



Environmental Documentation and Preliminary Engineering Services for the 12th Street Interchange Modernization Project

(City CIP Project Number 9114)

City of Fortuna

April 13, 2022

→ The Power of Commitment





Table of Contents

1. Cover Letter	02
2. Executive Summary	04
3. Project Understanding, Approach & Scope of Work	08
4. Project Team Organization/Staffing Plan	22
5. Experience and Qualifications	27
6. Project Schedule	45
7. Estimated Fee Schedule	46
A. APPENDIX:	
A – Resumes	47
B – Exhibit 10-O1 and 10-Q Forms	62

© GHD 2022

This document is and shall remain the property of GHD. The document may only be used for the purpose of assessing our offer of services and for inclusion in documentation for the engagement of GHD. Unauthorized use of this document in any form whatsoever is prohibited.



1

Cover Letter



→ The Power of Commitment

1. | Cover Letter



GHD
Physical Office Address
718 Third Street
Eureka, California 95501 USA
www.ghd.com

April 13, 2022

Proposal # 12577017

Brendan Byrd
City of Fortuna Engineering
621 11th Street
Fortuna, CA 95540

Re: Environmental Documentation and Preliminary Engineering Services for the 12th Street Interchange Modernization Project

Dear Mr. Byrd and Members of the Evaluation Committee,

For over 70 years, US 101 and the 12th Street Interchange has divided the City of Fortuna (City), isolating the Riverwalk Area from other parts of the community. The existing interchange represents an antiquated design that is further complicated by a lack of non-motorized facilities on the overcrossing, the skewed nature of the S. Fortuna Boulevard and Newburg Road intersection, and the height-restricted bridge overcrossing. Additionally, planned development in the community will exacerbate congestion, degrade safety, and further impact the quality of life. The 12th Street Interchange Modernization Project is critical to addressing these near- and long-term issues, and once completed, the project will transform the City-highway interface, improve traffic operations, alleviate traffic congestions, provide new non-motorized connectivity, and accommodate the City's anticipated long-term growth. The Project Approval and Environmental Document (PA&ED) phase is an exciting step forward for this priority project, and one that GHD is excited to be a part of!

Through our initial work on the project and multiple conversations with trusted City staff, we understand that the preferred design is a five-leg roundabout at the 12th Street/US 101 northbound ramps that incorporates a realigned Newburg Road. We also understand that the project includes a Class 1 bike path across the highway overcrossing which would be accomplished by either widening the existing bridge or providing a new separate structure.

To achieve a successful completion of this phase of the project, the City of Fortuna needs a consultant that understands the project's unique setting, has a proven strategy for identifying project specific challenges and opportunities, and has a successful record developing effective, innovative, and cost-effective solutions on similar projects on the state highway and with Caltrans oversight. GHD's team precisely offers the combination of qualifications, location, and experience needed to complete your project.

Given our industry-leading roundabout experience in California and our familiarity with the project and City, GHD presents a team uniquely positioned to guide the City of Fortuna's project from the PA&ED phase through design, right-of-way and construction. A few of our Team's advantages include:

» **Unmatched on and off system roundabout expertise**

For over 20 years, GHD has earned a reputation for planning and delivering high-quality and smoothly operating roundabout projects on and off the state highway system. We have been involved with well over 200 roundabout planning and/or design projects and no one but Caltrans has delivered more on-system roundabouts. We have prepared Intersection Control Evaluation (ICE) documents, studies, designs, and environmental documents for local agency projects located on the state highway in numerous Caltrans Districts. We have also been retained by Caltrans to provide ICE and roundabout training to Caltrans District staff, in addition to peer reviewing Caltrans roundabout designs. We plan to use this knowledge to develop an award-winning project that will make the City of Fortuna and community proud.

» **Unparalleled project knowledge and understanding**

The GHD staff presented in the following proposal embodies a deep familiarity with this interchange modification project, as many were involved with the development of the 2016 Highway 101, Fortuna Downtown and Riverwalk Area Complete Streets and Connectivity Planning Study which was the foundation for the City's 2021 Project Study Report–Project Development Support (PSR-PDS). Our involvement with the initial study has afforded us an unparalleled opportunity to understand the project goals, challenges, and opportunities, and it allows us to be able to start work on this project on day one.

» **A proven and local team who can lead all project phases, minimally affecting City staff**

Our team has roots in this project and community, working on various transportation projects with the City of Fortuna. Beyond steering all phases of the project, GHD will seamlessly coordinate with Caltrans, managing the project's schedule and supporting the City's efforts to secure additional funding for subsequent phases of work. We will also comprehensively lead the City through the initial studies and design, approvals, and environmental documentation process, allowing City staff to continue serving the public without being responsible for taxing project administration. Your client experience is a top priority for us!

» **Extensive experience in Caltrans processes, funding, and approvals to keep the project on schedule**

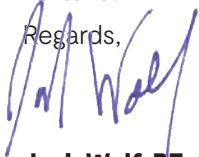
Caltrans approvals are critical to keeping the project on schedule and keeping the project on schedule is critical to securing future funding. Our team's Project Manager, **Josh Wolf, PE, QSD/P**, is locally based in Eureka and has collaborated with the City of Fortuna on numerous projects over the last 15 years. Josh also led the planning study for the 12th Street and Kenmar Interchanges and is managing the PA&ED phase for the City's Kenmar Interchange improvement project. In addition, **Kamesh Vedula, PE, TE** (Project Director), **Ronald Boyle, PE** (Quality Control), **Daniel Kehrer, PE, QSD/P** (Roundabout Design Lead), and **Andrea Hilton** (Environmental Lead) have delivered numerous transportation roadway projects within Caltrans' right-of-way, including award-winning roundabouts at highway interchanges. Together they will anticipate all needs in complying with Caltrans, taking the lead for the City in agency coordination, and supporting the City with outreach for this highly visible project.

To support an expeditious and seamless delivery of the project while meeting our Disadvantaged Business Enterprise (DBE) commitments, GHD hand selected the following subconsultants with whom we have successfully teamed in the past, to bring additional resources, unique expertise, and local knowledge to this project:

- » **Biggs Cardosa Associates Inc.** – *Structural Engineering Support*
- » **Bajada Geosciences Inc.** (DBE) – *Geotechnical Engineering*
- » **Monument** (DBE) – *Right-of-Way*
- » **Roscoe and Associates** – *Cultural Resources*
- » **AeroTech Mapping Inc.** (DBE) – *Aerial Surveying*
- » **JRP Historical Consulting** – *Historical Resources*
- » **APEX Civil Engineering** (DBE) – *Drainage & Design Support*

GHD has received the City's Addendum No. 1 dated April, 1, 2022, and our team is interested in working on the future phases of this project. If you have any questions or wish to discuss our proposal in further detail, please feel free to contact us – we are ready to start, and our goal is to always be available to you when you need us. On behalf of our team, we thank you for your consideration and look forward to continuing our working relationship with the City of Fortuna.

Regards,



Josh Wolf, PE, QSD/P
Project Manager
707.267.2264
Josh.Wolf@ghd.com



Kamesh Vedula, PE, TE *
Project Director
916.918.0622
Kamesh.Vedula@ghd.com

** Kamesh Vedula is a Principal of the firm and is authorized to negotiate and contractually bind the company. This proposal shall remain valid for a period of not less than 90 days from the date of submittal. GHD has read the Professional Services Agreement and the insurance requirements and has no modifications.*

2

Executive Summary



→ The Power of Commitment

2. Executive Summary

About GHD

GHD provides transportation engineering, environmental, advisory, digital, and construction services to public clients throughout California. Connected to a global base of engineers, planners, scientists, and technical professionals, our local staff can combine extensive familiarity in the agencies, ecosystem, transportation systems, and people of the project area with international experience and innovative design perspectives to uniquely guide the City of Fortuna through all phases of their project, including PA&ED, Plans, Specifications and Estimate (PS&E), Right of Way (ROW), and Construction (CON).

Firm Information

Established in 1928, GHD is a wholly owned subsidiary – a privately-held international engineering firm owned by our people and operating across five continents.

Our people offer decades of knowledge, as well as a deep understanding of the challenges facing communities today. Globally, we employ more than 10,000 people in 200 offices and have delivered projects in more than 90 countries. In North America, our resources include 4,000 people with more than 130 locations across the region. Our business model is to work internationally and deliver locally. Put simply, we work where our clients work.

Engineering and Environmental Services

GHD merged with Omni-Means, a multi-disciplinary consulting firm in 2017. This merger has bolstered our ability to provide traffic, transportation, and roundabout services to clients from locations throughout California. We are confident that our skillset will match your needs. Services range from preliminary design through concept, detailed design, construction, and asset management and include:

- » Roundabouts Feasibility Analysis
- » Concept Planning/Design (PS&E)
- » Intersection Control Evaluations
- » Simulation Modeling
- » Education/Community Outreach
- » Civil Engineering
- » Complete Streets
- » Traffic Engineering
- » Landscape Architecture
- » Transportation Planning/Design
- » Construction Management
- » Land/Construction Surveying
- » Environmental Studies and Documentation
- » Geographic Information Systems (GIS)

Similar Experience

For over 70 years in northern California, GHD has led the design and development of numerous high-profile, fast-track transportation engineering and environmental projects. Sensitive to both community and agency concerns, our team is led by project managers with decades of experience steering transportation projects throughout Caltrans' California State Highway System (SHS), particularly roundabouts.

90+ years in operation
135+ countries served
200+ offices worldwide
1.6^B USD revenue 2021
5 global markets
10^K people
50+ service lines

↳ Providing engineering, environmental, advisory, architecture, digital and construction services

We are adept at large project delivery for comprehensive and publicly impactful efforts, having acted as an extension of City staff to deliver similar projects on numerous occasions. An example of this is our ongoing work on the US 101/Kenmar Interchange project where we are leading the PA&ED phase of the project.

Roundabout Experience

Modern roundabouts save energy, advance motorist safety, reduce adverse motor vehicle environmental impacts by reducing emissions, and they increase capacity and reduce delay. They are also complicated to design and build; often the savings come not in initial cost but in the savings in operational and maintenance expenses, accident severity and frequency, and the reduction in fuel consumption (energy) and motor vehicle emissions.

Through our decades of experience, GHD provides the highest quality roundabout planning and design services in our industry. We are proficient and creative in our approach. We have been involved in 200+ roundabouts and over 25 Intersection Control Evaluation (ICE) projects, from Redding to Riverside County, usually involving Caltrans interchanges and roundabouts. In **Section 5** of this proposal, we have highlighted roundabout projects completed in the past five years where we encountered similar features, Caltrans involvement, and opportunities for innovation to those we'll find in the 12th Street/US 101 Interchange project.

Familiarity with State and Federal Procedures

The Caltrans oversight and approval processes can be detrimentally confusing, bogging down projects, and risking project funding. We have worked directly with local jurisdictions, including the City of Fortuna, and understand their internal processes, affording us the unique perspective of the public process while building long-lasting relationships



GHD is a recognized leader in the design of roundabouts, complete streets, and complex transportation projects within Caltrans right-of-way.

with Caltrans environmental, local assistance, right-of-way, and construction oversight staff. We are on a first name basis with the Caltrans District 1 Local Assistance staff and are intimately familiar with their internal processes and expectations. This includes a deep understanding of Caltrans design requirements, design review process, construction methodologies, and funding programs, which will streamline reviews and approvals, and help support schedule adherence.

We have successfully assisted many local municipalities through state and federal transportation funding processes and have been involved with successful audits from both Caltrans and FHWA. This experience will help the City comply with regulatory and procedural requirements and successfully deliver their project

Our familiarity with the Caltrans process saves time and we look forward to the advantage this brings to your project.

For this project, GHD has assembled a team with the experience and knowledge of Caltrans' Project Development Procedures Manual (PDPM), the Local Assistance Procedures Manual (LAPM), the Highway Design Manual (HDM), AASHTO Policy Manual, the California MUTCD, and the National Cooperative Highway Research Program (NCHRP) Roundabout Guide.

Our decades of local experience managing, designing, and delivering state and federally funded projects through the Caltrans process, combined with the added expertise of our subconsultants, demonstrates that no one understands the Caltrans processes better than GHD's team.

Subconsultants

This project requires experienced professionals in several critical related fields. We have collaborated with recognized experienced firms, each providing a critical specialization in one or more of the key aspects of this project. These firms were each selected based on our previous working relationships and due to their professionalism, quality of work, and respect of project schedules.

Biggs Cardosa Associates Inc.

(BCA) is the largest bridge-only firm based in and operating exclusively within California. They are a California corporation established in 1986 with over 110 personnel in six California offices. BCA offers project management, structural engineering design and construction services on local agency bridge projects within the Caltrans right-of-way. Over the years, BCA has developed a niche expertise in successfully delivering pedestrian and bicycle bridges. Their project managers have a bridge background and have been trained to manage all disciplines of Caltrans transportation projects, from feasibility studies, PSR/PDS, and PA&ED to PS&E for the final design and construction support and inspection services. BCA is one of the leading bridge firms in the State when it comes to designing new bridges and replacing, repairing, rehabilitating or retrofitting existing bridges. Since the firm's inception over 36 years ago, they have completed hundreds of designs for new bridges, as well as bridge replacements, widenings, seismic retrofits and rehabilitations of vehicular, pedestrian and bicycle bridges over highways, railways and various bodies of water.



Bajada Geoscience Inc. (Bajada)

was established in 2018 and provides geotechnical engineering, engineering geological, and geoenvironmental services on airport, transportation, commercial, public works, and heavy infrastructure projects throughout northern California, southern Oregon, and Nevada. Bajada's principal professionals are experienced in a diverse range of services that include geotechnical design and rehabilitation of roadways but also includes bridges, retainage structures, tanks, pipelines, and other public infrastructure. Bajada is a certified DBE.



Monument, a DBE-certified firm, is a full-service real estate and right-of-way company providing

exceptional service, strategic planning, innovation, and timely delivery. They serve local, state, and federal agencies, transportation authorities, and engineering partners with public infrastructure projects throughout California. Monument is more than your typical right-of-way company. Their team is comprised of the best in the industry, most with advanced degrees and licenses, most with over 25 years in the business, and leaders of some of the largest and complex projects delivered in the State of California. Monument's interdisciplinary team is composed of highly experienced project managers, seasoned acquisition



agents, relocation experts, and project support specialists, working together with the client to provide solutions at every phase of the project. The Monument team is known in the industry for successfully completing projects on an accelerated schedule. They accomplish this with early project planning, a clear scope of work, defined project tasks and deliverables, quality control, exceptional performance, and communication with the client and project partners. Monument is a project partner, equally invested in the goals and objectives of the project and fully integrated with the project team.

Roscoe and Associates (RA) is a cultural resources consulting firm providing professional cultural resources management services to Federal, State, and local agencies; Northwest California Tribes; and private individuals. RA personnel have extensive experience implementing and meeting the full range of State and Federal legislative laws and regulations regarding prehistoric and historic cultural resources. They have the personnel, facilities, and equipment necessary to complete a variety of tasks in an efficient and timely manner, including: project inventory; site mapping; excavation; NAGPRA, CEQA, and NEPA assistance; historical research, identification and management of cultural resources as dictated by federal and state laws; determining eligibility of sites to the California Register of Historic Resources, the National Register of Historic Places, and as Traditional Cultural Properties; Ethnographic Consulting; and construction monitoring.



AeroTech Mapping Inc. For the past 20 years, AeroTech Mapping (ATM) has supplied high-quality geospatial solutions, services, and support for the A/E/C industry. They've done projects across the United States and abroad using the latest technology and resources, combined with a highly educated and experienced staff. ATM's mission is to bring their clients the highest quality geospatial products and services available. They have a diverse group of geospatial professionals with over 200 years of combined experience in the photogrammetric industry. With over 10,000 completed projects to date, ATM has the expertise to bring projects to life. In addition, their state-of-the-art facilities and equipment improve efficiency, thereby reducing schedule times. ATM is a Caltrans-certified DBE.



JRP Historical Consulting LLC (JRP) is one of the oldest and most experienced historical consulting firms in the nation specializing in water resource investigations related to Western water rights; land use histories; expert historical services for litigation and dispute resolution; and cultural resources management including Section 106 of the National Historic Preservation Act and California Environmental Quality Act compliance. JRP's professional staff meet the United States Secretary of the Interior's Professional Qualification Standards under History and Architectural History (as defined in 36 CFR



Part 61). They have worked on a wide variety of projects throughout California and the western United States for a multitude of public and private clients.

APEX Civil Engineering Consulting Group (APEX)

(APEX), a sole proprietorship, has been providing Civil Engineering Design Services and Construction Inspection services to a variety of clients throughout Northern California for over 19 years. APEX is a DBE with a professional staff that includes Civil Engineers and CADD Technicians, Inspectors, and other support personnel. Their experience is extensive in land development, highway bridge design and local road improvements, highway design, urban arterial streets and highway rehabilitations, drainage and hydrology projects for municipal, local and state government. APEX also has extensive experience in construction management, inspection, quality assurance/control, labor compliance, safety oversight, project management and document control services to comply with budget, schedule, payment, acceptance and closeout requirements for a wide range of federally funded projects.



Committed to You

GHD is dedicated to assisting the clients and municipalities in northern California in providing safe, accessible, and environmentally responsible public facilities to their served communities. We care for the well-being of our people, assist communities in need, and conduct business in an ethical and environmentally sound manner.

Several of our own staff enjoy close ties to the City of Fortuna—some are residents, some are active parts of local business groups. GHD's Eureka office is located just 20 minutes from the City of Fortuna and the project site, and just minutes from Caltrans District 1 Headquarters. Project Manager Josh Wolf, having served the City of Fortuna for over a decade, knows intuitively the project needs and requirements of the City and of Caltrans, and is committed to serving the City and to seeing the project through to completion.

Repeat Business

We are proud of our long tradition of repeat, local agency clients. A full 90% of those we serve are municipal agencies or government entities; 75% of our work comes from repeat clients. We believe this illustrates not only our broad knowledge of specialized engineering disciplines, but our willingness to accommodate and specifically respond to individual client needs. Our project references will speak to our ability to foster long-term relationships with our clients.

Only Caltrans has designed and constructed more roundabouts on the state highway system than GHD. Our firm experience on roundabouts is unmatched!



1 South Auburn Street/I-80 Roundabout, City of Colfax, 2020

2 Stockrest Springs Road Roundabout, Town of Truckee, 2020

3 La Quinta Village Complete Streets, a Road Diet-Calle Tampico at Avenida Bermudas, City of La Quinta, 2021

4 La Quinta Village Complete Streets, a Road Diet-Calle Tampico at Desert Club, City of La Quinta, 2021

5 La Quinta Village Complete Streets, a Road Diet Project-Sinaloa/Avenida 52 at Avenida Bermudas, City of La Quinta, 2021

6 La Quinta Village Complete Streets, a Road Diet Project-Calle Tampico at Eisenhower Drive, City of La Quinta, 2021

7 La Quinta Village Complete Streets, a Road Diet Project-Eisenhower Drive at Avenida Montezuma, City of La Quinta, 2021

8 SR 29 Northbound Ramps at First Street Roundabout, City of Napa, 2020

9 First Street at California Boulevard Roundabout, City of Napa, 2020

10 Second Street at California Boulevard Roundabout, City of Napa, 2020

11 17 Mile Drive/Holman Highway 68/Highway 1, City of Monterey, 2017

12 5-Way Roundabout/Healdsburg Avenue Improvements, City of Healdsburg, 2019

3

Project Understanding, Approach & Scope of Work



→ The Power of Commitment

3. Project Understanding, Approach & Scope of Work

Project Understanding

We understand that the City of Fortuna seeks professional engineering and environmental services associated with the Project Approvals and Environmental Documentation (PA&ED) phase of project development for the 12th Street and Highway 101 Interchange project. We also understand that the City may be interested in retaining the same consultant team for the subsequent PS&E, ROW, and Construction Engineering (CE) phases of work.

The City of Fortuna is bisected by US 101, which parallels the Eel River, and separates the Eel River and the Riverwalk Area from the majority of the City. The existing intersection controls, roadway geometry, and the high volumes of local and regional traffic on 12th Street resulting in poor traffic operations at and near the interchange. Proposed project components include a 5-leg roundabout on 12th Street at the northbound US 101 ramps, modifications to the northbound US 101 on- and off-ramps, the realignment of Newburg Road, and widening the highway overcrossing bridge or a new standalone structure to accommodate non-motorized facilities.

Purpose and Need – 12th Street Modernization

Purpose	Need
» Simplify and improve navigation and traffic operations on 12th Street between Newburg Road and Riverwalk Drive, including the 12th Street/US 101 interchange; » Improve operations, reduce congestion, minimize conflicts, and improve safety at the 12th Street intersections; » Improve the local and regional bicycle and pedestrian facilities through the 12th Street/US 101 interchange area; and » Create a Gateway into central Fortuna that incorporates landscaping and wayfinding.	» Existing and future poor Level of Service (LOS) at the 12th Street intersections during peak hours as a result of closely spaced, stop-controlled intersections; » No existing bicycle or pedestrian facilities resulting in a barrier to bicycle and pedestrian circulation and connectivity; and » Intersections lack directional legibility, making it difficult for visitors to access the City's existing amenities.

GHD understands improvements to 12th Street at the US 101 interchange have been a priority project since the City completed a planning study in 2016 and a subsequent PSR-PDS in 2021. The planning study was conducted to identify ways to improve access to the Riverwalk area and improve safety for all users (motorized and non-motorized), improve operations, apply complete streets concepts, create an entry statement/gateway, and ready the project for next steps in project development.

Our approach for this project is to build upon past efforts and work with the City and Caltrans to develop a project to transform the interchange into one that supports all modes of travel, including pedestrians and cyclists. The proposed alternative will minimize impacts to the adjacent properties, existing structures, and sensitive environmental areas – all while improving overall transportation operations in and around the interchange.

GHD will approach the project comprehensively, developing environmental and technical studies, preliminary designs, and environmental documentation, and obtaining Caltrans approvals necessary to compete the PA&ED phase of work in accordance with Chapter 23 (Local Agency STIP Projects) of the Caltrans policies. The project's initial scope of work will consist of preparing preliminary environmental studies, engineering studies, preliminary design, CEQA documentation, and assisting Caltrans with NEPA clearances. Potential subsequent work includes final design, right of way clearances, and construction support (GHD Construction Management Teams are available, if requested).

Approach

Navigating Caltrans Requirements

We believe that successful and effective Caltrans coordination and project delivery is accomplished through communication and relationship, and by providing exceptional designs, plans, and documents that will expedite the review process. This process begins with your Management Team of Josh Wolf (Project Manager), Kamesh Vedula (Project Director), and Ronald Boyle (Quality Control). Josh has delivered multiple projects in Humboldt County along the state highway system over the past 16 years. Kamesh is a leading roundabout and ICE expert in California, and Ronald has been delivering interchange projects on the state system for nearly 25 years with roundabouts as a focus for the past 15 years.

The importance of the GHD team cannot be overstated since the ability to navigate the Caltrans project planning and design process is complex and time consuming, even more so for roundabout project development. This process has become a widely recognized specialty of GHD. The GHD team will provide you with the highest quality project management, which will focus on delivering your project as outlined in our Scope of Work, while maintaining the project schedule, and doing so within budget.

GHD also has extensive experience completing NEPA special studies (e.g., PES, NES, ASR, HPSR, HRER, BA, VIA, ISA, Location Hydraulic Study, Summary Floodplain Encroachment Report, etc.) and NEPA/CEQA documentation, obtaining environmental permits, preparing construction documentation, obtaining permanent or temporary right of way, coordinating utility relocations, and providing bidding assistance, construction oversight, close-out, and audit support.



- 1 US 101 Overcrossing:** The existing overcrossing is height restricted and does not meet current seismic standards, therefore a separate bridge crossing for non-motorized users will likely be more cost effective than widening the existing bridge
- 2 Mill Site:** Planned development, site access, and appropriate design vehicles will need to be considered with the realignment of Newburg Road, and the proposed roundabout
- 3 Dinsmore Dr./Riverwalk Dr.:** The proposed shared use path will need to terminate at a logical location while also providing connectivity to both Dinsmore Drive and Riverwalk Drive; a crosswalk on Dinsmore Drive should also be considered

- 4 Clendenen's Cider Works:** The design will need to ensure access to the property is maintained or enhanced
- 5 NCRA corridor:** With the transformation of the railroad corridor to the Great Redwood Trail, the design will need to include connections to and from the future trail
- 6 Newburg Road:** With the realignment of Newburg Road, access to residences and businesses will need to be maintained
- 7 Sequoia Gas:** Property acquisition will likely be required to accommodate the realignment of Newburg Road

Figure 1 Key project considerations

Additionally, having supported the City of Fortuna with development of the planning study and PSR-PDS, we are deeply familiar with the project site, constraints, needs, and challenges (please refer to **Figure 1** for some key project considerations). Through this experience, we have established a strong working relationship with the City that will only continue to serve as a catalyst for successful communication and collaboration moving forward.

Schedule Compliance

To facilitate the schedule, we propose to accomplish this project within four (4) phases:

- » First, refine roundabout concepts for review by the City and other stakeholders and meet with Caltrans to secure their cooperation and buy-in
- » Second, prepare and submit the TOAR/ ICE for review and approval by Caltrans
- » Third, prepare Geometric Review Drawings (GRD), and define the environmental study limits for review by the City and Caltrans
- » Fourth, prepare all of the required technical studies and reports. These studies and reports will be individually reviewed and finalized throughout the delivery process

Underpinning this approach will be multi-tasking the longer-lead time items to ensure the multitude of incremental work products come together. This methodical approach will limit delays as the project progresses, and shows your schedule is achievable by the GHD team.

Technical Approach

The following sections outline our Technical Approach to some key aspects of the project:

Roundabout Design Process

Designing a roundabout is different than designing a signalized intersection. Unlike a traffic signal where capacity

is primarily determined by the number of lanes and cycle length, a roundabout's capacity and functionality are determined by many factors ranging from lane widths, locations of curbs, striping and signing, sight distances, view angles, inscribed diameter, entry deflection, entry angles, lighting and even the landscaping. These are all important factors in creating an environment in which the driver, pedestrian and bicyclist cooperate to safely and efficiently move through the intersection. While there are ways to quantify most of these parameters, it takes a skilled designer to optimize the design by blending each of these parameters within the context of the project and goals of the community.

Roundabouts therefore require designing based upon principals as opposed to simply applying standards. The interrelationship of geometrics and other physical features to the capacity and safety of the intersection is a specialty within GHD in which we interweave analysis and design skills. The traditional separation between traffic operations analysis, geometric design, and civil detailing is no longer valid as the designer must understand the interconnections, trade-offs, and opportunities inherent with roundabout design.

For projects on the state highway system, roundabout design generally follows a three (3) step process as outlined below:

- 1. Preliminary roundabout assessment performed during the PSR stage.** In the PSR stage, roundabout analysis and concepts are developed to understand if a roundabout is a feasible solution for the current location. Once the analysis confirms that is the case, a preliminary roundabout concept is developed that identifies the preliminary geometry with respect to lanes and an approximate footprint.

In early 2016, working with the City of Fortuna, GHD assisted in the preparation of a preliminary study that evaluated roundabouts amongst other alternatives for these intersections (the results of this study were the basis of the 2021 PSR-PDS that was developed for the

project). The primary goal the initial study was to identify potential improvements to alleviate the congestion and enhance the safety for all road users present and generations to come, while eliminating the need for the costly overcrossing bridge replacement. The initial study concluded that a roundabout was the most cost-effective alternative for this location.

2. **Roundabout Operations and Geometric Design Refinement performed during the PA&ED stage.** The optimization of the roundabout is done during the PA&ED stage of the Caltrans approval process. During this stage, the initial concept developed in Step 1 is further refined to optimize “fast paths” and provide a “safer” and high functioning roundabout. Under this stage, the horizontal geometry is defined, and the roundabout footprint is cleared through the environmental process. In essence, the roundabout will be designed to:

- » Match capacity to traffic demand
- » Operations and safety/driver acceptance derived from geometric optimization
- » Improve Pedestrian/Bike Safety and Connectivity
- » Ensure that the on-ramps and off-ramps are designed to Caltrans Highway Design Manual (HDM) requirements

Since the issue of the RFP by the City, GHD began the optimization process. In **Figure 2** on the next page, you will find an image presenting the partially optimized concept.

3. **Further refinement through the plan preparation stage (PS&E).** During this stage, refinements with respect to vertical geometric elements are performed and construction plan sheet sets are prepared. Signing and way finding is a critical step that is undertaken during this stage.

The ability for travelers to make safe decisions and maneuvers is all a function of spatial separation and proper driver notification (curbs, landscaping, hardscapes, signage, and pavement markings). Proper signing, when considered as part of the geometrics, can also improve the operation of the system by improving lane-balance (vehicle distribution by lane). We understand the importance of this aspect of the design.

Bridge Overcrossing Alternatives

Accommodating non-motorized users’ connectivity across the overcrossing is one of the most challenging, and critical aspects of the project. To tackle this challenge, GHD has partnered with Biggs Cardosa. During the PA&ED phase, three potential alternative structure concepts that could be considered:

1. **Replace the existing 12th Street overcrossing with a wider structure.** Since the existing bridge is owned by Caltrans, replacement of the structure would not qualify for Highway Bridge Program funding. As a result, we do not propose to consider this alternative.
2. **Widen the existing overcrossing.** Bridge widening typically consists of installing new foundations and bridge columns, extending the existing abutments, and bent caps and new precast concrete girders and cast-in-place concrete deck. The profile and alignment of the new Class I lane would then conform with the existing roadway, minimizing the footprint of the project and the need for retaining walls and grading at the approaches.

The existing bridge vertical clearance does not meet the standard requirement of 16’-6”. With some similar

The 12th Street roundabout will be designed to:

- » Operate safely for all modes of travel
- » Provide required transportation capacity
- » Provide an aesthetic community gateway
- » Minimize negative environmental impacts and enhance the environment, where feasible
- » Meet transportation safety and flow demands during construction
- » Provide clear, easily understood messaging for travelers

bridge widenings, Caltrans has required that the widened portion meets vertical clearance standards, resulting in the deck of the widened portion being separate and higher than the existing deck. Early in the project we will meet with Caltrans to confirm if they will require correction of this existing deficiency as this could significantly increase the cost and scope of this project alternative, potentially making it not feasible.

If this project alternative is confirmed to be feasible, we will develop the bridge layout and geometry and a structure cost estimate for evaluation.

3. **Provide a new separate pedestrian structure.** On similar projects, a separate pedestrian bridge has been found to be the preferred alternative that minimizes the project scope and provides the most flexibility to accommodate project goals. A separate pedestrian bridge would be designed to meet all current design standards and can incorporate proposed future projects, including locating bents and abutments to accommodate future interchange improvements and highway widening and offsetting the new bridge from the existing to accommodate future replacement of the 12th Street Overcrossing.

In order to provide the required pedestrian bridge’s 18’-6” vertical clearance and the structure depth of the new bridge, the profile of a new bridge would likely be between 1’ and 6’ above the existing roadway profile. The higher profile may result in higher and wider embankments and additional retaining walls, potentially increasing the overall project footprint and cost. The

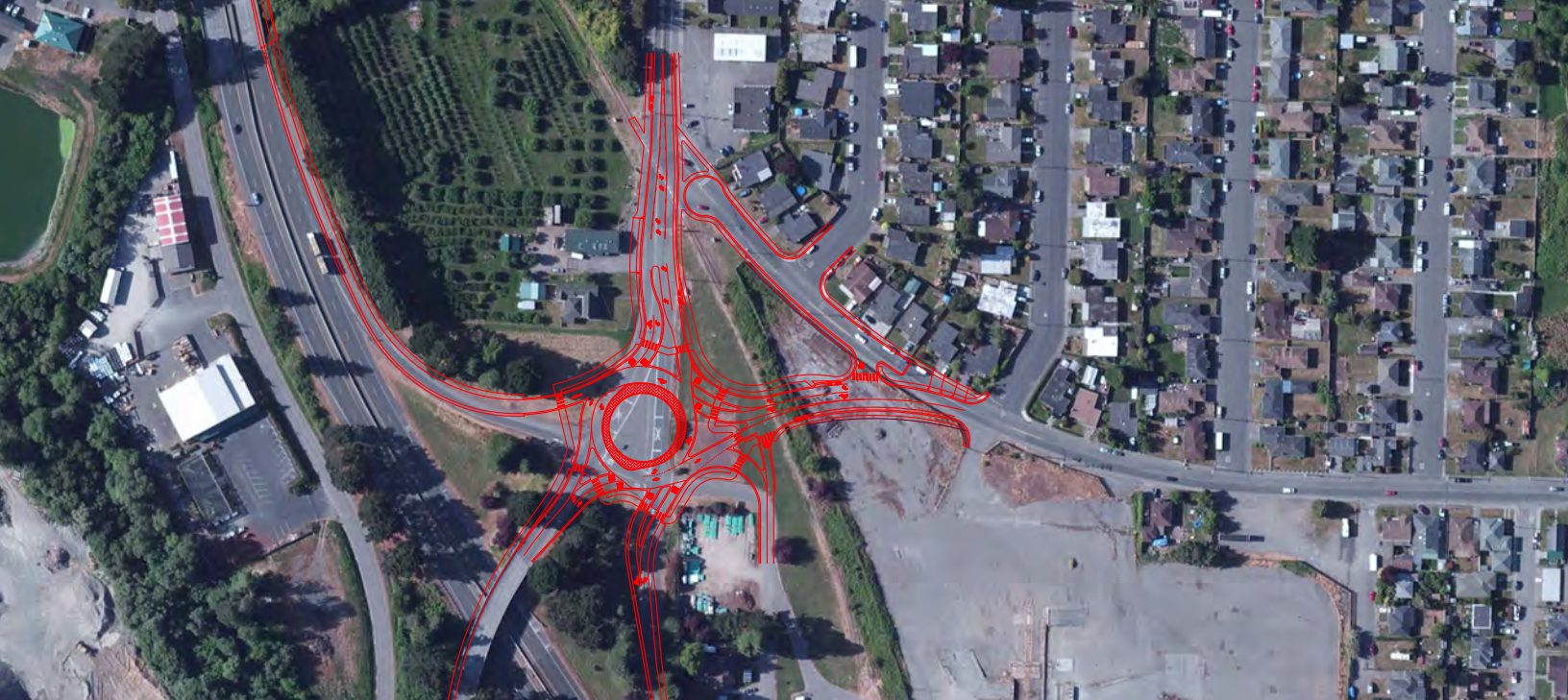


Figure 2 Partially optimized geometrics

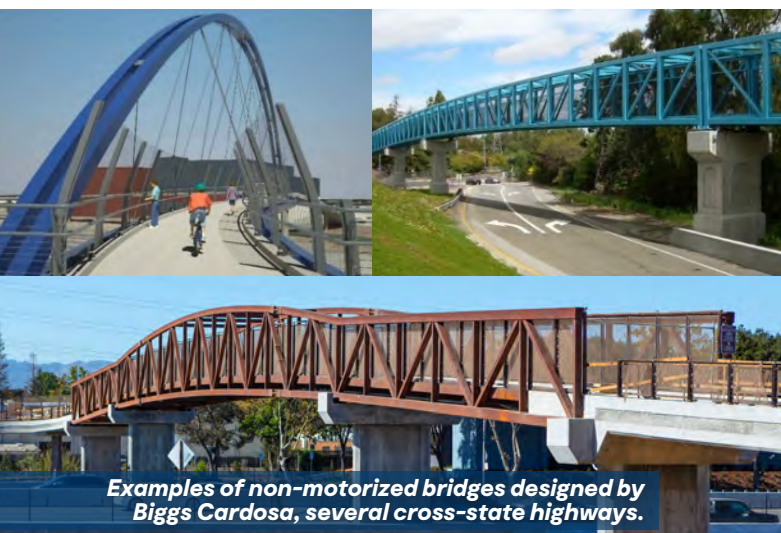
increase in profile can be minimized by reducing span lengths, particularly with a new bent if there is adequate space in the median and by utilizing a steel truss or tied arch bridge, where much of the structure depth is above the profile. A concrete bridge, which requires a deeper structure, would result in a higher profile, although would likely have a lower structure cost.

Biggs Cardosa will develop the overall geometry, configuration, and conceptual structure cost for a number of bridge structure types.

A new bridge has an advantage in that it provides a relatively easy and low-cost opportunity for aesthetic enhancements. There is a range of enhancements that can be provided, from simple concrete surface treatments and more elegant railing types to a more distinctive signature structures that highlight the structure. Early identification and incorporation of aesthetic enhancements can streamline the design and approval process. Biggs Cardosa's in-house bridge architect is available to provide support to the project at any stage.

Bridge Considerations

- » **Constructability** – To be feasible, it must be practical to build the bridge over an active highway with minimal impact on general traffic, emergency-response operations, and highway maintenance.
- » **Maintenance** – The longevity of bridges depends on maintenance. Practical, affordable structures depend on structural types and materials that minimize the need for maintenance, while providing easy access for maintenance that still may be needed. These are critical objectives when your bridge sits above a busy highway!
- » **Affordability** – Capital costs are always critical in a world of competing attentions and constrained resources. Our approach is that good design, both aesthetically and functionally, is always affordable in the right hands, and a wise investment that always pays off in the long term.



Examples of non-motorized bridges designed by Biggs Cardosa, several cross-state highways.

Right of Way Approach

The GHD team understands the importance of preparing a credible right of way cost and schedule projections as part of the decision-making process on all capital improvement projects, especially those with Caltrans oversight. Arriving at a realistic and reliable cost estimate is critical to ensuring that the project will have adequate project funding in place as it advances in project development. To complete this task, GHD has teamed with Monument (DBE), who will work with the design team and prepare the right of way cost estimates and data sheets for the Project, in accordance with Caltrans requirements. As recommended by FHWA, Monument is a California Real Estate Broker to oversee and review the preparation of the cost estimates.

Another critical part of the right of way process is to accurately identify the acquisition limits. GHD has extensive experience making sure the right of way needs are properly identified to meet Caltrans standards, accommodate utilities and provide for storm water facilities.

Environmental Approach

To support necessary environmental clearance and future permitting, the environmental approach will first consider the 2016 Environmental Constraints Analysis for the Fortuna Highway 101/Riverwalk Area Connectivity Project, previously completed by GHD. The environmental approach has been designed to support successful development and approval of a CEQA Initial Study/Proposed Mitigated Negative Declaration (ISM/Proposed MND), with the City as the lead CEQA agency, and a NEPA Categorical Exclusion (CE), with Caltrans as the lead federal agency.

As an initial step, GHD will complete a Preliminary Environmental Study (PES) to identify areas of potential environmental concern. Supporting technical studies included in the scope of work are based on anticipated likely outcomes of PES review by Caltrans, which will outline NEPA environmental review requirements for the project.

Information reported in the environmental constraints analysis and compiled in the PES, including a brief project description, will then be used as a basis for guiding field investigations, including formal wetland delineations, and sensitive natural communities, including special-status plant species.

The project is not expected to affect Strongs Creek or the Strongs Creek riparian corridor west of Dinsmore Drive. Similarly, GHD assumes Rohner Creek will also be excluded from the project footprint. Thus, a Biological Assessment and consultation under Section 7 of the Endangered Species Act will not be required.

Results from wetland and botanical investigations will be incorporated in the Natural Environment Study (NES) and used as the technical basis of biological impact analysis for the CEQA IS/Proposed MND.

A Minor Visual Impact Assessment will be completed to evaluate potential visual impacts resulting from project implementation. An Initial Site Assessment (ISA) will also be completed to evaluate site history and potential related environmental hazards. Results from both documents will be used as a technical basis of CEQA analysis in the IS/Proposed MND. While the Eel River is designated Wild and Scenic, it is visually separated from the project area, therefore an extensive analysis regarding impacts to the Wild and Scenic Eel River should not be required.

The City of Fortuna General Plan 2030 requires formal noise studies to ensure compatibility with the City's Construction Noise Standards for new subdivisions, PUD's, and other large developments. GHD assumes the proposed project is not considered to be a large development project; thus a noise study is not proposed. However, the environmental approach assumes the City will conduct early outreach to adjacent properties, including Clendenen's Cider Works and residences on Newburg Road, to discuss the project with GHD's technical support. Based on GHD's previous correspondence, the Clendenen's understand the need for the project and are supportive of the project and the City's efforts.

Early public outreach to Clendenen's Cider Works, Sequoia Gas, other nearby residents and businesses will be critical to gaining project support and educating the public on anticipated construction impacts and post-construction operational changes, including noise. Early engagement with the community will also benefit the public comment period during circulation of the CEQA IS/Proposed MND.

Cultural resource investigations will be conducted to meet federal standards (Archaeology Survey Report (ASR) and Historic Property Survey Report (HPSR)) and will also be used as a technical basis for CEQA impact analysis as well as federal National Historic Preservation Act (NHPA) Section 106 compliance, with Caltrans serving as the lead federal agency. A review of the vicinity indicates the presence of several cultural and archaeological resources. The historic Clendenon Cider Works and orchard is located at the northwestern edge of the project area. Overall, there is the indication of a moderate sensitivity for pre-contact and historical era resources in the project area. These archaeological and historical resources will be evaluated through the project's ASR and HPSR.

The outcome of this environmental approach will result in final approved CEQA and NEPA environmental documents. Technical information reported in special studies and supporting investigations can also be used by the City to support requirements for environmental permitting, to occur in a future phase of the project.

Technological Approach

From prior engagements with Caltrans, GHD understands that each district, project manager, and project can be held to varying degrees of Caltrans' digital and technological requirements. Managing project data from inception to as-built documentation is critical for the submittal and review process. GHD's highly organized data management structure and technically proficient document controllers will be able to track and control each document, figure, exhibit, report, calculation, and model, ensuring the most pertinent and accurate data is readily available at the project's staff's fingertips. This data structure will allow the project to seamlessly transition from the PA&ED phase to the eventual PS&E phase.

GHD will set up a collaborative environment for all members on the project, regardless of which firm they originated from, to allow the team to function as one cohesive unit. This collaborative environment will reduce the coordination time between firms, ensure every firm is working with the same up-to-date data, and provide an overall smoother delivery and review process.

Working with Caltrans requires expertise in both Autodesk's AutoCAD Civil 3D for the 3D design and Bentley's Microstation for the plan sheet generation. Our team is well

versed in both platforms and have successfully delivered projects to Caltrans using both software suites. Autodesk and Bentley software, due to being direct competitors, have inherent incompatibilities that need to be considered during the design process. GHD has advanced techniques to mitigate this incompatibility while effectively delivering the project in the Caltrans' desired format.

Scope of Work

The following Scope of Services outlines Tasks necessary to complete the PA&ED phase of the 12th Street Interchange Modernization Project. Our Scope of Services has been developed based upon the Request for Proposal (RFP), visits to the project site, our expertise in roundabout design, and our experience on similar projects. If requested, GHD can also provide a scope for the PS&E, ROW, and CON phases of the project.

Task 1 - Project Management, Meetings, and Coordination

Task 1.1: Project Management

GHD will serve as overall Project Manager during the entire duration of the PA&ED Phase. The general project management responsibilities include:

- » Develop Project Team and direct the team's activities
- » Prepare the Project Scope and ensure adherence to its requirements
- » Prepare and keep master Project Schedule, updating as necessary
- » Coordinate project status meetings
- » Manage subconsultants
- » Effectively manage budget
- » Implement Quality Assurance and Quality Control Measures

Task 1.2: Project Development Team (PDT)

Meetings GHD will provide meeting coordination and oversight. At the outset of this project, an initiation meeting will be scheduled to establish the project team; review the scope of work and the project schedule; and establish lines of communications. GHD has budgeted for up to 23 meetings (in person or video conference). GHD will prepare agendas and meeting minutes highlighting decisions made and action items.

Task 1.3: Project Documentation

GHD will maintain files and documentation in accordance with Caltrans policies. Documentation will include general correspondence, progress reports, meeting records, technical investigations and reports. The files will be readily available for inspection by the City or Caltrans.

Task 1.4: Agency Coordination

GHD will coordinate with the City and Caltrans toward delivery of the PA&ED. The coordination will include emails, phone calls, and regular teleconferences.

Task 1 Products/Deliverables

↳ Meeting agendas, minutes, and documentation.

Task 2 - Public Involvement/Community Outreach Process

Task 2.1: Public Workshop/Meeting (1)

GHD will participate in one (1) public workshop meeting with the general public, specific stakeholders, and/or property owners adjacent to the project area identified by the City. This meeting can occur at any point during the PA&ED phase of work.

The stakeholder/public meeting will consist of a two-hour meeting in the evening on a weeknight. The meeting space may include large maps, diagrams, schematics, photographs, and other visual aids. GHD's project manager and lead designer will attend the meeting and be available to describe the project to attendees or answer questions.

We assume that the City will be responsible for identifying and notifying specific stakeholders or the general public about the meetings and will provide a meeting venue. GHD will assist the City with the preparation of notification flyers to be distributed by the City.

Task 2 Products/Deliverables

↳ Public meeting notifications/flyers.

Task 3 - Survey and Mapping

GHD will perform the surveys and base mapping to support the environmental documentation and preliminary engineering for the project. Surveying and mapping will include establishment of vertical and horizontal control, aerial photography, conventional topographic surveys, and boundary surveying.

Mapping product will be a digital base map with surface, boundary lines, and include a supplemental digital rectified orthophotograph, all tied to the project datums. Project control and mapping will meet the Caltrans Orders of Survey Accuracy at a mapping scale of 1" = 50' and a one-foot contour interval. All work under this phase will be performed under the direction of a California Licensed Land Surveyor.

Task 3.1: Project Survey Datum & Control

A survey control base for the project will be determined. The horizontal control survey will be based on the North American Datum of 1983 using the California Coordinate System of 1983 (CCS83). The Vertical Datum will be the North American Vertical Datum of 1988 (NAVD88). The project datums will be established by utilizing Caltrans control monumentation. A Project Control diagram will be prepared and provided upon completion of the project control phase.

Task 3.2: Aerial Photography

Aerial control will be established using Global Positioning System (GPS) methods. Additional ground verification survey data points will be acquired using Total Station or GPS equipment on hardscape and in vegetated areas as needed to model the ground. Aerial photogrammetry and mapping of the project will be obtained from AeroTech (DBE), subcontractor to GHD. The results being a survey grade mapping product and a scalable digital orthophoto of the project, georeferenced to the project datum.

Task 3.3: Supplemental Field Surveys

Aerial mapping data will be supplemented with ground based topographic surveys at the hardscape conforms and at critical structures. This survey will include the following:

- » Supplemental survey of walks, curbs, pavement and ramps
- » Surface evidence of storm drain system (ditches, culverts, catch basins, drop inlets with flow line elevations) and other utilities. Invert elevations will be determined at all accessible storm drain structures.

Task 3.4: Land Net Boundary Base

Record data will be compiled to create a land net base map of the project. Boundary control monuments will be located and positioned sufficient to provide a resolution of all rights of way and adjoining parcels. The boundary survey will be referenced to recorded boundary maps and documents and mapped on the project's horizontal datum. Boundary corner monuments will not be set, but a record of survey will be filed to memorialize the found monuments as required by state law.

Task 3.5: Research and Data Collection

In addition to the above surveying Tasks, GHD will request utility mapping, as built plans, Geographic Information Systems (GIS) data, and right of way monumentation and up to six (6) preliminary title reports.

Task 3.6: Aerial Mapping Integration, AutoCAD File Setup, and DTM

Terrestrial surveys will be combined with the aerial mapping and data collection to form a complete mapping product. Computer files will be prepared to include field control points, topographic surveys, utility data, property surveys, and preparation of the Digital Terrain Model (DTM) used for three-dimensional calculations, (i.e., earthwork, cross sections, and profiles).

Task 3 Products/Deliverables

- ↳ *AutoCAD Civil 3D file of the survey control base, topographic mapping, supplemental field surveys, boundary survey, and surface.*

Task 4 - Engineering Studies & Preliminary Design

Task 4.1: Traffic Forecasts

For this task, GHD will utilize available traffic data provided by the City and prepare a baseline and design year operations analysis for the intersection alternatives. GHD anticipates utilizing the 2016 traffic volumes collected for the US 101-Riverwalk Area Connectivity Project as a starting point and adjusting using an agreed growth rate (e.g., Fortuna General Plan Growth Rate) to reflect baseline conditions (e.g. 2030) and the 20-year design year (e.g. 2050).

Task 4.1 Products/Deliverables

- ↳ *Draft and Final Traffic Forecasts.*

Task 4.2: Traffic Operations Analysis Report and Intersection Control Evaluation (ICE)

GHD will build upon the traffic analysis contained in the 2016 Planning Study and produce updated design year forecasts and Traffic Operations Analysis Report (TOAR) for the US 101/Kenmar interchange. An ICE Step 2 will be prepared

and included in the body and appendices of the TOAR.

A draft forecasting memorandum will be provided to the City and Caltrans for review and comment. Upon receipt of the comments, a final forecasting memorandum will be submitted. The TOAR and ICE will consider one (1) build alternative and will include supporting capacity calculations, modeling and appendices. A draft TOAR will be prepared and submitted to the City and Caltrans for review and comment. Upon receipt of the comments, a final TOAR/ ICE will be submitted. The information contained in the TOAR/ICE will be summarized in the body of the PR.

Task 4.2: Products/Deliverables

- ↳ *Draft and Final Traffic Operations and Analysis Report and Intersection Control Evaluation for one (1) build alternative.*

Task 4.3: Geometric Review Drawings (GRD)

GHD will evaluate and prepare the following exhibits for the roundabout geometrics in order to document design in accordance to the National Cooperative Highway Research Program Report 672: Roundabouts: An Information Guide (NCHRP Report 672):

- » Fast Path Analysis
- » Intersection Site Distance
- » Vehicle and Pedestrian Stopping Site Distance
- » View Angles
- » Bus/Truck Turns

In addition, GHD will prepare a Design Basis Memorandum for the roundabout to document which design standards were used and summarize the findings shown on the Design Check Exhibits. This will aid in discussions with stakeholders and will serve the City in documenting the basis of the overall intersection design.

Following City and Caltrans concurrence of the roundabout geometrics, GHD will prepare preliminary engineering designs (~30% Design) for one (1) build alternative. The plans will be prepared in general conformance with the Caltrans Plans Preparation Manual and the Project Development Procedures Manual (PDPM). The plans, design calculations, design checks, design exhibits, and preliminary details will be to the level required for a Project Report (PR). All designs will be prepared with the intention of forming the foundation for the future design and construction phases.

The 30% Design is anticipated to include (note that this list is only a portion of the plans that will be required for future phases of work):

- » Title Sheet
- » Key Map and Line Index
- » Typical Cross Sections
- » Layouts
- » Profile and Superelevations
- » Drainage Plans
- » Pavement Delineation Plans

The 30% plans will be submitted to the City and Caltrans for review. The scope assumes up to two (2) draft submittals before approval by Caltrans. The plans prepared under this Task will be used to support other Tasks, environmental studies, and cost estimates. The typical cross sections and layouts will be included in the PR Appendix.

Task 4.3 Products/Deliverables

- ↳ *Design Check Figures and Design Basis Memo, and 30% Plans.*

Task 4.4: Preliminary Drainage Study

APEX Civil Engineering (APEX) will prepare a preliminary drainage study that will include pre- and post- project watershed mapping, runoff calculations, and locations of inlets, piping, and other drainage facilities.

The preliminary study will be submitted to the City and Caltrans for review and comment. Upon receipt of comments, a final preliminary report will be prepared and submitted. The results of the drainage report will be used to support other design Tasks, environmental studies and cost estimates.

Task 4.4 Products/Deliverables

➡ *Draft and Final Preliminary Drainage Study.*

Task 4.5: Location Hydraulic Study & Summary Floodplain Encroachment Report

A portion of the project is located within the 100- and 500-year floodplain and was last mapped in 2016 and was amended in 2017 and 2019 (Map number 06023C1209F, **Figure 3**). APEX will prepare a Location Hydraulic Study and a Summary Floodplain Encroachment Report for the project in accordance with the Caltrans Standard Environmental Reference (SER). APEX will submit the draft study and report from this Task to the City and Caltrans for review and comment. Upon receipt of comments, APEX will prepare the final study and report. The results of the Location Hydraulic Study and Summary Floodplain Encroachment Report will be used to support other design Tasks, environmental studies, and cost estimates.

Task 4.5 Products/Deliverables

➡ *Draft and Final Location Hydraulic Study and Summary Floodplain Encroachment Report.*

Task 4.6: Storm Water Data Report

APEX will prepare a Storm Water Data Report (SWDR) in accordance with Caltrans guidance. APEX will identify drainage management areas, construction Storm Water Pollution Prevention Plan (SWPPP) requirements and post-construction Best Management Practices (BMP) and features, sizes for water quality elements and the preliminary storm water quality management plan. The draft SWDR will be submitted to the City and Caltrans for review and comment. Upon receipt of comments, APEX will prepare a Final SWDR for approval by Caltrans. The SWDR will be summarized in the body of the PR and the signature page will be included in the PR Appendix.

Task 4.6 Products/Deliverables

➡ *Draft and Final Storm Water Data Report for one (1) build alternative.*

Task 4.7: Preliminary Transportation Management Plan

GHD will prepare the request and supporting documentation for Caltrans to prepare the preliminary Transportation Management Plan (TMP). The information will include working days, costs, staging, detours, and preliminary plans. The Caltrans prepared TMP will be summarized in the body of the PR and included in the PR Appendix.

Task 4.7 Products/Deliverables

➡ *TMP Request and Supporting Documentation.*

Task 4.8: Preliminary Geotechnical Analysis

Bajada Geosciences will provide geotechnical engineering support relative to preliminary structures (bridge widening or stand-alone bridge) design for the project. The intent of the geotechnical assessment will be to provide a Preliminary Foundation Report to support the Structures Advanced Planning Study (APS). The report is intended to provide the design team with basic geotechnical information relative to the proposed structure foundation (but not design-level data, which will be generated during the PS&E phase). This preliminary phase is to be completed using existing information (Caltrans as-builts and log of test borings, for example), to the extent feasible.

Services provided by Bajada will conform to the Caltrans Geotechnical Manual – Foundation Reports for Bridges (2021) standard of practice for the Structure Preliminary Geotechnical Report (SPGR). In accordance with the SPGR standards, no subsurface exploration is proposed for this preliminary study.

This task will compile relevant existing, available geotechnical information for the project. That information will include:

- » Existing Logs of Test Borings (LOTB) and other As-built data for the existing 12th Street/Highway 101 and 12th Street/Strong's Creek bridges
- » LOTBs and As-built data for other relevant nearby structures
- » Local and regional geologic maps and reports
- » Fault & seismic hazards maps
- » Historical aerial photographs
- » Bridge inspection records for the 12th Street overcrossing

Bajada will visit the project site to observe site topography, surface water and drainage conditions, cuts and fills, and current land use and improvements that may affect the design of the proposed project such as existing structures, facilities, and utilities.

Using the above information, we will evaluate the following:

- » Site surface conditions
- » Geologic conditions
- » Estimated depths to groundwater
- » Seismic sources



Figure 3 FEMA FIRM for Project Area

- » Seismic hazards, including fault rupture, liquefaction potential, and settlement due to seismic shaking
- » Seismic design criteria including site shear wave velocity (Vs30), maximum bedrock acceleration and causative fault
- » Accelerated response spectra (ARS) using Caltrans ARS Online application
- » Scour, if applicable and if quantitative data are available. If quantitative data are not available then we will provide a geologic-based, observational, qualitative scour estimate
- » LOTBs and other As-built data relevant to the proposed project
- » Corrosion potential, if data are available
- » Types of foundations (shallow, driven pile, and CIDH concrete pile) that are appropriate for the proposed improvements
- » Anticipated scope and types of fieldwork and laboratory testing that may be required to complete further geotechnical investigations necessary for completion of project design

The results of the evaluations will be presented in report that conforms to SPGR standards, as specified by Caltrans.

Task 4.8 Products/Deliverables

➡ *Draft and Final Preliminary Foundation Report.*

Task 4.9: Structures Advance Planning Study

Biggs Cardosa will prepare an Advance Planning Study (APS) for the proposed Class 1 trail overcrossing at US101. The APS will follow the Caltrans guidelines outlined in the Office of Special Funded Projects (OSFP) Information and Procedures Guide, Section 3-2 "Advance Planning Studies" and Caltrans' Memo To Designers (MTD), Section 1-8. Preliminary Geotechnical Recommendations shall be prepared as outlined in MTD 1-35.

After the draft APS has been reviewed and accepted by the City of Fortuna, the APS will be submitted to Caltrans Office of Special Funded Projects and Structures Local Assistance (OSFP/SLA) for review and comment. Comments received from Caltrans will be recorded in a comment matrix and addresses and an update APS will be provided for approval.

The Structures APS is provided intended to achieve the following:

- » Define the scope of structure work for the project
- » Establish the best cost estimate available at that time
- » Provide an early opportunity for the Bridge Design Engineers to assist in project conceptualization
- » Describe and documents the project risks and assumptions used in the early concept of the structure

The APS will include the following elements:

1. General Plan sheet for the 12th Street overcrossing showing the basic structure layout details and cost estimate
2. Preliminary Foundation Report
3. APS Checklist
4. Design Memo that discusses structure types that are viable, and construction risks and challenges
5. Itemized Cost Estimate

The APS will be included in the PR Appendix.

Task 4.9 Products/Deliverables

➡ *Draft and Final Advance Planning Study.*

Task 4.10: Right of Way Data Sheets

Monument will evaluate the potential right-of-way requirements, affected parcels and associated capital costs related to each alignment alternative under consideration for the proposed interchange modernization project. As such, the following Scope of Work itemizes the tasks and deliverables that will be performed by Monument.

- » Take an inventory of the affected properties for each selected option
- » Using public Assessor's Roll information, investigate the ownership, lot size, and building size of each affected property
- » Visually inspect each property (exterior street view) and evaluate effects of proposed acquisition. List all businesses on each property and the approximate space they occupy
- » Sort each property into product types to determine the universe of real estate data sets to research and create valuation data sets for each product type
- » Prepare an estimate of the probable cost of each full property acquisition or the cost of each partial acquisition (plus damages) using the data sets created and utilizing our various real estate value data bases
- » Prepare an estimate of the probable relocation assistance exposure for each residential or non-residential occupant located on each property
- » Prepare an estimate of the immoveable fixtures and equipment associated with each business property
- » Prepare an estimate of the total probable loss of business goodwill attributable to each operating business
- » Prepare an estimate of the inspection and demolition costs associated with delivering each cleared site
- » Prepare an estimate of the total services and incidental costs associated with each real estate acquisition program (appraisals, acquisition and relocation agents, title/escrow, and legal services)
- » Update the Estimate in support of the Final PA&ED
- » Prepare Memorandum to File describing ROW process and next steps
- » Ascertain the estimated cost for potential utility relocations from the design engineer and/or utility coordinator (preparing a cost estimate for utility relocations is excluded from Monument's scope of work)

The scope of work will be performed and delivered in the form of a report containing a description of the project areas studied, a summary of total probable costs of the study area itemized by major component and will include detailed spreadsheets showing how the summary sheets were calculated. The spreadsheets contain a parcel-by-parcel breakdown of all probable costs.

In the event that the acquisition program is to be phased or determined to be implemented at a future date, formalized spreadsheets will be created which apply the appropriate cost escalation factors to reflect the projected schedule.

The final cost information determined from the accumulation of data will then be transferred into the appropriate format for application to the Right of Way Data Sheets, or other format required by the project.

In support of the right of way data sheet, GHD will prepare the utility data sheet based on the impacts that are identified in the utility relocation Task. GHD will submit the draft data sheets to the City and Caltrans for review and comment. Upon receipt of comments, GHD will prepare final data sheets.

The utility and right of way data sheets will be summarized in the body of the PR and will be included in the PR appendix.

Task 4.10 Products/Deliverables

↳ *Draft and Final Utility and Right of Way Data Sheets for one (1) build alternative.*

Task 4.11: Non-Standard Design Features

The geometrics of the existing and proposed facility will be checked for nonstandard features and a list of mandatory and advisory design exceptions will be identified and submitted to the City and Caltrans for review and comment. In support of this Task, GHD will prepare a Design Information Bulletin (DIB) 78 checklist for review and approval by Caltrans. The scope assumes there will be a cumulative total of eight (8) advisory or mandatory design exceptions – all of which are supported by Caltrans. The scope also assumes that the acceleration and deceleration areas of the merging and diverging ramps will not be modified by the project (e.g., ramp extension is beyond the scope of the project). GHD will prepare draft design exceptions for review and comment by the City and Caltrans. Upon receipt of comments, GHD will prepare final design exceptions for approval by Caltrans. The design exceptions will be summarized in the body of the PR.

Task 4.11 Products/Deliverables

↳ *Up to eight (8) approved design exceptions.*

Task 4.12: Landscape Concepts

GHD will prepare two (2) landscape concepts for the roundabouts that show areas where public art can be featured, should that become something the City wishes to pursue in the future. In conjunction with the Structures Advanced Planning Study (Task 4.9), two (2) aesthetic alternatives will be prepared. The draft landscape concepts will be submitted to the City and Caltrans for review and comment. Upon receipt of comments, the concepts will be finalized. The landscape concepts are not intended to establish the final design but rather to capture the landscape opportunities and document the impact on cost, schedule, and scope. The conceptual designs prepared under this Task will be summarized in the body of the PR.

Preliminary landscape design concepts will be included in a single Concept Design Package. This package will include the following:

- » Text and schedules identifying design intent, material section, and preliminary plant lists
- » One (1) Colored illustrative plan exhibit of the landscape design for each concept
- » One (1) Photo montage of proposed plant materials
- » Up to four (4) three-Dimensional (3D) visualizations of the proposed roundabout landscape design for each concept

Task 4.12 Products/Deliverables

↳ *Landscape conceptual designs and costs.*

Task 4.13: Preliminary Utility Coordination

GHD will identify potential utility impacts associated with one (1) build alternative. Conceptual utility relocation and new service plans will be prepared and used as the basis for the Utility Data Sheet that is a subset of the Right of Way Data Sheet.

Task 4.13 Products/Deliverables

↳ *Identification of preliminary utility conflicts.*

Task 4.14: Cost Estimates

GHD will prepare construction cost estimates for one (1) alternative. The scope assumes the draft estimates will be interactively developed through up to three (3) reviews by City and Caltrans staff. The estimate form will be jointly approved by GHD and Caltrans and included in the PR Appendix.

Task 4.14 Products/Deliverables

↳ *Construction Cost Estimates.*

Task 5 - Environmental Mapping and Studies

Task 5.1: Preliminary Environmental Study (PES)

GHD will prepare and submit the Preliminary Environmental Study (PES) form for the City to review in accordance with the Local Assistance Procedures Manual (Exhibit 6-A) for federally funded projects. GHD will respond to City comments on the PES and prepare the final PES for submittal to the City and Caltrans.

The PES form will include the following sections:

- » Initial Project Description: The initial project description will be based on the approved PSR-PDS
- » Preliminary Design Information: Preliminary design information will be used as a starting point for the PES and Area of Potential Effect (APE) map.
- » PES Form: Each of the 36 questions included in this section cover the range of resource topics covered by NEPA. For “No” responses, how the mandate of federal law has been met will be explained in the separate “Notes to Support the Conclusions of the PES Form”. For “Yes” responses, a technical study or technical memorandum may be required. For purposes of this scope, it is assumed that no additional technical studies will be required beyond those scope items identified in this scope of services.
- » Draft APE Map: The draft APE map prepared by GHD will be submitted with the PES form to Caltrans for review/concurrence. The APE map will identify the horizontal and vertical limits of project disturbance, including staging areas, and consideration of potential impacts. The APE will be the basis for the Historic Property Survey Report (HPSR) and Archaeological Survey Report (ASR).

Task 5.1 Products/Deliverables

↳ *Draft and Final PES form and attachments.*

Task 5.2: Wetland Delineation

GHD will delineate wetlands using a three-parameter approach (USACE Wetlands Delineation Manual [USACE 1987], and Regional Supplement to the USACE Wetland Delineation Manual: Western Mountains, Valleys and Coast Region [USACE 2010]). As the project is not located within the coastal zone boundary, 1-parameter coastal wetlands will not need to be delineated or considered.

Utilizing GPS capability on a high accuracy Trimble handheld Global Navigation Satellite System device, the GHD wetlands team will investigate the project area to map wetland boundaries that meet the definition of USACE. The wetlands delineation will focus on areas identified as potential wetlands in the 2016 Environmental Constraints Analysis for the Fortuna Highway 101/Riverwalk Area Connectivity Project.

Vegetation and soil data will be collected at transects across the presumed wetland boundaries with two plots (upland/

wetland) per transect (intermediate plots may be placed without collection of data as appropriate).

Soil pits will be dug to approximately 18 inches. Data on soil color, texture and redoximorphic features will be collected. Data on hydrologic conditions will be collected if observed.

Vegetation data collection will consist of listing the five dominant species at each plot. The species will then be classified as to whether or not they are wetlands indicators, using the most current standard reference for plant wetlands indicators: National Wetland Plant List: Western Mountains, Valleys, and Coast 2012 Final Regional Wetland Plant List (Lichvar 2012). The list classifies plants based on the probability that they would be found in wetlands, ranging from Obligate (almost always in wetlands), Facultative/wet (67% to 99% in wetlands), Facultative (34% to 66% in wetlands), Facultative/up (1% to 33% in wetlands) to Non-indicator (less than 1% in wetlands). Plants not listed are included in the uplands category. If 50% or greater of the dominant plant species at each plot are classified as either Obligate (OBL), Facultative/wet (FACW), or Facultative (FAC), the vegetative mix is determined to be hydrophytic (wetland plants).

A determination of the wetland boundary will be made based on soil, hydrology (if present), and vegetative parameters. Once wetland and upland characteristics are determined for each transect data points will be collected on the wetland boundary. A draft and final wetlands delineation report will be submitted to the City.

Task 5.2 Products/Deliverables

➡ *Draft and Final Wetland Mapping and Report.*

Task 5.3: Botanical and Sensitive Natural Communities Surveys

Botanical and sensitive natural communities' surveys will consist of field work and production of a written report and vegetation map showing the locations of any special status plants or sensitive natural communities within the project footprint. During Year 1 (2022), a seasonally appropriate survey will be made in June to survey for special status plants within the project area. During Year 2 (2023), a second seasonally appropriate (spring) survey will occur. The survey will focus on species and sensitive natural communities identified as most probable to occur in the 2016 Environmental Constraints Analysis although any additional special status species or sensitive communities would also be documented. A botanist will assess habitat types within the designated study area, and then walk the area to determine presence or absence of special status species identified during database searches or potentially present based on location and habitat type.

Additional site visits will be made for mapping and documenting any sensitive natural communities present using the Combined Vegetation Rapid Assessment and Relevé Field Form per the California Department of Fish and Wildlife (CDFW) protocol.

Task 5.3 Products/Deliverables

➡ *Draft and Final Botanical Surveys and Report.*

Task 5.4: Natural Environment Study (NES)

The most recent version of the California Natural Diversity Database (CNDDB) will be reviewed to determine the location of documented federally listed and other special-status plant and wildlife species relative to the project site. Additionally, a species list will be obtained from the US Fish and Wildlife

Service (USFWS) information for Planning and Consultation (IPaC) and the National Marine Fisheries Service (NMFS). Readily available aerial photography of the project area, soils maps, and hydrology data will also be reviewed.

A biologist will visit the project site to identify and characterize the habitat types present on and bordering the project site. Results of Task 5.2 (Wetland Delineation) and Task 5.3 (Botanical and Sensitive Natural Community Survey) will be incorporated into the NES. The potential occurrence of special-status plant and wildlife species will be evaluated based on an analysis of onsite habitats, known home ranges and/or distribution of target species, and other biological characteristics. The habitat types present on and bordering the project site will be noted and any wildlife species observed will be recorded. Field work related to any potential jurisdictional wetlands would be covered in a Task 5.2 and incorporated by reference into the NES with summary level discussion.

Following the site visit, communication with the project team (City, Caltrans, and GHD) will be conducted to discuss findings prior to document preparation and determine whether a NES or NES-MI is the appropriate level of documentation. An NES MI is ordinarily used for projects with minimal required mitigation and "no effect" or "may affect, not likely to adversely affect" determinations for ESA-listed species. The database review above and the field visit will be used to verify the finding.

Based on the outcome of the above an NES-MI or NES will be prepared. The document will be prepared using the most recent Caltrans template. The report will include supporting GIS-based figures and representative photographs of the site.

Up to two (2) rounds of comments from the City and Caltrans will be responded to in order to develop a final NES. All appropriate revisions will be made, and a final version of the document will be submitted to the City for their submittal to Caltrans.

Task 5.4 Products/Deliverables

➡ *Two Review Draft NES and one Final NES.*

Task 5.5: Minor Visual Impact Assessment

GHD will prepare a Minor Visual Impact Assessment. The assessment will focus on potential visual impacts of any above-ground improvements associated with the project to the aesthetic environment, including a review of consistency with applicable City policies from the General Plan 2030.

The assessment will not include a visual simulation of the proposed project. The assessment will also inform the CEQA IS/Proposed MND Appendix G Checklist Section 1, Aesthetics.

This scope assumes that if a Visual Impact Assessment (VIA) or visual simulations are required, that Caltrans would be responsible for preparing them.

Task 5.5 Products/Deliverables

➡ *Draft and Final Minor Visual Impact Assessment.*

Task 5.6: Initial Site Assessment (ISA)

An Initial Site Assessment (ISA) will be performed to assess whether it is likely that any hazardous materials or impacted soil or groundwater will be encountered during the construction of the proposed project. The ISA will be consistent with Chapter 10 of Caltrans SER and follow the most recent American Society of Testing Materials E1527 13

standards with one exception. Full compliance with these standards would be cost prohibitive since meeting the United States Environmental Protection Agency's (USEPA) "all appropriate inquiry" (AAI) rule requires interviewing each property owner, past and present, in addition to tenants and business managers of properties within and adjacent to the proposed study area. These interviews are typically necessary as part of due diligence for property transactions. Since the focus of this ISA is for suitability for project implementation, and not due diligence associated with liability of property acquisition, adherence to the "all appropriate inquiry" rule and associated interviews is not part of the proposed scope of services.

GHD will query the Humboldt County Environmental Health Division, the North Coast Regional Water Quality Control Board (NCRWQCB), and the California Department of Toxic Substances Control (DTSC) for knowledge of previous activities that may have resulted in potential contamination of parcels or rights-of-way located within the study area.

GHD will examine available historical topographic maps and aerial photographs of the parcels and adjacent areas, and obtain an Environmental Data Resources, Inc. (EDR) report, which provides access to over 1,200 federal, state, local, tribal, and proprietary environmental databases. The EDR report complies with the standard environmental record sources search, with a minimum search distance of 200 feet beyond the study area. GHD will then produce a preliminary hazardous materials constraints map template. The map template, data from the County records, and EDR data will be used by the field team to conduct reconnaissance throughout the study area.

A draft ISA report will be submitted for City review. Impacts to construction within the proposed study area will be described and general locations with documented and potential soil and/or groundwater contamination that may impact the project will be discussed. Based on the data available, each of the potentially contaminated sites that could impact the project will be assigned a Hazard Rank. The ISA will inform the CEQA IS/Proposed MND Appendix G Checklist Section 9, Hazards and Hazardous Materials.

Task 5.6 Products/Deliverables

➡ *Draft and Final Initial Site Assessment Report.*

Task 5.7: Historic Property Survey Report/Archaeological Resources Survey (HPSR/ASR)

Roscoe and Associates will prepare the Archaeological Survey Report (ASR) for the project, and JRP Historical Consulting will prepare the Historic Property Survey Report (HPSR) & Historic Resources Evaluation Report (HRER) for the project. The objective of the cultural resources investigation is to identify known or unknown cultural resources located within the project's APE. This will be accomplished by conducting background historic research, correspondence with knowledgeable individuals and tribes, an intensive pedestrian field survey, and preparation of an HPSR and ASR per professional reporting standards.

This project is subject to regulatory compliance with the CEQA and funding from the Federal Highways Administration also qualifies the project as a federal undertaking subject to compliance with Section 106 of the National Historic Preservation Act (NHPA). This cultural resources survey is designed to satisfy these environmental requirements by identifying and recording cultural resources within the project APE and offering a preliminary significance evaluation of the

identified cultural resources. If needed, recommendations will be designed to protect resources integrity.

Pre-field research will include conducting background and archival research at local libraries, historical societies, and any other repositories that might contain information about the project area. A formal records check of the APE with a 1/2 mile radius will be conducted by Roscoe and Associates at the Northwest Information Center (NWIC), the regional office of the California Historical Resources Information System located in Rohnert Park, CA. All relevant documents will be reviewed and information pertinent to the project area will be included in the report. Roscoe and Associates will conduct consultations with the Native American Heritage Commission and local Native American tribes throughout the duration of the investigation.

The field survey will consist of an intensive pedestrian reconnaissance (10 meter transects) of the APE. Where thick ground cover is present, a trowel or shovel will be used to scrape down to mineral soils to allow for adequate survey. All previously recorded and newly identified historic period or prehistoric cultural resources will be documented on DPR 523 series archaeological site records to a standard consistent with the Department of the Interior guidelines for recording historic resources. This is a Phase I – cultural resources investigation, no collecting and no ground disturbance exceeding 10 centimeters below ground surface will be conducted.

An ASR detailing the regional prehistory, ethnographic/historic background, Native American consultation, study methods, findings and recommendations will be prepared. Maps will be provided showing the cultural resources survey area, any archaeological site locations, and historic imagery. The final report will be supplied to the County and the NWIC.

Task 5.7 Products/Deliverables

➡ *Draft and Final HPSR, HRER and ASR.*

Task 6 - CEQA and NEPA Environmental Documentation

GHD will provide environmental services related to California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) compliance. The team will work closely with City on the CEQA document, anticipated to be an Initial Study/Proposed Mitigated Negative Declaration (IS/Proposed MND). GHD assumes additional administrative review of the IS/Proposed MND by Caltrans will not occur.

The team will also work with the City and Caltrans to support preparation of an anticipated NEPA Categorical Exclusion (CE) (for safety). GHD assumes the federal lead agency, Caltrans, will prepare the NEPA CE document and supporting attachments.

Task 6.1: Project Description and Graphics for the CEQA IS/Proposed MND

GHD will prepare a project description per CEQA Guidelines Section 15124 to describe all project elements and activities. The updated Project description will be provided to the City for review and approval to use to complete the Project Description section of the IS/Proposed MND. GHD will then provide a complete final Draft of the Project Description for City review. GHD will also complete GIS generated graphics to accompany the project description.

Task 6.1 Products/Deliverables

➡ *Draft and Final Project Description.*

Task 6.2: Administrative Draft CEQA IS/Proposed MND

GHD will prepare an Administrative Draft IS/Proposed MND for the project to be reviewed by the City. The most current version of the Initial Study Checklist (Appendix G of the CEQA Guidelines) will be used.

GHD's approach for the CEQA checklist resource categories to be included in the Administrative Draft IS/Proposed MND will rely on a new cultural resource investigation (ASR and HPSR), wetland delineation and sensitive natural communities' surveys, and proposed biological resource databases searches included in the NES. Technical studies and database searches will be referenced in the IS/Proposed MND and are listed below in the relevant resource category. However, the list of technical studies is not exclusive to newly discovered additional studies:

- » **Aesthetics** – The existing visual setting of the project site will be described. Visual aspects of the proposed project components, will be analyzed using the Visual Resources Technical Memorandum, described above (Task 5.5). This Scope of Work does not include the creation of visual simulations.
- » **Agriculture and Forest Resources** – The project area will be assessed for potential impacts to agricultural and forest resources.
- » **Air Quality** – The potential air quality impacts associated with the project would be from emissions from generators, construction vehicles and equipment, and the projected increase in operational uses (as determined in the project description). The North Coast Unified Air Quality Management District does not require the quantification of construction emissions but does require compliance with best available dust control measures. Dust control measures will be described, and sensitive receptors in the vicinity of work sites will be identified. Emissions will be quantified for construction and operation using CalEEMod; however, detailed air modeling and analysis is not part of this scope. A Health Risk Assessment is not part of this scope.
- » **Biological Resources** – Potential direct and indirect biological resource impacts will be described and, if appropriate, mitigation measures will be identified. The wetland report, sensitive natural communities report, NES, and database search results will be used as the technical basis for this section.
- » **Cultural Resources** – Potential cultural resource impacts will be described based on the cultural resource investigation and reports prepared by Roscoe and Associates.
- » **Energy** – The project's energy utilization will be reviewed in the context of local and statewide energy and energy conservation plans.
- » **Geology and Soils** – Potential seismic impacts will be identified. Potential erosion impacts associated with project construction will be described, and if appropriate, mitigation measures will be identified.
- » **Greenhouse Gas Emissions** – The existing environmental setting and regulations will be described and analyzed against proposed Project activities, which will include greenhouse gas emission calculations using CalEEMod, discussed above in Air Quality.
- » **Hazards & Hazardous Materials** – A qualitative description of potential hazards and hazardous materials impacts will be provided. GHD will rely on the ISA as a technical basis.
- » **Hydrology and Water Quality** – Potential impacts of the proposed project on water quality and hydrology will be identified and mitigation will be included if needed.
- » **Land Use and Planning** – The existing General Plan Land Use and Zoning designations in the project area and regulations affecting the proposed project will be described and analyzed. GHD will note and analyze inconsistencies with General Plan policies, if any.
- » **Mineral Resources** – Existing mineral resources in the project area will be identified and analyzed against proposed project activities.
- » **Noise** – The existing noise environment at the project site will be described and nearby sensitive receptors identified. The potential noise impacts associated with the project would be primarily from temporary construction activities and could be impactful to nearby residents. GHD will describe the appropriate noise ordinance requirements and its applicability to the project. A noise study is not part of this scope of work.
- » **Population and Housing** – The existing population and housing stock in the project area will be described and analyzed for potential effects from the proposed project.
- » **Public Services** – Existing public services and utilities in the vicinity of the project site will be described based on information to be obtained from local service providers.
- » **Recreation** – The existing recreational amenities in the project area will be described and analyzed for the proposed project.
- » **Transportation** – Impact assessment related to Transportation will be guided by the Office of Planning and Research's (OPR) December 2018 Technical Advisory on Evaluating Transportation Impacts in CEQA, which include updated Vehicle Miles Traveled (VMT) requirements and the project's design specific to geometric hazards.
- » **Tribal Cultural Resources** – GHD will coordinate with the City regarding the disposition of any tribal cultural resources in the Project Area. GHD assumes that the City will conduct Assembly Bill (AB) 52 consultation.
- » **Utilities and Service Systems** – Existing utilities in the vicinity of the project site will be described and potential impacts analyzed, based on information to be obtained from the City and local utility and service providers.
- » **Wildfire** – The risk of the project to increase wildfire potential in or near State Responsibility Zones will be evaluated along with other factors that may increase exposure to wildfires.

Task 6.2 Products/Deliverables

➡ *Administrative Draft CEQA IS/Proposed MND.*

Task 6.3: Draft “Camera Ready” Initial Study/Mitigated Negative Declaration

GHD will prepare and submit to the City the Public Review Draft IS/Proposed MND based on comments received on the Administrative Draft IS/Proposed MND from the City. GHD assumes the City will then circulate the CEQA document and be responsible for preparation of the NOI, NOC, OPR filing, preparation of findings, and related CEQA processing procedures, unless other arrangements are made.

Task 6.3 Products/Deliverables

➡ *Final CEQA IS/Proposed MND.*

Task 6.4: Response to Comments and Final Initial Study/ Mitigated Negative Declaration

GHD will prepare written responses to up to 20 unique comments received on the Draft IS/MND. Responses will be provided to the City for review. GHD assumes the City will prepare the NOD, findings, and resolution to adopt the project. GHD also assumes the City will pay the CDFW CEQA review fee and all other fees associated with document filing.

Task 6.4 Products/Deliverables

↳ *Draft and Final CEQA IS/Proposed MND with responses for up to 20 unique comments provided to the City for review.*

Task 6.5: NEPA Categorical Exclusion (CE)

It is assumed that this project will qualify for a Categorical Exclusion (CE), under NEPA pursuant to 23 CFR 771.117 and that GHD will provide support to the City and Caltrans for preparation of the Categorical Exemption/Categorical Exclusion Determination Form (from Caltrans' SER Manual.) GHD assumes Caltrans will prepare the NEPA CE document and supporting attachments.

Task 6.5 Products/Deliverables

↳ *Provide technical support to the City and Caltrans.*

Task 7 - Project Report (PR)

The scope assumes that Caltrans will not require a Project Approval Report (PAR) prior to the City's public meeting process for CEQA approval.

Task 7.1: Administrative Draft PR

GHD will prepare an administrative Draft PR in accordance with the PDPM. The administrative Draft PR will be submitted to the City and Caltrans for review and comment.

Task 7.2: 90% PR

Upon receipt of comments from the previous Task, GHD will address the comments and prepare the 90% PR. The 90% PR will be used by Caltrans for their internal processes related to IQA, Risk Register, Asset Management, and resource estimating. The 90% PR will be submitted to the City and Caltrans for review and comment.

Task 7.3: Final PR

Upon receipt of comments from the previous Task, GHD will address the comments and prepare the Final PR for signatures. The Final PR will be circulated to the City and Caltrans for approval.

Task 7 Products/Deliverables

↳ *Administrative Draft PR and 90% PR, and Signature-ready Final PR.*



**17 Mile Drive & Holman Highway
Roundabout Project, Monterey County**

4

Project Team Organization/ Staffing Plan



→ The Power of Commitment

4. | Project Team Organization and Staffing Plan

Staffing

GHD has hand selected a stellar team to deliver your project. Our team members were vetted based on demonstrated technical ability and track record, availability, and passion for the project. The team is structured for streamlined and effective leadership, close coordination with the City and Caltrans, and delivery of innovative solutions based on experience and creativity. Each of our key team members brings specialized expertise that addresses critical components of the project and has experience on projects of a similar nature. Many of the team members have worked together on past projects and have worked on local projects for the City or other local agencies. The GHD team has developed valuable skills to efficiently complete complex, high-profile, small community projects by integrating seamlessly and operating as an extension of City staff. As illustrated in the Organizational Chart on the following page, we offer a comprehensive team and have access to a large network of additional resources to deliver quality projects, within budget and on schedule to help the City achieve its goals.

Availability

In addition to technical ability, our team members were also selected based on availability. Each team member has sufficient availability to commit the appropriate amount of time to make your project a success.

Resumes

Following the organizational chart on the next page, we introduce our key personnel, their relevant experience and their project responsibilities. Resumes for our proposed Key Personnel listed on the organizational chart are included in the Appendix A.

Continuity of Personnel

We are committed to keeping the same project team we are proposing. Should an unexpected change result in a team member being unavailable to serve the City on this project, we are backed with the resources from our local Eureka office and others throughout California. No changes will be made to the project team without consent by the City.

**We rank #28
in the ENR Top 150
Global Design
Firms in 2021**

#10 in international firms US

#06 in water

#06 in sewer/waste

#05 in hazardous waste

90+ years in operation

10K people

50+ service lines

Caltrans File-Review Audits

We are experienced at working with multiple Caltrans Districts (D1, D2, D3, D4, D5, D6, and D10) through file-review audits. We are familiar with the Caltrans Local Assistance staff in District 1 and we have passed file review audits in District 1 for the following projects:

- » Fortuna Boulevard Paving and Pedestrian Improvement Project
Federal Project Number ESPL 5145(011)
- » Trinidad Gateway Project
Federal Project Number STPLE-5036(008)
- » Arcata Hwy 255-Samoa Gateway Project
Federal Project Number ESPL-5021(017)

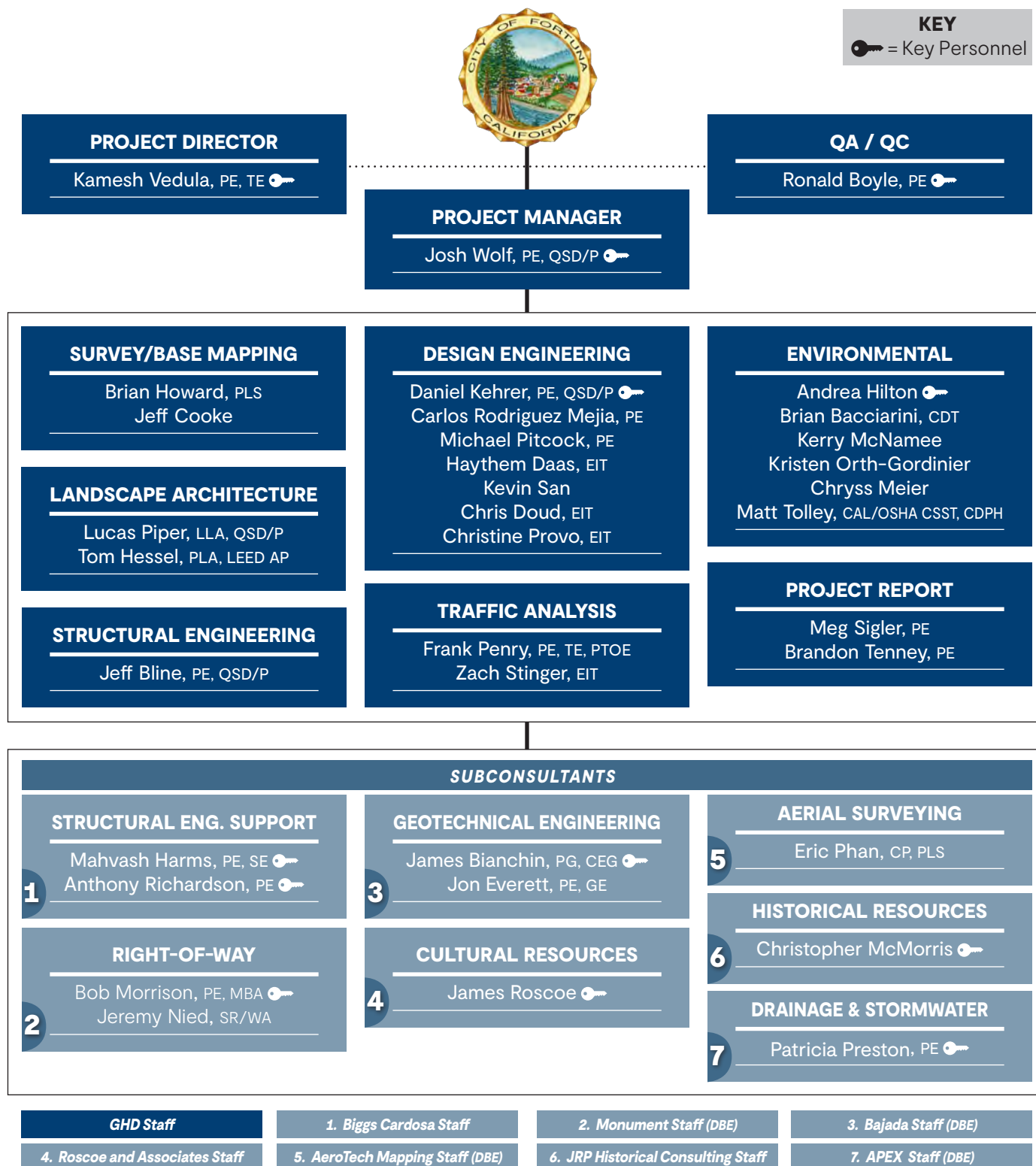
GHD will do everything possible to aid you in receiving timely and full reimbursements, having learned this process by provided invoicing services for several agencies and intimately know the changing Caltrans expectations for consultant management and invoicing.



Our familiarity with City staff, combined with our experience in many similar projects and our previous work with Caltrans, provides the City with a team who thoroughly understands the various complexities and local significance of this Project.

Organization Chart

The organization chart below identifies our proposed team with roles and hierarchy so that it is clear to all involved how work is communicated, from subconsultants and support staff, through our Project Manager and QA/QC, and to the City of Fortuna. We acknowledge that the City expects GHD to contractually commit our proposed personnel to this level of effort when requested. Following the organization chart are detailed, but brief, biographical descriptions demonstrating why each key staff member has been chosen for this team by highlighting applicable capabilities and experience. **Full resumes for our Key Personnel are included in Appendix A.**



Staffing Plan

GHD provides the largest capacity and amount of resources available. We are fully staffed and capable of providing the right services to our clients in a timely fashion having learned the importance of flexibility and responsiveness. For this contract, we have identified key project staff below to serve the City for this project.

GHD Staff	
	Josh Wolf, PE, QSD/P Project Manager Josh has over 18 years of experience designing and managing a wide range of transportation infrastructure projects, implementing similar State and federally funded roadway and pedestrian improvement projects for not only Fortuna, but municipalities throughout Northern California. Having led or currently leading the work we've listed as our references, particularly with Fortuna, Josh is the ideal manager to serve as GHD's primary point of contact, facilitating project, team, and stakeholder coordination, managing a team of professionals selected for their experience in numerous roadway projects for local municipalities such as the cities of Trinidad, Eureka, Arcata, and Rio Dell, as well as for Humboldt County.
	Kamesh Vedula, PE, TE Project Director Kamesh has over 21 years in the disciplines of transportation engineering, planning, and modeling, and is authorized to negotiate and contractually bind the company. His present roles include Principal-in-Charge, Business Development, Project Manager, and Transportation Operations Leader, depending on project needs. Kamesh oversees the workload balance of the transportation planning/engineering group and coordinates with other groups and regions to level staff resources. He is an Intersection Control Evaluation (ICE) specialist, completing numerous ICE projects within a majority of Caltrans Districts and conducting ICE analyses training classes in Caltrans District 11 and Headquarters. His project management experience includes Caltrans Project Study Report-Project Development Support (PSR-PDS), Project Approval/Environmental Documents (PA/ED), ICE studies, roundabout planning/design, advanced roundabout operations analyses/design, complete streets studies, corridor studies, traffic impact studies, and traffic safety studies.
	Ronald Boyle, PE Quality Assurance / Quality Control (QA/QC) Ron serves as a project manager and/or lead designer on a variety of public works and private projects in California, where his specialties in roundabouts, interchange, and roadway design are required. He has over 38 years of design experience and 32 years of project management experience and is skillful at working with state and local agency staff. Ron has been involved in the planning design or construction of over 75 roundabouts, many of which were the first of their type in communities requiring extensive public outreach. In addition to playing a lead role on projects, he provides peer review of roundabout projects, including those developed by private developers, local agencies, and Caltrans.
	Daniel Kehrer, PE, QSD/P Design Engineering Lead Daniel is a project manager who has been a part of numerous civil engineering planning documents and designs for various complex intersections, roadway corridors, interchanges, bike trails, rail crossings, road diets, peer reviews, site development (hospitals and multi-family) projects for over 15 years. He works collaboratively with our staff in providing civil engineering design and planning support, including the following: feasibility studies, plan line studies, environmental documents, traffic reports, project reports, safety analyses, peer reviews, plan preparation, specifications, estimates, and construction support. Daniel is well-versed in assembling plans/exhibits/documents, quantity calculations, and cost estimations, as well as roadway software design programs, right of way certification, utility coordination, and construction plan reviews and SWPPP's.



Andrea Hilton | *Environmental Lead*

Andrea is an environmental planner with 17 years of experience in hydrology and streamflow management, with an emphasis on management for special-status anadromous fish species. Her broad background has focused on: planning, implementing, and monitoring ecosystem restoration projects; collaborative resource management planning and negotiation; and regulatory oversight. Andrea frequently conducts regulatory permitting and CEQA for a wide variety of projects, including public access facilities, trails, and public infrastructure improvements, among others. She has prepared project permits, technical studies, and CEQA documents for numerous trail and rail trail projects. Andrea is also experienced working with Caltrans District 1 on a variety of Local Assistance projects and is very familiar with the Local Assistance Procedures Manual (LAMP) guidelines and requirements.

SUBCONSULTANTS

Biggs Cardosa Staff



Mahvash Harms, PE, SE | *Structural Engineering Support*

Mahvash has over 35 years of experience in Project Management and Structural Engineering. During this time, she has acted as Project Manager for and transportation projects throughout California. Mahvash has led structural engineering design of various transportation projects including new bridge design, seismic retrofit, slide repairs, and retaining walls. Mahvash's projects have won multiple awards, most notably the Clarke Avenue Pedestrian Overcrossing which was awarded an Honor Award in the ACEC California 2020 Engineering Excellence Awards competition as well as the 2019 Silicon Valley Bicycle Coalition Project of the Year.



Anthony Richardson, PE | *Structural Engineering Support*

Anthony has over 27 years of engineering management and design experience. During his 21 years at Biggs Cardosa, Anthony has worked on numerous transportation projects throughout California. Anthony's projects have received numerous awards, including the Santa Clara Caltrain Station Pedestrian Undercrossing project which received State and National awards.

Bajada Geosciences Staff



James Bianchin, PG, CEG | *Geotechnical Engineering*

Jim has more than 39 years of experience in managing and providing engineering geologic services for complex geotechnical projects located throughout California, Oregon, and Nevada. He specializes in managing multifaceted, detailed geotechnical studies for difficult access sites and characterization of complex, geologically impacted sites.

Monument Staff



Bob Morrison, PE, MBA | *Right-of-Way*

Bob has extensive project management experience spanning over 30 years in both the public and private sectors. His complete understanding of the project development process allows him to better streamline project delivery through proper planning, cost saving and time saving measures, and risk mitigation strategies. Bob's experience has given him an understanding of the entire project development process in which he is well-versed on all aspects of right-of-way and has the ability to leverage this experience to provide his clients with viable, innovative and effective solutions.

Roscoe and Associates Staff



James Roscoe | *Cultural Resources*

James has over 40 years of experience conducting cultural resource investigations on over 400 projects in Del Norte, Humboldt, Trinity, Lake, Mendocino, and Sonoma Counties in Northwestern California. In his role as Cultural Resources Facility Director for the Department of Anthropology at Humboldt State University, he provided professional cultural resources services to Northwest California Tribes, as well as Federal, State, and local agencies.

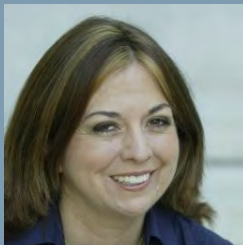
JRP Historical Consulting Staff



Christopher McMorris | *Historical Resources*

Christopher specializes in conducting historic resource studies for compliance with Section 106 of the National Historic Preservation Act and the California Environmental Quality Act, as well as other historic preservation projects. He serves as a lead historian, principal investigator, and project manager on projects for federal, state, and local government, as well as for engineering/environmental consulting firms. Many projects involve survey and evaluation of historic resources under the criteria for the National Register of Historic Places and the California Register of Historical Resources, along with analysis of effects projects may have on historic properties and measures to mitigate those effects.

APEX Staff



Patricia Preston, PE | *Drainage & Design Support*

Patricia, the owner and founder of APEX Civil Engineering, started her career 30 years ago with Caltrans in the Office of Structures Design. As the principal engineer, she has participated on several high-profile projects, managed several bridge replacement projects including emergency replacement projects and provided support for the planning phase for several large-scale projects throughout California, which includes design build projects for industrial facilities, design and construction management for highway and bridge improvements, and site development plans for energy facilities.



12th Street and Newburg Road Intersection

5

Experience and Qualifications

(This section excluded from page count limit)



→ The Power of Commitment

5. Experience and Qualifications

GHD specializes almost exclusively in municipal engineering projects for cities, counties, and special districts. Because of this, we understand the difference between public sector design requirements and those of private development. We believe that the best engineering project not only provides the technical solution, but also satisfies the environmental requirements, public needs, funding limitations, regulatory requirements, and political realities of the community. The project examples provided below highlight GHD's recent experience that is similar in scope of work and requirements to the City's project.

Kenmar Interchange Project

Location

Fortuna, CA

Client / Contact

City of Fortuna

Brendan Byrd

707.257.9634

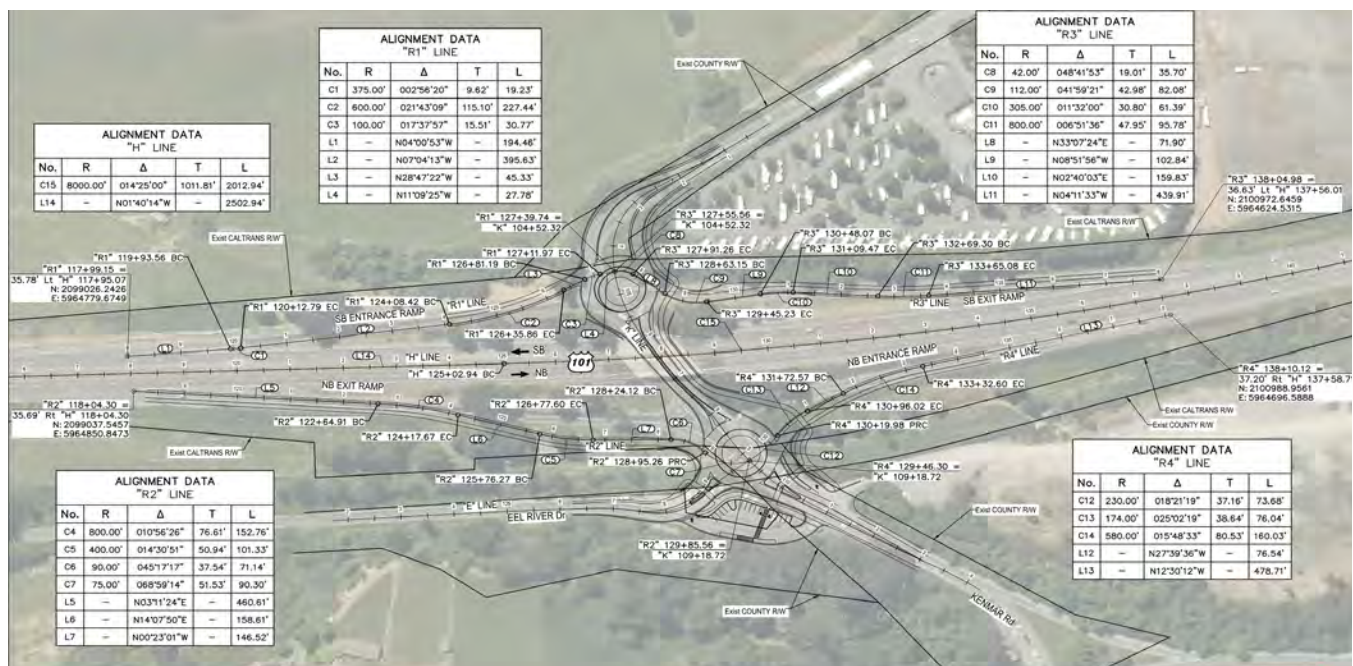
Date(s) of Service

2015 – Ongoing

Having worked with the City of Fortuna for more than a decade to improve infrastructure in the quickly growing community, GHD led a study in 2015 to examine improvement alternatives for the City's busy US 101/Kenmar Road interchange.

The initial planning study involved detailed traffic modeling, traffic operations analysis, and development of preliminary design alternatives, resulting in City and Caltrans concurrence: Modern roundabouts at the US 101 on-/off-ramp intersections would provide superior traffic operations at a cost less than that of a traditional signalized interchange. The selected design also provided for a realignment of Eel River Drive and a Class I trail connection.

In 2017, GHD prepared a Project Study Report–Project Development Support (PSR–PDS) to assist the City in securing \$550,000 in State Transportation Improvement Program (STIP) funds to support the project's PA&ED phase. In 2020, GHD was retained by the City to complete the PA&ED phase of the project, including engineering studies, geometric design, environmental studies, CEQA/NEPA documentation, and project approvals. Work on the project is ongoing with the PA&ED phased expected to be completed in late 2022.





First and Second Street Roundabouts along California Boulevard (at SR 29)

Location

Napa, CA

Client / Contact

City of Napa

Julie Lucido

707.257.9634

Date(s) of Service

2014 – 2020

GHD partnered with the City of Napa and Caltrans to provide the PA/ED and final design, including preparation of an intersection control evaluation for three closely spaced intersections to relieve traffic congestion and delays.

The three closely spaced intersections along two corridors at the SR 29 northbound ramps at First Street, First Street at California Blvd, and Second Street at California Blvd, are experiencing significant delay and congested conditions. The congestion and delay will be further exacerbated with projected increases in traffic volumes along these two heavily traveled corridors. Additionally, the collision rates at the SR 29 ramps at First Street exceeded the statewide average.

The City of Napa partnered with GHD and Caltrans to deliver the Project Approval and Environmental Document (PA/ED) and Final Design of the PS&Es, including the preparation of an Intersection Control Evaluation, Project Report with all supporting documentation, and the Initial Study/Mitigated Negative Declaration. The project also includes an in-depth drain plan which incorporates Low Impact Development features, water quality features, and underground storm drain system in the City and State rights of way. This project was funded through the State Highway Operation and Protection Program (SHOPP), which is a mixture of Federal and State funds.

Since this project was to be Advertised, Awarded and Administered (AAA) by Caltrans, GHD completed the PS&E consistent with Caltrans' Plans Preparation Manual and submitted the MicroStation, AutoCAD Civil 3D, and Word electronic files to Caltrans Office Engineer for final processing and advertising. GHD provided construction support services to the Caltrans Resident Engineer from April 2019 through project construction in April 2020. The project's construction was completed ahead of schedule and was a recipient of regional awards.



SR 29/SR 221 Interchange PS&E (Soscol Junction) Roundabout Project

Location

Napa, CA

Client / Contact

Napa Valley Transportation Authority

Kate Miller

707.259.8634

Date(s) of Service

2015 – Ongoing

Caltrans had developed an extensive grade separation improvement that resolved the traffic congestion, though it did not meet the approval of the local community regarding aesthetics and continuity of pedestrian and bicycle travel at the Soscol Junction intersection.

As a result, GHD was retained by the City of Napa and the Napa Valley Transportation Agency to evaluate the potential use of roundabouts to improve the intersection of State Routes (SR) 29 and 221. Caltrans accepted the use of a roundabout, as it could alleviate the original Build Alternative's aesthetic impacts and maintain pedestrian and bicycle continuity at the interchange.

After completing the interchange feasibility evaluation, GHD prepared the Traffic Operations Analysis Report, Design Decision Document, Stage Construction / Traffic Management Plan, and the Project Report.

The project completed PA/ED February 2020. Currently, the project is advancing through PS&E, and is slated to start construction in Spring 2022.



17 Mile Drive/Holman Highway 68/ Highway 1 Roundabout ICE and PS&E

Location

Monterey, CA

Client / Contact

City of Monterey
Andrea Renny, PE, PTOE
831.646.3921

Date(s) of Service

2014 – 2017

Replacing a congested T-intersection at Holman Highway 68 and Highway 1 with a midi roundabout, GHD designed a solution for the City of Monterey that improved access, safety, and sustainability in the popular coastal tourist community.

Along the coast of the Monterey Peninsula, the intersection of Holman Highway 68 and Highway 1 is an important gateway point to the famously scenic 17 Mile Drive, as well as into the communities of Pebble Beach and Pacific Grove. To improve upon the original T-intersection, the City sought to replace it with a new roundabout, optimizing traffic flow and shrinking the environmental footprint, further investing in accessibility, sustainability, and safety for the ever-growing destination community.

The original designer explored a roundabout solution and various signal configurations. Though the Project Report (PR) was approved with the preferred alternative of a new traffic signal system and widening of the highway from two (2) to four (4) lanes, the cost for this alternative was deemed too high, impacts too great, and needs of the community not fully met. The project then sat on the shelf for years, until the City of Monterey decided to reopen the project, hoping to find a more cost-effective option.

GHD revisited the safety, operations, and geometrics from the previously approved PR and project approval and environmental documentation (PA/ED) phase, then optimized the design, which

ultimately resulted in saving the City \$12M in construction costs for Phase 1 alone.

The City and GHD collaborated with a community partnership—encompassing the City of Monterey, Caltrans, and the Pebble Beach Company—to develop design options for the roundabout, then progress the preferred design into construction.

The City's selected solution involves two (2) closely spaced roundabouts, otherwise known as a "midi" roundabout, to address the area's many unique characteristics. By eliminating traffic signals, we greatly cut down on idling times for motorists, not only reducing greenhouse gas emissions but streamlining the flow of traffic. Obviously marked approaches in and out of the roundabout allow an ease of navigation through a heavily

trafficked tourist spot, in addition to providing better means of entry and egress for emergency vehicles.

Overall, our design promoted clarity, usability, and environmental responsibility in a locale loved for its natural beauty. Construction completed in 2017 and the roundabouts are currently open to all modes of traffic.

Awards

- 2017 American Council of Engineering Companies California Engineering Excellence Honor Award
- 2017 Transportation Agency for Monterey County Transportation Excellence Award
- 2018 League of California Cities Outstanding Local Streets and Roads Project Awards Program category



Beginning with a concept developed by a different project team, GHD revisited its safety, operations, and geometrics to develop an optimized design that saved the City around \$12M dollars in construction costs for Phase 1 alone.



South Auburn Street/I-80 Roundabout

Location

Colfax, CA

Client / Contact

City of Colfax

Wes Heathcock

530.346.2313

Date(s) of Service

2017 – 2019 (Design)

With an ultra-condensed schedule driven by the City's expansive commercial and residential growth, GHD designed a new roundabout at the intersection of Westbound I-80 on/off-ramps and South Auburn Street/SR 174, intended to dramatically improve safety in this high-profile area.

Connecting I-80 and SR 174, South Auburn Street serves as both the main gateway into historic downtown Colfax and a major route to the local high school. To relieve congestion, enhance infrastructure at the City's gateway, and improve safety in this growing community, GHD designed the South Auburn Street Roundabout at the important intersection of the Westbound I-80 on/off-ramps and South Auburn Street/SR 174.

Complicating the project schedule was the proximity of the project reach to a nearby commercial area experiencing rapid expansion and development. Accordingly, our project team understood that condensing the schedule to only 16 months would be paramount to meeting the City's needs.

GHD's design team leveraged existing relationships and extensive familiarity with local agency staff and processes to move quickly to coordinate and obtain approvals from the City, Caltrans, Placer County Water Agency (PCWA), and PG&E. Simultaneously, we commenced with environmental studies and preliminary design exhibits to complete the project under the condensed 16-month schedule.

During this utility outreach, PCWA notified the City and our team of the need to replace the water main along South Auburn Street. Although, this design issue was not known prior to beginning work, nor included within the original scope, we were able to complete this additional design, within the original budget, for a new 18-inch diameter ductile iron water main. Having led both roadway and water main improvements, we were able to avoid any impacts to schedule while mitigating future maintenance costs through relocating the new water main away from all above-ground concrete features.

Caltrans District 3 finalized and approved plans in January 2019. The roundabout project presents a successful example and functional model for local municipalities in facilitating collaboration with State and regional agencies to ultimately save money and serve the needs of the community.



SR 99/SR 104 (Twin Cities Road) Interchange

Location

Galt, CA

Client / Contact

City of Galt

Gwen Owens (*currently City Traffic Engineer at the City of Vacaville*)

707.449.5174

Date(s) of Service

2009– 2014

Accommodating substantial growth in the rural City of Galt, as well as new developments adjacent to the project site, GHD analyzed concepts, coordinated with Caltrans, and prepared PA/ED, followed by PS&E, to enhance and improve the congested SR 99 and SR 104 interchange with an innovative roundabout solution, saving the City more than \$20 million compared to Caltrans' standard alternative concept.

Prior to the project, the City of Galt largely comprised rural areas and growing vineyards, though residential and commercial development was spreading rapidly into the land surrounding the SR 104 (Twin Cities Road) and SR 99 interchange, which was entering its sixth decade of service. Accordingly, livestock and agricultural businesses generated a significant volume of large (oversize loads) vehicles on the existing, narrow two-lane roadway. Approximately 10 years ago, traffic queues at the interchange became too long—and drivers arguably too aggravated—to not catch the attention of the City of Galt, the County of Sacramento, and Caltrans (who had safety-related projects underway in the area, though no plans for capacity expansion projects). To respond to contemporary capacity issues and sustain planned growth due to surrounding developments, Galt recognized the need to dramatically improve its transportation infrastructure.

Completely located within Caltrans right of way and surrounded by private homes, farms, and both developed and undeveloped commercial properties, the existing Twin Cities Road interchange was a two-lane bridge (SR 104) crossing over SR 99 with minimal pedestrian access and signalized intersections at East Stockton Blvd. and West Stockton Boulevard, two frontage roads where non-standard ramps led to SR 99.

To complicate the project further, Walmart received approval to build a new store just 800 feet east of the project area. Not only would the

new interchange need to address the drastic increase in users, but construction would require in-depth coordination with Walmart's, as the two projects were scheduled for construction simultaneously. The City was at a loss as to how to affordably approach such daunting operational shortfalls at the interchange.

At the time of project conception, roundabouts were unheard of in rural areas. The preferred design solution for any interchange project was instead the "tight diamond," an alternative the City initially evaluated for the Twin Cities interchange that, at first, was preferred by most stakeholders and involved minimal approvals. However, this design would have demanded the complete acquisition of all impacted business and homes, resulting in the steep price tag of \$32 million. Considering that, the previous year, the City spent \$43.5 million on the Central Galt Interchange—also a GHD project—they would not have sufficient capital to fund this interchange project so soon after.

Building from the City's trust in the GHD team, we analyzed many different design alternatives and ran various scenarios. The solution that satisfied all operational goals at the lowest cost, while functioning beyond the 10-year design horizon, also happened to be the most "outside of the box" option: a hybridized roundabout design. This involved replacing the two signalized intersections with two closely-spaced roundabouts, adding a new southbound on-ramp and preserving the overcrossing—eliminating all work on SR 99—while minimizing right of way impacts and ramp reconstruction. Up until this point, Caltrans had only a couple roundabouts in the state highway system, which meant there were no policies or standards and few resources available to support their approval of the design. In fact, because the roundabout (let alone two roundabouts) was viewed as such an atypical design solution, we prepared a detailed Roundabout Conceptual Approval Report for the City to convince Caltrans to move forward with the most cost-efficient and effective alternative.

Public and stakeholder buy-in was also essential to the project moving forward successfully. Our diligence in understanding the community's perspective and concerns through extensive public outreach, as well as communicating project intent and issues to alleviate those concerns, allowed us to promote the roundabouts as ultimately benefiting safety and quality of life. With buy-in achieved, we then worked closely with the City to develop a partnership with Caltrans and obtain approval on the concept and the design.

The GHD team conducted Value Engineering during the design phase to cut construction costs from \$32 million to less than \$10 million with a refined roundabout design.

As this interchange serves as the northern gateway into the City of Galt, we designed custom placemaking as part of improvements to preserve and promote the character of the region. The roundabouts' central islands feature COR-TEN® steel statues: a family of 10- to 15-foot-tall bird watchers (and their dog) scope out 12- to 14-foot-tall cranes wallowing in a wetland setting across SR 99, an homage to the nearby Cosumnes River Preserve. At night, these features illuminate with surrounding light installations. Additionally, to provide consistent aesthetics, we specified crushed glass and faux grass at one non-irrigated roundabout.

Inherent to all our work, the GHD team conducted Value Engineering during the design phase to cut construction costs from \$32 million to, with a refined roundabout design, less than \$10 million. While this represented a substantial cost reduction, the price was still an undue burden on the City, so we proceeded with a value analysis to cut the budget even more, modifying construction staging, materials, and dedication. This mitigated impacts to surrounding properties, allowing for and encouraging future development. Construction completed in 2014.

Since the project completed, new commercial developments have broken ground in the immediate area of the interchange. Pushing the envelope for innovation in State highway design, **the project has significantly reduced peak-hour traffic congestion and simplified traffic movements, increasing safety while providing the City of Galt with a welcoming entrance to their growing community**—at no additional cost to ratepayers.



Stockrest Springs Road Roundabout

Location

Truckee, CA

Client / Contact

Town of Truckee
Todd Landry
530.582.2904

Date(s) of Service

2018 – 2020

Awards

2020 Project of the Year Award,
American Public Works Association,
Sacramento Chapter

The Town of Truckee had been evaluating a mixed-use development entitled Coburn Crossing. GHD was commissioned to prepare a four-way single-lane roundabout at the existing intersection of Stockrest Springs Road / Donner Pass Road that will also access the Town's Corporation Yard, Humane Society / Animal Shelter, a proposed Apartment / Hotel development, the US Forest Service, Caltrans right of way, and environmentally sensitive areas. The projects design elements included intersection grading, cross slope corrections, bike lanes and trails, sidewalk, transit stops, drainage / water quality features, utility relocations, and Caltrans Encroachment Permit Processing.

To facilitate the schedule and design considerations we accomplished this project within four phases:

- » **Phase 1:** Develop the roundabout concepts for review by Caltrans to secure that the project will not fall within their jurisdictional review
- » **Phase 2:** Prepare 30% geometric approval documents for review/ approval
- » **Phase 3:** Prepare and complete the construction documents and permitting
- » **Phase 4:** Construction Support

This methodical approach limited the opportunity for delay as the project progressed. We are under contract to continue providing these services and will follow the project through to final close-out. Right of way certification was obtained in March 2018 and went to bid in April 2018. The design and environmental were completed on-time and met the schedule constraints involved with work in the Tahoe Basin. Construction was completed ahead of schedule in Winter 2019 and final landscaping was added in the Spring of 2020.



Blossom Hill Road Overcrossing Widening and Pedestrian Overcrossing

Location

San Jose, CA

Client / Contact

Valley Transportation Authority
Lam Trinh
408.952.4217

Date(s) of Service

2016 – Ongoing

The project will include installation of a Class I bicycle and pedestrian facility connecting Monterey Road and Coyote Creek; reconfiguration; additional lanes or signal modifications of the interchange on/off ramps as described in the Edenvale Area Development Policy (April 2014 Update); Geometric reconfiguration to increase weaving distance between Monterey Road and US 101 southbound on-ramp.

The planning and design for the US 101/Blossom Hill Road Interchange Improvement Project consist of four phases in accordance with the California Department of Transportation (Caltrans) Project Development Procedures Manual (PDPM). The phases generally include services related to the preparation of the Project Initiation Document (PID), the Project Approval and Environmental Document (PA&ED), Right of Way (ROW), and Plans, Specifications and Cost Estimates (PS&E), all as required by Caltrans prior to construction.

BCA is providing structural engineering services for all the structures during all phases of the design, including Advanced Planning Studies (APS), Preparation of the Construction Documents; Plans, Specifications and Estimates (PSE) and Construction Support services for this project. Structures include:

- » Construction of the widening of the bridge over US 101 between the two existing Blossom Hill Road bridge decks to accommodate the addition of a lane in each direction

The Class I bicycle and pedestrian facility connecting Monterey Road and Coyote Creek will include:

- » Undercrossing structure beneath the southbound off-ramp
- » Undercrossing structure beneath the southbound loop on-ramp
- » And an Overcrossing over the northbound on-ramp, which will be lowered in grade to allow adequate clearances



Clarke Avenue Pedestrian Overcrossing at US-101

Location

East Palo Alto, CA

Client / Contact

City of East Palo Alto

Maxiar Bozorginia (*currently City Engineer with the City of Half Moon Bay*)

650.726.8251

Date(s) of Service

2012 – 2019

The US-101 divides the City of East Palo Alto into two segments, with a substantial portion of the City's residents living on the west side of the highway, and City services, schools, shopping and public spaces located on the east side of the highway. Access to the east side of US-101 for these residents was generally constricted to the University Avenue overcrossing, which has tightly limited space for pedestrians and bicyclists, and touches down at large, intimidating intersections that are not pedestrian or bicycle friendly. To improve public safety and support the City's objectives to reduce vehicular trips and promote walking and bicycling, the City constructed a Class I pedestrian/bicycle bridge over US-101. The west-side touchdown is located at the Newell Road/W. Bayshore Road intersection and the east-side touchdown is located in the Home Depot parking lot, adjacent to the Clarke Avenue/E. Bayshore Road intersection.

The main bridge over US-101 is approximately 325 feet long and consists of a cast-in-place concrete post-tensioned concrete box girder structure supported on single column bents and Type II cast-in-drilled-hole shafts. The ramp on the west side of the highway runs on the east side of W. Bayshore Road, along the existing soundwall is approximately 330 feet long and consists of a cast-in-place slab supported on single column bents and a combination of Type I and Type II shafts.

BCA provided structural design consultation services throughout the feasibility study phase of the project, and subsequently provided project management and structural design services for the bridge PS&E portion of the project. The PS&E package included bridge design, civil/roadway design, geotechnical design, aesthetics, landscape design, right of way, utility coordination and relocation, lighting and electrical design, sign relocations, and safety considerations. All work was coordinated with the City and Caltrans to obtain permits for improvements within Caltrans right-of-way.

This project won an Honor Award in the ACEC California 2020 Engineering Excellence Awards competition as well as the 2019 Silicon Valley Bicycle Coalition Project of the Year.



Adobe Creek Pedestrian Overcrossing at US-101

Location

Palo Alto, CA

Client / Contact

City of Palo Alto
Megha Bansal, PE, PMP
650.329.2693

Date(s) of Service

2016 – 2021

The City of Palo Alto's Adobe Creek Pedestrian and Bicycle Bridge Overcrossing crosses over U.S. Highway 101 and Adobe Creek. The project improves connectivity to the Palo Alto Baylands Nature Preserve, East Bayshore Road businesses, and regional San Francisco Bay Trail network from residential neighborhoods and employment districts in southern Palo Alto.

The City conducted a design competition that resulted in three designs that could not be constructed within the allotted budget. As a result, the City requested a design consultant to provide a cost-effective design that incorporates many of the characteristics favored by the City and the community, such as a bird-friendly, low-profile design of concrete or steel.

The project required coordination with the City, Caltrans, Santa Clara Valley Water District, utilities, and other agencies having jurisdiction.

Biggs Cardosa provided structural design engineering services as well as project management as the prime consultant contracted directly with the City.



Paradise Off System Zones 1 & 2 Roadway Improvements Project

Location

Paradise, CA

Client / Contact

Dokken Engineering (*on behalf of the Town of Paradise*)
530.768.2420

Date(s) of Service

2021 – Ongoing

Bajada's team performed geotechnical exploration, sampling, laboratory testing, and analyses to provide recommendations for the rehabilitation of over 26 miles of roadways impacted by the Camp Fire and construction traffic following that fire. Work included condition mapping of each roadway involved with the contracts. In addition, extensive subsurface exploration, dynamic cone penetrometer testing, laboratory testing, and geotechnical analyses were performed for the studies. Rehabilitation alternatives included milling and paving, full depth reclamation, pulverization and overlay, and dig outs.

South Bonnyview/I-5 Interchange Improvements Project

Location

Redding, CA

Client / Contact

GHD (*on behalf of the City of Redding*)
530.691.5781

Date(s) of Service

2016

The improvements for this project encompass numerous roads in the vicinity of South Bonnyview Road and I-5 and their interchange, to accommodate traffic impacts associated with new developments in the area. Improvements consisted of the following:

- » Widen south-bound I-5 to add a deceleration lane for approximately 1,000 feet prior to the south-bound I-5 exit;
- » Widening the north-bound I-5 off ramp at South Bonnyview Road, which will include two Caltrans Standard Retaining Walls;
- » Complete reconstruction and/or replacement of the south-bound I-5 off ramp at South Bonnyview Road. This improvement may include a new overhead sign structure;
- » Minor widening along South Bonnyview Road;
- » Construction of a new roundabout at the South Bonnyview Road/Bechelli Lane intersection; and
- » Widening of Bechelli Lane



Riverfront Street Extension Project

Location

West Sacramento, CA

Client / Contact

City of West Sacramento

Olesya Tribukait (*no longer with the City, but can be contacted below*)

916.617.4546

Date(s) of Service

2019– 2020

Monument worked with the City of West Sacramento to deliver the Riverfront Street Extension Project. This grant-funded project extended Riverfront Street and widens 5th Street under US-50 along the City of West Sacramento's Waterfront. The project includes the acquisition of 10 parcels, 5 of which are part of a larger development agreement. The Monument Team worked to acquire rights from Caltrans and the development community in support of the improvements.

The Monument Team crafted an innovative strategy to meet the FHWA right-of-way requirements while still honoring the terms of the development agreement. This was accomplished by utilizing the terms of the development agreement to convince the developer to dedicate the right-of-way. This dedicated right-of-way was secured in exchange for development credits and avoided the need to acquire the property through the standard right-of-way process, which would have been time-consuming and costly. Monument was successful in highlighting the fact that the existing development agreements allowed the City to acquire the property via pre-negotiated prices and terms. As a result, Monument was able to save the City of West Sacramento over half of the consulting fees other firms were proposing to acquire the right-of-way.



Archaeological Survey Report for the Jameson Creek Fish Passage Improvement Project

Location

Rohnerville, Humboldt County, CA

Client / Contact

City of Fortuna
Brendan Byrd
707.257.9634

Date(s) of Service

2019 – 2020

In the winter of 2019/2020, Roscoe and Associates (RA) conducted an archaeological investigation of the Jameson Creek Fish Passage Improvements Project, located in the City of Fortuna, in Humboldt County, California. The City of Fortuna, with GHD Inc. and Michael Love & Associates, Inc. improved passage for juvenile and adult residents, and anadromous salmonids including coho, steelhead, and resident rainbow trout on Jameson Creek, where it passes under Rohnerville Road. This project was funded by the California Department of Fish and Wildlife (CDFW) Fisheries Restoration Grant Program (FRGP). Permitting from the U.S. Army Corps of Engineers, as well as other Federal, State and/or Local agencies may be required. For this reason, GHD Inc. requested that RA conduct an archaeological investigation, compliant with Section 106 of the National Historic Preservation Act (1966) as well as the portions of the California Environmental Quality Act that pertain to historically significant resources.

Cultural Resources Investigation for Fortuna Community Center (McLean Foundation)

Location

Fortuna, Humboldt County, CA

Client / Contact

Greenway Partners
Kirk Cohune
707.822.0597

Date(s) of Service

2016

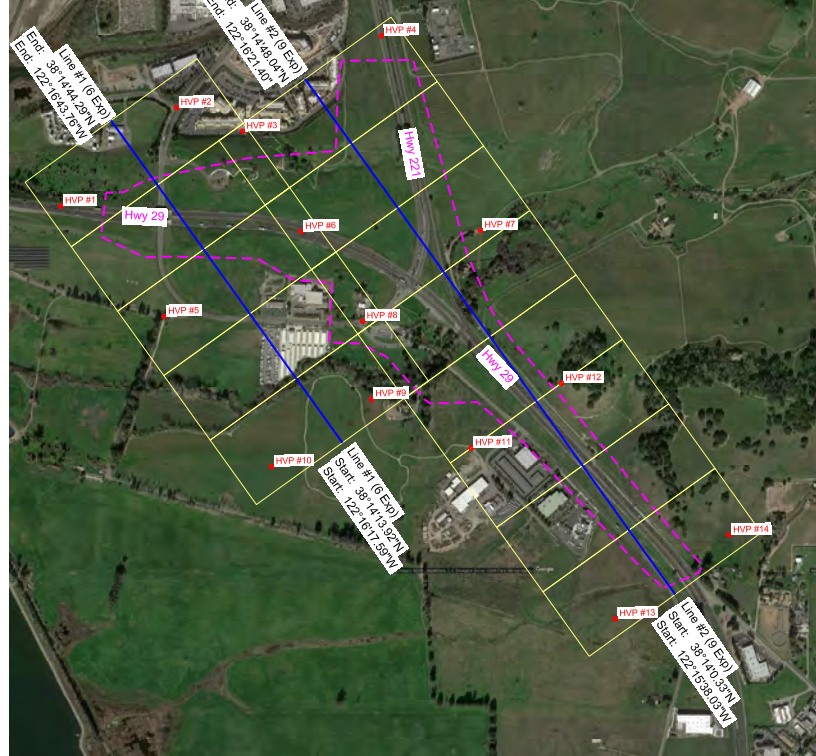
A Phase I cultural resources investigation of the proposed Fortuna Community Center which will be constructed on Assessor's Parcel Numbers (APN) 202-511-008, 200-411-018, and 200-411-015 in the City of Fortuna. These parcels encompass approximately 37 acres and are situated between Newburg Road and Rohnerville Road in the eastern portion of the City of Fortuna, Humboldt County, California. The cultural resources investigation was requested by Kirk Cohune of Greenway Partners, Arcata, California.

The purpose of this investigation was to determine whether historical resource(s), as defined in the California Environmental Quality Act (CEQA) Guidelines Title 14. California Code of Regulations (CCR) Section 15064.5(a) are present within the proposed project area, or adjacent areas within the subject parcels. This report demonstrates RA has made a reasonable and good faith effort to identify historical resources within the proposed project area pursuant to Section 15064.5 (a) of CEQA.

The investigation methods included a review of the files at the Northwest Information Center (NWIC) located in Rohnert Park, California. Review of archaeological and historical literature and historic photographs pertinent to the project region was also conducted at the Humboldt County Historical Society, Humboldt State University (HSU) Library-Humboldt Room, the HSU Cultural Resources Facility and the author's personal files. Correspondence with Native American Tribes was initiated with the Native American Heritage Commission (NAHC) who provided a list of interested tribal persons familiar with the project area. The Tribal Historic Preservation Officer (THPO) for the Wiyot Tribe, Bear River Band of the Rohnerville Rancheria, and Blue Lake Rancheria were contacted.



Highway 111 Project



SR 29 and SR 221 Interchange Project

Highway 111 Project

Location

La Quinta, CA

Client / Contact

City of La Quinta
Cheri Flores & Danny Castro
760.777.7000

Date(s) of Service

2020 – 2021

AeroTech Mapping's (ATM) professional services for this project began with the production of 1"=20', 1-foot topographical information and planimetric detail covering the approximate 17,445' of highway located in La Quinta, California. The photography consisted of 2 flight lines and 24 exposures utilizing 3.5cm Digital Flight. Accuracies of plus or minus 0.230' were achieved as it relates to the topographical information generated from photography flying height and GSD. Deliverables consisted of a hard-copy plot and a DVD or Flash Drive containing the DTM information used for the generation of topographical information, the contour information, planimetric detail, the .tfw image limit file, orthophoto TIFF image and .dwg image limits file which will allow for bringing the image into its proper coordinate position. Final delivery of the digital information was supplied in AutoCAD. The layering scheme was standard ATM layering.

SR 29 and SR 221 Interchange Project

Location

Napa, CA

Client

Napa Valley Transportation Authority
Sanjay Mishra
707.259.5951

Date(s) of Service

2020

ATM's professional services began with the production of 1"=50', 1-foot topographical information and planimetric detail covering the approximate 154 acres located in Napa, California. The aerial mapping limits are indicated in magenta on the attached layout. The photography consisted of 2 flight lines and 15 exposures utilizing 5cm Digital Flight. Accuracies of plus or minus 0.295' were achieved as it relates to the topographical information generated from photography flying height and GSD. Deliverables consisted of a hard-copy plot and a DVD or Flash Drive containing the DTM information used for the generation of topographical information, the contour information, planimetric detail, the .tfw image limit file, orthophoto TIFF image and .dwg image limits file which will allow for bringing the image into its proper coordinate position. Final delivery of the digital information was supplied in AutoCAD and MicroStation. The layering scheme was standard Caltrans layering.



Historic Old Jacoby Creek School and Temperance Hall at Jacoby Creek Road and Old Arcata Road



Honeydew Bridge Replacement Project

Old Arcata Road Improvements Project

Location

Arcata, Humboldt County, CA

Client / Contact

City of Arcata
Netra Kharti, City Engineer
707.825.2173

Date(s) of Service

2019– 2022

JRP Historical Consulting, LLC (JRP) prepared National Historic Preservation Act Section 106 compliance documentation and provided compliance guidance for the City of Arcata's Caltrans Local Assistance roadway improvements project along Old Arcata Road in the Bayside Corners area of the city, a rural district southeast of downtown. JRP prepared a Historical Resources Evaluation Report, Finding of Effect, and Historic Property Survey Report, along with the built environment section of the project's Environmental Impact Report prepared under the California Environmental Quality Act. Tasks included close coordination with project archaeologists, City staff, and environmental staff at GHD, along with participation in public outreach efforts, including public meetings, and communication with Caltrans District 1 cultural resources staff.

The Old Arcata Road Improvements project is a Caltrans Local Assistance project that includes proposed construction of a roundabout in the vicinity of older and historic built environment resources. Close coordination with Caltrans District 1 will serve to support efficient and effective Section 106 compliance for the 12th Street Interchange Modernization Project.

Honeydew Bridge Replacement Project

Location

West Sacramento, CA

Client / Contact

Humboldt County Public Works
Andrew Bundschuh
707.445.7741

Date(s) of Service

2013– 2021

JRP prepared National Historic Preservation Act Section 106 and California Environmental Quality Act historical resources compliance documentation for Humboldt County's project to replace the Honeydew Bridge over Mattole River, which is eligible for listing in the National Register of Historic Places. Tasks included preparation of a Historical Resources Evaluation Report (including evaluation of properties adjacent to the bridge), Historic Property Survey Report, Finding of Effect report and Memorandum of Agreement (MOA). JRP coordinated with County and Caltrans staff, project engineers, and project archaeologists. JRP also prepared mitigation measures stipulated in the MOA, including a Historic American Engineering Record report, interpretive panels, and a plaque.

The Honeydew Bridge Replacement Project is a Caltrans Local Assistance project that required preparation of the full suite of historic resources compliance documents. Close coordination with Caltrans District 1 will serve to support efficient and effective Section 106 compliance for the 12th Street Interchange Modernization Project.

Related Roadway and Roundabout Experience In the 2020/2021 construction season alone, GHD constructed 12 roundabouts. Project Name	Client Name	Project Components													Stakeholder Coordination		
		NEPA Document	CEQA Process	Local Permitting/ Approvals	Intersection Improvements	Intersection Control Evaluation Process (ICE)	Roundabouts	Traffic Operations	Retaining Walls	Survey/Mapping	Geotechnical Investigations	Drainage	Right of way	Landscaping/ Architect	Public Outreach	Local Transportation Agency Involvement	Caltrans District Involvement
Foster Avenue Extension	City of Arcata			✓	✓		✓		✓	✓	✓	✓		✓		HCAOG	1
Old Arcata Road Improvements	City of Arcata	✓	✓	✓	✓		✓		✓		✓	✓		✓		HCAOG	1
US101-Kenmar Road Interchange	City of Fortuna	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	HCAOG	1
17 Mile Drive/Holman Highway 68/Highway 1	Caltrans District 5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	TAMC	5
SR-1/SR-41 Interchange	City of Morro Bay/Caltrans D5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			5
SR-29/SR-221 Interchange PS&E (Soscot Junction) Roundabout	Caltrans District 4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	NVTA	4
First and Second Street Roundabouts along California Boulevard and SR 29/ First Street Roundabout	City of Napa/Caltrans District 4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	NVTA	4
SR-116/SR-121 Roundabout (as Subconsultant)	Caltrans District 4	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	SCTA	4
Healdsburg 5-Way Roundabout	City of Healdsburg		✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	SMART	
Devlin Road (Segment G) and Vine Trail Extension (with Roundabout)	City of American Canyon		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		
Windsor River Road/Windsor Road Intersection Improvements and Multi-Use Pathway Connector	Town of Windsor	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	SMART/ SCTA/ SCT	4
Olympic Boulevard/Pleasant Hill Road Roundabout	City of Lafayette			✓	✓		✓	✓				✓		✓	✓	CCTA	
Rocklin Road/South Grove Street Roundabout	City of Rocklin	✓	✓	✓	✓		✓	✓		✓		✓	✓	✓	✓	PCTA	
Rocklin Road/Meyers Street Roundabout	City of Rocklin	✓	✓	✓	✓		✓	✓	✓	✓		✓	✓	✓	✓	PCTA	
SR-99/Twin Cities Road/East Stockton Boulevard Roundabout Interchange	City of Galt/Caltrans District 3	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	SMTA	3
Jaye Street/Montgomery Ave Roundabout Intersection	City of Porterville			✓	✓		✓	✓		✓	✓	✓	✓		✓	TCAG	
Deschutes Rd/I-5 Ramps/Locust St/Factory Outlets Drive Roundabout Interchange	City of Redding	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		2
Old Alturas Road/Shasta View Drive Roundabout	City of Redding			✓	✓		✓	✓		✓	✓	✓	✓	✓			
Farmerville Boulevard/Noble Avenue/SR-198 Roundabout Interchange	City of Farmersville/ Caltrans District 6	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		TCAG	6
ICE /Roundabout Design Training (Caltrans Headquarters)	Caltrans Headquarters				✓	✓	✓	✓									Hdqtr

6

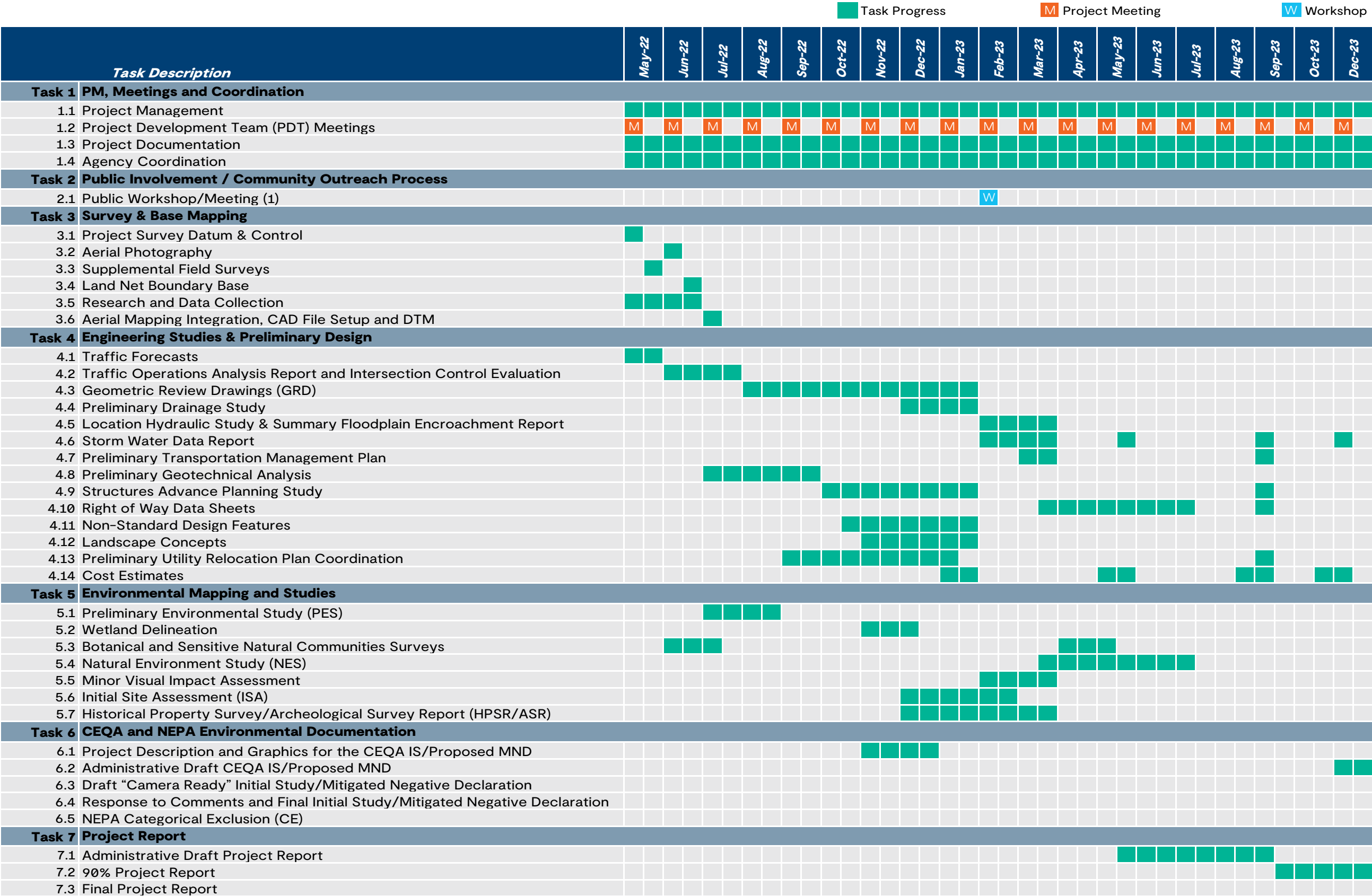
Project Schedule



→ The Power of Commitment

6. Project Schedule

We have developed this detailed schedule to reflect our plan to complete the project. If selected, we will refine the schedule with County input to meet your needs and expectations for the delivery of this project.



7

Estimated Fee Schedule



→ The Power of Commitment

7. | Estimated Fee Schedule

As a requirement of the City's RFP, our cost estimate is provided in a separate, sealed envelope.

A

APPENDIX A Resumes

(This section excluded from page count limit)



→ The Power of Commitment



Josh Wolf PE, QSD/P

Project Manager



Qualifications/Registrations

- BS, Environmental Resources Engineering, Humboldt State University, Arcata, CA, 2003
- Civil Engineer, CA #70358, OR #80613
- Local Assistance Resident Engineers Academy; March 2009, January 2016
- Qualified Stormwater Pollution Prevention Plan (SWPPP) Developer/Practitioner #00299

Experience

18 years

Memberships

- Humboldt County Association of Governments (HCAOG), Technical Advisory Committee
- City of Arcata, Transportation Safety Committee Member
- American Society of Civil Engineers (ASCE, Associate)

Relevance to the Project:

Josh is a senior engineer with over 18 years of experience designing and managing a wide range of transportation infrastructure projects including both motorized and non-motorized improvements on and off the state highway system. He is an expert in the planning, environmental, design, and construction oversight of federally funded projects for local agencies and native American tribes in Northern California. His project experience includes the design of public infrastructure projects that include roadway improvements, highway interchanges, intersection improvements, roundabouts, bicycle and pedestrian facilities, storm drainage improvements, and stormwater treatment facilities.

Project Experience

Citywide Striping and Unsignalized Intersection Improvements Project

Role: Project Manager

Client: City of Fortuna

Location: Fortuna, CA

Served as Project Manager for the City of Fortuna's HSIP project which includes upgrades and enhancements to existing crosswalks and the installation of edge and centerline striping throughout the City of Fortuna. The project includes the installation of solar-powered, wireless RRFB enhanced crosswalks systems at eight intersections. Mr. Wolf is managing the delivery of environmental, design, and construction management services for this federal-aid project, which is scheduled to go to construction in Spring 2020.

2018 Safe Routes to Schools: South Fortuna Elementary Project

Role: Project Manager

Client: City of Fortuna

Location: Fortuna, CA

Served as Project Manager for the City of Fortuna's Safe Routes to Schools (SRTS) project focused on providing bicycle and pedestrian connectivity to South Fortuna Elementary School. The project included bicycle and pedestrian improvements providing a safe and continuous non-motorized route from adjacent neighborhoods to the School. The project also improved the

parking lot circulation and drop-off/pick-up areas at the school which were confusing and inefficient, and led to congestion on Newburg Road and potentially unsafe conditions for students. Mr. Wolf managed the delivery of environmental, design, and construction management services for the project, which is was completed in Spring of 2020.

Rohnerville Road STIP/HSIP Project

Role: Project Manager

Client: City of Fortuna

Location: Fortuna, CA

As project manager and resident engineer, Mr. Wolf was responsible for the permitting, design, and construction of this federally funded \$2.1-million roadway and safety improvement project. GHD's responsibilities included public outreach, utility coordination, right-of-way certification, funding allocations and authorizations, construction documents, and construction engineering. The City's primary objectives were incorporated into the key design elements intended to provide separate pedestrian facilities, improve traffic circulation, and increase safety for all users.

US 101 Riverwalk Connectivity Study Project

Role: Project Manager

Client: City of Fortuna

Location: Fortuna, CA

Project Manager for the development of a planning study for

bicycle, pedestrian, and traffic operational improvements to the Kenmar Road and 12th Street interchanges with US 101 in the City of Fortuna. The project identified ways to improve access to the Riverwalk area and improve safety for all users (motorized & non-motorized), improve operations, apply Complete Streets concepts and create an entry statement/gateway, and ready the project for next steps in project development. The study was primarily funded by a 2015-2016 Sustainable Communities Planning Grant awarded to the Humboldt County Association of Governments (HCAOG) and the City of Fortuna as a sub-recipient. Work also included the preparation of a Project Study Report (PSR) for the Kenmar Interchange improvements.

Old Arcata Road STIP Project

Role: Project Manager

Client: City of Arcata

Location: Arcata, CA

Responsible for managing this 1-mile-long federally funded complete streets project through the community of Bayside. Improvements include pavement rehabilitation, new walkways and sidewalks, LID stormwater facilities, intersection improvements, and a new single-lane roundabout at the intersection with Jacoby Creek Road. As project manager, Mr. Wolf is responsible for overseeing the environmental and design phases of work: environmental studies, CEQA documentation, topographic and right-of-way surveys, geotechnical evaluations, and engineering design.

Humboldt Bay Trail North Project

Role: Project Manager

Client: City of Arcata

Location: Arcata, CA

Responsible for final engineering design of a 3.0-mile Class I trail through City, Caltrans, and railroad right-of-way. Improvements include six non-motorized bridges and an at-grade trail-rail crossing. Responsibilities included the preparation of the engineering plans, specifications, and estimates (PS&E package), and coordinating design improvements to minimize environmental impacts and mitigation costs. The trail segment is part of the California Coastal Trail with much of the alignment located entirely within the California Coastal Zone. Design was completed in 2016 and construction was completed in 2017. Winner of the 2018 ASCE San Francisco Section Outstanding Bikeways and Trails Project.

Foster Avenue Extension and Trail Project

Role: Project Manager

Client: City of Arcata

Location: Arcata, CA

Provided project management for the design of this high-priority project, which significantly improved traffic circulation and non-motorized connectivity in the City. Project components included a road extension, a roundabout, LID landscaping features, and pedestrian/bicyclist safety improvements, including the extension of the Arcata Rail with Trail project from Eastern Avenue to Sunset Avenue. The project was selected as 2016 Bikeways and Trails Project of the Year Awards by the San Francisco Section of ASCE.

Samoa Boulevard/SR255 Gateway Project

Role: Deputy Project Manager

Client: City of Arcata

Location: Arcata, CA

Served as deputy project manager and lead construction inspector for this federally funded \$1.7-million gateway project on State Highway 255 for the City of Arcata. This project included the construction of nearly 5,000 feet of new sidewalk, curb and gutter, curb ramps, decorative concrete, planting areas, raised medians, decorative lighting, signal and sign modifications, and a lighted pedestrian crosswalk. The project is partially located within the California Coastal Zone.

Main Street/SR1 Realignment Project

Role: Project Manager

Client: City of Fort Bragg

Location: Fort Bragg, CA

Josh served as project manager for this federally funded \$2.5-million project on State Route 1 (Main Street between Oak Street and Pine Street) for the City of Fort Bragg. Improvements included the relocation of the existing merge/drop lanes; the addition of bike lanes; the addition of medians; the replacement of the existing cobra head style streetlights with new decorative streetlights; the addition of right and left hand turn lanes at various intersections; decorative bulbouts, curb ramps, and crosswalks; and accessibility improvements to driveways and sidewalks. Work included expansive coordination with Caltrans oversight engineers and preparation of a Project Report (PR) and Design Exception Fact Sheet (Advisory and Mandatory).

Transportation Facility Improvements Project

Role: Project Manager

Client: Humboldt State University

Location: Arcata, CA

Responsible for overseeing the development of conceptual designs, cost estimates, and related documents to support the University's grant application to the California Strategic Growth Council Affordable Housing Sustainable Communities (AHSC) Grant. The project included improvements to the Library Circle, the Jolly Giant Commons, and the Trinity Annex with the goal of increasing the means and use of public transportation by students, faculty, and staff as their primary mode of travel.

Eureka Waterfront Trail Project

Role: Project Manager

Client: City of Eureka

Location: Eureka, CA

Project Director for this multi-phase, multi-year planning and design project, including assisting with the Caltrans PA&ED phase, trail alignment analysis, developing construction-ready PS&Es, and environmental compliance documents for a Class 1 segment of the non-motorized California Coastal Trail along the majority of the City of Eureka's waterfront. The project is primarily in the right-of-way of a city street and a railroad and is entirely within the California Coastal Zone. Project tasks involved topographic survey, wayfinding signage, and interpretive signage



Kamesh Vedula PE, TE

Project Director



Qualifications/Registrations

- MS, Transportation, Kansas State University, Manhattan, KS, 2004
- BS, Civil Engineering, Nagarjuna University, Bapatla, India, 2000
- Civil Engineer, CA #79926
- Traffic Engineer, CA #2546

Experience

21 years

Relevance to the Project:

Kamesh has over 21 years in the disciplines of transportation engineering, planning, and modeling. His present roles include Principal-in-Charge, Business Development, Project Manager, and Transportation Operations Leader, depending on project needs. He oversees the workload balance of the transportation planning / engineering group and coordinates with other groups and regions to level staff resources. Kamesh is an Intersection Control Evaluation (ICE) specialist, completing numerous ICE projects within a majority of Caltrans Districts and conducting ICE analyses training classes in Caltrans District 11 and Headquarters. His project management experience includes Caltrans Project Study Report-Project Development Support (PSR-PDS), Project Approval / Environmental Documents (PA/ED), ICE studies, roundabout planning / design, advanced roundabout operations analyses / design, complete streets studies, corridor studies, traffic impact studies, and traffic safety studies. Kamesh oversees daily operations including team meetings, scheduling, invoicing, and client coordination through active communication. He contributes to business development through conference attendance, positioning with clients and strategic teaming partners, preparation of qualifications and proposals, and interviews for proposed projects.

Project Experience

17 Mile Drive/Holman Highway 68/Highway 1 Roundabout Intersection ICE Project

Role: Traffic Engineer

Client: City of Monterey

Location: Monterey, CA

Preparation of traffic operations report in support of the ICE document. Synchro, Sidra, and VISSIM software were utilized to quantify the performance criteria for study alternatives for a hybrid multi-lane roundabout at the 17 Mile Drive entrance (Pebble Beach).

SR 99 /Eaton Road Interchange Roundabout Project

Role: Principal-In-Charge

Client: City of Chico

Location: Chico, CA

Oversaw roundabout design and plan production for this five-leg roundabout at the northbound off-ramp. Construction completed in winter 2022.

First Street and Second Street Roundabouts along California Boulevard Project

Role: Traffic Engineer

Client: City of Napa

Location: Napa, CA

Responsible for preparing the analysis and the report in support of

the ICE process for three closely spaced roundabouts.

I-8 Eastbound Off-Ramp/Lake Jennings Park Road ICE Analysis Project

Role: Project Manager

Client: City of San Diego

Location: San Diego, CA

Overseeing the preparation of ICE analysis for the I-8 and Lake Jennings Park Road interchange.

Indiana Avenue/Van Buren Roundabout ICE Project

Role: Project Manager

Client: City of Riverside

Location: Riverside, CA

Responsible for coordination, meetings, Caltrans meetings, reports, executions and data, preliminary traffic forecasts, preliminary control development and evaluations, memo ICE step 1 analysis, and recommendations.

SR 1/SR 41/Main Street Intersection ICE Project

Role: Traffic Engineer

Client: City of Morro Bay

Location: Morro Bay, CA

Prepared the analysis and the report in support of the ICE process.

SR 116/SR 121 Roundabout Intersection Improvements Project

Role: Project Manager, Design Engineer

Client: County of Sonoma

Location: Sonoma County, CA

The existing four-way stop is increasingly unable to function as the junction of two state highways. The project is to relieve traffic congestion, enhance safety, and enhance pedestrian/bicycle access through the Intersection. Oversees the preparation of the document in support of the ICE process.

I-5 / Deschutes Road Roundabout Interchange Reconstruction PA/ED, PSR, PR, PS&E, and Construction Management Project

Role: Project Engineer

Client: City of Anderson

Location: Anderson, CA

Prepared traffic forecasts and traffic operations and report supporting the Project Study Report (PSR) for a roundabout with five legs and new northbound off-ramp. Synchro, SIDRA, Rodel, Highway Capacity Software (HCS), and VISSIM software were utilized to quantify the performance criteria for various study alternatives. Construction was completed in 2013 at a cost of \$4 million.

State Route (SR) 99 / SR 104 (Twin Cities Road) Roundabout Interchange PSR / PR and PS&E Project

Role: Project Engineer

Client: City of Galt

Location: Galt, CA

Prepared traffic forecasts and traffic operations report supporting the PSR for the design of roundabouts on both sides of the freeway overcrossing and a new freeway on-ramp. Synchro, Sidra, Rodel, HCS, and VISSIM software were utilized to quantify the criteria for study alternatives.

Rohnert Park Citywide Roundabout Circulation Study Project

Role: Traffic Engineer

Client: City of Rohnert Park

Location: Rohnert Park, CA

Responsible for travel time runs, preparation of calibrated operations model to match field conditions, and proposing mitigations to improve traffic operations.

Old Redwood Highway Complete Street Improvement and Design Project

Role: Traffic Engineer

Client: City of Cotati

Location: Cotati, CA

Responsible for traffic study to address the transportation impacts associated with the proposed Village Main Street roadway

improvement project that proposes to improve Old Redwood Highway Corridor to a pedestrian-oriented two-lane facility for use in completing the project's California Environmental Quality Act (CEQA) environmental documents.

I-80 / Gilman Street Interchange Improvement Project PA/ED Project

Role: Traffic Engineer

Client: Parsons Transportation Group

Location: Amador County, CA

Responsible for traffic modeling, operations, and design of multimodal elements, including two roundabouts on Gilman Street - one located at each Interstate 80 (I-80) ramp intersection. The purpose of the project was to simplify and improve traffic operations, improve local and regional bicycle connections and pedestrian facilities, and safety. Current conditions, along with an overall increase in vehicle traffic, have created poor, confusing, and unsafe operations in the interchange area for vehicles, pedestrians, and bicyclists.

Windsor River Road / Windsor Road Intersection Improvements Project

Role: Traffic Engineer

Client: Town of Windsor

Location: Windsor, CA

Responsible for traffic operations, preparation of the ICE, review of preliminary stage construction and traffic handling for this federally funded intersection improvement project. This intersection is a gateway to the Town Green downtown area, the Windsor Depot (transit center), and the future SMART Windsor Station. The main project goal was to improve safety by reducing hazards to motorists, bicyclists, and pedestrians at the rail grade crossing / intersection and to meet safety objectives outlined by the California Public Utilities Commission, prior to the future passenger rail service to Windsor. The project included preliminary design and concept preparation of two alternatives—a modified traffic signal alternative and a roundabout alternative—ICE of the alternatives, public outreach, and National Environmental Policy Act (NEPA) / CEQA services.

La Quinta Village Complete Street, a Road Diet Project

Role: Traffic Engineer

Client: City of La Quinta

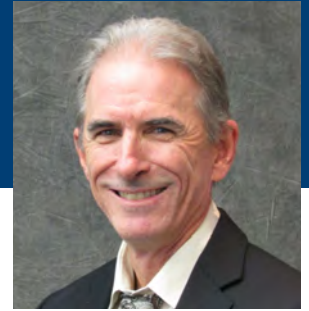
Location: La Quinta, CA

Assisted in the scoping and field review for the City of La Quinta Active Transportation Program grant application, which was processed successfully.



Ronald Boyle PE

Quality Assurance / Quality Control



Qualifications/Registrations

- BS, Civil Engineering, California Polytechnic State University, San Luis Obispo, CA, 1982
- Civil Engineer, CA #46387

Relevance to the Project:

Ronald (Ron) serves as a project manager and/or lead designer on a variety of public works and private projects in California, where his specialties in roundabouts, interchange, and roadway design are required. He has over 38 years of design experience and 32 years of project management experience and is skillful at working with state and local agency staff. Ron has been involved in the planning design or construction of over 75 roundabouts, many of which were the first of their type in communities requiring extensive public outreach. In addition to playing a lead role on projects, he provides peer review of roundabout projects, including those developed by private developers, local agencies, and Caltrans.

Experience

38 years

Memberships

- American Public Works Association

Project Experience

17 Mile Drive / Highway 68 / Highway 1 Roundabout Intersection PS&E Project

Role: Project Manager

Client: City of Monterey

Location: Monterey, CA

Preparation of Supplemental Project Report, construction documents, and construction support services for two closely-spaced roundabouts at Holman Highway, SR 68 and Highway 1, including the access to 17 Mile Drive (Pebble Beach). Construction was completed in 2017 at a cost of \$6.3 million. Project received multiple awards including awards from TAMC, Caltrans, American Public Works Association (APWA), Engineering New Record (ENR), and others.

SR 29 / SR 221 Interchange Soscol Junction

Role: Lead Designer

Client: Napa Valley Transportation Authority

Location: Napa County, CA

Developed geometrics for a new local interchange adjacent to an existing freeway-to-freeway interchange. Project entailed the horizontal and vertical relocation of SR 29 to facilitate stage construction of two multi-lane roundabouts and new freeway on- and off-ramps. PA/ED phase to follow.

SR 29, First Street, and Second Street Roundabouts along California Boulevard Project

Role: Project Manager, Lead Designer

Client: City of Napa

Location: Napa, CA

Performed project management, public outreach, and led design and plan production for three closely spaced roundabouts at SR 29 and First Street northbound ramps and California Boulevard at First Street and Second Street. Plans were processed through Caltrans

Office Engineer and construction scheduled at an estimated cost of \$11.2 million.

SR 99 / Eaton Road Interchange Roundabout Project

Role: Project Manager

Client: City of Chico

Location: Chico, CA

Led roundabout design and oversaw plan production for this five-leg roundabout at the northbound off-ramp. Construction completed in Winter 2022.

SR 99 / SR 104 (Twin Cities Road) Roundabout Interchange PSR/PR and PS&E Project

Role: Project Manager, Lead Designer

Client: City of Galt

Location: Galt, CA

Managed the project approval from Caltrans and prepared the PS&E to replace two signalized intersections with closely spaced roundabouts, thereby preserving the overcrossing and increasing the capacity of the interchange. Project included a new freeway on-ramp and shift of the mainline freeway. Construction was completed in 2014 at a cost of \$6.8 million. Project received awards in 2015 from ASCE Sacramento Region and CMAA Northern California Chapter.

I-5 / Deschutes Road Roundabout Interchange Reconstruction PA/ED, PSR, PR, PS&E, and Construction Management Project

Role: Quality Control & Design Review

Client: City of Anderson

Location: Anderson, CA

Performed the geometric layouts and the overall quality control

for the freeway ramp modifications, deep utility construction, and staged construction/traffic handling plans on a roundabout with five-legs and new northbound off-ramp. Construction was completed in 2013 at a cost of \$4 million.

SR 68 Scenic Corridor ICE / PS&E Project

Role: Quality Control & Geometric Design

Client: TAMC, Caltrans District 5

Location: Monterey County, CA

Performed the geometric layouts and quality control under contract to TAMC for this Caltrans led project for corridor improvements SR 68 between Salinas and Monterey.

Improvements include modification of nine intersections, eight of which will be converted to roundabouts. Project is currently in 65 % PS&E.

SR 26 / SR 28 (North Lake Boulevard) Western Approach Roundabout Project

Role: Lead Designer

Client: County of Placer

Location: Kings Beach, CA

Performed the geometric layouts and the overall quality control for a hybrid multi-lane roundabout at this currently signalized intersection.

La Quinta Village Complete Street, a Road Diet Project

Role: Quality Control & Design Review

Client: City of La Quinta

Location: La Quinta, CA

Reviewed the preparation of three complete street corridors including five roundabouts, a road diet to reduce travel lanes to provide bicycle lanes, and various pedestrian crossing improvements outlined in the Active Transportation Program Grant Application prepared by GHD. Project scheduled for construction.

US 50 - Pioneer Trail Roundabout Project

Role: Lead Designer

Client: County of El Dorado

Location: Meyers, CA

As subconsultant to NCE, developed the roundabout geometrics, assisted with public outreach effort, and oversaw production of the approval documents for this heavily used intersection in the Tahoe basin. Project Approval/Environmental Documents (PA/ED) phase to follow.

City of Palmdale Roundabout at 40th Street East / East Avenue S-8 Project

Role: Roundabout Designer

Client: JT Engineering

Location: Palmdale, CA

Prepared roundabout geometrics for a new hybrid lane roundabout at this semi-rural intersection with high-speed approaches.

SR 156 / Castroville Boulevard Interchange ICE / PS&E Project

Role: Quality Control, Geometric Design

Client: TAMC, Caltrans District 5

Location: Monterey County, CA

Performed the geometric layouts and quality control under contract to TAMC for this Caltrans led project for a new freeway interchange on SR 156 near Castroville CA. Plans include one roundabout with five-legs and two additional single-lane roundabouts. Project is currently in 65 % PS&E.

I-80 / Bell Road Interchange ICE / PS&E Project

Role: Quality Control, Geometric Design

Client: Placer County

Location: Auburn, CA

Performed the geometric layouts and quality control for interchange modifications Plans include a multilane roundabout at each ramp intersection with one of the roundabouts having six-legs. Project is currently in 65 % PS&E.

US 101 / Olive Mill Road and US 101 / San Ysidro Interchange Improvements Project

Role: Roundabout Designer

Client: County of Santa Barbara

Location: Montecito, CA

Oversaw the design and environmental services needed in identifying the right of way conflicts, easements, and preliminary design for a public multi-use trail that largely follows a high voltage electrical transmission corridor. The 2.9-mile-long bike trail connects residences, retail centers, city parks, and public schools in the City of Citrus Heights and Sacramento County. The project involved coordination between various subconsultants, City, County, two park districts, Sacramento Municipal Utility District, and an extensive public outreach campaign.

SR 116 / SR 121 Roundabout Intersection Improvements Project

Role: Roundabout Designer

Client: Sonoma County

Location: Sonoma County, CA

As subconsultant to Parsons Transportation, developed the roundabout geometrics, assisted with the public outreach effort, and oversaw plan production for a multi-lane roundabout at this congested rural intersection of two state routes. Design included high-speed approaches and phasing of improvements. Scheduled for construction.

Tank Farm Road at Orcutt Road Roundabout Intersection Project

Role: Roundabout Designer

Client: City of San Luis Obispo

Location: San Luis Obispo, CA

Prepared roundabout geometrics for a new single-lane roundabout at this semi-rural intersection with high-speed approaches.



Daniel Kehrer PE, QSD/P

Design Engineering Lead



Qualifications/Registrations

- BS, Civil Engineering, California State University, Sacramento, CA, 2012
- Civil Engineer, CA #82663
- Qualified Stormwater Pollution Prevention Plan (SWPPP) Developer / Practitioner, CA #25976

Experience

15 years

Memberships

- American Society of Civil Engineers
- GHD Young Professionals

Relevance to the Project:

Daniel is a project manager who has been a part of numerous civil engineering planning documents and designs for various complex intersections, roadway corridors, interchanges, bike trails, rail crossings, road diets, peer reviews, site development (hospitals and multi-family) projects for over 15 years. He works collaboratively with our staff in providing civil engineering design and planning support, including the following: feasibility studies, plan line studies, environmental documents, traffic reports, project reports, safety analyses, peer reviews, plan preparation, specifications, estimates, and construction support. He is well-versed in assembling plans / exhibits / documents, quantity calculations, and cost estimations, as well as roadway software design programs, right of way certification, utility coordination, and construction plan reviews and SWPPP's. He is very familiar with design codes, such as the Caltrans Highway Design Manual (HDM), Americans with Disabilities Act (ADA) / Public Rights of Way Accessibility Guidelines (PROWAG), American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide, California Manual on Uniform Traffic Control Devices (CA MUTCD), and National Cooperative Highway Research Program (NCHRP) Report 672 (Roundabouts: an Informational Guide) which is the national standard for roundabout designs and performance checks.

Project Experience

17 Mile Drive / Holman Highway 68 / Highway 1 Intersection ICE, PS&E Project

Role: Project Engineer

Client: City of Monterey

Location: Monterey, CA

Served as the lead project designer for project report, PS&E, project bid documents and provided construction support for this award-winning roundabout project at this major highway crossing and the entrance to the Pebble Beach Community. Construction was completed in 2017.

Carmel Valley Roundabout Project

Role: Project Engineer

Client: County of Monterey

Location: Carmel Valley, CA

Served as the lead project designer for the preparation of the preliminary geometrics, environmental analysis / reporting, and PS&E for a single-lane roundabout in rural Monterey County. The project included intersection modification (existing side-street stop control), bicycle accommodation, drainage design, managing steep grades and existing super elevations and driveway connections to existing residential and hospitality parcels. The innovative intersection layout allowed the construction to be staged in a manner that traffic movements will be maintained for the duration of construction with minimal right of way acquisitions.

First Street and Second Street Roundabouts along California Boulevard Project

Role: Project Engineer

Client: City of Napa

Location: Napa, CA

Served as the lead project designer for the project report, PS&E, estimates, utility relocations, and right of way acquisition for three roundabouts at the intersections of the SR 29 northbound ramps at First Street, First Street at California Boulevard, and Second Street at California Boulevard. Project included two multi-lane roundabouts, one of which is in the State right of way at the SR 29 ramp intersection. Project is federally funded and will be administered by Caltrans during construction, which was successfully constructed in 12 months, ahead of schedule, in 2020.

SR 29 / SR 221 Interchange – Soscol Junction Project

Role: Project Engineer

Client: Napa Valley Transportation Authority

Location: Napa County, CA

Served as the lead designer for the preparation of the Roundabout Interchange Initial Feasibility Evaluation and various design checks in conformance with Caltrans standards to determine if a traffic signal or roundabout would better serve the location.



Andrea Hilton

Environmental Lead



Qualifications/Registrations

- MS, Natural Resources (Watershed Management), Humboldt State University, Arcata, CA, 2006
- BA, Environmental Studies, Bard College, Dutchess County, NY, 1999

Experience

17 years

Relevance to the Project:

Andrea is an environmental planner with 17 years of experience in hydrology and streamflow management, with an emphasis on management for special-status anadromous fish species. Her broad background has focused on planning, implementing, and monitoring ecosystem restoration projects; collaborative resource management planning and negotiation; and regulatory oversight. Her portfolio of restoration projects includes channel rehabilitation designs implemented on the Trinity River, fish passage improvement on Trinity basin streams, landscape-scale restoration planning on the Klamath River in both Oregon and California, coastal wetland and salt marsh enhancement, and wetland and cultural restoration in Humboldt Bay and the Eel River estuary. Andrea frequently conducts regulatory permitting and CEQA for a wide variety of projects, including public access facilities, trails, and public infrastructure improvements, among others. She has prepared project permits, technical studies, and CEQA documents for numerous trail and rail trail projects. Her trail and rail trail projects include an extension of the Eureka Waterfront Trail in the Elk River estuary, the Manila Shared Use Pathway along Highway 255, the City of Eureka Bay to Zoo Trail, a public access trail in the Mad River Estuary, Humboldt Bay Trail South, and the Little River Trail, a coastal trail south of Trinidad, California. Andrea is also experienced working with Caltrans District 1 on a variety of Local Assistance projects and is very familiar with the Local Assistance Procedures Manual (LAMP) guidelines and requirements. She has taken the Caltrans training for Federal Environmental Requirements for Local Agency Transportation project "OFF" the State Highway System.

Project Experience

Highway 101 Kenmar Road Interchange Project

Role: Environmental Team Lead

Client: City of Fortuna

Location: Fortuna, CA

Served as Environmental Team Lead for Caltrans District 1 Local Assistance project. Managed environmental support activities for GHD and subcontractors, including the PES, biological, wetland, cultural resource, visual resource, and various other technical studies, as well as CEQA and NEPA documentation. Worked in close coordination with project management and environmental staff at Caltrans District 1.

Rohnerville Road Fire Station Project

Role: Project Manager

Client: Fortuna Fire Protection District

Location: Fortuna, CA

Prepared a project description and CEQA document (IS/MND) for construction of a proposed fire station on Rohnerville Road in Fortuna. The project is coordinated with planning staff at the City of Fortuna, as the City is the lead agency for the project.

Old Arcata Road Rehabilitation & Pedestrian/Bikeway Improvements Project

Role: Environmental Team Lead

Client: City of Arcata

Location: Arcata, CA

Served as Environmental Team Lead for Caltrans District 1 Local Assistance project. Prepared a project description and CEQA IS/MND for road rehabilitation, upgraded bicycle lanes, extended pedestrian walkway, cross walks, curbs and gutters, speed humps, and a new roundabout. Facilitated client and Caltrans review of related project documents, including cultural resource investigations (Archaeology Survey Report and Historic Resources Evaluation Report - among others), Visual Impact Assessment, and the Natural Environment Study (NES). Project includes wetland impacts and requisite compensatory mitigation.

Little River Trail Project Approval & Environmental Documentation (PA/ED) Project

Role: Environmental Project Manager

Client: Redwood Community Action Agency

Location: Little River, CA

Managed environmental support activities for GHD and subcontractors, including the Preliminary Environmental Stud



Mahvash Harms PE, SE

Principal/Executive Vice President



Qualifications/Registrations

- BS and MS Civil Engineering, San Jose State University
- Licensed Professional Engineer, CA, C31736
- Licensed Structural Engineer, CA, S2639

Experience

35 years

Memberships

- WTS-Women's Transportation Seminar
- SEAONC-Structural Engineering Association of Northern California
- ASCE-American Society of Civil Engineers
- ACEC-California (CELSOC)
- APWA-American Public Works Association

Relevance to the Project:

Mahvash has over 35 years of experience in Project Management and Structural Engineering. During this time, she has acted as Project Manager for and transportation projects throughout California. Mahvash has led structural engineering design of various transportation projects including new bridge design, seismic retrofit, slide repairs, and retaining walls. Mahvash's projects have won multiple awards, most notably the Clarke Avenue Pedestrian Overcrossing which was awarded **an Honor Award in the ACEC California 2020 Engineering Excellence Awards competition as well as the 2019 Silicon Valley Bicycle Coalition Project of the Year.**

Project Experience

Clarke Avenue Pedestrian Overcrossing at US-101 Project

Role: Structures Project Manager

Location: East Palo Alto, CA

Feasibility Study, Type Selection and PS&E for the design of a pedestrian and bicycle overcrossing to connect East Palo Alto residents on the east and west sides of US 101. The main bridge is a 320-foot-long three-span structure, with ADA compliant 450-foot-long ramp structures that descend to street level on either side of US 101.

Blossom Hill Road Widening and Pedestrian Overcrossing and Undercrossing Project

Role: Structures Manager

Location: San Jose, CA

Advanced Planning Study, preparation of Plans, Specifications and Estimates PS&E and construction support for the following structures: Widening of the bridge over US 101 between the two existing Blossom Hill Road bridge decks to accommodate the addition of a lane in each direction; pedestrian undercrossing structure beneath the southbound off-ramp; pedestrian undercrossing structure beneath the southbound loop on-ramp and pedestrian undercrossing over the northbound on-ramp, which will be lowered in grade to allow adequate clearances. Mary Avenue Bicycle Footbridge over Highway 280.

Mary Avenue Bicycle Footbridge over Highway 280 Project

Role: Project Manager

Location: Cupertino, CA

Project Manager for the PSR/PR, and PS&E for a concrete cable-stayed pedestrian and Bicycle Bridge over I-280, the first of its kind in the Bay Area. The bridge design has a main span of 325-ft, 85-ft tall towers, and steel cables that extend from the towers to support the deck. This technically challenging design included: base isolation, non-linear time history analysis and wind tunnel testing.

Shoreline Boulevard Pedestrian/Bicycle Overcrossing at US-101 Project

Role: Project Manager

Location: Mountain View, CA

Design of a Class 1 pedestrian/bicycle overcrossing spanning US-101. Biggs Cardosa leads a complete consultant team to identify, develop and evaluate conceptual designs for structure types and overall pathway improvements. A full breadth of services will be provided to the City including civil roadway design, geotechnical investigation, survey, urban design, environmental permitting assistance, public outreach, and a schematic preliminary design of the preferred alternative. Once constructed, the new overcrossing and cycle tracks will enhance pedestrian and bicyclist movements by providing safer travel in the north-south direction of Shoreline Boulevard. This project location is along a northern segment of the Shoreline Boulevard Corridor that connects Downtown Mountain View and the Downtown Transit Center to the city's North Bay Shore Area.



Anthony Richardson PE

Associate



Qualifications/Registrations

- BS and ME Civil Engineering, University of Manchester, England
- Licensed Professional Engineer, CA, C66373
- Licensed Professional Engineer, WA, 21032431

Experience

27 years

Relevance to the Project:

Anthony has over 27 years of engineering management and design experience. During his 21 years at Biggs Cardosa, Anthony has worked on numerous transportation projects throughout California. Anthony's projects have received numerous awards, including the Santa Clara Caltrain Station Pedestrian Undercrossing project which received State and National awards

Project Experience

Kenmar Road Widening under US-101 Project

Role: Structures Manager

Location: Fortuna, CA

Advanced Planning Study to provide a new sidewalk under this existing Caltrans bridge by installing a new shotcrete retaining wall with grouted anchors in front of the existing abutment.

SR 29 Bicycle and Pedestrian Undercrossing Retaining Wall Project

Role: Structures Manager

Location: Napa, CA

Design of the retaining wall to provide a new sidewalk under the existing Caltrans SR29 bridge structures by installing a new shotcrete retaining wall with grouted anchors in front of the existing abutment. This City project was within Caltrans ROW and included federal funding.

Yerba Buena Island West Side Bridges Project

Role: Structures Lead

Location: San Francisco, CA

Led the structures team that designed one of the retaining walls and the modifications and retrofit of the remaining bridge. The existing bridge has an extremely tight radius and trucks routinely become physically stuck between the bridge columns and barriers. As part of this project, two of the bents were modified by replacing the steel bent caps with longer concrete bent caps and new concrete columns to allow the roadway below the bridge to be realigned with a larger radius. The bridge connects to the San Francisco Oakland Bay Bridge, requiring extensive coordination with Caltrans to obtain an encroachment permit.

Santa Clara Pedestrian Undercrossing Extension Project

Role: Design and Structures Manager

Location: Santa Clara, CA

Led the multidisciplinary team for the design of an 83-foot long undercrossing and a 250-foot-long ramp structure to provide access underneath three existing tracks used by UPRR, Caltrain and other passenger services. The project included a four-day weekend shutdown of all tracks for the installation of precast concrete tunnels segments.

Little River Bridge Widening Project

Role: Structures Manager

Location: Westhaven, CA

Advanced Planning Study for widening this existing nine-span Caltrans structure for a proposed cycle/pedestrian lane. The study includes approximately 700-feet of retaining wall within Caltrans right of way.

I-80 Bayshore Freeway Project

Role: Senior Engineer

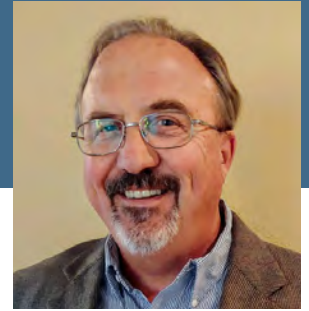
Location: San Francisco, CA

Senior Engineer providing on-site construction engineering to Contractor for a seismic retrofit project; developed value engineering proposals, design and detailing of temporary structures, developed construction methods and procedures for change orders and some items of contract work. This included coordinating with Caltrans engineering and field staff. Tasks included proposing and developing a Cost Reduction Incentive Proposal to construct a foundation retrofit beneath the existing pile cap as an alternative to temporarily supporting the bridge while demolishing and replacing the existing column and pile cap.



James A. Bianchin PG, CEG

Principal Engineering Geologist



Qualifications/Registrations

- BA, Geology, California State University at Humboldt
- Professional Geologist, CA #5966
- Certified Engineering Geologist: CA #1644; OR #E1989

Experience

39 years

Memberships

- Association of Environmental & Engineering Geologists
- American Society of Civil Engineers
- American Public Works Association
- Association Redding West Rotary Club

Relevance to the Project:

Jim is a Principal Engineering Geologist with more than 39 years of experience in managing and providing engineering geologic services for complex geotechnical projects located in Oregon, Nevada, throughout California, and in the former Soviet Union. He specializes in managing multifaceted, detailed geotechnical studies for difficult access sites and characterization of complex, geologically impacted sites.

Project Experience

Oakland to San Francisco Bay Bridge Replacement Project

Role: Project Manager

Location: Oakland/San Francisco, CA

Managed the preliminary geotechnical studies for the onshore components at Yerba Buena Island for the replacement of the Bay Bridge. These services included extensive onshore coring and geophysical surveys, offshore coring and downhole in-situ testing, extensive laboratory testing and geotechnical modeling, and preparation of a preliminary geotechnical report for the project.

Coastal Aqueduct Extension (Phase II) of the California State Water Project

Role: Project Manager

Location: Various, CA

Manager of geotechnical services and responsible engineering geologist for the design of the Central Coast Water Authority's components of the Coastal Aqueduct Extension (Phase II) of the California State Water Project. This project included 73 miles of large-diameter flexible pipeline, three 2-million-gallon pre-stressed concrete tanks, a 40-million gallon-per-day water treatment plant, a pump station, a scour evaluation of the pipeline crossing of the Santa Maria River, and a microtunnel alignment beneath the Santa Ynez River.

Redwood Creek Levee Stability Evaluation Project

Role: Project Manager

Location: Humboldt County, CA

Managed geotechnical services for the evaluation of the 3.4-mile-long levee system (twin levees - 6.8 miles total), which was constructed in 1968 and was in the process of being recertified. The studies included performing explorations at 92 locations using sonic cores, cone penetrometer soundings, and conventional hollow-stem auger drill holes. The project involved extensive laboratory testing and transient seepage, slope stability, liquefaction, and settlement analyses for 18 cross sections along the levee to evaluate potential deficiencies for the levee system.

Marathon Oil's Sakhalin Island, Russia, Feasibility Study Project

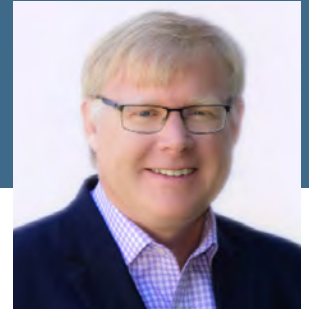
Role: Project Manager

Location: Sakhalin Island, Russia

Marathon Oil obtained the first offshore oil and gas lease within Russia following the breakup of the Soviet Union. To develop the offshore oil field extraction and onshore infrastructure to support the processing and shipping of petroleum in this remote eastern margin of Russia, Marathon performed the first Environmental Impact Statement prepared using western standards. Jim interacted with Russian representatives while on Sakhalin Island, managed the collection and dissemination of geologic and geotechnical data relative to the project, and managed a team of geologists and geotechnical engineers in preparing the Geologic Resources section for the environmental document.

Bob Morrison PE, MBA

Broker



Qualifications/Registrations

- MS, Business Admin, California State University Sacramento
- BS, Civil Engineering, Tufts University, Medford, MA
- Civil Engineer, CA #52617
- Real Estate Broker, CA #01144860

Relevance to the Project:

Bob has extensive project management experience spanning over 30 years in both the public and private sectors. His complete understanding of the project development process allows him to better streamline project delivery through proper planning, cost saving and time saving measures, and risk mitigation strategies. Bob's experience has given him an understanding of the entire project development process in which he is well-versed on all aspects of right-of-way and has the ability to leverage this experience to provide his clients with viable, innovative and effective solutions. Bob is an expert in the implementation of programs in accordance with the Uniform Act, FHWA, FTA, Caltrans Manual, state laws, regulations, and policies.

Experience

30 years

Memberships

- International Right-of-Way Association (IRWA)
- California Transportation Foundation (CTF)

Project Experience

Riverfront Street Extension Project

Role: Project Manager

Client: City of West Sacramento

Location: West Sacramento, CA

Monument worked with the City of West Sacramento to deliver the Riverfront Street Extension Project. This grant-funded project extended Riverfront Street and widened 5th Street under US-50 along the City of West Sacramento's Waterfront. The project included acquisition of 10 parcels, 5 of which are part of a larger development agreement. Bob crafted an innovative strategy to meet the FHWA right-of-way requirements while still honoring the terms of the development agreement. As a result, Monument was able to save the City of West Sacramento over half of the consulting fees other firms were proposing to acquire the right-of-way.

I Street Bridge Replacement Project

Role: Project Manager

Client: City of West Sacramento

Location: West Sacramento, CA

Monument is part of the project team responsible for delivering the real property portion of this new bridge crossing over the Sacramento River between the City of Sacramento and the City of West Sacramento. This federally funded project includes right-of-way acquisition on both sides of the river, with each local agency taking the oversight of the right-of-way efforts within their jurisdiction.

Sacramento Area Flood Control Levee Improvement Projects

Role: Project Manager

Client: Sacramento Area Flood Control Agency (SAFCA)

Location: Sacramento, CA

As Right-of-Way Program Manager, Bob is responsible for the delivery of over 350 parcels in support of SAFCA's \$1.8 Billion

Levee Improvement Program. Previously, Bob was instrumental in successfully delivering SAFCA's Natomas Basin Project and was charged with developing the right-of-way implementation plan, capital cost estimates, and delivery schedule to support this critical initial phase of SAFCA's overall levee improvement program. In addition, Bob coordinated efforts with the California Department of Water Resources and managed the functional disciplines to support the right-of-way delivery consisting of appraisal, negotiations, relocation, title, environmental, and escrow closings.

California High-Speed Rail Project

Role: Project Manager

Client: California High-Speed Rail Authority (CHSRA)

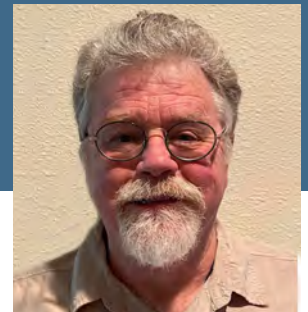
Location: Fresno, CA

Bob and the Monument team are currently working directly with each utility company to negotiate out grants for relocated facilities. The current segments include the portion from Madera to Bakersfield. This project work includes multiple grade separations at existing roadways, realignment of State Route 99 in Fresno, and large bridges over the Fresno River and SR-99. This project includes every major right-of-way activity. Bob and the team were previously responsible for project execution including cost analysis, schedule development and delivery of over 1,500 appraisals, appraisal reviews, 120 property acquisitions and relocations, and over 60 eminent domain submittal packages. Bob was instrumental in defining the process and working with each of the agencies to streamline their approvals. As the project advanced, Bob was instrumental in developing the project priorities and working with CHSRA management to push for the most expedited delivery.



James M. Roscoe

Principal Investigator



Qualifications/Registrations

- MA, Cultural Resource Management/Archaeology, Sonoma State University
- BA, History and Social Science, Humboldt State University
- Junior College Instructor Credential, Anthropology and History
- Secondary Credential, Social Science, Humboldt State University

Experience

39 years

Memberships

- Humboldt County Historical Society (Past President)
- Society for California Archaeology
- California Teachers Association
- Society for American Archaeology
- California State University Faculty Association

Relevance to the Project:

James has over 40 years of experience conducting cultural resource investigations on over 400 projects in Del Norte, Humboldt, Trinity, Lake, Mendocino, and Sonoma Counties in Northwestern California. In his role as Cultural Resources Facility Director for the Department of Anthropology at Humboldt State University, he provided professional cultural resources services to Northwest California Tribes, as well as Federal, State, and local agencies.

Project Experience

HISTORIC PROPERTY SURVEY REPORT
HIGHWAY 255 GATEWAY IMPROVEMENTS,
CALTRANS District 1, Humboldt County, California

An Archaeological Survey Report for the
Trinidad Gateway and High-Risk Rural Roads
(HR3) Project, Trinidad, Humboldt County, California
Project No's. STIPLER-5036(06) & HRRRL-5036(009)

An Archaeological Survey Report for the
Preventative Maintenance Program of Seven
Bridges, Located in Humboldt County, California

Archaeological Survey Report for the Alderpoint
Road Post Mile 42.65 Storm Damage Repair
Project ER4400(051), Located in Humboldt County,
California

Humboldt County Public Works, Archaeological
Survey Report of the Mattole Road Post Mile 4.37
Storm Drainage Repair Project ER4400(012),
Located in Humboldt County, California

Humboldt County Public Works, Archaeological
Survey Report of the Mattole Road Post
Mile 29.55 Storm Drainage Repair Project
ER4400(018), Located in Humboldt County, California

An Archaeological Survey Report of Eight
Storm Damage Repair Projects Located Along
Alderpoint Road, PM 0.85-43.31, Humboldt County,
California

An Archaeological Survey Report of a Storm
Damage Repair Project, Located on Sprowel Creek
Road, PM 0.30 Humboldt County, California

An Archaeological Survey Report for the
Tompkins Hill Road Post Mile 0.33 Storm
Damage Repair Project, Located in Humboldt County,
California

An Archaeological Survey Report of the
Honeydew Bridge Replacement Project, Mattole
Road PM 0.02, Honeydew, Humboldt County, California

An Archaeological Survey Report of a Storm
Damage Repair Project Located on Mattole
Road, PM 5.25, Humboldt County, California

Archaeological Survey Report for the Mendocino
College Gateway Project, Mendocino County,
California

Christopher D. McMorris

Principal/Architectural Historian



Qualifications/Registrations

- MS, Historic Preservation, Columbia University, New York
- BA, History and BA Music, University of Rochester, New York
- Meets SOI Professional Qualification Standards under History and Architectural History

Experience

23 years

Relevance to the Project:

Christopher specializes in conducting historic resource studies for compliance with Section 106 of the National Historic Preservation Act and the California Environmental Quality Act, as well as other historic preservation projects. He serves as a lead historian, principal investigator, and project manager on projects for federal, state, and local government, as well as for engineering/environmental consulting firms. Many projects involve survey and evaluation of historic resources under the criteria for the National Register of Historic Places and the California Register of Historical Resources, along with analysis of effects projects may have on historic properties and measures to mitigate those effects. He has also served as adjunct faculty and guest lecturer at California State University, Sacramento's Public History Program, and has conducted multiple historic resources compliance training seminars.

Project Experience

Old Arcata Road Improvements Project

Role: Architectural Historian

Client: City of Arcata and Caltrans District 1

Location: Arcata, Humboldt County, CA

Responsible for preparing Historic Resources Evaluation Report, Finding of Effect, and Historic Property Survey Report with GHD Inc. for the City and Caltrans.

Honeydew Bridge Replacement Project

Role: Architectural Historian

Client: Humboldt County and Caltrans District 1

Location: Arcata, Humboldt County, CA

Responsible for preparing Section 106 and CEQA Historical Resources Documentation and Mitigation for the County and Caltrans.

Bodega Avenue Improvement Project,

Role: Architectural Historian

Client: City of Sebastopol and Caltrans District 4

Location: Sebastopol, Sonoma County, CA

Responsible for preparing Historical Resources Evaluation Report with Wood Rogers, Inc. for the City and Caltrans.

SR 36, Carlotta Shoulder Widening Project

Role: Architectural Historian

Client: Caltrans District 1

Location: Humboldt County, CA

Responsible for preparing Historical Resources Evaluation Report with Pacific Legacy, Inc. for Caltrans.

SR 1, Albion River Bridge Rehabilitation/ Replacement Project

Role: Architectural Historian

Client: Caltrans District 1

Location: Albion, Mendocino County, CA

Responsible for preparing Historical Resources Evaluation Report with Pacific Legacy, Inc. for Caltrans.

Rough and Ready Highway Intersection Project

Role: Architectural Historian

Client: Nevada County and Caltrans District 3

Location: Nevada County, CA

Responsible for preparing Historical Resources Evaluation Report with Area West Environmental for Nevada County and Caltrans.

SR 51, J Street to Arden Way Widening and Improvement Project

Role: Architectural Historian

Client: Caltrans District 3

Location: Sacramento, CA

Responsible for preparing Historical Resources Evaluation Report with Pacific Legacy, Inc. for Caltrans.

SR 70, Binney Junction Roadway Rehabilitation and Complete Streets Project

Role: Architectural Historian

Client: Caltrans District 3

Location: Marysville, Yuba County, CA

Responsible for preparing Historical Resources Evaluation Report with Pacific Legacy, Inc. for Caltrans.

Patricia Preston PE

Principal Engineer



Qualifications/Registrations

- MS, Structural Engineering, University of California, Davis
- BS, Civil Engineering, University of California, Davis
- Registered Civil Engineer, CA #49591
- QSD/QSP Certified

Experience

25 years

Memberships

- APWA Transportation Committee member
- Calmentor North Region Co-Chair
- ACEC/Structures Liaison Committee
- WTS - Woman in Transportation

Relevance to the Project:

Patricia has over 25 years of engineering experience in transportation structure design with over 11 years as a Caltrans Staff engineer. She has managed bridge design projects and multidiscipline teams from project conception, through planning, final design and construction. Patricia participates in community advisory committees and is active in engineering industry professional groups. She is an expert in project scheduling, Caltrans structural engineering processes, and is a QSD/QSP certified for storm drain.

Project Experience

Mattole Road Slide Repair Project

Role: Office Engineer

Client: County of Humboldt

Location: Humboldt County, CA

Office Engineer for a County designed project to realign Mattole road after a moderate sized earthquake caused a landslide of approximately one hundred (100) feet. Her responsibilities included reviewing requests for change orders, reviewing cost or billings to make certain they were within budget, to address safety or labor issues, monitor communications between project team members and to respond to contractor's request for information in a timely manner. All related project communications were logged along electronically with the project records to meet local, state and federal requirements.

Bullards Bar Project

Role: Design Engineer

Client: County of Yuba

Location: Yuba County, CA

Design Engineer for a soldier pile wall which was part of a storm damage repair contract. The roadway elevation was approximately 1000 feet above lake level and located on a narrow section road with limited workspace access. The road is designated as a resource preservation and recreation district by Yuba County. Based on conversations with the local jurisdiction and contractors, Ms. Preston designed a top-down construction utilizing a temporary wood lagging that would be economical and relatively easy to construct. The wood lagging was finished with a shotcrete sculpted rock finish to match nearby rock formations. Her engineers estimate came within 1% of the winning bid and there were no change orders to this contracted related to her design.

Jacoby Creek Bridge Rehabilitation Project

Role: Office Engineer

Client: County of Humboldt

Location: Humboldt County, CA

Office Engineer for a consultant designed project to rehabilitate a wood covered historic bridge. As part of the construction management team, she developed a list of required forms and contractor submittals to ensure that the project records were compliant with Caltrans Local Assistance Manual. Additionally, she worked with the project team to develop design solutions during construction to address additional structural issues that were not identified during the design phase. She also researched labor related issues for compliance with prevailing wage requirements.

Traffic Engineering Plan Check Services Project

Role: Traffic Engineer

Client: Fresno County Dept of Public Works

Location: Fresno County, CA

Providing traffic engineering to Fresno County. As part of the services, we are providing plan check for traffic engineering plans as well as designing traffic signal plans throughout the county.

Median Cable Barrier, Desert Concepts Project

Role: Traffic Engineer

Client: City of Arcata

Location: Arcata, CA

Provided SWPPP design, project management and inspection services for an on-system construction project located on highway 101 near Humboldt State. We worked directly with both Caltrans and the contractor to minimize construction impacts to the Humboldt Bay which is one of the most protected water bodies in the state. As part of our services, she provided SWPPP training to the contractor's field personnel.

B

APPENDIX B Exhibit 10-O1 and 10-Q Forms

(This section excluded from page count limit)

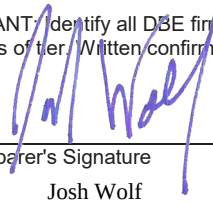


→ The Power of Commitment

Reset Form

EXHIBIT 10-01 CONSULTANT PROPOSAL DBE COMMITMENT

1. Local Agency: City of Fortuna 2. Contract DBE Goal: 8%
 3. Project Description: 12th Street Interchange Modernization Project
 4. Project Location: Fortuna, CA
 5. Consultant's Name: GHD Inc. 6. Prime Certified DBE: ☐

7. Description of Work, Service, or Materials Supplied	8. DBE Certification Number	9. DBE Contact Information	10. DBE %
BAJADA GEOSCIENCES INC	46532	JAMES A. BIANCHIN, 28301 INWOOD RD, SHINGLETOWN, CA 96088	1.20
APEX CIVIL ENGINEERING	38747	PATRICIA PRESTON, 9668 SNOWBERRY WAY, ORANGEVALE, CA 95662	5.30
AEROTECH MAPPING, INC.	40435	MARIA TORRES, 2580 MONTESSOURI ST. #104, LAS VEGAS, NV 89117	1.00
MONUMENT ROW, INC.	46456	AMBER COSTELLO, 8 COBBLESTONE COURT, LAGUNA NIGUEL, CA 92677	0.50
Local Agency to Complete this Section		11. TOTAL CLAIMED DBE PARTICIPATION	8.00 %
17. Local Agency Contract Number: _____ 18. Federal-Aid Project Number: _____ Consultant's Ranking after Evaluation: _____ Local Agency certifies that all DBE certifications are valid and information on this form is complete and accurate.		IMPORTANT: Identify all DBE firms being claimed for credit, regardless of tier. Written confirmation of each listed DBE is required.	
21. Local Agency Representative's Signature	22. Date	12. Preparer's Signature 	13. Date 04/13/2022
23. Local Agency Representative's Name	24. Phone	14. Preparer's Name Josh Wolf	15. Phone 707-267-2264
25. Local Agency Representative's Title		16. Preparer's Title Principal	

DISTRIBUTION: Original – Included with consultant's proposal to local agency.

ADA Notice: For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

INSTRUCTIONS – CONSULTANT PROPOSAL DBE COMMITMENT**CONSULTANT SECTION**

- 1. Local Agency** - Enter the name of the local or regional agency that is funding the contract.
- 2. Contract DBE Goal** - Enter the contract DBE goal percentage as it appears on the project advertisement.
- 3. Project Location** - Enter the project location as it appears on the project advertisement.
- 4. Project Description** - Enter the project description as it appears on the project advertisement (Bridge Rehab, Seismic Rehab, Overlay, Widening, etc.).
- 5. Consultant's Name** - Enter the consultant's firm name.
- 6. Prime Certified DBE** - Check box if prime contractor is a certified DBE.
- 7. Description of Work, Services, or Materials Supplied** - Enter description of work, services, or materials to be provided. Indicate all work to be performed by DBEs including work performed by the prime consultant's own forces, if the prime is a DBE. If 100% of the item is not to be performed or furnished by the DBE, describe the exact portion to be performed or furnished by the DBE. See LAPM Chapter 9 to determine how to count the participation of DBE firms.
- 8. DBE Certification Number** - Enter the DBE's Certification Identification Number. All DBEs must be certified on the date bids are opened.
- 9. DBE Contact Information** - Enter the name, address, and phone number of all DBE subcontracted consultants. Also, enter the prime consultant's name and phone number, if the prime is a DBE.
- 10. DBE %** - Percent participation of work to be performed or service provided by a DBE. Include the prime consultant if the prime is a DBE. See LAPM Chapter 9 for how to count full/partial participation.
- 11. Total Claimed DBE Participation %** - Enter the total DBE participation claimed. If the total % claimed is less than item "Contract DBE Goal," an adequately documented Good Faith Effort (GFE) is required (see Exhibit 15-H DBE Information - Good Faith Efforts of the LAPM).
- 12. Preparer's Signature** - The person completing the DBE commitment form on behalf of the consultant's firm must sign their name.
- 13. Date** - Enter the date the DBE commitment form is signed by the consultant's preparer.
- 14. Preparer's Name** - Enter the name of the person preparing and signing the consultant's DBE commitment form.
- 15. Phone** - Enter the area code and phone number of the person signing the consultant's DBE commitment form.
- 16. Preparer's Title** - Enter the position/title of the person signing the consultant's DBE commitment form.

LOCAL AGENCY SECTION

- 17. Local Agency Contract Number** - Enter the Local Agency contract number or identifier.
- 18. Federal-Aid Project Number** - Enter the Federal-Aid Project Number.
- 19. Proposed Contract Execution Date** - Enter the proposed contract execution date.
- 20. Consultant's Ranking after Evaluation** - Enter consultant's ranking after all submittals/consultants are evaluated. Use this as a quick comparison for evaluating most qualified consultant.
- 21. Local Agency Representative's Signature** - The person completing this section of the form for the Local Agency must sign their name to certify that the information in this and the Consultant Section of this form is complete and accurate.
- 22. Date** - Enter the date the DBE commitment form is signed by the Local Agency Representative.
- 23. Local Agency Representative's Name** - Enter the name of the Local Agency Representative certifying the consultant's DBE commitment form.
- 24. Phone** - Enter the area code and phone number of the person signing the consultant's DBE commitment form.
- 25. Local Agency Representative Title** - Enter the position/title of the Local Agency Representative certifying the consultant's DBE commitment form.

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

1. Type of Federal Action:	2. Status of Federal Action:	3. Report Type:
☐ a. contract N/A	☐ a. bid/offer/application N/A	☐ a. initial N/A
b. grant	b. initial award	b. material change
c. cooperative agreement	c. post-award	
d. loan		
e. loan guarantee		For Material Change Only:
f. loan insurance		year _____ quarter _____
		date of last report _____

4. Name and Address of Reporting Entity ☐ Prime N/A ☐ Subawardee Tier _____, if known Congressional District, if known _____ 6. Federal Department/Agency: N/A 8. Federal Action Number, if known: N/A 10. Name and Address of Lobby Entity (If individual, last name, first name, MI) N/A (attach Continuation Sheet(s) if necessary)	5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime: N/A Congressional District, if known _____ 7. Federal Program Name/Description: N/A CFDA Number, if applicable _____ 9. Award Amount, if known: N/A 11. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI) N/A (attach Continuation Sheet(s) if necessary)
---	---

12. Amount of Payment (check all that apply) \$ N/A ☐ actual ☐ planned 13. Form of Payment (check all that apply): ☐ a. cash N/A ☐ b. in-kind; specify: nature _____ Value _____ 15. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11: N/A (attach Continuation Sheet(s) if necessary)	14. Type of Payment (check all that apply) ☐ ☐ ☐ ☐ ☐ ☐ a. retainer N/A b. one-time fee c. commission d. contingent fee e. deferred f. other, specify _____
--	---

16. Continuation Sheet(s) attached: Yes ☐ No ☒	 Signature: _____ Print Name: Bill Silva, PE Title: Principal Telephone No.: (707) 484-8236 Date: 4/13/22
--	--

17. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

Authorized for Local Reproduction
 Standard Form - LLL

INSTRUCTIONS FOR COMPLETING EXHIBIT 10-Q DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime federal recipient at the initiation or receipt of covered federal action or a material change to previous filing pursuant to title 31 U.S.C. Section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered federal action for which lobbying activity is or has been secured to influence, the outcome of a covered federal action.
2. Identify the status of the covered federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered federal action.
4. Enter the full name, address, city, state, and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to: subcontracts, subgrants, and contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, state, and zip code of the prime federal recipient. Include Congressional District, if known.
6. Enter the name of the federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the federal program name or description for the covered federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate federal identifying number available for the federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant, or loan award number, the application/proposal control number assigned by the federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered federal action where there has been an award or loan commitment by the Federal agency, enter the federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
10. Enter the full name, address, city, state, and zip code of the lobbying entity engaged by the reporting entity identified in Item 4 to influence the covered federal action.
11. Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).
12. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (Item 4) to the lobbying entity (Item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
13. Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
14. Check all boxes that apply. If other, specify nature.
15. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with federal officials. Identify the federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
16. Check whether or not a continuation sheet(s) is attached.
17. The certifying official shall sign and date the form, and print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30-minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503. SF-LLL-Instructions Rev. 06-04