Stantec

Request for Proposals for

Siting Analysis for North State Hydrogen Fuel Station Network

For Humboldt County Association of Governments

Stantec Consulting Services Inc.
April 11, 2025

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Stantec Consulting Services Inc.
2999 Oak Road, Suite 800
Walnut Creek, CA 94597

April 11, 2025

Attention:
Amy Eberwein
Administrative Services Officer
611 I Street
Suite B
Eureka, CA 95501
E: amy.eberwein@hcaog.net
(707) 444-8208

Reference: Siting Analysis for North State Hydrogen Fuel Station Network

Dear Ms. Eberwein,

Local and regional agencies will play a critical role in zero-emission vehicle adoption by prioritizing where and how to build new infrastructure to serve the needs of the traveling public. The communities represented by the Humboldt County Association of Governments (HCAOG) will have unique needs compared to their urban counterparts based on travel distances, infrastructure availability, and the need for regional connectivity to major metropolitan areas. Hydrogen fuel cell electric vehicles (FCEVs) will play a critical role in this transition, particularly for medium- and heavy-duty vehicles.

Stantec offers HCAOG the following benefits in delivering this scope of work:

National expertise: Stantec has performed over 250 zero-emission readiness, fleet transition planning, design, and implementation projects across North America in the past five years. We are especially well-versed in planning and designing hydrogen fueling infrastructure, ranging from facilities for small transit agencies with a few vehicles to regional hydrogen hubs.

California-based team invested in project outcomes: Many of Stantec's foremost hydrogen experts—including our project manager, Sarah Spann, and nationally renowned hydrogen infrastructure expert, Reb Guthrie—work from one of Stantec's 23 offices throughout the state. Many of our best hydrogen qualifications come from supporting rural communities in California. Specifically, Stantec's recommendations for transit agencies and municipalities across the state have resulted in commitments to hydrogen fuel cell fleets, whether 100% or mixed, for over 12 public fleets across the state.

Established process and tools: Stantec will utilize our ZEVDecide™ mapping tool, which considers demand, suitability, and equity to identify ideal sites for hydrogen fueling and electric vehicle (EV) charging stations. Richard Pascoe, the lead developer of this tool, will work with your team to reflect stakeholder priorities, hydrogen demand, and community values in our approach.

Responsiveness and commitment: Qualifications are one thing; responsiveness to clients' needs is another. Not only do we have the available resources to support these needs, but we also have proven success in making our clients' priorities ours. Stantec has established an excellent working relationship with agency staff and has a reputation for maintaining transparency during the public process, responding to agency comments and concerns, and withstanding intense public and political scrutiny while upholding schedule, scope, and budget requirements.

We look forward to the next step in the procurement process and welcome the opportunity to work with HCAOG on this transformational project. Stantec has reviewed your proposed RFP/contract terms and believes that, should we be selected for this assignment, we will be able to conclude a mutually satisfactory contract with you. This proposal is a firm offer for at least a sixty (60)-day period. If you have any questions, please do not hesitate to contact us.

Sincerely,

Stantec Consulting Services Inc.

Eric Plapper, AICP
Principal-in-Charge

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1.

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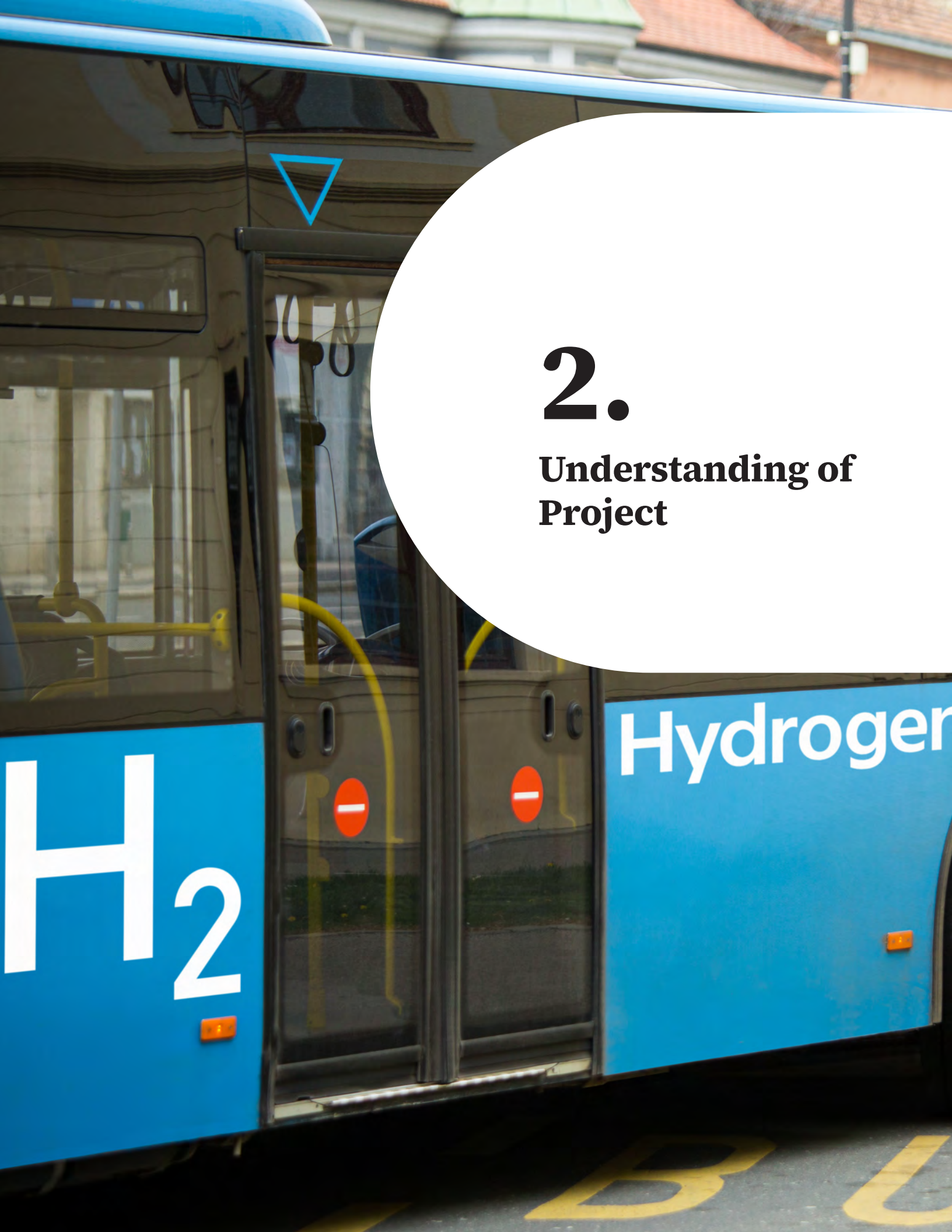


2.

Understanding of Project

Project Understanding

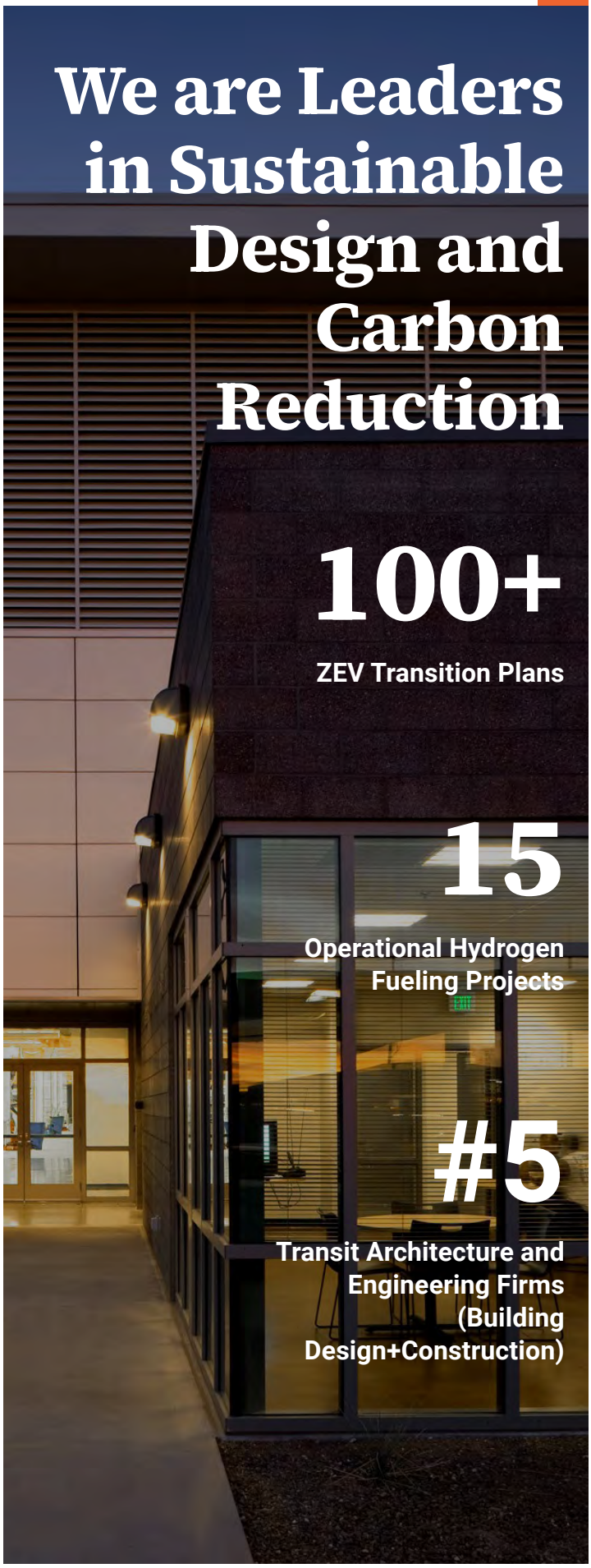
Stantec has assembled a qualified team to help HCAOG develop the Siting Analysis for the North State Hydrogen Fueling Station Network, connecting the rural North State region to Sacramento and San Francisco Bay Area metropolitan regions. This project will benefit transit and freight operators considering zero-emission hydrogen fuel cell electric vehicles (FCEVs).

The Site Analysis will build on work done by Humboldt Transit Authority and Schatz Energy Research Center at Cal Poly Humboldt. Stantec understands the previous work identified the key areas of interest in the Humboldt Bay Region as centered around Highway 101 and either vacant or minimally developed. Nine potential sites were identified in the cities of Blue Lake, Arcata, Eureka, Fortuna, Rio Dell, and the greater Humboldt County. Stantec will consider the previously identified resources, potential sites, and stakeholders, and reference them in our analysis. Any notable differences from the previous work will be clearly identified with sufficient justification to provide clarity to stakeholders and the public.

Additionally, HCAOG plans to attract public-private partnerships and collaborate with stakeholders. The hydrogen fueling stations may incorporate hydrogen generation technologies, providing even more opportunities for public-private partnerships and vendor involvement. Stantec is dedicated to determining the optimal number of fueling stations and finding the most suitable station locations for various FCEV operators and models, paving the way for a cleaner, more resilient fueling network in Humboldt County.

Stantec's approach will also involve a thorough review of the land use zoning classifications in each jurisdiction to ensure the selected sites comply with local regulations. By leveraging our extensive experience in zero-emission vehicle infrastructure planning and design, we will provide a comprehensive analysis that not only meets the technical requirements but also aligns with the community's vision for sustainable development. Our team will engage with local stakeholders through public meetings and workshops to gather input and foster a collaborative environment, ensuring that the final Siting Analysis reflects the needs and aspirations of the Humboldt County community.

> ***Working collaboratively with stakeholders across the entire value chain, from production to end-users, Stantec is helping to advance the adoption and success of hydrogen technology.***



3.

Consultant Qualifications and Experience

Why Stantec

Founded in 1954, Stantec has been a trusted partner in the transportation industry for over 70 years. With a global presence of more than 31,000 employees across 450 offices worldwide, we bring our expertise and industry leading innovation to every project.

In Northern California alone, we have 12 offices that leverage local knowledge and relationships to deliver personalized and creative solutions. Our team of creative problem-solvers goes beyond the expected, asking forward-thinking questions to meet our clients' needs in unique ways.

As industry leaders in advancing transitions to zero-emission fleets, we have successfully developed over 100 transition plans across North America. FCEVs are a key component of the lower carbon ecosystem, particularly for medium to heavy-duty vehicles. The adoption of hydrogen as a fuel source will revolutionize infrastructure, including roads, power grids, commercial buildings, and fueling stations.

Medium to heavy-duty vehicles, such as trucks and buses, will benefit significantly from hydrogen technology due to its longer ranges and faster refueling times compared to electric alternatives. Communities that adapt their planning strategies to accommodate these changes will gain both economic and environmental advantages, positioning themselves for quicker adoption of hydrogen technology.

Stantec collaborates with technology and fuel providers to develop comprehensive hydrogen solutions, including production, distribution, and refueling infrastructure. Ensuring a reliable supply of hydrogen fuel is critical for the widespread adoption of FCEVs.

We believe that a programmatic approach is essential for integrating hydrogen technology into the broader mobility ecosystem. By supporting innovative projects that enhance transportation efficiency and safety, communities can implement solutions that promote the adoption of hydrogen technology, leading to more sustainable and efficient transportation systems.

Hydrogen fueling projects at Stantec are a collaborative effort that span across all five of our Business Operating Units (BOUs). This comprehensive approach leverages the diverse expertise and resources from each BOU. By working together, we effectively address the complex challenges of hydrogen fueling infrastructure, from initial planning and design to construction and regulatory compliance. This integrated strategy enhances our ability to deliver innovative and sustainable solutions and positions Stantec as a preferred partner in the hydrogen fueling sector.

Project Team

Our project team includes some of the most experienced staff possible for the Humboldt County Siting Analysis project. We have provided professionals within our firm who have strong working relationships, past successful projects, and unmatched capabilities in the planning and design of hydrogen fueling infrastructure. We propose the following subconsultant for key areas of the scope.

Circlepoint

Since 1987, Circlepoint has been a guiding force in helping their clients address complex issues and strengthen communities. Through their Environmental and Communications practice areas, they provide a dynamic combination of strategic advice and focused service. Based in Oakland with offices in San Jose and Orange, Circlepoint is a privately held California corporation and certified Small Business (SB and SB-PW) with the State of California Department of General Services (Certification No. 40528) and Disadvantaged Business Enterprise (DBE) with the California Department of Transportation (Certification No. 50993). Each member of Circlepoint's team is highly skilled in their field and dedicated to creating innovative solutions to complex issues and building a better future for communities. Though each project is different, a consistent thread has been expressed by their clients: Circlepoint presents the "whole view" by developing comprehensive and dynamic solutions; Circlepoint serves as Stantec's trusted partner; and Circlepoint delivers results by leveraging expertise with strategic thinking.

Legal and/or Technical Problems

There are no unsatisfied judgments or arbitration awards outstanding against Stantec. Stantec does have some legal proceedings, lawsuits, or claims pending. These are a normal part of professional services industries. All have been reported to Stantec's insurers who are in the process of adjusting/managing them. None will have a material effect on the financial position of the company or its ability to undertake this assignment. Perhaps of greater comfort to our clients is the fact that Stantec seeks to deal with client concerns and claims promptly and fairly through its Risk Management group. As a public company, Stantec has substantial assets and maintains a high professional liability insurance limit. Stantec's claims history has resulted in relatively low insurance premiums when compared with firms of similar size and character.

Stantec does not hold a controlling or financial interest in any other firms or organizations.

4/7/2025

Disclosure of Litigation

This is to certify that **Circlepoint** does not have any judicial or administrative proceeding material to our business and financial capability, or to the subject matter of this RFP that could interfere with the performance of the work requested by this RFP, including but not limited to, any civil, criminal or bankruptcy litigation; any debarment or suspension proceeding; any airport contract terminations, any criminal conviction or indictment; and any order or agreement with or issued by a court or local, state or federal agency in the past ten (10) years.

Audrey Zagazeta
President and CEO
Circlepoint

Qualifications & Experience

Hydrogen Fueling

Stantec has worked across the U.S. and North America to realize zero emission vehicle (ZEV) projects of all technology types and fleets of various sizes. The team members we are proposing are experts in transit, hydrogen, planning, architecture, gaseous fuels, fleet energy modeling, utility interconnects, facility design engineering, and procurements – all disciplines that this project needs.

Local Presence

Stantec has extensive experience in California, delivering a wide range of planning and design services. Our California presence includes 24 offices and more than 1,800 professionals diverse expertise. This team includes planners, architects, engineers, and environmental specialists all dedicated to providing innovative and effective solutions for our clients.

One of our notable projects in Northern California is the Statewide EVSE Program, where we are supporting the State of California's Department of General Services (DGS) by developing Level 1 and 2 EV charging infrastructure throughout the region. This project involves site assessments, detailed design, and coordination with various State departments and subcontractors.

Our extensive experience also includes providing planning, energy modelling, and design services on ZEV projects, hydrogen fueling station projects, and transit-facility projects for more than 30 agencies including Livermore Amador Valley Transit Authority (LAVTA), Napa Valley Transit Authority (NVTA), Stanislaus County RTA (StanRTA), Trinity County, Eastern Contra Costa Transit Authority (ECCTA), El Dorado County Transit, Tahoe Transit District, and Tuolumne County Transit.

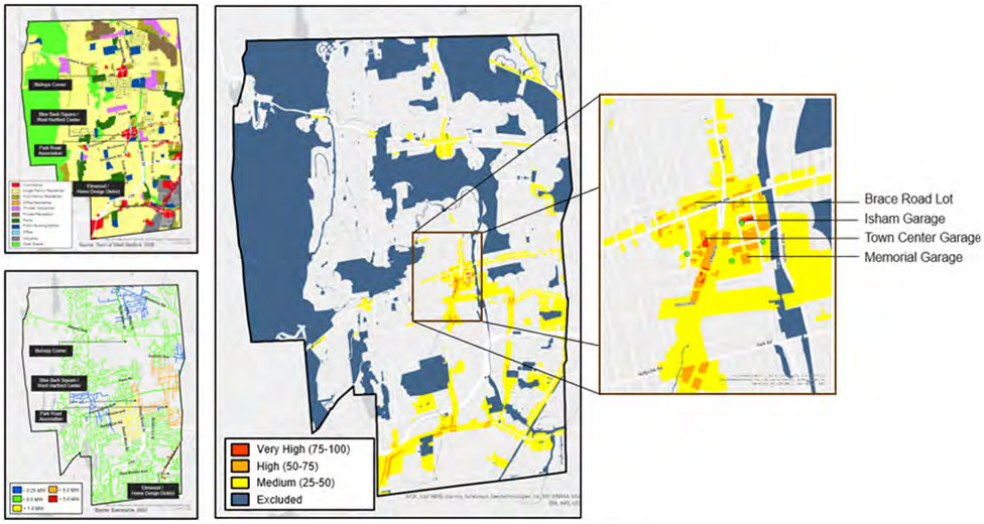
Innovation

Stantec's ZEVDecide™ GIS tool integrates robust datasets to identify the best possible sites for hydrogen fueling and EV charging infrastructure where it will be most needed and can be built at the lowest possible cost. ZEVDecide™ is highly customizable to the best representative data available, and the priorities set in consultation our clients, community members, and stakeholders.

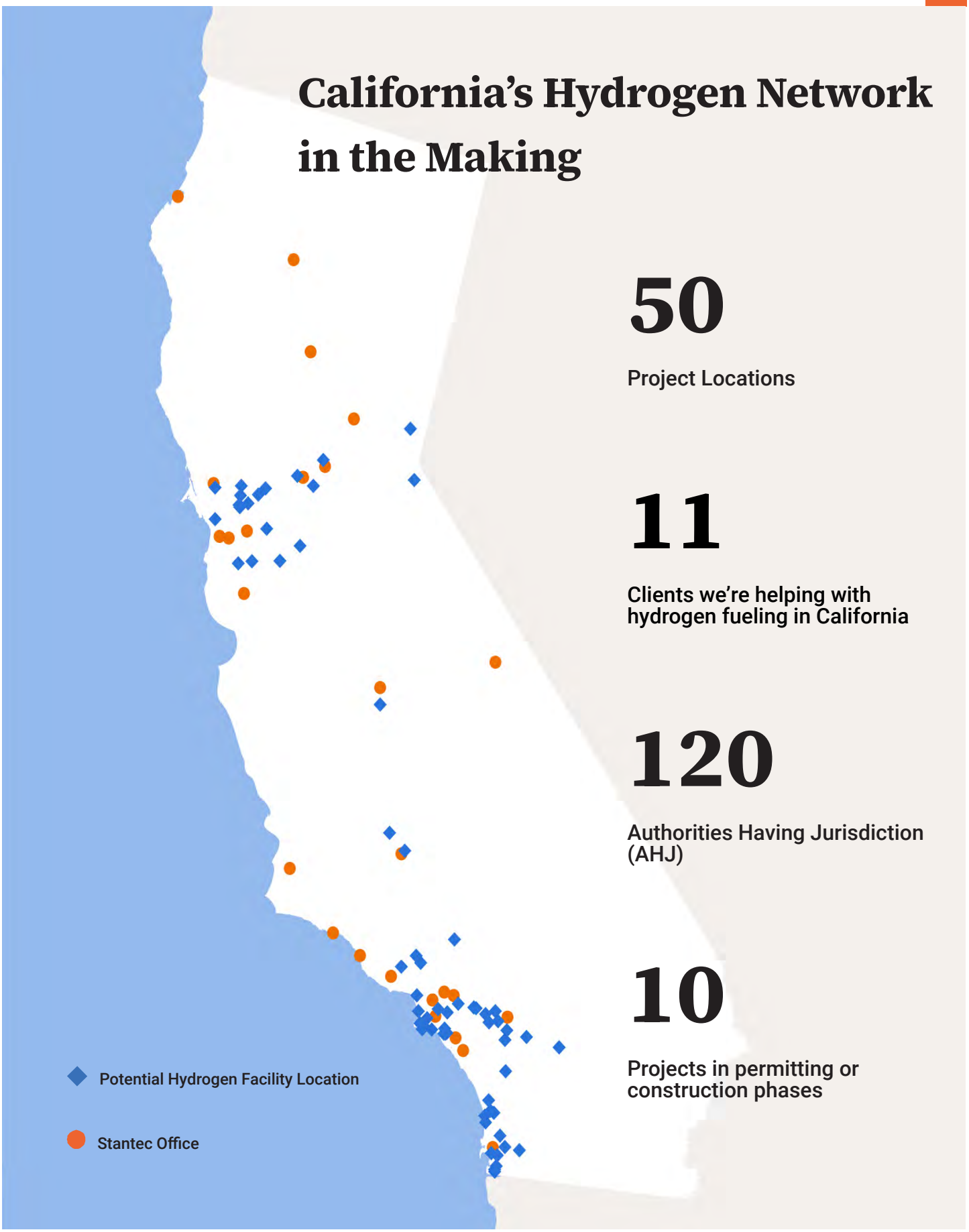
Potential data that may be included:

- Hydrogen demand from stakeholder advisory panel and private users.
- Land uses compatible with hydrogen clearance safety requirements.
- Environmental compliance, avoidance of sensitive resources, and ease of permitting.
- Environmental justice data to identify underserved and overburdened communities.
- Capacity and proximity of power , natural gas, water, and other enabling utility infrastructure upgrades
- Hydrogen distribution and delivery feasibility to potential sites.
- Proximity to existing traditional and alternative fuels refueling stations.
- ZEV travel demand and roadway typologies that can support the expected site traffic.
- Ease of access from main roads, highways, amenities, or high-visited areas.
- Availability of on-site amenities such as lighting, food, and shopping (for publicly-accessible hydrogen refueling stations).

An example of ZEVDecide™ outputs are shown below. The maps show the presence of naturally and culturally sensitive features that may prohibit site development.



California's Hydrogen Network in the Making



50

Project Locations

11

Clients we're helping with hydrogen fueling in California

120

Authorities Having Jurisdiction (AHJ)

10

Projects in permitting or construction phases

Hydrogen Fueling Station Design, Engineering, and Permitting Services Program

Statewide, California

Stantec is teaming with several industry-leading clients in partnerships that will redefine an industry and how the public fuels everything from light duty passenger vehicles to heavy duty commercial trucks. We are providing all-encompassing services–including site selection, design, engineering, and permitting–for the development of multiple hydrogen fueling and/or production facilities in select locations throughout California.

The program includes everything from retrofitting existing gas stations (replacing gas dispensers with hydrogen dispensers) to developing completely new production and fueling facilities from the ground up. Stantec's work with these clients will create versatile sites that can handle multiple types of refueling options such as hydrogen, compressed natural gas, and renewable diesel fuel–ultimately creating zero emissions fueling hubs.

Stantec's services include developing construction plans, working with hydrogen equipment technology vendors and contractors to perform constructibility reviews, and supporting procurement efforts. We are developing animations and renderings of animated video our clients can share with interested parties, providing communications applications and support during the construction bid process, and construction bid support and permitting support. Stantec is providing topographical surveys, 3D laser scanning, geotechnical studies, traffic studies, Americans with Disabilities Act (ADA) accessibility inspections, and environmental studies such as California Environmental Quality Act (CEQA). We are also working with utilities to secure power and developing relationships with local utilities to understand how to phase in power.

City of Pasadena Hydrogen Fueling Facility

City of Pasadena, California

In accordance with California's innovative Clean Transportation mandate, the City of Pasadena is transitioning their fleet of vehicles to zero emission. By adopting hydrogen fuel cell electric (FCE) vehicles, the City will help meet energy transition goals. But keeping these vehicles on the road means building refueling stations and they engaged us to help.

We are designing the hydrogen fueling station that will supply fuel for 50 FCE buses, as well as light-duty sedans and heavy-duty public-works vehicles. Our team is providing fueling systems engineering, architecture, electrical engineering, structural engineering, and safety design. The fueling station will feature two H35 (a dispensing pressure of approximately 5,000 pounds per square inch or 32,000 square centimeters) dispensers for FCE bus fueling and one H70 (a dispensing pressure of approximately 10,000 pounds per square inch or 65,000 square centimeters) dispenser for fueling other city FCE vehicles.

In the drive toward decarbonization, the City of Pasadena is one step closer to their goals for cleaner air, efficient refueling, and sustainable transportation.

> ***Our portfolio of projects and locations in California provide a unique ability to view the bigger picture while expertly navigating the requirements of local jurisdictions.***

Hydrogen Fueling Station

Ontario, California

The Ontario Hydrogen Fueling Station Project supports California's zero-emission vehicle (ZEV) goals by establishing a large-scale hydrogen fueling facility. The station will feature hydrogen fueling lanes for light-duty vehicles and heavy-duty trucks, with associated hydrogen storage and delivery systems. Hydrogen will be delivered as cryogenic liquid and gas, stored in vacuum-jacketed tanks, and processed through pumps, chillers, and vaporizers for efficient fueling. The station's design adheres to stringent safety standards, including automated monitoring and emergency shutdown systems. This project promotes renewable energy, reduces greenhouse gas emissions, and improves air quality, aligning with Ontario's General Plan goals.

Stantec has been instrumental in supporting the project from the early stages, beginning with site plan development and pre-entitlement review. We are confirming that all necessary approvals and permits have been obtained efficiently.

Currently, we are engaged in the FEL 2 scope, which includes obtaining a land use determination, surveying, conducting traffic studies, managing the electrical utility application, and performing technical reviews of the conceptual design.

HYDROGEN STATION PERMIT STREAMLINING

Stantec has had success streamlining multiple projects, avoiding lengthy entitlement processes and bringing projects straight to Building Permit Plan Review.

SB 1291 (Archuleta, 2022), codified in Government Code Section 65850.7, extends California's existing electric vehicle charging station streamlining law, AB 1236, to include hydrogen stations until 2030.

Jurisdictions are required by SB 1291 to limit hydrogen fueling station project review to health and safety requirements.

SB-1291 Expedites

- \+ Project sites zoned Commercial/Industrial and free of residential uses
- \+ Projects located at existing service stations with "no adverse impacts likely"

SB-1291 Does NOT Expedite

- \- Project sites that are not an existing or proposed service station (e.g., H2 production)
- \- Projects that have "possible adverse impacts"

Hydrogen Fueling R&D and Testing Facility

Long Beach, California

This facility will be designed to accommodate the testing and evaluation of different hydrogen equipment to determine the most efficient way to store and dispense hydrogen for heavy duty vehicles including port operations equipment (drayage) and class 8 trucks. In the early planning stages, Stantec is providing a detailed review of the city's Zoning Code, Municipal Code, and the General Plan Land Use Element.

Stantec is currently developing detailed engineering design to support a building permit application package that will be submitted to the city's building and safety department. The project underscores the client's commitment to sustainable energy solutions and local economic development.

Hydrogen Production Project

Long Beach, California

The state-of-the-art hydrogen gas production facility in Long Beach is a cutting-edge hub for clean energy. Utilizing autothermal reformation (ATR) technology, the facility will produce 9 metric tons of hydrogen fuel per day, supporting various industries in southern California. With a strong focus on sustainability, this facility is pivotal in reducing carbon emissions and bolstering local and regional sustainability efforts.

Stantec has been a key player in the Long Beach project, offering comprehensive support across several critical areas. Our contributions include designing the site layout to ensure an efficient and effective infrastructure plan. We are managing the entitlement application process to secure the necessary approvals and permits for project advancement. Additionally, we are handling the utility application, coordinating with relevant authorities to facilitate seamless integration of essential services.

Our team has conducted thorough surveys to gather accurate data for informed decision-making. We are also responsible for the environmental studies required for CEQA compliance, confirming the project meets all environmental regulations. Furthermore, we are managing the industrial wastewater and air quality permitting processes, addressing all necessary requirements to maintain environmental standards and promote sustainability. As the project progresses, we will develop construction drawings and submit building permit application packages. By providing reliable and safe hydrogen production, this facility will play a crucial role in California's transition to a zero-emission future

> *The facility will produce **9 metric tons of hydrogen fuel per day***

Papé Group California Program

Papé Group

Stantec is proud to partner with The Papé Group through their subsidiary Pacific Clean Fuels in their ambitious journey towards sustainability and clean energy. As a leading capital equipment provider, The Papé Group is making significant strides in promoting hydrogen as a key solution across multiple industries in the West.

The Papé Group's comprehensive, programmatic approach encompasses three main initiatives. In the near term, they are evaluating their current sites in California for temporary mobile fueling solutions, with a vision for permanent fueling infrastructure in the future. Additionally, they are exploring on-site hydrogen production, including the use of tank trailers to transport hydrogen to their various facilities.

Stantec is providing a full suite of services to support The Papé Group's sustainability goals. Our expertise spans from initial planning and permitting to detailed engineering. This includes site selection, feasibility studies, entitlement approvals, environmental regulatory compliance, and construction permitting.

Our comprehensive approach helps to ensure that every aspect of the project is meticulously planned and executed, paving the way for a sustainable and clean energy future.

> *Our collaboration with The Papé Group demonstrates Stantec's capabilities and value as a **trusted partner in advancing innovative and sustainable solutions.** Together, we are driving the transition to a greener, hydrogen-powered future.*

West Hartford EV Infrastructure Plan

Town of West Hartford, Connecticut

Stantec recently completed an EV infrastructure plan for the Town of West Hartford, CT, with a focus on the equitable rollout of EV chargers for residents and visitors without access to designated off-street parking. The project included engagement with internal and external stakeholder outreach to develop a vision, goals, and objectives; used Stantec's ZEVDecide™ GIS tool to map EV demand and supportive infrastructure; coordination with EverSource, the electric utility; evaluation of the business models in the EV ecosystem; and a time-phased plan that identifies charging site typologies (e.g., dense mixed-use parking garages, multifamily residential buildings, office parks) and prioritizes infrastructure buildout. Stantec also developed guidelines for parking policy, charging station design specifications, and procurement strategies for charging equipment. Additionally, Stantec supported the Town in developing a Charging and Fueling Infrastructure (CFI) funding application.

DCFC Station Feasibility Study

Massachusetts DOT

Stantec performed a study to assess the appropriate extent of investment for the Massachusetts DOT to supporting EV adoption, and performed a feasibility study for deploying new DCFC stations for long distance EV travel. Combining traffic volumes with Streetlight data provided a means to prioritize DCFC sites along high-volume, long distance trip corridors to help reduce range anxiety and foster EV adoption. Project tasks included analyzing policy, plans and regulations to understand the current state of EV technology adoption in Massachusetts, identifying requirements and limitations for public charging infrastructure, developing a ranking criterion, and projecting the upfront and long-term costs to construct, operate, and maintain DCFC stations at the ideal sites.

Miami EV Roadmap

City of Miami, Florida

Stantec supported the City of Miami in its goal to increase adoption of zero-emissions vehicles to 40% by 2035 by creating an EV Roadmap. Tasks included EV adoption forecasting for a range of scenarios across different land uses (e.g., tourist attractions, public land, commercial space), GIS analysis, charging site identification, estimated greenhouse gas reductions, recommendations to enhance equitable access to EV charging, a workforce development plan, a partnerships strategy, and a governance and policy roadmap. Stantec utilized our ZEVDecide™ infrastructure mapping tool to significantly reduce project delivery from a typical nine-month timeline to two months. Stantec also assisted the City in developing a CFI grant application, with a focus on providing charging in underserved neighborhoods throughout the city.

New Orleans Electrification Roadmap and Implementation Plan

City of New Orleans, Louisiana

As a sub-consultant to Jones Lang LaSalle, Stantec is supporting the City of New Orleans in this study to develop policy and infrastructure recommendations to meet the growing demand for EVs. Stantec is leading the project's technical tasks including analysis of potential publicly and privately accessible charging infrastructure locations. Stantec is using our ZEVDecide™ infrastructure mapping tool to layer projected charging demand, site suitability, and equity considerations to identify the best candidate sites for public investment. Stantec is also developing zero emission transition recommendations for public and private fleets operating within the City of New Orleans. Additionally, Stantec is advising on engagement activities to capture public input within the mapping process.

Los Alamos County Fleet Conversion Plan and Community-Wide EV Charging Plan

Los Alamos County, New Mexico

Stantec is supporting Los Alamos County in assessing its fleet and infrastructure to meet County emissions reduction goals and New Mexico Clean Car Rule sales targets. Stantec is utilizing ZEVDecide™ to perform a comprehensive analysis of readiness for public charging infrastructure to support this goal, including identification of where upgrades will be needed in the utility network. The study also includes a review of enabling policy, such as building code and procurement requirements. Additionally, the study includes a comprehensive modeling of the County's fleet and facilities to demonstrate the feasibility of a 100% transition to zero-emission vehicles. Finally, the Stantec team is performing extensive public and stakeholder engagement to align recommendations.

Baton Rouge EV Strategic Plan

City of Baton Rouge, Louisiana

Stantec supported the City of Miami in its goal to increase adoption of zero-emissions vehicles to 40% by 2035 by creating an EV Roadmap. Tasks included EV adoption forecasting for a range of scenarios across different land uses (e.g., tourist attractions, public land, commercial space), GIS analysis, charging site identification, estimated greenhouse gas reductions, recommendations to enhance equitable access to EV charging, a workforce development plan, a partnerships strategy, and a governance and policy roadmap. Stantec utilized our ZEVDecide™ infrastructure mapping tool to significantly reduce project delivery from a typical nine-month timeline to two months. Stantec also assisted the City in developing a CFI grant application, with a focus on providing charging in underserved neighborhoods throughout the city.

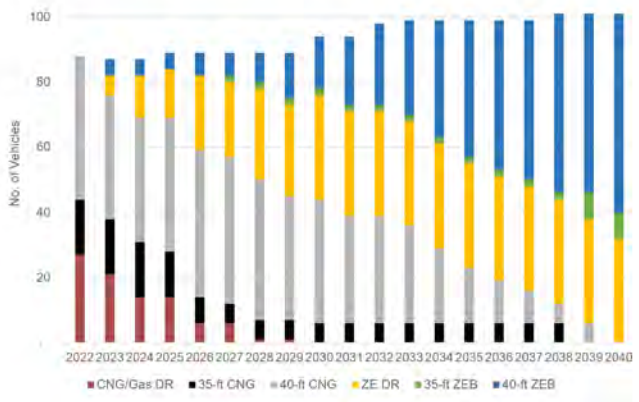
Gold Coast Transit ZEB Transition Plan

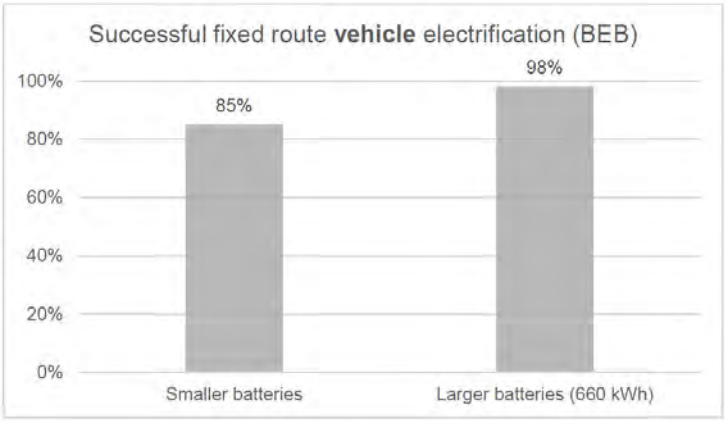
Gold Coast Transit District

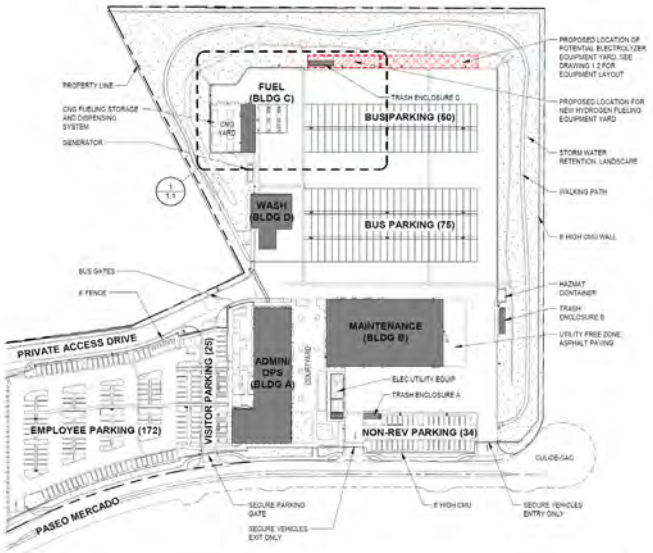
Our team started the project with a site visit to GCTD's new facility to document operational, maintenance, and planning practices, as well as to evaluate the facility for preparedness for ZEB transition. We conducted an existing condition review and a market scan to understand GCTD's needs related to service delivery and operations. Our team used ZEVDecide™, our proprietary tool for bus modeling and route simulation, to estimate the fuel economy and feasibility of battery electric buses (BEBs) and hydrogen fuel-cell electric buses (FCEBs) for GCTD's operations. Our analysis discovered that while BEBs could be feasible, their adoption would require a complex mix of different BEBs with different battery sizes, which could limit operational flexibility. In contrast, under our modeling conditions, FCEBs were able to serve routes in a one-to-one manner, and implementing a hydrogen solution would also support the transition of paratransit and on-demand vehicles, given the extended range these vehicles offer.

Upon completion of their project, GCTD will have an eco-friendly fleet to be proud of.

> *Assisting Gold Coast Transit in their journey to Zero-Emission Buses, paving the way for sustainable transit.*







ECCTA Hydrogen Fueling Station

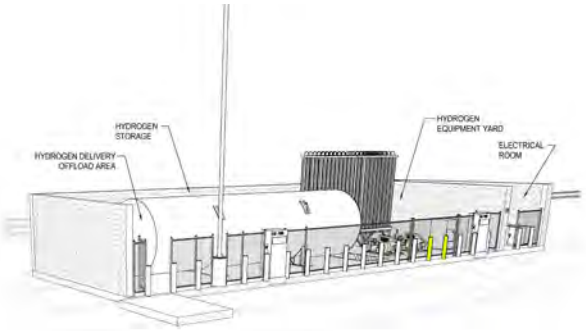
Antioch, California

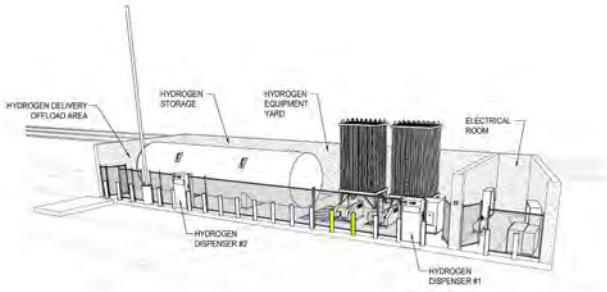
The project will support the East Contra Costa Transit Authority's (ECCTA) plan to purchase and operate 30 hydrogen fuel cell electric buses (FCEBs) and 44 hydrogen-fueled paratransit vehicles.

The hydrogen fueling facility represents the latest advancement by ECCTA in its commitment to transitioning to zero-emission buses (ZEBs) by 2036, which is four years earlier than the deadline established by the California Air Resources Board (CARB) for transit agencies. As a pioneer in the adoption of ZEBs and other clean transportation technologies, ECCTA was among the first in California to implement ZEBs in 2010. Since then, ECCTA has served as a mentor and resource for agencies across North America, guiding them in the adoption of various types of battery electric buses (BEBs), including both in-depot and on-street charging options.

The new fleet of hydrogen FCE buses will augment the ECCTA's 32 fixed-route BEBs. The hydrogen-powered buses have a superior energy storage capacity compared to similar BEBs, allowing the Authority to serve longer routes. This will help reduce CO2 emissions, contributing to reduced greenhouse gas emissions and better air quality.

After Stantec analyzes ECCTA's bus operations to determine the requirements for the hydrogen refueling station, our team will prepare design drawings for a station that will meet the identified requirements. Stantec will also design hydrogen-compliant modifications in the maintenance building as needed for a safe working environment. Throughout construction, the Stantec team will verify the equipment and materials used by the contractor to ensure the work complies with the design. At construction completion, Stantec will also conduct and supervise functional and performance tests of the facility to fully validate the contractor's work.





El Dorado County Transit Zero Emission Bus Fleet Conversion Plan

El Dorado, California

Serving a California community that values nature and environmental sustainability, El Dorado Transit (EDT) provides local transit commuter service to Sacramento, as well as several demand-response services—including dial-a-ride for communities across western El Dorado County and nearby Lake Tahoe. The EDT is required to meet the California Air Resources Board (CARB) requirements, so we developed a zero emission bus (ZEB) fleet conversion plan that addresses the CARB mandate. Our plan provides EDT with a path to implement a 100 percent zero emission fleet that will reduce greenhouse gas emissions—improving overall air quality in the region.

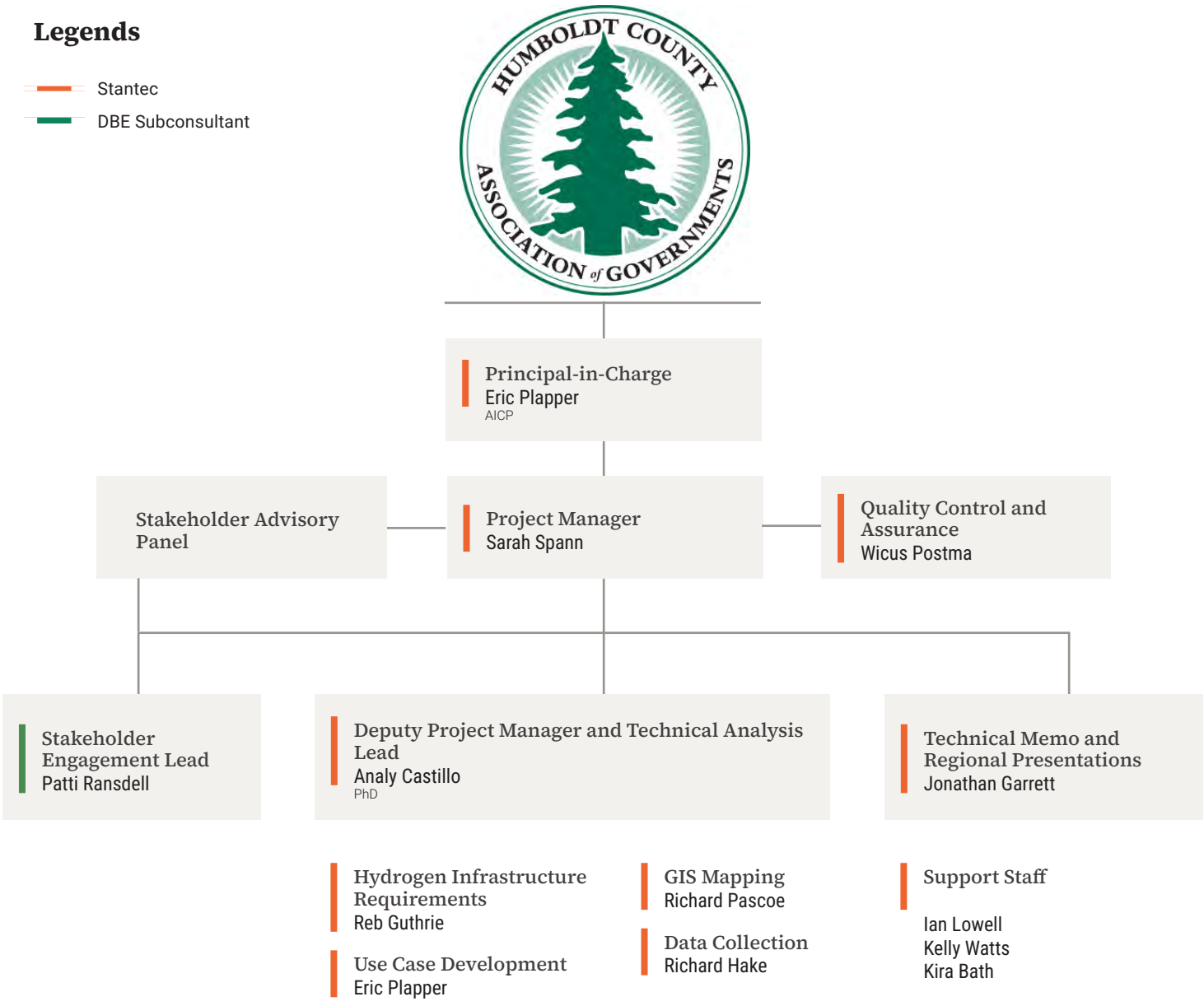
For the ZEB plan, we analyzed existing conditions, fleet operations, and service. And we engaged a broad array of stakeholders to gain their input on the plan and the suggested service changes. Our team provided route modeling for both fixed-route and demand-response service that will help develop a roadmap for a complete transition of EDT's revenue and non-revenue fleet. We also recommended facility modifications and upgrades to accommodate the new zero emission bus fleet.

With the requirement for a zero emission fleet, EDT can use our recommendations to take them toward a more sustainable future.

Key Personnel

Project Organizational Chart

The well-rounded and integrated team organizational chart proposed below demonstrates how the Stantec team will be organized and illustrates the roles, responsibilities, and reporting relationships of team members. Each of our team members brings specific expertise to contribute to the success of your project.



Eric Plapper, Principal-in-Charge/Use Case Development

As Stantec's zero-emissions (ZEV) infrastructure planning lead, Eric has led planning, feasibility analysis, stakeholder and public engagement, fleet transition, and discretionary funding application projects for communities across the country. A planner by training, he is especially passionate about supporting community ZEV readiness studies with a focus on prioritizing infrastructure investment in underserved communities. Eric has led ZEV planning projects at the statewide, regional, and local levels. He has helped clients secure nearly $100 million in federal grant funding including assisting the City of Columbus with its Smart City Challenge application, prevailing over 77 competing cities with an equity-centric program. Eric leads Stantec's companywide ZEV steering committee and collaborates regularly with all key staff proposed on this project team.

Sarah Spann, Project Manager

Sarah is a principal environmental planner in our environmental services group based in Santa Maria, California. Sarah has 24 years of professional experience in project management, environmental planning, compliance, and impact analysis and assessment. Sarah has a diverse professional background specializing in the management of complex and controversial energy projects, including hydrogen production and fueling, hydrogen pipelines, battery energy storage systems, carbon capture and sequestration systems, brownfield remediation and redevelopment, oil and gas facilities, nuclear power plant facilities, onshore and offshore seismic imaging, and public works infrastructure projects. Sarah is a specialist in environmental permitting and compliance pursuant to the California Environmental Quality Act, National Environmental Policy Act, Clean Water Act, Endangered Species Act (State and Federal), California Coastal Act, California Fish and Game Code, Clean Air Act, and related laws and regulations.

Wicus Postma, Quality Control and Assurance

A well-respected project manager and practice leader within Stantec's Energy and Resources Group, Wicus is passionate about growing the presence of alternative fueling. He leads E&R's alternative fueling group and initiatives in North America. He has more than 24 years of domestic and international experience across business sectors, from project design and management to construction. He has worked on numerous California hydrogen projects throughout his career, including a Hydrogen Fueling Program for Chevron Corporation. He has led the evaluation for development of more than 30 new and existing service station sites across California for hydrogen fueling.

Pattie Ransdell, Stakeholder Engagement Lead

Patti has 30+ years of project management experience, with a specialty in creating community awareness strategies for public agency clients in the transportation and water sectors. Patti expertly manages the development of high-quality communication tools including collateral materials, websites, and stakeholder databases. She also successfully oversees opportunities for gathering input and increasing public awareness including community meetings, workshops, and opinion leader interviews. Additionally, she has strong experience overseeing construction outreach programs for high visibility projects in both the transportation and water sectors. Patti has successfully overseen several controversial projects. Her efficient and practical approaches to outreach strategy allow her to lead the development of highly effective public awareness programs.

Analy Castillo, Deputy Project Manager and Technical Analysis

Analy will be responsible for the day-to-day management to support the Project Manager, Sarah Spann. Analy will also lead the Analysis, specifically the Hydrogen Use Case and Station Size. Transitioning to 100% ZEBs is an unprecedented challenge for transit agencies. For over a decade, Analy has brought hydrogen fuel cell and battery-powered buses to city streets. A model she developed for her thesis optimizing ZEB phasing is now being used by our transit team. This model, ZEVDecide™, helps transit agencies determine their unique mix of battery and hydrogen fuel cell buses based on the terrain, routes, and infrastructure. As a consultant, her expertise in the systems, operations, and planning impacts related to ZEBs makes her invaluable to clients.

Jonathan Garrett, Technical Memo and Regional Presentation

As a transit and zero emissions advisory consultant, Jonathan works with public and private entities to understand their transportation and operational needs. He develops and implements innovative and integrated mobility solutions, ranging from zero emission vehicle transition plans, to curbside management strategies and autonomous mobility deployment programs. As part of our Smart(ER) Mobility team, Jonathan focuses on helping clients reach zero emission goals to benefit their communities and the environment. He helps clients build mobility programs that sustainably advance their service. With a lifelong interest in technology, transportation, and urban development, his goal is to help build safe, accessible, and zero emission mobility for all.

Reb Guthrie, Hydrogen Infrastructure Requirements

With nearly 30 years' experience in fleet-fueling design, Reb has worked on the assessment, specification development, and design of over 170 compressed natural gas (CNG) fueling facilities and over 50 petroleum fueling stations for more than 125 municipalities, transit agencies, counties, and school districts throughout the United States. Recently, Reb has leveraged his years of experience to pivot to the design of zero emission fueling infrastructures—he has worked on more than 30 hydrogen fueling and bus and heavy-duty electric charging projects, as well as Zero-Emission Bus (ZEB) Transition Plans.

Richard Pascoe, GIS Mapping

Richard is a transportation planning project manager with 21 years of planning, GIS, and project management experience with various local, state, and federal agencies. Most of his background lies in the transportation sector, providing technical services for long-rage transportation planning, public transportation planning, origin destination studies, autonomous vehicle concept plans, land use planning, environmental studies, and asset management.

Richard Hake, Data Collection

Richard Hake is a business transformation strategist with extensive experience in organizational consulting, program management, business analytics, and process automation. Skilled in leading digital transformations, he specializes in modernizing technology ecosystems and tailoring solutions to meet each client's unique needs, enhancing their organizational resilience. With over a decade in the field, Richard is adept at designing and implementing complex technology solutions, analyzing business requirements, and developing strategic plans that align with organizational goals.

Ian Lowell, Support Staff

Ian values sustainable transportation solutions of all sized communities. His background in active transportation pairs with transit planning for multimodal network solutions. In addition to expanding capture of bicycle and pedestrian data, Ian's work with Park City Municipal engaged community members in active transportation. He brings a passion for community, natural spaces, and culturally conscience placemaking within the built environment. Experience with electrified buses and bike share, Ian brings a comprehensive approach to zero-emission transportation with the goal of appropriate fit transition to meet community needs. The belief that every community- regardless of demographics or size- deserve sustainable means of transportation guides his work.

Kelly Watts, Support Staff

Kelly is an adept transportation planning professional with a strong focus on sustainable mobility solutions. With a deep understanding of zero-emissions vehicles and expertise in transit service analysis, Kelly is dedicated to creating accessible and livable communities through innovative transportation strategies. Kelly has a zeal for sustainable transportation and embraces a community-centric, holistic approach to her work. She is eager to contribute to the cultivation of connected communities that provide exceptional and inclusive mobility experiences for community residents and visitors.

Kira Bath, Support Staff

Kira is a junior urban planner with one year of planning experience and has been working with the ZEB and Transit Advisory team in the Waterloo office since the summer of 2023. She has worked both with the public and private sector, with a focus in transportation planning and smart solutions. She has vast knowledge of North American planning systems which have helped her execute zero emission fleet transition analyses, technical memos and reports, and existing conditions and feasibility studies. She also has experience in working with GTFS data, and block and route modelling using the ZEVDecide™ tool. Her experience with GIS and environmental planning and management has assisted her in report design and composition.

Expected Communication Channels

Stantec is experienced in managing complicated, schedule-driven projects, and we find the key to our success is being responsive and accessible. We pride ourselves on being in frequent communication with our clients—communication is rooted in many of our core values, such as "We are driven to achieve" and "We are better together." Our management approach will be informed by many factors, including our understanding of HCAOG's organizational structure, policies, procedures, and expectations regarding internal and external communications and overall performance.

Overall project leadership responsibility is assigned to Eric Plapper, Principal in Charge, and Sarah Spann, Project Manager. Sarah Spann will oversee the activities of the entire project delivery team, maintain close communication with HCAOG, monitor and report the status of cost and schedule performance to HCAOG, and also contribute to the analytical work. Eric and Sarah will be supported in their project leadership roles by our Deputy Project Manager and Technical Analysis Lead, Analy Castillo, Quality Control Manager, Wicus Postma, and Hydrogen Infrastructure Lead, Reb Guthrie, all of whom have successfully worked together on dozens of hydrogen projects.

Stantec has assembled a team covering all technical areas necessary for this project. We have completed a workload analysis for staff who will be assigned to the project, and we are confident that key personnel have adequate capacity both currently and for the duration of the contract. Assigned staff will be committed to the project through its completion. Our team is organized around our Project Manager, who is supported by our Principal-in-Charge, Quality Control Manager, and a technical team consisting of a cadre of technical specialists. Stantec offers experienced leaders and a mix of junior, mid-level, and senior-level staff to maximize cost efficiencies while providing necessary senior oversight to support successful project completion.

Progress Meetings: The project team will hold regular progress meetings with HCAOG to provide updates on the project's status, discuss upcoming tasks, and address any issues that may arise. These meetings will be led by Sarah Spann, the Project Manager, and will include key team members as needed.

Monthly Review Meetings: Monthly review meetings will be conducted to evaluate the overall progress, review deliverables, and ensure alignment with HCAOG's expectations. Eric Plapper, the Principal-in-Charge, will oversee these meetings to ensure strategic alignment.

Public Workshops and Webinars: Patti Ransdell, the Stakeholder Engagement Lead, will organize public workshops and webinars to engage with community members and stakeholders. These sessions will provide a platform for feedback and ensure that the project considers local insights and concerns.

Surveys and Feedback Forms: To gather input from a broader audience, surveys and feedback forms will be distributed. This will help in understanding the community's needs and preferences regarding the hydrogen fuel station network.

Bi-weekly Status Reports: The project team will submit bi-weekly status reports to HCAOG, detailing the progress, challenges, and next steps. These reports will be prepared by Analy Castillo, the Deputy Project Manager and Technical Analysis Lead.

Technical Memos and Presentations: Jonathan Garrett will be responsible for preparing technical memos and regional presentations to communicate findings and recommendations to HCAOG and other stakeholders.

Quality Assurance Reviews: Wicus Postma will conduct regular quality assurance reviews to ensure that all deliverables meet the required standards and specifications. Any discrepancies or issues will be addressed promptly to maintain the project's integrity.

Risk Management: The team will implement a risk management plan to identify potential risks early and develop mitigation strategies. This proactive approach will help in resolving issues before they escalate.

GIS Mapping and Data Collection: Richard Pascoe and Richard Hake will provide technical support in GIS mapping and data collection. Their expertise will ensure accurate and comprehensive analysis for the siting of hydrogen fuel stations.

Hydrogen Infrastructure Requirements: Reb Guthrie will lead the efforts in defining and analyzing hydrogen infrastructure requirements, ensuring that the project aligns with industry standards and best practices.

Issue Identification and Reporting: Team members will be encouraged to report any issues or potential problems immediately to the Project Manager, Sarah Spann. This will ensure that issues are identified early and addressed promptly.

Collaborative Problem-Solving: The project team will adopt a collaborative approach to problem-solving, involving relevant stakeholders and experts to find effective solutions. Regular brainstorming sessions and workshops will be conducted to address complex challenges.

Escalation Process: For issues that cannot be resolved at the team level, an escalation process will be in place. Eric Plapper, the Principal-in-Charge, will oversee the escalation process to ensure that critical issues are addressed at the highest level.

Continuous Improvement: The team will implement a continuous improvement process, regularly reviewing and refining communication channels and problem-solving strategies to enhance efficiency and effectiveness. By establishing this, the project team from Stantec will ensure that the services set forth in the RFP are performed to HCAOG's satisfaction, fostering a collaborative and transparent working relationship.

Stantec References

Town of West Hartford
Public Works
17 Brixton Street, West Hartford, CT
(860) 561-8101
johnp@westhartfordct.gov (attn: John Phillips)
Project Duration: January 2023 - September 2024
Key Personnel: Eric Plapper, Richard Pascoe

Scope: Stantec recently completed an EV readiness plan for the Town of West Hartford, CT, with a focus on the equitable rollout of EV chargers for residents and visitors who do not have access to designated off-street parking. The project includes internal and external stakeholder outreach to develop a vision, goals, and objectives; applying Stantec's ZEVDecide GIS tool to map EV demand and supportive infrastructure; coordination with EverSource, the electric utility; evaluation of the business models in the EV ecosystem; and a time-phased plan that identifies charging site typologies (e.g., dense mixed use parking garages, multifamily residential buildings, office parks) and prioritizes infrastructure buildout.

To assist the Town with integrating EV charging into other ongoing planning efforts (like the Town's Infrastructure Master Plan), Stantec developed guidelines for parking policy, charging station design specifications, and example RFPs to procure charging equipment. Additionally, Stantec supported the Town in developing a CFI funding application.

Gold Coast Transit District (GCTD)
1901 Auto Center Drive, Oxnard, CA
Ventura County
(805) 587-8898
jbeck@gctd.org (attn: James Beck)
September 2021 - December 2022
Key Personnel: Analy Castillo, Ian Lowell, Kelly Watts, Reb Guthrie

Scope: Stantec developed a Zero-Emission Rollout Plan to comply with the California Air Resource Board's (CARB) Innovative Clean Transit (ICT) Regulation which mandates the full conversion of bus fleets to zero-emission by 2040. Additionally, Stantec helped develop the rollout plan for another neighbor agency, Ojai Trolly, which helped coordinate the implementation of zero-emission technologies in the region. Stantec conducted modeling to understand the operational needs of the fleets, developed cost estimates to assess the true cost of conversion, created site plans to anticipate the required infrastructure, and in collaboration with each agency Stantec developed transition recommendations for vehicle procurement and infrastructure implementation. The final recommendation guided GCTD to plan for the implementation of a hydrogen fuel cell electric fleet. Stantec estimated the daily, monthly, and yearly hydrogen demand for their fleet, as well as for other regional partners. Specifically, Stantec helped identify the hydrogen demand of potential regional partners like Ventura County Transportation Commission (VCTC) as well as the hydrogen demand of private fleet vehicles. This coordination also led to VCTC to select hydrogen fuel cell electric vehicles for a portion of their fleet. The scope also helped evaluate the feasibility of on-site hydrogen production from renewable sources versus green hydrogen distributed via liquid tube trailers. Lastly, Stantec created a site concept design of the hydrogen station infrastructure in a way that will allow regional partners to refuel and have a secure access for private vehicle owners.

Papé Group / Pacific Clean Fuels, Inc.
355 Goodpasture Island Rd. #300 Eugene, OR
(541) 852-8590
golson@pape.com(attn: Gabriel Olson)
Project Duration: 2023 - present
Key Personnel: Wicus Postma, Sarah Spann

Scope: Stantec is providing a full suite of services to support The Papé Group's sustainability goals. Our expertise spans from initial planning and permitting to detailed engineering. This includes site selection, feasibility studies, entitlement approvals, environmental regulatory compliance, and construction permitting. Our comprehensive approach helps to ensure that every aspect of the project is meticulously planned and executed, paving the way for a sustainable and clean energy future.

Circlepoint References

CalRecycle
1001 I Street Sacramento, CA
Statewide, CA
(916) 341-6206
matthew.weiss@Calrecycle.ca.gov (attn: Matt Weiss)
June 2012 - present
Key Personnel: Patti Ransdell

Scope: To assist with outreach and education efforts, Circlepoint produced a 10-minute video featured on the CalRecycle website. In addition, Circlepoint developed an updated program brand identity, informational brochures, postcards, an electronic newsletter, and agency letters in support of the engineering contract. Circlepoint has also assisted with planning and preparation for statewide workshops promoting the use of RAC, providing logistics support, conducting market research, and maintaining mailing lists of current and future RAC users.

Communications Metropolitan Transportation Commission (MTC)
378 Beale Street, Suite 800, San Francisco, CA
North Bay including Marin, Sonoma, Napa, and Solano Counties, CA
(415) 778-5262
JGoodwin@bayareametro.gov (attn: John Goodwin)
November 2020 - June 2021
Key Personnel: Patti Ransdell

Scope: The communications plan offered messaging to help simplify complex terminology into language that is understandable to a wide array of audiences. Circlepoint worked closely with the project team to develop a comprehensive communications and public engagement plan, including a standalone chapter on Equitable Engagement in collaboration with MTC's Equity Liaisons. Circlepoint also revised a series of project fact sheets to make them more accessible to general audiences; and developed website content and launched a detailed stakeholder questionnaire, which has garnered a significant number of responses. Circlepoint also supported the planning and implementation of an online townhall led by California State Senators McGuire and Dodd, and co-hosted by MTC, Caltrans, and North Bay transportation agencies.

4.

Approach

Approach

Task 1. Project Management and Reporting

Task 1.1: Project Kick-off Meeting

Stantec will organize a Project kickoff meeting with HCAOG members and Stantec key personnel to verify the project goals and review the scope of work, project approach, schedule, and deliverables.

In collaboration with the HCAOG, Stantec will develop a draft Project Execution Plan based on input from the kickoff meeting. The Project Execution Plan will clearly define project scope of work, roles and responsibilities, file management, Quality Assurance/Quality Control (QA/QC) procedures, and the project schedule.

Task 1.2: Project Coordination

Project Schedule and Progress Reporting. Stantec will hold monthly virtual progress meetings with HCAOG throughout the project. These meetings provide an opportunity to coordinate among the various team members, discuss and resolve issues, make decisions, set project direction, and track project status. After each meeting, Stantec will distribute meeting minutes and a Monthly Status Report including decision logs, action items, schedule milestones, risks, and recommendations for reference. As the liaison between Stantec staff and HCAOG, Stantec's Project Manager,

Sarah Spann will ensure that information is distributed appropriately, that comments regarding Project-related issues are communicated effectively and efficiently, and that financial performance is tracked regularly. Ms. Spann will be the primary point of contact for HCAOG and will manage the Stantec Project team.

SharePoint Development and Management. Stantec will serve as the primary point of contact for project information. Project documentation will be filed on a project-specific SharePoint site accessible to HCAOG, as well as Stantec internal staff and other teaming partners identified by HCAOG. The SharePoint shall be secure; permissions will only be granted to parties confirmed by HCAOG. Documentation will include drawings, specifications, reports, requests for information, product data, correspondence, meeting minutes, permits, and other contact information.

Quality Assurance/Quality Control. Throughout the project Stantec will incorporate our QA/QC systems and processes that are efficient, reliable, and proven in our daily work throughout California. Our Project Management Framework (PMF) is the foundation for providing consistency in Stantec's project management and delivery. The 10 elements of PMF provide minimum expectations for the lifecycle of a project from proposal and contracting, to safety, quality and independent review, and project closeout across our organization, and consistent project documentation requirements. Our quality management system is a cornerstone of our ISO 9001 certification. The way we document compliance with PMF is central to how we manage projects, and periodic internal audits are performed to verify that Stantec project managers are following the PMF.

Our Project Manager and Technical Leads will be responsible for the execution and implementation of the PMF. Our approach to managing quality will be scalable but will always require compliance with the PMF. Stantec requires that draft deliverables be reviewed for quality and technical accuracy and completeness prior to issuing a final document. Quality and Independent reviews are important to verify that all scope requirements are addressed in a technically sound and defensible way.

Deliverables

- Draft and Final Project Execution Plan
- Monthly meeting coordination, including noticing, agendas, and minutes
- Monthly Status Report updates, including action items, schedule milestones, project spend, risks, and recommendations

Assumptions

- Budget includes in-person attendance of Stantec's project manager and virtual attendance of up to two additional Stantec team members at project kickoff meeting
- All subsequent project coordination meetings will be virtual with up to three Stantec team members in attendance
- Cost estimate includes initial schedule development (MS Project Schedule) and up to 14 monthly schedule and status report updates throughout project implementation
- All deliverables will be provided in electronic format on an approved file sharing platform (i.e., Microsoft SharePoint)

Task 2. Stakeholder Engagement and Regional Project Kick-off

Effective stakeholder engagement is crucial for a successful Siting Analysis, ensuring transparency, stakeholder buy-in, and regulatory compliance. A structured stakeholder engagement approach helps all relevant parties are informed, heard and considered, leading to a more sustainable and accepted Siting Analysis.

Task 2.1: Stakeholder Engagement Plan

Circlepoint, in collaboration with Stantec and HCAOG, will develop a Stakeholder Engagement Plan that provides a structured approach to outreach and communication with project stakeholders. This plan will include:

Stakeholder Identification: Circlepoint will develop a detailed list of individuals and organizations, including contact information, relevant affiliations, and roles in the project. These stakeholders will include agencies such as Caltrans District 1, the regional transportation planning agencies, transit operators including Tribal transit operators, the Schatz Energy Research Center at Cal Poly Humboldt, the Metropolitan Planning Organizations that serve the region, the North Coast Tribal Transportation Commission, California GO-Biz, the North State Super Region Zero Emission Vehicle Working Group as well as other interested parties.

Engagement Timeline: The stakeholder engagement plan will include a schedule indicating key project milestones and the corresponding points at which stakeholders will be consulted.

Methods of Engagement: We anticipate including a variety of engagement methods, including in-person meetings, virtual meetings, presentations, emails, and surveys, ensuring broad and flexible participation from our stakeholders.

We will develop a tracking tool (e.g., a spreadsheet) to log stakeholder interactions, including the date of contact, method of engagement, key discussion points, and stakeholder responses. This tracking tool will be provided to the technical team and HCAOG for their use in the Siting Analysis.

Circlepoint will meet with Stantec and HCAOG to discuss their goals and objectives for stakeholder engagement prior to development of the stakeholder engagement plan.

Circlepoint will present the Stakeholder Engagement Plan to HCAOG for review and incorporate any necessary revisions before finalization. We assume multiple parties will have responsibilities in stakeholder engagement, including HCAOG. Stantec will also coordinate meetings with individual stakeholder as needed as questions arise that might inform the technical approach.

Deliverables:

- Up to 3 Planning meetings with Stantec and HCAOG
- Draft stakeholder engagement plan
- Stakeholder database (included in engagement plan as an appendix)
- Tracking tool to log stakeholder interactions

Assumptions:

- No more than two rounds of revisions to draft stakeholder engagement plan
- The 3 planning meetings with Stantec and HCAOG will be conducted virtually and will not exceed two hours each

Task 2.2: Regional Project Kick-off

Following the completion of the Stakeholder Engagement Plan, Circlepoint will coordinate with Stantec to organize and lead a Regional Project Kick-off at a North State Super Region meeting. The objectives of this kick-off include:

- **Presentation of the Stakeholder Engagement Plan**: Overview of the engagement strategy, including outreach methods and the timeline for stakeholder involvement.
- **Project Overview**: Explanation of the project's purpose, expected deliverables, and schedule.
- **Information Needs**: Clarification of the type of data, insights, and participation required from RTPAs.
- **Stakeholder Feedback**: We will solicit input on the proposed methodology and outreach approach.
- **Engagement with Tribal Stakeholders**: A similar presentation will be delivered at a North Coast Tribal Transportation Commission meeting to ensure representation and input from Tribal entities.

We will work with Stantec to plan, notify attendees, prepare meeting materials, and assist with facilitating discussions at these meetings. We can provide high level meeting summaries after each meeting. HCAOG agency staff will assist with securing venues and handling logistical arrangements.

Deliverables:

- Circlepoint will attend the regional project kick off meeting at a North State Super Region meeting to discuss the stakeholder engagement plan
- Circlepoint will attend the North Coast Tribal Transportation Commission meeting with Stantec
- We will participate in 4 planning meetings with Stantec and HCAOG prior to these meetings (two planning meetings per meeting described above)

- We will coordinate development of meeting agendas and materials including presentations and exhibits if needed
- We will provide draft and final high-level meeting summaries after each meeting

Assumptions:

- No more than two rounds of revisions for meeting materials (agendas, summaries, graphics/presentation materials)
- Circlepoint is not responsible for printing any exhibits or meeting materials
- We assume both meetings will be held in person and will not exceed two hours in duration

Task 2.3: Post-Regional Project Kick-off Revisions

Following the Regional Project Kick-off meetings, we will review stakeholder feedback and make appropriate revisions to the Stakeholder Engagement Plan and overall project methodology. This may include:

- Incorporation of additional stakeholder input.
- Refinements to the project schedule or deliverables based on concerns or recommendations.

The received feedback during the kick-off meetings will be submitted to HCAOG for approval before implementation. Stantec will also revise our approach to the technical analysis based on the received feedback from the stockholder kick-off meetings

Deliverables:

- Final Stakeholder Engagement Plan

The successful execution of this task will ensure a well-structured and transparent stakeholder engagement process, fostering collaboration and alignment among all involved stakeholders.

Task 3. Analysis

Part 1 - Use Case and Station Size

Stantec will gather information from stakeholders and various data sources for the 16-county region to determine the types of vehicles using the stations, how many vehicles, and the distances they will be traveling. Stantec will use Replica or a similar data provider to acquire information on traffic volumes, mode choice, types of vehicles, and travel distances. Stantec will also consider stakeholder input and industry standards to determine station information such as the level of hydrogen fuel consumption to support, typical station size, and footprint required to provide safe vehicle access based on the size of vehicles accessing the sites.

Stantec has developed hundreds of concept designs, detailed specifications, and actual implementations of hydrogen fueling stations. Our fueling experts, Sarah Spann and Reb Guthrie, will be able to assess high-level to detailed footprint requirements based on the use case of each hydrogen station. For example, hydrogen stations serving light-duty fleets would rely on gaseous hydrogen and therefore will have different equipment and space requirements than liquid hydrogen stations that are better suited to medium- and heavy-duty vehicles and fleets. Additionally, the type of use case will affect the space and site considerations. A hydrogen station with dedicated pumps that will only serve fleets from the project partners will require physical separation from pumps serving the public, dictating the space and configuration needed to accommodate such sites. Our team of experts will be able to create the space and equipment guidance based on the type of station to site in the subsequent tasks.

Part 2 - Number of Stations and Placement

Based on the determined vehicle and station characteristics, and utilizing the outputs of the Schatz Energy Research Center study, Stantec will conduct modeling to determine the number of stations needed and their general location/distribution throughout the region. This modeling will predict hydrogen fuel economy, energy requirements, and expected operational range to understand the fit of hydrogen vehicles within the region. The modeling will be conducted with Stantec's proprietary tool, ZEVDecide Fleet, that incorporates vehicle specifications and operating parameters to emulate fuel economy of ZEVs. Factors like topography, travel distance, and temperature all play an important role in fuel consumption and can be accounted for within ZEVDecide Fleet.

After the number of stations has been estimated, a GIS-based approach will be used to determine the appropriate distribution of general locations throughout the region. Factors to be considered will include traffic volumes, general land use, truck routes, alternative fuel corridors, and distance tolerances between fueling stations based on how far each vehicle class can travel on a full tank.

Part 3 - Micrositing

Site feasibility will be driven by several factors including:

- Parcel size and footprint
- Topography, particularly slope
- Zoning
- Vacant land
- Traffic clearances and safety
- Highway and alternative fuel corridor accessibility

- Presence of sensitive environmental, cultural, and aesthetic features
- Geologic hazards
- Proximity to sensitive facilities such as schools and hospitals
- Nearby amenities and utilities
- Physical space for clearance, signage, and safety features
- Environmental justice and equity.

Other factors may be considered based on stakeholder input and data availability throughout the 16-county North State region. Stantec will initiate the collection of this data during the stakeholder engagement.

Stantec will perform screening on each general location using ZEVDecide Infrastructure, our weighted suitability mapping tool. This analysis will leverage the methodology and findings of the Medium Duty/Heavy Duty Hydrogen Blueprint completed by the Schatz Energy Research Center, considering additional factors as outlined above. It will also consider the goals and objectives of Caltrans' Freight Plan.

During the stakeholder engagement, Stantec will get input on the weighting of each input layer. For example, accessibility to Alternative Fuel Corridors may have higher importance, in which case proximity to these facilities will be prioritized in the modeling process. Stantec will propose weighting for each data layer and then collaborate with HCAOG staff to finalize our approach and revise weighting as needed. A draft web map will be produced by Stantec for review by County staff and stakeholders. As shown in the image below and based on data availability, ZEVDecide Infrastructure can make recommendations at the parcel level.

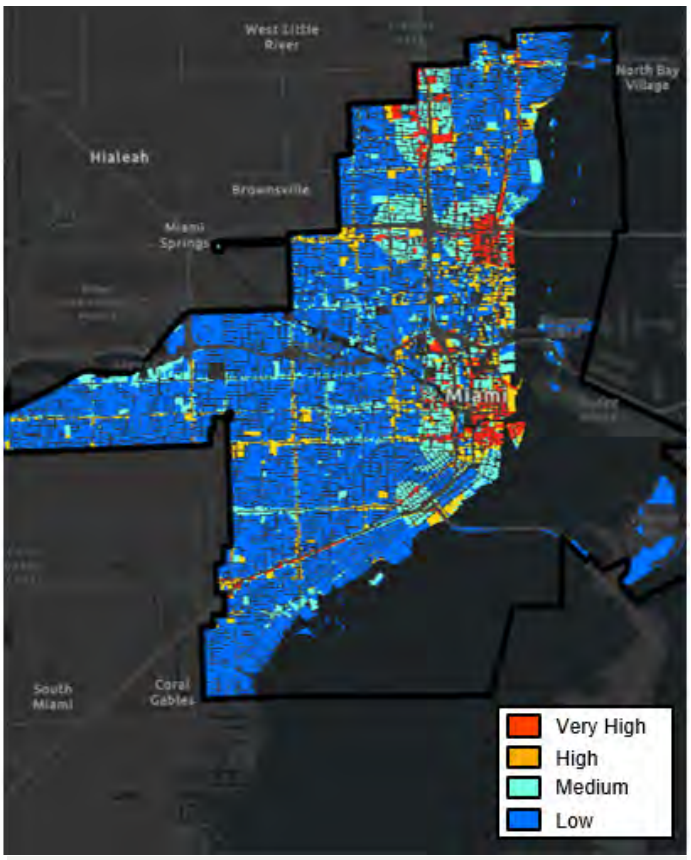


Figure 1 - ZEVDecide Output

From the ZEVDecide output (Figure 1), parcels within areas of Very High and High Suitability will be extracted assessed individually for suitability based on more detailed information such as parcel layout, size, detailed zoning, and ownership. The top 2 to 3 parcels will be identified for each general location identified in Part 2.

Deliverables:

- Brief monthly memo outlining indicating progress.
- Notes from monthly status update meetings
- Site suitability web map.
- List of favorable parcel sites.

Task 4. Draft and Final Technical Memorandum

Task 4.1: Administrative Draft of the Technical Memorandum

Under this task, Stantec will prepare an Administrative Draft Technical Memorandum that serves to inform HCAOG of the Siting Analysis results, such as use case and expected station size, number of stations, and possible specific locations within Humboldt County. The Administrative Draft Technical Memorandum will include an executive summary highlighting key findings associated with the locations identified in the Technical Memorandum, explanation of methodology, high-level and detailed mapping of possible locations, recommendations of next steps, a high-level fact sheet, and appendices documenting stakeholder outreach.

Task 4.2: Draft Technical Memorandum

Stantec will conduct a deliverable review workshop with HCAOG and Caltrans staff for the Administrative Draft Technical Memorandum. Based on the one round of comments received during HCAOG and Caltrans' review, we will produce a Draft Technical Memorandum (PDF) for public release. We will present the Draft Technical Memorandum to the North State Super Region so that public comments can be included in the Final Technical Memorandum. We will also create a public-facing summary presentation to be delivered to the North State Super Region.

Task 4.3: Final Technical Memorandum

We will compile, organize, and synthesize public comments from the North State Super Region and create a comment response matrix to track and resolve comments. The Draft Technical Memorandum will be revised in response to North State Super Region comments to produce to the Final Technical Memorandum for HCAOG.

Deliverables

- Administrative Draft Technical Memorandum and Deliverable Review Workshop
- Public Draft Technical Memorandum
- Public Draft PowerPoint Presentation
- Final Technical Memorandum (including response to comments matrix)

Assumptions

- Includes one round of HCAOG review of each deliverable
- All deliverables will be provided in electronic format on an approved file sharing platform (i.e., Microsoft SharePoint)
- Development of Response to comments matrix
- Any substantial revisions based on new information not previously available or required coordination after submittal of the revised deliverables will be included under a separate scope of work and cost estimate.

Task 5. Regional Presentations

Stantec will develop a stakeholder presentation which summarizes the key findings and lessons learned from the Draft Technical Memorandum. The presentation will be comprehensive but streamlined, utilizing accessible design elements. The presentation will culminate in an invitation for stakeholders to comment on the draft document. Stantec will present the findings in up to six virtual meetings and one in-person meeting at the Far North Transit Symposium. We will provide the presentation materials to HCAOG before each scheduled presentation to account for minor changes.

Deliverables:

- Public draft PowerPoint presentation
- Public final PowerPoint presentation(s)
- Meeting agenda(s)

Assumptions:

- Includes one round of HCAOG review of each deliverable.
- All deliverables will be provided in electronic format on an approved file sharing platform (i.e., Microsoft SharePoint)
- Budget includes presenting at eight virtual meetings to account for two undetermined freight vendors
- Any substantial revisions based on new information not previously available or required coordination after submittal of the revised deliverables will be included under a separate scope of work and cost estimate.

5.

Work Plan & Schedule

Schedule and Deliverables

Task	Task Name	May-25					Jun-25				Jul-25				Aug-25				Sep-25				Oct-25				Nov-25				Dec-25				Jan-26				Feb-26				Mar-26				April	
		25-Apr	2-May	9-May	16-May	23-May	30-May	6-Jun	13-Jun	20-Jun	27-Jun	4-Jul	11-Jul	18-Jul	25-Jul	1-Aug	8-Aug	15-Aug	22-Aug	29-Aug	5-Sep	12-Sep	19-Sep	26-Sep	3-Oct	10-Oct	17-Oct	24-Oct	31-Oct	7-Nov	14-Nov	21-Nov	28-Nov	5-Dec	12-Dec	19-Dec	26-Dec	2-Jan	9-Jan	16-Jan	23-Jan	30-Jan	6-Feb	13-Feb	20-Feb	27-Feb	6-Mar	13-Mar	20-Mar	27-Mar	3-Apr	10-Apr
1	Project Management and Reporting																																															
1.1	Project Kick-Off Meeting	(i)																																														
1.2	Project Coordination						(i,p)			(i,p)				(i,p)				(i,p)				(i,p)				(i,p)				(i,p)				(i,p)				(i,p)				(i,p)				(i,p)	(i,p)
2	Stakeholder Engagement and Regional Project Kick-Off																																														
2.1	Stakeholder Engagement Plan		(i)	(i)	(D)																																									
2.2	Regional Project Kick-Off					(m)		(m)																																							
2.3	Post-Regional Project Kick-Off Revisions								(D)																																					
3	Analysis																																													
3.1	Use Case Development								(i)(m)			(i)(m)																																			
3.2	Station Sizing and Placement																	(i)																													
3.3	Micrositing Exercise																										(D)																				
4	Draft and Final Technical Memorandum																																													
4.1	Administrative Draft of the Technical Memo																																		(D)												
4.2	Draft Technical Memorandum																																					(D)(m)									
4.3	Final Technical Memorandum																																								(D)						
5	Region Presentations																																										(D)	(m)	(m)	(m)	(m)	(m)

(i) Internal meeting - Stantec/HCAOG/CalTrans
(p) Progress report
(D) Deliverable
(m) Stakeholder meeting

The team's workload and anticipated hours to accomplish each task is presented as part of the Cost Proposal.

6.

Cost Proposal

Cost Proposal

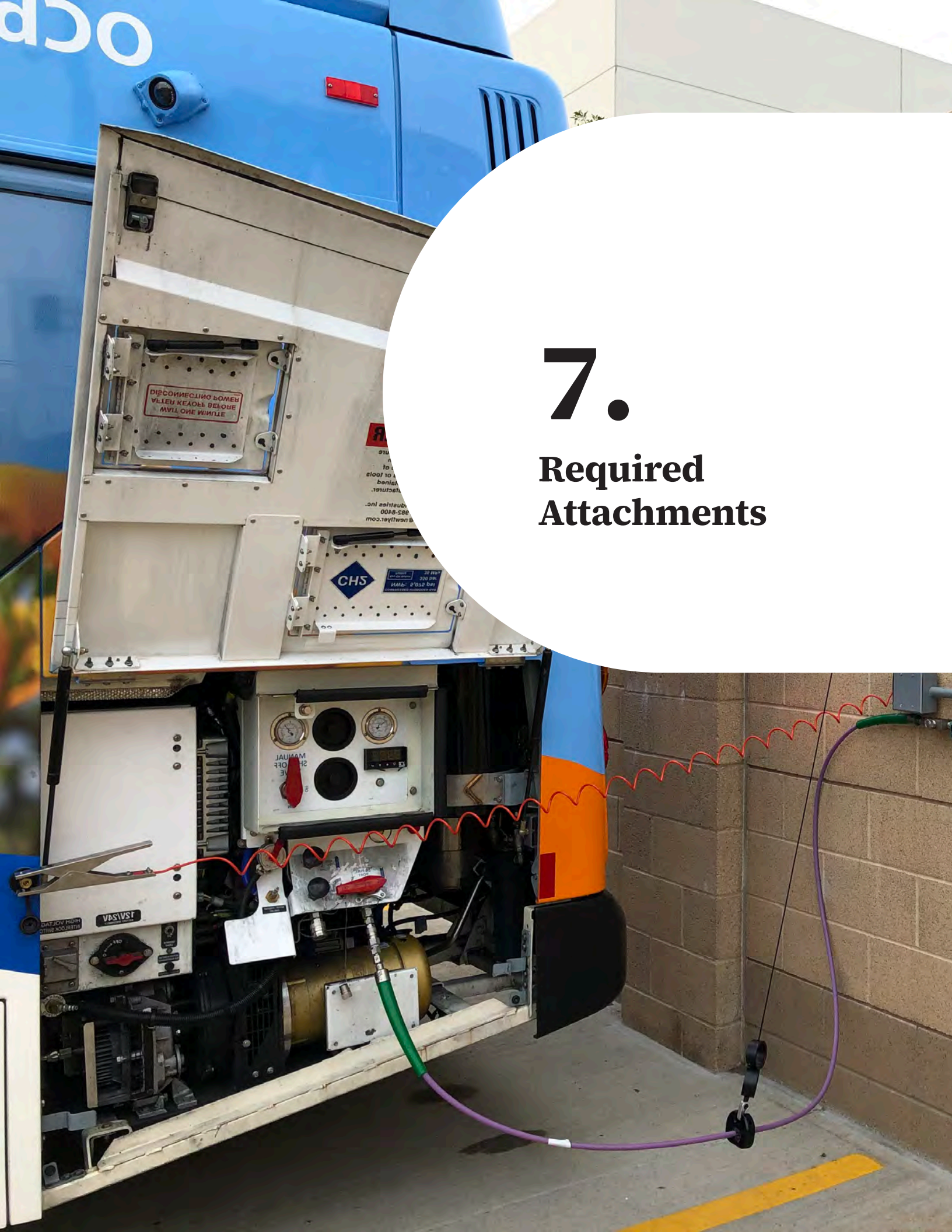
Name	Project Manager	PIC, Use Case Development	QA/QC	DPM, Technical Analysis Lead	Hydrogen Infrastructure	GIS Mapping	Data Collection	Regional Presentations	Modeler	Researcher	Circlepoint	Circlepoint	Circlepoint	Circlepoint	Travel Expenses	Printing and Materials
	Spann, Sarah	Plapper, Eric	Postma, Wicus	Castillo, Analy	Guthrie, Reb	Pascoe, Richard	Hake, Richard	Garrett, Jonathan	Lowell, Ian	Kira Bath	Associate Principal	Senior Associate	Associate	Art Director		
Project Billing Rate	$240.00	$240.00	$240.00	$240.00	$240.00	$204.00	$240.00	$195.00	$170.00	$144.00	$247.00	$189.00	$158.00	$189.00	$1.00	$1.00
Total Hrs.	168	69	20	112	38	152	26	76	32	152	53	58	75	8	6,000	300

Task	Task Name	Units														
1	Project Management and Reporting	32	6		12	2	2		2			2	2				
2	Stakeholder Engagement and Regional Project Kick-Off	36	9		24		4		4			39	38	57	8	3,000	200
3	Hydrogen Demand and Site Analysis	40	36	16	44	36	116	26	22	20	40						
4	Draft and Final Technical Memorandum	28	14	4	28		28		48	12	112	10	18	18			
5	Region Presentations	32	4		4		2					2				3,000	100

	Hours	Stantec	Expenses	Subs	Total
Total	845	$ 178,251	$ 6,300	$ 37,415	**$ 221,966**

Cost for attending each additional meeting outside of what was considered in the Approach Section includes:

Stantec	Expenses	Subs	Total
$ 1,600	$ 1,200	$ 2,000	**$ 4,800**



7.

Required Attachments

Subconsultant List (Attachment D)

SUBCONSULTANT LIST – RFP EXHIBIT C

The proposal shall include a complete list of all proposed subconsultants. All subconsultants listed must be provided a meaningful element of work within the defined scope of work. Changes to this Subconsultant List will not be allowed without prior written approval from RTPA.

Proposed Subconsultants

Subconsultant Firm Name and Address	Scope of Work	Dollar Amount of Work
Name Circlepoint Address 1625 Clay Street, Suite 700, Oakland, CA 94612	Stakeholder Engagement and Regional Project Kick-off	$ 37,415.00
Name Address		$
Name Address		$
Name Address		$
Name Address		$
Name Address		$

Stantec Consulting Services Inc.

Name of Lead Firm

Eric Plapper, Principal-in-Charge

Printed Name and Title of Signatory

Signature

April 11, 2025

Date

US Equal Opportunity and Affirmative Action Policies

Stantec

September 10, 2023

Notice to Employees: US EQUAL OPPORTUNITY AND AFFIRMATIVE ACTION POLICIES

Stantec Consulting Services Inc. has implemented the following policies and procedures as part of its longstanding commitment to compliance with all applicable equal opportunity and affirmative action requirements.

Equal Opportunity Policy

Stantec is committed to maintaining a work environment that is free from all forms of unlawful discrimination and harassment. It is therefore the company's policy to prohibit discrimination and harassment against any applicant, employee, vendor, contractor, customer, or client on the basis of race, color, religion, sex, national origin, age, disability, pregnancy, military and/or veteran status, genetic information, sexual orientation, gender identity and expression, citizenship status, or any other basis prohibited by law. It is also the company's policy to prohibit all forms of retaliation against any individual who has complained of harassing or discriminatory conduct or participated in a company or agency investigation into such complaints.

Affirmative Action Policy

Stantec is also a federal contractor subject to Executive Order 11246, Section 4212 of the Vietnam Era Veteran's Readjustment Assistance Act of 1974, as amended ("Section 4212") and Section 503 of the Rehabilitation Act of 1973, as amended ("Section 503"). As such, Stantec is committed to take positive steps to implement the employment related aspects of the company's equal opportunity policy. Accordingly, it is Stantec's policy to take affirmative action to employ, advance in employment, and otherwise treat qualified minorities, women, protected veterans, and individuals with disabilities without regard to their race/ethnicity, sex, veteran status, or physical or mental disability. Under this policy, Stantec also will provide reasonable accommodation to the known physical or mental limitations of an otherwise qualified employee or applicant for employment, unless the accommodation would impose undue hardship on the operation of the company's business.

The company's affirmative action policy also prohibits employees and applicants from being subjected to harassment, intimidation, threats, coercion, or discrimination because they have engaged in or may engage in (1) filing a complaint; (2) assisting or participating in an investigation, compliance review, hearing, or any other activity related to the administration of Section 503, Section 4212, or any other Federal, state or local law requiring equal opportunity for disabled persons or covered veterans; (3) opposing any act or practice made unlawful by Section 503 or Section 4212 and their implementing regulations, or any other Federal, state or local law requiring equal opportunity for disabled persons or covered veterans; or (4) exercising any other right protected by Section 503 or Section 4212 or their implementing regulations.

Application of Equal Opportunity and Affirmative Action Policies

These policies apply whenever and wherever a company employee is performing a function of their job, including all Stantec locations, client worksites, and company-sponsored or client-sponsored business and social functions. The company's equal opportunity and affirmative action policies require that employment decisions be based only on valid job requirements, and extend to all terms, conditions, and privileges of employment including, but not limited to, recruitment, selection, compensation, benefit, training, promotion, and disciplinary actions.

Workplace Harassment, Including Sexual Harassment

A key component of the company's commitment to equal opportunity is zero tolerance for workplace harassment based on, or because of, an individual's race, color, religion, creed, sex, national origin, age, disability, pregnancy, veteran status, sexual orientation, gender identity and expression, citizenship status, or any other reason prohibited by law. Such harassment, whether committed by company personnel or by clients, customers, vendors, or other individuals doing business with Stantec, will not be tolerated.

Stantec

Prohibited harassment occurs when a supervisor, co-worker, or even a non-employee behaves or acts in such a way that creates a hostile work environment for another employee based on an individual's race, color, religion, creed, sex, national origin, age, disability, pregnancy, veteran status, sexual orientation, gender identity and expression, citizenship status, or any other protected characteristic. Stantec management is responsible for ensuring compliance with all aspects of this equal employment opportunity policy and for developing implementation strategies that promote its intent.

Zero Tolerance for Retaliation

Every employee is encouraged to come forward without fear of reprisal, as Stantec's equal opportunity and affirmative action policies prohibit all forms of retaliation against anyone who in good faith complains that these policies are not being followed, or who otherwise participates in a company or agency investigation into such complaints, even if sufficient evidence is not found to substantiate the complaint. If you believe that you have been subjected to retaliation, your complaint should be directed to the Integrity hotline (1-855-389-9170), your supervisor (if appropriate), your regional Human Resources manager, senior leadership or legal counsel.

After receiving a complaint involving a violation of the company's equal opportunity or affirmative action policy, the company will investigate and take corrective action, as appropriate. Complaints and investigations will be kept strictly confidential to the maximum extent possible. No one, regardless of position or length of service, is exempt from these policies.

Obligations of Company Personnel

Stantec personnel have an obligation to contribute to a harassment and discrimination free workplace. Any employee who suffers or observes harassment or any other violation of this policy is strongly encouraged to notify the Integrity hotline (1-855-389-9170), your supervisor (if appropriate), your regional Human Resources manager, senior leadership or legal counsel. Stantec will promptly and thoroughly investigate the alleged misconduct and, if a violation of this policy is found, will take immediate and appropriate corrective action.

Pay Transparency

Stantec will not discharge or in any other manner discriminate against employees or applicants because they have inquired about, discussed, or disclosed their own pay or the pay of another employee or applicant. However, employees who have access to the compensation information of other employees or applicants as a part of their essential job functions cannot disclose the pay of other employees or applicants to individuals who do not otherwise have access to compensation information, unless the disclosure is (a) in response to a formal complaint or charge, (b) in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or (c) consistent with the contractor's legal duty to furnish information. 41 CFR 60-1.35(c)

Responsibility for Implementation

As CEO, I fully support our affirmative action program and the policy of Pay Transparency. I am committed to the implementation of the Stantec's equal opportunity and affirmative action policies. Parts of Stantec's affirmative action program may be reviewed by an employee or applicant by making an appointment with Human Resources during normal business hours.

Stantec's Senior Employment Equity Compliance Consultant is our Equal Employment Opportunity Officer. Working with Human Resources, the Equal Employment Opportunity Officer is responsible for designing and implementing our US affirmative action efforts, and monitoring on an ongoing basis our compliance, identifying problem areas and addressing all areas of concern. Further, all management personnel are held accountable for completing specific tasks and supporting the Company's equal employment opportunity objectives.

We request the support of all employees in accomplishing equal employment opportunity.

Gord Johnston, CEO, Stantec

Staff Resumes

As Stantec's electric vehicle (EV) infrastructure planning lead, Eric has led planning, feasibility analysis, stakeholder and public engagement, fleet transition, and discretionary funding application projects for communities across the country. Eric has led EV planning projects at the statewide, regional, and local levels. He has helped clients secure nearly $100M in federal grant funding including assisting the City of Columbus with its Smart City Challenge application, prevailing over 77 competing cities with an equity-centric program. Eric leads Stantec's companywide EV steering committee and collaborates regularly with all key staff proposed on this project team.

Eric Plapper

Principal-in-Charge/Use Case Development

Education: Master of City and Regional Planning, Ohio State University
Bachelor of Arts, History, Connecticut College
Certificate in Geographic Information Systems, Columbus State Community College

Electric Vehicle Roadmap | City of Miami, FL | Miami, FL | Project Manager
Eric is supporting the City of Miami in their goal to increase EV adoption to 40% by 2035. Tasks include EV adoption forecasting for a range of scenarios, geographic information system analysis, EV charging equipment site identification and selection, estimated greenhouse gas reductions, and recommendations to enhance equity. Stantec utilized our ZEVDecide infrastructure mapping tool to significantly reduce project delivery from a typical nine-month timeline to two months. Eric also assisted the City in developing a charging and fueling infrastructure discretionary grant application, with a focus on providing charging in underserved neighborhoods throughout the City.

Electric Vehicle Infrastructure Plan | Town of West Hartford | West Hartford, CT | Project Manager
Eric is leading this project to develop an EV plan for a suburban community in Connecticut. Tasks include the development of a project vision; an assessment of EV supply equipment (EVSE) business models; analysis of anticipated EV demand; site suitability based on utility infrastructure; and development of enabling policy such as zoning code. The project also includes a focus on equitably outcomes by prioritizing multi-family development and meeting the needs of underserved groups within the community.

Electric Vehicle Infrastructure Implementation | City-Parish of Baton Rouge | Baton Rouge, LA | Project Manager
Eric is the technical lead for this project to implement the City-Parish of Baton Rouge EV Strategic Plan.Project components include projection of future EV demand, detailed mapping of utility infrastructure, and a detailed demographic analysis to identify the best sites for EV charging. Additionally, Stantec will develop technical specifications and assist the City-Parish in identifying and securing vendor and contractor support. Stantec is also leading the development of a Charging and Fueling Infrastructure (CFI) grant application to fast-track certain project components with a focus on equity.

Transportation Electrification Roadmap | City of New Orleans | New Orleans, LA | Project Manager
As a subconsultant, Stantec is supporting the City of New Orleans in this study to develop policy and infrastructure recommendations to meet the growing demand for EVs. Eric is leading Stantec's scope of work which includes analysis to recommend locations for EV charging infrastructure and development of zero emission transition

recommendations for public and private fleets operating within the City of New Orleans. Additionally, Eric is advising on engagement activities to capture public input within the mapping process.

Low Carbon Transportation Community Programs | City of Edmonton | Edmonton, AB | Technical Lead
Eric is the technical lead for this project to inform the design and implementation of community programs to support low carbon transportation. Developed state of the market and projections and performed comprehensive jurisdictional scan to identify best practices. Project also includes quantification of user costs and benefits, enabling zoning and building code, and consideration of equity-driven programs and policies.

Electric Vehicle Infrastructure Master Plan | Florida DOT* | FDOT | Florida | 2020-2021 | Policy Task Lead
Eric served as implementation policy task lead to develop the policy framework for increasing the adoption of electric vehicles (EVs) and supporting charging infrastructure throughout the state. This process included a review of other policies and plans throughout the country, formulated into a set of priorities the State of Florida will need to address support EV adoption. This plan was selected by Fast company from 3,000 entries as an Honorable Mention in the transportation category of their "World Changing Ideas" competition..

Fleet Conversion and Community-wide EV Charting Plan | Los Alamos County | Los Alamos, NM | 2025-present | Project Manager
Eric is leading this project to assess the County's fleet and infrastructure to meet emission reduction goals and New Mexico Clean Car Rule sales targets. Stantec is utilizing ZEVDecide to perform a comprehensive analysis of readiness for public charging infrastructure to support this goal, including identification of where upgrades will be needed in the utility network. The study also includes a review of enabling policy, such as building code and procurement requirements. Additionally, the study includes a comprehensive modeling of the County's fleet and facilities to demonstrate the feasibility of a 100% transition to zero-emission vehicles. Finally, the Stantec team is performing extensive public and stakeholder engagement to align recommendations.

Northern Virginia Interagency On-Route Charging Planning Assistance | National Renewable Energy Lab / Northern Virginia Transportation Commission | Arlington, VA | 2024 | Contract Manager/Project Manager
Eric is the contract manager for this National Renewable Energy Laboratory contract to provide on-call technical assistance to transit agencies and school districts. He is currently leading a study to evaluate opportunities for shared charging infrastructure in Northern Virginia. The project includes a review of the fleet transition plans for Fairfax Connector, Arlington Transit, DASH, and WMATA; collection and analysis of vehicle routing data; a literature review of shared fast charging infrastructure operating models; and capital and operating cost comparisons between shared vs. dedicated charging infrastructure.

Equitable Mobility, Public Outreach, Workforce Education, and Resilience (EMPOWER) | Shreveport Area Transit System (SporTran) | Shreveport, LA | 2023 | Project Manager
Eric led this successful Strengthening Mobility and Revolutionizing Transportation (SMART) grant application, including development of the proposed program, scope, budget, and narrative. The project includes community outreach and feasibility analysis to develop a plan to implement microtransit service. SporTran will also conduct significant workforce engagement throughout the agency to develop a training curriculum for operating and maintaining battery electric and automated transit fleet technologies. As part of the application, Eric engaged the Amalgamated Transit Union to secure their participation, the first time the organization has supported an automated transit project.

Microtransit Study | City of Dublin | Dublin, OH | 2024 | Project Manager
Eric is leading this project to develop a microtransit plan for a rapidly growing suburb of Columbus. Project tasks include public, stakeholder, and city council engagement; existing conditions and GIS analysis; an assessment of service models and vehicle types, including batter electric and automated options; and financial and operational evaluation. The final, integrated plan will focus multimodal connectivity and scaling up service over time to replace single occupancy vehicle trips.

Sarah has 24 years of professional experience in project management, environmental planning, compliance, and impact analysis and assessment. She has a diverse professional background specializing in the management of complex and controversial energy projects, including hydrogen production and fueling, hydrogen pipelines, battery energy storage systems, carbon capture and sequestration systems, brownfield remediation and redevelopment, oil and gas facilities, nuclear power plant facilities, onshore and offshore seismic imaging, and public works infrastructure projects

Sarah Spann

Project Manager

Education: Bachelor of Science, Forestry and Natural Resources Management, California Polytechnic State University

Memberships: California Association of Environmental Professionals

Chevron Hydrogen Fueling Program | Chevron U.S.A Inc. | Statewide, CA | Principal Planner
Sarah is serving as project environmental/permitting lead responsible for coordinating with internal and external management team, technical disciplines (mechanical, electrical, structural, civil, and landscaping), public municipalities, and regulatory stakeholders to successfully obtain entitlement and ministerial permits for Chevron's Hydrogen Fueling Program. Projects are located within multiple municipalities throughout California.

Hydrogen Production and Fueling Program | Papé Group | Statewide, CA | Project Manager
Sarah is serving as project manager responsible for assisting client with implementation of statewide program to implement a network of mobile and permanent hydrogen fueling and production facilities. Services include site selection, feasibility studies, entitlement approvals, environmental regulatory compliance, and construction permitting.

Hydrogen Fueling R&D and Testing Facility | Confidential Client | Los Angeles, CA | Principal Planner
Sarah is serving as project planning/permitting lead responsible for providing confidential client with municipal and zoning code compliance guidance, coordinating building permit application submittals, and leading stakeholder outreach efforts.

Fresno Alternative Fueling Station IS/MND | Chevron U.S.A. Inc. | Fresno, CA | Environmental/Permitting Lead
Sarah is serving as project environmental/permitting lead supporting the client through the City of Fresno entitlement process. Managing multidisciplinary team responsible for preparing an Initial Study/ Mitigated Negative Declaration for a new hydrogen and compressed natural gas fueling station. Includes coordination with Lead Agency to ensure CEQA compliance in accordance with Lead Agency Standards.

Perris Alternative Fueling Station IS/MND | Chevron U.S.A. Inc | Perris, CA | Environmental/Permitting Lead
Sarah is serving as project environmental/permitting lead supporting the client through the City of Perris entitlement process. Managing multidisciplinary team responsible for preparing an Initial Study/ Mitigated Negative Declaration for a new hydrogen and compressed natural gas fueling station. Includes coordination with lead agency to ensure CEQA compliance in accordance with lead agency standards.

Carbon Capture and Sequestration | Confidential Client | Statewide, CA | Assistant Project Manager
Currently serving as Stantec's assistant project manager on a carbon dioxide capture and sequestration project in central California for a major oil and gas client. Assisting with the preparation of an Underground Injection Control Class VI application for submittal to the US Environmental Protection Agency. The project will also include submittal of an application to the California Air Resources Control Board for approval of Low Carbon Fuel Standard carbon credits. Providing support for the surface facility permit application submittal to the local land use agency for the completion of environmental impact review in accordance with CEQA and subsequent issuance of a Conditional Use Permit.

Battery Energy Storage Site Projects | Confidential | Statewide, CA | Project Manager
Sarah is serving as Stantec project manager responsible for site screening, constraints analysis, and permitting efforts for multiple proposed battery energy storage site developments throughout California. Advises clients throughout the entitlement process (e.g., Conditional Use Permits or variance processes), CEQA compliance process (e.g., CEC AB205 EIR), and other federal/ state permitting as required (e.g., USFWS, CDFW). Working closely with the engineering team to inform siting for the project, avoid impacts to environmental resources, confirm permit compliance, and ensure local requirements were met. This includes engaging with a variety of municipalities, such as Solano County, Santa Clara County, Los Angeles County, Riverside County, City of Rancho Cucamonga, and the City of Claremont (among others).

30-Year Waterfront Adaptation Plan | City of Santa Barbara | Statewide, CA | Principal Environmental Lead
Sarah is serving as Stantec's principal environmental lead to forge collaborative partnerships with key agency stakeholders to develop regional adaption solutions. Stakeholders include State Water Resources Control Board, California State Lands Commission, California Coastal Commission, California Department of Fish and Wildlife, California Public Utilities Commission, the California Governor's Office of Emergency Services, Federal Emergency Management Administration, and U.S. Army Corps of Engineers; infrastructure and transportation providers, such as Caltrans and the Los Angeles-San Diego-San Luis Obispo Rail Corridor Agency. Responsible for assisting the City of Santa Barbara with discussions regarding resource agency permitting requirements and develop strategies for future permit streamlining.

Marine Dredging Design and Permitting | Confidential Client | Statewide, CA | Principal Environmental Planner
Sarah assisted a confidential client on Central Coast of California with project design and regulatory agency permit assistance for an offshore dredging project. Specifically, Stantec prepared construction plans, dredging plans, biological assessment, essential fish habitat assessment, NEPA environmental assessment and provided guidance during preparation of the bathymetric surveys for the project. Stantec also assisted the client with Native American tribal outreach.

Diablo Canyon Power Plant Onshore and Offshore Seismic Imaging Projects* | PG&E | Avila Beach, CA | Assistant Project Manager
Sarah served as assistant project manager of a multidisciplinary team that provided planning, permitting, and environmental management support for PG&E's Onshore and Offshore Seismic Imaging project at Diablo Canyon Power Plant. Managed the preparation and submittal of permit applications and supporting technical studies to various federal, state, and local agencies, including the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, National Oceanic and Atmospheric Administration Fisheries, California Coastal Commission, California State Parks, California Department of Fish and Wildlife, Central Coast Regional Water Quality Control Board, and the County of San Luis Obispo.

Merced Wastewater Collection System Master Plan EIR | City of Merced Public Works | Merced, CA | Environmental Lead
Stantec developed a Wastewater Collection System Master Plan (2017) to address system needs to serve their Vision 2030 General Plan build-out. Sarah is currently leading the technical team responsible for preparing an EIR assessing the potential impacts of implementing Master Plan recommendations. This includes an evaluation of collection system improvement alternatives to accommodate phased implementation of Master Plan capital improvements.

Pacheco Reservoir Expansion Project Geotechnical Investigations EIR | Santa Clara Valley Water District | Santa Clara County, CA | CEQA Support
Sarah is part of a multidisciplinary team responsible for preparation of a draft Environmental Impact Report to support the geotechnical investigations required for the Pacheco Reservoir Expansion Project. She is responsible for quality assurance for multiple EIR sections including aesthetics, agriculture, energy, geology/soils, hazards and hazardous materials, land use/planning, mineral resources, population/housing, public services, recreation, utilities/service systems, and wildfire.

A well-respected project manager and practice leader within Stantec's Energy and Resources Group, Wicus is passionate about growing the presence of alternative fueling. He leads E&R's alternative fueling group and initiatives in North America. He has 24 years of domestic and international experience across business sectors, from project design and management to construction. He has worked on numerous California hydrogen projects throughout his career, including a Hydrogen Fueling Program for Chevron Corporation. He has led the evaluation for development of more than 30 new and existing service station sites across California for hydrogen fueling.

Wicus Postma

Quality Control and Assurance

Education: National Diploma Electronic Engineering, Durban Institute of Technology
Advanced Project Management, University of South Africa

Hydrogen Fueling Program | Chevron Corporation | Statewide, CA | Program Manager
Wicus is leading the engineering and design services to develop a series of light-duty and heavy-duty hydrogen fueling stations to be built by Chevron in California by 2026. Stantec's role in this program is to assist Chevron throughout the entire project life cycle, from initial site feasibility assessments through construction and commissioning. It is responsible for managing an interdisciplinary team to support the development of a series of hydrogen fueling stations across California that are expected to serve Chevron's light-duty and heavy-duty customers.

Hydrogen Program | Papé Group/Pacific Clean Fuels Group | Statewide, CA | Principal in Charge/Client Manager
Wicus is serving as account lead and principal in charge (PIC), Wicus is responsible for overseeing the Stantec team's assistance to the client for implementation of statewide program to implement a network of mobile and permanent hydrogen fueling and production facilities. Services include site selection, feasibility studies, entitlement approvals, environmental regulatory compliance, and construction permitting.

Hydrogen Fueling Station | Iwatani | Ontario, CA | Principal in Charge/Client Manager
Stantec has been instrumental in supporting the project from the early stages, beginning with site plan development and entitlement application process. We ensured that all necessary approvals and permits were obtained efficiently. We are currently engaged in the FEL 2 scope, which includes obtaining a land use determination, surveying, conducting traffic studies, managing the electrical utility application, and supporting conceptual design activities.

Hydrogen Fueling Stations | Toyota | Gardena, CA | Principal in Charge/Client Manager
Stantec is supporting the Research and Development Liquid H2 refueling station project. This facility will be designed to accommodate the testing and evaluation of different hydrogen equipment to determine the most efficient way to store and dispense hydrogen for heavy duty vehicles including port operations equipment (drayage) and class 8 trucks. Stantec has developed a building permit application package that has been submitted to the City's Department of Building and Safety. As the project progresses, Stantec will develop the construction documentation for all engineering disciplines, support the Process Hazard Analysis activities and provide construction admin.

Hydrogen Production | Confidential Client | Long Beach, CA | Principal in Charge/Client Manager
Stantec is a key player in the Long Beach project, offering support across several critical areas. The project will be a 9000kg/day hydrogen generation facility, filling tube trailers to distribute the hydrogen to the end client(s). Stantec's scope includes all permitting activities, conceptual and detail design and construction documentation development. We design the site layout for an efficient infrastructure plan and manage the entitlement application process to secure necessary permits. We handle the utility application, coordinating with authorities for seamless service integration. Our team conducts surveys to gather accurate data for decision-making and manages the environmental studies for California Environmental Quality Act (CEQA) compliance. The team oversees the industrial wastewater and air quality permitting processes to maintain environmental standards and promote sustainability. As the project progresses, we are developing construction drawings and submit building permit application packages. Wicus works closely with the packaged equipment generator, ensuring all components are integrated effectively.

Statewide EV Charging Stations | California DGS | Statewide, CA | Program Manager/Principal in Charge
Wicus and the Stantec team are developing a series of level one and two EV charging infrastructure projects throughout California. The project involves site assessments at state-owned properties and a detailed infrastructure design. In addition to 140+ site assessments, work has included construction drawing packages, SFM submittal, construction support, coordination with utility companies, and ADA upgrades. Our team is developing a custom digital solution to perform site assessments, track progress, and share documents that will increase efficiency and reduce errors by generating custom reports.

East Bay Community Energy (EBCE) Public EV Charging Program | EBCE | Project Director/ Client Manager
Wicus provides oversight and client management for the development of a portfolio of public charging hubs in the California Bay area. Stantec is providing due diligence/ siting service along with utility applications and permitting support.

Marengo Garage Electric Vehicle Charging Infrastructure Design | Pasadena, CA | Project Sponsor
Stantec collaborated to deliver a 20-stall charging station to keep up with the demand for EV charging infrastructure. The 44 new charging stations, including five ADA-compliant charging spaces, sit atop a public parking structure, which was upgraded for this project's required structural loads. Our team provided structural and electrical engineering for the project. Immediately adjacent to the City's charging stations, Tesla delivered a neighboring station, making this one of the US's largest Level 3 EV charging stations. As project sponsor, Wicus provided oversight of the construction documentation phase of the project.

Shell Recharge Solutions, EV Program | US West | Program Manager
Wicus managed the Shell Recharge Solutions program. Stantec provides engineering, design, and permitting services for a series of EV charging infrastructure, including electrical and civil engineering for EV charging stations across the Western US.

Marengo Garage EV Charging Infrastructure Design | City of Pasadena | Pasadena, CA | Project Sponsor
Stantec collaborated to deliver a 20-stall charging station to keep up with the demand for EV charging infrastructure. The 44 new charging stations, including five ADA-compliant charging spaces, sit atop a public parking structure, which was upgraded for this project's required structural loads. Our team provided structural and electrical engineering for the project. Immediately adjacent to the City's charging stations, Tesla delivered a neighboring station, making this one of the US's largest Level 3 EV charging stations. As project sponsor, Wicus provided oversight of the construction documentation phase of the project.

Public EV Charging Program | EBCE | Oakland, CA | Project Director
Wicus provided oversight and client management for developing a portfolio of public charging hubs in the Bay Area. Stantec provides due diligence/siting service, utility applications, and permitting support.

Hub & Retail Fueling Station Charging Program | Shell Fleet Solutions | Statewide, CA | Program Manager
Wicus provided project oversight and due diligence for developing several EV charging hubs. Shell selected Stantec to provide site assessments, engineering, design and permitting services, and construction support for EV charging infrastructure projects, including electrical and civil engineering for EV charging stations across the Western US. Projects in this program range from retail gas stations to waste management services sites incorporating level 2 and level 3 charging, backup power, load management implementation, medium and low voltage distribution, and utility upgrades.

Patti has 31 years of project management experience, with a specialty in creating community awareness strategies for public agency clients in the transportation and water sectors. Patti expertly manages the development of high-quality communication tools including collateral materials, websites, and stakeholder databases. She also successfully oversees opportunities for gathering input and increasing public awareness including community meetings, workshops, and opinion leader interviews. Additionally, she has strong experience overseeing construction outreach programs for high visibility projects in both the transportation and water sectors.

Patti Ransdell

Circle Point – Stakeholder Engagement Lead

Education: Bachelor of Arts, History, California State University,

Membership: Member, California Association of Public Information Officials (CAPIO)
Member, California Resource Recovery Association (CRRA)
Member, Women in Solid Waste and Recycling (WISR)

State Route (SR) 37 Ultimate Seal Level Resilience Project | Metropolitan Transportation Commission (MTC) | Statewide, CA | Senior Project Manager

SR 37 is a 21-mile corridor located along San Pablo Bay, connecting the North Bay counties of Marin, Sonoma, Napa and Solano. In 2016, the Metropolitan Transportation Commission, Caltrans District 4 and four North Bay transportation authorities formed a partnership to address SR 37's most critical issues: traffic congestion, vulnerability to flooding and sea level rise (SLR) on the corridor and the protection of the adjacent environmentally sensitive areas. These agencies created and currently oversee the SR 37 Resilient Corridor Project (Resilient SR 37) to identify a system of corridor improvements between US 101 and I-80. Patti developed and implemented a communications plan to engage communities affected by roadway flooding and congestion. Her responsibilities included creating project fact sheets, managing webpage content for the Sonoma County Transportation Authority's website and designing an online questionnaire to collect public input. Patti also contributed to the development of the project tagline, "One Corridor. One Team. Multiple Solutions," to reflect the initiative's coordinated approach because although Circlepoint supported the Draft Alternatives Analysis (DAA) which focused on Segment A (Marin and Sonoma Counties), we wanted the comprehensive communications plan and messaging to represent the project as a whole.

Rubberized Asphalt Concrete (RAC) Program | California Department of Resources Recycling and Recovery (CalRecycle) | Statewide, CA | Project Manager

As part of their efforts to reduce waste, CalRecycle developed the Rubberized Asphalt Concrete program to promote the use of road paving material made of recycled, ground-up tires. Circlepoint developed an updated program brand identity, informational brochures, postcards, an electronic newsletter, and letters in support of the engineering contract. Circlepoint has also assisted with planning and preparation for statewide workshops promoting the use of RAC. Patti manages Circlepoint's project team that is assisting the prime consultant with outreach and education efforts.

Elmhurst Food to Fuel Program | City of Sacramento | Sacramento, CA | Project Manager
The Elmhurst community was selected to participate in a 12-month Food to Fuel pilot program to help chart the future of waste disposal for the City of Sacramento. The goal of the project was to engage a specific neighborhood of residents to participate in the short-term pilot program and gather data about the food scrap composition and its potential to be used for fuel conversion. Patti managed the outreach campaign in support of the food-to-fuel program, which included developing a targeted online community via social media promoting the program and open exchange of tips and experiences. Circlepoint assisted the city with the development of project branding and messaging as well as the creation of coordinating informational materials. To successfully engage the target market to participate in the program, Circlepoint designed eye-catching collateral including program stickers, signage, exhibit materials and social media graphics. The program successfully collected 2,200 pounds of food scraps.

"Bring Your Own Sac" Campaign, Sacramento Plastic Bag Ban | City of Sacramento – Recycling & Solid Waste Division | Sacramento, CA | Strategic Advisor
To reduce the use of single-use plastic bags and encourage the use of reusable bags by consumers and retailers, the City of Sacramento unanimously passed the single-use plastic bag ordinance on March 31, 2015. In support of the ordinance, Circlepoint has developed a campaign brand, messaging strategy, and accompanying outreach materials to raise awareness and change behavior among the City's identified target audiences. Patti provided strategic input on the community outreach efforts the City undertook for this campaign.

California Carpet Stewardship Program | Carpet America Recovery Act (CARE) | Statewide, CA | Senior Project Manager
The Carpet America Recovery Effort (CARE) administers the California Carpet Stewardship Program (Program) which is charged with meeting the requirements for carpet recycling set by the California law AB 2398 signed in 2010, modified in 2017 by AB 1158 and in 2020 by AB 729, and is managed by CalRecycle. The Program supports carpet recycling efforts in California to divert carpet from landfills and promote the use and development of products made from recycled carpet. Circlepoint is leading the marketing, outreach, and engagement efforts for state and local governments along with market development. Patti oversees the development and implementation of Circlepoint outreach efforts for the Program. Recently, her efforts have been directed towards the local government audience. These efforts have included development of digital toolkits for local agencies to use to showcase their carpet recycling efforts as well as development of a local government task force that is designed to enhance collaboration between CARE staff and their local agency partners.

San Joaquin River Restoration Program (SJRRP) | U.S. Bureau of Reclamation (USBR) | Project Manager
Circlepoint managed public outreach and stakeholder involvement services through the San Joaquin River Restoration Project (SJRRP) planning, environmental review, and restoration process. The multi-level strategy engaged policy leaders, technical specialists and cooperating agencies, landowners, and the general public through workshops and public review at key project milestones. The team helped the United States Bureau of Reclamation (USBR) maintain a transparent process by preparing informational materials about various aspects of the SJRRP and maintaining a robust website. Our web team recently led a redesign of the project website (www.restoresjr.net). Patti helped plan and implement the outreach meetings and communications programs throughout the program planning and environmental review. Patti oversaw the day-to-day implementation of public participation activities and serves as lead facilitator. As part of the program, Patti managed the Recreation Outreach Campaign geared toward informing the public about the interim (test) flows that began in October of 2009.

Analy will be responsible for the day-to-day management of the design team as well as the predictive energy modeling. Transitioning to 100% ZEBs is an unprecedented challenge for transit agencies. For over a decade, Analy has brought hydrogen fuel cell and battery-powered buses to city streets. A model she developed for her thesis optimizing ZEB phasing is now being used by our transit team. This model, ZEVDecide™, helps transit agencies determine their unique mix of battery and hydrogen fuel cell buses based on the terrain, routes, and infrastructure. As a consultant, her expertise in the systems, operations, and planning impacts related to ZEBs makes her invaluable to clients.

Analy Castillo

PhD

Deputy Project Manager/Technical Analysis Lead

Education: Ph.D. Environmental Engineering, University of California
Master of Science, Environmental Engineering, University of California Irvine
Bachelor of Science, Chemical Engineering, Rafael Landivar University, Guatemala

Electric Bus Master Plan | CARTA | Charleston, SC | Predictive Energy Modeling
Stantec is developing an electric bus strategy together with an operating plan for the realignment of bus routes at a new future bus terminal in Charleston.

Bus Propulsion Study | Ann Arbor Area Transit | Ann Arbor, MI | Predictive Energy Modeling
Analy provided an impartial review of bus propulsion technologies to provide AAATA an assessment of the state of maturity of ZEB technologies and what it could take to transition AAATA's current fossil fuel bus fleet to a ZEB fleet.

ZEB Transition Plan | Nashville | Nashville, TN | Predictive Energy Modeling
Analy provides existing conditions analysis in terms of their current service operations and facilities. Prepping data for energy modeling and developing plan documents.

ZEB Rollout Plan & Analysis Services | Golden Gate Transit | San Rafael, CA | Predictive Energy Modeling
Analy developed an all encompassing ZEB rollout plan for a fleet of 150 buses. Plan includes facilities requirements review, routing review, establishing power requirement needs, determining the optimal mix of battery electric versus hydrogen fuel cell electric buses, undertaking financial analysis and providing an implementation plan that transitions the agency to full ZEB by 2030.

ZEB Analysis | Calaveras County | Calaveras County, CA | Predictive Energy Modeling
Analy is developing a ZEB analysis and rollout plan for Calaveras County Transit (Calaveras Connect).

Fleet Conversion to Zero Emissions Study | Ben Franklin Transit (BFT) | Richland, WA | Predictive Energy Modeling
Analy is providing analysis concerning BFT's conversion of its fixed-route bus fleet to zero-emission bus technologies. This analysis will identify, on a lifecycle basis, the economic costs, performance issues, risks, and recommended timeline associated with the transition to a zero-emission transit bus fleet. The results of this analysis will inform BFT decision-making in the areas of policy, procurement and technology.

Tuolumne County | Tuolumne County, CA | Predictive Energy Modeling
Analy is developing a ZEB Rollout Plan.

ZEB Rollout Plan & Analysis | Gold Coast Transit District | Oxnard, CA | Predictive Energy Modeling
Our team is currently exploring potential hydrogen solutions and infrastructure and designs that will not only meet GCTD's needs, but potentially also serve regional transit partners (like VCTC), Port Hueneme, and personal vehicles. Exploring these approaches could help reduce costs by recouping investments through user fees and other funds.

BEB Analysis & Planning | Santa Barbara MTD | Santa Barbara, CA | Predictive Energy Modeling
Analy led the predictive energy modeling for the BEB conversion of over 100 buses in Santa Barbara. Additionally, Analy created the power requirements for their existing facility and for a new location that will only house electric buses.

Anaheim Transportation Network Route by Route Power Modeling Services | Anaheim, CA | Predictive Energy Modeling
Analy established power and charging requirements for a 100-battery electric bus operation that serves Disneyland and associated resort support areas.

Zero Emission Bus Fleet Transition Plan | e-Tran | Elk Grove, CA | Predictive Energy Modeling
Analy developed all encompassing ZEB rollout plan and establishing power and charging requirements for a 62-bus fleet.

Riverside Transit Agency ZEB Analysis & Rollout Plan | Riverside, CA | Predictive Energy Modeling
Analy developed all-encompassing ZEB rollout plan for a fleet of 224 buses. Plan includes facilities requirements review, routing review, establishing power requirement needs, determining the optimal mix of battery electric versus hydrogen fuel cell electric buses, undertaking financial analysis and providing an implementation plan that transitions the agency to full ZEB by 2030.

Orange County Transportation Authority ZEB Rollout Plan | Orange County, CA | Predictive Energy Modeling
Analy developed all-encompassing ZEB rollout plan for a fleet of 550 buses. Plan includes facilities review, routing review, developed power requirements, determining the optimal mix of battery electric versus hydrogen fuel cell electric buses, undertaking financial analysis and providing an implementation plan.

El Dorado County Transit Zero Emission Bus Rollout Plan | El Dorado County, CA | Predictive Energy Modeling
Analy assisted the County of El Dorado create its ZEB Rollout Plan and strategy for transitioning its diverse body of bus transit services to zero-emission technologies.

Santa Monica Big Blue Bus Charging Infrastructure Project | Santa Monica, CA| Predictive Energy Modeling
Analy developed electric charging infrastructure strategy and recommending facility modifications for transition to 100% ZEB by 2030 for a fleet of 125 buses.

BCAG/BRT ZEB Rollout Plan | Butte County, CA | Predictive Energy Modeling
Analy led the design and site planning for the adoption of ZEBs as part of BCAG's ZEB rollout plan.

Tahoe Transportation District ZEB Fleet Conversion Plan | South Lake Tahoe, CA| Project Manager/Predictive Energy Modeling
Analy provides existing conditions analysis in terms of their current service operations and facilities and preps data for energy modeling and developing plan documents.

As a transit and zero emissions advisory consultant, Jonathan works with public and private entities to understand their transportation and operational needs. He develops and implements innovative and integrated mobility solutions, ranging from zero emission vehicle transition plans, to curbside management strategies and autonomous mobility deployment programs. As part of our Smart(ER) Mobility team, Jonathan focuses on helping clients reach zero emission goals to benefit their communities and the environment. He helps clients build mobility programs that sustainably advance their service. With a lifelong interest in technology, transportation, and urban development, his goal is to help build safe, accessible, and zero emission mobility for all.

Jonathan Garrett

Technical Memo/Regional Presentations

Education: Master of Urban and Environmental Planning, Arizona State University
Bachelor of Science, Sustainability, Arizona State University

RFTA ZEB Fleet Transition Plan | Glenwood Springs, CO | ZEV Analyst
Jonathan helped developed the final report deliverable and provided QA/QC.

Nashville ZEB Transition Plan | Nashville MTA | Nashville, TN | ZEV Analyst
Jonathan is providing existing conditions analysis in terms of their current service operations and facilities. Prepping data for energy modeling and developing plan documents.

Tahoe Transportation District ZEB Fleet Conversion Plan | Tahoe Transportation District | South Lake Tahoe, CA | ZEV Analyst
Jonathan is providing existing conditions analysis in terms of their current service operations and facilities. Prepping data for energy modeling and developing plan documents.

Trinity County Transportation Commission Zero Emission Bus Feasibility Study | Trinity County DOT | Weaverville, CA | Deputy Project Manager/ZEV Analyst
Jonathan assisted with all project management responsibilities. Led analysis and deliverable production.

Edmonton Low Carbon Transportation Community Programs | City of Edmonton | Edmonton, Alberta | ZEV Analyst
Jonathan provided a jurisdictional scan for the City of Edmonton, researching topic areas relevant to transportation emissions reductions and documenting the policies and programs that peer cities have implemented to achieve their climate goals. Synthesized the findings to provide insight into how Edmonton may craft similar policy to achieve their mobility, accessibility, and climate objectives.

E.J. Harrison ZE Transition Assessment | E.J. Harrison & Sons | Ventura, CA | ZEV Analyst
Jonathan contributed to fleet energy usage analysis and QA/QC of deliverables.

Sustainable Chinatown eMobility Plan | Sustainable Chinatown | San Francisco, CA | Advisor
Jonathan advised project team on the role of electric mobility as it relates to the Chinatown neighborhood of San Francisco, CA. The team investigated the impact of electric mobility on the residents and workers of Chinatown as well as the grid and recommended modes and services to focus on developing for Chinatown's demographics

over the next several years.

City Tech Collaborative - Curbside Management | City Tech Collaborative | Chicago, IL
Jonathan researched and conducted data analysis for curbside management pricing models, pricing model development.

Sarasota – Manatee Barrier Island Transportation Study | FDOT - District 1 | Sarasota, FL | Transportation Planner
Jonathan contributed to technical writing and created a decision floor chart for grant/funding options.

The Ohio State University Comprehensive Transportation and Parking Plan (CTPP 3.0) | The Ohio State University | Columbus, OH
Jonathan conducted transportation demand management and parking management research for large campus institutions.

City of Mesa Park and Micromobility Study | City of Mesa | Mesa, AZ | Transportation Planner
Jonathan conducted stakeholder and public engagement workshops/interviews, collected parking data (inventory), analyzed existing conditions and reviewed recommendations for improvement, provided QA/QC for deliverables.

With nearly 30 years' experience in fleet-fueling design, Reb has worked on the assessment, specification development, and design of over 170 compressed natural gas (CNG) fueling facilities and over 50 petroleum fueling stations for more than 125 municipalities, transit agencies, counties, and school districts throughout the United States. Recently, Reb has leveraged his years of experience to pivot to the design of zero emission fueling infrastructures—he has worked on more than 30 hydrogen fueling and bus and heavy-duty electric charging projects, as well as Zero-Emission Bus (ZEB) Transition Plans.

Reb Guthrie

Hydrogen Infrastructure Requirements

Education: Bachelor of Science, Economics, Arizona State University

Registration: NGV Institute, Advanced Techniques in Theory, Design, and Development of CNG Infrastructure

Design Engineering for Hydrogen Fueling Infrastructure | Livermore Amador Valley Transity Authority (LAVTA) | Livermore, CA | Project Manager

Reb leads the technical development of a hydrogen fueling facility that is planned to support two quantities of FCE buses. Project scope includes preparation of 60% complete design documents, with the selected contractor scoped to complete the drawings. The Phase 1 design will accommodate up to 40 initial FCE buses and will include a 15,000-gallon cryogenic-hydrogen storage tank, three high-pressure H2 liquid pumps (any two of which can operate at a time with the third as a rotating spare), two heat-exchanger an integrated high-pressure storage buffer and valve panel and two hydrogen dispensers for providing H35 fills to FCE buses in the existing service lanes. One of the dispenses will also provide H70 fueling for light-duty FCE vehicles. For Phase 2, the facility is planned to add a second 15,000-gallon hydrogen tank, which will be connected to the LH2-header supply that feeds the three cryogenic pumps.

Hydrogen Fueling Station | Eastern Contra Costa Transit Authortiy (ECCTA) | Antioch, CA | Fueling Systems Lead

The project will support the ECCTA's plan to purchase and operate 30 hydrogen fuel cell electric buses (FCEBs) and 44 hydrogen fueled paratransit vehicles. The hydrogen fueling facility is the latest ECCTA advancement in its transition to zero-emission buses (ZEBs) by 2036.

Hydrogen-Bus Fueling Facility | Clark County Public Transit Benefit Area Authoriy (C-TRAN) | Vancouver, WA | Project Manager

The structural design will support C-TRAN's plan to deploy up to 88 hydrogen fuel cell electric buses (FCEBs). The facility will feature an 18,000-gallon horizontal cryogenic-liquid tank, two initial dispensers, and three 7000-PSI cryogenic pumps (with any two providing the required flow and the third as a spare) and two heat exchangers. The station will also include an expansion path, allowing a third dispenser / island to be added when needed, as well as a fourth cryogenic pump, so that the 'n+1' pump-spare radio will be preserved.

Riverside Division Hydrogen Fueling Station | Riverside Transit Agency | Riverside, CA | Project Manager

Reb tentatively planned for construction in approximately 2026 to support up approximately 123 40-ft. FCEBs.

Riverside Transit Agency – Hemet Division | Riverside Transity Agency | Hemet, CA | Project Manager
Reb tentatively planned for construction in approximately 2024 to support 37 40-ft. FCEBs.

Hydrogen Fueling Infrastructure | Regional Transportation Commission of Southern Nevada (RTC) | Las Vegas, NV | Project Manager
Design consulting for hydrogen fuel cell bus-fueling facility for RTC of Southern Nevada. Scope includes design of A) temporary fueling system to serve two-bus pilot fleet, B) permanent fueling system to fuel up to 50 FCE-bus fleet, and C) hydrogen gas-detection system in maintenance garage. The scope also includes a feasibility analysis for on-site hydrogen production from both water electrolysis and steam-methane reforming, vs. trucked-in liquid hydrogen for the permanent facility.

Feasibility Analysis for Hydrogren Fueling at Five Bus Depots | TriMet | Portland, OR | Fueling Systems Lead
Feasibility analysis for deploying fuel cell electric (FCE) buses for TriMet. Scope included comparing on-site hydrogen production (from both SMR and electrolysis) vs. trucked-in liquefied hydrogen. Analysis points for each system type included area, setbacks, electrical power/energy, natural gas, water, cap-ex, and op-ex. These were compared for three candidate FCEB fleet sizes and at up to five potential bus depots.

ZEB Rollout Plan & Analysis Services | Golden Gate Transit | San Rafael, CA | Fueling Systems Lead
Reb developed all encompassing ZEB rollout plan for a fleet of 150 buses. Plan includes facilities requirements review, routing review, establishing power requirement needs, determining the optimal mix of battery electric versus hydrogen fuel cell electric buses, undertaking financial analysis and providing an implementation plan that transitions the agency to full ZEB by 2030.

Electrical Infrastructure Upgrades for Two Bus Maintenance Facilities | SamTrans | San Carlos, CA | Fueling Systems Lead
Stantec developed 30% design documents for the electrical infrastructure upgrades at two bus maintenance facilities -- North Base and South Base -- to support the transition to battery-electric buses as well as system growth.

ZEB Rollout Plan & Analysis | Gold Coast Transit District | Oxnard, CA | Fueling Lead
Our team explored potential hydrogen solutions and infrastructure and designs that will not only meet GCTD's needs, but potentially also serve regional transit partners (like VCTC), Port Hueneme, and personal vehicles. Exploring these approaches could help reduce costs by recouping investments through user fees and other funds.

BEB Analysis & Planning | Santa Barbara Metropolitan Transit District (MTD) | Santa Barbara, CA | Fueling Systems Lead
To develop a robust and comprehensive facilities master plan, MTD retained Stantec to develop a forward-thinking facilities master plan to futureproof the agency, particularly due to ZEB requirements from the State of California.

ZEB Analysis & Rollout Plan | Riverside Transit Agency (RTA) | Riverside, CA | Fueling Systems Lead
Reb developed all-encompassing ZEB rollout plan for a fleet of 224 buses. Plan includes facilities requirements review, routing review, establishing power requirement needs, determining the optimal mix of battery electric versus hydrogen fuel cell electric buses, undertaking financial analysis and providing an implementation plan.

ZEB Rollout Plan | Orange County Transportation Authority (OCTA) | Orange County, CA | Fueling Lead
Reb developed all-encompassing ZEB rollout plan for a fleet of 550 buses. Plan includes facilities review, routing review, power requirements, optimal mix of BEB vs HFCEB, financial analysis and providing an implementation plan that transitions the agency to full ZEB by 2030.

Santa Monica Big Blue Bus Charging Infrastructure Project | Santa Monica, CA | Fueling Lead
Developed electric charging infrastructure strategy and designed facility modifications for transition to 100% ZEB by 2030 for a fleet of 125 buses.

Design Replacement System for Methane & Hydrogen Gas Detection at Breeze Bus Maintenance Facility | North County Transit District (NCTD) | Escondido, CA | Fueling Lead
Reb did the design engineering for hydrogen and methane gas-detection system for NCTD. Project will result in the removal of an outdated methane detection system and the installation of a new methane- and hydrogen-detection and alarming system, as needed to support CNG and hydrogen-fueled buses simultaneously. Includes validation of existing HVAC system plus addition of makeup air sources to meet air-exchange requirements at the Breeze Bus Facility.

Design Addition of Hydrogen Gas Detection at Sunset Maintenance Facility | RTC | Las Vegas, NV | Fueling Lead
Reb designed hydrogen detection system, including alarm stations; performed review of ventilation system to verify adequacy, HVAC performance and code-compliance analysis.

Richard is a transportation planning project manager with 21 years of planning, GIS, and project management experience with various local, state, and federal agencies. Most of his background lies in the transportation sector, providing technical services for long-rage transportation planning, public transportation planning, origin-destination studies, autonomous vehicle concept plans, land use planning, environmental studies, and asset management.

Richard Pascoe

GISP

GIS Mapping

Education: Master of Arts in Geography, University of South Florida
Bachelors of Fine Arts, University of South Florida

Registrations: Geographic Information Systems Professional, # 00060828

West Hartford EV Infrastructure Plan | Town of West Hartford | West Hartford, CT | GIS Specialist
Stantec is working with the Town of West Hartford to develop a comprehensive electric vehicle service equipment (EVSE) deployment plan. The plan utilizes Opti-EVSE — a GIS based mapping tool that leverages multiple layers of community data — to identify high suitability locations for future EV charging infrastructure. This mapping exercise uses GIS data and stakeholder engagement to visualize and prioritize an EV charging deployment approach. The EVSE deployment plan is also characterizes the projected growth of EV ownership in the community, defines best practice guidelines for EV charging station design, and reviews and evaluates policy and funding approaches for EVSE deployment.

Automated Shuttle Feasibility Study | Pinellas Suncoast Transit Authority | Pinellas County, FL | Project Manager
Project manager for the shared autonomous vehicle corridor implementation studies in the cities of Clearwater and Dunedin. The study consisted of field data collection, analysis and prioritization of nearly 10 route alternatives. A detailed corridor study was prepared for the selected alternative including a full report and operational analysis.

Comprehensive Operational Analysis | City and County of Honolulu | Honolulu, HI | GIS Specialist
GIS specialist tasked with creating a transit prioritization network to assist with identification of needed improvements. The prioritization score was developed using existing passenger hours savings and future passenger activity by stop. The final prioritization scores were published through an online map (ArcGIS Online) that also allowed the client to provide comments by placing points, lines, and notes on the map.

Restructuring OC Bus Routes | Orange County Transportation Authority | Orange County, CA
GIS specialist responsible for analyzing paratransit rider origin-destination data to determine how paratransit service influences proposed realignments of fixed transit. The project involved developing heat maps of rider activity, determining top OD pairs, and changes in captured paratransit ridership based on fixed route realignments.

Automated Shuttle Feasibility Study & Concept Plan | City of Chmablee | Chamblee, GA | GIS Specialist
GIS specialist for the shared autonomous vehicle corridor implementation study for Peachtree Road in Chamblee, GA. The study consisted of field data collection incorporation of CAD design drawings and a detailed corridor study was prepared including a full report and operational analysis. Richard prepared the data collection methodology and platform on ArcGIS Online and Collector for ArcGIS. Richard also converted the streetscape design plans to GIS format to created figures for the report.

Hamilton County Infrastructure Projects Analysis | Hamilton County | Cincinnati USA Regional Chamber, OH | Project Manager/GIS Specialist
Project manager and GIS specialist tasked with performing a GIS-based inventory of planned infrastructure improvement projects in Hamilton County. The client requested an analysis of the needed improvements compared to the coverage of the Reinventing Metro plan and expansion of the SORTA bus system. The goal of the project was to determine the total cost of transportation projects in Hamilton County that intersect the existing and planned expansion of the SORTA transit system considering that a percentage of the new transit levy could be used for infrastructure improvements.

Transit Operations Analysis | City of Winnipeg | Winnipeg, Canada | GIS Specialist
GIS specialist tasked with using AirSage Data to determine the origins and destinations of vehicles travelling through the Winnipeg area to determine primary routes during peak travel times. The data was used to analyze various transit alternatives and improvements to mitigate capacity issues along the highways.

US 27 Land Suitability Analysis | Florida Department of Transportation | Statewide, FL | Technical Lead
Technical lead for the development of a land suitability analysis for the US 27 Project Development and Environmental (PD&E) study. The analysis model was built on ArcGIS software and incorporated a complex weighting system of various land uses including urban areas, wetlands, and other protected areas. The output generated least-cost paths for multiple scenarios and connection points to existing facilities.

Coastal Connector Land Suitability Analysis | Florida Department of Transportation | Statewide, FL | Technical Lead
Technical lead for the development of a land suitability analysis for the Coastal Connector Project Development and Environmental (PD&E) study. The analysis model was built on ArcGIS software and incorporated a complex weighting system of various land uses including urban areas, wetlands, and other protected areas. The output generated least-cost paths for multiple scenarios.

Richard is a business transformation strategist with extensive experience in organizational consulting, program management, business analytics, and process automation. Skilled in leading digital transformations, he specializes in modernizing technology ecosystems and tailoring solutions to meet each client's unique needs, enhancing their organizational resilience. With over a decade in the field, Richard is adept at designing and implementing complex technology solutions, analyzing business requirements, and developing strategic plans that align with organizational goals.

Richard Hake

Data Collection

Education: Master of Business Administration, University of Kentucky
Bachelor of Science, Actuarial Science, The Ohio State University

Artificial Intelligence-Based Decision Support System | Tennessee Department of Transportation (TDOT) | Nashville, TN | Data Analytics Lead

Richard's responsibilities included developing a sophisticated analytics framework to evaluate the impact of artificial intelligence-based decision support systems and integrated corridor management technologies. These efforts not only advanced the project's goals of enhancing mobility, safety, and environmental sustainability but also set a new standard for data-driven decision-making within TDOT. By crafting intuitive, actionable insights from complex data sets, Richard facilitated effective stakeholder engagement and informed strategic improvements across Tennessee's transportation infrastructure.

GPC Drone Program | Southern Company | Atlanta, GA | Project Manager

Richard was the project manager for the GPC Drone Program which included the integration of Skydio drones with Trimble project management software. This initiative marked a significant step in digitalizing construction management processes, merging real-time aerial data capture with advanced analytics and project oversight within a MS Power BI dashboard. His role focused on aligning technical teams and stakeholders around the goal of enhancing operational efficiency through this IT and OT integration.

Application Development Services | Tennesse Valley Authority (TVA) | Chattanooga, TN | Project Manager

Richard closely collaborated with TVA to understand their digital challenges, analyze operations, and formulate strategies for a digital transformation. Leading a proficient team, he oversaw the creation of a complex data warehouse, enabling extensive Business Intelligence (BI) capabilities, including data mining, AI, and machine learning. These tools empower TVA's leaders with robust decision-making evidence. Richard's expertise streamlined model efficiencies, and the team analyzed data for trends and insights. He mapped data pipelines, enabling real-time data for strategic decisions, and led the development of decision support systems and real-time data visualizations. Richard also assisted in formulating and monitoring KPIs and played a role in creating user interfaces in Power BI, transitioning to a custom web app on Microsoft Azure.

Transportation Planning Decision Support Tool | TDOT | Nashville, TN | Project Director
Richard provided vision and technical review in the digitalization of TDOT's Long-Range Planning processes. This initiative involved ensuring the seamless integration of data from numerous sources into a secure Oracle Data Warehouse, enhanced by custom Power BI interfaces. Richard's strategic oversight was critical in aligning the project with TDOT's unique needs, employing an iterative decision-making process that incorporated continuous feedback. Stantec's approach, emphasizing adaptability and user-focused design, led to the creation of the County Profile Tool. This tool, a testament to Stantec's commitment to innovative and effective technology solutions, provides in-depth insights into demographics and travel patterns, essential for developing resilient and equitable transportation networks.

IT Modernization | Nevada National Security Site (NNSS) | Las Vegas, NV | Project Manager
Richard spearheaded a transformative modernization initiative for the NNSS. This involved developing an Application Modernization plan to align their technology stack with industry standards and a seamless migration of self-service analytics to the cloud, unlocking real-time data access and analysis through data virtualization. Richard also led the development of an AI Adoption Plan that laid the foundation for harnessing cutting-edge artificial intelligence capabilities. Stantec also modernized over 100 dashboards, enhancing their usability. Within this UI/UX transformation, Stantec introduced innovative and predictive Key Performance Indicators (KPIs), enabling the DOE to uncover deeper operational insights and drive towards excellence.

Map Modernization Program | Federal Emergency Management Agency | Various Cities, Nationwide | Program Area Manager for IT
Richard spearheaded the creation of a substantial data warehouse designed to bolster Business Intelligence (BI) capabilities, including data mining and visualizations. These indispensable tools empower FEMA's business leaders with concrete evidence to inform their decision-making processes. Richard and his team conducted comprehensive data analyses, unearthing trends, and crafting practical derivative products while extracting insights crucial for both business and technical decisions. Furthermore, Richard took the helm in developing and executing decision support systems and data visualizations tailored to facilitate real-time decision-making. His support extended to aiding the client in crafting and monitoring Key Performance Indicators (KPIs) to gauge business performance.

Ian values sustainable transportation solutions of all sized communities. His background in active transportation pairs with transit planning for multimodal network solutions. In addition to expanding capture of bicycle and pedestrian data, Ian's work with Park City Municipal engaged community members in active transportation. He brings a passion for community, natural spaces, and culturally conscience placemaking within the built environment. The belief that every community-regardless of demographics or size- deserve sustainable means of transportation guides his work.

Ian Lowell

Support Staff

Education: Bachelor of Science, Plannning Public Policy and Management, University of Oregon

Short Range Transit and Zero Emission Bus Plan | Sacramento County Department of Transportation (SacDOT) | Sacramento, CA | Transit Analyst
Stantec is developing both a short-range transit plan and CARB-compliant ZEB plan for SacDOT. This project will develop new service concepts that will influence and inform ZEB feasibility and vice versa. Ian is an analyst focused on ridership data and community engagement.

Short-Range Transit Plan | Santa Barbara Metropolitan Transit District (MTD) | Santa Barbara, CA | Transit Analyst
Based on Stantec's successful relationship with MTD, Stantec was retained to develop a 5-year short-range transit plan. Ian provides analysis and development support of a service plan and capital plan to help MTD recover from the COVID-19-induced loss in ridership. Key focuses include designing a frequent bus network, GTFS analysis and developing a microtransit concepts.

Transit Services Study | Beach Cities Transit (BCT) | Redondo Beach, CA | Transit Analyst
Preparing the South Bay for CARB-compliance, Stantec is planning with Beach Cities Transit for their transition to Zero Emission. Ian brings experience within the community to analyzing a right fit, community-oriented plan.

Zero Emission Bus Master Plan | Charleston Area Regional Transportation Authority (CARTA) | Charleston, SC | Transit Analyst
Stantec is developing a comprehensive roadmap for CARTA's transition to a future 100% zero-emissions bus fleet. Ian is performing analysis of the current market and mobility conditions, visioning, and supporting other tasks including policy and land use analyses, and stakeholder outreach, among others.

Analysis of Fleet Conversion to Zero Emission | Ben Franklin Transit (BFT) | Richmond, WA | Transit Analyst
Stantec is contracted with Ben Franklin Transit Agency to develop its ZEB Rollout Plan and analyze the unique challenges of transit in Benton and Franklin Counties. Supporting the analysis of a BEB implementation plan for spread out transit service through fleet modeling and policy analysis.

System Reimagine Study/Transportation Development Plan | Center Area Transportation Authority (CATA) | State College, PA | Transit Analyst

Reimagining the CATA system, Stantec will provide a roadmap for the future of transit in the Centre County region. Ian provides analysis support of the existing network and ridership across transit services to prepare CATA for post-COVID recovery.

Energy Sustainability Plan | Metropolitan Water District of Southern California | Los Angeles, CA | Modeling Lead

Supporting MWD of Southern California through transition to zero-emission vehicles, Ian provides technical expertise on modeling vehicle operations. Analyzing a fleet of over 850 assets, Ian identified viable zero emission replacement vehicles, transition phasing, and assisted with power modeling using ZEVDecide.

Kelly is an adept transportation planning professional with a strong focus on sustainable mobility solutions. With a deep understanding of zero-emissions vehicles and expertise in transit service analysis, Kelly is dedicated to creating accessible and livable communities through innovative transportation strategies. Kelly has a zeal for sustainable transportation and embraces a community-centric, holistic approach to her work. She is eager to contribute to the cultivation of connected communities that provide exceptional and inclusive mobility experiences for community residents and visitors.

Kelly Watts

Support Staff

Education: Master of Arts, East Asian Languages and Literatures, University of Hawaii
Bachelor of Arts, Environmental Studies, Northern Arizona University

ICTC Zero-Emission Bus Analysis and Rollout Plan | Imperial County, California | Lead Analyst

Imperial County Transportation Commission (ICTC) provides management, administration, and oversight to local and regional fixed-route, dial-a-ride, paratransit, and microtransit transportation programs. This includes Imperial Valley Transit (IVT), IVT ACCESS, IVT RIDE, IVT MedTrans, and Calexico On Demand. IVT provides transportation largely within Imperial County, with some service operating between Imperial Valley and San Diego County. This project will conduct a system-wide analysis comparing ICTC's current transit fleet to zero-emission alternatives. The study will develop a recommended zero-emissions vehicle technology and provide an implementation plan for revenue fleet conversion by 2040 as mandated by the California Air Resources Board (CARB) Innovative Clean Transit (ICT) regulation. As Lead Analyst, Kelly is involved in all areas of the project. She leads regular presentations and touchpoints with the client and ensures clear communication and project progress. In addition, she oversees the completion of key deliverables such as the existing conditions analysis and report, service energy and power modeling, zero-emissions vehicle fleet concepts and phasing, cost and life cycle analysis, fleet reliability and resiliency analysis, and the CARB-compliant zero-emissions bus rollout plan. Together, these components will integrate into a detailed rollout plan to help the agency achieve a successful transition from a fossil fuel vehicle fleet to a zero-emissions vehicle fleet by 2040.

Kings Area Rural Transit and Corcoran Area Transit Zero Emission Bus Implementation Plan | Kings County, California | Deputy Project Manager

Kings County Association of Governments (KCAG) is a metropolitan planning organization for the Kings County region. They are a joint powers authority whose member agencies include the county of Kings and the cities of Avenal, Corcoran, Hanford, and Lemoore. This project works directly with two member agencies: Kings County Area Public Transit Agency (KCAPTA), and Corcoran Area Transit (CAT) to conduct a system-wide analysis comparing current transit fleets to zero-emission alternatives. The study will develop a recommended zero-emissions vehicle technology and provide an implementation plan for revenue fleet conversion by 2040 as mandated by the California Air Resources Board (CARB) Innovative Clean Transit (ICT) regulation. As Deputy Project Manager, Kelly is involved in all areas of the project. She leads regular presentations and touchpoints with the client and ensures clear communication and project progress. In addition, she oversees the completion of key deliverables such as the

existing conditions analyses and reports, service energy and power modeling, zero-emissions vehicle fleet concepts and phasing, cost and life cycle analyses, fleet reliability and resiliency analyses, and the CARB-compliant zero-emissions bus rollout plans. Together, these components will integrate into a detailed rollout plan to help each agency achieve a successful transition from a fossil fuel vehicle fleet to a zero-emissions vehicle fleet by 2040.

City of Thousand Oaks ZEB Rollout Plan | Thousand Oaks, California | Deputy Project Manager

Thousand Oaks Transit (TOT) provides transit service to Thousand Oaks and surrounding areas. It provides fixed-route, dial-a-ride paratransit, and a free local shuttle service. In addition, TOT participates in the East County Transit Alliance and intercity dial-a-ride for travelers within eastern Ventura County. This project conducted a system-wide analysis comparing TOT's current transit fleet to zero-emission alternatives. The study developed a recommended zero-emissions vehicle technology and provided an implementation plan for a full fleet conversion by 2040 as mandated by the California Air Resources Board (CARB) Innovative Clean Transit (ICT) regulation. As Lead Analyst, Kelly was involved in all areas of the project. She led regular presentations and touchpoints with the client and ensured clear communication and project progress. In addition, she oversaw the completion of key deliverables such as the existing conditions analysis and report, service energy and power modeling, zero-emissions vehicle fleet concepts and phasing, cost and life cycle analysis, fleet reliability and resiliency analysis, and the CARB-compliant zero-emissions bus rollout plan. Together, these components integrated into a detailed rollout plan to help the agency achieve a successful transition from a fossil fuel vehicle fleet to a zero-emissions vehicle fleet by 2040.

Moorpark ZEB Plan | Moorpark, California | Lead Analyst

Moorpark City Transit (MCT) provides fixed-route and on-demand microtransit service in the city of Moorpark and surrounding areas. MCT also participates in the East County Transit Alliance which operates intercity dial-a-ride services for travelers within eastern Ventura County. In addition, MCT contracts with the City of Thousand Oaks to provide senior dial-a-ride services to Moorpark residents who are 65 years and older. This project conducted a system-wide analysis comparing MCT's current transit fleet to zero-emission alternatives. The study developed a recommended zero-emissions vehicle technology and provided an implementation plan for a full fleet conversion by 2040 as mandated by the California Air Resources Board (CARB) Innovative Clean Transit (ICT) regulation. As Lead Analyst, Kelly was involved in all areas of the project. She led presentations and touchpoints with the client and ensured clear communication and project progress. In addition, she oversaw the completion of key deliverables such as the existing conditions report, energy and power modeling, CARB-compliant zero-emissions bus rollout plan, and fleet transition plans. Together, these components integrated into a detailed rollout plan to help the agency achieve a successful transition from a fossil fuel vehicle fleet to a zero-emissions vehicle fleet by 2040.

Tuolumne County Transit Agency Zero Emission Bus Rollout Plan | Sonora, California | Analyst

Tuolumne County Transit Agency (TCTA) provides fixed-route, dial-a-ride, and other specialty mobility services to Tuolumne County residents. This project developed a zero-emissions bus rollout plan to serve as a guiding document that will aid TCTA in the transition from a fleet comprised of fossil fuel vehicles to a zero-emissions vehicle fleet in a manner consistent with California Air Resources Board (CARB) guidance. As Analyst, Kelly was involved in all areas of the project. She oversaw the completion of key deliverables such as the existing conditions analysis and report, service energy and power modeling, zero-emissions vehicle fleet concepts and phasing, cost and life cycle analysis, fleet reliability and resiliency analysis, and the CARB-compliant zero-emissions bus rollout plan. Together, these components integrated into a detailed rollout plan to help the agency achieve a successful transition from a fossil fuel vehicle fleet to a zero-emissions vehicle fleet by 2040.

Central Coast Zero Emission Vehicle Study | Santa Barbara, California | Analyst

Santa Barbara County Association of Governments (SBCAG) is developing the Central Coast Zero Emission Vehicle Strategy (CCZEVS). The strategy will become a resource to accelerate the adoption of zero-emission vehicles, such as electric and hydrogen fuel cell vehicles. The CCZEVS will identify gaps and opportunities to implement ZEV infrastructure along California's Central Coast, including on or near the State Highway System, major freight corridors, and transit hubs. Stantec is examining regional bus services in the study area to assess current electrification and charging infrastructure status and identify future electrification needs. As Analyst, Kelly assisted with several areas of the project, including conducting analyses, developing the report, and facilitating communication.

Kira is a junior urban planner with one year of planning experience and has been working with the ZEB and Transit Advisory team in the Waterloo office since the summer of 2023. She has worked both with the public and private sector, with a focus in transportation planning and smart solutions. She has vast knowledge of North American planning systems which have helped her execute zero emission fleet transition analyses, technical memos and reports, and existing conditions and feasibility studies. She also has experience in working with GTFS data, and block and route modelling using the ZEVDecide™ tool. Her experience with GIS and environmental planning and management has assisted her in report design and composition.

Kira Bath

Support Staff

Education: Bachelor of Environmental Studies, University of Waterloo Honours Planning Co-op

Membership: Full Member, Canadian Institute of Planners
Full Member, Ontario Professional Planners Institute

CATA System Reimagine Study | State College, Pennsylvania | Planning Support
Kira assisted in writing the Centre Area Transportation Authority (CATA) Reimagine Study Technical Memo. This involved extensive research on CATA's existing transit network, the gaps that were there, the opportunities that arose from those gaps. Drawing on her expertise, Kira helped to formulate insightful recommendations to address these identified issues and capitalize on opportunities. Through thorough analysis, actionable next steps were outlined for CATA to better the transit experience for residents and visitors.

PDC Windsor Regional Hospital | Tecumseh, Ontario, Canada | Planning Support
Kira helped determined the amount of parking stalls needed for the Windsor Regional Hospital, based on the campus Functional Plan Documents, and the number of full-time employees allocated to each department. Following this, Kira helped the team run a gravity model analysis to analyze trip distribution along the Windsor Regional Hospital site to determine primary locations for a 1000-car parking structure. Further, Kira composed the report to present these findings and recommendations to the client.

Parking Standards Study | Waterloo, Ontario, Canada | Planning Support
Kira assisted in creating the Excel database for the City of Waterloo parking rates and standards, contrasting against the Institue of Transportation Engineers (ITE) rates. Further, Kira helped to prepare the Parking Standards Study report and responded to comments from the municipality.

City of Lethbridge Transportation Master Plan | Lethbridge, Alberta, Canada | Design Support
Kira helped to design the Readiness Assessment document, as well as integrate project lenses into the final Transportation Master Plan throughout each section.

City of Ottawa Parking Study | Ottawa, Ontario, Canada | Planning Support
Kira helped the team complete a parking study on site for the City of Ottawa on core and non-core streets in Westboro and Wellington. She also helped to determine routes for the project and helped to train other staff in how to complete the routes. Further, she helped to write and prepare a parking study memo to deliver to the City.

CLC Transportation Impact Assessment for Heron Rd | Ottawa, Ontario, Canada | Planning Support
Kira wrote a multi-modal level of service (MMLOS) analysis for Heron Road, interpreting data from Excel under the City of Ottawa MMLOS guidelines (2015).

Winkler Transportation Plan | Winkler, Manitoba, Canada | Planning Support
Kira reviewed data from the City of Winkler, Manitoba, as well as completed a desktop review to write a narrative of the existing transportation conditions of Winkler. This involved reviewing infrastructure, accessibility and connectivity for multiple modes of travel, with specifically a pedestrian, cycling and automobile focus. In addition, she helped to write an options report that suggested active transportation routes to improve connectivity in Winkler and recommend infrastructure and projects to implement them. Kira's role involved using Geographic Information System (GIS) to create various maps for the existing conditions and options reports. She produced maps that showed the current and future active transportation connections and infrastructure types, such as bike lanes, sidewalks and multi-use paths.

Canadian Infrastructure Bank Nova Scotia Zero Emission Bus | Toronto, Ontario, Canada | Planning Support
Kira completed an extensive research and literature review to identify and compile a comprehensive database of zero-emission bus vendors operating in North America. This database included detailed specifications, enabling a thorough analysis of available options. Subsequently, she conducted a financial assessment by reviewing relevant studies, comparing data on greenhouse gas (GHG) buses, and calculating maintenance, lifetime costs, and potential savings associated with vehicle-to-grid (V2G) technology. To ensure accuracy, she collaborated closely with clients and engaged with stakeholders to gather essential baseline data.

Smart(ER) Mobility North American Digital Practice | Edmonton, Alberta, Canada | Planner
Kira completed literature review and independent research to determine digital tools that the Smart(ER) Mobility team are currently using or could be using to enhance their digital practice. The data collected is moving towards becoming a website so that staff, the public and clients can understand the digital tools used within the Smart(ER) Mobility team and enhance digital resources. Further, Kira is exploring the use of AI in transportation planning and how this can streamline workflows and provide insight.

Multi Modal Transportation Master Plan Update | Clarence-Rockland, Ontario, Canada | Planning Support
Kira contributed to the revision of the Multi Modal Transportation Master Plan by reviewing data and composing narrative for specific sections of the plan. She continues to help in the completion of this update with narrative writing, research and editing.

Traffic Calming Policy Development | Clarence-Rockland, Ontario, Canada | Design Support
Kira helped in generating graphics for the Traffic Calming Policy toolkit.

Stoney Creek Parking Study | Hamilton, Ontario, Canada | Transportation Planner
Kira's role in this project is to write a parking letter to support a minor variance application that is to be submitted to the City of Hamilton on the client's behalf. She conducted a comprehensive analysis of the surround area to formulate an effective parking mitigation strategy. She employed a combination of data analysis, site assessments, and urban planning principles to determine the most suitable strategy for addressing parking deficiencies while aligning with sustainability goals and local plans. This multifaceted approach allowed for the successful development of a parking solution and demonstrated her proficiency in urban planning and data driven decision-making.

Low Carbon Transportation Community Programs Research & Development Project | Edmonton, Alberta, Canada | Research Lead
As a research lead, Kira has been involved in conducting a comprehensive and rigorous research on the benefits and barriers of electric vehicle (EV) ownership, as well as contributing to the EV market scan report. Her role has included conducting a literature review, analyzing data from various sources, and writing a report that synthesizes the findings and provides recommendations for the City.

BEB Transition Plan | Calgary, Alberta, Canada | Planning Support
Kira, in her role, leveraged GTFS (General Transit Feed Specification) data within a Geographic Information System (GIS). Her responsibilities were creating detailed maps that visualize the intricate transit network.

Zero Emissions Bus Initiative | Toronto, Ontario, Canada | Planning Support
Kira compared baseline assumptions between financial baselines related to bus maintenance assumptions for both parts and labor. The first scenario was a Greenhouse Gas Bus case, while the second was a Zero Emission Bus case. Additionally, Kira conducted a thorough review of data files received, identifying areas for improvement in their analysis. All of this work was in support of the Zero-Emission Buses initiative, contributing to the Canadian Infrastructure Bank's due diligence process.

RFP Addenda Acknowledgment

HUMBOLDT COUNTY ASSOCIATION OF GOVERNMENTS

Siting Analysis for North State Hydrogen Fuel Station Network
Addenda Acknowledgment

Eric Plapper AICP

Principal-in-Charge
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April 11, 2025

03/13/2025

Siting Analysis for North State Hydrogen Fuel Station Network Request for Proposals Addendum:

The following information is an addendum to the Siting Analysis for North State Hydrogen Fuel Station Network RFP issued on February 21, 2025. RFP questions were due on Friday, March 7, 2025. Answers to the questions received follow this addendum.

Section V. PROJECT TIMETABLE
Revisions are shown in red.

V. PROJECT TIMETABLE
The following dates represent HCAOG's best estimate of the schedule that will be followed with regard to this RFP process. HCAOG hereby reserves the right, at its sole discretion, to modify this tentative schedule as it deems necessary, including, without limitation, extending the deadline for submission of Proposals.

February 21, 2025 (Fri.)	*Request for Proposals (RFP) released*
March 7, 2025 (Fri.)	*Deadline to submit questions regarding RFP*
March 14, 2025 (Fri.)	*HCAOG deadline for responding to questions regarding RFP*
5:00 p.m. April 11, 2025 (Fri.)	***Closing date for receipt of proposals***
April 25, 2025 (Fri.)	*HCAOG completes review and evaluation process*
May 1, 2025 (Thur.)	*Staff recommends award to Technical Advisory Committee*
May 15, 2025 (Thur.)	*Staff recommends award to HCAOG Board*

Closing Date
Complete proposals must be received via electronic delivery (email) no later than ~~4:00 p.m. Pacific Standard Time (PST) on Friday, March 28, 2025.~~ 5:00 p.m. Pacific Standard Time (PST) on Friday, April 11, 2025. By submitting a proposal, the Proposer certifies that his or her name or the consultant firm's name, as well as the name of Proposer's subcontractors, does not appear on the Comptroller General's list of ineligible contractors for federally assisted projects. All proposals received prior to the closing date and time specified above may be withdrawn or modified by respondent's written request. Any modification, to be considered, must be received in writing (via email), prior to the closing date for receipt of proposals. Any modifications received late shall not be considered. Proposals will become HCAOG's property after the submission deadline has passed.

As noted in the original RFP, Addenda issued by HCAOG interpreting or modifying any portion of this RFP shall be incorporated in the Proposal. When addendum have been issued, an Addenda Cover sheet shall be signed and dated by the Proposer and submitted to HCAOG with the Proposal.

Responses to questions received:

- The RFP mentions a 14-month project schedule. Can you confirm whether that is more of a duration to accommodate scheduled meetings or do you envision 14 months of effort? If the project team can complete the work in less time, is it acceptable to propose a condensed schedule? We would like to confirm whether the project budget of $222,000 must be for a 14-month schedule or whether we can work within that budget but on a condensed timeframe.
  - The 14-month project schedule is primarily designed to accommodate the scheduled meetings outlined in Task 5 of the Scope of Work. Specifically, we want to ensure the consultant can attend and present at the Far North Transit Symposium, which takes place in either June or July.

- Will the winning bidder have access to additional layers of GIS data not publicly available for use on this project only? As it relates to available information for site selection purposes.
  - All GIS data would be publicly available.

- From the RFP: The Schatz Energy Research Center has a graduate student developing a methodology for hydrogen fuel siting within Humboldt County. This will benefit in attracting future public-private partnerships and grant funds to support the build out of the network. To what extent are proposers expected to use this methodology? Is there a link to more information?
  - The contractor is not required to use the methodologies implemented in the resources referenced in the RFP. The contractor should consider these resources and reference them in their analysis. Should project results have notable differences from these resources, contractor should consider addressing these differences in order to provide guidance and clarity to stakeholders. The document has been added to the RFP web page.

- Approximately how many fueling stations are envisioned?
  - The proposer is expected to provide recommendations on this.

- Which transit providers in the 16 county North State Region are expected to participate in the hydrogen fleet transition, as stakeholders in the project and in the workshops?
  - There aren't imposed requirements. However, it is anticipated that a more successful project will see participation by all transit agencies who are considering hydrogen fuel in their transition plans.

- Please provide more detail on stakeholder workshops: How many stakeholders will be participating?
  - This is left to the proposer to answer.

- The RFP mentions freight and transit usage. What is the relative expected demand for transit vs. freight fueling?
  - This is left to the proposer to answer.

- We see that stakeholder engagement will involve gathering vehicle specifications. Are there any current known specifications? How precise will the specifications be that we receive? Will there be particular models chosen?
  - This is left to the proposer to answer.

- What assumptions should be made about the transit network for the siting analysis? Will existing transit routes be maintained? Would they be modified? …according to what limitations or priorities?
  - The proposer is not expected to develop transit or freight service routes or plans. The proposer's analysis should be based on a snapshot in time of current and future projected fleet operations.

- To allow proposers additional time to update their approach and proposal based on your answers to submitted proposer questions, would HCAOG consider granting a one-week extension to the proposal submission deadline?
  - Yes, HCAOG will be extending the deadline for proposals for this project. Addendum to follow.

- We note that uncertainty around the acceptability of shared infrastructure for different uses, as well as the need to optimize for one user group's preferences over another, creates significant complexity in developing an actionable siting plan. Would HCAOG consider an alternative technical approach that analyzes potential station locations for freight and transit users separately?
  - Yes. However, cooperative use and/or siting of shared fueling infrastructure should be addressed with sufficiently justified conclusions.

- What traffic (or origin-destination) data required for the analysis will HCAOG provide, or would the selected contractor need to secure this independently?
  - If contractor requires origin-destination data, contractor will need to secure this independently. Some counties in the study area are known to have travel demand models. Other counties may not.

- To what extent will the selected contractor be expected to use the tools, methodology, and resources provided by the Schatz Energy Research Center and associated staff, including the existing micro-siting analysis, or would an alternate technical/methodological approach be acceptable?

- The contractor is not required to use the methodologies implemented in the resources referenced in the RFP. The contractor should consider these resources and reference them in their analysis. Should project results have notable differences from these resources, contractor should consider addressing these differences in order to provide guidance and clarity to stakeholders.

- Given the fact that development of these sites is likely to occur over the medium-long term, as well as the fact that development of hydrogen stations for freight will likely require significant private investment and input from market players, how would HCAOG value an approach that focused on site characteristics and a replicable process for identification, assessment, and prioritization, rather than an approach focused on identifying specific parcels or sites? This approach would be recommended to provide an "evergreen" resource and avoid expending funds on detailed siting analysis that may become obsolete.
  - HCAOG will allow this approach. The proposed approach should still address all requirements in the RFP scope of work and consider identifying examples of specific parcels that meet the characteristics. Considering parcel-level data as described in the RFP is assumed to be valuable in developing the site characteristics proposed in this question. HCAOG encourages siting to be as granular as can be justified. For example, developing guidelines for jurisdictions to develop overlay zones or zoning districts could be a potential project outcome (this example is not a requirement and is intended solely to provide perspective on why the RFP is requesting parcel-level analysis if justified).

- In what way(s) are the anticipated outcomes of this effort expected to contribute to raising the profile of the region as an economically attractive H2 demand and supply region with reasonable H2 cost?
  - This question would be best posed to the stakeholders of this project. HCAOG imagines the answer would build off the ARCHES effort (see https://archesh2.org/) and Shasta County's efforts to develop a Shasta Regional Hydrogen Hub (see https://www.srta.ca.gov/DocumentCenter/View/5616/Project-Management-for-Shasta-Regional-Hydrogen-Hub-RFP).

- Based on the extensive scope of the RFP and stated award ceiling, is HCAOG considering or open to pursuing additional resources to support this effort that could produce more robust results, recognizing that proposers may not be able to deliver a fully optimized approach within the stated award ceiling?
  - This is something that can be discussed during the contract negotiation process.

- What will be the consecutive phases for the region after completion of this initial siting analysis phase?
    - HCAOG anticipates developing short, medium, and long term action items for project stakeholders based on results of this project.

- What is the encumbrance date for the available funding for this project?
    - We have set a goal to have the project completed by June 2026, but this can be extended if needed.

Stantec is a global leader in sustainable architecture, engineering, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.