beach, to separate rail and road traffic in anticipation of the increasing demands for rail traffic. The grade separation is a three frame conventional cast-in-place prestressed concrete box girder bridge 1432 feet long and 100 feet wide, with a superstructure section of 7.5 feet. The structure is supported on eight two-column bents on 235 ton, 24" cast-in-steel-shell piles. The alignment of the new structure is overlaid on the existing street, calling for a detour road construction and extensive relocation of utilities for 28 different entities, twelve of which are oil companies. The project was constructed under a permit issued by the City of Los Angeles as 95% of the project in Los Angeles. New storm drains wer constructed, as well as traffic signs, signals, temporary access roads, and demolition of existing buildings and improvements. Contaminated or hazardous materials have been encountered and mitigated. The project was completed on time, within budget, and without claims.

- Project Manager/Resident Engineer - Mid-Valley Parkway: This project constructed a two frame cast-in-place prestressed concrete box girder bridge 1100 feet long and 78 feet wide, with a superstructure depth varying between 4 and 8½ feet. The bridge is supported by five two column bents on 8 foot diameter cast-in-drilled-hole piles. This bridge spans the Whitewater River, which is normally dry and contains a private golf course, and was intended to be the start of an alternate east-west corridor through the Coachella Valley. Also constructed on this project were 1.5 miles of four lane asphalt concrete roadway, new storm drains, signalized intersections, landscaping, retaining walls, decorative block walls, curbs, gutters, and sidewalks. Utility relocations were required, some of which were not expected. The project was completed on time, within budget, and without claims.

- Resident Engineer - Phillips Ranch Road: Replaced the previous Resident Engineer at the completion phase of this two lane, two span cast-in-place prestressed box girder bridge over Route 60. This project improved the access to the City of Chino Hills by adding a second bridge on the site, as well as new on-ramps, retaining walls, ramp metering signals. Also included in the project was Class F column retrofits on the adjacent existing structure. The project was completed on time, within budget, and without claims.

Caltrans Bridge Construction Engineer in District 12 and District 7 (Orange and Los Angeles Counties, California): Supervised ten structure representatives and their staff on ten different earthquake retrofit projects in Caltrans Districts 7 and 12. Representative projects include:

- 55/405 Interchange: $1.7M earthquake retrofit of single column connectors and overcrossings in Santa Ana, CA. The steel column jacket retrofits were complicated by parabolic flares of the circular columns at the top and bottom of each column. The footings were also increased in size to accommodate additional piles.

- Soundwall placement and extensions at various locations along the 55 and 405 freeways in Orange County, CA.

- Santa Ana River Bridges: $1M earthquake retrofit of structures on Routes 22 and 57 in Orange and Anaheim, CA. The work included footing retrofits, steel column jackets, bolster upgrades and abutment seat extensions.

- Brookhurst St. Overcrossing +5: $1.2M earthquake retrofit of structures on Route 405 in Westminster and Huntington Beach, CA. Seat extensions supported by 72" diameter CIDH piling were installed, as was steel column jackets and footing retrofits.

- Lakewood Pedestrian Overcrossings: $300K earthquake hinge strengthening of two pedestrian overcrossings on Route 605 in Lakewood, CA. The challenge of the project was extremely cramped working spaces caused by the minimal section depth (3.5 feet) of the superstructure.

- 5/91 Separation and Overhead: $850K Phase 2 earthquake retrofit of freeway connectors in Anaheim and Fullerton, CA.

- Tonner Canyon Bridge: $540K earthquake retrofit of four span box girder bridge over Route 57 in Brea, CA

- 710/10 Separation: $223K removal and replacement of concrete barrier rail and signs on three bridges, and the installation of new electronic message signs.

- Artesia Blvd. Separation: $438K earthquake retrofitting of four bridges on Route 605 in Cerritos, CA.

Caltrans Structures Representative/Resident Engineer in Districts 12, 7 and 8 (Orange, Los Angeles, and San Bernardino Counties, CA), responsible for construction management of structures or the total project. Major projects included:

- 5/55 Interchange, upgrade of the ninth busiest interchange in the nation in Santa Ana, CA.:

  - Stage 2: $24M second phase of the project included six cast-in-place post-tensioned overcrossings on driven 100 ton concrete piles, 21 retaining or sound walls, and 2 pumping plants.

  - Stage 3: $45M final phase of the project consisting of (10 structures), including a 7400' long HOV viaduct bridge on single columns and post-tensioned outrigger bents with ten hinges, two multiple span connectors bridges with hinges, two multiple span connectors, and four additional overcrossings. Typical construction details included conventional cast-in-place post-tensioned box girders as well as slab bridges, 100 ton precast concrete piles, complicated tunnel or pony-bent falsework construction, and one sidehill viaduct bridge on CIDH piles. Construction also included a massive tie back retaining wall, 49 conventional retaining/sound walls and one pumping plant. The project also included a $1 million seismic upgrade to the HOV Connector superstructure as a result of the San Francisco Earthquake. The project as awarded the Project of the Year by the Orange County section of ASCE and the Highway Project of the Year by the California Transportation Foundation.

- I-110 Harbor Freeway Project 13: $22M final phase of widening to connect the south end of HOV Viaduct Number 2 in downtown Los Angeles, CA. Construction included completion of a portion of the existing elevated HOV Viaduct in the median, which is 84' wide on single columns bents. Additional work included one pedestrian overcrossing and attached stair tower, three undercrossings, three pedestrian undercrossings, 30 retaining walls, one pumping plant, and a bus station on Slauson Avenue. Construction details include cast-in-place post-tensioned structures, inside and outside widening of existing structures, cast-in-drilled-hole piles, new bridge construction incorporating a bus station above and below the deck, and a restrictive urban environment between heavily traveled lanes of an existing freeway

- I-110 Harbor Freeway Project 14: $23M final phase of widening to connect the north end of the HOV Viaduct Number 2 in downtown Los Angeles, CA. Seven bridges, 33 retaining walls, one pumping plant, and one bus station. Construction details include cast-in-place post-tensioned structures, cast-in-drilled-hole piles, inside and outside widening of existing structures, and a restrictive urban environment between heavily traveled lanes of an existing freeway.

- Access Road Undercrossing Project: $5.0M to complete 10 new or widened structures on new right-of-way parallel to the existing Route 30 in Redlands, CA. The project included one multiple span bridge over the Santa Ana River, two bridges in the Santa Ana riverbed, and overcrossings over city streets.

- 30/330 Interchange: new $28M interchange of 23 structures on new alignment in Highland, CA. Project included three bridges over City Creek, two pedestrian overcrossings, three connector structures, one widening and ten overcrossings.

- Santa Ana River Bridge: $435K emergency repair on Interstate 15 over the Santa Ana River near Norco, CA.

- Miscellaneous projects in the desert, including Whitewater Roadside Rest upgrade on Interstate 10, and earthquake repair of the Snow Creek Bridge on Highway 111 near Windy Point.

- Valley Blvd./Colton Overhead: $414K to increase the negative moment capacity of steel bridges in Colton and Fontana, CA.

- Whitewater Roadside Rest: $1.0M to upgrade and construct new buildings for a rest area on Interstate 10 near Palm Springs, CA.

- Slover Mountain Maintenance Station: 3.30$M to construct a new maintenance complex of seven buildings on ten acres, including seven acres of paving in Rialto, CA.

- Haven Ave. Overcrossing: $1.02M to modify existing bridge and construct a new CIP concrete box girder bridge over Route 10 in Ontario, CA.

- Columbia Ave. and Indian Street Overcrossings: $259K to replace damaged precast girders over Route 215 and 60 in Riverside County, CA.

- Santa Ana River Bridge: $435K emergency repair of a damaged joint seal assembly on Route 15 in Norco, CA.

- Graham St. Soundwall: $200K soundwall on CIDH piles along Route 60 in Moreno Valley, CA.

- Central Beaumont Overhead : $750K to construct new three span CIP box girder bridge over the Southern Pacific Railroad in Beaumont, CA.

Assistant Structures Representative for Caltrans projects, responsible for field inspection, falsework and shoring plan review, time and materials calculations for pay estimates, evaluating and writing change orders, and monitoring compliance with contract documents. Significant projects include the following:

- 10/30 Interchange – Structures Principal Assistant Engineer on new interchange of six bridges, including two multiple frame connectors with hinges on CIDH pilings in Redlands, CA. Construction details included cast-in-place post-tensioned superstructure construction, numerous hinges, matching line and grade of partially constructed connectors, and small diameter cast-in-drilled-hole concrete piles.

- 30/215 Interchange - New interchange of ten bridges, including two grade separations, connector ramps and overcrossings in San Bernardino, CA. Construction details included cast-in-place post-tensioned superstructure construction and 100 ton prestressed concrete piles.

- 15/91 Interchange - New interchange of eleven bridges including three multiple span, multiple frame connector ramps in Corona, CA. Project also included one railroad bridge over Temescal Creek, one widening over Temescal Creek and Southern Pacific Railroad, two grade separations, and two overcrossings. Construction details included cast-in-place post-tensioned superstructure construction, steel piles in sizes from 70 tons to 150 tons, pony-bent and tunnel falsework, and falsework super-bent installations.

- Wildwood Safety Roadside Rest Area - Upgrade sanitation facilities in Yucaipa, CA.

Caltrans Structures Design Engineer in Sacramento: Designed two cast-in-place post-tensioned box girder bridges, three retaining walls, and a temporary pedestrian overcrossing.

Total experience includes 129 bridge, 140 retaining walls, and 19 building projects.