Jacobs **Challenging today. Reinventing tomorrow.**

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February 14, 2025

Arizona Department of Transportation (ADOT), Engineering Consultants Section
205 S. 17th Ave., Mail Drop 616E, Phoenix, AZ 85007
Submitted electronically to ECSSOQ@azdot.gov

RE: Statement of Qualifications – I-10 West Quartzsite Traffic Interchange & Frontage Road Improvements, (2025-007) – Submitted Electronically by 2:00 pm (AZ Time)

Dear Pedram Shafieian and Members of the Selection Committee,

This project, years in the making by the Town of Quartzsite (Town), aims to enhance traffic operations and safety at the crucial I-10 traffic interchange (TI), a key stop for travelers between Arizona and California. With the town's population surging nearly tenfold during peak seasons, economic development opportunities through new housing and commercial developments, strong local business support, and the AZ SMART Grant win (as a result of the Town funded 2023 Alternatives Analysis Report), now is the time to capitalize on this project's momentum. **Jacobs is here to drive it forward.**

As the Town's top priority, speed and compliance are crucial for delivering accurate construction cost estimates for future grant applications, moving the project from concept to construction. Judah Cain, PE will serve as our Project (Contract) Manager, **leveraging his ADOT Supplemental Project Delivery Manager experience, ADOT LPA delivery expertise (including the Cesar Chavez Boulevard Improvements project with ADOT's SW District), and from serving as a trusted resource when it comes to grant compliance** to ensure we deliver the Stage II (30%) construction cost estimates as shown in our schedule on page 9. Judah's expedited approach to this project will maximize the Town's opportunity to apply for and win grant funding. He and our team will apply best practices from fast-tracked projects to facilitate project success, using our 3 P's delivery methodology: **Partner**, **Plan**, **Perform**.

Partner: *Collaborate to achieve consensus on the scope and goals*

Judah will facilitate partnering by:

- ✓ Collaborating with Pedram (PMG), Isabell Garcia (SW District), ADOT staff, the Town, and stakeholders to gain early consensus on the project scope, avoiding scope creep and focusing on accurate 30% cost estimates.
- ✓ **Jacobs, as ADOT's Management Consultant, has consistently developed estimates within 5% of final construction bids, ensuring reliability for programming and grant applications.**

Plan: *Set the foundation for success by developing a holistic plan*

Judah will lead the team in a holistic approach by:

- ✓ Optimizing the vehicular, RV, freight, and pedestrian travel needs through traffic and roadway innovation.
- ✓ Developing cost-effective, forward-compatible solutions that align with future developments, leveraging these investments to enhance the Town's economic potential.
- ✓ Creating MOT concepts that maintain traffic during construction (see page 7), resulting in **ZERO** loss of business or impacts to seasonal events.

Perform: *Drive the process to meet your delivery goals*

Judah will drive schedule and process by:

- ✓ Monitoring progress against the baseline schedule (see page 9) and communicating with Pedram and the Town to ensure compliance during PS&E development.
- ✓ Applying experience delivering grant-funded ADOT and LPA projects, including the Cesar Chavez Blvd. Improvements, ensuring timely approvals, schedule, and grant adherence. **Judah understands ADOT's and the AZ SMART dashboard grant tracking requirements.**

We are committed to minimizing risk, meeting the critical-path schedule, supporting future grant applications, streamlining project delivery, enhancing constructability, saving money, and adding value. Together with ADOT and the Town, let's **MODERNIZE MOBILITY** by improving traffic operations, enhancing safety, and boosting economic development for the Town and its citizens.

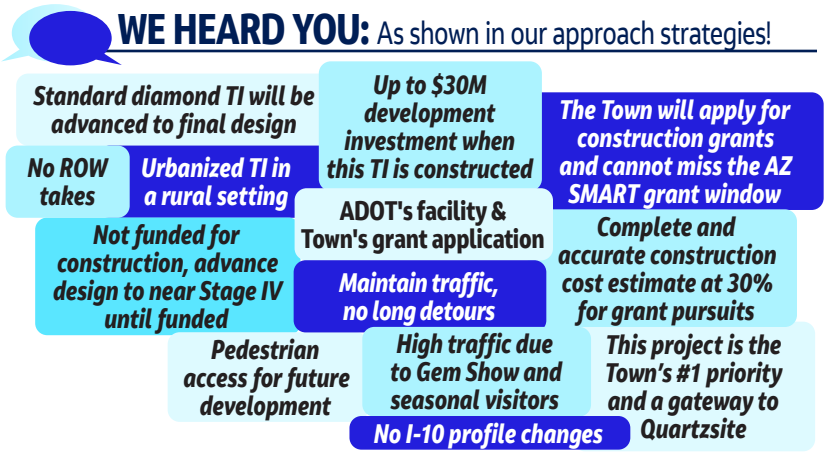
Sincerely,
Jacobs

Troy Sieglitz, PE (AZ PE #: 41722)
Principal & Authorized Signatory
troy.sieglitz@jacobs.com / 602.708.3450 (c)

Judah Cain, PE (AZ PE #: 52892)
Project (Contract) Manager
judah.cain@jacobs.com / 602.625.9674 (c)

- ✓ On behalf of our entire team, Jacobs formally expresses our interest in being selected for this project.
- ✓ We will fully commit our key personnel to the extent necessary to meet ADOT's quality and schedule expectations.
- ✓ We hereby acknowledge receipt of Amendment No. 1 and 2.
- ✓ Jacobs is not a DBE.

WE HEARD YOU: As shown in our approach strategies!



SOQ Proposal Certifications Form

Engineering Consultants Section
SOQ Proposal Certifications Form

Contract #: **2025-007** Consultant Name: **Jacobs Engineering Group Inc.**

Please read the fifteen (15) statements below. The statements are to ensure Consultants are aware and in agreement with Federal, State and ECS guidelines related to the award of this contract. Consultants shall submit the specific Certification form attached to each RFQ advertised, as revisions to the form may occur from time to time. Failure to sign and submit the certification form specified in the RFQ with the SOQ proposal will result in the SOQ proposal being rejected.

Submission of the SOQ by the Consultant certifies that to the best of its knowledge:

1.	The Consultant and its subconsultants have not engaged in collusion with respect to the contract under consideration.
2.	The Consultant, its principals and subconsultants have not been suspended or debarred from doing business with any government entity.
3.	The Consultant shall have the proper Arizona license(s) and registration(s) for services to be performed under this contract. Furthermore, the Consultant shall ensure that all subconsultants have the proper Arizona license(s) and registration(s) for services to be performed under this contract.
4.	The Consultant's signature on any SOQ proposal, negotiation document or contract constitutes that a responsible officer of the Consultant has read and understands its contents and is empowered any duly authorized on behalf of the Consultant to do so.
5.	The Consultant's Project Team members are employed by the Consultant on the date of submittal.
6.	All information and statements written in the proposal are true and accurate and that ADOT reserves the right to investigate, as deemed appropriate, to verify information contained in proposals.
7.	Key members of the Project Team, including subconsultants, are currently licensed to provide the required services as requested in the RFQ package.
8.	All members of the Project Team who are former ADOT employees did not have or provide information that gives the Consultant a competitive advantage; and either (1) concluded their employment with ADOT at least 12 months before the date of the SOQ or (2) have not made any material decisions about this project while employed by ADOT.
9.	Work, equating **at least 51%** of the contract value, shall be completed by the Consultant unless otherwise specified in the SOQ or contract.
10	No Federally appropriated funds have been paid or shall be paid, by or on behalf of the Consultant for the purpose of lobbying.
11.	The Consultant understands that it is required to have a compliant accounting system, in accordance with Generally Accepted Accounting Principles (GAAP), Federal Acquisition Regulation (FAR) of Title 48, Code of Federal Regulations (CFR)-Part 31, applicable Cost Accounting Standards (CAS), and ADOT Advance Agreement Guideline.
12.	If project is funded with Federal Aid funds, the Consultant affirmatively ensures that in any subcontract entered into pursuant to this advertisement, Disadvantaged Business Enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award, in accordance with Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 U.S.C. §§ 2000d to 2000d-4) and the Regulations.
13.	The Consultant shall utilize all Project Team members, subconsultants and DBE firms, if applicable, submitted in the SOQ, and shall not add other Project Team members or subconsultants, unless the Consultant has received prior written approval from ADOT.
14.	The Consultant shall either meet its DBE goal commitment and any other DBE commitments or make Good Faith Efforts to meet the DBE goal commitments as stated in its SOQ proposal or Cost Proposal and shall report on a timely basis its DBE utilization as detailed in the contract.
15.	If selected, the Consultant is committed to satisfactorily carry out the Consultant's commitments as detailed in the contract and its SOQ proposal.

I hereby certify that I have read and agree to adhere to the fifteen (15) statements above and/or that the statements are true to the best of my knowledge as a condition of award of this contract.

Print Name: **Troy Sieglitz, PE** Title: **Principal & Authorized Signatory**

Signature:  Date: **02/14/2025**

Revised 2/11/2022

Participation in Boycott of Israel – Consultant Certification Form

ARIZONA DEPARTMENT OF TRANSPORTATION
ENGINEERING CONSULTANTS SECTION
PARTICIPATION IN BOYCOTT OF ISRAEL - CONSULTANT CERTIFICATION FORM
ADOT ECS Contract No.: 2025-007

This Certification is required in response to legislation enacted to prohibit the State from contracting with companies currently engaged in a boycott of Israel. To ensure compliance with A.R.S. §35-393, this form must be completed and returned with any response to a solicitation (SOQ), Contract Cost Proposals, and Contract Time Extensions. The Consultant understands that this response will become public record and may be subject to public inspection.

Please note that if any of the following apply to this Solicitation, Contract, or Contractor, then the Offeror shall select the "Exempt Solicitation, Contract, or Contractor" option below:

- The Solicitation or Contract has an estimated value of less than $100,000;
- Contractor is a sole proprietorship;
- Contractor has fewer than ten (10) employees; OR
- Contractor is a non-profit organization.

Pursuant to A.R.S. §35-393.01, public entities are prohibited from entering into contracts "unless the contract includes a written certification that the company is not currently engaged in, and agrees for the duration of the contract to not engage in, a boycott of goods or services from Israel."

Under A.R.S. §35-393:

1. "Boycott" means engaging in a refusal to deal, terminating business activities or performing other actions that are intended to limit commercial relations with entities doing business in Israel or in territories controlled by Israel, if those actions are taken either:

   (a) Based in part on the fact that the entity does business in Israel or in territories controlled by Israel.
   (b) In a manner that discriminates on the basis of nationality, national origin or religion and that is not based on a valid business reason.

2. "Company" means an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company or other entity or business association, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate, that engages in for-profit activity and that has ten or more full-time employees.

…

5. "Public entity" means this State, a political subdivision of this State or an agency, board, commission or department of this State or a political subdivision of this State.

The certification below does not include boycotts prohibited by 50 United States Code Section 4842 or a regulation issued pursuant to that section. *See* A.R.S. §35-393.03.

In compliance with A.R.S. §§35-393 *et seq*., all offerors must select one of the following:

☒ The Company submitting this Offer **does not** participate in, and agrees not to participate in during the term of the contract, a boycott of Israel in accordance with A.R.S. §§35-393 *et seq*. I understand that my entire response will become public record in accordance with A.A.C. R2-7-C317.

☐ The Company submitting this Offer **does** participate in a boycott of Israel as described in A.R.S. §§35-393 *et seq*.

☐ **Exempt Solicitation, Contract, or Contractor.**
Indicate which of the following statements applies to this Contract:
☐ Solicitation or Contract has an estimated value of less than $100,000;
☐ Contractor is a sole proprietorship;
☐ Contractor has fewer than ten (10) employees; and/or
☐ Contractor is a non-profit organization.

Jacobs Engineering Group Inc.	
Company Name	Signature of Person Authorized to Sign
1501 West Fountainhead Parkway, Suite 401	**Troy Sieglitz, PE**
Address	Printed Name
Tempe, AZ 85282	**Principal & Authorized Signatory** **02/14/2025**
City State Zip	Title Date

Participation in Boycott of Israel – Consultant Certification
Form Revised - 4/28/2020

Forced Labor of Ethnic Uyghurs Ban – Consultant Certification Form

ADOT Infrastructure Delivery and Operations

FORCED LABOR OF ETHNIC UYGHURS BAN Certification Form

Forced Labor of Ethnic Uyghurs Ban

Please note that if any of the following apply to the Consultant, then the Offeror shall select the "Exempt Consultant" option below:

- Consultant is a sole proprietorship;
- Consultant has fewer than ten (10) employees; OR
- Consultant is a non-profit organization.

Pursuant to A.R.S. § 35-394, the State of Arizona prohibits a public entity from entering into or renewing a contract with a company unless the contract includes written certification that the company does not use the forced labor, or any goods or services produced by the forced labor, or use any consultants, subconsultants, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.

Under A.R.S. §35-394:

1. "Company" means an organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, limited liability company or other entity or business association, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate, that engages in for-profit activity and that has ten or more full-time employees.

   (a) Based in part on the fact that the entity does business in Israel or in territories controlled by Israel.
   (b) In a manner that discriminates on the basis of nationality, national origin or religion and that is not based on a valid business reason.

2. "Public entity" means this State, a political subdivision of this State or an agency, board, commission or department of this State or a political subdivision of this State.

In compliance with A.R.S. §§ 35-394 et seq., all offerors must select one of the following:

☒	The Company submitting this Offer does not use, and agrees not to use during the term of the contract, any of the following: • Forced labor of ethnic Uyghurs in the People's Republic of China; • Any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or • Any Consultants, Subconsultants, or suppliers that use the forced labor or any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China.
☐	The Company submitting this Offer **does** participate in use of Forced Uyghurs Labor as described in A.R.S. § 35-394.
☐	**Exempt Consultant.** Indicate which of the following statements applies to this Consultant (may be more than one): ☐ Consultant is a sole proprietorship; ☐ Consultant has fewer than ten (10) employees; and/or ☐ Consultant is a non-profit organization.

Jacobs Engineering Group Inc.
Company Name

1501 West Fountainhead Parkway, Suite 401
Address

Tempe, AZ 85282
City State Zip

Signature of Person Authorized to Sign

Troy Sieglitz, PE
Printed Name

Principal & Authorized Signatory
Title

ADOT ECS Contract No: **2025-007**

Forced Labor of Ethnic Uyghurs Ban Certification Form *(rev 10-2022)*

C-1. Project Understanding and Approach

Background and Understanding

Quartzsite, located in ADOT's SW District, is positioned at the intersection of I-10, US 95, and SR95, facilitating significant recreational and commercial cross-country traffic. The I-10 corridor conveys millions of travelers annually through this TI, serving the town's 3K population and a seasonal influx of nearly 30K temporary residents. Travelers are drawn to nearby amenities, including truck stops, EV charging stations, restaurants, and seasonal attractions. For nearly a decade, the Town has sought to enhance this TI to improve traffic flow, pedestrian safety, and modernize infrastructure. With $3.4M in AZ SMART grant funds secured on March 15, 2024, the Town can enhance safety and traffic with new infrastructure (deadline to apply for federal grant funding is September 30, 2026). The project includes a new overpass, improved ramps, frontage roads, signalized intersections, lighting, and sidewalks. Modernizing this TI represents a significant investment in Quartzsite's future, with nearly $30M in anticipated development near the improved TI. **The West Quartzsite TI will serve as a gateway to the Town and be a catalyst for economic growth, while enhancing freight reliability through one of the nation's busiest corridors.**

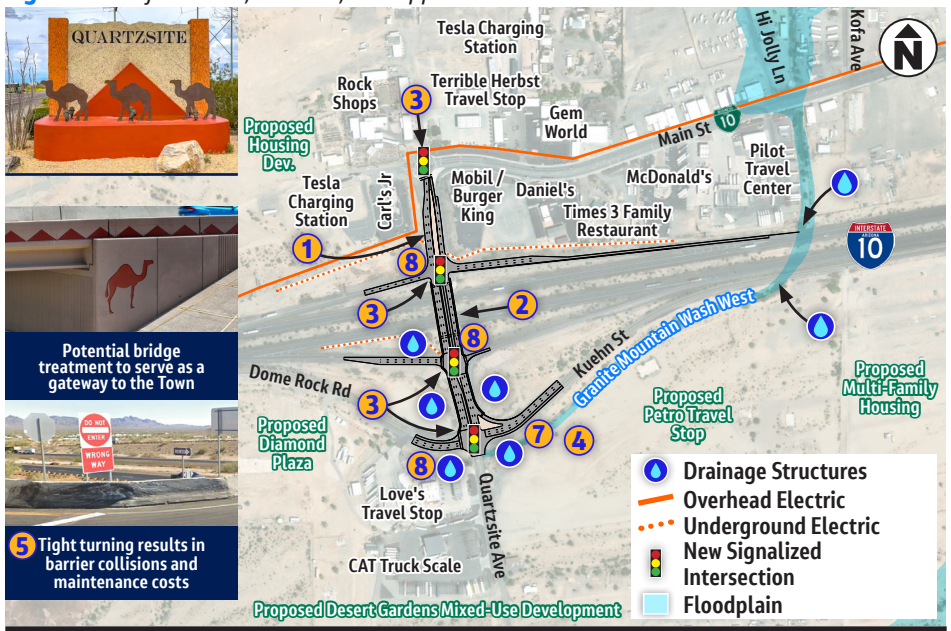
We understand the Town plans to submit grant applications for construction funding with ADOT as a supporting agency, emphasizing the need to modernize this TI to create a safer, more efficient experience for all travelers. To make this project a reality, it is critical the design team deliver reliable cost estimates by Stage II (30%) for the Town to use in their grant applications. With time at a premium, this project needs a strong project manager and delivery team that can quickly gain consensus through scoping, illuminate the right solutions to save cost, drive project delivery, and meet each milestone along the critical-path schedule. **Jacobs is ready to rise to this challenge.**

Major Tasks & Special Issues

The following tasks must be executed efficiently. Special issues are shown in Figure 1: Project Issues, Features, and Opportunities and throughout our approach.

- **PMG Support:** Workfront will be used for scheduling, document retention, and submittal reviews (proofing).
- **Engaging Stakeholder:** Host partnering and working-group meetings.
- **Geotechnical:** Perform Geotechnical investigation and pavement design. ADOT will perform coring.
- **Scoping Letter:** Complete a scoping letter to confirm the number of required lanes and bridge width to optimize the selected standard diamond TI.
- **Bridge Selection Report:** The structure selection will dictate the Quartzsite Avenue profile which directly impacts MOT. Balancing structure costs to minimize deck depth with MOT and constructability considerations will require consensus among stakeholders.
- **Other Technical Reports:** Foundation, Pavement Design, Geotechnical, Traffic, Drainage, and Earthwork reports.
- **Construction Cost Estimate:** Provide the Town an accurate estimate with sufficient contingencies and inflation factor to be used in grant applications.
- **Environmental Clearance:** Complete CE.
- **Utility Clearance:** Subsurface Utility Engineering (SUE) designations, relocations, and report.
- **ROW Clearance:** Confirm ROW, TCEs, and easements, and support ADOT ROW group.
- **Survey:** Perform field surveys.
- **PS&E Development:** Stages II (30%), III (60%), IV (95%), and V (100%) in OpenRoads. Stage IV will be submitted and Stage V completed when construction funding is secured.
- **Contracts & Specifications (C&S) Coordination:** Engage C&S to have concurrence on the construction estimate that will be used for grant applications and continue coordination during the project.

Figure 1 – *Project Issues, Features, and Opportunities*



Issue	Jacobs' Solution
1 Costly ROW Acquisitions.	Utilize retaining walls to eliminate ROW need.
2 Maintaining traffic during construction while raising Quartzsite Ave profile to achieve 16'-6" bridge clearance.	1. Determine optimal superstructure alt. to minimize structure depth. 2. Offset bridge to maintain traffic on existing bridge during construction. 3. Widen the existing ramps for temporary lanes, maintain traffic on new ramps during construction.
3 Four closely spaced signalized intersections.	1. Interconnect signals, use advance detection, install CCTV camera for communication and monitoring back to ADOT TOC. 2. Synchronize the traffic signal timings and offsets to reduce stops.
4 Significant Presence of Large Trucks Leading to Traffic Delays.	Evaluate truck movement patterns within the TI and develop signal timings with longer cycle lengths to address the inefficiencies caused by trucks gradually stopping and starting.
5 Maintenance issues with large trucks hitting curbs and barriers.	Use sufficient radii or 3-center curves to accommodate safe turning movements for WB-67 vehicles.
6 No existing pedestrian facilities or recommendations in the 2023 Report.	Proposed design to include sidewalks on the new bridge and along Quartzsite Avenue and ADA ramps at the intersections.
7 FEMA Zone AE Floodplain	Early design coordination with ADOT and FEMA to identify impacts and utilize design optimizations to mitigate impacts to the project's cost and schedule.
8 The 2023 Report did not evaluate historical crashes.	Review the most recent 5-year crash data and incorporate solutions and countermeasures in our design to mitigate crashes.

Institutional Elements

From our delivery of both ADOT and LPA projects, we have identified several strategies for executing and fine tuning the institutional processes needed to deliver this project on-time.

Project Initiation & Consensus Building: We will host a kick-off meeting and site visit with ADOT and the Town to document roles and responsibilities. Together, we will develop a risk register to support internal PMG huddles and monthly progress meetings.

- ▶**VALUE ADDED –** We recommend an early design partnering workshop to gain consensus on issues, design criteria, and design components. Consensus up front and documenting agreed-to priorities and solutions will mitigate potential scope creep.

Plan and Report Reviews: We will work with PMG to gain consensus from ADOT and stakeholders on expedited reviews. We will maximize the use of visualizations and OTS reviews to discuss details and resolve comments.

Design Standards: We understand ADOT's design guidelines and will implement performance-based-practical-design (PBPD) strategies to maximize project scope and funding feasibility.

Public Involvement: We will support ADOT and the Town by providing supporting information and presentation materials for public information meetings and answering technical questions.

FEMA Floodplain: Any impact to FEMA Zone AE Floodplain needs to be avoided so as to not require lengthy FEMA coordination and potential flood insurance rate map revisions.

Clearances (ROW, Utility, & Environmental): We will actively coordinate and prepare documentation, so that all clearances are issued on schedule. If construction funding is not secured before Stage IV, the CE will be completed and ready for signature. When construction funding is secured, all clearances will be ready to be issued after Stage IV (95%) is submitted.

Constructability & Maintenance-of-Traffic (MOT) Workshop: Prior to Stage III (60%), we will partner with the SW District to gain consensus on the construction schedule and sequencing. We will also facilitate a hand-off meeting with the District and RE at Stage IV (95%).

Contracts & Specifications (C&S) Coordination: We recommend an initial meeting be held with C&S to brief them on the scope, schedule, and review expectations. Two weeks prior to formal submittals, we will host over-the-shoulder (OTS) reviews to gain consensus on the design concepts.

Stage IV and V Submittal: The Stage IV (95%) submittal will be complete, avoiding re-submittals and delays caused by numerous back-and-forth iterations with C&S. Upon confirmation that 95% comments were addressed, our PS&E will be sealed and bid-ready for construction advertisement as funding becomes available.

Programmed Budget/Funding Opportunities: Jacobs has helped agencies across the U.S. secure $500M+ in grants and will assist the Town to identify additional funding sources to fully fund the project. We have also successfully utilized the FHWA 23 USC 120(c)(3) increased federal share program to maximize federal contribution.

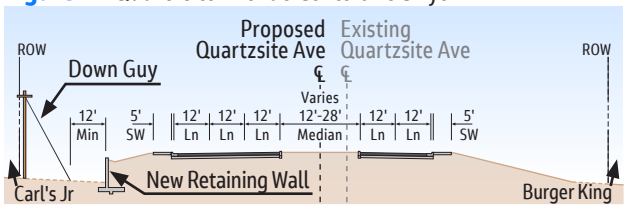
Technical Elements and Project Approach

Roadway Design

Issue – Existing Roadway Alignment Requires Costly Retaining Walls: *The existing Quartzsite Avenue alignment would require retaining walls on the NE corner to allow the bridge to be built without impacting local businesses.*

☑Jacobs' Solution: To facilitate construction of the new bridge and reduce the amount of retaining walls required, we are proposing a realignment of Quartzsite Avenue west of the existing bridge (see Figure 2). **By moving the alignment west, this will eliminate the need for retaining walls on the NE corner of the TI adjacent to Burger King.** New walls may still be needed on the NW corner to protect an existing overhead powerline, but they would be shorter in height. This shift also allows for the construction of a portion of the bridge, while maintaining traffic on the existing bridge (see page 7).

Figure 2 – *Quartzsite Avenue Centerline Shift*



Issue – Overestimated Lane Configuration Adds Unnecessary Structures Cost: *The 2023 Alt. Analysis Report overestimates the lanes needed to convey the 2050 traffic volumes, resulting in inflated costs and ROW impacts.*

☑Jacobs' Solution: We performed a traffic analysis, considering the 2050 traffic volumes, and have concluded that a second NB left-turn lane is not required, **reducing the bridge width from 7 lanes to 6 lanes, saving roughly $1.3M in construction.** Our analysis also indicates that the 6-lane configuration will **operate at the same level of service (LOS) B as shown in the alternatives analysis 7-lane configuration,** while also mitigating queuing at adjacent intersections. These PBPD elements will be further evaluated during the scoping stage.

Issue – Oversized Vehicle Circulation Impacts Safety and Maintenance Costs: *This TI serves a large amount of oversized truck and recreational vehicle traffic accessing the truck stops and other services adjacent to the TI. Difficult maneuvering of these vehicles often leads to the damage of curbs, barriers, and other impacts, increasing maintenance costs and impacting vehicular and pedestrian safety.*

☑Jacobs' Solution: Geometry at all intersections and throughout the TI will be evaluated and configured to **confirm that the large design vehicles (WB-67) will be accommodated.** Additionally, Jacobs will coordinate with ADOT's Jennifer Cannon, the Town, and local stakeholders to evaluate if there are any special needs for even larger vehicles to be considered during to design to **minimize costs, reduce labor, and increase safety for maintenance staff and pedestrians using the facility.**

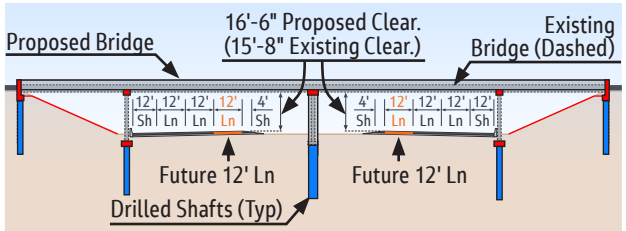
Structures Design

Issue – Achieving Vertical Clearance Requirements: *The existing bridge is a 4-span, multi-steel, I-beam structure with a 45'-78'-78'-45' span configuration and considers future I-10 expansion by 1 lane (see Figure 3). To achieve the 16'-6" clearance (currently 15'-8"), the profile must be raised, impacting the approaches/ramps and creating MOT issues.*

☑Jacobs' Solution: We will evaluate multiple bridge solutions in our Bridge Selection Report to present to ADOT's District and Bridge Group, the Town, and stakeholders to **achieve consensus on the bridge type to advance to final design.** Based on recent experience with similar bridges for ADOT, **precast girders are typically more cost effective and offer the advantage of being installed quickly with limited interruptions to traffic.** Steel girders offer the most superstructure (SS) depth flexibility, but are less cost effective due to fabrication and maintenance. Below are 5 potential girder solutions from our preliminary analysis we believe are viable at this location:

- 34" Bulb Tee (BT) girders (SS depth ~3'-9"): Local fabricators do not have the formwork for this relatively new shape so cost and availability are considerations.
- 42" BTs (SS Depth ~4'-4"): Likely the most cost effective, but has the largest SS depth.
- 42" Deck BT (SS Depth ~4'-1"): Has a wider girder top flange which allows for a reduced deck slab thickness, resulting in accelerated construction as no deck formwork is required.
- AASHTO Type II Girders (SS Depth ~3'-11"): Requires additional girders at tight spacings compared with BT girders.
- Adjacent AASHTO B-II Box Beams (SS Depth ~3'-4½"): Requires more girders but offers least SS depth.

Figure 3 – *Raised Bridge to Meet Clearance Requirements*



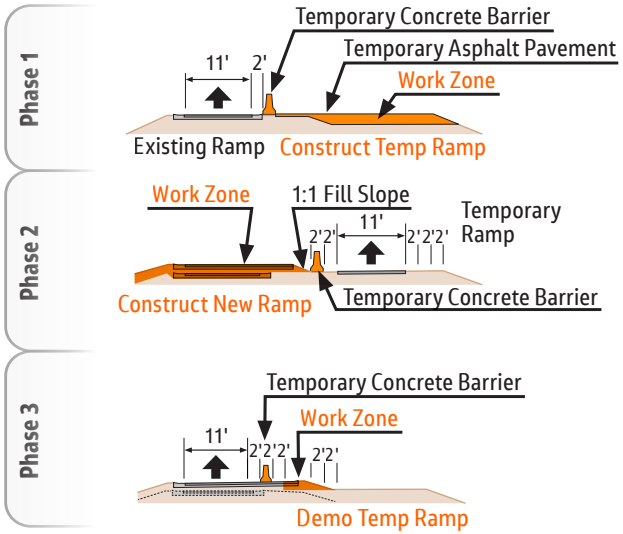
INNOVATIVE OPTION: An alternative concept to reduce SS depth, impacts, construction cost, and structure length is to replace the existing 4-span bridge with two 60′ single-span bridges. These bridges would have full-height abutments set outside the current and future EB and WB roadways, with the section between them filled. This would reduce the overall structure length from 246′ to 120′. ADOT recently used this technique on I-40 with success.

Maintenance of Traffic (MOT)/ Construction Phasing

Issue – Maintaining Traffic Operations During Construction: *The entire TI, including I-10, needs to remain operational, while maintaining access to the adjacent businesses and amenities. The only detour option results in 80-miles of added travel, so this long detour is not a feasible option. Additionally, keeping ramp and frontage road access open is crucial during the peak travel season which is driven by seasonal visitors and events.*

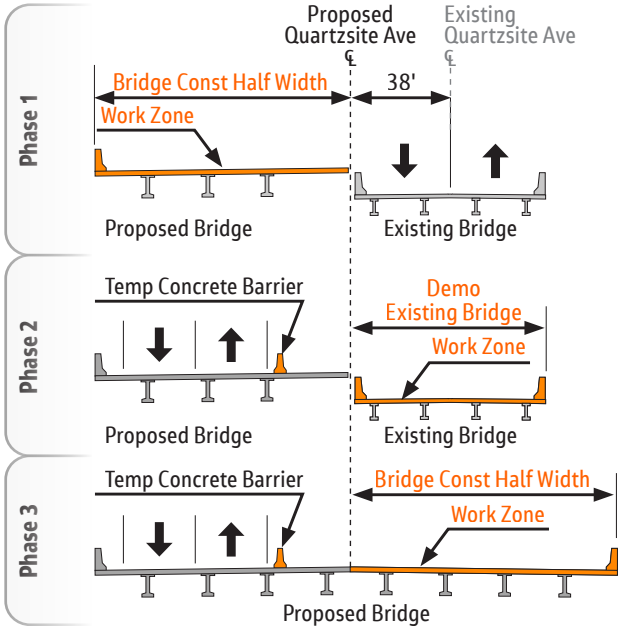
☑Jacobs' Solution – Ramp Construction: To maintain ramp access, our team proposes a 3-phase construction plan. In Phase 1, we would widen the existing ramps to the point where they can be used as temporary ramps utilized by oversized trucks (see Figure 4). The temporary widening of the existing ramps will allow us to efficiently shift traffic while the new, higher ramps are constructed in Phase 2. Once the ramps are constructed, we would move to Phase 3 where traffic would shift onto the newly completed ramps.

Figure 4 – *3-Phased Ramp Construction Concept*



☑Jacobs' Solution – Bridge Construction: To maintain traffic to area business and to enhance safety for the traveling public, we recommend implementing a 3-phased bridge construction plan to minimize traffic disruption (see Figure 5). In Phase 1, half of the new bridge will be constructed, while traffic continues to flow on the existing bridge. Once this section is completed, Phase 2 will involve moving traffic onto the newly built half of the bridge, allowing work to begin on the remaining portion of the new structure. In Phase 3, the existing bridge will be removed, and the rest of the new bridge will be constructed, completing the project while ensuring traffic flow is maintained throughout the process. **Additionally, the use of drilled-shaft foundations will reduce the structure footprint, minimize temporary shoring, and reduce MOT impacts during construction.**

Figure 5 – *3-Phased Bridge Construction Concept*



VALUE ADDED OPPORTUNITY: This project presents an opportunity for ADOT to integrate Smart Work Zone (SWZ) elements into the MOT, which could qualify the project for an increased Federal share up to 5%. We propose the use of sequential warning lights for any shoulder closures and tapers. Jacobs and AZTEC successfully led construction workshops with SW District staff Jonathan Fell and Isabell Garcia, and the City of San Luis, to develop construction phasing on a busy urban corridor with seasonal traffic fluctuations as part of the Cesar Chavez Boulevard reconstruction project.

Drainage Design

Issue – Increased Stormwater Runoff Results in Flooding and Maintenance Issues: *Not adequately capturing and conveying stormwater runoff results in ponding, creating road hazards for vehicles and pedestrians.*

☑Jacobs' Solution: Our design team will evaluate and size drainage infrastructure to capture and convey on-site stormwater runoff to existing outfalls. Additional pavement area and reconstructed guardrail and curb and gutter will require new onsite drainage facilities to **mitigate ponding and prevent on-site runoff from flowing towards adjacent properties.** Existing pipe culverts underneath the eastbound off-ramp and Quartzsite Avenue will be extended as necessary. Basins will be regraded as required to offset potential reductions in volume due to widening of ramps or Quartzsite Avenue and encroachment into existing basins from proposed embankments.

Issue - Stormwater Erosion: *The primary soil type within the project area is a gravelly sandy loam, a well-drained but erodible soil. Concentrated runoff through sandy desert soils may result in unintended erosion.*

☑Jacobs' Solution: The team will utilize guidance published in the ADOT Drainage Design Manual, Hydraulics, to evaluate and design erosion protection in conjunction with drainage infrastructure. We will verify that the drainage improvements do not lead to erodible velocities through bare soils and that the project does not increase discharges or velocities of stormwater runoff leaving the project site. **Properly designed drainage outfalls and erosion protection minimize the need for recurring maintenance.**

Issue – FEMA Floodplain Impacts: *The Granite Mountain Wash West is designated as a FEMA Zone AE Floodplain. The proposed improvements may impact existing drainage contributing to the wash, requiring a hydraulic evaluation to determine impacts to water surface elevations and other hydraulic parameters. If the impacts are significant, then meeting the current schedule could be at risk due to FEMA's map revision requirements.*

☑Jacobs' Solution: We understand the schedule and cost impacts associated with FEMA coordination and potential flood insurance rate map revisions. We will identify hydraulic impacts to the Granite Mountain Wash West, collaborate with ADOT to develop mitigation strategies, and coordinate with FEMA (if needed). **Early collaboration with ADOT and FEMA will result in design optimizations that may reduce schedule risk associated with potential map revisions.**

Right-of-Way (ROW)

Issue – ROW Acquisition Increases Cost and Schedule: *ROW acquisitions will be costly due to the many businesses. This is a concern at the Carl's Jr and Burger King located respectively in the northwest and northeast quadrants of the TI and the Love's Travel Stop in the southwest quadrant.*

☑Jacobs' Solution: As described in our lane configuration discussion on page 6, we will validate the lane recommendations in our alternatives analysis to **optimize the number of required lanes, reducing ROW needs.** Additionally, retaining walls will be utilized where required to avoid ROW takes. Construction cost savings will be realized by optimizing the heights and lengths of any necessary retaining wall.

Clearances: Environmental, ROW, Utilities

Issue – Environmental: *Completing the environmental document requires programmed construction funding that doesn't currently exist.*

☑Jacobs' Solution – Environmental Clearance: Our team has assisted ADOT with hundreds of environmental clearances and we will leverage our previous experience to create efficiencies in preparing technical documentation to support your NEPA clearance. We expect a CE will be sufficient based on the current scope of work. Scoping letters will initiate the environmental process. Required studies include a Preliminary Initial Site Assessment, asbestos and lead-based paint testing, and a Biological Evaluation Short Form, to be prepared at Notice to Proceed to expedite the geotechnical environmental clearance. Two rounds of Section 106 cultural consultation letters will support the geotechnical and overall project environmental clearance. We will partner with ADOT EP to verify that the environmental clearance is completed prior to the Stage IV (95%) submittal and is ready for signature when the project is funded for construction, making it shovel ready.

Issue – Construction Delays Due to Incomplete Clearances: *Failure to complete the proper clearances could delay the project once funding is obtained.*

☑Jacobs' Solution – ROW Clearance: Our team will work closely with ADOT ROW to determine any ROW needs or to confirm that no new ROW or easements will be required. We will also assist ADOT with securing all necessary agreements and permits and provide ADOT support if needed with the ROW plans and acquisitions. Our proposed solutions were kept within the previous footprint, so it is expected that no new ROW will be required. We also understand that ROW cannot be cleared until we have environmental clearance, so coordination with our environmental team will be vitally important to prevent any delays.

☑Jacobs' Solution – Utility Clearance: We understand that early coordination with utility providers is key to a clearance being issued on time. There are five utility providers with facilities within the project limits with relocations being anticipated for TDS Telecom and adjustments for the Town of Quartzsite water and sewer facilities. Potential relocations include power poles and/or fire hydrants, valve/manhole adjustments, and conflict mitigation for underground work near buried utility lines. Precautions will need to be taken near the overhead electric lines that cross Main Street on the east and west sides of Quartzsite Avenue and cross Main Event Way on the north side of Main Street. We will identify utility conflicts and prior rights at Stage II (30%), issue clearance letters, prepare the utility report, lead coordination meetings, and participate in utility owner/stakeholder meetings. Our team will continue to coordinate with the identified utility providers 'early and often' as the design advances to Stage III and beyond.

Additional Scope of Work Elements and Considerations

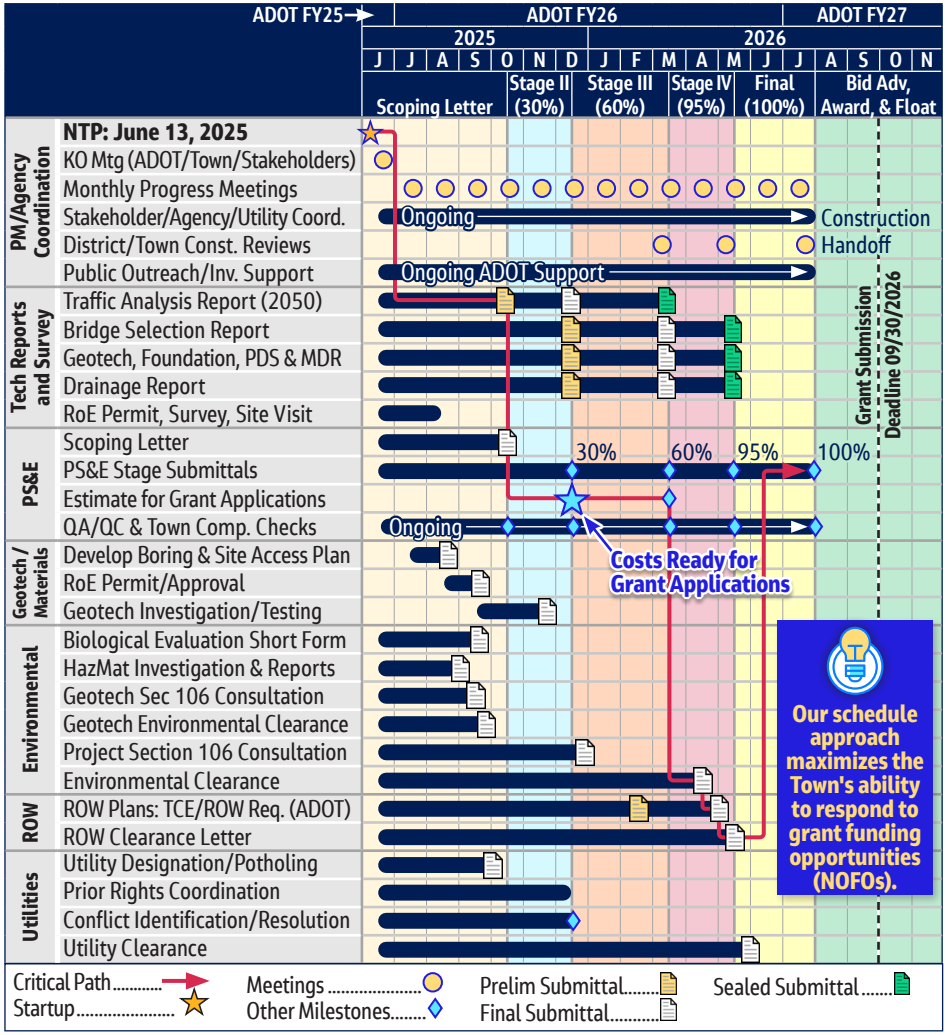
Work Elements	Jacobs' Approach
Survey/ Mapping	CORE will be utilizing drone aerial mapping technology coupled with our total station to ensure we have complete and accurate survey data. This technology promotes safety by preventing our survey crew needing to enter the roadway. This information will be incorporated into the existing surface and mapping.
Traffic: Seasonal Peaks	It is estimated the Town's population rises from 3,000 to 30,000 between October and March, peaking during the GEM Show months. To the extent possible, construction activities will be scheduled to minimize disruptions and accommodate the increased population.
Traffic: Signal Design	Closely spaced signalized intersections can cause queuing issues. We will implement advanced detection and interconnect traffic signal controllers to ensure efficient communication to prevent backups and ensure smooth traffic flow.
Geotechnical/ Pavement	Potentially soft soils may require over excavation at retaining wall foundations. Drilled shafts for the bridge will mitigate soft soil concerns and facilitate construction. With the nearest aggregate being roughly 20 miles west along the Colorado River, hauling costs for aggregate material will be economical.
Bridge/Wall Aesthetics	The new bridge will include aesthetic elements, which are yet to be developed. We will use ADOT's Arizona's State Highway System Standard Aesthetics document guidelines and collaborate with the Town and stakeholders to create the aesthetic theme and treatments for the bridge and walls.
Landscape/ Irrigation/SWPPP	Construction will disturb the existing landscape. ADOT RDS recommends salvaging only ocotillo and saguaro, and treating disturbed areas with a native seed mix. We will work with ADOT to estimate topsoil, waste, and demolition quantities.
Lighting/ Electrical	Lighting will be provided at intersections to meet ADOT and RP-8-22 lighting requirements using the Agi32 software. At the on and off ramps, existing lighting will be maintained or relocated when impacted by construction. Additional light poles will be added per ADOT design standards for merge and diverge areas.
Pedestrian Access/Mobility	The 2023 Alternatives Analysis Report did not evaluate pedestrian access. ADOT and the Town want to enhance pedestrian mobility for future development and safety. Pedestrian facilities, including on the proposed bridge, will be ADA compliant.
Public Outreach Support	The Town is required to hold one public meeting. We will support ADOT and the Town by providing supporting information, presentation materials, and answering technical questions.
Constructability	We will work with ADOT Bridge Group and SW District to select the optimal structure to balance bridge costs with MOT to maintain traffic during construction and limit closures only to bridge construction over the I-10.
Value Engineering (VE)	A VE Workshop may become a federal requirement. We propose our team attend a four-day workshop for timely action and coordination, followed by a one-day acceptance meeting with stakeholders and the design team.
Grant Support	***We can help the Town identify grant funding opportunities and develop the applications. Jacobs has a dedicated grants team that has helped clients acquire over $500M+ in federal funding. Furthermore, we can leverage our experience with grant administration requirements to maintain compliance.***

C-2. Project Risks and Schedule

Schedule Delivery is a PLANNED Achievement: We have developed a comprehensive framework (see Figure 6) for expeditiously developing the Scoping Letter, submitting the Stage II (30%) cost estimates to support construction funding grant applications, and delivering clearances and sealed plans within 13 months, while mitigating key risks (see Figure 7). Our critical-path schedule, captures the duration and functional relationships of each major task and event.

Strategies to AVOID or MITIGATE Slippage: We know this is a schedule driven project to meet the grant obligations. To keep the project on schedule, progress meetings will be working sessions with key decision-makers in the room to resolve issues and move forward. Judah will employ the following **PARTNER**, **PLAN**, and **PERFORM** strategies to **AVOID** or **MITIGATE** schedule slippage.

Figure 6 – *Project Schedule: Leveraging Judah's ADOT delivery experience to deliver on-time*



PARTNER

- ✓ Conduct a partnering session to gain concurrence on roles/responsibilities and goals.
- ✓ Host discipline-specific meetings with ADOT technical staff to determine priorities.
- ✓ Hold 1-on-1 meetings with stakeholders to address concerns.
- ✓ Establish a corrective action plan with ADOT, measuring against interim milestones.

PLAN

- ✓ Develop a robust charter/work plan that defines lines of communication/responsibilities.
- ✓ Share the root issue with the team (correct the problem openly, do not attempt to mask it).
- ✓ Address technical challenges by engaging specialized experts to inform solutions.

PERFORM

- ✓ Evaluate the critical-path schedule from a look- ahead perspective.
- ✓ Maintain risk register, track progress against the schedule, and review at progress meetings.
- ✓ Reinforce the use of our QA/QC process (iclud. subs) to avoid rework through accountability.
- ✓ Assign additional resources from our pool of local talent or from our subconsultants.

MAINTAINING THE CRITICAL-PATH SCHEDULE THROUGH QUALITY

Process Integrity: *ISO-compliant procedures designed to make your reviews easier, comprised of a system of checks, back-checks, and verification with feedback loops.*

Incorporating Quality Compliance into the Schedule: *As shown in our proposed schedule, we have included time for quality reviews, including subconsultant reviews, prior to submittals.*

Performance: *We have successfully used our quality process on similar projects, including the SW District's Cesar Chavez Boulevard Project and the award winning SR303L TIs at 51st and 43rd Avenues.*

Figure 7 – *Risk Register: We will partner with you to mitigate risk and deliver your goals*

Init. Risk	Potential Risk Event (Real or Perceived)	Jacobs' Approach/ Mitigation Strategies	Final Risk
H	**Construction Funding Not Programmed:** Available AZ SMART funding is limited to design, there is no identified construction funding.	▪ Right-size project to prioritize regional needs. ▪ Early coordination with the Town to inform scope decisions, fully addressing the needs of the region to maximize the ability to receive the necessary grant funding.	M
H	**Price Escalation of Construction Costs:** Recent economic/trade climate and high inflation may increase costs of materials and labor.	▪ Leverage our proven history of providing accurate cost estimates considering year of expenditure and inflation. ▪ Complete comprehensive value analysis. ▪ Adjust scope and prioritize critical scope elements.	M
H	**Business Access:** Push back from the public and businesses due to a) access impacts for heavy and recreational vehicles and b) seasonal peak demand.	▪ Develop an MOT plan that minimizes impacts to vital services, coordinating with the District and Town to implement SWZ and consider peak season traffic. ▪ Partner with the District/Town to engage businesses and residents through a thorough public involvement process.	L
M	**2023 Alts. Analysis Design Deficiencies:** Conservative traffic analysis resulted in oversized structures. The report did not include pedestrian safety considerations.	▪ Host partnering workshop to establish scope priorities, including pedestrian features and lighting. ▪ Include the Town as part of compliance reviews. ▪ Use PBPD concepts, **the current estimated savings on structures and pavement costs are $1.3M.**	L
M	**Noise Re-Evaluation Creates Schedule Delays:** Widening the roadway more than 2,500 feet will trigger a noise re-evaluation.	▪ Coordinate early and closely with the design team to confirm the areas of where the roadway would be widened, allowing sufficient time to complete this re-evaluation, if needed, to mitigate any potential schedule delays.	L
H	**Stakeholder Consensus:** Failure to gain consensus on final scope elements leads to scope creep resulting in schedule delays.	▪ Collaborate w/ Town/ADOT to develop the Scoping Letter. ▪ Leverage 'Project Chartering' to confirm no scope changes after the Scoping Letter, this will finalize project elements and help to provide reliable cost estimates.	L

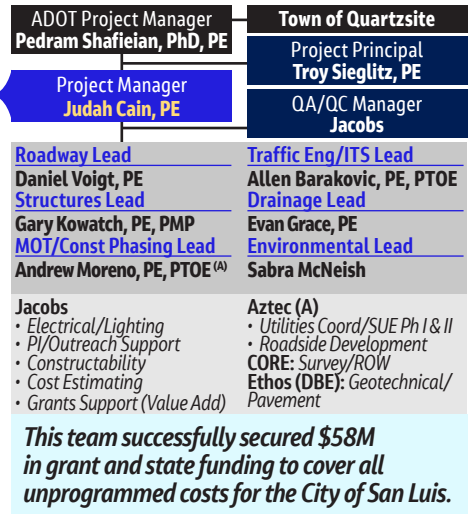
C-3. Project Team Experience & Availability

Judah Cain, PE: Project Manager

- ✓ **PARTNER:** Delivers LPA projects as one of your Project Delivery Managers within PMG.
- ✓ **PLAN:** Adheres to your institutional requirements to meet the schedule milestones.
- ✓ **PERFORM:** Leverages experience to develop and deliver innovative TI solutions.

Judah's knowledge will allow us to meet the Stage II (30%) submittal on-time, so cost estimates can be used for grant applications. His only project commitments include ADOT Supp. PM (25%) and ADOT Cesar Chavez Boulevard (5%). Resumes for Judah and our key staff follow this page.

Figure 8 – *Team Organizational Chart*



This team successfully secured $58M in grant and state funding to cover all unprogrammed costs for the City of San Luis.

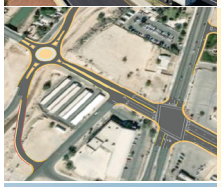
Key Personnel: Leverage Expertise to Mitigate the Project's Risk

Key Personnel	Value to ADOT and the I-10 Quartzsite Interchange
Judah Cain, PE Project (Contract) Manager **Years:** 22 | **PE No.** 52892 **Availability:** 70% **Projects:** ❶❷❸❹	✓ Offers delivery enhancements, such as an ANTP to develop the Scoping Letter, giving us more time to get to the 30% submittal. ✓ Manages projects and challenges his teams to develop holistic design solutions that maintain business operations and accommodate all travel modes and vehicle types.
Daniel Voigt, PE Roadway Lead **Years:** 20 | **PE No.** 50080 **Availability:** 65% **Projects:** ❶❷❹	✓ Brings previous experience with over 20 ADOT TIs across projects of varying size and scope, including rural/urban context. ✓ Leverages extensive experience optimizing geometric designs that eliminate cost and schedule risks associated with ROW. ✓ Brings a track record of successful ADOT LPA projects.
Gary Kowatch, PE, PMP Structures Lead **Years:** 38 | **PE No.** 48984 **Availability:** 55% **Projects:** ❶❷❹	✓ Develops innovative structure pre- and final design concepts to enhance safety, mitigate risk, and reduce structures costs. ✓ Optimizes designs to maintain center pier locations to avoid mainline impacts and considers future clearances requirements. ✓ Serves as our structures lead for our recent ADOT TI projects.
Allen Barakovic, PE, PTOE Traffic Engineer/ITS Lead **Years:** 19 | **PE No.** 51556 **Availability:** 55% **Projects:** ❶❷❸❹	✓ Coordinates closely with roadway staff, ensuring seamless integration of signing/striping, signals, lighting and ITS. ✓ Considers freight and RV turning movements when developing improvement scenarios at TIs, frontage roads, and the impacted local network to inform design decisions.
Andrew Moreno, PE, PTOE MOT/Const. Phasing Lead **Years:** 18 | **PE No.** 63352 **Availability:** 60% **Projects:** ❶❸❹	✓ Evaluates MOT strategies and implements Smart Work Zone technologies to ensure safety for the traveling public. ✓ Provides a constructability perspective when developing the sequencing plans, helping us to maintain access to businesses and avoid high-traffic windows for ADOT LPA projects.
Evan Grace, PE Drainage Lead **Years:** 9 | **PE No.** 71783 **Availability:** 60% **Projects:** ❷❸❹	✓ Applies experience designing on- and off-site stormwater drainage systems based on state, county, and/or local drainage design criteria to mitigate safety risks associated with flooding. ✓ Develops drainage plans with infrastructure strategically placed to support future lanes, upgrades, and developments.
Sabra McNeish Environmental Lead **Years:** 7 | **PE No.** N/A **Availability:** 65% **Projects:** ❶❷❸❹	✓ Brings a proven track record of managing tasks for environmental clearances of transportation projects. ✓ Demonstrates her ability to lead and coordinate with technical resource specialists to support the NEPA process in various transportation projects.

Relevant Experience: Applying Best Practices to Achieve your Goals

❶SR303L TIs at 51st & 43rd Aves. | ADOT | Prime | $5.2M (DCR + Final Des.)
This fast-tracked (18 to 11 mos.), pre- and final design project required collaboration with ADOT, LPA, and key stakeholders. **Project issues and scope-creep were identified and mitigated in a timely manner**. We coordinated regularly with ADOT procurement and C&S to identify schedule-critical items, resulting in the early procurement of nearly 40 items.

❷SR101L at I-10 Interchange | ADOT | Prime | $13.8M (DCR + Final Des.)
Jacobs partnered with ADOT and 3 LPAs to improve connectivity through the pre- and final design of these interchange improvements. We also linked SB SR101L traffic with 91st Avenue through this heavily congested area. **Our team delivered the project within the time-sensitive schedule, while making sure all stakeholder's needs were identified and met.**



❸Cesar Chavez Boulevard | ADOT | Prime | $2.5M (Final Des.)
Jacobs is collaborating with ADOT's SW District and San Luis to deliver this grant-funded, LPA, pre- and final design project to improve corridor traffic operations. **Maintaining access to business was critical to ensure no loss of revenue during construction.** Additionally, the design addresses safety due to heavy pedestrian movements to public resources.

❹MC for RTPFP (inc. Statewide Cost Estimates) | ADOT | Prime | $7.5M
As a part of this contract, **we maintain ADOT's Construction Cost Index, allowing us to regularly provide estimates within 5% of the ultimate construction cost.** We have developed estimates for multiple TI projects, including SR101L/SR51, SR303L/US60, SR303L at 96th Avenue, I-17 at 19th Avenue, I-17 at Indian School, and SR101L at 67th/75th Avenues.

Subconsultants: Continuity Resulting in Delivery Efficiencies

AZTEC: 180 LOCAL STAFF
Aztec brings vast experience designing numerous TIs across AZ. They will provide MOT, utilities coordination, SUE, and roadside development services.
Projects: ❶❸❹

ETHOS (DBE): 22 LOCAL STAFF
Ethos will lead all geotechnical and pavement designs, leveraging their staff's experience from completing 250+ geotechnical investigations for ADOT.
Projects: ❶❷❸❹

CORE: 14 LOCAL STAFF
Core employs a combination of surveying equipment, drone mapping, GPS capabilities and coordination with aerial service partners.
Projects: ❸❹

Judah Cain, PE

Project (Contract) Manager

Judah's Value:

- ✓ *Serves as ADOT's go-to resource for the delivery of ADOT LPA grant-funded projects, completing the grant agreements with FHWA.*
- ✓ *Manages projects and challenges his teams to develop holistic solutions that maintain business operations and accommodate all travel modes and vehicle types.*
- ✓ *Applies a forward thinking, innovative and best-practices approach to projects, continually seeking to develop cost-effective solutions.*

"Judah has become PMG's 'Grant Expert', he has been counted on to establish grant agreements on several recent LPA projects."
~ Stephen M. O'Brien (ADOT)

Years of Experience
- 22

Years w/ Jacobs
- 18

Registration
- Professional Engineer: AZ PE #52892

Education
- AA, Civil Design, Glendale Community College

Office Location
- Tempe, AZ

Project Availability
- 70%

Project Commitment
- 70%

Corporate Title
- Project Manager & Senior Roadway Engineer

Ongoing Commitments
- ADOT: Supplemental Project Delivery Manager (PDM) (25%)
- ADOT: Cesar Chavez Blvd (5%)

Why Judah?

Judah has devoted his career to providing engineering services to ADOT and is currently one of your Supplemental Services Project Delivery Managers within ADOT PMG. He brings comprehensive experience in the design of urban and rural traffic interchanges (TIs), freeways, highways, intersections, and urban and rural streets. He manages projects with a focus on maintaining our current infrastructure, including pavement preservation, bridge rehabilitations, and safety improvements along non-access-controlled facilities for LPAs. Additional technical expertise he brings includes the design of local, collector, arterial streets, and major intersections; driveway, sidewalk, and recreational multi-use path design; coordination of major wet and dry utilities (including overhead and underground); grading and drainage structures and facilities, earthwork balancing, cost estimating, and construction staging. Having led several projects for you, Judah understands your institutional goals and priorities for project delivery. This will help him to actively integrate design disciplines to meet stage submittal deadlines as well as the grant funding requirements to maintain compliance.

Relevant Experience

ADOT, Supplemental Services Temporary Part-Time Project Delivery Manager, Statewide, AZ

- **Supplemental Project Manager**

Judah is serving in a supplemental services capacity as a project manager for the delivery ADOT and LPA projects. His assignments span the project development timeline, with most at Stage 3 or 4. **He is embedded at your offices and oversees ADOT and consultant staff as they complete scoping documents and bid ready construction plans.** His responsibilities include managing schedules, facilitating communication of information, leading reviews, comment resolution meetings, and other project delivery activities. A few of the projects Judah has actively managed under this contract include:

- F0751: Willard Springs Wildlife Overpass **[GRANT FUNDED]**
- T0621: Ruby Rd Bridge – Grant Agreement for Reconnecting Communities Pilot Program **[GRANT FUNDED]**
- F0207: SB County Line to McConnell Bridge
- F0344: W of Aztec Rd - E of County Line
- F0426: Amole RR OP EB/WB, Amole TIOP
- F0438: US191 at SR75 & SR78

ADOT, SR303L TIs at 51st and 43rd Avenues PA, DCR, and Final Design, Phoenix, AZ

- **Design Manager**

Judah and his team evaluated concepts, participated in public meetings, developed a risk profile, and provided construction cost estimates for the 51st and 43rd Avenue interchanges and mainline improvements along SR303L in expectancy of the TSMC development. **Due to the fast-tracked nature of the project, it was critical that they partnered with ADOT, the City, utility entities, and other stakeholders on the final concept to move into construction**. Additionally, they collaborated with local design firms to integrate the final design concepts for the City of Phoenix cross-streets that would tie into these improvements.

ADOT/LPA, Cesar Chavez Boulevard Improvements, San Luis, AZ [GRANT FUNDED]

- **Project Manager**

Jacobs is collaborating with ADOT's SW District and the City of San Luis to deliver this grant and legislative appropriations funded, LPA, final design project. Major improvements included a roundabout; full reconstruction of a 2-mile, four-lane median divided roadway with intersection channelization in an urban area; full reconstruction of a 3-miles, four-lane roadway with a striped median in a rural area; ADA facilities; storm drains and retention basins; decorative street lighting; decorative traffic signals; retaining walls; wall and crosswalk aesthetics; and landscape improvements. Additionally, our team assisted the City of San Luis with stakeholder coordination in order to meet deadlines for environmental, ROW, and utility clearances. **Prior to final design, Jacobs developed a PA, preliminary design plans, and 30% construction cost estimates that the City used to obtain a $25M Federal Grant and an additional $33M in Legislative Appropriation funding.**

ADOT, I-17/Carefree TI Study/Final Design, Phoenix, AZ

- **Roadway Engineer**

The DCR provided the final alignment geometry for all ramps and improvements, none of which were changed during final design by others. We created working simulations of each concept to show how traffic would operate, due to the huge left-turn movement resulting from a regional commerce center, future hospital, and many master planned communities. While ramps are uncommon these days on new TIs, a partial cloverleaf was the best solution, and was endorsed by every stakeholder group. We gained approval from Phoenix and national FHWA staff on the design. **We achieved consensus because we took the time to first listen to their needs, then explain to everyone the alternatives, and then worked together to reach consensus on a solution that worked for everyone.**

Daniel Voigt, PE

Roadway Lead

Daniel's Value:

- ✓ *Brings previous experience with over 20 ADOT TIs across projects of varying size and scope, including rural/urban context.*
- ✓ *Leverages extensive experience optimizing geometric designs that eliminate cost and schedule risks associated with ROW.*
- ✓ *Track record of successful ADOT projects in cooperation with LPAs.*

Years of Experience
- 20

Years w/ Jacobs
- 1

Registration
- Professional Engineer: AZ PE #50080

Education
- BS, Civil Engineering, Arizona State University

Office Location
- Tempe, AZ/Hybrid

Project Availability
- 65%

Project Commitment
- 60%

Corporate Title
- Roadway/Highway Engineer & Project Manager

Ongoing Commitments
- ADOT: I-10 TIs at Country Club and Kino Parkway (20%)
- ADOT: SR101L at SR51 System Interchange Improvements (15%)

Why Daniel?

Daniel brings over 20 years of transportation engineering experience, including the design of TIs and roadways of varying size and complexity. He has completed numerous roadway design projects for ADOT and its LPA partners across Arizona. Tasks within these projects included the preparation of scoping documents, DCRs, final design plans, post-design activities, specifications and estimates, utility coordination, and various levels of public outreach participation. Daniel's experience includes the design of TIs freeways, major arterial roads, local roads, park and ride facilities, shared-use paths, residential development, parking improvements and airport taxiways as well as providing bridge inspection services.

Relevant Experience

ADOT/Town of Guadalupe, Avenida Del Yaqui – Baseline Road to Calle Carmen, Guadalupe, AZ

- **Project Manager/Lead Roadway Engineer**

Daniel led the development of bid documents in accordance with the ADOT Stage Submittal checklists and processes. Proposed improvements on this project included mill and overlay of the existing asphaltic concrete pavement for the length of the project and total reconstruction of the concrete curb, gutter, sidewalk and driveways as necessary along both sides of the corridor. The improvements also include new pavement markings, signing, bicycle facilities and pedestrian enhancements throughout the corridor.

ADOT, SR202 South Mountain Freeway, Phoenix, AZ

- **Lead Roadway Engineer/Post Design Lead for Segment D**

This project included the design management and final design for one of four major project segments, Segment D, which involved 4 miles of I-10 reconstruction (two HOV managed lanes and six GPLs), auxiliary lanes, 6 sets of service interchange ramps, 4 miles of parallel access/frontage roads, freeway to freeway interchange ramps, and 2 miles of new freeway mainline construction with crossroad service interchange. Daniel's efforts included design of roadway geometrics, earthwork modeling/ balancing, coordination for over 500,000 SF of retaining and noise walls, design of nearly 100 ADA compliant pedestrian ramps and adjacent pedestrian facilities and coordination with every discipline to bring together this expansive project.

ADOT/Graham County, 8th Avenue/Airport Road Intersection Improvements, Graham County, AZ

- **Project Manager**

This project highlights the ability to work with multiple stakeholders who had a wide range of project needs and develop a solution that satisfied all stakeholders. Due to the rural nature of the project, significant stakeholders included Graham County who maintains the road, local residents, the Freeport-McMoran Safford Mine who regularly transports large and specialty loads through the intersection, the Graham County Detention Center that is adjacent to the intersection, and local businesses. The vast variety of needs included direct roadway access, large vehicle access, security concerns, utilities, and a facility that was not a maintenance burden for Graham County. The roundabout solution was able to provide a facility that meets the needs of all stakeholders while avoiding sensitive properties in the project area.

ADOT, SR303L from MC85 to Van Buren Road, Phoenix, AZ

- **Lead Roadway Engineer**

This project will construct Phase 1 of the interim phase of SR303L from MC 85 to Van Buren Street. 3 GPLs will be constructed in each direction, with a transition back into Cotton Lane near Elwood Street. Tasks include design and preparation of construction plans, technical specifications, quantity computations, cost estimates and related construction documents.

ADOT, I-10/Baseline Road Traffic Interchange Design Concept Report, Phoenix/Tempe, AZ

- **Lead Roadway Engineer.**

This project includes the development of a DCR, environmental document, and related studies and reports for TI improvements located at I-10 and Baseline Road. Alternatives including a standard Diamond Interchange and a DDI were evaluated to enhance regional travel and help mitigate numerous safety issues within the corridor from 48th Street in the City of Phoenix to Hardy Drive in City of Tempe.

ADOT, Management Consultant for Regional Transportation Plan Freeway Program, MAG Area, AZ

- **Project Manager/Project Engineer**

The purpose of this contract is for the Management Consultant (MC) to provide ADOT necessary resources and products to manage the Regional Transportation Plan Freeway Program (RTPFP) (scope, schedule, and budget) on remaining projects in RTPFP of Prop 400. Under this contract, Daniel provided assistance with developing planning level estimates of numerous projects for ADOT and MAG to use in developing program budgets.

Gary Kowatch, PE, PMP

Structures Lead

Gary's Value:

- ✓ *Develops innovative structure pre- and final design concepts to enhance safety, mitigate risk, and reduce structures costs.*
- ✓ *Optimizes designs to maintain center pier locations to avoid mainline impacts and considers future clearances requirements.*
- ✓ *Serves as our structures lead for our recent ADOT TI projects.*

Years of Experience
- 38

Years w/ Jacobs
- 6

Registration
- Professional Engineer: AZ PE #48984
- Project Management Professional (PMP)

Education
- MS, Civil Engineering, University of Pittsburgh
- BS, Civil Engineering, University of Pittsburgh

Office Location
- Tempe, AZ

Project Availability
- 55%

Project Commitment
- 50%

Corporate Title
- Senior Bridge Engineer & Project Manager

Ongoing Commitments
- ADOT: I-10 TIs at Country Club and Kino Parkway (25%)
- Miscellaneous Tasks (25%)

Why Gary?

Gary has 38 years of experience, specializing in designing transportation projects across several different project delivery platforms. He has worked as an extension to agency staff which provides him with keen insights into what agencies need to successfully deliver projects involving a diverse set of stakeholders. While his technical expertise is in structural design, including precast and prestressed concrete beam bridges, steel girder bridges, steel truss bridges, retaining walls, and culvert, he is a multi-disciplined engineer versed in designing roadway approaches, parking facilities, maintenance garages, and water facilities making him uniquely qualified to support this project.

Relevant Experience

ADOT, I-10 TIs at Country Club and Kino, Tucson, AZ

- **Structures Lead**

The I-10 Kino Traffic Interchange project includes the construction of approximately 2 miles of highway including 13 bridges in Tucson, Arizona. The bridges include precast concrete girder bridges and a 3-cell Box Culvert Underpass. Project complexities include bridges with high skews due to the existing geometry of I-10 and local roadways, and complex phased construction as I-10 traffic must be maintained on the ADOT system at all times. Gary was responsible for overseeing the final design and plan preparation for all bridges. He was also responsible for significant coordination with project discipline leads and the General Contractor.

ADOT, SR303L TIs at 51st and 43rd Avenues PA, DCR, and Final Design, Phoenix, AZ

- **Structures Lead**

To facilitate growth, this project was to design and construct two traffic interchanges at the 51st Avenue and 43rd Avenue crossroads. Gary coordinated the overall design and plan development, which included following detailed quality requirements, developing project specifications and detailed cost estimates, and coordinating with the project team to deliver the project under a very aggressive design schedule. Design included precast and prestressed, concrete I-girders; full height concrete abutments supported on drilled shaft foundations; and three-column drilled shaft supported foundations.

ADOT, SR303L/I-17 Interchange, Phoenix, AZ

- **Senior Bridge Engineer**

The existing SR303L/I-17 Traffic Interchange is located in the Northern Phoenix Metropolitan area within Maricopa County, Arizona and within ADOT's Central District. The scope of work under Gary's direction included the design of two bridge structures including a 3-span precast/prestressed concrete girder bridge and a 3-span cast-in-place, post tensioned, concrete girder bridge. The substructure included spill-thru abutments and bladed column piers supported on drilled shaft foundations. Project complexities included horizontal curvature, skewed substructure units, and limited structure depth to meet vertical clearance and other roadway geometric challenges.

ADOT, SR101L at I-10 Interchange, Phoenix, AZ

- **Senior Bridge Engineer**

The existing SR101L and I-10 Interchange is being modified to accommodate a new DHOV facility. The structures that Gary was responsible for included the widening of a 2-span precast/prestressed girder bridge, a new 2-span precast/prestressed girder bridge, a cast-in-place portal frame structure, retaining walls, and sound barrier walls. Project complexities included phased construction, horizontal curvature, skewed sub-structure units, and limited structure depth to meet vertical clearance and other roadway geo-metric challenges. The design of this project was completed under an accelerated design schedule.

ADOT/City of Peoria, Stadium Trail Ph 2 from 75th Ave to Skunk Creek, Peoria, AZ

- **Lead Bridge Engineer/Deputy Project Manager.**

Stadium Trail is a shared use path within the City of Peoria (City) and is an important link within the City's overall trail system as it provides connectivity to other trail segments. This project is known as Stadium Trail-Phase 2 having project limits between 75th Avenue and the confluence of Skunk Creek with the Arizona Canal Diversion Channel (ACDC). Ultimately, Stadium Trail will provide direct access to the Peoria Sports Complex and P83 entertainment district. Stadium Trail-Phase 2 includes the construction of approximately 2,000 feet of trail and a new pedestrian bridge over Skunk Creek.

ADOT, MC for RTPFP, MAG Area, AZ

- **Senior Bridge Engineer**

To deliver value and identify realistic construction costs for projects, we are bringing a new approach to providing accurate and reliable data so that ADOT can make informed decisions; understanding economic influences to develop reliable and accurate ROW cost estimates; applying a consistent method and market-based estimates that are predictable, reliable, and allow for better cost management and programming; developing reliable estimates for programming, providing a prioritized list for project delivery, and eliminating bias from the programming effort; and providing tools to prepare the project teams and managers to understand, monitor, and retire project and program risks.

Allen Barakovic, PE, PTOE

Traffic Engineering/ITS Lead

Allen's Value:

- ✓ *Coordinates closely with roadway staff, ensuring seamless integration of signing/striping, signals, lighting and ITS.*
- ✓ *Considers freight and RV turning movements when developing improvements at TIs, frontage roads, and the impacted local networks.*
- ✓ *Optimizes lane configurations and turning moments based on forecasted 2050 volumes to reduce queues and yield the highest LOS possible.*

Years of Experience
- 19

Years w/ Jacobs
- 18

Registration
- Professional Engineer: AZ PE #51556
- PTOE #4002

Education
- BS, Civil Engineering, Arizona State University

Office Location
- Tempe, AZ

Project Availability
- 55%

Project Commitment
- 50%

Corporate Title
- Senior Traffic Engineer & Project Manager

Ongoing Commitments
- ADOT: I-17 ITS Improvements: (15%)
- ADOT: SR101L/I-10 Interchange Final Design (10%)
- Miscellaneous Tasks (25%)

Why Allen?

Allen brings more than 19 years of traffic safety and engineering experience and has worked on several projects for ADOT and LPAs across the state. On this project, Allen will take a comprehensive traffic engineering approach by allowing the operational analyses to inform design solutions that enhance capacity, through-puts, and safety. Allen's design skills include traffic signal and ITS design, signing, marking, lighting and maintenance of traffic. He is well versed in developing accurate cost estimates and developing specifications. He also brings microsimulation experience, primarily using SYNCHRO/SimTraffic, VISSIM and AIMSUN software, and is adept at coding and analyzing networks. He is also well versed in RSAs, conducting traffic studies, and other operational studies. He will help balance the design against the operational requirements while also championing safety for both vehicular and pedestrian traffic. As the traffic lead on similar projects, he helped deliver accelerated schedule projects on time by facilitating coordination between key stakeholders, designers, ADOT, and utility companies.

Relevant Experience

ADOT, SR303L TIs at 51st and 43rd Avenues PA, DCR, and Final Design, Phoenix, AZ

- **Traffic Engineer**

Jacobs evaluated concepts, participated in public meetings, developed a risk profile, and provided construction cost estimates for these interchanges and mainline improvements along SR303L in advance of the TSMC development. Due to the project's fast-tracked nature, it was critical to partner with ADOT, the City of Phoenix, utility entities, and other stakeholders on the final concept to move into construction. Leveraging advanced knowledge of the technical and agency goals and objectives, the team was selected to fast-track final design to meet ADOT's aggressive schedule requirements. Allen coordinated with the design team to develop the optimized traffic control plans, along with specifications implementing the smart work zone components.

ADOT, SR303L GPL Widening from Happy Valley to Lake Pleasant Parkway, including the Jomax TI, Final Design, Peoria, AZ

- **Lead Traffic Engineer**

This project adds capacity to SR303L by constructing a third GPL through median-widening within this 6-mile segment. Major structural modifications included the Jomax TI and overpass structures at the Beardsley Canal and Jomax Parkway. Allen and his team conducted traffic analyses to validate the lane configurations at the Jomax TI and optimized the ramp configurations to enhance operations. They also developed the final design plans for traffic control, signing/marking, FMS, lighting, and traffic signals.

ADOT, SR101L/I-10 Interchange Improvements DCR and Final Design, Phoenix, AZ

- **Lead Traffic Engineer**

We partnered with ADOT; MAG; cities of Phoenix, Avondale, and Tolleson; and other adjacent stakeholders to improve regional connectivity through improvements at this critically important system interchange. Our team evaluated concepts and provided cost estimates for a DHOV Ramp from eastbound I-10 to southbound SR101L to and westbound I-10 to northbound SR101L. Scope also included the 91st Avenue Connector, which connects southbound SR101L traffic with 91st Avenue through this heavily congested area. The DCR process coupled with direct engagement with stakeholders and the public delivered the project within the time-sensitive schedule, while making sure all stakeholder's needs were identified and met. After delivering the DCR, our team directly into the final design phase.

ADOT/MAG, Management Consultant for Regional Transportation Plan Freeway Program, MAG Region, AZ

- **Traffic Engineer and Task Manager**

To deliver value and identify realistic construction cost estimates for projects, we are bringing a new approach to providing accurate and reliable data so that ADOT can make informed decisions; understanding economic influences to develop reliable and accurate ROW cost estimates; applying a consistent method and market-based estimates that are predictable, reliable, and allow for better cost management and programming; developing reliable estimates for programming, providing a prioritized list for project delivery, and eliminating bias from the programming effort; and providing tools to prepare the project teams and managers to understand, monitor, and retire project and program risks.

ADOT/LPA, Cesar Chavez Boulevard Improvements, San Luis, AZ [GRANT FUNDED]

- **Lead Traffic Engineer**

We developed the PA, preliminary design plans, and are working on the final design to transform this 5-mile section to a four-lane divided roadway consistent with the City of San Luis' latest General Plan. The project has heavy pedestrian movements to schools and public resources. The design, inclusive of the roundabout, manages access to/from the street and pedestrian crossings and adds traffic signals at major cross streets to improve overall safety.

Andrew Moreno, PE, PTOE

MOT/Construction Phasing Lead

Andrew's Value:

- ✓ *Brings a proactive approach that develops MOT strategies in partnership with ADOT District and LPAs to ensure safety for the traveling public.*
- ✓ *Develops construction phasing plans that thoughtfully addresses travel restrictions and maintains access to businesses along the corridor.*
- ✓ *Provides a constructability perspective to developing the construction sequencing plan utilizing tools such as smart work zone technology.*

Years of Experience
- 18

Years w/ Aztec
- 11

Registration
- Professional Engineer: AZ PE #63352
- PTOE #4840

Education
- BS, Civil Engineering, Arizona State University

Office Location
- Phoenix, AZ

Project Availability
- 60%

Project Commitment
- 55%

Corporate Title
- Senior Traffic Engineer

Ongoing Commitments
- ADOT: US93 Big Jim Wash (15%)
- ADOT: SR303L from 51st Avenue to I-17 (10%)
- ADOT: LED Conversion Projects (15%)

Why Andrew?

Andrew brings 18 years of experience in traffic engineering, specializing in traffic and transportation engineering at both the state and local levels. Andrew's design experience includes leading MOT/construction phasing design, traffic signal design, signing and striping design, traffic control, roadway lighting and ITS design. These projects have been completed statewide, in both Central District and rural areas. The delivery method of these projects have ranged from design-bid-build (DBB), design-build (DB), construction manager at risk (CMAR) and public-private partnership (P3). This experience in alternative delivery and partnering both with contractors and ADOT has provided invaluable insight for developing innovative maintenance of traffic and construction phasing solutions. Throughout his career he has successfully aligned with ADOT District Engineers, TSMO, and LPAs to develop clear construction phasing concepts that are win-wins for all stakeholders.

Relevant Experience

ADOT/LPA, Cesar Chavez Boulevard Improvements, San Luis, AZ [GRANT FUNDED]

- **MOT/Construction Phasing Lead**

Aztec is a major subconsultant to Jacobs for final design of this 5-mile project to reconstruct the main arterial through the City of San Luis. As MOT lead, Andrew is leading design for MOT plans that account for the construction of a new roundabout intersection, and 5 miles of a fully reconstructed arterial that runs the entire width of the City's urban area. Challenges overcome by Andrew's team include developing a construction phasing plan that mitigates impacts to the region's farming and agriculture industry which serves not only Arizona but the urban area across the Mexican border. Another constraint for the MOT design was maintaining operations of the post office that fronts the major road being reconstructed. These challenges were successfully overcome with a proactive approach of leading multiple construction phasing workshops with ADOT Southwest District staff Jonathen Fell and Isabell Garcia, and City of San Luis engineering department. These workshops included presenting different construction concepts with pros and cons, identifying impacts to necessary utility relocations, ROW acquisition, and the surrounding private businesses and schools.

ADOT, SR202L (Santan Freeway) from Val Vista to SR101L GPLs DCR and Final Design, Chandler and Gilbert, AZ

- **Traffic Engineer/Lead MOT Engineer**

Lead MOT Engineer for 8 miles of urban freeway, including long term lane closures on mainline freeway and arterials. Aztec is currently in the process of completing final versions of the DCR and accompanying traffic report for the evaluation of widening 15 miles of SR202L. Andrew is the lead traffic engineer involved in using existing, future ten year, and future 20-year traffic forecasts to determine future capacity needs for the freeway, interchange ramps, and interchange intersections. Tasks also included evaluating historical crash data for the corridor and correlating proposed improvements with possible impacts to future crash data. Additional traffic analysis items have included working with the Cities of Chandler, Gilbert, and Phoenix to evaluate how future freeway traffic operations will impacts surrounding arterial roadway networks that connect to SR202L.

ADOT, I-17/Central Avenue Bridge Replacement, Phoenix, AZ

- **Traffic Engineer/Lead MOT Engineer**

Andrew served as lead engineer for the MOT and signing and pavement marking design for the replacement of the I-17 bridge over Central Avenue. Design features included the design of a crossover for mainline I-17 to shift both directions of traffic onto one half of the bridge while the other half was rebuilt. Traffic was then shifted onto the new bridge while the other half was rebuilt. Extensive coordination with ADOT Central District and Phoenix was required to ensure impacts resulting from the required ramp and mainline closures were mitigated as much as possible. During construction the maintenance of traffic design also modified to account for inadequate pavement conditions on mainline I-17 shoulders which were originally intended to carry vehicles.

ADOT, US93 Big Jim Wash, Yavapai County, AZ

- **Lead MOT/Traffic Engineer**

Aztec is a major subconsultant for final design of this 4.5 mile project to construct a new two lane roadway on US 93. The new roadway will be used to carry NB traffic while the existing two lane roadway will be converted to carry SB only traffic. Andrew developed a construction phasing concept that maximizes the amount of new roadway that can be built offline, allowing existing traffic on US93 to continue uninterrupted. This has required close partnering with Northwest District to establish allowable restriction periods and a deep understanding of work activities that will require restrictions. SWZ elements were identified to address the unique traffic characteristics such as a high truck percentage and high speeds.

ADOT/CYMPO, SR69/SR169 Roundabout, Dewey, AZ

- **Lead MOT/Traffic Engineer**

Aztec led the final design for converting this intersection from an existing traffic signal to a roundabout. Andrew's role included leading design for signing and pavement marking, roadway lighting, and MOT/construction phasing. Due to the regional significance of the intersection, there are no feasible detour routes during construction. Because of this, Aztec has developed unique and detailed construction phasing plans that avoid intersection closure through collaboration with ADOT Northwest District and the CYMPO stakeholders.

Evan
Grace, PE

Drainage Lead

Evan's Value:
- ✓ *Applies experience designing on- and off-site stormwater drainage systems based on state, county, and/or local drainage design criteria to mitigate safety risks associated to flooding.*
- ✓ *Develops drainage plans with infrastructure located to accommodate future lanes/improvements/developments.*

Years of Experience
- 9

Years w/ Jacobs
- 1

Registration
- Professional Engineer: AZ PE #71783

Education
- MS, Water Resources Engineering, Arizona State University
- BS, Civil Engineering, University of Kansas

Office Location
- Tempe, AZ

Project Availability
- 60%

Project Commitment
- 55%

Corporate Title
- Transportation Drainage Engineer

Ongoing Commitments
- ADOT: SR101L at SR51 System Interchange Improvements (10%)
- Pinal County: East-West Corridor (10%)
- Miscellaneous Tasks (20%)

Why Evan?

Evan brings 9 years of experience as a drainage engineer in the State of Arizona, with a focus on pavement drainage and urban stormwater infrastructure design, as well as hydrologic and hydraulic analysis. His responsibilities include evaluating existing drainage conditions, designing stormwater solutions using a range of methods and software, and preparing construction documents, reports, and cost estimates for drainage systems. Evan also has experience preparing hydrologic and hydraulic models, as well as familiarity with regulatory stormwater management agencies at the federal, state, and local levels. Evan's software proficiencies include Bentley products (ORD drainage), GIS products (ArcMap & ArcGIS Pro), USACE products (HEC-1, HEC-HMS, HEC-RAS), and other hydrologic and hydraulic design tools.

Relevant Experience

ADOT, SR101L/I-10 Interchange Improvements DCR and Final Design, Phoenix, AZ

- **Drainage Engineer**

We partnered with ADOT; MAG; cities of Phoenix, Avondale, and Tolleson; and other adjacent stakeholders to improve regional connectivity through improvements at this critically important system interchange. Our team evaluated concepts and provided cost estimates for a DHOV Ramp from eastbound I-10 to southbound SR101L to and westbound I-10 to northbound SR101L. Scope also included the 91st Avenue Connector, which connects southbound SR101L traffic with 91st Avenue through this heavily congested area. The DCR process coupled with direct engagement with stakeholders and the public delivered the project within the time-sensitive schedule, while making sure all stakeholder needs were identified and met. After delivering the DCR, our team directly into the final design phase.

ADOT/LPA, Cesar Chavez Boulevard Improvements, San Luis, AZ [GRANT FUNDED]

- **Drainage Engineer**

We developed the PA, preliminary design plans, and are working on the final design to transform this 5-mile section to a four-lane divided roadway consistent with the City of San Luis' latest General Plan. The project has heavy pedestrian movements to schools and public resources. The design, inclusive of the roundabout, manages access to/from the street and pedestrian crossings and adds traffic signals at major cross streets to improve overall safety.

ADOT, I-10 Broadway Curve Widening and TI Reconfiguration, Phoenix, AZ

- **Drainage Engineer**

Evan led onsite drainage design efforts for 1 of 3 segments of the I-10 improvements in Central Phoenix, as well as 1-Dimensional HEC-RAS analysis of the Salt River at the I-10 Bridge crossing and post-design drainage services for 2 of 3 segments. This project required very close coordination with multiple contractors and timely responses to RFIs and design changes to mitigate impacts due to traffic closures.

ADOT, SR101L Pima Freeway Widening, Phoenix, AZ

- **Drainage Designer**

Evan led onsite drainage design efforts for approximately 5.5 miles of freeway widening in North Phoenix, including storm drain hydraulic models, creation of several drainage/structural details, and drainage report documentation. This project required coordination with other consulting firms across multiple disciplines, development of unique drainage retrofit solutions, and an analysis of asphalt overlay removal and its impacts on pavement drainage systems.

ADOT/MAG, Management Consultant for Regional Transportation Plan Freeway Program, MAG Region, AZ

- **Drainage Engineer**

To deliver value and identify realistic construction cost estimates for projects, we are bringing a new approach to providing accurate and reliable data so that ADOT can make informed decisions; understanding economic influences to develop reliable and accurate ROW cost estimates; applying a consistent method and market-based estimates that are predictable, reliable, and allow for better cost management and programming; developing reliable estimates for programming, providing a prioritized list for project delivery, and eliminating bias from the programming effort; and providing tools to prepare the project teams and managers to understand, monitor, and retire project and program risks.

MCDOT, Northern Parkway Widening, Peoria & Glendale, AZ

- **Drainage Engineer**

Evan led onsite and offsite drainage analysis and design for widening of Northern Avenue along the border of Peoria and Glendale. Responsibilities included analyzing offsite flow patterns, development of an offsite drainage system and hydraulic model, onsite design of a proposed pavement drainage system, and 1-dimensional hydraulic analysis of New River. Evan led the preparation of reports for both onsite & offsite drainage design, as well as the riverine hydraulic analysis, including review and coordination with City of Peoria Floodplain Management.

Sabra McNeish

Environmental Lead

Sabra's Value:

- ✓ *Has proven track record of managing tasks for environmental clearances for transportation improvement projects.*
- ✓ *Possesses demonstrated ability to lead and coordinate with technical resource specialists to support the NEPA process in various transportation projects.*
- ✓ *Extensively experienced in preparing NEPA documentation for diverse clients including federal, state, and local agencies.*

Years of Experience
- 7 Years

Years w/ Jacobs
- 6 Years

Registration
- Arizona Association of Environmental Professionals

Education
- JD, Wayne State University Law School
- BS, Environmental Science and Policy (with Honors), University of Maryland

Office Location
- Tempe, AZ

Project Availability
- 65%

Project Commitment
- 60%

Corporate Title
- Environmental Planner

Ongoing Commitments
- ADOT: North-South Corridor, Segment 2, Tier 2 EIS (10%)
- ADOT: Gila River Linear Park and Trail Project (5%)
- Pinal County: East-West Corridor (5%)
- Miscellaneous Tasks (15%)

Why Sabra?

Sabra conducts environmental studies and prepares NEPA documentation for numerous clients including federal, state, and local agencies such as the ADOT, MCDOT, and NDOT. Sabra is an experienced Environmental Lead with a strong background in developing environmental documents and ensuring compliance across various technical resources. Sabra has successfully delivered environmental clearances on behalf of ADOT for numerous transportation improvement projects.

Relevant Experience

ADOT, SR303L TI at 51st and 43rd Avenues, Phoenix, AZ

- **NEPA Planner**

Jacobs conducted activities in support of environmental clearance for this project to add two new TIs to accommodate growing demand and a large semiconductor development north of SR303L. The project includes reconfiguring drainage, constructing a frontage road in addition to the two TIs. The environmental team managed the biological, cultural, Section 404, air quality, noise, and hazardous materials technical teams; conducted NEPA scoping; coordinated closely with ADOT and the design team; and provided environmental support to ADOT to obtain an expedited environmental clearance. Through final design, our environmental team continued to coordinate with the design team and ADOT EP to identify any additional studies necessitate by modifications to design and to mobilize technical crews and prepare documentation to keep construction on schedule. Sabra's specific involvement included preparing and distributing scoping letters, the PJD and PCN for CWA Section 404 compliance, and coordinating with ASLD to receive their concurrence on the PJD.

ADOT, SR303L from Lake Pleasant Parkway to I-17 DCR Update and Environmental Document, Phoenix, AZ

- **NEPA Planner**

The purpose of this project was to prepare a DCR update and 30% design for a third GPL in each direction and implementation of the I-17/SR303L direct-connecting ramps. The DCR update includes establishing new traffic models and developing, evaluating, and costing conceptual alternatives. The recommended improvements were carried to a 30% design level, including the I-17/SR303L System Interchange, including system ramp design, preliminary bridge design, drainage concept design, signing and pavement marking, lighting and ITS. Significant coordination was required with ADOT, MAG, cities of Phoenix and Peoria, ASLD, TSMC and their development engineering teams, utility agencies, and many other stakeholders.

ADOT, SR303L GPL Widening from Happy Valley Road to Lake Pleasant Parkway, Peoria, AZ

- **NEPA Planner**

Sabra served as a NEPA planner for this widening project to add GPLs in both direction on SR303L between approximately milepost (MP) 124.25 (Happy Valley Road) and MP 133.0 (Lake Pleasant Parkway). In addition, a spot improvement at approximately MP 122.25 for a traffic control sign and pavement repairs to the inside lane in each direction between MP 135 to 137 are included. Sabra helped to develop the overall environmental investigations, which included a biological evaluation (short form), Section 106 consultation for geotechnical investigations, preliminary initial site assessment, agency scoping letters, and noise analysis technical memorandum.

ADOT, US 180 Five Mile Wash and Little Colorado River Bridges, Navajo County, AZ

- **NEPA Planner**

As Jacobs' project manager and the environmental task lead, Sabra coordinated with technical resource specialists to support the environmental clearance. Sabra also prepared and distributed scoping letters on behalf of ADOT, prepared the PJD and PCN under Regional General Permit 96 for CWA Section 404 permitting.

ADOT/City of Peoria, Stadium Trail Ph 2 from 75th Ave to Skunk Creek, Peoria, AZ

- **NEPA Planner**

Sabra was the environmental task lead and coordinated with technical resource specialists to support the environmental clearance. Sabra also prepared and distributed scoping letters on behalf of ADOT, prepared the PJD and PCN under Nationwide Permit (NWP) 14 for CWA Section 404 permitting, as well as the Section 408 permission application for proposed alterations to a U.S. Army Corps of Engineers Civil Works project.

ADOT, On-Call Environmental Planning Support Services, Statewide, AZ

- **Task Manager**

Under this on-call contract, Jacobs' environmental team assisted ADOT with preparing environmental clearances for roadway and bridge projects. Task orders have encompassed a variety of project types, such as pavement preservation, transportation enhancement, bridge scour retrofits, bridge deck repair and replacement, roadway widening, safety improvements, turn lanes, and medians. Sabra served as the task order manager for the High Line Canal, McClellan Wash, and Santa Cruz Wash Bridges, SR77 Calle Concordia – Tangerine Road, and I-19 Valencia Road projects.

SOQ Bidder's/Proposer's Solicitation List Confirmation Email (from BECO)

From: ADOT Business Engagement and Compliance Office
To: Crooks, Nick
Cc: ContractorCompliance@azdot.gov
Subject: [EXTERNAL] Bidders List for Jacobs Engineering Group Inc.
Date: Monday, January 27, 2025 3:05:17 PM

This Message Is From an External Sender
This message came from outside your organization.

Jacobs Engineering Group Inc., AZUTRACS Number: 10561 has submitted a Bidder/Proposer list for **2025-007** on 01/27/2025 at 1:04 PM MST (UTC - 07:00).

Bidders/Proposers for this firm include:

Firm Name	AZUTRACS #	Expiration Date	Email Address	Phone Number
AZTEC Engineering Group, Inc.	11419	01/27/2028	MChase@aztec.us	602-454-0402
Core Engineering Group, PLLC	10201	01/26/2026	dnicholls@core-e-g.com	928-344-5931
Ethos Engineering, LLC	10363	06/04/2027	pgarza@ethosengineers.com	480-326-8487

Amendment(s)

ARIZONA DEPARTMENT OF TRANSPORTATION

Date: February 7, 2025

TO: ALL INTERESTED PARTIES

SUBJECT: AMENDMENT NUMBER 01

REFERENCE: REQUEST FOR QUALIFICATIONS
CONTRACT NUMBER: 2025-007
CONTRACT DESCRIPTION: I-10 WEST QUARTZSITE TRAFFIC INTERCHANGE & FRONTAGE ROAD IMPROVEMENTS

The following revisions are made to the referenced Request for Qualifications (RFQ) package:

Question #1:
Section 425 of the scope states that "the consultant shall provide supporting information / materials for public information meetings in accordance with the DSWT." The responsibility chart in Appendix B has the consultant listed for advertising, presenting, moderating, technical questions, transcript and responding to public comments. Please provide direction as to the anticipated scope for the consultant in regards to the public outreach.

Answer #1:
The consultant will support ADOT and the Town by providing supporting information and presentation materials for public information meetings and answering the technical questions. Appendix B has marked both ADOT and Consultant for Advertising, presentation materials, moderating the meeting, and responding to the public comments. Answering technical questions and creating meeting transcripts will be done by the consultant as noted in the Appendix B.

Question #2:
Recent RFQ's for projects of similar size and scope have requested proposers to respond to the same Evaluation Criteria listed in Part C, however, have allowed for an additional 4 pages for a total of 10. This RFQ is stating that only 6 pages total are allowed. Could there be consideration for the allowance of additional pages to sufficiently respond to all evaluation criteria?

Answer #2:
The total number of pages remains 10.

Jessica McCall
Jessica McCall
Contract Specialist
Engineering Consultants Section

AN OFFEROR MUST ACKNOWLEDGE RECEIPT OF THIS AMENDMENT BY SIGNING BELOW AND INCLUDING ALL PAGES OF THIS AMENDMENT IN THE SOQ SUBMITTAL. FAILURE TO DO SO SHALL RESULT IN REJECTION OF THE PROPOSAL.

Troy Sieglitz, PE
Jacobs Engineering Group Inc.
CONSULTANT NAME

SIGNATURE

* This amendment is not included in the total page count in the Statement of Qualification submittal.

Amendment(s)

ARIZONA DEPARTMENT OF TRANSPORTATION
205 S. 17th Ave MD 616E
Phoenix, AZ 85007
KATIE HOBBS
GOVERNOR
JENNIFER TOTH
DIRECTOR

Date: February 11, 2025

TO: ALL INTERESTED PARTIES

SUBJECT: AMENDMENT NUMBER 02

REFERENCE: REQUEST FOR QUALIFICATIONS
CONTRACT NUMBER: 2025-007
CONTRACT DESCRIPTION: I-10 WEST QUARTZSITE TRAFFIC INTERCHANGE & FRONTAGE ROAD IMPROVEMENTS

The following revisions are made to the referenced Request for Qualifications (RFQ) package:

Question #1:
Please explain the basis behind requiring DBE reporting during the project and listing expected DBE participants in the proposal if the DBE goal is 0.00%.

Answer #1:
Just like any other existing projects there is no change on how ADOT operates and ADOT is working with federal partners for guidance.

Question #2
Will the use (or non-use) of DBE participants factor into the decision to award the Contract?

Answer #2:
Just like any other existing projects there is no change on how ADOT operates and ADOT is working with federal partners for guidance.

Question #3:
Please explain the rationale and legal basis for requiring DBE reporting during the project and listing expected DBE participants in the proposal in light of Executive Order 14151.

Answer #3:
Just like any other existing projects there is no change on how ADOT operates and ADOT is working with federal partners for guidance.

Question #4:
Does ADOT intend to remove Section 4.46 of its standard contract and/or modify any other contractual affirmative action requirements in response to Executive Order 11246?

Answer #4:
Just like any other existing projects there is no change on how ADOT operates and ADOT is working with federal partners for guidance.

Amendment(s)

ARIZONA DEPARTMENT OF TRANSPORTATION
205 S. 17th Ave MD 616E
Phoenix, AZ 85007
KATIE HOBBS
GOVERNOR
JENNIFER TOTH
DIRECTOR

Question #5:
Does ADOT intend to modify the terms contained in Appendix C of its standard contract In response to Executive Order 14151?

Answer #5:
Just like any other existing projects there is no change on how ADOT operates and ADOT is working with federal partners for guidance.

Jessica McCall

Jessica McCall
Contract Specialist
Engineering Consultants Section

AN OFFEROR MUST ACKNOWLEDGE RECEIPT OF THIS AMENDMENT BY SIGNING BELOW AND INCLUDING ALL PAGES OF THIS AMENDMENT IN THE SOQ SUBMITTAL. FAILURE TO DO SO SHALL RESULT IN REJECTION OF THE PROPOSAL.

Troy Sieglitz, PE
Jacobs Engineering Group Inc.
CONSULTANT NAME

SIGNATURE

* This amendment is not included in the total page count in the Statement of Qualification submittal.

Consultant Information Pages (CIP)

CONSULTANT INFORMATION PAGES (CIP)

CONTRACT NO.: **2025-007**

CONTACT PERSON: **Troy Sieglitz, PE**

E-MAIL ADDRESS: **troy.sieglitz@jacobs.com**

TITLE: **Principal & Authorized Signatory**

CONSULTANT FIRM: **Jacobs Engineering Group Inc.**

ADDRESS: **1501 West Fountainhead Parkway, Suite 401**

CITY, STATE, ZIP: **Tempe, AZ 85282**

TELEPHONE: **480.966.8188**

FAX NUMBER: **N/A**

UNIQUE ENTITY ID# (FROM SAM WEBSITE): **VBXLMKKVC5C5**

ADOT CERTIFIED DBE FIRM? (YES/NO) **NO**

SUBCONSULTANT(S):	TYPE OF WORK	ADOT CERTIFIED DBE FIRM (YES/NO)
AZTEC Engineering Group, Inc.	MOT, SUE, Env Support, Utilities	NO
Ethos Engineering, LLC	Geotechnical/Pavement	Yes
Core Engineering Group, PLLC	Survey	No

NOTE: This page is not evaluated by the Selection Panel but is used by Engineering Consultants Section for administrative purposes.

Revised 05/02/2024

Consultant Information Pages (CIP)

SUBCONSULTANT(S) TABLE:

SUBCONSULTANT FIRM NAME:	**AZTEC Engineering Group, Inc.**
CONTACT PERSON:	**Mark Chase**
E-MAIL ADDRESS:	**MChase@aztec.us**
TITLE:	**Authorized Signatory**
ADDRESS:	**501 North 44th Street, Suite 300**
CITY, STATE ZIP:	**Phoenix, AZ 85008**
TELEPHONE:	**602.454.0402**
FAX NUMBER:	**602.454.0403**
UNIQUE ENTITY ID #:	**F8UEAZAM19A3**

SUBCONSULTANT FIRM NAME:	**Ethos Engineering, LLC**
CONTACT PERSON:	**Pancho Garza**
E-MAIL ADDRESS:	**pgarza@ethosengineers.com**
TITLE:	**Authorized Signatory**
ADDRESS:	**9180 South Kyrene Rd, Suite 104**
CITY, STATE ZIP:	**Tempe, AZ 85284**
TELEPHONE:	**480.326.8487**
FAX NUMBER:	**N/A**
UNIQUE ENTITY ID #:	**N/A**

NOTE: Each Subconsultant listed in the SOQ must be included in the Subconsultant Table of the CIP. Add additional Subconsultant Table pages as necessary. The CIP is not evaluated by the Selection Panel but is used by Engineering Consultants Section for administrative purposes.

*Please confirm that each Subconsultant listed is in the eCMS database. If a Subconsultant's name is not in the eCMS database, contact ECS at E2@azdot.gov and allow two (2) business days to have the Subconsultant added to eCMS. Click Here check the eCMS database or go to ECS Website.

Revised 05/02/2024

Consultant Information Pages (CIP)

SUBCONSULTANT(S) TABLE:

SUBCONSULTANT FIRM NAME:	**Core Engineering Group, PLLC**
CONTACT PERSON:	**Douglas Nicholls**
E-MAIL ADDRESS:	**dnicholls@core-e-g.com**
TITLE:	**Authorized Signatory**
ADDRESS:	**200 East 16th Street, Suite 150**
CITY, STATE ZIP:	**Yuma, AZ 85364**
TELEPHONE:	**928.344.5931**
FAX NUMBER:	**928.344.5932**
UNIQUE ENTITY ID #:	**D6ETMQWV7L19**

SUBCONSULTANT FIRM NAME:	
CONTACT PERSON:	
E-MAIL ADDRESS:	
TITLE:	
ADDRESS:	
CITY, STATE ZIP:	
TELEPHONE:	
FAX NUMBER:	
UNIQUE ENTITY ID #:	

NOTE: Each Subconsultant listed in the SOQ must be included in the Subconsultant Table of the CIP. Add additional Subconsultant Table pages as necessary. The CIP is not evaluated by the Selection Panel but is used by Engineering Consultants Section for administrative purposes.

*Please confirm that each Subconsultant listed is in the eCMS database. If a Subconsultant's name is not in the eCMS database, contact ECS at E2@azdot.gov and allow two (2) business days to have the Subconsultant added to eCMS. Click Here check the eCMS database or go to ECS Website.

Revised 05/02/2024

Consultant Information Pages (CIP)

DBE GOAL ASSURANCE/DECLARATION

This Contract is Race Neutral (No DBE Goal-DBE use encouraged).

By signing below, and in order to submit an SOQ proposal and be considered to be awarded for this contract, in addition to all other pre-award requirement, the consultant/Proposer certifies that they will meet the established DBE goal or will make good faith efforts to meet the goal for the contract and that arrangements with certified DBEs have been made prior to SOQ and/or Cost Proposal submission. The proposer will meet the established DBE goal or will make good faith efforts to meet the goal on each Task Order assignment associated with the contract and that arrangements with certified DBEs have been made prior to SOQ and/or Task Order proposal submission.

Signature

02/14/2025
Date

Troy Sieglitz, PE
Printed Name

Principal & Authorized Signatory
Title

SOQ SUBMITTAL CHECKLIST

Place a check mark on the left side of the table indicating compliance with the following items. Only include the Supplemental Services Disclosure Form listed below if the form is requested in the Request for Qualifications:

X	SOQ is within the page limit indicated in the RFQ
X	SOQ is combined into one PDF Document no larger than 15 MB
X	All Amendments are Included and Signed
X	Introduction Letter (Including all required elements/statements)
X	SOQ Proposal Formatted According to Requirements Listed in RFQ Section IV, #11.
X	Correct SOQ Certification List (15 pt **OR** 9 pt) Signed and Dated by a Principal or Officer of the Firm
X	Completed Consultant Information Pages (CIP)(Including listing DBE firms, if applicable)
X	DBE Goal Assurance/Goal Declaration completed (located at the top of this page)
X	All Subconsultants & Proposed Work Type listed on CIP (Including indicating DBE firms)
X	Any Additional Required Documents (Specific to RFQ such as Resumes for all Key Personnel named)
X	Commenting or User Rights Feature Enabled in SOQ PDF Document
X	Supplemental Services Disclosure Form (Required for Supplemental Services Type Contracts ONLY)

NOTE: This page is not evaluated by the Selection Panel but is used by Engineering Consultants Section for administrative purposes.

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