
*March 20, 2024*

**Arizona Department of Transportation**
Engineering Consultants Section
205 South 17th Avenue, Mail Drop 616E
Phoenix, Arizona 85007

**Kimley-Horn**
7740 N. 16th Street, Ste. 300
Phoenix, AZ 85020

Kimley»Horn
Expect More. Experience Better.

**Dear Members of the Selection Committee:**

Kimley-Horn is excited for the opportunity to submit our qualifications for this Scott Ranch Road project that will create a direct east-west access across Show Low Creek. **A project like this requires an experienced team with recent experience performing the needed services and Kimley-Horn brings that team! We have studied this project in depth and are eager to present our approach and solutions to successfully complete the new bridge and the roadway alignment—we are highly interested in being selected for this project.** Our proposed team is comprehensive and brings years of similar experience working together on roadway and bridge projects for ADOT, city, and county agencies throughout Arizona. The Kimley-Horn team brings specific project knowledge and combines it with a Project Manager, **Siva Sivakumar, P.E.,** who knows ADOT and what it takes to get the job done. Siva brings 29 years of roadway design and 18 years working with ADOT as Project Manager, giving him relevant technical experience and an insider's understanding of your needs.

Kimley-Horn is passionate about collaborating with ADOT and the City of Show Low, and we offer an innovative, experienced, and available team that will bring the following benefits to this project:

**In-Depth Understanding of Project Issues.** Having completed 10+ projects with similar features/constraints, such as bridge over creek, floodplain, and forest coordination, the Kimley-Horn team brings a wealth of experience, knowledge, and lessons learned, such as construction access/staging, etc. to your project. Through this experience, extensive research, and discussions with stakeholders, our team has taken the initiative to analyze, identify, and provide innovative solutions to project issues. Our comprehensive approach will streamline the delivery of this project, ensuring that Kimley-Horn delivers on time and within budget. Our solutions and approach will:

- Confirm/optimize Scott Ranch Road horizontal and vertical alignments
- Evaluate Show Low Creek bridge hydraulics and minimize floodplain impacts
- Optimize bridge design providing context-sensitive construction access and staging areas
- Evaluate and implement Performance-Based Practical Design (PBPD) Solutions
- Provide seamless stakeholder coordination and public involvement support, including 3D visualization

**A Familiar and Committed Team.** We offer you a consistent, cohesive, and familiar team that has worked together on numerous projects for ADOT—bringing seamless integration and a proven track record of successfully delivering top-quality solutions. The team Siva has assembled for this project include familiar and trusted professionals, including **Sam Grombacher, P.E.** (Roadway), **David Leistiko, P.E.** (Structures), **Zach Schmidt, P.E. CFM** (Drainage/Hydraulics), **Daniel Frechette, P.E.** (Geotechnical), **Brent Crowther, P.E., PTOE, RSP$_1$** (Traffic Studies), and **Jennifer Simpkins, REP** (Environmental). Many of these team members have worked together on several similar bridge projects in Arizona, including Gila County, Tonto Creek Bridge; Pima County, Sunset Road; Gila County, Oak Creek Bridge; and Graham County, 8th Avenue Bridge, bringing a comprehensive technical understanding and commitment to provide innovative and cost-saving solutions.

**Local Knowledge and Stakeholder Relationships.** Through our past experience working with ADOT and other agencies, we have gained extensive experience coordinating efforts with this project's stakeholders, including City of Show Low, Federal Highway Administration (FHWA), Northern Arizona Council of Governments (NACOG), Apache-Sitgreaves National Forests (ASNF), and Navajo County. **For this specific corridor, members of our team worked with the City of Show Low to prepare the Benefit-Cost Analysis (BCA) and supported the City with their RAISE Grant application,** as well as the Navajo County, Regional Multimodal Transportation Planning Study; Southern Navajo and Apache Counties Regional Transportation Plan; and City of Show Low Short-Range Transit Plan providing local knowledge and an open line of communication with the City and the community. **We are ready to update the BCA and assist the City of Show Low with submitting a grant application for construction funding like we did for the Tonto Creek Bridge project.** Our strong relationships with the project stakeholders, knowledge of the project, and previous experience will bring efficient coordination, keeping the project on schedule and minimizing costs.

**Kimley-Horn confirms the commitment of key personnel identified in the submittal to the extent necessary to meet ADOT's quality and schedule expectations**. We know that we are the right team to successfully deliver this project and look forward to continuing our collaborative partnership with ADOT. Our key point of contact, Project Manager Siva Sivakumar, P.E., can be reached at 602.371.4570 or siva.sivakumar@kimley-horn.com. Kimley-Horn is not a Disadvantaged Business Enterprise (DBE) but, although the contract does not include a DBE goal, our expert team includes DBE team members.

Sincerely,
**KIMLEY-HORN**

**Siva Sivakumar, P.E. (AZ #45933)**
*Project Manager*

**Raj Christian, P.E. (AZ #31673)**
*Project Principal/Authorized Signer*

**The following icons are used throughout our SOQ:**

**Special Issues** **Lessons Learned**

## Engineering Consultants Section
## SOQ Proposal Certifications Form

Contract #: 2024-013 Consultant Name: Kimley-Horn and Associates, Inc.

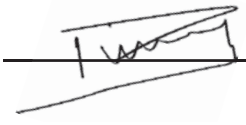
**Please read the fifteen (15) statements below. The statements are to ensure Consultants are aware and in agreement with Federal, State and ECS guidelines related to the award of this contract. Consultants shall submit the specific Certification form attached to each RFQ advertised, as revisions to 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: Raj Christian, P.E. Title: Senior Vice President/Authorized Signer

Signature:  Date: 3/20/2024

**ARIZONA DEPARTMENT OF TRANSPORTATION**
**ENGINEERING CONSULTANTS SECTION**
**PARTICIPATION IN BOYCOTT OF ISRAEL - CONSULTANT CERTIFICATION FORM**
**ADOT ECS Contract No.:** 2024-013

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.

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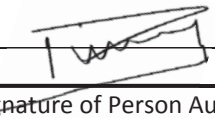
|---|---|
| Kimley-Horn and Associates, Inc. |  |
| Company Name | Signature of Person Authorized to Sign |
| 7740 N. 16th Street, Ste. 300 | Raj Christian, P.E. |
| Address | Printed Name |
| Phoenix AZ 85020 | Senior Vice President/Authorized Signer 3/20/2024 |
| City State Zip | Title Date |

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:<br>• Forced labor of ethnic Uyghurs in the People's Republic of China;<br>• Any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or<br>• 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.**<br>Indicate which of the following statements applies to this Consultant (may be more than one):<br>☐ Consultant is a sole proprietorship;<br>☐ Consultant has fewer than ten (10) employees; and/or<br>☐ Consultant is a non-profit organization. |

Kimley-Horn and Associates, Inc.
Company Name

7740 N. 16th Street, Suite 300
Address

Phoenix, AZ 85020
City State Zip

Signature of Person Authorized to Sign

Raj Christian, P.E.
Printed Name

Senior Vice President/Authorized Signer
Title

# Evaluation Criteria

## 1. PROJECT UNDERSTANDING AND APPROACH

### Project Overview

The Scott Ranch Road project is located in the heart of Show Low's commercial hub that includes the Regional Medical Center that serves all of southern Navajo and Apache Counties, as well as the White Mountain Apache Tribe. This project was included as part of the Design Concept Report (DCR) that was completed in 2009 by the City of Show Low (City). In 2012, the City constructed the first phase of this project from SR 260 to Show Low Lake Road. This project is to complete the second phase, approximately 0.8 miles, which will design a new road linking Scott Ranch Road on the west end to Penrod Road, and a bridge over Show Low Creek from Show Low Lake Road on the west end to Penrod Road in the eastern terminus. The eastern intersection with Penrod Road will be moved approximately 650 feet north along Penrod Road from the preferred location shown in the DCR.

**The purpose of the project is to create a direct east-west access across Show Low Creek for emergency personnel, as well as provide a critical evacuation route for citizens during wildfires. This will greatly reduce the emergency response times east of Show Low Creek and improve safety and efficiency on SR 260, which is characterized by high-congestion-related accidents. The proposed project will address a variety of access and transportation challenges for Show Low and southern Navajo and Apache County communities.**

The final design for this project is funded through an AZ State Match Advantage for Rural Transportation (SMART) Grant and will be administered by ADOT. The City plans to apply for a Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant for the construction phase of this project. Post construction, Scott Ranch Road will be owned and maintained by the City.

### Major Tasks

Major tasks for this project include:

- Perform aerial mapping and topographic survey and utility locating
- Design and prepare construction bid documents (plans, specifications, and estimate [PS&E])
- Prepare technical reports, including drainage, bridge hydraulics, traffic, and earthwork
- Perform geotechnical testing and pavement design and prepare a geotechnical and materials design report (MDR)
- Obtain environmental, right-of-way (ROW), and utility clearances
- Provide support for public information meetings
- Provide post-design services during construction by contract modification
- Conduct project management and stakeholder coordination with the ADOT Project Management Group (PMG), FHWA, ADOT technical sections, ADOT Northeast District (District), the City, NACOG, Navajo County (County), ASNF, and local utilities

### Special Issues/Problems

To fully understand this project's issues, constraints, and opportunities, the Kimley-Horn team reviewed available studies and as-builts; conducted field reconnaissance; and discussed the project with the ADOT team and key stakeholders including ADOT PMG, District, City (communication through ADOT Project Manager, Michelle Medina), ASNF, County, and the utilities. **In 2020, Kimley-Horn worked with the City and prepared the BCA for this project to support the City with their RAISE Grant application**, which provided valuable information. We have identified the following primary issues, constraints, and opportunities as shown on our Issues and Features Map (Figure 2):

- Confirm/optimize Scott Ranch Road horizontal and vertical alignments
- Evaluate Show Low Creek bridge hydraulics and minimize floodplain impacts
- Optimize bridge design providing context-sensitive construction access and staging areas
- Evaluate and implement Performance-Based Practical Design (PBPD) Solutions
- Provide seamless stakeholder coordination and public involvement support, including 3D visualization

### Approach to Major Tasks and Issues: Technical and Institutional Elements

Our comprehensive team is highly experienced in preparing final design solutions and PS&E documents for projects similar to this Scott Ranch Road project. Our approach to the corridor's unique and significant design challenges are described in this section.

#### *Confirm/Optimize Scott Ranch Road Horizontal and Vertical Alignments*

Scott Ranch Road will be extended eastward from the existing intersection at Show Low Lake Road to Penrod Road. While the horizontal alignment from Show Low Lake Road to the bridge is generally per the DCR, the remaining portion east of the bridge will be realigned to tie into Penrod Road roughly 650' north of the DCR alignment. Early in the final design process our team will survey the area and assess the existing contours to optimize this eastern stretch of Scott Ranch Road.

**We will prepare a rollplot exhibit to review and lock in the alignment with the stakeholders. We propose to do an over-the-shoulder (OTS) review for this rollplot, which will enable finalizing the alignment expeditiously.** We have identified this critical path in our schedule (Figure 9 on page 10).

**This realigned segment of Scott Ranch Road has the most flexibility for adjustment of the vertical alignment (see Figure 1). We will use this to our advantage to balance earthwork and reduce or eliminate walls, reducing project costs.**

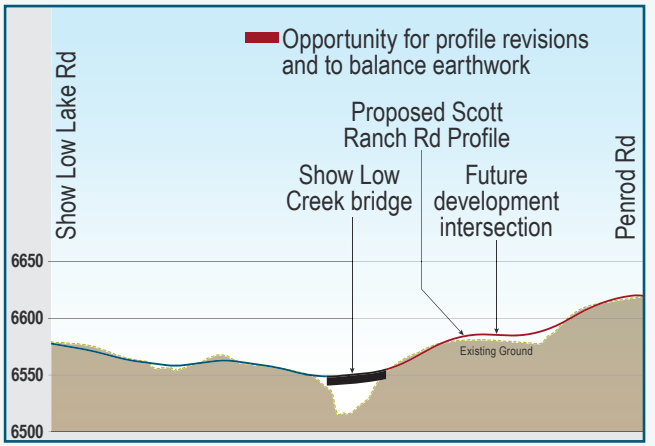
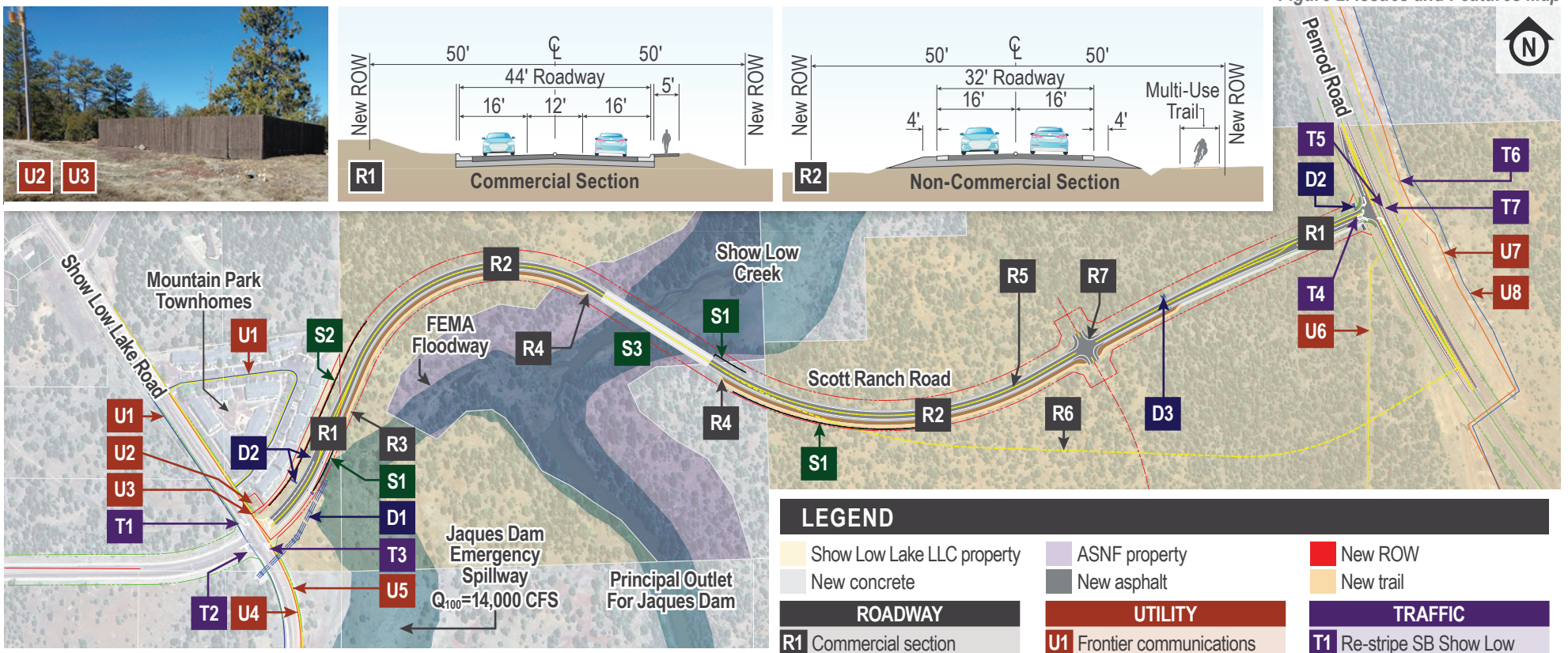



*Figure 1. Proposed Scott Ranch Road Profile*

*Figure 2. Issues and Features Map*




The bridge over Show Low Creek is well above the high-water mark, so there is room to lower the bridge to reduce substructure costs, abutment walls sizes, and potentially shorten the bridge length. However, our analysis has shown that lowering the road will trigger deeper, wider cuts beyond the limits of the bridge, which start to creep closer to the ROW. Once we have precise survey and geotechnical data, we will work with the City to find a balance that both reduces the structural costs while keeping the improvements within the allotted ROW.

› **Retaining/Sound Walls.** At the bridge and in various locations along the corridor, the DCR identified multiple retaining walls needed for both cut and fill scenarios. Depending on the geotechnical properties of the existing ground and the flexibility with ROW, there may be opportunities to extend or steepen the cut and/or fill slopes in place of costly walls. Another consideration for optimizing walls is the offset from the roadway. For example, the sound wall shown in the DCR design west of the bridge is offset 14' from the roadway and, based on the vertical alignment, it also partially retaining earth. **As shown in Figure 3, our approach will optimize and shift this wall closer to the ROW to go beyond the roadway cut or fill slope allowing for a non-retaining sound wall to be installed, reducing project cost.**

## LEGEND

- Show Low Lake LLC property
- New concrete
- ASNF property
- New asphalt
- New ROW
- New trail

### ROADWAY

- R1 Commercial section
- R2 Non-commercial section
- R3 Provide continuous sidewalk/multiuse trail on the south side
- R4 Ensure ADA compliance for transition into the bridge
- R5 New preferred alignment
- R6 DCR recommended alt.
- R7 Construct intersection to accommodate future development accesses

### UTILITY

- U1 Frontier communications
- U2 City of Show Low lift station
- U3 Protect existing power pole
- U4 Overhead power
- U5 2" PE natural gas
- U6 High pressure gas main line
- U7 High voltage overhead power
- U8 Frontier communications (overhead)

### TRAFFIC

- T1 Re-stripe SB Show Low Lake Road and provide left turn lane
- T2 Re-stripe EB Scott Ranch Road to provide through movement
- T3 Restripe to allow for right turn
- T4 Provide exclusive left turn lane
- T5 Widen Penrod Road and provide exclusive right and left turn lanes
- T6 Evaluate signal requirement or stop sign controlled
- T7 Maintain Penrod Road traffic during construction with flaggers/temporary signal

### STRUCTURE

- S1 Retaining wall
- S2 Sound wall
- S3 Proposed bridge over Show Low Creek

### DRAINAGE

- D1 Existing pipe culverts
- D2 New pipe culvert
- D3 New 2-cell box culvert

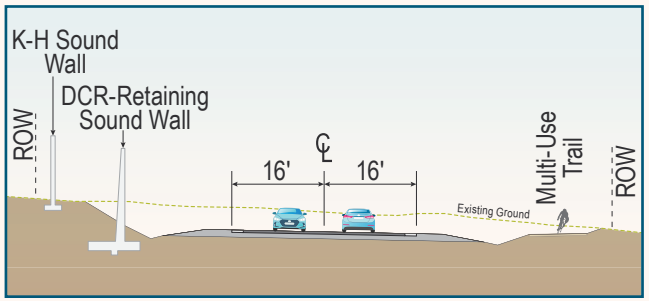



*Figure 3. Optimized Sound Wall Location*

### Evaluate Show Low Creek Bridge Hydraulics and Minimize Floodplain Impacts

The new roadway will cross Show Low Creek, which is a perennial wash fed mainly by the principal outlet of Jaques Dam at Show Low Lake. The emergency spillway for the dam also discharges into Show Low Creek. Show Low Creek is a Federal Emergency Management Agency (FEMA) Zone AE floodplain and floodway. According to the Flood Insurance Study (FIS) for Navajo County, Show Low Creek conveys approximately 14,000 cubic feet per second (cfs) during the 100-year storm event. A United States Geological Survey (USGS) stream gage at the principal outlet recorded a maximum discharge of 4,000 cfs in 50 years. While there are other smaller local drainage areas contributing to Show Low Creek, the main method for significant discharge in Show Low Creek is from the emergency spillway.

The new Scott Ranch Road is a Class 3 roadway, which requires a dry crossing during the 25-year storm event. We do not anticipate significant discharge from the emergency spillway during the 25-year storm event. Because the spillway is the main source of runoff in Show Low Creek, the profile of the bridge will be governed by the terrain and not freeboard requirements associated with the bridge hydraulics. New pier construction will impact the FEMA floodway and may require a Conditional Letter of Map Revision (CLOMR). **Our approach is to evaluate providing an additional conveyance area through the bridge to offset the increase caused by new piers located in the floodway and remove the need for a CLOMR. Our team will develop the bridge hydraulics report to document scour conditions and floodplain impacts similar to how we have completed them previously on projects like SR 80 over San Pedro River, Tonto Creek, and Chandler Boulevard among others.** We will coordinate this with the City Floodplain Manager.

### Optimize Bridge Design Providing Context-Sensitive Construction Access and Staging Areas

The DCR bridge layout falls north of the tall vertical rock formation along the west bank allowing the bridge to be set lower down the banks and reduce the tall pier columns. However, the proposed retaining walls along the east side of the bridge landing are fairly large and encroach into the FEMA floodplain. We will investigate the impacts to the floodplain along with the costs of wall and fill vs. additional bridge length to determine the optimal bridge length for the project. Along the west bank, we will investigate the optimal placement of the bridge abutment to avoid any rock bolting and scour issues with the 100-year event (See Figure 4).

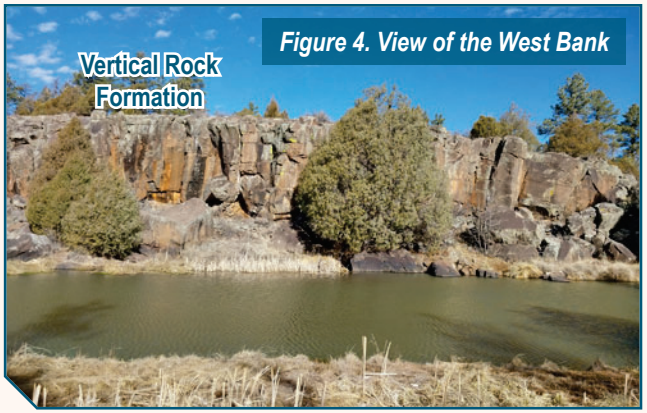



*Figure 4. View of the West Bank*

We will also work with the City to develop the proper bridge width. The DCR bridge does not include enough shoulder for the 10-foot multi-use trail (MUT) across the bridge. By holding the roadway shoulders on the bridge to 4' and adding just two additional feet to the width, the 10' MUT can continue across the bridge. If the MUT is reduced to just 8', the bridge width can remain the same as the DCR concept while still accommodating the MUT.

› **Superstructure and Substructure.** We will also investigate using hammerhead pier caps on single round pier columns for each pier on the bridge (See Figure 5). The single pier column with hammerhead caps allows the bridge to cross Show Low Lake at any angle without having to skew the bridge to accommodate the flow path of the creek, which will reduce scour impacts of having multiple pier columns. **Our team has successfully used this pier style on multiple similar bridges including on the I-40 Willow Creek bridge to eliminate a large skew on the bridge.**

Basalt is present close to the surface along the banks of Show Low Creek that is expected to provide good support for spread footings at the piers. We propose utilizing two or three geotechnical borings at each pier location, rather than the typical single boring, to develop a good understanding of the rock layer to properly set the bridge foundations. **We learned that the bedrock layer was very unpredictable on our work on the I-40 Willow Creek bridge project. Additional borings during the investigation phase will eliminate this concern on this project and help improve construction activities with the pier footings.**

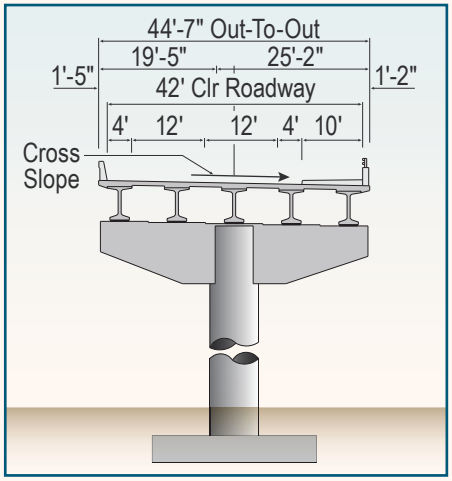



*Figure 5. Hammerhead Pier Cap and Column*

› **Construction Access/Staging.** Access for bridge construction and areas for staging are major construction issues on this project. The creek is a FEMA floodplain and within forest land. Preliminary roadway grading on either side of the bridge can be accomplished to get equipment and materials to the ends of the bridge; however, an access road will need to be constructed down into the creek for pier construction and girder placement. The access requirements will be investigated to determine how much area needs to be cleared, as well as to find the best access route.

*Figure 6. Potential Staging Area*

Temporary pipe culverts or a small temporary bridge will be needed for equipment to access the pier construction. We will identify potential staging areas during design. Our preliminary site visit indicated sufficient areas are available on top of the banks that will be suitable for construction staging (See Figure 6 on page 7).

**Our approach to this issue will be to walk the project with stakeholders, identify staging areas, clearly incorporate it in the bid documents, get it environmentally cleared, and provide any mitigation measures that will have to be implemented to use the areas. We have done this on numerous projects involving forest and other stakeholders.**

### *Evaluate and Implement Performance-Based Practical Design (PBPD) Solutions*

**› Superelevation and Transition at the Show Low Creek Bridge.** We will evaluate project elements that could benefit from PBPD solutions during final design. For one possible PBPD, we have identified the roadway cross slope as an item for consideration. Per the DCR, the superelevation (the required cross slope in a horizontal curve based on curve radius and design speed) for horizontal curves on Scott Ranch Road are determined using American Association of State Highway and Transportation Officials (AASHTO) Method 5. This is common practice for high-speed facilities, especially on highways, but another approach, AASHTO Method 2, can be implemented on lower speed facilities (<45 mph design speed). This calculation takes into account the friction between the car tire and road, resulting in a superelevation that is generally less severe than what Method 5 prescribes.

Using Method 2, there is an opportunity to hold a normal crown section through the curve east of the bridge, while still meeting the 40 mph design speed identified in the DCR. Considering a 40 mph design speed for the horizontal curve west of the bridge, the superelevation will be roughly 4% regardless of whether Method 2 or 5 is used. However, if Method 2 is used coupled with reducing the design speed by five mph, this curve can be constructed with a normal crown section.

**Benefits realized by implementing this:**

- **By reducing the superelevation, it is less comfortable for drivers to exceed the speed limit**
- **Encourage lower speeds approaching or departing from the nearby intersection**
- **Simplifies roadway construction and will ensure pavement transitions are kept off the bridge**


*Figure 7. Show Low Creek Bridge Rendering*

**› Pedestrian Fence on the Show Low Creek Bridge.** The DCR states that the bridge "must" provide pedestrian fence on the south side of the bridge with sidewalk, but not on the opposite side per the City's request. The pedestrian fence is typically only utilized on freeway overpasses to prevent pedestrians from throwing items into freeway traffic below. The fencing is not required on rural bridges and especially bridges over waterways. **We propose eliminating this pedestrian fence as a PBPD solution and using ADOT's standard combination traffic/pedestrian rail with vertical concrete barrier and two-tube rail on top, which will be easy to maintain and also aesthetically pleasing.**

### *Provide Seamless Stakeholder Coordination and Public Involvement Support, including 3D Visualization*

Considering the many project stakeholders, listed on page 5, stakeholder coordination is paramount to the success of this project, and achieving stakeholder consensus is critical in determining the optimal solution. To ensure stakeholders' input is properly addressed in a timely manner, we will:

- Work closely with the City and ADOT to develop an effective strategy to obtain stakeholder input and consensus
- Meet early with affected agencies/stakeholders and present them with viable alternatives, including the revised horizontal and vertical alignments to obtain their feedback and ultimately reach consensus
- Involve the stakeholders from day one, understand their issues and concerns, and obtain their consensus before selecting and developing the design
- Support outreach activities and coordinate with the City
- Provide quality materials, graphics, maps, and supporting documentation to clearly communicate project information to the public including 360-degree views and bird's eye fly-through visualization (sample 3D renderings of Show Low Creek bridge are shown on the cover page and Figure 7 above).

## Approach to Other Major Tasks and Clearances

**› Offsite Drainage: Jaques Dam Spillway Discharge.** The Jaques Dam emergency spillway is located approximately 1,400 feet southeast of the intersection of Show Low Lake Road and Scott Ranch Road and according to the FIS for Navajo County, releases approximately 14,000 cfs during the 100-year storm event. Our team developed a preliminary HEC-RAS two-dimensional model to evaluate the effects of the spillway discharge on the future roadway alignment. Due to the high slopes and significant change in direction, the results show that the spillway is approaching extreme velocities of 30 feet per second (fps) near the location of the new road. **The new roadway is vulnerable to scour and extra protection should be implemented along the roadway (See Figure 8).** We will explore roadway protection alternatives for this location, such as concrete walls or concrete or soil cement bank protection to preserve the integrity of the roadway. This approach will be critical to protecting the new roadway from future damages from spillway discharges.

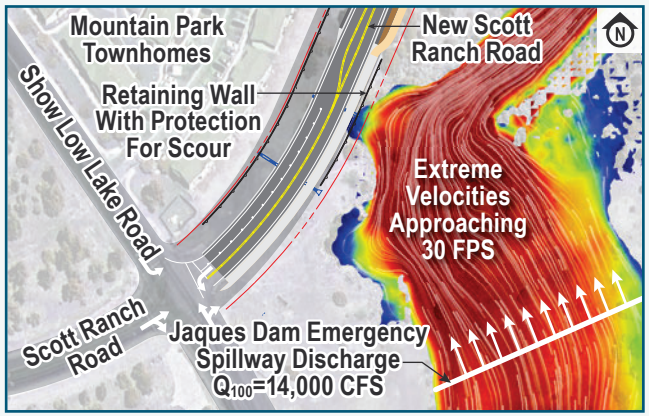



*Figure 8. Spillway Discharge*

**› Roadway.** The sidewalks and MUT along the EB side of Scott Ranch Road will be designed to be Americans with Disabilities Act (ADA) compliant. We will also verify and, if necessary, replace the existing ADA ramps at the Scott Ranch Road and Show Low Lake Road to ensure they are ADA compliant.

**› Environmental Clearance.** An Individual Categorical Exclusion (ICE) is the anticipated National Environmental Policy Act (NEPA) document and early geotech clearance will be required for bridge design. Potential staging areas will be included in the environmental clearance limits.

***Section 404:*** A Preliminary Jurisdictional Delineation (PJD), including Wetland Delineation Report is anticipated for Show Low Creek. Early geotech work could be permitted under Regional General Permit (RGP) No. 96 with Preconstruction Notification (PCN). The overall construction may not be permittable under RGP 96 since large native trees could be impacted (RGP Condition 16) by the bridge alignment. If RGP 96 is not available, we will strive to minimize impacts in order to qualify for Nationwide Permit (NWP) No. 14 with PCN. We do not anticipate an Individual Permit, but this will be evaluated during final design.

***Biological Resources:*** The Mexican wolf and monarch butterfly were documented within two miles of the project limits. Early geotech work can be cleared with a Biological Evaluation Short Form (BESF). Since a Biological Evaluation (BE) was completed (TRACS No. SS673), we anticipate that a BE Re-evaluation Memorandum will be sufficient for the project. We do not anticipate significant biological resources issues on this project.

***Cultural Resources:*** The area of potential effects (APE) has changed since the DCR; therefore, additional survey for cultural resources may be warranted and subsequent work may be required. The majority of the APE has been surveyed. We anticipate consultation for early geotech work and overall project construction.

***Noise:*** There are sensitive receptors within 900 feet of the project limits and this is a Type I project that will add capacity. A noise re-evaluation study is warranted since the previous evaluation resulted in a noise barrier to be constructed; however, the analysis was done in 2005 and should be revisited under current noise abatement requirements and public involvement process.

***Hazardous Materials:*** A Preliminary Initial Site Assessment (PISA) and testing for asbestos and lead are anticipated for hazardous materials reviews.

Other tasks will include public/agency scoping, including ASNF, Section 4(f) review, socioeconomics/environmental justice analysis, and visual/scenic integrity analysis in accordance with ASNF Land Management Plan.

**› ROW Clearance.** A review of the Navajo County Assessor's site shows that the existing ROW for this corridor is owned by Show Low Lake, LLC (privately-owned), ASNF, and the City. The proposed ROW width for this project is 100' and we anticipate a total of 7.99 acres on private land and 1.28 acres (easement) on ASNF lands. ASNF has already agreed to dedicate the required ROW as easement to the City. We will identify the ROW requirements at Stage III and provide the necessary information to the City to acquire ROW from Show Low Lake, LLC. ROW acquisition will be conducted by the City outside of this contract per federal requirements. We have identified sufficient time in our schedule (Figure 9 on page 10) for the City to coordinate and properly acquire any ROW needed. We will acquire the ROW clearance at or shortly after Stage IV.

**› Utility Clearance.** Our initial Blue Stake (AZ 811) research has identified six utility companies and agencies with facilities within the project limits: Arizona Water, Cable One (CATV), City of Show Low (Sewer and Water), Frontier Communications, Navopache Electric Co-op (low and high voltage), and Unisource Energy Services (Gas). The utility map from Unisource Energy showed a 2" Polyethylene (PE) high-pressure natural gas main line running parallel along Penrod Road, which had a conflict with the preferred DCR alignment. With the Scott Ranch Road alignment moved about 650' to the north, this conflict has been eliminated. We will confirm this during final design.

We have shown all of the utilities on Figure 2, and we do not anticipate any conflicts with existing utilities. Due to the potential near-term development in the project area, we will coordinate with all the utilities for future services and design the bridge to accommodate future utilities. We will proactively work with utility owners and obtain utility clearance shortly after Stage IV.

**Additional tasks and approach are included in the table below.**

| Additional Tasks | Approach |
|---|---|
| **Geotechnical and Pavement Elements** | Provide recommendation to treat silty clayey soils overlying bedrocks • Assess and determine acceptable cut slopes for the bedrocks • Supplement rock coring with refraction seismic lines to analyze bedrocks • Prepare draft and final Pavement Design Summary and MDR utilizing current ADOT Standards |
| **Traffic Studies** | Update and confirm the traffic volumes and accurately project for 2045 • Review traffic projections and forecast for Penrod Road • Evaluate and recommend intersection design and control alternatives on Scott Ranch Road at Show Low Lake Road, Penrod Road, and future development access on the east side of Show Low Creek, including side-street stop control, all-way stop, and traffic signals. |
| **Traffic Design/ Traffic Control** | Revise pavement markings at the Show Low Lake Road and Scott Ranch Road intersection for the north, south, and eastbound legs • Provide/upgrade proper signage • Design traffic control at Penrod Road intersection widening using temporary traffic signals or flagging operations |
| **Onsite Drainage** | Utilize ribbon curb for roadway runoff • Design riprap lined ditches to convey the roadway runoff on steep grades |
| **Cost Estimates** | Review current cost estimates and capture missing quantities/items/costs • Work with ADOT Contracts & Specifications (C&S) for historical cost data and updated unit prices • Calculate inflation trend factor to determine bid year cost • Prepare parametric estimates to conduct a comparison • Evaluate contingencies and ensure they are realistic |
| **Funding and Support** | Review traffic volumes from the 2020 BCA and update the traffic volumes and the BCA • Keep the cost estimates updated with the current unit prices and provide information to the City so they can proceed with the application process |
| **Landscape/Aesthetics/ Erosion Control** | Coordinate with ASNF and Lakeside District Ranger further during final design, in case they want to include any aesthetics • Coordinate with the City and ASNF on applicable temporary erosion control measures and restoration with an appropriate native seed mix |


## 2. PROJECT RISKS AND SCHEDULE

### Schedule

Figure 9 on the right demonstrates our design schedule with major tasks, critical-path items, milestones, and the functional relationships between tasks and key events.

### › Schedule Slippage

To reduce schedule slippage, Siva will take ownership of the schedule and hold weekly internal meetings with discipline leads, including subconsultants, to ensure project goals and interim milestones are met. He also will set deadlines that allow for contingencies, identify risks, and develop a communication plan.

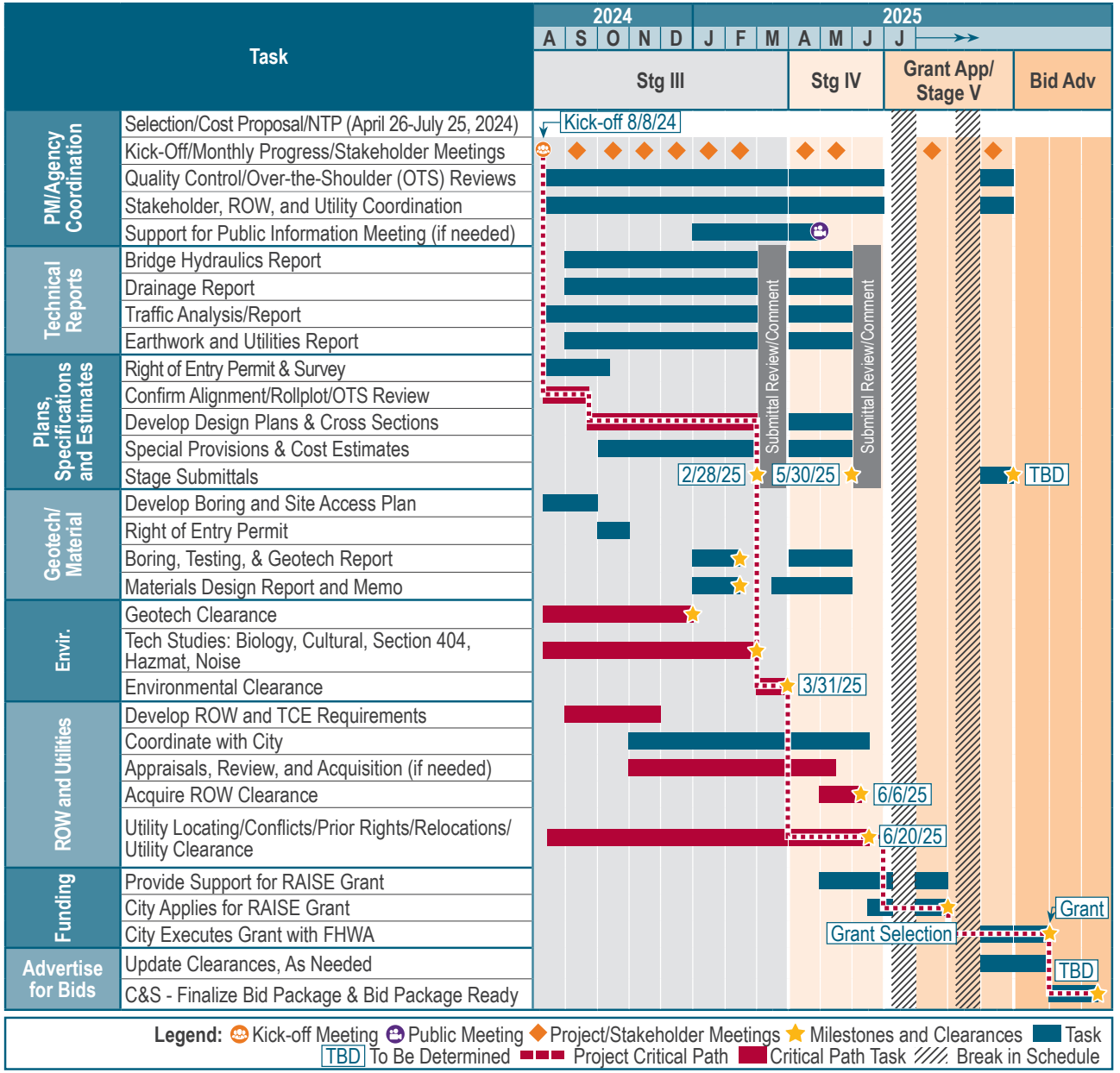
#### *Strategies to Avoid Schedule Slippage*

- Develop a comprehensive scope and resolve outstanding items at the project start
- Coordinate with stakeholders continuously for timely issue resolution
- Identify critical-path items to develop a realistic schedule and mitigate/avoid risks
- Consult with utility companies early to ensure their needs are met and the schedule reflects a realistic timeline to accommodate them
- Use one-month and three-month lookaheads to keep focus and resolve issues
- Develop and maintain an action items list and discuss at each team meeting
- Maintain a risk management plan, tracking log, and resolution process to mitigate issues
- Hold agency OTS reviews to keep the schedule production-driven
- Use our proven Quality Assurance/Quality Control (QA/QC) processes to do it right the first time

#### *Strategies to Make Up Schedule Slippage*

- Build contingency into schedule for unforeseen items
- Review task dependencies to start future tasks sooner
- Mobilize additional staff from our extensive team resources
- Work extended hours

*Figure 9. Design Schedule*



## Risk Register and Mitigation Strategies

The risk register shown below identifies project risks and our proposed mitigation strategies. **RBM** = Risk Before Mitigation **RAM** = Risk After Mitigation **L** = Low **M** = Medium **H** = High

*Figure 10: Risk Register*

| Discipline/Risk | Scope | Schedule | Budget | RBM | Mitigation Approach | RAM |
|---|---|---|---|---|---|---|
| ***Roadway:*** Defining the alignment early is critical to determine environmental and ROW needs. | X | X | X | H | Coordinate early with the City and stakeholders • Conduct an over-the-shoulder (OTS) alignment review prior to Stage III submittal • Get concurrence from the stakeholders early | L |
| ***Roadway:*** Developer changes plans for access roads/intersections. | X | X | X | M | Acquire available plans from developer as soon as the changes happen • Incorporate the available design in the project plans and get approval • Continuous coordination with stakeholders | L |
| ***Drainage:*** Last-minute request to apply for CLOMR since the grant and funding will be federal. | | X | X | M | Identify alternatives to offset floodplain changes with rollplot review • Early meetings with Show Low Floodplain administration | L |
| ***Structures:*** Challenges with construction accesses for bridge, staging areas, and field testing. | | X | X | H | Walk the project with stakeholders • Identify accesses and staging areas • Clearly depict the locations on plans | L |
| ***Environmental:*** Potential wetland impacts/permitting could delay geotech clearance and Stage IV schedule. | | X | X | H | Start PJD and Wetland Delineation at NTP and get Geotech Field Investigation Plan (FIP) ASAP | L |
| ***ROW:*** Need for additional ROW and Temporary Construction Easements (TCEs). | | X | X | M | Ensure the design is accurate at Stage III depicting the required ROW and TCEs • Provide alternatives to eliminate additional ROW and TCE needs (e.g., walls, toe-downs, etc.) • Coordinate with the City/ stakeholders regularly | L |
| ***Stakeholders:*** Scope change requests from the City, developer, and other stakeholders. | X | X | X | M | Thoroughly communicate project scope at kickoff meeting • Gather input from stakeholders on a timely basis • Schedule regular coordination meetings with stakeholders | L |
| ***Funding:*** Federal government issues Notice of Funding Opportunity (NOFO) for 2025 RAISE grant early. | | X | X | M | Expedite design to get the project deliverables to a 95% level sooner • Obtain consensus on project footprint early to minimize rework/delays during design | L |

# 3. PROJECT TEAM EXPERIENCE AND AVAILABILITY

## Project Manager

**Siva Sivakumar, P.E. (AZ #45933)**

**70% Availability**
**70% Expected Time Commitment**
**Experience: 29** Years
**Corp. Title:** Vice President
*No Corporate Responsibilities*

As project manager, Siva will be the single point of contact for the project and will actively manage this contract. **Having worked on ADOT and Local Public Agency (LPA) projects for the past 18 years and having managed more than 75 projects for the agency, Siva understands ADOT's and LPAs' project requirements.**

› **Ability and Experience:** Siva has nearly 30 years of roadway design experience including PS&E, project and schedule management, vertical and horizontal geometry, various traffic interchanges (TIs), typical sections, cross sections, intersection design, ROW, quantity calculations, and other roadway elements. He possesses in-depth knowledge in the principles and practices of civil engineering and AASHTO, FHWA, ADOT, and local standards applicable to the planning, development, design, construction, and maintenance of the State and Local Highway System.

› **Value to ADOT:** Working as a Supplemental Services Project Manager for ADOT for two years (2016-2018) and currently serving in that role, Siva has become familiar with ADOT's systems and programs. With his recent ADOT experience, vast prior experience, and established relationships with ADOT technical personnel, Siva brings the skills to successfully complete this project. He has experience coordinating with ASNF, Tonto National Forest (TNF), and Coconino National Forest (CNF) as key stakeholders for past projects. **Siva proactively responds to various disciplines, promotes a collaborative team effort, and is passionate about delivering projects on time and under budget.**

**The Record of Performance table to the right demonstrates Siva's dedication to quality and responsiveness.**

| ADOT Projects | ADOT Rating (out of 10) |
|---|---|
| I-10, Ina Road TI To Ruthrauff Road TI Final Design | 9.4 |
| SR 87, MP 268.1 to MP 278 | 9 |
| SR 77, I-10 to River Road | 9.6 |
| SR 101L, Princess to Shea Boulevard DCR Update | 9 |
| Various On-Call Projects | 9.4 |

**Current Commitments**
ADOT I-10, Ina to Ruthrauff Post Design (5%)
ADOT US 93, MP 172 – Moore Ranch Road (5%)
ADOT Supplemental Project Manager (15%)
Others (5%)



## Organizational Chart and Key Personnel

The organizational chart below presents the structure among key team members with their qualifications summarized to the right. **None of our key personnel have corporate responsibilities.** Detailed resumes for each of our key team members are provided in the Appendix.

*Figure 11. Organizational Chart*

**ADOT Project Manager**
Michelle Medina, P.E.

*DBE Certified
Key Personnel = **Bold**

**Project Manager**
**Siva Sivakumar, P.E.**

**Project Principal**
Raj Christian, P.E.

**QA/QC**
**Allen Hathcock, P.E.**

**Key Stakeholders**
FHWA • ADOT PMG/Technical Sections/Northeast District • NACOG • City of Show Low • ASNF • Navajo County • Utilities • Residents • Developers

**Roadway/Utilities**
**Sam Grombacher, P.E.**

**Structures**
**Dave Leistiko, P.E.**

**Traffic Studies**
**Brent Crowther, P.E., PTOE, $RSP_1$**

**Aerial Mapping/Survey**
Cooper Aerial

**Utility Designation/ Potholing**
Kimley-Horn

**Drainage/Bridge Hydraulics**
**Zach Schmidt, P.E., CFM**

**Geotechnical**
**Daniel Frechette, P.E.** *(Ethos)**

**Traffic/Signal/Lighting**
**Eric Kocher, P.E.**

**Landscape Architecture/ Aesthetics/Erosion Control**
**Anne DeBoard, PLA**

**Public Involvement Support**
Kimley-Horn

**ROW**
Kimley-Horn

**Environmental**
**Jennifer Simpkins, REP**
Newton Environmental Consulting* *(Noise and Hazmat)*
Desert Archaeology* *(Cultural Resources)*

**Constructibility/Cost Estimating**
Kimley-Horn

*Figure 12. Key Personnel Matrix*

| Key Personnel | Value to ADOT and Stakeholders |
|---|---|
|  **60% Available**<br>**Allen Hathcock, P.E. (AZ #47513)**<br>*QA/QC* Manager<br>**Experience:** 23 Years<br>**Corporate Title:** Associate | ▸ More than 20 years of ADOT experience in roadway and infrastructure design<br>▸ Expert at complying with requirements for state- and federally funded projects<br>▸ Passionate about ensuring quality and high-quality client service, serving as our Regional Quality Advocate for over 500 people |
|  **65% Available**<br>**Sam Grombacher, P.E. (AZ #62487)**<br>*Roadway/Utilities*<br>**Experience:** 11 Years<br>**Corporate Title:** Associate | ▸ History of similar work experience, including new roadway alignments with bridges through undeveloped land<br>▸ Successfully collaborates with all disciplines<br>▸ Skillfully identifies and mitigates conflicts early |
|  **60% Available**<br>**Dave Leistiko, P.E. (AZ #37422)**<br>*Structures*<br>**Experience:** 23 Years<br>**Corporate Title:** Sr. Vice President | ▸ Has been project manager and/or lead structural engineer on more than 26 ADOT projects in the past 22 years<br>▸ Developed unique solutions for challenging structural elements on numerous ADOT projects |
|  **45% Available**<br>**Brent Crowther, P.E. (AZ #41366), PTOE (#4166), $RSP_1$ (#326)**<br>*Traffic Studies*<br>**Experience:** 23 Years<br>**Corporate Title:** Vice President | ▸ Led the BCA for City of Show Low<br>▸ Two decades of experience in multimodal safety, traffic, and transportation planning<br>▸ Long history of as Project Manager/Task Leader for numerous ADOT studies and projects |
|  **60% Available**<br>**Zach Schmidt, P.E. (AZ #50959), CFM (#US-07-02739)**<br>*Drainage/Bridge Hydraulics*<br>**Experience:** 17 Years<br>**Corporate Title:** Associate | ▸ Led the bridge hydraulic design for a new 700-foot bridge crossing Skunk Creek for the Sonoran Desert Drive project<br>▸ Regularly collaborates with our in-house transportation team to plan and design major drainage infrastructure improvements |
|  **50% Available**<br>**Eric Kocher, P.E. (AZ #68040)**<br>*Traffic/Signal/Lighting*<br>**Experience:** 10 Years<br>**Corporate Title:** Associate | ▸ Successfully led construction phasing for I-10, SR 85 to Verrado Way project<br>▸ Decade of experience working directly with contractors to ensure projects are constructible<br>▸ Intimate knowledge of ADOT's and LPAs' preferred MOT preferences and practices |
|  **40% Available**<br>**Anne DeBoard, PLA (AZ #50615)**<br>*Landscape Architecture/Aesthetics/ Erosion Control*<br>**Experience:** 22 Years<br>**Corporate Title:** Associate | ▸ Specializes in roadway landscape design and developing sustainable streetscape solutions<br>▸ Certified Associated General Contractor-ADOT Erosion Control Coordinator<br>▸ Has been working with ADOT for more than a decade, making her highly proficient in ADOT processes |
|  **50% Available**<br>**Jennifer Simpkins, REP (#6063)**<br>*Environmental*<br>**Experience:** 22 Years<br>**Corporate Title:** Associate | ▸ Integrated with our transportation professionals to seamlessly manage environmental regulatory compliance<br>▸ Leads Kimley-Horn's Environmental On-call contract with ADOT (completing over 50 task orders) and is thoroughly familiar with ADOT staff and requirements |
|  **50% Available**<br>**Daniel Frechette, Ph.D., P.E. (AZ #37284) *(Ethos)***<br>*Geotechnical*<br>**Experience:** 24 Years<br>**Corporate Title:** Principal | ▸ Worked with Kimley-Horn on several rural bridge projects over creeks/rivers in the last few years<br>▸ Completed designs for over 300 miles of roadway and more than 175 bridges<br>▸ Developed an excellent working relationship with ADOT while working on more than 120 projects |

## Subconsultants

Our subconsultants have worked with us on current and/or past ADOT contracts and bring specialized expertise in each of their respective disciplines with an outstanding performance to strengthen our team.

*Figure 13. Subconsultant Matrix*

| Subconsultant \| Role | Relevant Project Experience | Value to ADOT and Stakeholders |
|---|---|---|
| **Ethos Engineering**<br>*Geotechnical* | ADOT, SR 90/Buffalo Soldier Trail/Hatfield St.; City of Phoenix, Sonoran Desert Drive; ADOT, Houston Mesa Road | Selected as the No.1 firm to serve ADOT Statewide Geotechnical On-Call • Geotechnical lead has completed over 100 projects for ADOT • Excellent working relationship between Ethos and Kimley-Horn as demonstrated by having worked on 12 projects together in 2023 |
| **Cooper Aerial Surveys**<br>*Aerial Mapping/Survey* | ADOT, SR 101L. Princess to Shea Boulevard; ADOT, I-10 Widening, SR 85 to SR 303L; ADOT, Woodland Road | Aerial ground control, mapping, and ancillary land survey under one roof—one-stop shop • Expert at ADOT MicroStation deliverables, custom translations, InRoads, and OpenRoads |
| **Newton Environmental Consulting**<br>*Noise and Hazmat* | ADOT, Mule Pass Tunnel, Bisbee; ADOT, Houston Mesa Road Safety Improvements; ADOT, US 89 Townsend Winona Sunset Crater | Intimately familiar with the corridor, having completed the noise analysis for the F0119 project • Partnered with Kimley-Horn to deliver similar services on over 60 projects |
| **Desert Archaeology**<br>*Cultural Resources* | I-10, Ina Road to Ruthrauff Road TI; Pima County, Sunset Road, Santa Cruz River to River Road | In-depth experience with cultural resources of Fort Huachuca and San Pedro Valley • Familiarity with local and regional cultural resources compliance • Experience with multiple land jurisdictions and agencies |

## Project Experience

***Kimley-Horn has designed and completed 10+ projects similar to this project.*** *Local experience with a few other projects over rivers/creeks include:*

- *ADOT, Colcord Road Bridge Replacement*
- *ADOT, I-10, Ina Road to Ruthrauff Road TI*
- *City of Phoenix, Chandler Boulevard, 27th Ave to 19th Ave*
- *MCDOT, Eagle Eye Road at Tiger Wash*
- *City of Phoenix, Sonoran Desert Drive over Skunk Creek*

**GILA COUNTY, TONTO CREEK BRIDGE DCR/EA DESIGN, TONTO BASIN, AZ** Phase I of this federal aid project included the preparation of Location/DCR, Bridge Selection Report (BSR), Environmental Assessment (EA), and public outreach plan following NEPA guidelines. Phase II of the project included the final design for a 1,980-foot-long 14-span bridge over Tonto Creek with 0.5 mile of new and reconstructed roadway. The Kimley-Horn team prepared a BE (utilized during formal consultation with U.S. Fish and Wildlife [USFWS]), Class III survey, PJD, PCN under RGP 96, PISA, noise analysis, and an EA Re-evaluation. In addition, Kimley-Horn prepared the successful BUILD (now RAISE) grant application and BCA analysis. **Role:** Prime | **Design Fee:** $1.7M

**PIMA COUNTY, SUNSET ROAD, SANTA CRUZ RIVER TO RIVER ROAD, TUCSON, AZ** The project included a new 206-foot-long single-span bridge over the Union Pacific Railroad (UPRR) and a new 376-foot-long three-span bridge over the Rillito River. Bridge design included extensive hydraulic analysis and coordination with Pima County Regional Flood Control District (PCRFCD) and was designed to eliminate any modifications to existing soil cement. The project also included coordination with FEMA for a CLOMR/LOMR and Section 401, 404, and 408 permitting. Other project improvements include drainage, lighting, Freeway Management System (FMS), landscape architecture, utility relocations, waterline, traffic signal design, and a new intersection at River Road. Kimley-Horn delivered this project on an accelerated 12-month schedule to meet funding windows. **Role:** Prime | **Design Fee:** $2.75M

**GILA COUNTY, OAK CREEK BRIDGE REPLACEMENT, GILA COUNTY, AZ** Kimley-Horn completed a DCR and final design documents for a new bridge over Oak Creek in Tonto Basin, AZ. The project replaced a pipe culvert crossing that frequently flooded with a new two-span precast concrete girder bridge. Related tasks included roadway, drainage, traffic, landscape architecture design, and environmental clearance documentation, including a 404 permit. **Role:** Prime | **Design Fee:** $1.2M

**ADOT, US 60 SILVER KING AND SUPERIOR STREETS, SUPERIOR, AZ** The US 60 Silver King and Superior Streets project extended the recently constructed four-lane divided rural highway from Queen Creek Wash to the Town of Superior Airport. The project consisted of reconstructing the existing two-lane undivided roadway into a four-lane divided highway along a new alignment. The intersection with Hewitt Station Road was relocated. Heading east from the Superior Airport continuing through to SR 177, the project included a four-lane section with raised medians and left-turn lanes through the town of Superior ending at Stone Avenue. The team provided final design for two bridges over Silver King Wash and prepared bridge selection reports for four bridges. Kimley-Horn provided overall project management, roadway design, bridge design, and utility coordination for the Silver King section of the project, between MP 221.72 and 225.07 for a length of 3.35 miles. **Role:** Prime | **Design Fee:** $755K

**GRAHAM COUNTY, 8TH AVENUE BRIDGE REPLACEMENT OVER GILA RIVER, SAFFORD, AZ** Kimley-Horn provided a full range of engineering and environmental services for a new 1200-foot-long, four-lane AASHTO pre-cast concrete girder bridge over the Gila River, including final plans, construction specifications, and construction cost estimates. Kimley-Horn prepared a DCR that included evaluations of different alignments, bridge types, span arrangements, and typical sections to determine the most economical alternative to meet the County's needs and construction budget. The final design included a new alignment that minimized utility impacts and maintained traffic on the existing road and bridge during construction to minimize impacts to the public. **Role:** Prime | **Design Fee:** $983K



# SIVA SIVAKUMAR, P.E.

*Project Manager*

## 29 years of experience • 18 years with Kimley-Horn

Siva will actively manage this contract and provide proactive development and agency coordination, guided by more than two decades of directly pertinent experience. Having worked on ADOT and LPA projects for the past 18 years on more than 75 projects for the agency, Siva understands ADOT's and LPAs' project requirements and processes and will be the primary contact for ADOT.

Siva has nearly 30 years of roadway design experience, including PS&E, project and schedule management, vertical and horizontal geometry, various traffic interchanges, typical sections, cross sections, intersection design, ROW, quantity calculations, and other roadway elements. He possesses in-depth knowledge in the principles and practices of civil engineering and AASHTO, FHWA, ADOT, and local standards applicable to the planning, development, design, construction, and maintenance of the State and Local Highway System.

Siva worked at ADOT as a Supplemental Services Project Manager for two years from 2016-2018 and is currently serving ADOT again in that role, which has allowed him to become familiar with ADOT's systems and programs. Coupled with this recent experience and his vast prior experience, Siva has the skills to successfully complete this project. With his experience on projects, Siva has established key working relationships with technical personnel. He has coordinated successfully with various agencies to deliver projects, which is a testament to his interpersonal skills. He has experience coordinating with ASNF, TNF, and CNF as key stakeholders for past projects. **He proactively responds to various disciplines and promotes a collaborative team effort and is passionate about delivering projects on time and under budget.**

## Project Experience

- **ADOT, I-10 Ina TI to Ruthrauff TI Final Design, Tucson, AZ —** *Project Manager.* This project is a four-mile reconstruction project along I-10 and provides four lanes of portland cement concrete pavement (PCCP) lanes in each direction, including auxiliary lanes and dual-lane entrance and exit ramps. The project will also include reconstruction of two existing TIs at Orange Grove Road and Sunset Road to increase capacity, provide adequate vertical clearance, and improve traffic operations. Sunset Road will be reconstructed and "flipped" to go over I-10 for a future structure to span the UPRR. New bridges will also be reconstructed at the Cañada del Oro Wash and Rillito River bridges. This project also included improvements to drainage, lighting, FMS, and landscape architecture design. Siva is managing all design elements of this project to see it completed on time and within budget.
- **Pima County, Sunset Road, Santa Cruz River to River Road, Tucson, AZ —** *Principal-in-Charge.* The one-mile-long Sunset Road Bridge project widens Sunset Road to four lanes from the Santa Cruz River bridge to the I-10 TI and then extends Sunset Road on new alignment over the UPRR and Rillito River tying into River Road. Project development followed the Federal-Aid and NEPA process. The project included a new 206-foot-long single-span bridge over the UPRR and a new 376-foot-long three-span bridge over the Rillito River. Other project features included improvements to drainage, lighting, FMS, landscape architecture, utility relocations, waterline, traffic signal design, and a new intersection at River Road. Kimley-Horn delivered this project on an accelerated 12-month schedule in order to meet funding windows.

## Why Siva?

- Nearly three decades of roadway design and project management experience, including managing ADOT projects since 2006
- Proactively coordinates with stakeholders and solves issues
- Seasoned Project Manager who has delivered projects on time and under budget

### Education

- Master of Civil Engineering, Civil Engineering, South Dakota School of Mines and Technology
- Bachelor of Science, Civil Engineering, University of Madras, India

### Licenses

- Professional Engineer in Arizona (#45933), Nevada, Ohio, Pennsylvania, Utah, and West Virginia

### Affiliations

- American Society of Highway Engineers (ASHE)
- American Society of Civil Engineers (ASCE)

### Corporate Title

- Vice President

### Availability

- 70% Availability | 70% Project Commitment

***"I have worked closely with [Siva] as the SR 101L Price GEC Project Manager; he showed excellent engineering skills, [and] was very organized and responded to all District requests in a timely manner. He was an asset to the project."* — Reed Dalbik, ADOT Resident Engineer, Central District**



## SIVA SIVAKUMAR, CONTINUED

- **ADOT, Supplemental Services Temporary Part-Time Project Delivery Manager, AZ — *Project Manager.*** Siva served as a temporary part-time Project Delivery Manager at ADOT from 2016–2018. During this contract, he managed 20 projects, in various stages of development. He initiated several new projects through Project Review Board (PRB) and also completed Joint Project Agreements (JPAs) for three local government projects. He delivered the projects on time and under budget. **Siva is currently a supplemental Project Manager at ADOT also, managing multiple projects.**
- **ADOT, US 60 Silver King and Superior Streets, Superior, AZ —** *Lead Roadway Engineer/ Deputy Project Manager.* The US 60 Silver King and Superior Streets project extended the recently constructed four-lane divided rural highway from Queen Creek Wash to the Town of Superior Airport. The project consisted of reconstructing the existing two-lane undivided roadway into a four-lane divided highway along a new alignment. Kimley-Horn provided overall project management, roadway design, bridge design, and utility coordination for the Silver King section of the project, between MP 221.72 and 225.07 for a length of 3.35 miles. Siva coordinated with other design consultants and TNF and performed the role of Deputy Project Manager on this project.
- **Gila County, Tonto Creek DCR/EA/Design, Tonto Basin, AZ —** *Lead Roadway Engineer.* Phase I of this federal aid project included the preparation of Location/DCR, BSR, EA, and Public Outreach Plan following NEPA guidelines. Phase II of the project included the final design for a 1,980-foot-long 14-span bridge over Tonto Creek with 0.5 mile of new and reconstructed roadway. The Kimley-Horn team prepared a BE (utilized during formal consultation with USFWS), Class III survey, PJD, PCN under RGP 96, PISA, noise analysis, and an EA Re-evaluation. Kimley-Horn recently prepared an additional EA Re-evaluation due to the revised scope of work and TCEs that are required for construction.
- **Gila County, Oak Creek Bridge Replacement, Gila County, AZ —** *Project Engineer.* Kimley-Horn completed a DCR and final design documents for a new bridge over Oak Creek in Tonto Basin, AZ. The project replaced a pipe culvert crossing that frequently flooded with a new two-span precast concrete girder bridge. Related tasks included roadway, drainage, traffic, landscape architecture design, and environmental clearance documentation, including a 404 permit.
- **MCDOT, Eagle Eye Road at Tiger Wash, Aguila, AZ —** *QA/QC Manager.* Kimley-Horn was the prime designer for this new bridge construction project for MCDOT. The project involved converting an underperforming low-flow crossing into an all-weather bridge crossing. The project included approximately 0.6 miles of roadway reconstruction; reconstruction of Eagle Eye Road, a low-volume road with a 2018 average daily traffic (ADT) of 149 vehicles per day; and about 600 feet of new guideway bank construction. Kimley-Horn coordinated directly with MCDOT staff to obtain environmental, utility, and ROW clearances including coordination with the Bureau of Land Management (BLM) through the MCDOT technical groups. MCDOT staff designed the bridge in house. The team assisted MCDOT with completing the Environmental Assessment and acquiring 24 acres of BLM land under a separate contract. We coordinated with BLM to establish a free-use permit for a borrow pit site near the project, potentially saving MCDOT more than $200K.
- **ADOT, SR 260, Cheney Ranch Loop to Bison Ridge Trail, Show Low, AZ—** *Project Manager.* This is an HSIP-funded, two-phase project, and we prepared both the Project Assessment (PA) and the final design documents for roadway shoulder widening on SR 260 for four different segments. The scope included a preliminary analysis and concept plans, final PS&E, survey and mapping, environmental studies, utilities relocation, and other miscellaneous work.
- **ADOT, SR 101L Price GEC Phases I and II, US 60 to SR 202L, Tempe, AZ —** *Project Manager.* This project will add GPLs in each direction on SR 101L mainline from north of Baseline Road to the SR 202L to improve freeway capacity and help alleviate increased levels of traffic congestion in the future. The project also includes widening of the existing northbound bridge structure at Chandler Boulevard TI overpass, new retaining walls, existing retaining wall removals, on-site drainage improvement, and traffic design. As Project Manager, Siva prepared the Request for Qualifications (RFQ) and Request for Proposal (RFP) and worked closely with ADOT to procure the Design-Build team. He updated the cost estimate in coordination with ADOT, which resulted in the final bid being within 2% of the estimate. During the RFQ and RFP process, Siva coordinated with multiple ADOT disciplines daily. Siva is currently providing oversight and management for the project during construction.
- **ADOT, I-10, Ina Road TI, Marana, AZ —** *QA/QC Manager/Senior Project Engineer.* Siva performed quality control for this CMAR project that completely reconstructed the I-10/Ina Road TI, providing grade separation between Ina Road and the UPRR. Kimley-Horn, as a major subconsultant, was responsible for the Ina Road and local streets reconstruction design, including the Ina Road bridges over I-10 and UPRR and the Ina Road pavement drainage, signing, and pavement marking. Kimley-Horn was also responsible for the I-10 mainline, ramp and frontage road lighting, FMS, and landscape architecture design. We prepared a traffic management plan and effective traffic phasing in coordination with the CMAR that minimized impacts to the public.
- **ADOT, I-10, Ruthrauff Road TI, Tucson, AZ —** *QA/QC Manager/Senior Project Engineer.* The I-10 Ruthrauff TI project provided grade separation between Ruthrauff Road and the UPRR. Roadway design included “flipping” the I-10 mainline, ramps, and frontage roads profiles to have I-10 pass under Ruthrauff Road and connect the ramps and frontage road to the new Ruthrauff Road profile over the UPRR, as well as reconnect the local streets. Kimley-Horn provided engineering services for the final design documents of Ruthrauff Road and local streets, traffic signals, roadway lighting, FMS, and utility relocations associated with the TI reconstruction. Siva performed quality control for this project.


# ALLEN HATHCOCK, P.E.

*QA/QC Manager*

## 21 years of experience • 20 years with Kimley-Horn

Allen has 21 years of experience in roadway and infrastructure design in Arizona. He frequently works with ADOT across the state on projects that include local government partnerships. Allen has led project teams on full reconstruction of municipal roadways, rural highways, and freeways, including interchanges. Allen has been project engineer on many large projects remaining on the technical side, providing quality reviews, multidiscipline reviews, as well as bringing together the overall project quantities and estimates and ensuring they match the required specifications and special provisions. His responsibilities also typically include managing the design and production of roadway plans, marking/signing plans, stakeholder coordination, and QA/QC. For this project, he will lead QA/QC tasks, which are critical to project success that all the disciples provide their designs for review and collaboration in a timely and proper level of design. Allen has the skills to successfully serve as QA/QC Manager to ensure deliverables meet ADOT's and the City's expectations.

## Project Experience

- **Pima County, Sunset Road, Santa Cruz River to River Road, Tucson, AZ —** *QA/QC Manager.* Allen's experience with DOT, County, and City standards allowed him to review each design decision to ensure the proper and most pertinent standards were applied to this project. The one-mile-long Sunset Road Bridge project widens Sunset Road to four lanes from the Santa Cruz River bridge to the I-10 TI and then extends Sunset Road on new alignment over the UPRR and Rillito River tying into River Road. The project included a new 206-foot-long single-span bridge over the UPRR and a new 376-foot-long three-span bridge over the Rillito River. Bridge design over the Rillito River included extensive hydraulic analysis and coordination with PCRFCD and was designed to eliminate any modifications to existing soil cement.
- **ADOT, I-10, Ina Road TI to Ruthrauff Road TI Final Design (I-10 Gap), Tucson, AZ —** *Deputy Project Manager / QA/QC.* The I-10 Gap project is a four-mile-long reconstruction project along I-10 and provides four PCCP lanes in each direction, including auxiliary lanes and dual-lane entrance and exit ramps. The project will also reconstruct two existing TIs at Orange Grove Road and Sunset Road to increase capacity, provide adequate vertical clearance, and improve traffic operations. Sunset Road will be reconstructed and "flipped" to go over I-10 for a future structure to span the UPRR. New bridges will also be reconstructed at the Cañada del Oro Wash and Rillito River bridges. Allen was key to bringing the ADOT and Pima County needs, standards, and stakeholders together. His understanding of both the County's needs and ADOT's requirements were instrumental in project delivery as he prepared the project specifications and led QA/QC.
- **Pima County, Valencia Road, Wade Road to Ajo Highway (AZ 86), Tucson, AZ —** *QA/QC Manager.* Allen was the QA/QC Manager for roadway, drainage, and utility design for this project. The goal of this 3.27-mile Pima County roadway widening project was to improve safety, reduce congestion, improve operations at intersections and cross streets, and increase mobility and access. Key project components included extensive stakeholder coordination, drainage ponding effects at Arizona State Land Department (ASLD) property, drainage conveyance through the BLM property, roadway ROW verification, utility relocation and avoidance, roadway design, and structures design.

## Why Allen?

- More than 20 years of ADOT experience in roadway and infrastructure design
- Expert at complying with requirements for state- and federally funded projects
- Passionate about ensuring quality and high-quality client service, serving as our Regional Quality Advocate for over 500 people

### Education

- Bachelor of Science, Civil Engineering, Arizona State University

### Licenses

- Professional Engineer in Arizona (#47513)

### Affiliations

- ASHE
- ASCE
- ACEC Digital Delivery Liaison

### Corporate Title

- Associate

### Availability

- 60% Availability | 60% Project Commitment



## ALLEN HATHCOCK, CONTINUED

- **ADOT, SR 86 Rural Highway Widening (Multiple Segments), Pima County, AZ —** *Project Manager.* Allen's team designed differential milling and wildlife crossing details for these project that are now ADOT standard details. These projects had over 50 wash crossings and box culvert/pipe designs. Key components included widening SR 86 from 24 ft to 40 ft and cross-drainage structure extensions/improvements, inlet and outlet erosion and sediment control, and landscape planting designs. Kimley-Horn's services included concrete box extensions using precast boxes, CMP extensions, box extensions by plate method allowing for immediate backfill, installation of a 30-ft con-arch structure for wildlife crossing, super-elevation correction by milling, concrete utility cap design, off-site hydrology, culvert and bridge hydraulics, and scour estimates.
- **ADOT, SR 77, Jct I-10 to River Road (Genematas Drive), Tucson, AZ —** *QA/QC Manager.* Kimley-Horn was selected for this pavement preservation project on SR 77, extending from I-10 at MP 68 to River Road at MP 72.06. Kimley-Horn prepared an ADA feasibility report with a PA and Stage III, IV, and V PS&E. Allen provided quality reviews to ensure the project estimate and specifications were aligned, as well as ensuring the design met ADOT standards.
- **ADOT, I-10 from SR 85 to Verrado Way GPL, Buckeye, AZ —** *Senior Structural Design Engineer.* This project provides additional GPL on the Papago Freeway/I-10 from SR 85 to Verrado Way. The purpose of this project was to reduce congestion, enhance regional mobility, improve movement of goods and services, and improve access to residential and commercial developments. The project also included reconstruction of two existing TIs at Miller Road and Watson Road to a Diverging Diamond Interchange (DDI) configuration to increase capacity and improve traffic operations. The Kimley-Horn team completed the DCR and environmental documents. Public involvement including a public meeting and a Value Engineering (VE) study were also completed.
- **ADOT, I-10, Ina Road TI, Tucson, AZ —** *Project Engineer.* This project completely reconstructed the I-10/Ina Road TI to grade separate Ina Road with the UPRR. To accomplish this, the I-10 mainline, ramps, and frontage roads profiles were flipped to have I-10 pass under Ina Road and connect the ramps and frontage road to the new Ina Road profile over the UPRR, as well as reconnect the local streets. As a major subconsultant, Kimley-Horn was responsible for the design of the reconstruction of Ina Road and local streets, including the Ina Road bridges over I-10 and UPRR, pavement drainage, signage, and pavement marking.
- **ADOT, I-10, Ruthrauff Road TI, Tucson, AZ —** *Project Engineer.* The I-10 Ruthrauff TI project provided grade separation between Ruthrauff Road and the UPRR. Roadway design included "flipping" the I-10 mainline, ramps, and frontage roads profiles to have I-10 pass under Ruthrauff Road and connect the ramps and frontage road to the new Ruthrauff Road profile over the UPRR, as well as reconnect the local streets. Kimley-Horn provided engineering services for the final design documents of Ruthrauff Road and local streets, traffic signals, roadway lighting, FMS, and utility relocations associated with the interchange reconstruction.
- **ADOT, US 93 at Pierce Ferry Road, Location, AZ —** *Project Engineer.* To improve safety and operations at the intersection, Kimley-Horn evaluated the feasibility of grade-separated improvement alternatives at the intersection of US 93 and Pierce Ferry Road, in Mohave County. Alternatives considered impacts, ROW, utilities, community impacts, and roadway users. The scope included stakeholder and public engagement, traffic and crash data analysis, alternatives development, alternative evaluation including BCA, selection and refinement of recommended alternatives, and preparation of a feasibility report.
- **ADOT, SR 101L Price GEC Phases I and II, US 60 to SR 202L, Tempe, AZ —** *Lead Engineer.* Led by ADOT, in cooperation with MAG and FHWA, this project will add GPLs in each direction on SR 101L mainline from north of Baseline Road to the SR 202L to improve freeway capacity and help alleviate increased levels of traffic congestion in the future. The project also includes widening of the existing northbound bridge structure at Chandler Boulevard TI overpass, new retaining walls, existing retaining wall removals, onsite drainage improvement, and traffic design. Allen led design of the freeway improvements and lane additions.
- **ADOT, SR 101L, Chaparral Road to SR 202L GPL Design, Scottsdale, AZ —** *Lead Engineer.* Kimley-Horn designed much-needed additional GPL capacity on this five-mile section of the Pima Freeway (SR 101L) between Chaparral Road and SR 202L. The scope included roadway design, structural design, drainage, traffic, lighting, geotechnical, environmental, landscape architecture, utilities, and public involvement. Rubberized asphalt was used on the widened roadway surfaces. Allen worked on the DCR update and used innovation and PBPD to avoid removing an expensive decorative wall, which was a top priority for local agencies. He worked with all involved for the design exceptions and variances for shoulder width and lane reductions to balance practical with costs.


# SAM GROMBACHER, P.E.

*Roadway/Utilities*

## 12 years of experience • 1 year with Kimley-Horn

Sam's entire career has been focused on the design, management, and construction of complex ADOT projects, with involvement on many of the freeways and highways throughout the state. His demonstrated ability to work through details, develop design solutions, and clearly communicate them makes him the perfect person to lead roadway design for this project. He brings experience with similar projects involving new alignments through rugged terrain, bridge crossings, design of construction access for bridge construction, and has proven success on recent projects coordinating design between Kimley-Horn's technical groups and our subconsultants. Sam's established ADOT and design team relationships will help foster collaboration and contribute to project success.

## Project Experience

- **ADOT, SR 303L, Lake Pleasant Parkway to 51st Avenue, Peoria and Phoenix, AZ —** *Project Manager.* Kimley-Horn is currently managing final design of five miles of freeway improvements to provide a third general purpose lane in each direction along SR 303L, as well as drainage and landscape improvements. This project includes mainline widening, new bridges to accommodate the future 67th Avenue TI and project wide ITS improvements. Sam is coordinating with ADOT, Maricopa Association of Governments (MAG), FHWA, City of Peoria, City of Phoenix, ASLD, and other project stakeholders to ensure the project addresses both the short-term capacity issue and accounts for future improvements along the SR 303L corridor.
- **ADOT, I-10 Broadway Curve Private-Public Partnership, Phoenix, AZ —** *Schematic Design Lead.** Guiding a multidiscipline team of more than 15 design staff, Sam oversaw the schematic design development of two system TIs at I-10/SR 143 and I-10/US 60, as well as widening of I-10 to provide six GPLs and two HOV lanes in each direction from 24th Street to US 60, and four GPLs and one HOV lane from US 60 to Ray Road. The schematic design was valuable in establishing the project scope of work, environmental footprint, ROW needs, and project funding prior to procuring a developer. Sam and his design team took part in a CRA workshop led by MAG and collaborated with FHWA to gain approval of design exceptions and a Change of Access Report (COAR). Throughout this project, Sam met almost daily with ADOT and coordinated regularly with FHWA, MAG, City of Phoenix, and other project stakeholders.
- **ADOT, SR 202L, South Mountain Freeway Public-Private Partnership, Phoenix, AZ —** *Roadway Design Lead.** This project included a 22-mile extension of SR 202L, 4.5 miles of I-10 mainline widening, 15 TIs, and 41 bridges. Over the course of the project, Sam transitioned from roadway engineer to lead designer, ultimately managing the roadway design task for nine miles of the corridor, including three miles through mountainous terrain with six bridges. Sam visited the project site many times to understand the existing terrain and worked closely with the contractor so that the roadway and bridges would be designed to optimize constructibility and cost. In addition, Sam helped to design a 20-foot-wide shared-use path paralleling the freeway for nearly six miles. This path was designed to be ADA compliant and included sidewalk ramps and other ADA considerations at five traffic interchange intersections. He also reviewed design concepts with the local community at public meetings and collaborated with ADOT management and stakeholders to ensure all parties were heard and goals were achieved.

**Projects prior to joining Kimley-Horn*

## Why Sam?

- History of similar work experience including new roadway alignments with bridges through undeveloped land
- Successfully collaborates with all disciplines and stakeholders
- Skillfully ensures that conflicts are identified and mitigated early

### Education

- Bachelor of Science, Civil Engineering, Arizona State University

### Licenses

- Professional Engineer in Arizona (#62487)

### Affiliations

- ASHE
- ASCE

### Corporate Title

- Associate

### Availability

- 65% Availability | 65% Project Commitment



## SAM GROMBACHER, CONTINUED

- **ADOT, SR 89, Hell Canyon Bridge, Yavapai County, AZ —** *Roadway and Maintenance of Traffic Design Engineer.** Sam designed the SR 89 roadway improvements, setting the alignment and profile for the new bridge across the 140-foot-deep canyon in Prescott National Forest. To keep traffic moving and create an appropriate work zone for the contractor, Sam developed construction phasing concepts and designed the temporary widening of the existing roadway. Additionally, he designed and modeled construction access roads and set up areas to get cranes, drill rigs, and other equipment into the canyon to build the new bridge and demolish the existing bridge.
- **ADOT, SR 260 Lion Spring, Star Valley, AZ —** *Deputy Project Manager and Roadway Design Lead.** To improve four miles of the existing two-lane highway, Sam developed the Stage II roadway design to upgrade the facility to a five-lane undivided highway that splits to a four-lane divided highway east of Star Valley through TNF. This design included multiple bridge crossings and long segments of highway through previously undeveloped forest land. Additionally, Sam was involved with developing a scoping memo, conducting a PBPD assessment, and refining the Stage II design to reduce ROW impacts.
- **ADOT, Prescott Valley Multi-Use Path, Prescott Valley, AZ —** *Roadway and Wall Designer.** Through the ADOT Statewide Local Government On-Call contract, Sam designed a three-mile-long Multi-Use Path along existing roadways and through rolling terrain in a Prescott Valley neighborhood. The steep hills and tight corridor the path was planned to follow required switchbacks and retaining walls be installed to meet ADA requirements. Sam and the design team worked closely with ADOT and the Town of Prescott Valley to develop alternatives optimize the functionality of the path while staying within the construction budget.
- **ADOT, SR 303L, 51st Avenue and 43rd Avenue TIs, Phoenix, AZ —** *Roadway Design Lead and Project Manager.** Sam lead the roadway design for the PA, developing the concept that was carried forward into final design. With Kimley-Horn as a major subconsultant, Sam managed the final design phase of these two TIs based on the original design he developed during the PA. This work included widening and extension of mainline, ramp, frontage road, and crossroad improvements; four bridges; a CLOMR; utility coordination to mitigate conflicts; new ROW and access control; department furnished items; and agency/stakeholder agreements. The project required extensive coordination between ADOT, City of Phoenix, ASLD, FEMA, and Taiwan Semiconductor Manufacturing Company (TSMC) to meet the aggressive schedule to open the TIs in anticipation of the opening of the semiconductor plant. Despite a significant scope add during final design, the CLOMR was approved in less than seven months and the project advertised for construction in 11 months, ahead of the originally scheduled date.
- **ADOT, I-10, Dirk Lay Road, to SR 387, Pinal County, AZ —** *Roadway Designer.* Kimley-Horn was selected by ADOT in coordination with MAG to provide design services for widening more than six miles of I-10 between Phoenix and Casa Grande, one of the highest priority corridors in Arizona. To improve safety and increase capacity, ADOT and Gila River Indian Community (GRIC), in partnership with MAG, are planning to add lanes and improve access within this 26-mile stretch of I-10. The primary goal of this project is to increase capacity, enhance traffic operations, and improve safety by adding one lane in each direction within the existing median of I-10. Sam is serving as a roadway designer, developing concepts for traffic interchange improvements and completing quality checks of work performed by other roadway engineers on the project.
- **ADOT, I-10 Broadway Curve Public-Private Partnership, Phoenix, AZ —** *Schematic Design Lead.** Guiding a multidiscipline team of more than 15 design staff, Sam oversaw the schematic design development of two system TIs at I-10/SR 143 and I-10/US 60, as well as widening of I-10 to provide six GPLs and two HOV lanes in each direction from 24th Street to US 60, and four GPLs and one HOV lane from US 60 to Ray Road. The schematic design was valuable in establishing the project scope of work, environmental footprint, ROW needs, and project funding prior to procuring a developer. Sam and his design team took part in a CRA workshop led by MAG and collaborated with FHWA to gain approval of design exceptions and a COAR. Throughout this project, Sam met almost daily with ADOT and coordinated regularly with FHWA, MAG, City of Phoenix, and other project stakeholders.
- **ADOT, US 60/Bell Road Design-Build, Surprise, AZ —** *Roadway Design Lead.** Sam designed the US 60 mainline and ramp improvements for this $41 million conversion form an at-grade intersection to grade-separated interchange. Collaborating with ADOT, the contractor, and multiple consulting firms, Sam and the team developed a design solution to improve constructibility, reduce impact to the traveling public, saving ADOT tens of millions of dollars. In addition to the roadway geometrics, Sam developed retaining wall layouts and designed temporary detours and ADA facilities.
- **ADOT, SR 202L Red Mountain, SR 202L to Broadway Road Design Build, Mesa, AZ —** *Roadway Design Lead.** Sam designed the widening of about 3.5 miles of urban freeway, including reconstruction and entrance and exit ramps at four traffic interchanges. This widening required thousands of feet of new retaining walls and sound walls that Sam developed the profiles for based on his roadway design and model. Additionally, Sam's grading needed to take into account an existing pathway along the bank of an adjacent waterway. Portions of this path have since been converted into a multi-use facility for the public. Sam also designed ADA facilities at one of the traffic interchange crossroads.
- **ADOT, I-10 West Quartzsite TI, La Paz County, AZ —** *Roadway Designer.** Through the ADOT District Minor On-Call, Sam developed final design of roadway and ramp widening at this traffic interchange, including new ADA facilities.

**Projects prior to joining Kimley-Horn*



# DAVE LEISTIKO, P.E.

*Structures*

## 33 years of experience • 28 years with Kimley-Horn

Dave is a senior project manager/structural design engineer in Kimley-Horn's transportation group. He has 33 years of engineering and construction experience, focusing the last 25 years on the planning and design of bridges and related structures. Dave has served as project manager/lead structural design engineer for numerous bridges, roadway, and multidisciplinary infrastructure projects for ADOT and local agencies throughout Arizona. He is well-versed in both ADOT and AASHTO Load and Resistance Factor Design (LRFD) bridge design specifications and is knowledgeable of potential issues that can arise from roadway, drainage, and environmental constraints. Dave also has experience designing and leading Accelerated Bridge Construction (ABC). Dave's bridge design experience includes cast-in-place, pre-stressed, post-tensioned concrete, and steel girder bridges, in addition to steel and aluminum signal, sign, and lighting structures; various types of retaining walls; flood control infrastructure; and storm drain structures.

## Project Experience

- **ADOT, US 60 Silver King and Superior Streets, Superior, AZ —** *Project Manager/Structures Lead.* Kimley-Horn served as the lead designer for the Silver King section that included 2.5 miles of a new four-lane rural highway. The project team comprised six consulting firms and ADOT in-house design staff. The project included 11 bridges (five new bridges, three reconstructed, and three deck rehabs). Kimley-Horn prepared the Bridge Selection Reports for four of the bridges (two replacements and two new construction), served as the engineer-of-record for two of the bridges, coordinated all aspects of the project design, and was the main contact during construction for ADOT's construction personnel. The project consisted of reconstructing the existing two-lane undivided roadway into a four-lane divided highway along a new alignment.
- **Graham County, 8th Avenue Bridge Replacement, Safford, AZ —** *Structural Engineer.* Kimley-Horn provided a full range of engineering and environmental services for a new 1200-foot-long, four-lane AASHTO pre-cast concrete girder bridge over the Gila River in Graham County, including final plans, construction specifications, and construction cost estimates. Kimley-Horn prepared a DCR that included evaluations of different alignments, bridge types, span arrangements, and typical sections to determine the most economical alternative to meet the County's needs and construction budget. The final design included a new alignment that minimized utility impacts and maintained traffic on the existing road and bridge during construction to minimize impacts to the public.
- **Pima County, Sunset Road, Santa Cruz River to River Road, Tucson, AZ —** *Project Manager.* The one-mile-long Sunset Road Bridge project which widens Sunset Road to four lanes from the Santa Cruz River bridge to the I-10 TI and then extends Sunset Road on new alignment over the UPRR and Rillito River tying into River Road. Project development followed the Federal-Aid and NEPA process. The project included a new 206-foot-long single-span bridge over the UPRR and a new 376-foot-long three-span bridge over the Rillito River. Bridge design over the Rillito River included extensive hydraulic analysis and coordination with PCRFCD and was designed to eliminate any modifications to existing soil cement.
- **Gila County, Tonto Creek DCR/EA/Design, Tonto Basin, AZ —** *Project Manager.* Phase I of this federal aid project included the preparation of Location/DCR, BSR, Environmental Assessment (EA), and Public Outreach Plan following NEPA guidelines. Phase II of the project included the final design for a 1,980-foot-long 14-span bridge over Tonto Creek with 0.5 mile of new

## Why Dave?

- Extensive experience in the planning and design of bridges and related structures
- Thoroughly familiar with ADOT's bridge design specifications and standards
- Managed numerous roadway and bridge projects including ADOT and LPA projects

### Education

- Master of Science, Civil Engineering, North Carolina State University
- Bachelor of Arts, Business Management, North Carolina State University

### Licenses

- Professional Engineer in Arizona (#37422), California, Colorado, Kansas, Missouri, Nevada, North Carolina, Oklahoma, Texas, Utah, and Washington

### Affiliations

- Arizona Association of County Engineers
- American Institute of Steel Construction
- Precast Concrete Institute

### Corporate Title

- Senior Vice President

### Availability

- 60% Availability | 60% Project Commitment



## DAVE LEISTIKO, CONTINUED

and reconstructed roadway. The Kimley-Horn team prepared a BE (utilized during formal consultation with USFWS, Class III survey, PJD, PCN under RGP 96, PISA, noise analysis, and an EA Re-evaluation. Kimley-Horn recently prepared an additional EA Re-evaluation due to the revised scope of work and TCEs that are required for construction.

- **Gila County, Oak Creek Bridge Replacement, Gila County, AZ —** *Project Manager.* Kimley-Horn completed a DCR and final design documents for a new bridge over Oak Creek in Tonto Basin, AZ. The project replaced a pipe culvert crossing that frequently flooded with a new two-span precast concrete girder bridge. Related tasks included roadway, drainage, traffic, landscape architecture design, and environmental clearance documentation, including a 404 permit.
- **City of Phoenix, Sonoran Desert Drive, I-17 to North Valley Parkway Design-Build, Phoenix, AZ —** *Project Manager.* The City of Phoenix selected the Hunter Contracting/ Kimley-Horn Design-Build team for this Sonoran Desert Drive project in north Phoenix. The project included the design and construction of one mile of a new six-lane arterial roadway along Sonoran Desert Drive from I-17 to North Valley Parkway. The project involved a 600-foot-long bridge over Skunk Creek, on- and off-site drainage improvements, environmental clearances, permits, FEMA CLOMR/LOMR approvals, and utility clearances. The project required significant drainage analysis and earthwork construction including drainage channels, retention basins, bank protection, and Section 404 permitting. In addition, the project included street lighting, signing/pavement marking, native plant surveys, and landscape architecture.
- **City of Phoenix, Chandler Boulevard, 27th Avenue To 19th Avenue Design-Build, Phoenix, AZ —** *Structural Engineer.* Chandler Boulevard was recently extended from 27th Avenue to 19th Avenue, providing a critical link between the residential subdivisions to Chandler Boulevard east of 19th Avenue. The project included roadway improvements, a storm drain, and two bridges. During the initial project, it was identified that further improvements must be made outside of environmental limits. This study is intended to investigate the capacity of the existing conditions and identify alternatives to help mitigate future stormwater issues. Kimley-Horn provided an Alternatives Report to the City that included research regarding the source of potential flooding and erosion problems, potential drainage improvement alternatives, and cost estimates for the recommended alternative.
- **ADOT, I-40 EB Willow Creek Bridge Replacement, Mohave County, AZ —** *Project Manager/Structures Lead.* This project includes removing the existing eastbound bridge, stub-abutments, piers, and superstructure, and replacing with new bridge foundations, abutments, piers, and superstructure. During construction, a temporary bridge will be installed south of the existing bridge to temporarily carry I-40 eastbound traffic over Willow Creek. Once in place, I-40 eastbound traffic will be reduced to one lane and shifted onto the temporary bridge. The existing bridge will then be removed to enable crews to build the new eastbound bridge. The new bridge will be a two- span precast-pre-stressed concrete girder bridge. David managed the overall project and led the structural design for this project that replaced an existing fracture critical bridge located on I-40 at MP 83.65.
- **ADOT, I-10, Ina Road Traffic Interchange, Marana, AZ —** *Lead Structural Design Engineer.* Dave was the lead structural designer for a 300'-long, two-span bridge over I-10 and a 320'-long, three-span bridge over the UPRR. This CMAR project completely reconstructed the I-10/Ina Road TI, providing grade separation between Ina Road and the UPRR. To accomplish this, I-10 mainline, ramps, and frontage roads profiles were flipped to have I-10 pass under Ina Road and connect the ramps and frontage road to the new Ina Road profile over the UPRR, as well as reconnect the local streets. Kimley-Horn, as a major subconsultant, was responsible for the Ina Road and local streets reconstruction design, including the Ina Road bridges over I-10 and UPRR and the Ina Road pavement drainage, signing, and pavement marking. Kimley-Horn was also responsible for the I-10 mainline, ramp and frontage road lighting, FMS, and landscape architecture design.
- **ADOT/Mohave County, Sacramento Wash Bridge and Roadway Improvements, Oatman, AZ —** *Structural Design/Bridge Engineer-of-Record.* Dave worked closely with ADOT Contracts and Specifications (C&S) to develop the special provisions to cover all aspects of the ABC construction and the incentive/disincentive clauses of the contract. He was the point person for Kimley-Horn throughout construction. Kimley-Horn provided final design for a 114'-long bridge on Oatman Highway at the Sacramento Wash crossing. The project utilized ABC to minimize the roadway closure time to 87 hours through a combination of prefabricated modular deck elements and precast abutment caps, backwalls, and cheekwalls. Kimley-Horn also performed bridge hydraulics using SRH-2D and prepared an EA, PJD, and Section 404/401 permit applications.
- **ADOT, SR 101L (Chaparral Road to SR 202L) GPL Design, Scottsdale, AZ —** *QA/QC for Structures.* Dave led QA/QC for the design of four bridge widenings and 1,300 LF of retaining walls for urban freeway design. Kimley-Horn designed much-needed additional GPL capacity on this five-mile section of the Pima Freeway (SR 101L) between Chaparral Road and SR 202L. The scope included roadway design, structural design, drainage, traffic, lighting, geotechnical, environmental, landscape architecture, utilities, and public involvement. Rubberized asphalt was used on the widened roadway surfaces. All the overpass bridges were widened to accommodate additional GPL. This project also included significant retaining wall and sound/noise wall design.


# BRENT CROWTHER, P.E., PTOE, RSP[1]

*Traffic Studies*

## 23 years of experience • 23 years with Kimley-Horn

Brent brings experience delivering a diverse range of transportation and infrastructure planning and design projects. He is an experienced champion of integrating transportation and community goals. Brent's relevant experience includes traffic engineering, transportation safety, active modes transportation planning, and multimodal transportation studies. Brent was Project Manager for the Southern Navajo and Apache Counties Transportation Study. He also assisted City of Show Low with preparation of a BCA for their RAISE Grant application for the Scott Ranch Road project.

## Project Experience

- **Show Low RAISE Grant BCA, Show Low, AZ —** *Project Manager.* Kimley-Horn updated the BCA previously prepared for the Scott Ranch Road and Bridge project. This project will connect SR 260 to Penrod Road and SR 77, providing critical connectivity between residential areas on the east to employment centers on the west. Kimley-Horn coordinated with the City to prepare the updated benefit-cost analysis considering the BCA Guidance for Discretionary Grant Programs. Evaluation of these long-term outcomes were based on analyses previously completed as Scott Ranch Road BCAs that had been previously submitted. The results of the BCA were presented in a technical memorandum, which was incorporated into the RAISE 2022 grant application.
- **ADOT, Southern Navajo and Apache Counties Regional Transportation Plan, Show Low, AZ —** *Project Manager.* Kimley-Horn developed a multimodal transportation plan for the City of Show Low, Towns of Pinetop-Lakeside, Taylor, and Snowflake, and the surrounding rural areas. This process involved extensive data collection, stakeholder, and public engagement to derive needs and opportunities for transportation improvements of all modes within the region and between the region and other population centers. Kimley-Horn developed a custom project prioritization methodology to evaluate the feasibility of projects, highlight fatal flaws, and identify the key projects for which funding should be prioritized.
- **City of Show Low, Short-Range Transit Plan, Show Low, AZ —** *Project Principal.* Kimley-Horn led the development of the federally required Short-Range Transit Plan for the City of Show Low's two transit systems: the Four Seasons Connection and the White Mountain Connection. The project included extensive existing conditions and performance metric analysis to evaluate the successes and shortcomings of the existing systems. Virtual and in-person public engagement was also conducted to obtain feedback from the public on the systems and promote public transit in the White Mountain region. The plan presents recommendations for short-term changes to the system operations, presents opportunities for infrastructure improvements, provides a fiscally constrained funding plan, and options for enhancing the branding and digital reach of the transit system.
- **ADOT, I-10, Ina Road TI to Ruthrauff Road TI Final Design (I-10 Gap), Tucson, AZ —** *Project Engineer.* The I-10 Gap project is a four-mile-long reconstruction project along I-10 and provides four lanes in each direction, including auxiliary lanes and dual-lane entrance and exit ramps. The project will also reconstruct two existing TIs to increase capacity, provide adequate vertical clearance, and improve traffic operations. The project will also reconstruct/improve eight bridges. This project also included improvements to drainage, lighting, FMS, and landscape architecture design. Brent oversaw preparation of the traffic engineering analysis and report.

## Why Brent?

- Led the BCA for City of Show Low RAISE Grant
- More than two decades of experience in multimodal safety, traffic, and transportation planning
- Long history of serving as Project Manager or Task Leader for various ADOT studies and projects, including projects in smaller, rural communities throughout Arizona
- Experience with White Mountains communities, including projects in Show Low

### Education

- Master of Science, Civil Engineering, Virginia Polytechnic Institute and State University
- Bachelor of Science, Civil Engineering, Brigham Young University

### Licenses

- Professional Engineer in Arizona (#41366), California, Idaho, and Utah
- Professional Traffic Operations Engineer (#4166)
- Road Safety Professional 1 (#326)

### Affiliations

- Association of Pedestrian and Bicycle Professionals
- Institute of Transportation Engineers (ITE)

### Corporate Title

- Vice President

### Availability

- 45% Availability | 45% Project Commitment



## BRENT CROWTHER, CONTINUED

- **ADOT Strategic Highway Safety Plan (SHSP) and Active Transportation Safety Action Plan (ATSAP) Implementation Support, Statewide, AZ —** *Principal-in-Charge.* Kimley-Horn is currently partnering with ADOT on updating its Arizona's SHSP/Strategic Traffic Safety Plan (STSP) and creating Arizona's first ATSAP and Vulnerable Road User Safety Assessment (VRUSA) to help move the state Towards Zero Deaths by Reducing Crashes for a Safer Arizona (per the current Arizona SHSP/STSP vision). This update to the STSP (which will be known as the SHSP) is a framework for reducing fatalities and serious injuries on Arizona's roadways by leading and supporting Arizona's traffic safety partners from the 4-Es (Engineering, Education, Emergency Services, and Enforcement) with strategies and actions to address the identified emphasis areas and complete the VRUSA. The ATSAP, which will effectively be a combined update of the Pedestrian Safety Action Plan (PSAP) and Bicyclist Safety Action Plan (BSAP) and integration of the VRUSA, will provide focused attention on strategies and priorities to reduce fatalities and serious injuries among pedestrians and bicyclists.
- **ADOT, I-10 from SR 85 to Verrado Way GPL, Buckeye, AZ —** *Project Engineer.* Brent served as Project Engineer on this project to add GPL lanes in the median and reconstruct two traffic interchanges. The purpose of this project was to reduce congestion, enhance regional mobility, improve movement of goods and services, and improve access to residential and commercial developments. The project includes reconstruction of two existing TIs at Miller Road and Watson Road to a DDI configuration to increase capacity and improve traffic operations. The Kimley-Horn team completed the DCR and environmental documents. Public involvement including a public meeting and a VE study were also completed. Brent was responsible for writing the draft DCR document.
- **ADOT, US 93 at Pierce Ferry Road Intersection, Mohave County, AZ —** *Project Manager.* To improve safety and operations at the intersection, Kimley-Horn is evaluating the feasibility of grade-separated improvement alternatives at the intersection of US 93 and Pierce Ferry Road, in Mohave County. Alternatives will consider impacts, ROW, utilities, community impacts, and roadway users. The scope includes stakeholder and public engagement, traffic and crash data analysis, alternatives development, alternative evaluation including BCA, selection and refinement of recommended alternatives, and preparation of a feasibility report.
- **Central Yavapai Metropolitan Planning Organization (CYMPO), SR 89A and Robert Road Traffic Interchange Alternatives Selection Report, Prescott Valley, AZ —** *Project Manager.* CYMPO initiated the SR 89A/Robert Road TI Alternatives Selection Report (ASR) to confirm location, identify cost, and develop an implementation strategy for a new grade-separated structure to be located west of the existing Robert Road/SR 89A intersection, to replace the existing at-grade signalized intersection. The ASR will provide information for CYMPO and ADOT to evaluate project merit for final design and construction programming of SR 89A/Robert Road in the ADOT FY 2022-2026 Five-Year Program. Study objectives are to: confirm location of a new TI, identify engineering constraints, develop conceptual design/layout with R/W requirements, summarize environmental, social, and economic considerations, prepare a cost estimate, and identify options for phased implementation.
- **Pima County, Valencia Road, Wade Road to Ajo Highway (AZ 86), Tucson, AZ —** *Traffic Engineer.* The goal of this 3.27-mile Pima County roadway widening project was to improve safety, reduce congestion, improve operations at intersections and cross streets, and increase mobility and access. Key project components included extensive stakeholder coordination, drainage ponding effects on ASLD property, drainage conveyance through BLM property, roadway right-of-way verification, utility relocation and avoidance, roadway design, and structures design. Landscape services include developing landscape PS&E to County standards, habitat restoration and sustainable landscape development, water harvesting/maintenance plan, and SWPPP development.
- **City of Tucson, South 12th Avenue Multimodal and Streetscape Infrastructure Assessment Study and Final Design: 40th Street to Drexel Road, Tucson, AZ —** *Study Project Manager.* Kimley-Horn conducted the South 12th Avenue Study to identify facility enhancements to improve the safety, comfort, and convenience of people bicycling, walking, and using transit within the South 12th Avenue area. We prepared three potential improvement scenarios for 12th Avenue: a basic enhancement scenario (sidewalk improvements only); a moderate enhancement scenario (sidewalk and access improvements); and an enhanced scenario (sidewalks and a lane reduction to accommodate a bike lane and on-street parking). Kimley-Horn prepared cost estimates for each scenario and presented them to the public for input and feedback. Kimley-Horn prepared design and construction documents for the preferred alternative, which combined elements from all three initial scenarios to ensure business needs were met while improving the walkability of the corridor.


# ZACH SCHMIDT, P.E., CFM

*Drainage/Bridge Hydraulics*

## 18 years of experience • 17 years with Kimley-Horn

Zach has 18 years of experience in the planning and design of major drainage infrastructure improvement projects. These projects include roadway drainage systems that include major bridge crossings, box culverts, junction structures, regional drainage channels, detention basins, and erosion control measures. Zach experience also includes significant bridge scour analysis and scour countermeasure design. These experiences include numerous bridge scour reports for agencies determining bridge ratings for existing structures. Zach has also prepared numerous floodplain revisions according to FEMA regulations.

## Project Experience

- **Gila County, Oak Creek Bridge Replacement, Gila County, AZ —** *Drainage Engineer.* Kimley-Horn completed a DCR and final design documents for a new bridge over Oak Creek in Tonto Basin, AZ. The project replaced a pipe culvert crossing that frequently flooded with a new two-span precast concrete girder bridge. Related tasks included roadway, drainage, traffic, landscape architecture design, and environmental clearance documentation including a 404 permit.
- **City of Phoenix, Sonoran Desert Drive, I-17 to North Valley Parkway Design-Build, Phoenix, AZ —** *Drainage Engineer.* The City of Phoenix selected the Hunter Contracting/Kimley-Horn Design-Build team for this Sonoran Desert Drive project in north Phoenix. The project included the design and construction of one mile of a new six-lane arterial roadway along Sonoran Desert Drive from I-17 to North Valley Parkway. The project involved a 600-foot-long bridge over Skunk Creek, on- and off-site drainage improvements, environmental clearances, permits, FEMA CLOMR/LOMR approvals, and utility clearances. The project required significant drainage analysis and earthwork construction including drainage channels, retention basins, bank protection, and Section 404 permitting. In addition, the project included street lighting, signing/pavement marking, native plant surveys, and landscape architecture.
- **Gila County Tonto Creek Bridge, EA update, Final PS&E, Post Design, Gila County, AZ —** *Drainage Engineer.* Phase I of this federal aid project included the preparation of Location/Design Concept Report, BSR, EA, and Public Outreach Plan following NEPA guidelines. Phase II of the project included the final design for a 1,980-foot-long 14-span bridge over Tonto Creek with 0.5 mile of new and reconstructed roadway. The Kimley-Horn team prepared a BE (utilized during formal consultation with USFWS), Class III survey, PJD, PCN under RGP 96, PISA, noise analysis, and an EA Re-evaluation. Kimley-Horn recently prepared an additional EA Re-evaluation due to the revised scope of work and TCEs that are required for construction.
- **Graham County, 8th Avenue Bridge Replacement, Safford, AZ —** *Drainage Engineer.* Kimley-Horn provided a full range of engineering and environmental services for a new 1200-foot-long, four-lane AASHTO pre-cast concrete girder bridge over the Gila River in Graham County, including final plans, construction specifications, and construction cost estimates. Kimley-Horn prepared a DCR that included evaluations of different alignments, bridge types, span arrangements, and typical sections to determine the most economical alternative to meet the County's needs and construction budget. The final design included a new alignment that minimized utility impacts and maintained traffic on the existing road and bridge during construction to minimize impacts to the public.

## Why Zach?

- Led the bridge hydraulic design for a new 700-foot bridge crossing Skunk Creek for the Sonoran Desert Drive project among other large bridge crossings
- Regularly collaborates with our in-house transportation team to plan and design major drainage infrastructure improvements
- Collaborated with ADOT hydraulics team to develop best practices for new SRH-2D hydraulic modeling software.

### Education

- Bachelor of Science, Civil Engineering, Michigan Technological University

### Licenses

- Professional Engineer in Arizona (#50959), Colorado, Nevada, and Utah
- Certified Floodplain Manager, Association of State Floodplain Managers (#US-07-02739)

### Affiliations

- Association of Pedestrian and Bicycle Professionals
- Institute of Transportation Engineers (ITE)

### Corporate Title

- Associate

### Availability

- 60% Availability | 60% Project Commitment



## ZACH SCHMIDT, CONTINUED

- **City of Phoenix, Chandler Boulevard, 27th Avenue To 19th Avenue Design-Build, Phoenix, AZ —** *Drainage Engineer.* Chandler Boulevard was recently extended from 27th Avenue to 19th Avenue, providing a critical link between the residential subdivisions to Chandler Boulevard east of 19th Avenue. The project included roadway improvements, a storm drain, and two bridges. During the initial project, it was identified that further improvements must be made outside of environmental limits. This study is intended to investigate the capacity of the existing conditions and identify alternatives to help mitigate future stormwater issues. Kimley-Horn provided an Alternatives Report to the City that included research regarding the source of potential flooding and erosion problems, potential drainage improvement alternatives, and cost estimates for the recommended alternative.
- **ADOT, Colcord Bridge Replacement, Gila County, AZ —** *Drainage Engineer.* Kimley-Horn prepared a PA and is currently preparing final design for the replacement of the existing 80-year-old narrow, single span concrete frame Colcord Road bridge. Given the inability and the lack of detour routes, the replacement of the bridge will require the use of ABC methods to minimize the duration of the road closure. The new bridge will be comprised of prefabricated bridge elements and constructed with an estimated seven-day full road closure period.
- **MCDOT, Eagle Eye Road at Tiger Wash, Maricopa County, AZ —** *Drainage Engineer.* The project involved converting an underperforming low-flow crossing into an all-weather bridge crossing. The project included approximately 0.6 miles of roadway reconstruction; reconstruction of Eagle Eye Road, a low-volume road with a 2018 ADT of 149 vehicles per day; and about 600 feet of new guideway bank construction. Kimley-Horn coordinated directly with MCDOT staff to obtain environmental, utility, and ROW clearances including coordination with BLM through the MCDOT technical groups. MCDOT staff designed the bridge in house. The team assisted MCDOT with completing the EA and acquiring 24 acres of BLM land under a separate contract. We coordinated with BLM to establish a free-use permit for a borrow pit site near the project, potentially saving MCDOT more than $200K. Kimley-Horn facilitated a drainage design and bridge hydraulics for the realignment. The project included a Cost Risk Assessment to identify project risks and mitigation measures.
- **ADOT, I-10 from SR 85 to Verrado Way GPL, Buckeye, AZ —** *Drainage Engineer.* This project provides additional GPL on the Papago Freeway/I-10 from SR 85 to Verrado Way. The purpose of this project was to reduce congestion, enhance regional mobility, improve movement of goods and services, and improve access to residential and commercial developments. The project also included reconstruction of two existing TIs at Miller Road and Watson Road to a DDI configuration to increase capacity and improve traffic operations. The Kimley-Horn team completed the DCR and environmental documents. Public involvement including a public meeting and a VE study were also completed.
- **ADOT, Sacramento Wash Bridge and Roadway Improvements, Oatman, AZ —** *Drainage Engineer.* Zach performed bridge hydraulic analysis using SRH-2D for this project. Kimley-Horn provided final design and construction documents to raise the roadway profile and construct a new bridge on Oatman Highway at the Sacramento Channel Crossing. Our design realigned the roadway profile to balance an adequate clearance over the channel during the design storm while minimizing bridge height to reduce cost and construction footprint. This project utilized ABC to minimize the roadway closure time to four days. This was accomplished through a combination of prefabricated modular deck elements and cast-in-place elements designed by Kimley-Horn's structures team. Kimley-Horn also provided environmental services for the project.
- **ADOT, SR 101L Price GEC Phases I and II, US 60 to SR 202L (Santan) (2018-023), Tempe, AZ —** *Drainage Engineer.* Led by ADOT, in cooperation with MAG and FHWA, this project will add GPLs in each direction on SR 101L mainline from north of Baseline Road to the SR 202L to improve freeway capacity and help alleviate increased levels of traffic congestion in the future. The project also includes widening of the existing northbound bridge structure at Chandler Boulevard TI overpass, new retaining walls, existing retaining wall removals, onsite drainage improvement, and traffic design.
- **City of Scottsdale, Scottsdale Miller Road/SR 101L Underpass Construction Alternatives Analysis (CAA), Scottsdale, AZ —** *Drainage Engineer.* Kimley-Horn provided planning and design services to the City of Scottsdale to coordinate the construction of a new overpass at Miller Road and SR 101L in the north valley. Our team completed detailed construction cost estimating, phasing, and maintenance of traffic designs to show that building a new roadway under SR 101L was possible and could also be done with minimal impact to the traveling public. Using innovative phased construction and ABC techniques, our team provided guidance on how to ensure freeway closures were minimized at all costs.
- **ADOT, SR 80, San Pedro River Bridge, Cochise County, AZ —** *Drainage Engineer.* ADOT is proposing a bridge replacement project located on SR 80 Benson – Douglas Highway, near the unincorporated community of Saint David. The existing bridge is functionally obsolete due to the narrow clear roadway width and it is approaching its design life span. Replacing the existing bridge with a new wider bridge that will meet current standards will improve the safety for the motorist and reduce future maintenance costs. Zach performed bridge hydraulics using SRH-2D for this project.


# ERIC KOCHER, P.E.

*Traffic/Signal/Lighting*

## 10 years of experience • 5 years with Kimley-Horn

Eric has 11 years of diverse experience as a traffic and transportation engineer. He has provided traffic signal design, construction phasing, Maintenance of Traffic (MOT), and signing and marking for over 20 ADOT projects and was instrumental in developing Smart Work Zone (SWZ) standard specifications for ADOT. Eric has extensive experience coordinating with project stakeholders at ADOT, including Infrastructure Delivery and Operations Division, Transportation Systems Management & Operations (TSMO), District, and Regional Traffic.

## Project Experience

- **Gila County, Tonto Creek Bridge, Gila County, AZ —** *Traffic Engineer.* Kimley-Horn prepared an EA Re-evaluation and developed final design plans for this bridge crossing the Tonto Creek. Eric developed the construction phasing and traffic control plans for the project, which will be nearly identical to the phasing plans for this project.
- **ADOT, US 95, Rifle Range Road to Wellton-Mohawk Canal Roadway Widening, Yuma, AZ —** *Traffic Engineer.* Kimley-Horn designed approximately three miles of roadway widening along US 95 from Rifle Range Road to Wellton-Mohawk Canal. Eric developed the construction phasing, MOT, and signing and marking plans for the project. Eric coordinated the phasing of the Wellton-Mohawk Canal siphon reconstruction within a very strict allowable closure window that allowed the siphon to be successfully reconstructed with no long-term closures and limited impact to traffic.
- **ADOT, SR 82 Comoro Canyon Bridge, Nogales, AZ —** *Traffic Engineer.* This bridge project for ADOT involved structural rehabilitation efforts with an aggressive schedule. Kimley-Horn developed the scoping letter through extensive coordination with internal and external partners and ADOT. Eric was responsible for developing the construction phasing, signing, and pavement marking plans.
- **ADOT, I-40 EB Willow Creek Bridge Replacement, Mohave County, AZ —** *Traffic Engineer.* This project includes removing the existing eastbound bridge, stub-abutments, piers, and superstructure, and replacing with new bridge foundations, abutments, piers, and superstructure. During construction, a temporary bridge will be installed south of the existing bridge to temporarily carry I-40 eastbound traffic over Willow Creek. Once in place, I-40 eastbound traffic will be reduced to one lane and shifted onto the temporary bridge. The existing bridge will then be removed to enable crews to build the new eastbound bridge. The new bridge will be a two- span precast-pre-stressed concrete girder bridge. Eric was responsible for the temporary traffic control design for the project, including coordination with ADOT traffic design, district, and regional traffic staff on phasing constraints during blasting operations. Eric successfully delivered a constructible phasing plan that allowed the contractor to safely construct a major bridge with limited impact to traffic.
- **ADOT, SR 77, Jct I-10 to River Road (Genematas Drive), Tucson, AZ —** *Traffic Engineer.* Kimley-Horn designed this National Highway Performance Program (NHPP)-funded project to provide pavement rehabilitation by milling and paving the existing roadway to extend pavement life and improve smoothness and safety. Eric was responsible for developing the traffic control and construction phasing plans for the project.

## Why Eric?

- Decade of experience working directly with contractors to ensure projects are constructible
- Served ADOT for several years providing construction phasing, signing and marking, and traffic signal design

### Education

- Bachelor of Science, Civil Engineering, University of Kansas

### Licenses

- Professional Engineer in Arizona (#68040), Kansas, Missouri, Nevada, and New Mexico

### Affiliations

- ASCE
- ITE
- Intelligent Transportation Society of Arizona

### Corporate Title

- Associate

### Availability

- 50% Availability | 50% Project Commitment



## ERIC KOCHER, CONTINUED

- **ADOT, I-10, SR 85 to Verrado Way GPLs, Buckeye, AZ —** *Traffic Engineer.* Eric provided construction phasing and MOT design services that maintained traffic through two TIs while converting them from diamond to DDI traffic patterns. Eric coordinated internal reviews of the phasing and MOT with constructibility partners and ADOT staff to determine feasible and appropriate construction durations and associated liquidated damages specifications. He also assisted ADOT in acquiring innovation funding from FHWA to deploy a complex queue warning system to alleviate congestion during construction.
- **ADOT, I-10, Ruthrauff Road TI, Tucson, AZ —** *Traffic Engineer.* The I-10 Ruthrauff TI project provided grade separation between Ruthrauff Road and the UPRR. Roadway design included "flipping" the I-10 mainline, ramps, and frontage roads profiles to have I-10 pass under Ruthrauff Road and connect the ramps and frontage road to the new Ruthrauff Road profile over the UPRR, as well as reconnect the local streets. Kimley-Horn provided engineering services for the final design documents of Ruthrauff Road and local streets, traffic signals, roadway lighting, FMS, and utility relocations associated with the interchange reconstruction.
- **Town of Gilbert, Lindsay Road/SR 202L Traffic Interchange, Gilbert, AZ —** *Traffic Engineer.* Kimley-Horn designed a new full-access diamond TI at Lindsay Road and SR 202L. Eric developed the MOT and construction phasing plan for the new entry/exit ramps, a westbound frontage road, traffic signals and interconnect, and future fourth general-purpose lane widening on SR 202L. Eric, in coordination with ADOT District and TSMO staff and the Town of Gilbert, successfully developed a phasing plan for the complete reconstruction of Lindsay Road between the ramp terminals while undergrounding the RWCD canal, all while maintaining traffic along Lindsay Road and SR 202L.
- **ADOT, SWZ Technical Concept Study, Statewide, AZ —** *Traffic Engineer.* Eric was instrumental in developing a new Section 710 within the ADOT Standard Specifications for SWZ systems. The team identified the various tools that will aid professionals throughout the state in selecting the appropriate measures to implement SWZ equipment on projects to maximize the safety of employees, contractor workers, and the traveling public through work zones. This SWZ equipment will also reduce delays and driver frustration while traveling through work zones.
- **ADOT, SR 303L, 51st Avenue and 43rd Avenue TIs, Phoenix, AZ —** *Traffic Engineer.* Kimley-Horn played a major role in delivering two TIs that will serve the erupting TSMC campus and other impending developments in the North Valley. The typical 18-month design schedule was reduced to 11 months to meet ADOT's commitment of opening the TIs by summer 2023, providing connection to the recently constructed City of Phoenix arterial street improvements (also designed by Kimley-Horn). As a subconsultant, Kimley-Horn was involved with roadway, drainage, lighting, signals, landscape irrigation, and aesthetic design, working with the prime consultant to develop Special Provisions and the construction estimate. To fast-track FEMA CLOMR approval, Kimley-Horn performed the hydraulic modeling used to re-delineate the Upper Buchanan Wash floodplain, which was critical to mitigate schedule slippage and cost escalation.
- **ADOT I-40 Broadband: CA State Line to I-17/I-40 TI, AZ —** *Traffic Engineer.* Kimley-Horn is providing technical support for establishing electrical service points for the node buildings and developing the modifications needed to the ADOT Type IV load center to better serve the node buildings and future ITS field devices within rural areas. The team is assisting ADOT with developing a new broadband detail for how the seven-way conduit system needs to be installed when crossing roadways to ensure the seven-way conduit system passes through all three broadband pull boxes on each side, as well as establishing how spare conduits need to be installed within these crossing at traffic interchanges in support of future ITS device installations. Kimley-Horn will also be assisting with establishing the seasonal limitations for micro-trenching, to ensure proper curing time of the two-sack slurry backfill.
- **ADOT, I-17 Broadband Infrastructure, Van Buren St. to Flagstaff, Multiple Counties, AZ —** *Traffic Engineer.* Kimley-Horn designed a seven-way multi-duct and micro-fiber cabling for high-speed broadband along 141 miles of I-17. The design included minimizing impacts to environmental culturally-sensitive areas and obtaining associated environmental clearances; working with the CMAR to VE the installation requirements to reduce construction schedule and cost impacts; working with the CMAR to build consensus on pay items and associated quantities; working with ADOT U&RR and R/W to obtain associated clearances; working with the CMAR and ADOT Districts to develop the MOT requirements; coordinating with ADOT Roadside to develop the erosion control, seeding and noxious weed control special provisions requirements; coordinating with ADOT Bridge group on conduit attachment methods to the various bridges; coordinating with TSMO to develop the changes required to the FMS standard details to support this new seven-way multi-duct and micro-fiber cabling approach being adopted by ADOT; coordinating with TSMO and power utilities to establish new node buildings and associated load center locations; developing a modified version of the Type IV load center to accommodate 120, 240, and 480 distribution circuits to ITS devices and node buildings; developing a new step-down transformer specification with voltage augmentation taps to reduce conductor sizes required; and supporting ADOT in responding to bidder and CMAR questions.
- **ADOT, SR 101L, Princess to Shea DCR Update, Scottsdale, AZ —** *Traffic Engineer.* This project, completed as a task order under the Project Development On-Call, is a DCR update for the segment on SR 101L (Pima freeway) from Princess Drive to Shea Boulevard, which ADOT is currently procuring for final design. The DCR update mainly evaluated the reconfiguration of the two TIs at Frank Lloyd Wright Boulevard and Raintree Drive and capacity improvements on the Shea Boulevard TI. The project also included evaluating and minimizing impacts to the retaining/noise walls, preparing AASHTO and ADA feasibility reports, preparing design exception requests for the various elements, and updating cost estimates.


# ANNE DEBOARD, PLA

*Landscape Architecture/Aesthetics/Erosion Control*

## 22 years of experience • 17 years with Kimley-Horn

Anne has developed innovative and sustainable streetscape solutions for local municipalities, tribes, and state agencies, specifically incorporating green infrastructure and low impact development (LID) practices where possible. She is a certified Associated General Contractor (AGC)-ADOT Erosion Control Coordinator. Anne has a proven performance in all stages of a project's life cycle, beginning with master planning, design concept reports, and/or project assessments, to final construction documents and construction administration. Anne has been working with ADOT for more than 10 years and is highly proficient in ADOT processes related to bid documents, specifications/special provisions, and cost estimating. She has extensive experience as a task leader for developing project special provisions for large, multidisciplinary projects (both ADOT and municipal) and she has developed specific special provisions related to landscape architectural design.

## Project Experience

- **City of Phoenix Chandler Boulevard – 27th Avenue to 19th Avenue Design-Build, Phoenix, AZ —** *Landscape Architect.* Kimley-Horn was responsible for significant preliminary design including roadway alignment and drainage wash crossing alternatives. The project will construct 1 ¼ miles of new street improvements, two bridges over substantial wash crossings, new storm drain systems, relocation of both 12-inch distribution and 48-inch transmission water lines, signing and pavement markings, street lighting, and native plant salvage. The project required substantial public involvement including presentations to home owners associations (HOAs) and the local village planning committee. In addition, Kimley-Horn led the coordination for the relocation of a private utility trench containing Salt River Project (SRP), CenturyLink and Cox Communications facilities prior to the start of construction.
- **ADOT, I-10 from SR 85 to Verrado Way GPL, Buckeye, AZ —** *Landscape Architect.* This project provides additional GPL on the Papago Freeway/I-10 from SR 85 to Verrado Way. The purpose of this project was to reduce congestion, enhance regional mobility, improve movement of goods and services, and improve access to residential and commercial developments. The project also included reconstruction of two existing TIs at Miller Road and Watson Road to a DDI configuration to increase capacity and improve traffic operations. The Kimley-Horn team completed the DCR and environmental documents. Public involvement including a public meeting and a VE study were also completed.
- **ADOT, SR 82 Comoro Canyon Bridge, Nogales, AZ —** *Landscape Architect.* This bridge project for ADOT involved structural rehabilitation efforts with an aggressive schedule. Kimley-Horn developed the scoping letter through extensive coordination with internal and external partners and ADOT. We also prepared the final design documents and cost estimates for the project.
- **ADOT, I-10 Ina Road TI, Tucson, AZ —** *Landscape Architect.* This CMAR project completely reconstructed the I-10/Ina Road TI, providing grade separation between Ina Road and the UPRR. To accomplish this, I-10 mainline, ramps, and frontage roads profiles were flipped to have I-10 pass under Ina Road and connect the ramps and frontage road to the new Ina Road profile over the UPRR, as well as reconnect the local streets. Kimley-Horn, as a major subconsultant, was responsible for the Ina Road and local streets reconstruction design, including the Ina Road bridges over I-10 and UPRR and the Ina Road pavement

## Why Anne?

- Specializes in roadway landscape design and developing sustainable streetscape solutions
- Certified Associated General Contractor-ADOT Erosion Control Coordinator
- Has been working with ADOT for more than a decade, making her highly proficient in ADOT processes

### Education

- Master of Landscape Architecture, Florida A&M University
- Bachelor of Science, Environmental Studies, University of West Florida

### Licenses

- Professional Landscape Architect in Arizona (#50615), Idaho, Florida, Montana, Nevada, and Utah

### Affiliations

- American Society of Landscape Architects (ASLA)

### Corporate Title

- Associate

### Availability

- 40% Availability | 40% Project Commitment



## ANNE DEBOARD, CONTINUED

drainage, signing, and pavement marking. Kimley-Horn was also responsible for the I-10 mainline, ramp and frontage road lighting, FMS, and landscape architecture design. Preparation of a traffic management plan and effective traffic phasing in coordination with the CMAR minimized impacts to the public.

- **ADOT, SR 303L, 51st Avenue and 43rd Avenue TIs, Phoenix, AZ —** *Landscape Architect.* Kimley-Horn played a major role in delivering two TIs that will serve the erupting TSMC campus and other impending developments in the North Valley. The typical 18-month design schedule was reduced to 11 months to meet ADOT's commitment of opening the TIs by summer 2023, providing connection to the recently constructed City of Phoenix arterial street improvements (also designed by Kimley-Horn). As a subconsultant, Kimley-Horn was involved with roadway, drainage, lighting, signals, landscape irrigation, and aesthetic design, working with the prime consultant to develop Special Provisions and the construction estimate. To fast-track FEMA CLOMR approval, Kimley-Horn performed the hydraulic modeling used to re-delineate the Upper Buchanan Wash floodplain, which was critical to mitigate schedule slippage and cost escalation.
- **ADOT, SR 143 Sky Harbor Boulevard Interchange, Phoenix, AZ —** *Landscape Architect.* Kimley-Horn designed TI modifications to add two new ramps from southbound SR 143 to westbound Sky Harbor Boulevard and from eastbound Sky Harbor Boulevard to southbound SR 143. The existing cloverleaf ramp connecting SR 202L/Sky Harbor Boulevard to SR 143 was improved by providing a more efficient freeway-to-freeway directional ramp; Kimley-Horn designed a 14-span flyover for westbound Sky Harbor Boulevard over SR 143 southbound. A VE Study was used to develop the best alignment alternatives that balanced project area constraints, minimized environmental impacts, and maximized funding and improvements to the interchange. This project won the Associated General Contractors of the Arizona Chapter 2012 Build Arizona Award in the Public Renovation – Highway Construction Projects over $10 million category. By the end of the project Kimley-Horn saved $2 million and the project was completed on time.
- **ADOT, South Mountain Aesthetics, Phoenix, AZ —** *Landscape Architect.* Kimley-Horn teamed with three other design teams, including a team made up of students from Frank Lloyd Wright's school at Taliesin West and a team from Arcosanti, to evaluate a corridor for a new interstate and develop context-sensitive and historically relevant design guidelines. This 27-mile corridor was divided into five character areas based on existing and historical conditions. A palette of materials developed for each area included plantings, inert materials, landform graphics, rustification patterns, and paint colors. This information was illustrated in 3D digital models to help everyone visualize the design intent. Many meetings were held with stakeholder groups to build consensus on the final design.
- **ADOT, I-10, Sarival Avenue to Dysart Road, Goodyear, AZ —** *Landscape Architect.* Kimley-Horn designed landscape architectural improvements for a seven-mile section of I-10, following the I-10 roadway widening project. The Kimley-Horn landscape architecture team provided landform graphics and landscape and irrigation design. Kimley-Horn conducted a visual assessment of the project area to understand the current conditions. In collaboration with ADOT and the City of Goodyear, the Kimley-Horn team developed a final series of innovative landform graphics to be installed at each of the TIs. The plants were thoughtfully chosen to be low-water use and drought-tolerant. The Kimley-Horn team coordinated with ADOT, organized weekly meetings, and produced meeting materials throughout this effort.
- **ADOT, SR 101L, Princess to Shea DCR Update, Scottsdale, AZ —** *Landscape Architect.* This project, completed as a task order under the Project Development On-Call, is a DCR update for the segment on SR 101L (Pima freeway) from Princess Drive to Shea Boulevard, which ADOT is currently procuring for final design. The DCR update mainly evaluated the reconfiguration of the two TIs at Frank Lloyd Wright Boulevard and Raintree Drive and capacity improvements on the Shea Boulevard TI. The project also included evaluating and minimizing impacts to the retaining/noise walls, preparing AASHTO and ADA feasibility reports, preparing design exception requests for the various elements, and updating cost estimates.
- **ADOT, SR 77, Jct. I-10 to River Road, Location, AZ —** *Landscape Architect.* Kimley-Horn designed this NHPP-funded project to provide pavement rehabilitation by milling and paving the existing roadway to extend pavement life and improve smoothness and safety. Kimley-Horn prepared an ADA feasibility report with a PA and Stage III, IV, and V PS&E and acquired all clearances.


# JENNIFER SIMPKINS, REP

*Environmental*

## 22 years of experience • 22 years with Kimley-Horn

As a Senior Environmental Scientist, Jennifer has 22 years of experience in managing environmental regulatory compliance issues for both the private and public sector throughout Arizona. She is experienced in preparing biological evaluations including habitat analysis, threatened and endangered species evaluations, and designing and conducting species-specific surveys. She is also well versed in Section 404 permitting with extensive experience preparing PJDs, Approved Jurisdictional Delineations (AJDs), as well as individual and general (regional and nationwide) permit applications. Jennifer has experience in conducting PISAs and Phase I/II Environmental Site Assessments (ESAs). Her NEPA experience includes CEs, EAs, and Environmental Impact Statements (EISs). Leads Kimley-Horn's Environmental On-call contract with ADOT (completing over 50 task orders) and is thoroughly familiar with ADOT staff and requirements.

## Project Experience

- **Pima County, Sunset Road, Santa Cruz River to River Road, Tucson, AZ —** *Environmental Scientist.* The one-mile-long Sunset Road Bridge project which widens Sunset Road to four lanes from the Santa Cruz River bridge to the I-10 TI and then extends Sunset Road on new alignment over the UPRR and Rillito River tying into River Road. Project development followed the Federal-Aid and NEPA process. The project included a new 206-foot-long single-span bridge over the UPRR and a new 376-foot-long three-span bridge over the Rillito River. Bridge design over the Rillito River included extensive hydraulic analysis and coordination with PCRFCD and was designed to eliminate any modifications to existing soil cement.
- **Gila County Tonto Creek Bridge, EA update, Final PS&E, Post Design, Tonto Basin, AZ —** *Environmental Scientist.* Phase I of this federal-aid project included the preparation of Location/Design Concept Report, BSR, EA, and Public Outreach Plan following NEPA guidelines for a bridge crossing Tonto Creek for Gila County. The project is located within the Tonto National Forest and includes numerous sensitive cultural resource sites and historic properties requiring coordination with the Arizona State Historic Preservation Office (SHPO). Phase II of the project included the final design for a 1,980-foot-long 14-span bridge over Tonto Creek with 0.5 mile of new and reconstructed roadway. To arrive at a selected alternative and satisfy the requirements of NEPA, the process we have implemented includes scoping, alternative selection, and final summary meetings with the agencies, stakeholders, and the public.
- **MCDOT, Eagle Eye Road at Tiger Wash, Aguila, AZ —** *Environmental Scientist.* The project involved converting an underperforming low-flow crossing into an all-weather bridge crossing. The project included approximately 0.6 miles of roadway reconstruction; reconstruction of Eagle Eye Road, a low-volume road with a 2018 average daily traffic (ADT) of 149 vehicles per day; and about 600 feet of new guideway bank construction. Kimley-Horn coordinated directly with MCDOT staff to obtain environmental, utility, and ROW clearances including coordination with BLM through the MCDOT technical groups. MCDOT staff designed the bridge in house. The team assisted MCDOT with completing the Environmental Assessment and acquiring 24 acres of BLM land under a separate contract. We coordinated with BLM to establish a free-use permit for a borrow pit site near the project, potentially saving MCDOT more than $200K.

## Why Jennifer?

- Integrated with our transportation professionals to seamlessly manage environmental regulatory compliance
- Leads Kimley-Horn's Environmental On-call contract with ADOT, and thoroughly familiar with ADOT staff and requirements
- Focuses on environmental compliance for ADOT and federally funded projects

### Education

- Master of Landscape Architecture, Florida A&M University
- Bachelor of Science, Environmental Studies, University of West Florida

### Licenses

- Registered Environmental Professional (REP #6063)
- 40-hour Hazardous Waste Operations and Emergency Response training

### Affiliations

- National Registry of Environmental Professionals

### Corporate Title

- Associate

### Availability

- 50% Availability | 50% Project Commitment



## JENNIFER SIMPKINS, CONTINUED

- **ADOT Environmental On-Call, Statewide, AZ —** *Project Manager.* Kimley-Horn is currently one of two consultants providing ADOT with on-call environmental services. Jennifer serves as Project Manager for this on-call contract.
- **ADOT, I-40 Willow Creek Bridge Replacement, Kingman, AZ —** *Environmental Scientist.* Kimley-Horn was selected by ADOT for this project, which involves a Bridge Selection Report, and the Final Design Plans to replace Willow Creek Bridge No. 3 along eastbound I-40. The project includes shifting the I-40 alignment to allow the new bridge to be constructed in a single phase and for minimal impact to traffic during construction. The project includes approximately one mile of roadway reconstruction, as well as coordination with ADOT staff to obtain environmental, utility, and ROW clearances. Kimley-Horn is responsible for overall project management, roadway and structures design, traffic control, erosion control, seeding, and submittal document production.
- **City of Phoenix, Chandler Boulevard, 27th Avenue To 19th Avenue Design-Build, Phoenix, AZ —** *Environmental Scientist.* Chandler Boulevard was recently extended from 27th Avenue to 19th Avenue, providing a critical link between the residential subdivisions to Chandler Boulevard east of 19th Avenue. The project included roadway improvements, a storm drain, and two bridges. During the initial project, it was identified that further improvements must be made outside of environmental limits. This study is intended to investigate the capacity of the existing conditions and identify alternatives to help mitigate future stormwater issues. Kimley-Horn provided an Alternatives Report to the City that included research regarding the source of potential flooding and erosion problems, potential drainage improvement alternatives, and cost estimates for the recommended alternative.
- **ADOT, San Pedro River Bridge, Benson, AZ —** *Environmental Scientist.* Kimley-Horn is providing design and environmental services required for a bridge replacement project near the unincorporated community of Saint David, Arizona. The environmental scope of work includes agency/ public scoping, an expedited separate geotechnical clearance, Biological Evaluation (BE) for geotechnical investigations, BE for the overall project construction including formal consultation with USFWS, PISA, asbestos and lead-based paint survey, Abbreviated PJD, and Section 404 permitting (RGP No. 96) Concurrence Notification.
- **ADOT, I-10, Ina Road TI to Ruthrauff Road TI, Tucson, AZ —** *Environmental Scientist.* The I-10 Gap project is a four-mile-long reconstruction project along I-10 that provides four lanes in each direction, including auxiliary lanes and dual-lane entrance and exit ramps. In order to meet funding deadlines, the project was designed on an accelerated 16-month schedule. The project also reconstructs two existing TIs at Orange Grove Road and Sunset Road to increase capacity, provide adequate vertical clearance, and improve traffic operations. Additional improvements included drainage, lighting, FMS, traffic signals, landscape architecture design, and utility relocations. Kimley-Horn prepared 3D renderings, fly-thru, visualizations, and PowerPoint presentation for a public meeting and helped ADOT Communications with public involvement. Kimley-Horn led the environmental team in preparation of scoping letters, a Biological Evaluation Short Form (BESF) for geotech/ potholing; a BE Re-evaluation for the overall project; a Preliminary Initial Site Assessment (PISA) and testing for asbestos/lead; noise and air analysis; substantial cultural resources work including a Historic Properties Treatment Plan (HPTP), and Phase 1 and 2 testing and data recovery; Section 404/401 delineations and permitting; Section 408 permitting; and the EA Re-evaluation.
- **ADOT, US 95, Rifle Range Road to Wellton-Mohawk Canal Roadway Widening, Yuma, AZ —–** *Environmental Scientist.* ADOT selected Kimley-Horn to provide final design services to widen approximately three miles of US 95 from Rifle Range Road to Wellton-Mohawk Canal. The purpose of this project is to add capacity, enhance traffic operations, and improve safety by widening the existing two-lane roadway to a five-lane roadway including a two-way-left-turn-lane and 8' paved shoulders. The existing bridge over Wellton-Mohawk Canal is 70 years old, narrow, and hit numerous times and will be replaced to accommodate the wider roadway. The design includes refined horizontal alignment of US 95 and vertical grades and adjusting the existing turnouts.
- **ADOT, I-10 from SR 85 to Verrado Way General Purpose Lanes (GPL), Buckeye, AZ —** *Environmental Scientist.* ADOT is proposing a roadway widening project located on I-10 from MP 111.7 near the SR 85/I-10 system interchange to MP 122.8 near Perryville Road in the City of Buckeye, City of Goodyear, and Maricopa County. The purpose of this project is to reduce congestion, enhance regional mobility, improve movement of goods and services, and improve access to residential and commercial developments by increasing the capacity of I-10 by providing additional GPLs as identified in the Regional Transportation Plan Freeway Program (RTPFP). The project will also include reconstruction of two existing TIs at Miller Road and Watson Road to increase capacity and improve traffic operations. Kimley-Horn is providing design and environmental services required for the project. The environmental scope of work includes agency/public scoping, an expedited separate geotechnical clearance, BESF, PISA, cultural resources survey, air/noise analysis, Section 4(f) review, Section 404 permitting (RGP No. 96) compliance documentation, and an Individual CE that is being processed through ADOT after the NEPA assignment was granted in April 2019. Environmental clearance (via CE) was issued in May 2019.


# DANIEL FRECHETTE, PH.D., P.E.

*Geotechnical*

ethos ENGINEERING, LLC.

## 24 years of experience • 2 years with Ethos

Daniel is a geotechnical engineer with over 24 years of experience successfully performing the duties of contract manager, project manager, project geotechnical engineer, and senior technical reviewer on a wide range of projects, including more than 190 transportation projects ranging from local municipal roadways to urban and interstate highway projects with budgets in excess of $1 million. These projects included more than 300 miles of roadway and more than 175 bridges. Daniel's experience includes development of geotechnical proposals, detailed geotechnical scope and cost estimating activities, permit acquisition, planning and execution of site reconnaissance, development of geotechnical exploration and laboratory testing programs, design of pavement sections, foundations to support bridges, earth retaining structures and sound walls, slope stability analysis and review of shoring, and proprietary retaining wall design submittals. He is well versed in AASHTO geotechnical, foundation and pavement design standards. Daniel consistently receives top marks from his clients for quality, technical capabilities, deliverables, and communication, which are all key in delivering a successful project.

## Project Experience

- **City of Phoenix, Sonoran Desert Drive, Interstate 17 to North Valley Parkway, Phoenix, AZ —** *Geotechnical Project Manager/Geotechnical Lead.* Design of approximately 0.8 miles of new roadway and five-span bridge over Skunk Creek founded on drilled shafts. Completed a pavement evaluation that considered asphaltic concrete (AC), AC with geogrid subgrade support and Portland cement concrete pavement (PCCP), and identified a cost-effective pavement section for the design of the roadway.
- **ADOT, I-40, Willow Creek Bridge No. 3, Mohave County, AZ —** *Geotechnical Project Manager/Geotechnical Lead.* The project site consists of bedrock overlain by embankment fill and shallow bedrock at the bridge abutments and piers, respectively. The Ethos team evaluated exposed rock slopes to accommodate the project improvements; and developed an investigation program that reduced impacts to the traveling public and environment and was more economical by using refraction seismic techniques and slope mapping. Furthermore, the Ethos team evaluated the erodibility of the shallow bedrock to determine the piers could be supported on spread footings providing cost savings and increasing the constructibility of the bridge foundations.
- **ADOT, SR 80, San Pedro River Bridge, Cochise County, AZ —** *Geotechnical Project Manager/Geotechnical Lead.* The project site consists of interbedded layers of sand and clay overlying a very firm to hard medium to high plasticity clay with shallow groundwater. These soil conditions are atypical to most of Arizona requiring an alternative approach to investigating and testing. The Ethos team developed an investigation program to better characterize the clay foundation soils to support drilled shaft design, which resulted in the drilled shafts being smaller and shorter providing significant cost savings to ADOT and increasing the constructibility of the bridge foundations.
- **ADOT, I-10 - SR 85 to Verrado Way Widening Section, Maricopa County, AZ —** *Geotechnical Project Manager/Geotechnical Lead.* Ethos conducted a geotechnical investigation and design for the widening of six miles of I-10 by one lane in both directions, including the reconstruction of the Watson Road and Miller Road TIs affected by the mainline improvements. Sound and retaining walls were required at various locations throughout the project limits. The geotechnical investigation overcame the challenges of working adjacent to live traffic along I-10 with limited disturbances to traffic.

## Why Daniel?

- Worked with Kimley-Horn on several rural bridge projects
- Completed designs for more than 300 miles of roadway and more than 175 bridges
- Developed an excellent working relationship with ADOT while working on over 120 projects

### *Education*

- Doctor of Philosophy, Civil Engineering (Geotechnical), Arizona State University
- Master of Science, Civil Engineering (Geotechnical), Arizona State University
- Bachelor of Science, Civil Engineering, Arizona State University

### *Licenses*

- Professional Engineer in Arizona (#37284) and UT

### *Affiliations*

- ASCE
- Geo-Institute

### *Corporate Title*

- Principal

### *Availability*

- 50% Availability | 50% Project Commitment



## DANIEL FRECHETTE, CONTINUED

- **ADOT, SR 303L, MC 85 to Van Buren, Maricopa County, AZ —** *Lead Geotechnical Engineer.* New freeway for the extension of SR 303L including two lanes in each direction, eight bridges, three traffic interchanges, and approximately two miles of retaining and sound walls for the elevated freeway. The bridges will be founded on drilled shafts and the retaining walls are expected to be a combination of cast-in-place concrete founded on spread footings and MSE walls. Both wall types were evaluated to allow selection of the more cost-effective alternative. The new roadway alignment crosses several agricultural fields and encountered both soft and collapsible soils. Ethos developed a plan to mitigate the long-term impacts of these problematic soils while working to mitigate the costs.
- **ADOT, I-40, Allentown Bridge TIUP, Apache County, AZ —** *Geotechnical Project Manager/Geotechnical Lead.* Daniel was responsible for the geotechnical investigation and development of drilled shaft axial capacity design recommendations. The project consisted of replacement of the existing bridge with a two-span structure. The soils consisted of very moist to saturated clay soils overlying bedrock. The remote project site required extensive coordination with the drillers, traffic control, DPS officers, and ADOT to ensure the field work was completed on time to ensure the project stayed on schedule and on budget.
- **ADOT, I-19, Ajo Way (SR 86) Traffic Interchange, Tucson, AZ —** *Geotechnical Lead and Project Manager.* Daniel was responsible for the geotechnical investigation and design for the reconstruction of the Ajo Way TI. The project extends approximately 1½ miles along I-19 and approximately ¾ miles along Ajo Way. The Ajo Way TI is in a congested urban setting with significant challenges associated with utilities, residential and business land use, and heavy traffic. The project consisted of four bridges, thirteen retaining and sound walls (14,000 feet). Daniel developed a cost-effective solution to mitigate the collapse potential of the site soils beneath the walls through development of a proof rolling pattern using a vibratory roller and the use of lightweight fill to reduce the bearing pressures.
- **ADOT, SR 202L South Mountain Freeway, I-10/59th Avenue to I-10/Pecos Road Design-Build Final Design, Maricopa County, AZ —** *Design Manager and Geotechnical Lead.* Daniel co-led the geotechnical investigations for the SR 202L South Mountain Freeway project which is approximately 22-miles long that ties into I-10 near 59th Avenue at the west end and into I-10 at Pecos Road on the east end. He performed a geotechnical investigation consisting of more than 800 exploration borings using a variety of techniques in conjunction with geophysical surface seismic refraction surveys; geologic reconnaissance; and laboratory testing for the six-lane divided highway. The highway also included HOV lanes with a rolling plan and profile including retention/detention basins, embankment fill, roadway cuts (including rock cuts), bridges, retaining walls, sound walls, and box culverts. Wood performed the drilling program with multiple drill rigs and rock coring field engineers/geologists in order to meet the aggressive schedule demands of the project. Wood provided design recommendations for the foundation and geotechnical aspects of two segments.
- **ADOT, SR 101L Price Freeway, Baseline Road to SR 202L (Santan Freeway) GPL, Maricopa County, AZ —** *Geotechnical Discipline Lead.* Daniel performed a geotechnical and investigation for the design and construction of one general purpose lane in each direction by widening the existing roadway to the outside. Auxiliary lanes were added between successive service interchange entrance and exit ramps. The northbound Chandler Boulevard TI overpass bridge structure was widened using drilled shafts to support the bridge. Daniel also provided recommendations for retaining and sound walls, consisting of both cast-in-place and soil nail types.
- **ADOT, SR 24, Ellsworth Road to Ironwood Road, Maricopa and Pinal Counties, AZ —** *Geotechnical Lead.* Daniel was responsible for the geotechnical investigation and design for the final design of the interim phase of SR 24. The Ellsworth Road bridge structures will be constructed along with a bridge for the SR 24 over Mountain Road, and approximately 2,800 feet of retaining walls will be constructed along with a parallel drainage channel.


**From:** Alvarez, Melissa
**To:** Beichert, Tracy
**Subject:** FW: Bidders List for Kimley-Horn & Associates, Inc.
**Date:** Tuesday, March 19, 2024 10:38:32 AM

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**From:** ADOT Business Engagement and Compliance Office <AZUTRACS-Support@azdot.gov>
**Sent:** Tuesday, March 19, 2024 10:38 AM
**To:** Alvarez, Melissa <melissa.alvarez@kimley-horn.com>
**Cc:** ContractorCompliance@azdot.gov
**Subject:** Bidders List for Kimley-Horn & Associates, Inc.

**Kimley-Horn & Associates, Inc.**, AZUTRACS Number: 10608 has submitted a Bidder/Proposer list for **2024-013** on 03/19/2024 at 10:37 AM MST (UTC - 07:00).

## Bidders/Proposers for this firm include:

| Firm Name | AZUTRACS # | Expiration Date | Email Address | Phone Number |
|---|---|---|---|---|
| Cooper Aerial | 16537 | 08/11/2026 | Phil@cooperaerial.com | 602-678-5111 |
| Desert Archaeology, Inc. | 10265 | 01/20/2026 | trish@desert.com | 520-881-2244 |
| Ethos Engineering, LLC | 10363 | 01/25/2027 | pgarza@ethosengineers.com | 480-326-8487 |
| Ironside Engineering and Development, Inc. | 18495 | 02/13/2026 | brucei@ironsideengr.com | 928-532-0880 |
| Newton Environmental Consulting, LLC | 10770 | 03/09/2026 | angie@newtonec.com | 602-332-9642 |
| T.Y. Lin International | 11144 | 08/14/2026 | james.barr@tylin.com | 480-968-8814 |

**Engineering Consultants Section**



**Date:** March 1, 2024

**TO:** ALL INTERESTED PARTIES

**SUBJECT:** AMENDMENT NUMBER 01

**REFERENCE:** REQUEST FOR QUALIFICATIONS
CONTRACT NUMBER 2024-013
SCOTT RANCH ROAD
SHOW LOW LAKE ROAD TO PENROD ROAD, FINAL DESIGN

The following questions have been asked in reference to the above Request for Qualifications package:

Question 1:
Page 1 of the RFQ, section I Public Advertisement, states that the SOQs are due March 20, 2024 at 2 pm. Section II General Instructions also states that SOQs are due March 20, as does the section titled "Selection Process through Contract NTP Schedule" and the "RFQ Questions and SOQ Submittal Instructions" section. However, the Current Advertisements ADOT **webpage** lists an SOQ due date of 3/29/24. Can you please clarify the correct due date and time for this SOQ?

Answer 1:
SOQ's are due on March 20, 2024 at 2:00 P.M. Arizona (Phoenix) Time.

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.**

Kimley-Horn and Associates, Inc.

CONSULTANT NAME SIGNATURE

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

**Date:** March 7, 2024

**TO:** ALL INTERESTED PARTIES

**SUBJECT:** AMENDMENT NUMBER 02

**REFERENCE:** REQUEST FOR QUALIFICATIONS
CONTRACT NUMBER 2024-013
SCOTT RANCH ROAD
SHOW LOW LAKE ROAD TO PENROD ROAD, FINAL DESIGN

The following question has been asked in reference to the above Request for Qualifications package:

Question:
The scope of work refers to a Bridge Selection Report (BSR) that was previously prepared and states that consultants should proceed with the bridge design based on concepts in the BSR. Can ADOT please make the BSR and any other vital documents available to proposers?

Answer:
The bridge selection report and geotech report will be reviewed with the selected consultant during design.

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.**

Kimley-Horn and Associates, Inc.

CONSULTANT NAME SIGNATURE

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

**CONSULTANT INFORMATION PAGES (CIP)**

CONTRACT NO.: 2024-013

CONTACT PERSON: Siva Sivakumar, P.E.

E-MAIL ADDRESS: siva.sivakumar@kimley-horn.com

TITLE: Vice President

CONSULTANT FIRM: Kimley-Horn and Associates, Inc.

ADDRESS: 7740 N. 16th Street, Suite 300

CITY, STATE ZIP: Phoenix, AZ 85020

TELEPHONE: 602.944.5500

FAX NUMBER: 602.944.7423

DUNS #: 061099131

ADOT CERTIFIED DBE FIRM? (YES/NO)

No

| SUBCONSULTANT(S): | TYPE OF WORK | ADOT CERTIFIED DBE FIRM (YES/NO) |
|---|---|---|
| Ethos Engineering, LLC | Geotechnical | Yes |
| Cooper Aerial Surveys Co. | Aerial mapping/survey | No |
| Desert Archaeology, Inc. | Cultural | Yes |
| Newton Environmental Consulting, LLC | Noise Analysis/Hazmat | Yes |
| | | |
| | | |
| | | |

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

**SUBCONSULTANT(S) TABLE:**

| | |
|---|---|
| SUBCONSULTANT FIRM NAME: | Ethos Engineering, LLC |
| CONTACT PERSON: | Daniel Frechette, Ph.D., P.E. |
| E-MAIL ADDRESS: | dfrechette@ethosengineers.com |
| TITLE: | Principal/Senior Geotechnical Engineer |
| ADDRESS: | 9180 S. Kyrene Road, Suite 104 |
| | |
| CITY, STATE ZIP: | Tempe, AZ 85284 |
| TELEPHONE: | 602.989.1742 |
| FAX NUMBER: | N/A |
| DUNS #: | 030828918 |

| | |
|---|---|
| SUBCONSULTANT FIRM NAME: | Cooper Aerial Surveys Co. |
| CONTACT PERSON: | Dennis Harmon |
| E-MAIL ADDRESS: | dennis@cooperaerial.com |
| TITLE: | Survey Project Manager |
| ADDRESS: | 11402 N. Cave Creek Road |
| | |
| CITY, STATE ZIP: | Phoenix, AZ 85020 |
| TELEPHONE: | 253.344.9864 |
| FAX NUMBER: | N/A |
| DUNS #: | 623437324 |

**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.**

**SUBCONSULTANT(S) TABLE:**

| | |
|---|---|
| SUBCONSULTANT FIRM NAME: | Desert Archaeology, Inc. |
| CONTACT PERSON: | Patricia Castalia |
| E-MAIL ADDRESS: | trish@desert.com |
| TITLE: | Operations Director/Project Manager |
| ADDRESS: | 3975 N. Tucson Boulevard |
| | |
| CITY, STATE ZIP: | Tucson, AZ 85716 |
| TELEPHONE: | 520.881.2244 |
| FAX NUMBER: | 520.881.0325 |
| DUNS #: | 623877651 |

| | |
|---|---|
| SUBCONSULTANT FIRM NAME: | Newton Environmental Consulting, LLC |
| CONTACT PERSON: | Angela Newton |
| E-MAIL ADDRESS: | angie@newtonnec.com |
| TITLE: | Principal |
| ADDRESS: | 9859 E. Wincomb Dr. |
| | |
| CITY, STATE ZIP: | Scottsdale, AZ 85260 |
| TELEPHONE: | 602.332.9642 |
| FAX NUMBER: | N/A |
| DUNS #: | 080391343 |

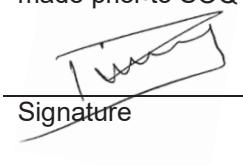
**NOTE: Each Subconsultant listed in the SOQ must be included in the Subconsultant Table of the CIP. Add additional Subconsultant Table pages as necessary. The CIP is not evaluated by the Selection Panel but is used by Engineering Consultants Section for administrative purposes.**

*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.

**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 | Date |
| Raj Christian, P.E. | Senior Vice President/Authorized Signer |
| Printed Name | Title |

**SOQ SUBMITTAL CHECKLIST**

Place a check mark on the left side of the table indicating compliance with the following:

| | |
|---|---|
| X | Required Page Limit Met |
| X | One PDF Document no larger than 15 MB |
| X | All Amendments Included |
| X | Introduction Letter (Including all required elements/statements) |
| X | SOQ Proposal Formatted According to Requirements Listed in Part C and any applicable amendments |
| X | Correct SOQ Certification List Signed and Dated by a Principal or Officer of the Firm |
| X | Completed Consultant Information Page (Including listing DBE firms, if applicable) |
| N/A | Supplemental Services Disclosure Form (REQUIRED for Supplemental Services Contract) |
| X | All Subconsultants & Proposed Work Type (Including listing DBE firms, if applicable) |
| X | Any Additional Required Documents (Specific Requirements in RFQ such as Resumes, etc.) |
| X | Commenting or User Rights Feature Enabled in SOQ PDF Document |
| X | DBE Goal Assurance/Goal Declaration completed |

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