

## PART A. INTRODUCTORY LETTER

April 1, 2025

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

#### RE: Statement of Qualifications (SOQ) for Project Development On-Call (Contract No. 2025-011)

Dear Members of the Selection Panel:

The Arizona Department of Transportation (ADOT) is seeking consultants to provide on-call professional engineering services to aid in developing projects in Arizona, including projects from Local Public Agencies (LPAs). HDR Engineering, Inc. (HDR), is very interested in continuing to serve as an extension of ADOT in preparing scoping and final design documents, providing professional engineering services, and delivering State and LPA projects, as we have done on other project development on-call (PDOC) projects since 2014.

To provide the utmost flexibility, we have assembled an experienced team with members located in both Phoenix and Tucson to assist with projects throughout the state. The selection of the HDR team provides ADOT's Project Management Group (PMG) with:



**Full-Service Engineering Firm.** With our two fully staffed Arizona offices and strategic subconsultant partners, our team is positioned to quickly respond to any task, regardless of its location in the state. **Our team of professionals provides expertise in all key technical disciplines,** including roadway design, survey and mapping, landscape and irrigation design and erosion control, materials design, bridge/structural design, geotechnical studies/design, drainage design, traffic/safety engineering design, intelligent transportation systems (ITS), cost estimations and specifications, environmental services, right-of-way (ROW) mapping and plans, utility locating, facilities/maintenance design, and other services as listed in the RFO.



Relevant Prior Experience. Having served ADOT since 1959 on projects of all sizes, we understand the different scales of scope and the related schedule requirements. Having held a PDOC contract since 2014, our team is very knowledgeable in ADOT's delivery system, processes, and procedures. To date, our team has successfully delivered more than 100 on-call tasks that have included both ADOT and LPA coordination. In addition to ADOT's PDOC, HDR has successfully delivered 250+ tasks under 40+ on-call contracts for various local and municipal agencies. This experience allows us to the hit the ground running and continue delivering projects according to ADOT's 20-30-30-20 project delivery goals.



**Commitment to ADOT.** We are committed to being 100% responsive and a reliable partner to support ADOT PMG in the successful delivery of projects through performance-based practical design (PBPD), proactive communication, and quality deliverables. **Ravi Sripada, PE, will serve as our Project (Contract) Manager and be the day-to-day point of contact** responsible for overseeing our team's responsiveness and adherence to scope, schedule, and budget. Ravi has extensive experience delivering transportation projects of varying scales and complexities across the state. His expertise, combined with a strong focus on client management and consensus building, makes him the ideal Project (Contract) Manager for this contract.



Commitment to ADOT's DBE Program. HDR is not a DBE firm; however, we embrace ADOT's DBE program and are pledging to use DBE partners wherever possible. The key personnel identified in this SOQ are committed to meet your schedule and quality expectations. HDR has secured 11 certified DBE firms for our team of subconsultants and pledge to meet the set participation goal of 11.96% or make Good Faith Efforts on each task order assignment associated with Contract No. 2025-011.

We look forward to providing ADOT with a team that brings project management, technical expertise, and the commitment necessary to deliver any on-call task. If you have any questions, please contact Peter Brakenhoff at 602.522.7711, peter.brakenhoff@hdrinc.com, or Ravi Sripada at 602.385.1622, ravi.sripada@hdrinc.com.

Sincerely,

Praheulis

Peter Brakenhoff, PE (AZ #71703)

Area Transportation Business Group Manager, Project Principal Officer/Authorized SOQ Signer tavis

Ravi Sripada, PE (AZ #52416)

Project (Contract) Manager

Serving ADOT since 1959



25+ADOT
On-Call Contracts

100+ADOT n-Call Tasks Completed

Successfully delivering the PDOC Contract since 2014

**65+ years** of services provided in Arizona from our **Phoenix** and **Tucson** Offices





## PART B. ADOT FORMS & CONSULTANT SERVICES MATRIX

# **Engineering Consultants Section SOQ Proposal Certifications Form**

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 <b>at least 51%</b> 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: Peter Brakenhoff	Area Transportation Business Group
Signature:	Date: 04/01/2025



# ARIZONA DEPARTMENT OF TRANSPORTATION ENGINEERING CONSULTANTS SECTION PARTICIPATION IN BOYCOTT OF ISRAEL - CONSULTANT CERTIFICATION FORM ADOT ECS Contract No.: 2025-011

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 <u>any</u> of the following apply to this Solicitation, Contract, or Contractor, then the Offeror <u>shall</u> 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 <u>not</u> 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 <u>does not</u> 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 <i>et seq</i> . I understand that my entire response will become public record in accordance with A.A.C. R2-7-C317.
The Company submitting this Offer <u>does</u> 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.

HDR Engineering	g, Inc.		Fraheulis	
Company Name			Signature of Person Authorized to Sign	
20 E. Thomas Road, Suite 2500			Peter Brakenhoff	
Address			Printed Name	
Phoenix	AZ	85012	Area Transportation Business Group Manager 04/01/2	2025
City	State	Zip	Title Date	





# 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:

City

- 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:

State

	The Company submitting this Offer does not use, and agrees not to use during the term of the confollowing:	ntract, any of the					
✓	Forced labor of ethnic Uyghurs in the People's Republic of China;	<ul> <li>Forced labor of ethnic Uyghurs in the People's Republic of China;</li> </ul>					
	Any goods or services produced by the forced labor of ethnic Uyghurs in the People's Republic of China; or						
	<ul> <li>Any Consultants, Subconsultants, or suppliers that use the forced labor or any goods or s the forced labor of ethnic Uyghurs in the People's Republic of China.</li> </ul>	ervices produced by					
	☐ The Company submitting this Offer <u>does</u> participate in use of Forced Uyghurs Labor as described in	n A.R.S. § 35-394.					
	Exempt Consultant.  Indicate which of the following statements applies to this Consultant (may be more than one):  □ Consultant is a sole proprietorship; □ Consultant has fewer than ten (10) employees; and/or □ Consultant is a non-profit organization.						
IDR	DR Engineering, Inc.						
	Company Name Signature of Person Author	ized to Sign					
20 E	0 E. Thomas Road, Suite 2500 Peter Brakenhoff  Address Printed Name						
Pho	Phoenix AZ 85012 Area Transportation Busin	ess Group Mana					



ADOT Project Development On-Call - Consultant Services Matrix

ADOT Contract No.: 2025-011

Prime Consultant Name: HDR Engineering, Inc. (HDR)

Please indicate in the Matrix below whether the prime Consultant and/or Subconsultant in-house resources will provide services for the following Key Technical Disciplines.

Key Technical Discipline Technical Sub Areas		Prime Consultant	Subconsultant(s) (include firm name)	ADOT Technical On-Call**	
Roadway Design				N/A	
	Fringe-Urban Highway Design	HDR		N/A	
	Rural Highway Design	HDR		N/A	
	Controlled Access Urban Highway.	HDR		N/A	
	Local Roads	HDR		N/A	
	Roundabout	HDR		N/A	
	Intersection Improvements	HDR		N/A	
	ADA/Sidewalk/MUP	HDR		N/A	
	Climbing Lanes	HDR		N/A	
	Shoulder Widenings	HDR		N/A	
	Interchange Improvements	HDR		N/A	
Survey & Mapping				N/A	
	Aerial Survey, Mapping		Cooper Aerial Surveys (CAS), AeroTech Mapping (ATM)	N/A	
	Field Survey		CAS, ATM, TRACE	N/A	
	Bathymetric Survey		CAS, ATM	N/A	
Landscape and Irrigation Design & Erosion Control				N/A	
	Erosion Control	HDR	J2, Corral Design (CDG), Wheat	N/A	
	Irrigation Design		J2, CDG, Wheat	N/A	
	Hardscape Aesthetics		J2, CDG, Wheat	N/A	
	Landscape Design		J2, CDG, Wheat	N/A	
	SWPPP	HDR	J2, CDG, Wheat	N/A	
	Seeding Mix Design		J2, CDG, Wheat	N/A	
Materials Design				N/A	
	Asphaltic Pavement	HDR	Ethos, Ninyo & Moore, Terracon	N/A	
	Concrete Pavement	HDR	Ethos, Ninyo & Moore, Terracon	N/A	
	Pavement Life Extension	HDR	Ethos, Ninyo & Moore, Terracon	N/A	
	Rockfall Mitigation	HDR	Ethos, Ninyo & Moore, Terracon	N/A	
	Life Extension Projects	HDR	Ethos, Ninyo & Moore, Terracon	N/A	
				N/A	
Bridge/Structural Design	PBPD	HDR	Ethos, Ninyo & Moore, Terracon	N/A N/A	
	Bridge	HDR	Ethos	N/A	
			Ethos		
	Deck Overlay  Deck Replacement	HDR HDR	Ethos	N/A N/A	



	ABC Retaining Wall	HDR HDR	Ethos Ethos	N/A N/A
	Noise Wall	HDR		N/A
	Signal/Lighting/Sign		Ethos Ethos	N/A
	Foundations	HDR	Linus	14/7
	Sign/Pole Design	HDR	Ethos	N/A
	Steel Structures	HDR	Ethos	N/A
Geotechnical Studies/Design				N/A
Stadies/ Design				N/A
				N/A
	FWD		Ethos, Ninyo & Moore, Terracon	N/A
	Pavement Coring	HDR	Ethos, Ninyo & Moore, Terracon	N/A
	Drilling/Foundation	HDR	Ethos, Ninyo & Moore, Terracon	N/A
	Design		Ethos, Milyo & Moore, Terracon	'''
	Slope Stability /Soil Nail	HDR	Ethos, Ninyo & Moore, Terracon	N/A
	Rockfall Mitigation,		Ethos, Ninyo & Moore, Terracon	N/A
	Rock Scaling	HDR		,
	Drilled Shaft	HDR	Ethos, Ninyo & Moore, Terracon	N/A
	MSE Walls	HDR	Ethos, Ninyo & Moore, Terracon	N/A
Drainage Design				N/A
	Pipe Culvert/Box	HDR	J2, Andes	N/A
	Culvert	HDR	12 Andre	NI/A
	Drainage Retrofit Hydraulic/Hydrologic	HDR	J2, Andes	N/A N/A
	Drainage Analysis - HEC	HUK	J2, Andes	IN/ A
	RAS, HEC1			
	2D Hydraulic Modeling	HDR	J2, Andes	N/A
	Drainage Channel and	HDR	J2, Andes	N/A
	Structures		32,7111463	
	Bridge Hydraulics	HDR	J2, Andes	N/A
	LOMR / CLOMR	HDR	J2, Andes	N/A
	Scour Analysis/Retrofit	HDR	J2, Andes	N/A
Traffic/Safety Engineering Design				N/A
	Temporary Traffic Control	HDR	Lokahi	N/A
	Signing/Pavement Marking/Striping	HDR	Lokahi, Lee	N/A
	Traffic Signal Design	HDR	Lokahi, Lee	N/A
	Street Lighting Design	HDR	Lokahi, Lee	N/A
	Intersection Lighting	HDR	Lokahi, Lee	N/A
	Design		Loxum, Loc	
	High Mast Lighting	HDR	Lokahi, Lee	N/A
	RSA	HDR	Lokahi, Lee	N/A
	VISSIM	HDR	Lokahi, Lee	N/A
	Intersection Control	HDR	Lokahi	N/A
	Evaluation (ICE)			



	Dynamic Messaging Signs (DMS)	HDR	Lokahi, Lee	N/A
	Smart Work Zones	HDR	Lokahi	N/A
Intelligent Transportation Systems				N/A
	Broadband, Fiber Optic	HDR	Lokahi, Lee	N/A
	Speed Feedback	HDR	Lokahi	N/A
	Wrong Way Detection	HDR	Lokahi, Lee	N/A
	CCTV	HDR	Lokahi, Lee	N/A
	DMS	HDR	Lokahi, Lee	N/A
Cost Estimations/Specifications	DIVIS		LOKAIII, LEE	N/A
	Unit Cost Verification	HDR	Infrastructure Mavens (IM)	N/A
	Bid Justification	HDR	IM	N/A
	Special Provisions	HDR		N/A
	'			N/A
				N/A
Environmental Services**				,
	Noise Analysis	HDR	Newton Environmental (NEC)	If ADOT requests
	404 Permit / 408 Permit	HDR		If ADOT requests
				If ADOT requests
	Cultural Surveys	HDR	Desert Archaeology	If ADOT requests
	Air Quality Analysis	HDR	NEC	If ADOT requests
	Biological Evaluation	HDR		If ADOT requests
	Section 4(f) analysis	HDR		If ADOT requests
	Hazardous Materials	HDR	NEC, K2	
	Analysis		·	If ADOT requests
	Public Involvement	HDR		If ADOT requests
	Other NEPA	HDR		
	Documentation			If ADOT requests
Right-Of-Way Mapping, & Plans**				
	Legal Description		CAS, ATM, TRACE	If ADOT requests
	Right of Way Plans		CAS, ATM	If ADOT requests
	TCE		CAS, ATM, TRACE	If ADOT requests
	Right of Way Cost Determination		ATM	If ADOT requests
Utility Locating - SUE**			T2ue, Cobb Fendley & Associates	If ADOT requests
Facilities/Maintenance Design (e.g. Rest Area, Port of Entry, Airport etc.)				N/A
,. , , , , , , , , , , , , , , , , , ,	Vertical Design	HDR		N/A
	MEP	HDR		N/A
	ADEQ Approvals	HDR		N/A
List any Other expertise	Independent Cost	HDR	IM	N/A
that pertains to the	Estimating (ICE)			

FDR

project	3D Modeling	HDR	N/A
	Visual Simulations		
	Public Relations		
	Cost Risk Analysis		
	Value Engineering		

<sup>\*\*</sup> Consultants may, but are not required to, include the prime Consultant's in-house resources or subconsultants to provide services associated with ROW Mapping & Plans, Utility Locating (SUE) and Environmental Services as part of their team. Prime Consultants must identify in the Consultant Services Matrix if they are proposing to include their firm's resources or Subconsultants (or both) to perform these services or if they elect to utilize consultants contracted through existing ADOT ROW, or EP on-call contracts to perform these services. Evaluation scores and comments will not be affected by the prime Consultant's decision to include or exclude these services as part of their SOQ/proposal or future Task Order Assignments.

- Prime Consultant's electing to perform these services with their own in-house resources or Subconsultants must demonstrate their technical qualifications in their SOQ proposal (following the SOQ Technical Evaluation Criteria) and perform these services in conformance with the Scope of Work and minimum state and federal standards/regulations.
- Consultants electing to use available ADOT EP or ROW on-call contracts will not be included as part of the consultant selection process associated with these on-call contracts, but will still be responsible for managing and delivering the project per the agreed upon scope, schedule and budget for the associated task order they were assigned.



## **PART C. EVALUATION CRITERIA - TECHNICAL EVALUATION**

#### 1. UNDERSTANDING & APPROACH

#### **CONTRACT OVERVIEW**

On-call contracts provide ADOT a pool of qualified team members to serve as an extension of staff to deliver projects on time and within budget. The PMG administers the PDOC and uses it to deliver projects efficiently and effectively on a quarterly 20-30-30-20 percentage schedule. The PDOC requires a full-service team of professionals with a wide variety of capabilities and expertise.

This contract will be administered as a Qualifications Based Selection (QBS) process by the ADOT PMG Contract Manager (CM), Mona Aglan-Swick. PMG will assign an ADOT Project Manager (PM) to each of these projects to oversee their delivery including scope, schedule, and budget (under \$1,000,000). ADOT Engineering Consultants Section (ECS) will advertise a Request for Statement of Interest (SOI) for each task order (TO), and firms will be reviewed and scored based on the evaluation criteria. If selected, HDR will meet or beat the 50 days allocated for the Task Order Assignment Schedule Tracker (TOAST) process by scheduling a meeting with the ADOT PM as soon as we receive selection notification and by expediting our internal review/approval of these limited budget task orders.

For the past 65 years, HDR's Arizona offices have successfully negotiated and delivered over a hundred of on-call tasks with ADOT on various on-call contracts.

#### **DESIGN PROCESS**

#### **TECHNICAL ELEMENTS**

The selected firm may be required to perform any or all preconstruction activities, including project management, development of scoping documents, completing initial studies/reports/memos, preparation of design plans, production of technical reports and/or specifications, quantity computations, construction estimates, and related construction documents. TOs may be strictly a scoping document task, a final design task, a combination of both, or a single element of either type. The processes shown at right illustrate the technical elements that are involved in the project development process, along with their typical durations.

This contract generates a variety of projects and tasks, some on accelerated schedules, making process knowledge and experience of staff extremely important. Our all-inclusive team provides a proven capability to deliver on all types of projects, big or small.

#### **TOAST PROCESS**



#### PROJECT DEVELOPMENT PROCESS

#### **SCOPING DOCUMENT TASK ORDER**

#### Project Initiation (2 weeks)

Identify Team Members/Stakeholders; Conduct Kickoff Meeting & Field Review; Develop Risk Register

#### Data Collection (2 weeks)

Record Drawings; Permit Log; Technical Data; ROW Plans; Drainage Reports; Survey/Mapping\*

#### - AASHTO Report (1 month)

Analyze Controlling Design Criteria; Summary Report; Design (Exception/Variance Letter); AASHTO Controlling Design Criteria

#### Initial PA (2 months)

Introduction; Background Data; Project Scope; Development Considerations; Other Requirements; Alternative Evaluations; Cost Estimate; PPAC Action; Involvement Sheet; Concept Drawings

#### Initial DCR (6 months)

Introduction; Traffic/Crash Data; Location Analysis; Design Concept Alternatives; Preferred Alt. Cost Estimate; Project Implementation; Environmental Overview; Typical Sections/Plans

#### **Summary of Comments (1 month)**

Prepare Summary of Comments; Determine Consensus; Distribute Summary of Comments

#### Final PA (1 month)

8

Prepare Final PA; Complete Project Determination; Memorandum (signatures); Distribute PA

#### Final DCR (4 months)

Incorporate Comments and Recommendations; Access Management Plan\*; Initial Bridge/Drainage Report\*; Complete Project Determination; Environmental Mitigation Measures

#### **FINAL DESIGN TASK ORDER**

#### Project Initiation (2 weeks)

Identify Team Members/Stakeholders; Conduct Kickoff Meeting & Field Review; Develop Risk Register

#### Data Collection (2 weeks)

Scoping Documentation; Record Drawings; Permit Log; Technical Reports; ROW Plans; Survey/Mapping

#### Preliminary Engineering (30%) (2 months)

Mapping & Supplemental Surveys; Initial Technical Reports; Geotechnical Investigations; Utility Designation & Conflict Identification; Deliverable Checklist; Stakeholder & Public Involvement; ROW Requirements; Await Final Environmental Document Before Final Design

#### Final Design (60%, 95%, 100%) (7 months)

Stage Deliverables; Deliverable Checklists; Compliance Review; Comment Resolution; Materials Design Report Approval; Utility Conflict Review, Resolution, and Potholing; ROW Acquisition Assistance; Supplemental Environmental Documents\*; Obtain Permits & Clearances (Utility, Environmental, ROW); Project Controls

#### Bid Advertisement (2 months)

Final PS&E; Assist C&S Process; Respond to Contractor's Inquiries; Prepare Addenda\*

#### Post Design Services (As needed)

Partnering Meetings; Respond to RFIs; Assist ADOT; Complete Record Drawings

\*As needed

#### **INSTITUTIONAL ELEMENTS**

**HDR** has a long history of supporting ADOT on-call contracts and we have a solid understanding of your internal and external processes, allowing us to perform tasks more efficiently.

**ADOT Processes/Tasks:** PMG has implemented several processes to enhance quality and delivery of all projects and it is important for a consultant working on this contract to understand them. Our understanding of the ADOT processes shown on the previous page will help streamline our TOs and simplify the responsibilities of the ADOT PM. Our team has experience with the following:

Intergovernmental Agreements (IGAs)

Joint Project Agreements (JPAs)

Workfront (Schedule, Document Upload, and Reviews)

Project Framework Form

Detailed Itemized Cost Estimate (DICE)

Project Information Retrieval Tool (PIRT)

**TOAST** 

**Contract Modification Checklist** 

Project Review Board (PRB) Approvals

Priority Planning Advisory Committee (PPAC)

State Transportation Board (STB) Approvals

Stage Deliverables Checklists

Compliance Review Performance Based Practical Design (PBPD)

Clearances (Environmental, Utilities & Railroad, ROW and Materials Design Approval)

Federal Authorizations

**Construction Funds Obligations** 

State Highway Projects: Funding for State Highway projects is derived primarily from the Federal-Aid Highway Program (FAHP) and the Arizona Highway Users Revenue Fund (HURF), but can also be funded from other programs such as Highway Safety Improvement Program (HSIP), Regional Area Road Fund (RARF), etc. Virtually all ADOT TOs will involve multiple ADOT technical groups and sections, such as PMG, Predesign Section, Materials, Traffic, Bridge, Roadway, Survey and Mapping, Contract and Specifications, Environmental, ROW, Utilities and Railroads, Facilities, and Roadside Development. All state highway project design will follow the Roadside Design Guidelines, standard drawings, and standard specifications.

LPA Projects: LPA TOs require proactive local agency coordination since the community sponsors the project (through FAHP funds) and have special interest in the project. Our team will make sure the locally sponsored projects are developed in accordance with federal-aid guidelines, as well as the ADOT LPA Projects Manual. Additional coordination with the LPA will also be required to receive written approval for any scope changes that will affect the schedule or budget. HDR is adept at assisting with LPA projects, from coordinating with the ADOT PM, LPA Section, the project sponsor, and other stakeholders to preparing design plans, providing design review services and coordinating project clearances. HDR routinely collaborates with local agencies, fostering strong relationships that benefit ADOT projects involving those agencies. Additionally, we are successfully delivering projects for local agencies funded through ADOT, as demonstrated by our work on the Silverbell Road Blanco Wash Bridge and the Madera Canyon Road Bridge Replacement projects for the Pima County Department of Transportation (PCDOT).

**Project Clearances:** Obtaining environmental, utility, railroad, and ROW clearances, and obtaining Materials Design Report approval is critical for advertising a project in a timely manner, whether it is straight forward or complex.

- Environmental: Whether a Categorical Exclusion (CE) or Environmental Assessment (EA), clearances will need to be obtained prior to submitting Stage IV documents, and ROW negotiations cannot begin without an approved National Environmental Policy Act (NEPA) clearance document. Grounddisturbing activities such as geotechnical investigations or utility potholes often require a separate environmental clearance. HDR will meet with ADOT's Environmental Planning immediately after NTP to determine the project-specific clearance requirements and schedule.
- Utilities and Railroad: Obtaining the Utility Clearance Letter and executing formal agreements requires proactive coordination to obtain the clearance before the Stage IV review submittal. A letter from each utility provider must be obtained addressing prior rights, facility locations, and the schedule for any required relocations. We will perform the utility coordination in accordance with ADOT's "Guide for Accommodating Utilities on Highway ROWs" and "Utility Coordination Guide for Design Consultants," while keeping utility companies aware of the project schedule. As required, we will use our expertise and relationships, developed through our national contracts with both Union Pacific Railroad (UPRR) and Burlington Northern and Santa Fe Railway (BNSF) to obtain any agreements or permits in a timely manner.
- ROW: Most on-call projects do not require new ROW or easements. For these types of projects, the ROW clearance is usually issued shortly after the Stage III submittal. For projects that require additional ROW or easements, the limits of each type of acquisition needs to be identified, quantified, and coordinated with the ADOT ROW Section prior to the Stage II submittal. Any

revision or modification to the proposed ROW or easements need to be made final at the Stage III submittal to allow the appraisal and acquisition teams time to complete their efforts prior to bid advertisement. HDR will work with the ADOT PM, ROW Group, and the LPA (if applicable) to identify ROW needs early and to maintain the project schedule.

 Materials Design Report (MDR): A materials memorandum must be approved by the ADOT Materials Group prior to advertisement. HDR will facilitate or prepare the MDR, depending on the TO scope.

**Stakeholder Coordination:** Stakeholder coordination and consensus-building are central themes for successfully managing a project and its institutional risks. These are especially important at the outset of a project to reach agreement among the stakeholders on the project scope, schedule, and budget. HDR will start each project by inviting key stakeholders to the kick-off meeting and developing a partnering atmosphere to gather input on important project issues. Through project development, comprehensive coordination, stakeholder involvement, and documentation are essential to identify, meet, and maintain project objectives. The IGA process can take up to 120 days to complete on average, so early coordination with the LPA is essential to execute the IGA and authorize federal funding before the bid advertisement date.

Federal Highway Administration	Maricopa Association of Governments (MAG)	US Army Corps of Engineers
US Department of Agriculture	Bureau of Land Management	Local Public Agency
Metropolitan Planning Org /Council of Governments	Native American Communities	Public Utilities
Flood Control Agencies/FEMA	Transit Agencies	Other Potential Stakeholders
Bureau of Reclamation	Arizona State Land Department	Arizona Game & Fish Department

HDR has worked side-by-side with stakeholders across Arizona to encourage early input and buy-in, avoiding major project impacts during design development and construction.



The table below and on the following pages defines the key technical disciplines, describes potential issues/risks with each, and outlines HDR's resolution approach for each issue/risk. HDR will develop and track a custom risk register as applicable for each TO during project development.

KEY TECHNICAL DISCIPLINE, TASKS, TECHNICAL & INSTITUTIONAL ELEMENTS				
ROADWAY DESIGN Fringe-Urban, Rural, and Controlled Access Urban Highway Design; Local Roads; Roundabouts; Intersection Improvements; Americans with Disabilities Act ADA/Sidewalk/ Multi-use Path; Climbing Lanes; Shoulder Widening; Intersection	ISSUES	1. Design criteria changes result in redesign.	RESOLUTIONS	1. Confirm design criteria at project onset and route to team for acceptance and identify design exceptions/variances in the early stages of design.
Improvements; Conceptual roadway layout; horizontal and vertical geometry; modeling; earthwork; pavement preservation; roadside hazard review; trail and bike lanes; detour design and construction phasing; AASHTO controlling criteria reports.		2. Seeking public and stakeholder concurrence on sensitive ROW, utility, and environmental constraints.	RES	<ul><li>2. a) Delineate impacts at Stage II and utilize team geometric experience and PBPD to avoid impacts to sensitive areas.</li><li>b) Improve communication and public engagement utilizing visual identification of impacts.</li></ul>
<b>SURVEY &amp; MAPPING</b> Horizontal and vertical survey control; aerial ground panels and mapping; topographic CAD files; surveys (LiDAR,	ISSUES	1. Inaccurate survey that will affect design and construction.	TIONS	1. Verify control points with National Geodetic Survey (NGS) datasheets, field check control point position tolerances, and establish nearby static Global Positioning System (GPS) base points.
field supplemental mapping, engineering, utility); construction benchmarks; proposed centerline staking; Bathymetric Survey.	_	<b>2.</b> Design must start prior to completion of survey.	RESOLUTIONS	2. Utilize LiDAR information for early design submittals and later refine design with hard survey at critical tie-in locations.
LANDSCAPE AND IRRIGATION DESIGN & EROSION CONTROL Landscape, Irrigation Design & Aesthetics: Irrigation Design;	ISSUES	1. Enhancement requests outside of project scope.	TIONS	1. Confirm expectations with agency and stakeholders, identify cost and funding sources, and prepare IGA if necessary.
Hardscape Aesthetics; Landscape Design; Seeding Mix Design;; topsoil salvage and plating; plant inventory; plant salvage; plant design; trail		<b>2.</b> Limited landscape water source availability.	RESOLUTIONS	2. Develop a water source connection, implement a temporary irrigation system with water tanks, or utilize inert plating materials and landform graphics in lieu of plant materials.
design; noxious and invasive species control.		3. Plant salvage depends on many variables.		<b>3.</b> Develop plan with ADOT Roadside Development to discuss expectations for salvage plan and its depiction on project bid documents.
		<b>4.</b> Construction stormwater often overlooked.		4. Develop a detailed plan of applicable BMPs and mitigation measures implemented at a construction site.
		5. On-and off-site drainage and erosion impacts.		<ul><li>5. a) Conduct a detailed scour analysis at major and minor drainage infrastructure throughout the project.</li><li>b) Protect roadway embankment at critical areas.</li></ul>
MATERIALS DESIGN Asphaltic and Concrete Pavement Design; Characterize existing pavement and roadway subgrade conditions;	ISSUES	Field investigations are typically over or under scoped.	RESOLUTIONS	1. Coordinate investigation scope development with the project team, LPA and ADOT Geotechnical Services.
preparation of pavement design summary and materials design report; develop pavement structural sections; evaluate unsuitable subgrade mitigation alternatives; Rockfall mitigation and pavement life extension; PBPD.		2. Poor roadway subgrade.	RESOLU	2. Evaluate alternative subgrade mitigations singly or in combination such as pre-wetting and vibratory compaction, geosynthetic reinforcement, or over-excavation and re-compaction/replacement.
<b>BRIDGE/STRUCTURAL DESIGN</b> Evaluate existing structures including structural adequacy, scour, load rating and/or rehabilitation	ISSUES	1. Cost escalation due to increased scope to incorporate recommended	RESOLUTIONS	1. a) Focus on early identification of all scope elements and establishment of solid design level estimate to give ample time to make adjustments in ADOT Program.
needs; determine replacement vs rehabilitation with plan of action; determine bridge layout and type; design and detailing of new bridges		alternative (i.e., profile raise and updating to MASH standards).	ESOLU	b) Implement PBPD to reduce cost while maintaining function and safety.
and bridge rehabilitations including foundations; steel structures; Accelerated Bridge Construction (ABC) evaluation and design of other structures including retaining walls, sound/screen walls, signal/ lighting/sign foundations, , non-standard culverts, barriers/railings,		<b>2.</b> Bridge improvements adversely affect the traveling public or facility (i.e., canal).	~	2. Investigate Accelerated Bridge Construction (ABC) techniques to reduce travel impacts, improve public safety, and shorten construction schedule.
shop drawings, etc.		<b>3.</b> Existing bridge doesn't meet load rating requirements (typically on LPA projects).		3. Use refined structural analysis to eliminate the need to post a bridge for reduced load limit. On the ADOT US191 Bridges project, we utilized a modified approach to load rating on the bridge rehabilitations to preserve the superstructure (no replacement).



TASKS, TECHNICAL & INSTITUTIONAL ELEMENTS				
<b>GEOTECHNICAL STUDIES/DESIGN</b> Geotechnical investigations including drilling and sampling, and geophysical surveys; Falling Weight Deflectometer (FWD); soils lab testing; foundation evaluation	ISSUES	Geotechnical profile and potential geologic hazards not well-understood.	RESOLUTIONS	1. Research historical records and perform early site visit to address conditions, access methods, and equipment required to get to the boring locations. Utilize geophysical survey methods for cost effective and non-disturbing characterization of geologic materials.
and recommendations for bridges and retaining walls (Soil Nail/MSE Walls); rockfall potential evaluation and stabilization/mitigation; cut/fill slope ratios and existing slope mitigation; subgrade characterization and unsuitable subgrade mitigation; preparation of geotechnical/foundation reports.		2. Project size or funding availability constrains geotechnical scope.	RESC	2. Optimize data collection to establish a cost-effective exploration plan by including geologic research, recon, and mapping to collect preliminary data and understand site conditions; utilizing previous relevant geotechnical investigation information; and closely coordinating with the LPA and ADOT Geotechnical Services to develop an appropriate best-fit exploration plan/scope.
Touridation reports.		3. Private land access required.		<b>3.</b> Determine if Temporary Right-of-Entry (TROE) permits are needed for boring locations and site access and coordinate with property owner, ADOT, and LPA.
<b>DRAINAGE DESIGN</b> Off- and on-site drainage evaluation; pipe/box	SSUES	1. Flash floods and high-intensity short	SNS	1. a) Evaluate stormwater runoff at and approaching project area.
culvert analysis and design; drainage retrofit; Hydraulic/Hydrologic Drainage Analysis; HEC RAS & HEC-1; 2D Hydraulic Modeling; Drainage	SS	duration storms impact roadway.		b) Develop drainage system that controls stormwater runoff and mitigates impacts in and outside of ROW.
channel/structures and detention/retention basin design; Bridge			RESOLUTIONS	2. a) Develop erosion mitigation that limits the construction footprint and avoids unnecessary ROW takes.
draulics; Conditional Letter of Map Revision (CLOMR); Letter of			~	b) Minimize permanent impacts to reduce 404 permit needs.
Map Revision (LOMR); Scour Analysis/Retrofit; floodplain/floodway impacts;; storm drain development; stormwater pump design; temporary drainage.		3. Federal Emergency Management Agency (FEMA) floodplain impacts require Conditional Letter of Map Revision (CLOMR)/Letter of Map Revision (LOMR).		3. Work with the local floodplain managers early and often during design to reduce the permitting process time and avoid schedule delays.
<b>TRAFFIC/SAFETY ENGINEERING DESIGN</b> Traffic data collection; traffic operations; capacity and level-of-service analysis; traffic	ISSUES	1. Inadequate/incomplete traffic data.	TIONS	1. a) Evaluate all possible sources of data and confirm assumptions with ADOT/stakeholders prior to moving forward with analysis.
ulation/modeling; signal warrant analysis and design; turn/auxiliary e analysis; signing and pavement marking; street lighting design; rsection lighting design; high mast lighting; maintenance of traffic DT); impact studies; project assessments; VISSIM; Transportation			RESOLUTIONS	b) Review collected data for errors and "reality check" data for appropriateness / applicability to projects.
		2. Impacts to the traveling public – MOT or permanent changes in traffic		<b>2. a)</b> Early coordination of construction activities, traffic control, detour routes, and permanent patterns with agency and stakeholders.
System Management.		patterns.		b) Utilize public outreach as necessary to mitigate concerns before, during and after construction.
		<b>3.</b> Safety assessment not included for all projects.		<b>3. a)</b> Create models of long-term (interim) construction traffic conditions to evaluate the impact on the traveling public, if appropriate.
				b) Understand and advocate for the need to anticipate safety improvements earlier on in the design process due to experience with Road Safety Audits (RSAs) (three local RSA locations in the last four years).
ITS Freeway management system (FMS); Dynamic Message Sign (DMS) design, CCTV; detectors; wrong-way detection;	ISSUES	Maintain operation of existing ITS system during construction.		<b>1. a)</b> Coordinate with ITS Maintenance, and the Traffic Operations Center to identify existing equipment to be maintained, relocated, upgraded, or replaced.
speed feedback; signal connectivity; ramp meter design; systems engineering.				b) Develop a strategy for staged construction, understanding redundancies in the system.
engineering.			RESOLUTIONS	c) Implement Smart Work Zone (SMZ) technology where appropriate to increase efficiency and safety during construction.

KEY TECHNICAL DISCIPLINE,

KEY TECHNICAL DISCIPLINE, TASKS, TECHNICAL & INSTITUTIONAL ELEMENTS				
<b>COST ESTIMATIONS/SPECIFICATIONS</b> Develop unit costs, cost estimates and specifications; verification of unit costs; assist with bid analysis and bid justification.	ISSUES	Budget overruns and cost escalations resulting from inaccurate cost estimates and lack of design consensus from stakeholders.	RESOLUTIONS	<ol> <li>a) Develop unit costs and comprehensive cost estimates with specifications at a level of detail appropriate for each stage of submittal.</li> <li>b) Engage all stakeholders early in the design process and facilitate consensus by providing accurate and comprehensive information.</li> <li>c) Complete a parametric cost estimate early in the project.</li> <li>d) Include appropriate inflation percentages for future FY construction projects.</li> <li>e) Account for an appropriate percentage of unidentified items based on the project stage.</li> </ol>
<b>ENVIRONMENTAL SERVICES</b> NEPA documentation (categorical exclusions and environmental assessments); geotechnical clearance; scoping letters; cultural surveys; hazardous materials analysis; biological evaluation; air quality analysis; noise studies; socioeconomics and environmental justice; section 4f analysis: Clean Water Act Section 404 and 401 permitting; 408 permitting; public outreach.	ISSUES	1. Project footprint changes, particularly with regard to ROW and temporary construction easements (TCEs).  2. Regulatory Uncertainty (NEPA, Clean Water Act, and Endangered	RESOLUTIONS	<ol> <li>Identify and commit to an all-encompassing project footprint early in the process to avoid rework and to inform design of any areas that should be avoided to reduce or eliminate environmental impacts that could cause schedule or budget impacts.</li> <li>Our specialists stay on top of all the rule changes and quickly coordinate with ADOT Environmental Planning (EP) about changes, possible impacts to projects, and potential solutions.</li> </ol>
outeach.		<ul><li>Species Act).</li><li>3. Individual 404 permit required.</li><li>4. Federal shutdown of regulatory agencies.</li></ul>	_	<ol> <li>3. Prioritize and adhere to the schedule for technical reports (primarily biology, cultural, and facilitate timely coordination with agencies and tribes, as required) to facilitate timely submittal of 404 permit application.</li> <li>4. During uncertain times, federal agencies may experience review delays due to shutdowns. With our experience working with these agencies, we understand their potential shutdown periods and will coordinate proactively to ensure timely document reviews.</li> </ol>
<b>ROW MAPPING &amp; PLANS</b> Preliminary existing ROW determination; develop legal descriptions; ROW plans; new acquisition and TCE delineation; ADOT ROW coordination and support; preliminary acquisition and easement staking; ROW cost determination.	ISSUES	<ol> <li>Changes to ROW/TCE delineation after Stage II.</li> <li>Do not receive existing ROW CADD files before Stage II.</li> <li>Facility encroachments.</li> </ol>	RESOLUTIONS	<ol> <li>Early design of construction elements impacting ROW/TCE such as slopes, ditches, basins, driveways, pedestrian facilities, and utilities.</li> <li>Layout existing ADOT ROW according to record documents and survey supplied data.</li> <li>Use survey and mapping to determine if encroachment is occurring on ROW; determine if impacted by construction; notify ADOT.</li> </ol>
<b>UTILITIES LOCATING - SUE</b> As-built & facility map review; blue-stake requests; utility locating/designation; potholes; utilities base mapping; conflict identification and resolution; utility coordination; utility agreement preparation; utility clearance documentation.	ISSUES	1. Existing records from legacy facility maps are insufficient. 2. Inaccurate/incomplete existing utilities identification at Stage II. 3. Utility engagement during the design development.	RESOLUTIONS	<ol> <li>Conduct ASCE 38-02 utility investigation to mitigate risk associated with uncertainty of existing utilities. This leads to typically finding 40% to 60% more utilities then documented on records.</li> <li>Establish a critical path schedule to attain environmental clearance for the field investigation. Initiate coordination with ADOT U&amp;RR and Subsurface Utility Engineering (SUE) team. SUE Phase I (Designating) to be done prior to Stage I, and SUE Phase II (test holes) to be shown at Stage III.</li> <li>Early identification and engagement of key utility contacts is critical to clearly identify and resolve potential utility issues.</li> </ol>
<b>FACILITIES/MAINTENANCE DESIGN</b> New design and rehabilitation of rest areas, district and maintenance offices, ports of entry, state park improvements, pump and lift stations; mechanical, electrical and plumbing design; ADA upgrades.	ISSUES	Retrofitting existing facilities and equipment.	RESOLUTIONS	<ul> <li>1. a) Knowledge of latest OSHA standards, current code, and regulations, combined with a site visit to identify substandard features early to be done prior to Stage II.</li> <li>b) HDR will also utilize latest technologies, such as LiDAR scanning, to efficiently collect data for existing facilities.</li> </ul>



#### TASK ORDER SCOPE OF WORK

ESTABLISHING SCOPE OF WORK THAT MEETS THE NEEDS OF THE PROJECT

**HDR values developing comprehensive scopes and "getting it right the first time" at project initiation.** We do this through communication with the ADOT PM, technical disciplines, and key stakeholders starting as early as the proposal stage on each task order. As shown below, "right sizing" the project scope starts before the proposal stage during our information gathering where we develop an understanding of the tasks involved, issues, schedule constraints, budget, and overall constructability. From this point, we continue to refine the scope during the proposal, schedule development, and during the TOAST process (scope development and cost proposal).

## **Information Gathering**

## **Schedule Development**

## **Scope Development**

## **Cost Proposal**

HDR's team works in advance of the SOI being issued to gather as much information as possible to put together a comprehensive proposal and schedule that is later reflected in our scopes. The information is gathered by:

- Assigning a TO PM who has relevant project experience and unique project knowledge.
- Meeting with the assigned ADOT PM, technical disciplines, relevant District staff, LPA staff (if applicable), and key stakeholders to discuss project goals, objectives, and key issues.
- Reviewing as-builts, previous area studies, scoping documents, and similar project plans.
- Reviewing the proposed deliverable and construction timelines.
- Understanding the funding requirements and limitations.
- Attending a site visit.

During the proposal, HDR's TO managers develop a tailored, detail schedule in Microsoft Project that meets the unique needs of each task order using ADOT's Program and Project Management Section milestones. We assess the following items during schedule development to facilitate scope development.

- Account for programmed funding year, construction season, monsoons, adjacent projects, etc.
- Determine if additional resources can be applied to shorten longer tasks.
- Identify ROW and easements early to allow acquisition to occur prior to bid.
- Determine utility relocations necessary prior to contractor mobilization.
- Identify the appropriate environmental clearance document and set a reasonable clearance schedule.
- Include right-of-entry permits and geotechnical environmental clearance requirements as necessary.
- Work with the LPA (if applicable) to meet council and funding schedules.
- Include time for JPAs/IGAs to obtain appropriate funding authorization.
- Our initial schedule will be brought to the scoping meeting for discussion.

The schedule on the following page represents a summarized typical task order schedule.

An initial scoping meeting is the first step (after selection of the consultant) in the ADOT TOAST process. HDR will host a meeting with the ADOT PM, technical disciplines, relevant District staff, LPA staff (if applicable), and key stakeholders.

HDR will bring the information gathered prior to the proposal as well as the initial detailed schedule developed for discussion.

We will use this meeting to review the project goals/objectives to gain consensus amongst participants. A clear, concise, well-justified purpose and need statement leads to a more precisely defined scope, schedule, and cost. Each participant will have an opportunity to identify issues (safety, environmental, ROW, utilities, funding constraints, LPA, stakeholders, schedule, IGAs, etc.) that will impact project development.

During this time, we will also balance the scope with the schedule and project budget. This may require discussion on adjusting schedule task dependencies or removing unnecessary items to optimize project deliverables (see the following page for more information).

HDR will utilize the information collected from the previous steps to develop a cost proposal that represents the agreed-upon scope but also meets the project budget.

HDR develops a unified scope cost proposal through an iterative process that includes numerous checks and balances, such as:

- Understanding the project funding to utilize as a top-down cost.
- Developing a bottom-up cost proposal based on agreed-upon scoping items.
- Verifying the top-down and bottom-up cost proposals are aligned. If there are any discrepancies, we will immediately notify the ADOT PM and those necessary to discuss any changes to scope that can be done without sacrificing project goals.
- Having independent QC reviewers review the scope, schedule, and cost proposal; reviewers will be familiar not only with ADOT processes and procedures, but will also ask the questions "Is this necessary?", "Can we do this more efficiently?", and "How does this help with the project purpose and need?"
- Utilizing an efficient design process similar to those described on the next page to reduce cost.

#### DEVELOPING EFFICIENT CONSTRUCTION DOCUMENTS & ELIMINATING UNNEEDED PLAN SHEETS

Our local team brings experience across several states, DOTs, and clients to deliver plan sets more efficiently. We will use this experience to recommend solutions that can optimize construction documents and reduce plan sheets and scope, without compromising constructability or project intent.

**Typical Sections:** Typical sections often morph during project development into detailed cross sections representing every change along a corridor. The contractor primarily uses the roadway plan, profiles, and details to layout the design on a mid-sized or larger project, the typical sections should be kept to a minimum and only used for general information and to get an idea of what the project looks like. Conversely,

on pavement rehabilitation projects, plan and elevations are not necessary because enough information can be provided on the typical sections for the contractor to build. This also provides enough information for as-built information for future projects.

**Summary Sheets:** Summary sheets have a benefit for larger projects to reduce call outs on busy plans sheets, however, for smaller jobs, it may be more efficient to call out some of the elements on the plans to reduce these summaries. Barrier and pipe summary sheets with minimal items can also be combined onto a single stacked summary sheet.

**Geometric Sheets:** Both the geometric data and layout sheets can be eliminated by providing the alignment reports to the contractor. These reports provide all the necessary information for the surveyor to establish geometry. On simple projects, the geometric data can be included on the plans.

Structure Plans: Sheets can be reduced by combining similar element sheets (e.g., abutment plan and elevation) or utilizing a table to capture the differences and only draw the plan and elevation once. Screed sheets can also be removed from stage submittal and provided during post design only since the contractor typically requests screed elevation at tighter intervals.

Combining Discipline Plans: Most agencies do not separate the drainage, roadway, erosion control, utilities, and even signing and pavement marking sheets. It is beneficial to separate on larger, more complex projects, but not necessary for smaller, less complex designs.

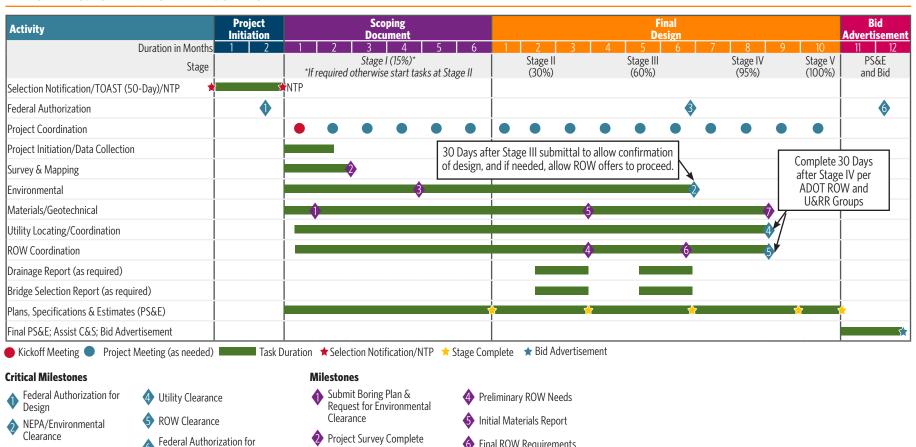
Roll Plots or KMZ Files: For scoping documents, it is more efficient and cost-effective to utilize roll plots or KMZ files to reduce or eliminate preliminary plan sheets. This is beneficial on large projects but can also be used for final design where it is helpful to see the bigger picture (e.g., staging/traffic control or erosion control plans). On the I-10 GRIC DCR, HDR developed a KMZ file that included multiple options at various interchange locations as well as main line options, saving ADOT both time and money.

As-Builts by the Contractor: For relatively straightforward projects, the specifications can include a requirement for the contractor to document existing features and replace in kind. An example of this would be for signing and pavement markings, which can easily be recorded and use standard plans, details, and specifications to be replaced. The contractor would then as-built the information, which is recorded with the record drawings.

No Plan/Minimum Plan: Many smaller agencies are advertising projects with minimal or no plans where information is relayed to the contractor in the specifications. Pavement rehabilitation projects are a good example where the specifications can include only typical sections as an appendix, eliminating unnecessary title, general notes, plan and profile sheets. Tailoring the design to use standard plans and details to the maximum extent possible eliminates unnecessary sheets.

Model-based Delivery: The industry is currently moving toward providing model-based deliverable files for the contractor to reduce plan sheets. HDR is an industry leader in helping our clients transition to paperless deliverables. Two of our company's national leaders are based in our Phoenix office and available to answer questions and provide input to ADOT. HDR is currently supporting ADOT in developing standards and workflows for the implementation of the Digital Delivery Program.

#### TYPICAL PROJECT DEVELOPMENT SCHEDULE



- Clearance
- Federal Authorization for **ROW Acquisition**

Construction

- **Project Survey Complete**
- **Environmental Clearance for** Geotechnical Investigation
- Final ROW Requirements
- Final Materials Report



### 2. TEAM EXPERIENCE AND OUALIFICATIONS

HDR is proud of our long history of providing on-call design services to ADOT. An important benefit of our contract team is the substantial experience of our staff in supporting the wide variety of ADOT projects, and our experience working with our substhrough on-call contracts and other specific projects. The diversity of HDR's experience on ADOT projects will allow our staff to meet the challenges of this on-call contract.

#### PROJECT EXPERIENCE MATRIX

#### Legend:

- 1. Roadway Design
- 2. Survey & Mapping
- 3. Landscape and Irrigation Design & Erosion Control
- 4. Materials Design
- 5. Bridge/Structural Design
- 6. Geotechnical Studies/Design 7. Drainage Design
- 8. Traffic/Safety Eng. Design
- 9. ITS
- 10. Cost Estimations/Specs
- 11. Environmental Services
- 12. ROW Mapping & Plans
- 13. Facilities/Maintenance Design **14.** Utilities Locating - SUE
- **15.** Other (3D Modeling)

#### **HDR** services

**Subconsultant services** 



#### **Project Name, Scope, and Firm Roles** 12 | 13 | 14 11 ADOT PDOC, SR 89A Guardrail Improvements | HDR Role: Prime | Subs: J2, K2 Scope: HDR is responsible for developing final construction documents for replacing over 10,000 feet of the damaged and sub-standard guardrail along SR 89A from MP 390 in Oak Creek Canyon. The existing guardrail within the project limits lacks sufficient height to function properly, and its replacement in this highly mountainous area presents challenges for District Maintenance crews. HDR is working closely with ADOT to prepare this project for construction advertisement in FY 2025. | HDR Key Personnel: Ted Smithwick, Ravi Sripada, Siew Wong, Lee Busenbark | Design Fee: \$368K ADOT PDOC, SR 347 Pavement Preservation | HDR Role: Prime | Subs: N/A Yes Scope: HDR is responsible for developing final construction documents for milling and overlaying 13.5 miles of SR 347, from the City of Maricopa to I-10. The project includes evaluating and removing the existing guardrail for compliance with current MASH standards, as well as developing traffic control plans with lane closures to facilitate pavement replacement. HDR is working closely with ADOT to prepare this project for construction advertisement in FY 2026. | HDR Key Personnel: Ted Smithwick, Ravi Sripada, Justin Noves | Design Fee: \$270K ADOT PDOC, SR 89A Pumphouse Wash Bridge | HDR Role: Prime | Subs: J2 Yes Scope: HDR was responsible for developing the scoping document and then leading the final design efforts with an ADOT blended team for the rehabilitation of this historic bridge. We managed the blended team and completed various technical disciplines, including initial bridge design and roadway. | HDR Key Personnel: Peter Brakenhoff, Ray Carranza, Greg Lingor | Design Fee: \$604K ADOT PDOC, Two Guns Traffic Interchange (TI) & Meteor Crater Underpass (UP) | HDR Role: Prime | Subs: N/A Yes Scope: HDR was responsible for the rehabilitation of Two Guns TI UP and Meteor Crater TI UP. Work included field survey, approach roadway modifications, bridge deck replacement, spot painting of steel members, replacing expansion rocker bearings and approach guardrails. | HDR Key Personnel: Ray Carranza, Nick LaFronz | Design Fee: \$556K ADOT PDOC, US 180 Turn Lanes, SR40B to Aspen Avenue | HDR Role; Prime | Subs; J2, Terracon Yes Scope: HDR was responsible for the construction documents for the addition of right-turn lanes along US 180 between SR 40B and Aspen Avenue in both the northbound and southbound directions, including roadway, drainage, retaining wall, signing, marking, signal, traffic control, sequence of constructions, erosion control, and landscaping design. | HDR Key Personnel: Ray Carranza, Jennie Howell | Design Fee: \$415.9K ADOT, I-17 Airport Road TI UP Bridge Replacement | HDR Role: Prime | Subs: J2, K2, Terracon, IM, AeroTech Yes Scope: HDR completed the scoping, final design and post-design services for this bridge replacement project. The TI is located on the outskirts of Flagstaff directly adjacent to SR 89A, Flagstaff Pulliam Airport and Ford Tuthill County

Park, requiring close coordination with stakeholders. The bridge type was set to minimize the structure depth and profile raise of J.W Powell Blvd in order to minimize the impacts within the interchange and minimize costs. | HDR Key Personnel: Greg Lingor, Lee Busenbark, Nick LaFronz | Design Fee: \$1.56M

ADOT, I-17 Pinnacle Peak Rd. and Happy Valley Rd. TI Reconstruction | HDR Role: Prime | Subs: Andes, J2, Lee, Terracon

Scope: HDR provided final design and post-design services for the widening of one mile of I-17 and the full reconstruction of the Pinnacle Peak Road and Happy Valley Road TIs. The reconstruction included Arizona's first Diverging Diamond Interchange (DDI) at Happy Valley Road, requiring the replacement of bridges at both interchanges, along with interstate and arterial improvements. HDR's DDI solution significantly enhanced traffic operations, safety, construction phasing, and project duration compared to the baseline solution recommended by others. | HDR Key Personnel: Lee Busenbark, Jennie Howell | Design Fee: \$4.2M

ADOT, Environmental On-Call, US 89, SR 64 to Little Colorado River | HDR Role: Prime | Subs: N/A

Scope: HDR prepared reevaluation and supersedes memo as well as supporting technical studies, such as an individual Section 4(f) evaluation, Class III cultural resources survey, ethnographic studies, updated biological evaluation, updated noise analysis, and a Section 404 permit with pre-construction notification and individually certified 401. Project is on the Navajo Nation and required extensive coordination. | HDR Key Personnel: Audrey Unger, Peter Brakenhoff | Design Fee: \$120K

ADOT, I-40 and I-17 Truck Parking Expansion | HDR Role: Prime | Subs: IM

Scope: HDR is serving as the General Engineering Consultant and Subject Matter Expert for Arizona's first Integrated Design-Build project. Truck parking facilities provide designated locations for truck drivers to take short- and long-term rest breaks, as required by federal law. Seven locations have been identified for improvements, including Parks and Haviland on I-40, as well as Christensen and Sunset Point on I-17. ADOT and HDR have been collaborating with the design-build team to finalize the design and negotiate a guaranteed maximum price for the first overflow truck parking expansions at Haviland and Sunset Point, scheduled for construction in 2026. I HDR Key Personnel: Ted Smithwick. Susanna Schippers | Design Fee: \$160K

Yes

Yes

#### 3. TEAM CAPABILITY

Our People are our greatest asset. HDR has assembled a talented, responsive, and committed full-service team to successfully deliver TOs under this contract. **Having performed** both contract management and task order management on numerous ADOT contracts over the years, we understand what it takes to successfully complete projects with **ADOT, specifically in coordination with LPAs.** We have selected our task managers based on their knowledge and familiarity with ADOT's processes and requirements and their availability and commitment to success. Our key discipline leads will provide technical support and manpower to help our team meet all TO schedule and budget requirements.

#### **ORG CHART**

Peter Brakenhoff, PE\* **Project Principal** 

## **ADOT** Mona Aglan-Swick, PE

**Brian Bombardier** QA/QC

Ravi Sripada, PE★ Project (Contract) Manager

#### **TASK ORDER MANAGERS**

Audrey Unger, PMP Brent Kirkman, PE Dan Pfeifer, PE★ Greg Lingor, PE★

Jeanette Frev. PE Larry Barela, PE, RPLS Michael LaBianca, AICP Nick LaFronz, PE Olivier Mirza, PE

Rav Carranza, PE Sanjay Paul, PE, PTOE, PTP, RSP★ Ted Buell, SE★ Ted Smithwick, PE★

#### **DISCIPLINE RESOURCES**

**ROADWAY DESIGN** Lee Busenbark, PE

Ray Carranza, PE Brent Kirkman, PE Jeanette Frey, PE Alex Meisner, PE Siew Wong, PE Justin Noves, PE Larry Barela, PE, RLS Michael LaBianca, AICP

#### **BRIDGE DESIGN**

Greg Lingor, PE Olivier Mirza, PE Jennie Howell, PE, ENV SP Daniel Lizarraga, PE Ted Buell, SE Brian Grimaldi, PE (ETH)

#### **DRAINAGE DESIGN**

Dan Pfeifer, PE Alex Coronel, PE, CFM Alex Tang, PE Jeff Holzmeister, PE (J2) John Ahern (JE) Javier Guana, PE (AND)

#### **ENVIRONMENTAL**

Audrey Unger, PMP Sarah Herr (DAR) Maria Altemus Susanna Schippers Danny Sorrell, RPA Kelly Kading (K2) Angela Newton (NEC)

#### GEOTECHNICAL/ **MATERIALS DESIGN**

Nick LaFronz, PE Sterling Crandell, PE Francisco Garza, PE (ETH) Ramon Padilla, PE (TCN) Steve Nowaczyk, PE (NM)

#### TRAFFIC/SAFETY/ITS

Sanjay Paul, PE, PTOE, PTP, RSP Miranda Sundblom, PE, PTOE, RSP Dave Bruggeman, PE, PTOE (LEE) Jamie Blakeman, PE, PTOE (LG) Marina Stender, PE, PTOE (LG)

#### COST ESTIMATIONS/SPECS

Ray Carranza PE Steve Basilla (IM) Mark Heisler (IM)

## SURVEY & MAPPING/ROW

**Dennis Harmon, PLS (CAS)** Richard Andersen, RLS (TRC) Eric Phan, RLS (ATM) Ken Converse, PLS (T2)

#### LANDSCAPE/IRRIGATION/ **EROSION CONTROL**

Laura Mielcarek, PLA (WDG) Seth Placko, PLA (J2) Ed Corral, PLA (CDG)

## **UTILITY LOCATING (SUE)**

James Mueller, PE (T2) Lee Busenbark, PE Justin Noves, PE Joe Cherry (CFA)

#### **FACILITIES** MAINTENANCE DESIGN

Chris Tynes, PE Chris Leech, PE, LEED AP Ed Corral, PLA (CDG)

#### **Sub Name & Lead** Personnel

## Discipline(s) & Experience

AeroTech Mapping (ATM) \* Lead: Leo Torres

Discipline: Survey & Mapping Experience: 60+ ADOT PDOC projects completed since 2010, experience in OpenRoads, and on ADOT projects like I-17 Camelback Road TI, I-10 SR 202L to SR 387, Koli and I-10, SR 202 to SR 387 GEC.

Andes Engineering (AND) \* Lead: Javier Guana, PE

Discipline: Drainage Design Experience: 20+ years ADOT experience, completed PDOC projects like Ports of Entry Improvements PA, US 60 Passing Lanes, and Winchester Road Roadway and Drainage Improvements in Apache Junction.

Cobb, Fendley & Associates (CFA) Lead: Joe Cherry

Discipline: Utility Locating - SUE Experience: Including projects for various DOTs such as the **Broadway** Road Improvements Project, the South Houghton Rd. Widening, and the Ocotillo Road Improvements in Oueen Creek. Discipline: Survey & Mapping Experience: ADOT experience on projects like I-10 SR 85 to Citrus Rd

Lead: Philip Gershkovich Corral Design Group (CDG) \* Lead: Ed Corral, PLA

**Cooper Aerial Surveys (CAS)** 

Widening, US 70 Reay to 8th and I-19 Irvington TI. Discipline: Landscape and Irrigation Design & Erosion Control Experience: More than 23 years experience with ADOT landscape architectural and erosion control projects such as, SR 89 Spur Overpass, SR 64 ROW Fence, I-17, Willard Springs TI, SR 64 Shoulder Widening, and I-10 Vail Rd TI.

Desert Archaeology (DAR) \* Lead: Dr. Sarah Herr

Discipline: Environmental Services Experience: Completed 3,000+ cultural resources and historic preservation projects in the southwestern US, experience on PDOC projects such as San Simon Point of Entry, US 70 Reay Ln - 8th St, and San Pedro Bridge.

Ethos Engineering (ETH) \* Lead: Francisco Garza, PE

Disciplines: Geotechnical Studies/Design, Materials Design Experience: Managed 500+ ADOT projects including 60+ ADOT PDOC projects as part of the 2022-006 contract, served on ADOT Subsurface Geotechnical On-Call.

Infrastructure Mavens (IM) Lead: Steve Basilla

Discipline: Cost Estimations/Specifications Experience: Dozens of completed ADOT projects such as SR 189 Border-Grand Ave., I-40, 4th St. Bridge Replacement, I-17 Bridge Deck Replacement, and the I-40 Kingman TI VE Study.

J2 Design (J2) \* Lead: Jeff Holzmeister, PE

Discipline: Drainage Design, Landscape and Irrigation Design & Erosion Control Experience: Completed hundreds of ADOT projects such as the I-10 Broadway Curve, SR 89A Guardrail Replacement, and US 60 Pavement Preservation.

K2 Site Assessments (K2) \* **Lead:** Kelly Kading

Discipline: Environmental Services Experience: Performed/managed 400+ investigations for ADOT projects including I-10 Broadway Curve and the I-10, Ina Road TI to Ruthrauff Road TI.

JE Fuller (JE) Lead: Jon Ahern, PE Discipline: Drainage Design Experience: 30+ years of local experience including ADOT projects like I-10, SR 202 to SR 387, I-10 Broadway Curve, South Mountain Freeway, I-10 over the Gila River VE Study, and a Highway Drainage Design Manual.

Lee Engineering (Lee)

Lead: Dave Bruggeman, PE, PTOE

Discipline: Traffic/Safety Engineering Design, ITS Experience: Includes ADOT Traffic Engineering On-Call, ITS On-Call, I-10 Broadband Design, and the I-17 Anthem Way to Sunset Point Flex Lanes ITS.

Lokahi Group (LG) \* Lead: Jamie Blakeman, PE, PTOE

Discipline: Traffic/Safety Engineering Design, ITS Experience: Similar on-call contracts throughout Arizona and experience on projects like the 67th Avenue Traffic Study, and the US 191 Chinle to Many Farms Safety

Newton Environmental (NEC) \* Lead: Angela Newton

Discipline: Environmental Services Experience: 50+ years experience working on 70+ projects with ADOT including I-10, Dirk Lay Road, SR 387, SR 97, US 93/SR 96, Jackrabbit TI, and US 95, Wellton, Mohawk Canal to Imperial Dam Road.

Ninvo & Moore (NM) Lead: Steve Nowaczyk, PE Discipline: Geotechnical Studies/Design, Materials Design Experience: Experience on 400+ ADOT projects. currently hold ADOT Pavement Coring Investigations On-Call.

**T2ue (T2)** Lead: Robert Ramsey, PE

Discipline: Utility Locating - SUE Experience: Experience on ADOT projects such as I-10 Broadway Road Curve, Tomahawk Road and Southern Avenue Roadway Widening, and a current holder of the ADOT SUE

Discipline: Geotechnical Studies/Design, Materials Design Experience: ADOT experience on I-10

#### **Terracon Consultants (TCN)** Lead: Ramon Padilla. PE

Broadway Road Curve, I-17 Flex Lanes, current ADOT PDOC. Discipline: Environmental Services, ROW Mapping & Plans Experience: Completed 65+ ADOT PDOC

TRACE Consulting (TRC) \* Lead: Richard Andersen, RLS Wheat Design Group (WDG) \*

Lead: Laura Mielcarek, PLA

tasks like West Main Canal Ave B to Ave C and the Verde River Bridge Replacement. Discipline: Landscape and Irrigation Design & Erosion Control Experience: Experience on ADOT projects like the I-10/I-19 TL and the I-10 Ruthrauff TL.



Team Member Name	Relevant Licenses & Certifications	Education	. Experience	<b>DISCIPLINE EXPERIENCE</b> (numbers correspond to disciplines listed on page							ı pagı	e 16)							
and Role	Rel Lice Cer	Edl	Yrs.	_	2	က	4	2	9	7	œ	6	10	F	12	13	14	15	Knowledge, Skills, Abilities
Ravi Sripada, PE, ◆ Project (Contract) Manager/ Roadway Design	PE 52416	MSCE	18	•	•					•	•		•	•	•		•	•	Has managed three additional on-call contracts with MCDOT and Pinal County and led over 15 multi-discipline projects across North America. Possesses extensive project management experience and a strong technical background, with a proven track record of successfully delivering multiple multi-disciplinary projects on time and within budget.
Ted Smithwick, PE, ♦ Roadway Design	PE 52634	BSCE	18	•	•					•	•		•	•	•	•	•	•	Served as TO Manager for multiple tasks under previous on-call contracts. Extensive experience in roadway geometry development, interchange design, and securing environmental, utility, and ROW clearances.
Greg Lingor, PE, ◆ Bridge Design Lead	PE 33998	MSCE	30		•		•	•	•				•	•	•	•	•		Extensive ADOT project management experience, including on-call projects, with a strong focus on bridge replacement and rehabilitation. Also a highly experienced bridge engineer, having served as the bridge lead on numerous ADOT projects.
<b>Dan Pfeifer, PE, ♦</b> Drainage Design Lead	PE 54445	BSCE	17							•			•	•					Successfully delivered several on-call contract projects for various local agencies with a strong expertise in transportation drainage including HEC-RAS (1D/2D), SRH2D, HEC-HMS, FLO-2D, Scour & Erosion, and FEMA Floodplains.
Sanjay Paul, PE, PTOE, PTP, RSP, ♦ Traffic/Safety & ITS Lead	PE 60687, PTP 580, RSP 44, PTOE 4007	PhD	17								•	•	•						Extensive project management experience overseeing projects totaling over \$5 million. Specialized technical expertise in traffic engineering design, analysis, operations, signing and marking, illumination, ICE, RSA, and ITS.
<b>Ted Buell, SE, ♦</b> Bridge Design	SE 7590006 -2203	MSCE	36		•		•	•	•				•	•	•		•		Strong relationships with multiple local agencies and extensive experience in project management, and bridge replacement and rehabilitation.
Lee Busenbark, PE, Roadway Design Lead/SUE	PE 39482	BSCE	26	•	•				•				•				•	•	Extensive experience in roadway design and SUE; Bentley accredited BIM scholar currently supporting ADOT in developing standards and workflows for the implementation of Digital Delivery Program.
Ray Carranza, PE, ♦ Cost Estimations & Specifications Lead/Roadway Design	PE 40965	BSCE	19	•	•					•	•		•					•	Led multiple projects for the City of Tempe and other local agencies, with extensive experience in project management, cost estimation, specifications development, roadway design, and drainage design.
Nick LaFronz, PE, Geotechnical Studies/Design Lead	PE 22198	MSCE	42				•	•	•				•						Experienced in scoping and executing geotechnical investigations & designs for small-to large-scale roadway and bridge projects.
Audrey Unger, PMP, ♦ Environmental Services Lead	PMP 1322755	MUrban Design	23										•	•					Experience in CEs, Environmental Impact Statements, NEPA-related work, and managing projects and programs for a variety of sectors.
Michael LaBianca, AICP, ♦ Roadway Design & Traffic Eng.	AICP 140599	MCRP	38	•							•		•	•					Experience on a wide range of land use planning, environmental, and public outreach projects.
Larry Barela, PE, RLS, ♦ Roadway Design	PE 37267, RLS 58427	BSCE	25	•	•				•		•		• • • •					•	Experience with PS&E submittals, roadway design, utility coordination, ROW surveys & plans, and engineering design surveys.
Olivier Mirza, PE, ♦ Bridge Design	PE 39837	MSE	28		•		•	•	•				•	•	•		•		Extensive PM experience in delivering bridge, pavement rehabilitation, roadway, HSIP, emergency repairs, and drainage projects for ADOT and LPAs.
Brent Kirkman, PE, ◆ Roadway Design	PE 48983	BSCE	20	•		•				•	•		•					•	Extensive experience managing projects for the City of Tucson and other local agencies, with a strong technical background in roadway design, including geometric control, horizontal and vertical alignments, superelevation, and 3D roadway modeling.
Chris Tynes, PE, Facilities/ Maintenance Design Lead	PE 73590	MSCE	12										•			•			Extensive experience in all components of Site Civil Design, including site layout, grading and stormwater management, plan development, Quality Control Reviews, and Construction Administration. Expertise spans a wide range of site development projects, including greenfield development, brownfield redevelopment, and renovations.
Laura Mielcarek, PLA, (WDG) Landscape/Erosion Control Lead	PLA 46501	MLA	23			•									•				Experience working with ADOT Roadside Development; extensive experience relating to planting, irrigation, erosion control, and structure aesthetics.
Jeff Holzmeister, PE, (J2) Drainage Design	PE 23170	MSWRE	27							•			•						Wide range of ADOT water project experience, experienced in the application of FLO-2D, HEC-1, HEC-2/HEC-RAS, and HEC-6.
Jamie Blakeman, PE, PTOE, (LG) Traffic/Safety & ITS	PTOE 3151, PE 40961	BSCE	25								• •			Provides data-driven insights for roadways across AZ, expertise in transportation planning, traffic studies, and traffic design.					
Dennis Harmon, PLS, (CAS) Survey/Mapping & ROW Lead	PLS 68083	N/A	17		•										•				FAA Professional Remote Pilot, extensive ADOT experience providing ALTA, topographic, boundary, and conventional surveys.
James Mueller, PE, (T2) Utility Locating - SUE Lead	PE 64432	BSCE	14														•		Completed 200+ projects involving Quality Levels D, C and B and 1,500+ Level A test holes in the last two years.
Steve Basilla, (IM) Cost Estimating	N/A	BSCE	48								•						Provides constructability, phasing, and cost estimating for all disciplines. Carries multiple PDOC contracts as a sub.		

**Legend:** ♦ Task Order Manager



#### 1. KEY PERSONNEL



Peter Brakenhoff
Project Principal | BSCE | PE #71703

Peter, who is a Vice President and Transportation Manager for Arizona and New Mexico, will be the Project Principal. He

will confirm there are adequate resources to successfully complete every task assignment through this on-call. He will have the ultimate responsibility for the quality and timeliness of our work. Peter will periodically verify with ADOT that our team is meeting expectations and he is committed to making himself available to ensure that HDR is being proactive with ADOT requests.

Peter routinely serves as Project Principal on HDR projects. As noted below, he has a long history in this role on on-call contracts. On each of these contracts, he has demonstrated his commitment to HDR meeting schedule, budget and quality expectations.

#### **Past Experience as Project Principal**

- ADOT, Project Development On-Call
- ADOT, Alternative Delivery On-Call
- ADOT, Statewide On-Call Bridge and Drainage Design Services
- ADOT, Environmental On-Call

#### **Value to ADOT**

Possesses extensive knowledge of ADOT processes and contract requirements through routinely serving as a project principal for HDR's multidisciplinary transportation projects, giving ADOT an experienced Principal that they have worked with.

A proactive communication style with both ADOT and HDR project managers ensures the timely and high-quality delivery of all task orders.

A proven record of past performance in delivering quality deliverables sets the stage for successful project outcomes that meet or exceed ADOT's expectations.

#### AUTHORITY TO COMMIT RESOURCES AND ACT ON BEHALF OF HDR

Peter has the authority to commit HDR resources and act on behalf of HDR regarding contractual matters, disputes, quality, and delivery of services.

#### Ravi Sripada Project (Contract) Manager | BSCE, MSCE | PE #52416

Ravi will actively manage this contract, serve as the primary pointof-contact, and be responsible for the scope, schedule, and budget. He understands ADOT's expectations and thus in close coordination

with ADOT PM and HDR task order manager will: 1) take on any assignment, regardless of size; 2) immediately start each task; 3) meet scope, schedule, and budget expectations; and 4) avoid/minimize change orders. Ravi has more than 18 years of experience as a project manager and transportation engineer with extensive knowledge of federal, state, and local agency design standards, guidelines, rules, and regulations acquired while working on transportation projects in Arizona and across North America. He is very familiar with the project development process, from planning through construction and has successfully managed interdisciplinary teams in the delivery of these projects.

Ravi's wide variety of experience includes roadway pre-design, final design, post-design services, intersection improvements, ADA improvements, interchange design, design exception/variance memorandums, traffic control, and signing and marking plans.. Through his extensive work with several public and private agencies, Ravi has built an excellent reputation for client service and for being committed to completing projects on time and on budget, all while ensuring excellent client satisfaction. **This is evident from receiving a perfect score of 10 out of 10 on multiple client surveys from ADOT, Maricopa County Department of Transportation (MCDOT) and from Pinal County.** He has served as the Contract Manager for on-call contracts with the MCDOT and the Pinal County DOT.

#### **Past Experience**

- ADOT, Project Development On-Call
- Pinal County, Professional Services On-Call
- MCDOT, Professional Services On-Call
- MCDOT, Engineering Services On-Call

#### Value to ADOT

A project manager with over 18 years of experience successfully managing multiple on-call projects for ADOT and local agencies, providing ADOT with a trusted PM who understands the process.

Proactive communication coupled with proven track record for stakeholder alignment and consensus building, ensures the delivery of high-quality projects on schedule and within budget every time.

A thorough understanding of design standards and guidelines enables the development of innovative, out-of-the-box solutions for complex problems.



Ravi is very responsive to project challenges, offers creative solutions, and provides immediate feedback. He is excellent with stakeholder coordination."

Marcellus Lisotta, Project Manager, MCDOT

The following HDR Task Order Managers have a proven track record of successfully managing and delivering multiple projects through ADOT PDOC and other on-call contracts for local agencies—on time, within budget, and with excellent client satisfaction. Additional details and relevant project information are provided in their resumes included with this proposal.

	Task Order PM Name	Relevant Project Experience						
	Ted Smithwick, PE	<ul> <li>SR 89A Guardrail Replacement ★</li> <li>SR 347 Pavement Rehabilitation★</li> <li>Supplemental Contract Part-Time PM</li> <li>I-19 Ruby Road and Rio Rico Drive</li> </ul>						
	Greg Lingor, PE	<ul> <li>SR 89A Pumphouse Wash Bridge★</li> <li>I-10 W. Wilcox TI UP★</li> <li>SR 169 Agua Fria River Bridge Replacement</li> <li>SR 82 Santa Cruz River Bridge Replacement</li> </ul>						
	Dan Pfeifer, PE	<ul> <li>I-10 Gila River Crossing</li> <li>US 60 – Silver King &amp; Superior Streets, Drainage Task Lead</li> <li>HES On-call, Task Lead</li> <li>Pinal County DOT, San Manual Erosion Evaluation</li> </ul>						
	Sanjay Paul, PE, PTOE, PTP, RSP	<ul> <li>MAG/City of Peoria, Autonomous/Driverless Vehicle Pilot</li> <li>Evaluation of Automatic Signal Timing Plan, Project Lead</li> <li>Freeway Travel Time Data Collection, Project Lead</li> <li>Arizona Commerce Authority (ACA), SMART Grant Program Management, Program Manager</li> </ul>						
	Ted Buell, SE	<ul> <li>US 191-Chinle Wash to Lukachukai Wash Bridges Replacement &amp; Rehabilitation</li> <li>PCDOT, West Silverbell Road Blanco Wash Bridge</li> <li>PCDOT, Madera Canyon Road Bridge Replacements</li> </ul>						

★ADOT PDOC project

Personnel role for projects listed above is PM, unless otherwise noted.

All projects are ADOT projects, unless otherwise noted.

PCDOT, Ina Road Bridge Over the CDO Wash

#### **BEING RESPONSIVE TO CLIENTS**

HDR takes pride in our history of responding to the special needs of ADOT. Peter, Ravi, and our TO PMs have a demonstrated history of responding to special project requests in short time frames.



## 2. QA/QC

#### **HIGH QUALITY PRODUCTS**

HDR's goal is to drive to zero errors and omissions on deliverables by holding ourselves and our subconsultants accountable through our quality control processes. We utilize senior QA/QC leads, along with technical discipline reviewers, to perform a rigorous review on every submittal document to check for accuracy, thoroughness, adherence to ADOT standards and constructability. HDR's QA/QC program eliminates rework that can be costly and impact the schedule, saving ADOT time and money. We require that our subconsultants follow a rigorous QA/QC process for all their deliverables and provide documentation that their product has been checked. HDR will conduct over-the-shoulder reviews of all our subconsultants to verify our quality standards are being met. We strongly believe quality is our responsibility and not that of our clients. The graphic below represents our quality control process and how it is implemented on each deliverable to produce high quality final products for ADOT.



#### **ADDRESSING RISK**

HDR has a detailed quality management system that identifies, monitors, and revisits project risks through project development until they are retired or mitigated to an acceptable level. Below shows a typical project delivery lifecycle and how risk is address during each phase.

made.

#### **Development & Initiation**

- **Go/No Go.** Identifies high-level risks to determine if a project is pursued.
- **Project Approach.** Proposal includes project specific risks and mitigation measures.
- Scope/Fee Development. Includes tasks and costs to help mitigate risks identified during proposal and scoping meeting.
- Staffing Assignments. Utilize staff with relevant experience and availability.
- Schedule Development. Clearly shows critical path and highlights high-risk schedule related tasks.
- Preliminary Risk Assessment.
   Conducted to review and update any previous risks identified during project development.

## Project Management Plan. Document

developed for all team members to find key information.

• Quality Management Plan. Provides details on how quality assurance and control shall be performed on

**Planning** 

- the project to maintain a highlevel of consistency in project delivery.

  Safety Plan. Identifies potential project safety, health, and
- project safety, health, and environmental hazards and includes related analysis to mitigate or avoid.
- Risk Management Plan. Includes risk identification, mitigation strategies, designates responsible parties for mitigation, and timelines, if appropriate.
- 0% Review. Verifies contractual, business, and management risks have been planned for prior to expending resources.

# Project Reviews. Facilitate communication regarding project

Execution

status, schedule, budget, and high-risk items.

• Client/Project Team Communications.
Important records that formally communicate client directives, project

changes or issues, and decisions

QC Reviews and Checking of Deliverables.
 Independent reviewers manage risk by verifying deliverables are complete, understandable, conform to applicable/ reasonable standards, meet client requirements, and verifies changes made.

Project Approach & Resource Review (as required). Confirms project goals, technical approach, staff assigned, technical risks, and mitigation measures.

#### **Close-Out**

 Technical, Marketing and Financial Close-out. Facilitates the finalization of deliverables/ decisions and verifies that the final project records are prepared for retention.

#### Benefits of HDR's Risk Mitigation Through our Quality Process

- Technical Compliance
- Contract Compliance
- Stakeholder Satisfaction
- Client Satisfaction
- On-time delivery
- Enhanced Post Design Support
- Regulatory Compliance

## 3. DBE COMMITMENT

#### **SUBCONSULTANTS**

HDR has assembled a strong team of subconsultants to bolster our team depth and perform specialized services identified in the scope. We hand-picked our subconsultants based on their specialized capabilities, exceptional ADOT performance, past and ongoing success teaming with HDR, stated commitment to ADOT's program, and their availability to perform the required tasks. It is important to note that 11 of our subconsultants are certified DBEs in Arizona. During team development, we purposely identified one or more DBEs for each key technical discipline to allow our team flexibility to meet or exceed the 11.96% DBE goal for this contract.

Prior to the SOI being issued, Ravi will work with the HDR team to review the project scope, identify unique challenges/risks or elements, and determine which of our subconsultants compliment our staff while potentially meeting the DBE goal. Ravi or the assigned TO manager will reach out to our subconsultants to discuss their relevant project or corridor experience and how they can best serve the task order. There are instances where our subconsultants will notify us during the information gathering stage noting their project knowledge.

With a majority of our subconsultants being DBE, we are able to develop a team that meets the DBE goal starting from the SOI.

#### **QC SUCCESS**

For 65 years, HDR has been providing quality deliverables to ADOT. Our QA/QC program has consistently earned 4 and 5 marks (out of 5) on recent Consultant Evaluation Ratings by ADOT project managers.

RISKS ARE IDENTIFIED, MONITORED, AND REVISITED THROUGH THE ENTIRE PROJECT LIFECYCLE

## PART D. ATTACHMENTS

#### 1. KEY PERSONNEL RESUMES

## Peter Brakenhoff.PE

**Project Principal** 



#### **EDUCATION**

Bachelor of Science, Civil Engineering, Hogeschool INHolland Alkmaar

#### REGISTRATIONS

Professional Engineer, AZ, No. #71703

Professional Engineer, NM, No. #14225

#### **INDUSTRY TENURE**

34 years

#### **HDR TENURE**

22 years

Peter is Vice President who serves as HDR's Area Manager for Arizona and New Mexico. His responsibilities include the business management, profitability, and development of HDR's business groups. Peter is fully committed and available to perform the work under this contract. Peter's 30+ years of experience encompasses highway engineering, corridor and alignment studies, and design of roadways, drainage utilities, and construction traffic control. His responsibilities have included several aspects of project development from corridor study and alignment studies through production of preliminary and final design plans.

His overall areas of expertise include project management, transportation analysis, geometric, and roadway design (urban/rural highways interstates and interchanges), context sensitive design, drainage design, utility design, agency coordination, and public involvement. He has served as project manager, deputy project manager, and lead engineer with project-related responsibilities that include supervision, directing project design, deliverables, quality assurance and quality control, project and staff scheduling progress, reporting project and agency coordination, public and client presentations, preparation of subcontractor agreements/budgets, final contract documents specifications, and construction cost estimates.

Peter has extensive experience serving as a principal/contract manager on several ADOT on-call contracts, including his role as the PDOC contract manager for our current contract.

#### **Why Peter**



Routinely a project principal for HDR multidisciplinary transportation projects including ADOT projects



Proactive communication style with Project Managers



Management of DOT freeway programs/contracts including fast track projects and task orders

 $\square$ 

Record of past performance for quality deliverables



Highly skilled in stakeholder coordination

#### **RELEVANT PROJECT EXPERIENCE**

# **ADOT, Project Development On-Call Project Principal.**

This on-call contract includes tasks that improve the safety and operational characteristics of subject roadways, utilities, and facilities. Projects under this contract include highway and intersection improvements; medians; curb & gutter and sidewalk; signing and striping; and pedestrian and bicycle paths. Peter served as project principal on this contract. His responsibilities included confirming adequate resources were available for every task assignment through this on-call. He was also responsible for the quality and timeliness of our work.

## ADOT, Environmental On-Call Project Principal.

HDR's environmental team has completed variety of environmental investigations for highway construction and maintenance projects statewide on an on-call basis. The scope of work includes all phases of preparing and reviewing environmental documents to comply with NEPA and Federal Highway Administration (FHWA) standards. Peter's responsibilities included confirming adequate resources were available for every task assignment through this on-call. He was also responsible for the quality and timeliness of our work.

# ADOT, Alternative Delivery On-Call Project Principal.

Project principal supporting ADOT's alternative project delivery program by augmenting its staff to provide specialized services in a variety of tasks during the development, design, and construction administration process. This includes projects procured using designbuild, construction manager at risk, and job-order-contracting delivery methods. The contract scope includes leading value engineering (VE) studies, general engineering consultant role to oversee the design-build team, providing claims, scheduling and production-based independent construction estimate support services, assisting ADOT with procurement and contracting packaging, project development, constructibility review, and construction administration services. Task orders under this contract include:

- I-17, I-10 Split to 19th Avenue VE Study
- SR 79 Gila River Bridge #501 ICE
- US 60 Queen Creek Bridge VE Study
- I-10 Bridges over Gila River VE Study
- SR 101L GPL 75th Avenue to I-17 VE Study
- I-10, Ina Rd. TI to Ruthrauff Rd. TI VE Study

## **ADOT, Statewide On-Call Bridge & Drainage Design Services**

#### **Project Principal.**

HDR has assisted ADOT with various bridge repair TOs through the On-Call Highway Bridge and Drainage Design Services Contract. HDR's bridge inspectors are also designers who prepared this repair work and many more new and rehabilitation projects for ADOT. Repair TOs have included assessment and final design of fire damage to the SR 95 Bill Williams River Bridge. As part of this contract, HDR performed an in-depth inspection of fire-damaged areas, prepared a project assessment report, and prepared final design plans specifications and an estimate. The project also included repair of deck spalls and application of a polymer epoxy overlay on the entire bridge deck. Other repair TOs prepared under this on-call contract include the assessment of the torsional distress in the I-19 Potrero Road Bridge; bearing support distress in

the I-17/11th Avenue Bridge; differential deck settlements in the I-17/Bethany Home Overpass Bridge; scour damage repair at the I-40 Crazy Creek Eastbound Bridge; and an assessment of scour damage and expansion joint repairs at the I-40 Partridge Creek Bridge. Peter served as project principal on this contract. His responsibilities included confirming adequate resources were available for every task assignment through this on-call. He was also responsible for the quality and timeliness of our work.

## **ADOT, Communications On-Call Project Principal.**

HDR provided public involvement strategies and implementations during all phases of project delivery. Working with project teams including various stakeholders such as ADOT, FHWA, City of Phoenix, and MAG, to name a few. HDR's Strategic Communications team implements comprehensive outreach programs from planning stages through construction. Peter served as project principal on this contract. His responsibilities included confirming adequate resources were available for every task assignment through this on-call. He was also responsible for the quality and timeliness of our work.

# ADOT, Management Consultant On-Call - SR 30: SR 303L to SR 202L

#### **Project Principal.**

HDR prepared two Location/Design Concept Reports (L/DCRs) for a new urban freeway in the Southwest Phoenix metropolitan area totaling 25 miles in length for ADOT. Conceptual design focused on physical, environmental, operational, geometric, and political constraints. Study included 23 service interchanges and 3 system interchanges and crossed four city boundaries and the Agua Fria River. Each system interchange location included an Interchange Selection Report that evaluated the interchange location, shape, stack sequence, local access, environmental consequences, future expansion, HOV connections, and traffic operations to select the proper design. Peter served as QA/QC on this contract. He was also responsible for the quality and timeliness of our work.

## **ADOT, I-15 Virgin River Bridge No. 1 Project Principal.**

This project is a construction manager at risk delivery project, which, when completed, will have the longest steel plate girder span in Arizona at 340 feet. Peter served as project principal guiding the team in delivering the design of this project on schedule and within budget despite challenging elements including an individual Section 404 permit, utility relocations, ROW acquisitions and ADOT's first ever on-site re-vegetation plan to offset impacts to designated wetlands. This project involved numerous key stakeholders such as private property owners, developers, utility companies, Bureau of Land Management, FHWA, U.S. Army Corps of Engineers, and environmental agencies. The project team also worked with ADOT and FHWA to successfully receive the increased 5% Federal share on this project due to innovation.

#### ADOT, Project Development On-Call - SR 89A Pumphouse Wash Bridge Project Principal.

Peter served as the project principal for the rehabilitation of the historic and nearly 100-year old Pumphouse Wash Bridge on SR 89A in Oak Creek Canyon. The project, which was phased with challenging maintenance of traffic (MOT) conditions, replaces the deck and railing and includes various other superstructure and substructure rehabilitation activities including scour mitigation and pier enhancements. Peter oversaw this ADOT/consultant blended team that included public sensitivity, unique environmental conditions, challenging MOT conditions, and coordination with two other ADOT projects in the vicinity. The project design was completed on time and within budget.

# Ravi Sripada, PE Proiect (Contract) Manager



#### **EDUCATION**

MS, Civil Engineering, University of New Mexico

BS, Civil Engineering, Osmania University

LEAP Graduate 2014

#### **REGISTRATIONS**

Professional Engineer - Civil, Arizona, No. #52416

#### **INDUSTRY TENURE**

18 years

#### **HDR TENURE**

3 years

Ravi has more than 18 years of experience as a project manager and transportation engineer with extensive knowledge of federal, state, and local agency design standards, guidelines, rules, and regulations acquired while working on transportation projects in Arizona and across North America. He is very familiar with the project development process, from planning through construction and has successfully managed interdisciplinary teams in the delivery of these projects. Ravi currently serves as a client/contract manager for Maricopa County Department of Transportation (MCDOT) and Pinal County. He has successfully delivered 7+ on-call tasks for both MCDOT and Pinal County DOT as a PM or Task Lead. His strong technical background, combined with excellent communication and project management skills, has led to the successful delivery of multiple task orders. As a result, Ravi has received multiple client surveys from MCDOT, and Pinal County, all with a perfect score of 10 out of 10. He is fully committed and available to perform the work under this contract.

### **Why Ravi**

- 18+ years of diverse experience in transportation design and project management
- Successfully delivered 15+ projects as a PM or Task Lead
- Consistently met client expectations for quality, schedule and budget
- Skilled in building strong working relationships through proactive communication
- Thorough understanding of design standards and guidelines

#### **RELEVANT PROJECT EXPERIENCE**

# Pinal County DOT, Sunland Gin and Battaglia Drive Intersection Project Manager.

Ravi was responsible for developing the final design documents for intersection improvements at Sunland Gin Road and Battaglia Drive in Pinal County. Proposed improvements included adding a right-turn lane, guardrail, box culvert extension, traffic signals, signage, and pavement markings. **Through proactive communication and innovative problem-solving, Ravi and his team helped the County complete the project on schedule and under budget, saving more than \$50,000 in design fees on a \$125,000 time-and-materials contract.** Additionally, Ravi provided ongoing support to the County through post-design services.

# Pinal County DOT, On-Call, Ironwood Drive Improvements Project Manager.

Ravi was responsible for developing the scoping, final design, and post-design services to enhance safety features along a five-mile segment of Ironwood Drive, from Germann Road to Elliott Road. Major safety improvements included widening shoulders from 2

feet to 12 feet, installing a median cable barrier, adding new right and left turn lanes, implementing drainage improvements, and maintaining traffic flow. Ravi played a crucial role in developing design alternatives that minimized ROW acquisitions from Arizona State Land. He was also instrumental in achieving design consensus among all stakeholders.

# MCDOT, On-Call, Lower Buckeye Road Widening Project Manager.

Ravi was responsible for developing scoping, final design, and post-design services for the widening of Lower Buckeye Road from a two-lane to a four-lane facility between 71st Avenue and 67th Avenue. As part of the scoping assessment, multiple alternatives were evaluated based on safety, ROW impacts, and construction costs. Proposed improvements included roadway widening, ADA enhancements, bike lanes, signage and pavement markings, lighting, and signal upgrades. **Throughout the scoping and final design process, Ravi played a key role in achieving** 



Ravi delivered a favorable scope and fee, managed the contract well, approached and let the project well with an eye toward problem-solving and out of the box thinking. Ravi and his team are technically savvy and pay attention to details that lead to successful project outcomes. Ravi is a team-player and works well with the MCDOT PM and project stakeholders."

Hannah Quinsey, Project Manager, MCDOT

design consensus by collaborating with stakeholders, including MCDOT, the City of Phoenix (COP), Salt River Project (SRP) Electric, SRP Irrigation, Southwest Gas, and CenturyLink. This project was funded through MCDOT with the understanding that COP would annex the roadway after construction. Ravi worked closely with MCDOT and COP to develop plans and specifications that complied with both agencies' standards, facilitating a smooth annexation process.

# MCDOT, Gilbert Road Bridge at Salt River Project Manager.

The project involves replacing an existing two-lane bridge with a new four-lane bridge to ensure an all-weather crossing. Beyond the bridge replacement, the project requires a comprehensive multidisciplinary approach, including drainage and scour analysis, geotechnical engineering, and roadway/traffic engineering.

Ravi took over the project in 2021, leading the final design and post-design phases for MCDOT. He played a key role in coordinating with the contractor, construction manager and multiple stakeholders, including SRP-MIC, the City of Mesa, the Flood Control District of Maricopa County, and the Salt River Project (SRP) throughout the construction phase.

# **ADOT, PDOC Project SR 89A Guardrail Replacement QA/QC Manager.**

Ravi is responsible for providing QA/QC oversight in the development of final construction documents for replacing over 10,000 feet of the damaged and substandard guardrail along SR 89A from MP 387 to MP 390 in Oak Creek Canyon. The existing guardrail within the project limits lacks sufficient height to function properly, and its replacement in this highly mountainous area presents challenges for District Maintenance crews. HDR is working closely with ADOT to prepare this project for construction advertisement in FY 2025.

# ADOT, PDOC, SR 347 Pavement Rehabilitation QA/QC Manager.

Ravi is responsible for providing QA/QC oversight in the development of final construction documents for milling and overlaying 13.5 miles of SR 347, from the City of Maricopa to I-10. The project also includes evaluating and removing the existing guardrail to ensure compliance with current MASH standards, as well as developing traffic control plans with lane closures to facilitate pavement replacement. HDR is working closely with ADOT to prepare this project for construction advertisement in FY 2026.

# ADOT, I-10 Fairway Drive TI Deputy Project Manager.

This project involved the construction of a new TI on I-10 between Dysart Road and Avondale Boulevard. The design elements included a new two-span bridge over I-10, new auxiliary lanes, more than 41,000 square feet of retaining walls, drainage, FMS, and lighting.

Ravi played a key role in developing an innovative design to temporarily connect ADOT's new TI to the existing Fairway Drive. This unique approach addressed concerns from MAG regarding funding a 'bridge to nowhere' and minimized throwaway costs by incorporating the City of Avondale's (COA) ultimate Fairway Drive configuration into the design.

The temporary connection design approach helped accomplish three major project objectives: securing funding from MAG, ensuring the project was completed on schedule, and achieving significant cost savings by salvaging most of the temporary connection to the existing Fairway Drive.

#### **ADOT, SR 101L Pima Freeway**

#### **Deputy Design Manager/Segment Lead.**

Ravi was responsible for preparing final design documents, attending design progress meetings, performing interdisciplinary reviews, and leading a four-member roadway team. The project included adding one general-purpose lane (GPL) in each direction between I-17 and Pima Road, as well as constructing retaining and sound walls, drainage, signals, FMS, and an AR-ACFC overlay.

The Design Concept Report for this project recommended reconstructing both eastbound (EB) and westbound (WB) bridges along SR 101L at Cave Creek Wash. Ravi played a key role in developing horizontal and vertical geometry that tied into the existing Cave Creek Wash bridges at the approach slabs, allowing the existing bridges to remain. His innovative design approach resulted in significant cost and schedule savings for the project.

# ADOT, PDOC, I-10 Deck Park Tunnel Fire Line Replacement

#### **Project Engineer.**

As a project Engineer, Ravi is responsible for preparation of scoping and final design documents to upgrade and replace the existing I-10 Deck Park Tunnel Fire Direct Connect water line system. The design examined current Tunnel Safety design criteria to determine what type of upgrades will be needed, and evaluated constructability issues and constraints.

# ADOT, US 60, Show Low to 40th Street Project Engineer.

Ravi is responsible for preparing final design documents to widen the existing two-lane rural highway to a four-lane roadway with a continuous center turn lane on US 60, east of Show Low. Project elements include signal design, signing and striping, traffic control plans, intersection paving details, and culvert analysis.

# **Greg Lingor**, PE Task Order Project Manager



#### **EDUCATION**

Masters, Civil Engineering (Structures), University of Arizona, United States

Bachelors, Civil Engineering (Structures), University of Arizona, United States

#### **REGISTRATIONS**

Professional Engineer - Civil, AZ, No. #33998

Professional Engineer - Civil, CO, No. #0045569

Professional Engineer - Civil, NV, No. #015330

Professional Engineer - Structural, UT, No. #6937405-2203

#### **INDUSTRY TENURE**

30 years

#### **HDR TENURE**

7 years

Greg is a senior bridge engineer and project manager who ADOT has relied on for more than two decades to manage projects, predominantly bridge replacement projects with challenging issues and prominent stakeholders. These projects have included elements such as new and temporary ROW, utility relocations, IGAs, JPAs, sensitive environmental resources, individual 404 permits, seasonal construction limitations, and challenging phasing and MOT. Key stakeholders have included local governments, private developers, property owners, public and private utility companies, BLM, USACE, U.S. Forest Service, and environmental agencies, such as AZ Game & Fish, among others. A majority of Greg's projects have been traditional design-bid-build but more recently have included Construction Manager at Risk (CMAR). Many of Greg's projects have included both the scoping phase and final design phase. Projects have varied in size from \$5M to \$80M in construction and have been located in both rural and urban settings.

As noted in the projects below, Greg has extensive on-call experience including managing on-call contracts and managing dozens of on-call tasks over the past two plus decades. A majority of these have been ADOT projects including PDOC projects.

### **Why Greg**

25+ years of delivering ADOT bridge projects on time and on budget

80+ Highway TIs and Grand Separations (Scoping and/or Final Design) as PM or Engineer

25+ Bridge projects completed as a PM

20+ Bridge Final Design projects as a PM

10+ Scoping documents completed as a PM

20+ years of experience as a PM

Managed multiple ADOT Bride and Drainage On-Call contracts, as well as the ADOT Bridge Inspection contract

#### **RELEVANT PROJECT EXPERIENCE**

## ADOT, PDOC, SR 89A Pumphouse Wash Bridge Project Manager.

This project consisted of the rehabilitation of the historic and nearly 100-year old Pumphouse Wash Bridge on SR 89A in Oak Creek Canyon. The project, which was phased with challenging MOT conditions, replaced the deck and included various other superstructure and substructure rehabilitation activities including scour mitigation and pier enhancements. Greg led the ADOT/ consultant blended team design that included public sensitivity, unique environmental conditions, challenging MOT conditions, and coordination with two other ADOT projects in the vicinity. Close coordination with numerous environmental agencies and the Coconino National Forest was key to developing proper mitigations and obtaining the environmental clearance. The project design was completed on schedule and within budget.

# ADOT, PDOC, I-10 W. Wilcox TI UP Project Manager.

This project consisted of the development of a scoping letter for the replacement of the bridge deck, railing, expansion joints, and approach slabs, as well as miscellaneous abutment repairs and girder/bearing painting. The roadway profile was raised with roadway tapers at each end of the bridge. The curb, guardrail, and guardrail transitions were replaced. Storm drain inlets were replaced and erosion issues in all four quadrants were addressed. The project was completed on schedule and within budget.

# **ADOT, SR 89 Granite Creek Bridge Replacement Project Manager.**

This bridge replacement and roadway improvement project, which was delivered through an on-call contract with ADOT Bridge Group, included scoping and final design. The existing scour vulnerable bridge was replaced with a new bridge. The project included extensive coordination with local stakeholders including private developers, utility companies, local



GREG LINGOR, PE (Continued)

In the projects I've worked with Greg on, he has always been attentive to my needs as the owner, as well as the needs of all involved stakeholders, such as BLM, US Army Corps, and the US Forest Service. Greg has done an excellent job keeping the team focused on the project scope and budget, delivering high-quality submittals in a timely manner. I always appreciate Greg's proactive approach to project management."

Brenden Foley, Assistant District Engineer, ADOT, Northcentral District

municipalities, the Veteran's Administration, and a local **Tribal Authority.** The design team consisted of ADOT personnel and consulting personnel. The project was completed on schedule and budget.

#### **ADOT, I-17 Airport Road TI UP Project Manager.**

This project included the scoping, final design and PDS phases for the replacement of the J.W. Powell bridge over I-17 within the City of Flagstaff. The bridge typical section considered widening to an ultimate typical section to address future improvements consisting of a large medical campus and changes to the local street network. The span configuration and bridge layout considered the future widening of I-17. MOT was critical on this project due to high weekend volumes on I-17 and being directly adjacent to the Flagstaff Pulliam Airport, SR 89A, and Fort Tuthill Park. Replacement of the bridge required raising the profile and modifications to J.W. Powell, including an existing roundabout. Stakeholder coordination was paramount to success and included the City, airport, and Coconino County, among others. The project was completed on schedule and within budget.

#### **ADOT, I-15 Virgin River Bridge No. 1 Project Manager.**

This project, which recently won the AZ ACEC project of the year, was a CMAR delivered bridge replacement project that now has the longest steel plate girder span in Arizona at 340 feet. Greg's technical background as a

bridge engineer made him uniquely qualified to manage this project. Greg led the team in delivering the design of this project on schedule and within budget despite challenging elements including an individual Section 404 permit, utility relocations, R/W acquisitions and ADOT's first ever on-site revegetation plan to offset impacts to designated wetlands. This project involved numerous key stakeholders such as private property owners, developers, utility companies, BLM, FHWA, USACE and environmental agencies. Greg also worked with ADOT and FHWA to successfully obtain the increased 5% Federal share due to innovation.

#### **ADOT, SR 169 Agua Fria River Bridge Project Manager.**

This bridge replacement project, which was delivered through an on-call contract with ADOT Bridge Group, included scoping and final design. The existing twolane scour vulnerable and structurally deficient bridge was replaced with a five-lane bridge. The roadway work included transitions from the existing two-lane section to a five-lane section with upgraded access to private properties. The project included extensive coordination with local stakeholders including private developers, utility companies, and local municipalities. The design team consisted of ADOT personnel and consulting personnel. Greg also served as the project's utility coordinator during final design. The project was completed on schedule and budget.

#### **ADOT, SR 82 Santa Cruz River Bridge Replacement Project Manager.**

This bridge replacement and roadway improvement project, which was delivered through an on-call contract with ADOT Bridge Group, included scoping and final design. The existing two-lane scour vulnerable bridge was replaced with a three-lane bridge. The roadway improvements included adding a center turn lane to nearly 3/4 mile of SR 82 along with providing a new access to a private development. The project included extensive coordination with local stakeholders including private developers, utility companies, and local municipalities. The design team consisted of ADOT personnel and

**consulting personnel.** Greg also served as the project's utility coordinator during final design. The project was completed on schedule and budget.

#### **ADOT, I-10 Corridor Structure Guideline Report Project Manager.**

Greg led the development of a corridor report that included the preliminary selection and layout for 14 bridges along a 1-mile stretch of I-10 in Tucson. The report included architectural treatment alternatives and provided a geotechnical and environmental overview of the 14 bridges. The report also addressed constructability, traffic control, utility conflicts and construction costs.

#### **ADOT, US 60 Queen Creek Bridge Replacement Constructability Review Project Manager.**

Through the alternative delivery on-call contract, **Greg** led the development of a constructability report for the replacement of a historic steel arch bridge with a new 4-span steel plate girder bridge. This expedited assignment focused on cost reduction, reviewing the validity of the proposed construction schedule, evaluating the recommended phasing/sequencing, offering input on anticipated contractor means and methods, evaluating construction access including suggesting new alternatives, evaluating possible construction staging and stockpiling areas, confirming ROW needs, finalizing environmental footprint, confirming utility impacts and reducing project risk. The report was completed on schedule and budget.

#### **ADOT, Bridge and Drainage On-Call Contract Project Manager.**

Greg managed the overall on-call contract and nearly every assigned task on this on-call contract. Tasks included managing the scoping and final design of bridge replacement projects designed in-house by ADOT; and managing the scoping and final design of bridge rehabilitation projects consisting of scour retrofits, girder repairs and deck replacements. These projects were located throughout the state and were completed on schedule and budget.

## Ted Smithwick PF

Task Order Project Manager



**EDUCATION** 

Masters, Business Administration (Leadership), Arizona State University, United States

Bachelors, Civil Engineering, University of Arizona, United States

#### **REGISTRATIONS**

Professional Engineer - Civil, AZ. No. #52634

Professional Engineer - Civil, TX, No. #140752

#### **INDUSTRY TENURE**

18 years

#### **HDR TENURE**

2 years

Ted specializes in managing rural and urban roadway projects varying in size and complexity. Ted has worked with ADOT for nearly 18 years, including as a supplement Project Manager within the Project Management Group. As an Arizona native, Ted has spent his entire career working on projects around the state. As a Project Manager, Ted is focused on the project's schedule and building consensus among all stakeholders by listening to their goals and objectives. Ted understands the importance of the stage submittal process, as well as obtaining environmental, ROW, and utility clearances on schedule.

## **Why Ted**

Successful and timely delivery history with ADOT

Interpersonal skills in aligning multiple stakeholders

18 years of ADOT experience

Thorough understanding of ADOT processes through experience serving as a supplemental Project Manager for ADOT

#### **RELEVANT PROJECT EXPERIENCE**

#### ADOT, PDOC, SR 89A Guardrail Replacement **Project Manager.**

Ted is managing this PDOC project that involves the replacement of over 10,000 feet of damaged and sub-standard guardrail from milepost 387 (Pine Flats Campground) to milepost 390 (Scenic Overlook) on SR 89A within Oak Creek Canyon. The guardrail within the project limits do not have sufficient height to function properly and replacement of this guardrail within this extremely mountainous area is difficult for District Maintenance crews. HDR has closely evaluated several guardrail options to construct along SR89A where some locations have a sheer drop-ff within two feet of the guardrail. Options including using long guardrail posts and closely-spaced guardrail posts. This project includes several endangered wildlife species and close coordination with ADOT EPG and USFWS. This project is slated for construction in summer 2025.

#### **ADOT, PDOC, SR 347 Pavement Rehabilitation Project Manager.**

Ted is currently managing this PDOC project, which involves milling and overlaying 13.5 miles of SR 347 from the City of Maricopa to I-10. HDR prepared a Stage II construction cost estimate as well as final design construction drawings. The project also involves removing and evaluating existing guardrail to bring it to current MASH standards, as well as developing traffic control plans that include lane closures to complete the pavement replacement. HDR is also scoped to complete environmental scoping which includes agency scoping and cultural resource consultation in accordance with Section 106. Lastly, this

project is within the Gila River Indian Community and Ted has been coordinating closely with them to gain consensus on traffic control for lane closures.

#### **ADOT, Supplemental Contract Part-Time Project Manager Part-Time Project Manager.**

As a Part-Time Project Manager, Ted serves as ADOT's Project Manager to confirm projects are delivered on-time and onbudget. Ted is currently managing eight projects with ADOT. Four projects are for a local public agency in Yuma County, one project involves correcting superelevation on I-17, another is a passing lane project on US 93, and lastly two other local public agency projects for City of Surprise and City of Lake Havasu. Ted has gained valuable experience through these assignments to better understand how ADOT operates both internally and as projects are developed, designed, and constructed. One issue Ted has faced is scope creep while working within ADOT. Ted has solved the issue by communicating within ADOT and identifying funding sources. Ted's projects are currently on-time and onbudget.

#### **ADOT, I-19 Ruby Road and Rio Rico Drive Project Manager.**

Ted is managing this project that is located in Santa Cruz County, approximately seven miles north of the border with Mexico. The Ruby Road TI and nearby frontage road intersections experience high levels of congestion during peak travel periods. Also near

the project are two large truck stops on Ruby Road that attract a high volume of truck traffic. The project involves converting the Ruby Road TI to a diverging diamond interchange configuration, as well as making adjustments to both frontage road intersections. Furthermore, this project involves adjusting the east frontage road near Rio Rico Drive to a two-way configuration. Lastly, this project involves constructing a new west frontage road between Ruby Road and Rio Rico Drive. Ted and HDR are providing final design services on this project including supplemental survey, geotechnical design and evaluation, environmental investigation/studies, public and stakeholder meeting support, utility coordination, roadway design, drainage design, traffic analysis, construction sequencing, traffic design, construction documents, specifications and special provisions, among other scope items.

**TED SMITHWICK, PE (Continued)** 

#### **ADOT, PDOC, Pendleton Drive at Sonoita Creek Wash Project Manager.**

Ted managed this PDOC task that involved significant project coordination with Santa Cruz County and ADOT. Sonoita Creek Wash at Pendleton Drive experiences large flows, particularly during monsoon season. The scope of work this project included realigning Pendleton Drive and building a new box and pipe culvert system that would convey flows during large storm events. The team thoroughly analyzed storm flows and developed a solution that would minimize water surface elevation increase while also passing the most flow. With significant budget constraints, Santa Cruz County desired a solution that mitigated and reduced roadway flooding while still accommodating large storms events and pedestrians/ bicyclists. Ted worked with Santa Cruz County, ADOT, and project stakeholders to garner consensus on this project issue by developing several alternatives with a variety of construction costs. Construction and design on this project was completed on time and on budget in Fall 2023.

#### **ADOT, I-10 Houghton Road TI Project Manager.**

Ted served as Project Manager for post design services and Lead Engineer for the study concept and final design. **Ted** played a crucial role in developing all design items related to Arizona's second full Diverging Diamond Interchange (DDI) with construction completed in 2022. Four TI alternatives were considered including a SPUI, DDI, diamond and roundabouts. Ted designed, modeled, and developed

cost estimates and after selecting the DDI during the study phase, Ted led the final design efforts that included working closely with ADOT, Pima County and the City of Tucson to verify the DDI operates effectively. This project required extensive coordination with the City of Tucson and Pima County as the ADOT project connected to a City project under construction and a County project under design. Ted worked closely with ADOT on this project for over six years, including managing several subconsultants and coordinating directly with all utilities, stakeholders, and agencies. ADOT has reported that the DDI is functioning very well and this project was awarded an ACEC Award of Excellence. One issue faced during the project development was ensuring that large trucks were able to traverse the proposed DDI effectively. Ted worked closely with the stakeholders, ADOT, and the design team to develop custom vehicles and truck-turning templates. The design team made adjustments to the design as a result. This project was completed on time and on budget.

#### Santa Cruz County, Babocomari Creek Bridge 15% **Project Manager.**

Ted served as Project Manager for this task from Santa Cruz County. The County submitted an "OSB Program" Application" to ADOT in December 2023, OSB Funding is a federal-aid program and must follow all federal-aid requirements. The proposed work is located in eastern Santa Cruz County at the Town of Elgin, where the Upper Elgin Road crosses Babocomari Creek. The original bridge was built in 1920. It is a single-span modified Warren Steel Half-Through Truss Bridge. The bridge has a 61'-2" single-span and a clear roadway width of 16'-4". The steel stringers are supported on steel floor beams that are connected at the truss panel points.

The bridge was rehabilitated in 1999 by replacing the wood decking with a cast-in-place reinforced concrete deck slab with concrete curbs. The rehabilitation also included repairing and strengthening existing steel members, repainting the bridge, and installing approach guardrail.

#### **ADOT, I-17 Airport Road TI Quality Control Manager.**

Ted served as Quality Control Manager during final design for the replacement of the J.W. Powell bridge over I-17 within the City of Flagstaff and adjacent to SR 89A and the entrance into Flagstaff Pulliam Airport. MOT was

critical on this project due to high weekend volumes on I-17 and due to being so close to the airport, SR 89A, and Fort Tuthill County Park. Replacement of the bridge required raising the profile and modifications to J.W. Powell, including an existing roundabout.

#### ADOT, I-17 and Indian School Road TI **Lead Engineer.**

Ted served as Lead Engineer, and was responsible for completing a DCR for the Indian School Road TI, as well as final design. Ted and the team considered several TI alternatives and worked with ADOT and City of Phoenix to develop Arizona's first flyover concept for Indian School Road at a Tl. Ted designed, modeled and developed cost estimates for the alternatives. He also attended monthly project meetings with ADOT which included MAG and City of Phoenix.

#### **ADOT, I-40 and I-17 Truck Parking Expansion Subject Matter Expert.**

Ted is serving as Subject Matter Expert for Arizona's first **Integrated Design Build project.** Truck parking facilities provide a location for truck drivers to take their short- and long-term rest breaks, as required by Federal law. Truck parking, or the lack thereof, has been a concern raised by the trucking industry for over ten years. Recent planning studies completed by ADOT evaluated potential solutions to address truck parking concerns in Arizona. Seven locations have been identified for improvement including Parks and Haviland on I-40, and Christensen and Sunset Point on I-17. ADOT used the Integrated Design Build method which includes qualifications based selection, the design-build team will design and build the project, the design-build team works directly with ADOT to develop the conceptual and final design, and the design-build team prepares a fair market price validated by an independent cost estimator.

## **FDS**

## Sanjay Paul, PhD, PE, PTOE, PTP, RSP

Task Order Project Manager



#### **EDUCATION**

Doctorate, Transportation Engineering, Arizona State University, United States

Masters, Transportation Engineering, Arizona State University, United States

Bachelors, Transportation Engineering, Bangladesh University of Engineering and Technology (BUET), Bangladesh

#### REGISTRATIONS

Professional Engineer - Civil, AZ, No. #60687

Professional Traffic Operations Engineer, No. #4007

Professional Transportation Planner,

No. #580

Road Safety Professional Certification, No. #44

#### **INDUSTRY TENURE**

17 years

#### **HDR TENURE**

3 years

Sanjay Paul is HDR's Arizona/New Mexico Area Traffic Manager. He has 17 years of experience in traffic engineering design and operations, transportation modeling and planning, roadway safety, lighting, and ITS in both private and public sectors. He has assisted several agencies in Arizona, Colorado, Nevada, Texas, Oklahoma, Florida, and California with varieties of emerging transportation issues.

Sanjay served as a Project Manager and a Deputy Project Manager/Task Lead for projects totaling \$5M, and \$7M in design fees. He has been recognized with National Transportation Safety Council Award by the Institute of Transportation Engineers (ITE).

## **Why Sanjay**

Successful and timely delivery history with ADOT

17 years of experience in traffic engineering design

Served as Task Lead for projects totaling up to \$7M

National Transportation Safety Council Award from ITE

#### **RELEVANT PROJECT EXPERIENCE**

# ADOT, Bluetooth/Wi-Fi Technology for Freeway Real-Time Travel Time Data Collection: Proof-of-Concept Study and Deployment Plan Development Project Lead.

Sanjay investigated the potential of detecting Bluetooth and Wi-Fi technology embedded in smartphones and utilizing the data in freeway real-time travel time estimation. His investigative analysis answered the commonly asked basic research questions: how does the technology work; what are the advantages and disadvantages of each technology; what would the user expect from the technology; how will the new technology help the existing system; which technology (Bluetooth or Wi-Fi) operates better under different (i.e. rural verses urban) environments; the ability of each technology to interact with ADOT's TransSuite system; and the Deployment Plan for the selected technology. He performed advanced statistical analysis on the obtained penetration rates (percent sampled) of both Bluetooth and Wi-Fi ARID devices using the ADOT FMS volumes as a base, and determined the relative effectiveness. He also developed a deployment plan to obtain real-time travel time on rural highways such as I-17 between Phoenix and Flagstaff; and I-10 between Tucson and Phoenix.

# ADOT; MAG; City of Maricopa, Evaluation of Automatic Signal Timing Plan

#### **Project Manager/Traffic Engineer.**

Sanjay assisted ADOT, MAG, and City of Maricopa with pilot deployment and evaluation of an automatic signal timing plan

generator/adaptive system on SR 347/John Wayne Parkway. The corridor is the gateway to the city and close to a saturation condition with heavy directional commuter traffic in peak hours. The project includes installations and configuration of cameras at 6 intersections for turning movement counts, coordination with contractors, technology provider and stakeholders, reviewing the automatic signal timing plans, measuring effectiveness comparing with time-of-day plan, synchro analyses, travel time runs with TranSync, before-after and benefit-cost analyses.

# ACA, SMART Grant Program Management Program Manager/Grant Administrator.

HDR assisted ACA as the Program Manager and Grant Administrator for the FY 2022-2023 SMART Grant Stage 1 project. The goal of the project is to develop more inclusive next-generation connected vehicle (CV) applications and implement back-of-queue, work zone, and pedestrian warning systems, as well as transit signal priority using networked connected vehicle technology. Sanjay served as the program manager and grant administrator where he was the liaison and representing ACA to USDOT. He coordinated with ADOT, MCDOT, MAG, Valley Metro, Cities of Phoenix, Tempe, Mesa, and Scottsdale, University of Arizona, Arizona State University, Valtech, Verizon, AT&T, Intel, CPLC.

Additionally, Sanjay prepared the deliverables including draft and final reports, and federal technical and financial reporting





I have worked with Sanjay for several years. Both on the private side, and as a consultant to ADOT. Sanjay is a consummate professional, both technically and personally. He has completed several projects for ADOT and MAG with excellent outcomes. He works well with his clients, from leading projects to being a contributor. I have the highest regards for Sanjay"

Bruce Dressel, Statewide Signal and Lighting Manager, ADOT (formerly)

documents. Furthermore, he assisted ACA to develop vision, scope, schedule, and planning level budgetary cost for Stage 2 grant which USDOT will award the applicants approximately \$15M, if successful.

## MAG; Peoria, Autonomous/Driverless Vehicle Pilot Project Manager/Traffic Engineer.

Sanjay assisted MAG and City of Peoria with the pilot deployment of an autonomous/driverless vehicle in the City of Peoria. Beep was selected as the autonomous vehicle service provider, Local Motor is the vehicle manufacturer, ASU is the travel behavior evaluator, and Sanjay's role is the project management, coordination with different stakeholders, and documenting the project steps and pilot outcomes for better understanding of autonomous vehicle functionality and system engineering for transportation operations and planning. He also developed strategies for regional readiness and adoption for mobility solutions.

# ADOT, Long Distance Personal Travel Demand Modeling: Proof-of-Concept, Phase I Principal Investigator.

Sanjay reviewed the state-of-the-practices (over 64 models) in long distance personal travel demand modeling used both in United States and overseas and conducted interviews with the industry leaders. He also evaluated ADOT's current practice. He developed a methodology for ADOT overcoming the drawbacks that the existing model has and then developed both shortand long-term recommendations. He also identified

potential data sources that includes both traditional traffic data and emerging technology/innovative Big Data (cell phone tracking, GPS tracking, etc.) which will be used for model estimation, calibration and validation.

## **ADOT, I-10 Improvement Project Traffic Engineer.**

This project is located within Maricopa and Pinal Counties in Arizona. The I-10 corridor limits extend from the I-10/202 TI (Milepost 161) to south of SR 387 TI (Milepost 187). The Project is led by ADOT, in cooperation with GRIC, MAG, and FHWA. The Corridor includes four projects that will widen I-10 to include one additional general purpose lane in both directions south of Riggs Road, and one additional general purpose lane and a high occupancy vehicle (HOV) north of Riggs Road. There are also six interchanges and four crossroads. All 10 locations will require bridge work (either rehabbing/widening or new construction) and all six interchanges will be improved. All four projects in the Corridor are currently fully funded.

# **ADOT, I-17, Airport Road TI UP Traffic Engineer.**

This project includes the scoping phase and final design phase for the replacement of the J.W. Powell bridge over I-17 within the City of Flagstaff and adjacent to SR 89A and the entrance into Flagstaff Pulliam Airport. The typical section of the bridge will be based on current needs but will need to consider widening to an ultimate typical section to address future improvements consisting of a large medical campus and changes to the local street network.

#### ADOT, Analysis of Bluetooth and Wi-Fi Technology to Measure Wait Times of Commercial Vehicles at the San Luis II Port-of-Entry

### **Traffic Engineer.**

The project evaluated the Bluetooth/Wi-Fi technology to measure the wait time for the inbound commercial vehicles. Sanjay assisted to determine the minimum sample size required to estimate the wait time accurately. The purpose was to disseminate the wait time to the inbound freight operators waiting in the queue. This information will also be used to schedule staff during peak periods of operations. The project also justified the installation of this technology by comparing with the radio frequency identification technology in terms of cost and data accuracy.

# ADOT, I-10 Phoenix (35th Avenue to Sky Harbor Boulevard) Corridor Safety Planning Study Project Engineer.

Lee Engineering was a subconsultant to Kittelson and Associates. Sanjay reviewed the last five years of crash data, performed field visits, and identified possible contributing factors. He performed statistical analysis on the crash data and developed potential mitigation measures. After review of more than 1,000 crash reports filed by the police officers at the scene, he considered the geometric and freeway operational factors that contributed to the crashes in the study corridor during the study period. He also conducted advanced spatial analysis; developed a collision diagram library in a GIS environment; and placed each collision diagram where it occurred. This data provided ADOT with a better understanding of the crash patterns relating to the geometric and operational characteristics. After performing the detailed crash diagnostics, he developed a series of countermeasures which included modifications of several geometric features as well as changing operational strategy. He suggested cutting edge ITS features to be included in their operational strategy such as variable speed limit and active traffic managements. Additionally, he conducted benefit-cost analysis for the objective-oriented countermeasures.

#### City of Phoenix, Evaluation of Video Detection to Enhance Safety and Operational Efficiency at Pedestrian Crossings/HAWK

## Project Manager & Technology Engineer.

Sanjay assisted the City of Phoenix with implementing emerging technologies and innovative signal timing schemes at the HAWK locations to enhance the operational efficiency while increasing safety. He led the team who tested a total of six HAWKs as part of this study. The project included evaluation of, passive detection technologies for pedestrian and bicyclist at ramps as well detection systems covering the entire crosswalk aimed to detect slow-moving pedestrians or roadway users in wheelchairs to dynamically detect and extend the green crossing time if the preallocated crossing time needed to be expended. Sanjay also developed a new signal timing plan to reduced pedestrian delay at crossing locations by 56% without significantly impacting the vehicular delay.

## FJS

## Ted Buell, SE

Task Order Project Manager



#### **EDUCATION**

Masters, Civil Engineering, University of Arizona, United States

Bachelors, Civil Engineering, University of Arizona, United States

#### **REGISTRATIONS**

Structural Engineer, AZ, No. #29368

Structural Engineer, UT, No. #7590006-2203

#### **INDUSTRY TENURE**

36 years

#### **HDR TENURE**

22 years

Ted's 36 years of consulting engineering experience include 22 years with HDR where he is the Structures Section Manager for the Tucson office, which specializes in the design of highway, railroad, transit and pedestrian bridges, as well as mining structures, retaining walls and drainage structures. Ted is an experienced Project Manager, specializing in bridge replacement and rehabilitation projects. He has recent ADOT project management experience through his PM role in the US191 Lukachukai Wash to Chinle Wash bridge replacement and bridge rehabilitation project. In addition, Ted was the PM and Structures Lead for the Silverbell Road Bridge at Blanco Wash project, an ADOT LPA OSB funded project for Pima County — which has just finished construction in February 2025. He is also managing two other OSB funded projects for Pima County the Madera Canyon Road Bridge Replacement projects which includes two separate OSB-funded bridge replacements along Madera Canyon Road. Ted was a key team member in the preparation of the Babocomari Creek Bridge OSB application and Scoping Letter and is currently serving as HDR's project manager for the design of this project which is coming through the ADOT PDOC contract and is currently under contract negotiations.

Ted is well respected amongst his peers as a highly competent Structural Engineer who has a strong commitment to quality and strives to find the right solution for every project.

#### **Why Ted**

Track record of meeting client's scope, budget, quality, and schedule expectations

Proactive approach

Focus on responsive communication with an in-depth understanding of the technical, non-technical, and procedural elements of a projects

More than three decades of experience as a bridge engineer

Yast experience as PM on bridge replacement and rehabilitation projects

Works passionately to always find the best solution to a project challenge

#### **RELEVANT PROJECT EXPERIENCE**

## ADOT, US 191-Chinle Wash to Lukachukai Wash Bridges Replacement & Rehabilitation

#### **Project Manager.**

HDR provided final design services for the rehabilitation of two wash bridges and the replacement of two wash bridges. This project in the Navajo Nation received a special grant, requiring an accelerated design and solutions that met the budget. PBPD was applied, saving millions of dollars and allowing the project to meet budget. Key elements included bridge, geotechnical, drainage, phasing, environmental permitting and compliance, MOT, and stakeholder coordination (Navajo Nation). The team also coordinated with ADOT Utilities and Railroad, and ADOT ROW for TCE/ROW clearances. HDR developed plans, specs, and estimates (PS&E) for 30%, 60%, 95%, and 100%, and PS&E submittals; arranged constructability review, and prepared construction schedule. The project was delivered on schedule and within the allotted budget allowing the project to be bid in the planned fiscal year.

## PCDOT, West Silverbell Road Blanco Wash Bridge Project Manager.

HDR initially prepared a project assessment and bridge selection report and then provided the final design services. This is an OSB funded one-lane bridge to two-lane bridge replacement project over the Blanco Wash. Construction of the new 3-span cast-inplace concrete slab bridge was facilitated by closing the road and detouring around the location using alternate routes. A Non-Notifying Nationwide Permit 14 was required to meet Section 401/404 Clean Water Act requirements. The construction limits for this project were significantly reduced to adhere to available OSB funding. Minor improvements to roadway approaches and drainage culvert replacements at the Brawley and Los Robles washes were also **incorporated.** ADOT was a key stakeholder and was included on milestone reviews due to federal funding. Two utilities required temporary relocation due to the location of the new bridge abutments. This construction of this project was recently completed in February 2025. In addition to ADOT, stakeholders included the nearby Blanco



66

Ted's performance in the role of on-call bridge engineer for Pima County has been outstanding! He consistently develops structural solutions that are both cost-effective and proper. A recent example of Ted's expertise was development of a deck repair project on the Ina Road Bridge over the Canada Del Oro that addressed various levels of deterioration. Ted's knowledge of structures has been a real asset for Pima County."

Stephen Wilson, PCDOT (formerly)

Estates neighborhood, Avra Valley Fire District, US Fish and Wildlife Service, AZ Game & Fish, Marana Schools, Pima County Floodplain Management, and the AZ State Land Department.

# **PCDOT, Madera Canyon Road Bridge Replacements Project Manager.**

This project aims to replace two existing single-lane bridges with new two-lane bridges on South Madera Canvon Road at the Florida Canyon Wash crossing and Medium Wash crossing. The project is entirely funded through two separate OSB grants and has an aggressive 12-month design schedule to meet the required OSB construction authorization date. This project includes bridge design. hydrology & hydraulics, roadway design, utility coordination, environmental documents in support of a categorical exclusion, geotechnical engineering, pavement design, and a detour design. Ted is currently coordinating with many stakeholders including the Madera Canyon Recreation Area, US Fish and Wildlife Service, AZ Game & Fish, local residents, and the AZ State Land Department to gain approval for a detour to carry traffic around the construction site on State Land. This will allow construction of the bridges in a single construction phase.

## PCDOT, Elephant Head Road Bridge Over the Santa Cruz River

#### **Project Manager/Lead Structural Engineer.**

HDR provided final design services to replace the existing bridge channel beam superstructure over the Santa Cruz River. Construction of the new 8-span precast box beam superstructure was facilitated by providing a haul/detour road through the river adjacent to the existing bridge. The new superstructure closely matched the existing grades along the bridge and approaches, thus resulting in only minor

repaving of the roadway leading to the new bridge. The design of the new bridge superstructure, from NTP to sealed construction plans, was performed within an expedited three-month emergency schedule utilizing over-the-shoulder reviews. The project was delivered on schedule and within the allotted budget. Ted successfully coordinated with project stakeholders who were very concerned with having the road closed during bridge construction. These stakeholders included the Elephant Head Fire Department, local residents east of the Santa Cruz River, Canoa Ranch, US Fish and Wildlife, and local schools.

## PCDOT, Ina Road Bridge over the CDO Wash Project Manager/Lead Structural Engineer.

Ted served as the project manager and lead Structural Engineer for the rehabilitation of the Ina Road Bridge over the Cañada Del Oro Wash, Structure Number 9971. This is a 425-foot-long, five-span precast prestressed concrete girder bridge that was constructed in 1984. The bridge expansion ioints at both abutments had deteriorated and needed replacement. In addition, the bridge deck was showing signs of distress as indicated by the presence of delamination and potholes in various locations. Some of these areas had been previously repaired but the patch material had failed. The County intended to replace the expansion joints at both abutments and perform repairs to the bridge deck to help extend the life of the bridge deck. As a task order on HDR's OCL contract, HDR prepared plans showing details for replacement of the expansion joints and repairs to the bridge deck. HDR also provided recommendations for traffic control that allowed traffic to be maintained while the bridge deck was rehabilitated. The County contracted with Granite Construction to repair the bridge, which was completed in the spring of 2023. Ted led the team to deliver this project on-time and within budget.

## PCDOT, Bridge and Culvert Inventory Prioritization Project Manager.

As part of a QCL Task Order, Ted managed the development of a Bridge and Culvert Inventory Prioritization Report that was completed in December of 2022. This report, which covered 65 Pima County bridges and 181 culverts, included creating a Priority Score for every structure using bridge inspection data, ranking/prioritizing the structures, recommending replacement vs rehabilitation, and providing preliminary program level cost estimates. HDR used new and innovative methods to categorize and rank the structures and the report has proven to be very useful to Pima County and especially to Maintenance staff as it allows County resources to be allocated to the most critical needs first.

## **City of Tucson, Five Points Transportation Art Enhancement Project**

#### **Project Manager/Lead Structural Engineer.**

Ted served as Project Manager and lead Structural Engineer for this unique art enhancement project which was recently constructed at the five points intersection south of downtown Tucson. This project was a task order on HDR's Structural On-Call contract with the City of Tucson. This is an important project to the community and honors Farm Worker's leader Cesar Chavez. It consists of five steel arches that span across each leg of the intersection. Each arch is constructed of 14-inch square steel tubing mounted to decorative concrete pedestals. Each arch has a different LED sign with the name representing one of the historic Tucson Barrios. HDR's services originally consisted of an independent review of the plans and the structural design that were prepared by another consultant. The City eventually requested that HDR take over and finish the design. Ted and his team prepared final design of the steel arches, prepared structural drawings, special provisions and assisted the COT with submittal review during construction.

# **ADOT, Babocomari Creek Bridge OSB Application** and **Scoping Letter**

#### **Structures Lead.**

HDR, in coordination with Santa Cruz County, developed and delivered the successful ADOT OSB funding application for the Babocomari Creek Replacement Project. The work also included the development of the project scoping letter. This scoping letter detailed the project scope, schedule, cost, and made initial recommendations on the recommended bridge type. Ted was instrumental in the development of both the application and scoping letter and his experience working on the 1999 bridge rehabilitation was key in the structural evaluation of the 105 year-old structure and in the development of the proposed project detour. **The project** was delivered on schedule and in a very short time frame. which allowed Santa Cruz County to submit the OSB application to ADOT on time and resulted in a successful grant award of \$3.8 Million to Santa Cruz County for design and construction of this project. Close coordination with all project stakeholders, including Santa Cruz County, ADOT, Utility companies, Elgin Wineries and local residents, was required to meet the project goals. HDR is currently under contract negotiations for the final design of this ADOT PDOC project.

## Dan Pfeifer, PE

Task Order Project Manager



#### **EDUCATION**

Bachelors, Civil Engineering, Northern Arizona University

#### **REGISTRATIONS**

Professional Engineer, AZ, No. #54445

Professional Engineer, CA, No. #79523,

#### **INDUSTRY TENURE**

17 years

#### **HDR TENURE**

16 years

Dan has 16 years of experience in managing transportation hydraulics including storm drain design, bridge hydraulics, implementing SWPPP, and supporting 401/404 permitting. He has a wide variety of expertise in disciplines including hydrology & hydraulics, site civil design, environmental permitting, erosion control, 1D/2D hydraulics, floodplain modeling, storm drain design, bridge design, scour analysis, and scour mitigation. In his tenure at HDR, Dan has led large-scale transportation studies such as the South Mountain Corridor as well as smaller, detailed on-call design projects for many of the local municipalities.

He is proficient in coordinating with both local and federal agencies, leading project teams through permitting processes, developing SWPPP for construction, erosion analysis and control, on and off-site drainage issues, coordinating with transportation design teams, the use of computer modeling programs to analyze hydrologic conditions, as well as hydraulic structures. Dan has extensive knowledge of standard engineering manuals, EPA's Clean Water Act, field experience with site assessment and planning, and software expertise with HEC-RAS (1D/2D), HEC-HMS, HEC-1, FLO-2D, XP-SWMM, Civil 3D, StormCAD, and Civil 3D, along with other transportation design programs.

#### **Why Dan**

☑ TI and interstate scoping & Final design experience

Trusted advisor for ADOT Drainage Group



Significant experience with sediment evaluation in same region (similar soils)

#### **RELEVANT PROJECT EXPERIENCE**

# **ADOT, On Call Task Order I-10 Gila River Crossing - Modeling for Resilience Program**

#### **Project Manager and Task Leader.**

Dan acted as both the Project Manager and Task Leader for HDR the first ever detailed 2D model of the I-10 Gila River Bridges. The assessment included development and assessment of various bridge configurations and conditions including raising and widening of the bridge. Work included a scour assessment and sediment yield analysis to further ascertain the existing conditions and a few build alternatives.

Dan worked closely with the University of Dublin to complete a resiliency assessment as well to provide ADOT with a long-term projection of the hydrologic trends for the 1,500+ sq mi watershed draining through the bridge opening.

## Pinal County General Civil Engineering, On-Call Task Order San Manual Erosion Evaluation

#### **Project Manager and Task Leader.**

Dan acted as both the Project Manager and Task Leader for the evaluation of bridge structure RCB (#07711) located on SR 76. Dan led the team through hydrology, hydraulics, and sediment transport analysis to determine the root cause of the undermining occurring at the outfall of the structure. Project work included developing multiple concepts for consideration to address the issues. Dan's team successfully delivered a detailed analysis which resulted in an

additional task order to take the preferred option to final design and construction. As recently as February of 2025 the project has been successfully constructed and is now in operation.

## NMDOT, Drainage On Call Task Orders #1 Through #6 Project Manager and Task Leader.

Dan has acted as both Project Manager and Task Leader for multiple on call task orders for the NMDOT. Task orders have included the support of final design for bridges, scour assessments, and asset management programing. Dan and his team has successfully delivered multiple tasks for the NMDOT's Culvert Asset Management Program (CAMP), including a culvert condition assessment for the entire I-10 corridor in the state of New Mexico (165+ miles).

# ADOT, US 60 - Silver King & Superior Streets Drainage Task Lead.

HDR provided drainage support for the US 60 improvements from milepost 222.3 to 224.8. Tasks included the design of four bridge crossings, on- and off-site drainage analysis, final design PS&E, and coordination with ADOT Utilities, ADOT ROW, and local state holders.



Dan's drainage team took an innovative approach to analyzing and evaluating the complex hydraulics of a multicell box culvert in San Manuel that has significant scour and head-cutting problems. Their proposed solution utilizes uncommon mitigation strategies to keep costs down and minimize the project footprint."

**Christoper Wanamaker, Pinal County** 

#### **ADOT, HES On-call**

#### Task Lead.

Dan provided task leadership for a variety of on call tasks including preparing a project assessment, and final design plans for ramp operational improvements at the I-10/I-8 System TI; preparing a project assessment and final design plans for a new roundabout at the intersection of US 60 and Vicksburg Road; and preparing erosion control plans for an ADOT-designed project on SR 86. Work included hydrologic and hydraulic analysis, plan development, ADOT coordination, and support for all permitting requirements.

## ADOT, PARA SRPMIC Task Order Task Lead.

Dan provided task leadership for a variety of on call tasks including preparing a project assessment, and final design plans for ramp operational improvements at the I-10/I-8 System TI; preparing a project assessment and final design plans for a new roundabout at the intersection of US 60 and Vicksburg Road; and preparing erosion control plans for an ADOT-designed project on SR 86. Work included hydrologic and hydraulic analysis, plan development, ADOT coordination, and support for all permitting requirements.

## ADOT, I-10 West DCR/EA, SR 101L to I-17 Task Lead.

Dan acted as task lead for the on-call task on the ADOT Management Consultant team. Work included drainage analysis for a 9.5-mile segment along I-10, with the purpose of producing alternatives to increase the capacity of I-10. Responsibilities included in an in-depth real-time analysis of the proposed improvements to the onsite I-10 drainage system. The work developed through this on call task was later utilized by the South Mountain project to assess the SR 202/I-10 TI.

#### **ADOT, El Mirage TI DCR**

#### Task Lead.

Dan acted as task lead for the on call task which included preparing an Initial and Final Design Concept Report (DCR) and a Draft and Final Categorical Exclusion (CE). Work included the development of concepts to construct a service interchange between I-10 and El Mirage Road. Both on- and off-site drainage infrastructure was assessed and designed.

# **ADOT, HISP SR 92 Foothills Intersection Improvements Task Order**

#### Task Lead.

Dan acted as the task leader for assessment and proposed improvement for the improvements on SR 92. Work included field work, hydrology and hydraulics, scour analysis, and PS&E. Dan worked closely with the roadway group and ADOT staff to address both on- and off-site drainage concerns as well as providing protection of the newly developed pedestrian path.

## ADOT, I-10 Ina Road TI to Ruthrauff Road TI DCR Task Lead.

Dan acted as task lead for the on call task which included preparing an Initial and Final DCR and a Draft and Final CE. Work included the development of concepts to construct a service interchange between I-10 and El Mirage Road. Both on- and off-site drainage infrastructure was assessed and designed.

# ADOT, US 191-Chinle Wash to Lukachukai Wash Bridges Replacement & Rehabilitation Final Design Services Task Lead.

Dan acted as the task leader for final design services for the rehabilitation of two wash bridges and the replacement of two wash bridges. This project in the Navajo Nation received a special grant, requiring an accelerated design and solutions that met the project budget. Key elements included bridge design and rehabilitation, scour analysis, bridge hydraulics modeling, drainage, phased construction, environmental permitting and compliance, MOT, and stakeholder coordination (Navajo Nation). Dan also coordinated with ADOT Utilities and Railroad, and ADOT ROW for TCE/ROW clearances.

#### ADOT, South Mountain Freeway Location/Design Concept Report (L/DCR) and Environmental Impact Statement (EIS)

#### Task Lead.

Dan served as the lead task manager for drainage assessment of the new 26-mile South Mountain Freeway Corridor, which consists of completing an EIS and L/ DCR for ADOT. Ultimately, the selected alternative will be environmentally sensitive and economically viable; a legally defensible environmental document securing federal dollars for project construction; and an implementation plan that permits ADOT to proceed with final design and construction in a logical, cost-effective sequence. Specific duties included FLO-2D analysis of the Loop 202 interchange, offsite system analysis, hydrology and hydraulics, on-site system development, and extensive involvement in the public outreach program. Along with a FLO-2D assessment of the Pecos Road alignment, Dan developed the offsite drainage system for the western leg of the alignment. Dan's previous XPSWMM analysis of the I-10 Onsite system was utilized as the basis of design for connection to the I-10 connection as well.



## 2. SOQ BIDDER'S/PROPOSER'S SOLICITATION LIST CONFIRMATION EMAIL



### Bidders List for HDR Engineering, Inc.

From ADOT Business Engagement and Compliance Office <AZUTRACS-Support@azdot.gov>

Date Mon 3/31/2025 5:19 PM

To PHXMarketing < phxmarketing@hdrinc.com >

Cc ContractorCompliance@azdot.gov < ContractorCompliance@azdot.gov >

CAUTION: [EXTERNAL] This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

**HDR Engineering, Inc.**, AZUTRACS Number: <u>10491</u> has submitted a Bidder/Proposer list for **2025-011** on 03/31/2025 at 1:24 PM MST (UTC - 07:00).

### **Bidders/Proposers for this firm include:**

Firm Name	Address	Ethnicity	Gender	Age of Firm	Annual Gross Receipts	DBE Status	NAICS Codes
AeroTech Mapping Inc	3285 North Fort Apache LAS VEGAS, NV 89129	Hispanic American	F	4-7 years	Unknown	DBE	N/A
Andes Engineering, LLC	20860 N. Tatum Blvd., Suite 300 Phoenix, AZ 85050	American	М	10+ years	Less than \$500,000	DBE	N/A
Cobb, Fendley & Associates, Inc.	1131 W Warner Rd Tempe, AZ 85284	Caucasian	F	10+ years	More than \$100 million	Non-DBE	E N/A
Cooper Aerial	11402 N Cave Creek Road Phoenix, AZ 85020	Caucasian	М	10+ years	\$2 million to \$5 million	Non-DBE	E N/A
Corral Design Group, Inc.	4632 S. 36th St Phoenix, AZ 85040	Hispanic American	М	10+ years	\$500,000 to \$1 million	DBE	N/A
Desert Archaeology, Inc.	3975 N. Tucson Blvd.	Caucasian	F	10+ years	\$2 million to \$5 million	DBE	N/A

	Tucson, AZ 85716					
Ethos Engineering, LLC	•	Hispanic American	М	10+ years	\$1 million to \$2 million	DBE N/A
Infrastructure Mavens, LLC	21001 N. Tatum Blvd., Suite 1630-603 Phoenix, AZ 85050	Caucasian	М	10+ years	Less than \$500,000	Non-DBE N/A
J2 Engineering & Environmental Design, LLC	85040	Native American	М	10+ years	\$5 million to \$10 million	DBE N/A
Jana Kading, PLLC	1 Manzanita Ct Prescott, AZ 86305	Caucasian	F	4-7 years	Less than \$500,000	DBE N/A
JE Fuller/Hydrology & Geomorphology	8400 S. Kyrene Road, Suite 201 Tempe, AZ 85284	Caucasian	М	10+ years	\$5 million to \$10 million	Non-DBE N/A
Lee Engineering,L.L.C.	2944 N. 44th St. Suite 250 Phoenix, AZ 85018	Caucasian	М	10+ years	\$5 million to \$10 million	Non-DBE N/A
<u>Lokahi</u>	Street, Ste	Asian- Pacific American	F	4-7 years	\$1 million to \$2 million	Non-DBE N/A
Newton Environmental Consulting, LLC	9859 East Winchcomb Drive Scottsdale, AZ 85260	Caucasian	F	8-10 years	Less than \$500,000	DBE N/A
Ninyo & Moore Geotechnical and Environmental Sciences Consultants	3202 East Harbour Drive Phoenix, AZ 85034	Hispanic American	М	10+ years	\$50 million to \$100 million	Non-DBE N/A
T2 UES, Inc.	19621 N 23rd Dr	Other	М	4-7 years	More than \$100 million	Non-DBE N/A
Terracon Consultants, Inc.	4685 S. Ash Avenue,	Caucasian	М	10+ years	More than \$100	Non-DBE N/A

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	Suite H-4 Tempe, AZ 85282				million		
TRACE Consulting, LLC	1201 E. Jefferson Street,, Suite 3 Phoenix, AZ 85034	Asian- Pacific , American	М	10+ years	\$5 million to \$10 million	DBE	N/A
Wheat Design Group, Inc.	500 N. Tucson Blvd, Suite 150 Tucson, AZ 85716	Caucasian	F	10+ years	\$500,000 to \$1 million	DBE	N/A



# **PART E. AMENDMENTS**



MD 616E 205 S 17<sup>th</sup> Ave. Phoenix, AZ 85007 KATIE HOBBS GOVERNOR JENNIFER TOTH

**Date:** March 18, 2025

TO: ALL INTERESTED PARTIES

SUBJECT: AMENDMENT NUMBER 01

**REFERENCE:** REQUEST FOR QUALIFICATIONS

CONTRACT NUMBER: 2025-011

CONTRACT DESCRIPTION: Project Delivery On-Call

The following revision is made to the referenced Request for Qualifications (RFQ) package:

Page 20, Section V, Part C, SOQ Non-Technical Evaluation Criteria, 1.c., is revised as follows:

c) Demonstrate that the firm has experienced project managers to manage the tasks expected to be conducted under the contract. Demonstrate that the Task Order Project Managers have the experience and a record of past performance on projects of similar type and size, and that they have been responsive to clients in the past.

(Maximum 25 pts.)

#### The following questions have been asked in reference to the above RFQ package:

**Question No. 1:** The RFP specifies that the consultant must provide resumes for up to five Task Order Project Managers. Can you confirm whether these five Task Order Project Managers are the only task managers that can be utilized for the duration of the contract, or if additional task managers may be assigned as needed based on project requirements?

**Answer No. 1:** After the selection of firms in Tier 1, Task Order Project Managers may be added at the time of the task order request(s) at the discretion of ADOT, as applicable.

**Question No. 2:** Please confirm we can name multiple individuals in the SOQ without identifying them as key personnel (for example, in a team member qualifications table to respond to Section 3(a), Team Capability.

**Answer No. 2:** Yes, the SOQ may also identify other key members of the team, including other personnel (classifications identified in Attachment A of the Scope of Work) determined by the Consultant. These are personnel from both the prime Consultant and Subconsultants who the Consultant wishes to highlight in the submittal that may provide special expertise or perform critical task(s) on the project.

**Question No. 3:** Are we limited on the number of Key Personnel (with 2-page Resumes) that we can present within our SOQ?

**Answer No. 3:** Yes, there is a limit: one Project Principal, one Project (Contract) Manager, and up to five Task Order Project Managers, totaling no more than seven Key Personnel resumes. Please refer to page 5 paragraph 1 of the RFQ for the requirements.

**Question No. 4:** On the Consultant Services Matrix form, should we identify prime and subconsultants for the Key Technical Discipline category rows on the matrix, for example, the Roadway Design row, Survey & Mapping row, and Bridge Design row?

Answer No. 4: Yes

**Question No. 5:** Can you clarify the due date for the prequalification application (as specified on page 12 of the RFQ)? It currently says March 10<sup>th</sup>.

Answer No. 5: March 18, 2025

**Question No. 6:** Page 18 of the RFQ states "the SOQ must include for each discipline a matrix documenting..." is the intent to have one table documenting experience for all disciplines, or 10 separate tables (1 per discipline)? Page 19 (section 2a) requests one table.

**Answer No. 6:** Yes, SOQ must include one table that includes all disciplines.

Question No. 7: Do we need to include a resume for every team member named in the proposal?

**Answer No. 7:** No, refer to page 5 paragraph 1 of the RFQ for the requirements. Only resumes requested are for Key Personnel.

Question No. 8: Can we list a team member by name without them being a key personnel? (page 5, paragraph 2)

**Answer No. 8:** Yes, do not include resumes for other members of the team. Resumes included for other members of the team will count towards the overall page limit, regardless of the location these documents are placed in the SOQ.

**Question No. 9:** On Page 3, the Compensation Type is listed as Lump Sum per Task Order, with a non-negotiable fixed fee of 10. On Pages 5 and 6, there are several references to the ADOT Audit Requirements related to Unit Rate Reviews and Indirect Cost Rate Reviews (audit, analysis, submittals, etc.) and Labor Classification Lists. Our question is if the Task Orders to be issued under this contract are Lump Sum, why are Indirect cost rates and Labor Classifications needing to be reviewed?

**Answer No. 9:** This is to establish contract rates that will be used at the time of the request for services.

**Question No. 10:** We are submitting the following questions, regarding the Project Development On-Call RFQ: Please clarify that the only resume attachments allowed are for the Project Principal, Project (Contract) Manager, and up to five Task Order Project Managers.

**Answer No. 10:** Yes, that is correct.

**Question No. 11:** Are we able to recreate the Consultant Services Matrix, since some of the Technical Sub Areas may require the use of more than one subconsultant, and we may need to list multiple firm names within a single cell of the matrix?

**Answer No. 11:** No, use the Project Development On-Call Consultant Services Matrix.

**Question No. 12:** If we are allowed to recreate the Consultant Services Matrix, are we required to include the text explanation at the end of the matrix, on page 17?

**Answer No. 12**: Use the Project Development On-Call Consultant Services Matrix as supplied in the RFQ. Yes, you are required to include the text explanation at the end of the matrix.

**Question No. 13:** On page 12, under Item 11, Format Content, the total number of pages for the ADOT Project Development Consultant Services Matrix is "4". If we list multiple subconsultants within several cells of the matrix, and the table extends beyond 4 pages, is that allowable?

**Answer No. 13:** No, as this will put you over your page limit.

**Question No. 14:** On page 20, Item 4, Past Performance, indicates that a maximum of 5 points may be deducted from the total score, based on consultants' past performance on ADOT contracts. If a firm has not worked on ADOT contracts in the past, will this not apply?

Answer No. 14: This will not apply.

**Question No. 15:** On page 18, Item 1 a), is a table format necessary to show technical and institutional elements and associated tasks or can a different format be used?

**Answer No. 15:** Yes, present a table showing technical elements (e.g. memos, reports, plans), institutional elements (e.g. clearances, processes), and tasks associated with all key technical disciplines involved in project delivery that must be considered, completed, or addressed.

**Question No. 16:** Will questions be answered as they come in, prior to the March 24th deadline, or does ADOT plan on gathering all questions and then answering them all at once, after the 24th?

Answer No. 16: ADOT will address all questions as they come in and post the amendments accordingly.

**Question No. 17**: Could you please confirm whether the five additional key personnel to be listed by name and with resumes should be Task Order Project Managers, Key Discipline Leaders, or other specific roles? According to Section II (General Instructions) [6] and Section IV (SOQ Format Instructions) [7], we are required to include resumes for up to five Task Order Project Managers.

**Answer No. 17:** Please refer to Answer No. 3 above.

**Question No. 18:** Section V (SOQ Format and Evaluation Criteria) mentions Key Discipline Leaders as part of the evaluation criteria [20]. Can you confirm if these are the only additional key personnel we need to provide resumes for, or if there are other roles we should consider?

**Answer No. 18:** Key Discipline Leaders do not required resumes. The only resumes required are for Key Personnel which are listed in the above Answer No. 3.

**Question No. 19**: Do we need to pick only five of the key disciplines to have leads if the five key personnel are Key Discipline Leaders and not solely Task Order Managers?

**Answer No. 19:** There are no limit of key disciplines, however there are only up to five Key Personnel as Task Order Project Managers. Please refer to page 18, under SOQ Technical Evaluation.

**Question No. 20:** What is the definition of "Right of Way Cost Determination"? Does this include appraisal services or not?

**Answer No. 20:** Right of Way Cost determination includes the estimated cost to acquire a new right of way or the estimated cost of temporary construction easement needed for a project. This is intended to get a right of way estimate for determining total project cost. Reference Right of Way information in sections 471 and 472 of the Dictionary of Standardized Work Tasks or as noted in the task order scope of work. Yes, this includes appraisal services.



**Question No. 21:** We are having issues with the functionality of the CIP form. When we enter a subconsultant's name in the second half of the form, and select the appropriate "Type of Work", the form automatically fills in every cell below it with the same "Type of Work". The form will not allow us to enter a different "Type of Work" for each subconsultant. The same issue happens with the DBE drop-down. If we choose "Yes", all cells are filled in with "Yes". If we try changing it to "No", all cells are changed to "No". Is ADOT able to correct this form and issue a new one so that we are able to complete it accurately for our submittal?

Answer No. 21: ADOT ITG is currently working on these issues.

April R Conti-Farris
April R Conti-Farris
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.

HDR Engineering, Inc.	Brahenhy !
CONSULTANT NAME	SIGNATURE

<sup>\*</sup> This amendment is not included in the total page count in the Statement of Qualification submittal.



MD 616E 205 S 17<sup>th</sup> Ave. Phoenix, AZ 85007 KATIE HOBBS GOVERNOR JENNIFER TOTH DIRECTOR

**Date:** March 26, 2025

**TO:** ALL INTERESTED PARTIES

**SUBJECT:** AMENDMENT NUMBER 02

**REFERENCE:** REQUEST FOR QUALIFICATIONS

CONTRACT NUMBER: 2025-011

CONTRACT DESCRIPTION: Project Development On-Call

The following revision is made to the referenced Request for Qualifications (RFQ) package:

Page 18 (20/58) Section V, Part C., SOQ Technical Evaluations, Paragraph 3, is revised as follows:

The SOQ must clearly document the team's project understanding and approach, relevant experience and qualifications, and firm capability applicable to each key discipline noted above and consistent with the Project Development On-Call-Consultant Services Matrix and contract objectives. SOQs must include for each discipline a table documenting (at a minimum) recent relevant experience, including project name, client name, consultant Project Manager and Key Discipline Leader name, prime Consultant, Subconsultant, construction cost estimate, brief description, and project location. The SOQ must identify the Team Members who will be in direct charge of each technical discipline of work performed as part of this contract.

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

**Question No. 1:** On page 20/58 of the RFQ package, the SOQ Technical Evaluation states, "SOQs must include for each discipline a matrix documenting (at a minimum) recent relevant experience, including project name, client name, consultant Project Manager and Key Discipline Leader name, prime Consultant, Subconsultant, construction cost estimate, brief description, and project location. The SOQ must identify the Team Members who will be in direct charge of each technical discipline of work performed as part of this contract."

However, on page 21/58 the requirement changes per 2. a)stating, "The table should include a brief scope, the role the prime Consultant or Subconsultant performed, and indicate whether the delivery schedule was met for each project presented." Can you please clarify what is required to be included in the table?

**Answer No. 1:** On page 20/58 of the RFQ package under PART C. EVALUATION CRITERIA, SOQ Technical Evaluation, this part provides an overall/general description of the Technical Evaluation Criteria which should be presented in a table.

On page 20/58, 1a, page 21/58 1b, 2a and 3a, details and separate the distribution of the weighted score for each of the SOQ Technical Evaluation Criteria: Understanding and Approach, Team Experience and Qualifications and Team Capability. Required items to include in this table, prime Consultant's and Subconsultant's previous project experience. Identify relevant project experience associated with all the Key Technical Disciplines that are indicated as prime Consultant and/or Subconsultant in-house

**FDS** 

resources in the "Consultant Services Matrix". The table should include a brief scope, the role the prime Consultant or Subconsultant performed, and indicate whether the delivery schedule was met for each project presented.

**Question No. 2:** Would ADOT be willing to extend the current due date of April 1, 2025, by an additional 7-10 business days?

Answer No. 2: No.

**Question No. 3:** Amendment No. 1 indicated that ADOT ITG was working to fix the issues on the CIP form. Is there an anticipated timeframe for this to be completed so that we have sufficient time to complete the form for our submittal?

**Answer No. 3:** CIP Race Neutral Contract Form has been corrected on the website. Please use this link <a href="https://azdot.gov/sites/default/files/2025-03/Consultant-Information-Pages-Race-Conscious-contract.pdf">https://azdot.gov/sites/default/files/2025-03/Consultant-Information-Pages-Race-Conscious-contract.pdf</a>. In the event anyone is still experiencing issues, please reach out to <a href="mailto:ECSSOQ@azdot.gov">ECSSOQ@azdot.gov</a>

**Question No. 4:** If our Contract Manager will also be proposed as a Task Manager, would their resume count towards one of our five task manager resumes or are we permitted to list and provide resumes for five additional Task Managers?

**Answer No. 4:** 2 resumes, plus up to 5 resumes, total not to exceed 7 resumes. The prime Consultant shall provide the resume for the Project Principal, Project (Contract) Manager, and up to five Task Order Project Managers as identified in their SOQ. Each resume shall be limited to two pages each, and shall demonstrate the individual's experience related to services outlined in this RFQ.

**Question No. 5:** Since we are not permitted to recreate the Project Development On-Call Consultant Services Matrix, and will need to abbreviate our subconsultants' names in order to fit them all into a single cell on the matrix, are we able to include a legend on one of the matrix pages or within the submittal, listing these abbreviations?

Answer No. 5: Yes and all submittals shall follow SECTION IV – SOQ FORMAT INSTRUCTIONS.

April R Conti-Farris
April R Conti-Farris
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.

HDR Engineering, Inc.	- Trahenlay	
CONSULTANT NAME	SIGNATURE	

<sup>\*</sup> This amendment is not included in the total page count in the Statement of Qualification submittal.

# PART F. CONSULTANT INFORMATION PAGES (CIP)

## **CONSULTANT INFORMATION PAGES (CIP)**

CONTRACT NO.: 2025-011		
CONTACT PERSON: Ravi Sripada		
E-MAIL ADDRESS: ravi.sripada@hdrinc.com		
TITLE: Contract/Project Manager		
CONSULTANT FIRM: HDR Engineering, Inc. (HDR)		
ADDRESS: 20 East Thomas Road, Suite 2500		
CITY, STATE, ZIP: Phoenix, AZ 85012		
TELEPHONE: (602) 522-7700		
FAX NUMBER: (602) 522-7707		
UNIQUE ENTITY ID# (FROM SAM WEBSITE): T39AK2RRG2H9		
ADOT CERTIFIED DBE FIRM? (YES/NO) No		

SUBCONSULTANT(S):	TYPE OF WORK	ADOT CERTIFIED DBE FIRM (YES/NO)
AeroTech Mapping, Inc.	Survey, Mapping, Aerial	Yes
Andes Engineering, LLC	Drainage	Yes
Cobb, Fendley and Associates, Inc.	Utilities & Related Services	No
Cooper Aerial Surveys Co.	Survey, Mapping, Aerial	No
Corral Design Group, Inc.	Landscape Architecture	Yes
Desert Archaeology, Inc.	Environmental & Related Services	Yes
Ethos Engineering, LLC	Geotech, Material Testing, Subsur	Yes
Infrastructure Mavens, LLC	Misc/Other Skills	No
J2 Engineering & Environmental Design	Drainage	Yes
JE Fuller/Hydrology & Geomorphology, Inc	Drainage	No
Jana Kading, PLLC	Environmental & Related Services	Yes
Lee Engineering, LLC.	ITS/FMS	No
Lokahi, LLC	Traffic Engineering/Design Service	Yes

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

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SUBCONSULTANT(S):	TYPE OF WORK	ADOT CERTIFIED DBE FIRM (YES/NO)
Newton Environmental Consulting	Environmental & Related Services	Yes
Ninyo & Moore	Geotech, Material Testing, Subsurf	_No
T2 Utility Engineers (T2ue)	Utilities & Related Services	No
Terracon Consultants, Inc.	Geotech, Material Testing, Subsurf	No
TRACE Consulting	Survey, Mapping, Aerial	Yes
Wheat Design Group, Inc.	Landscape Architecture	Yes

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

AeroTech Mapping, Inc.
Alicia Mendoza
aliciamendoza@atmlv.com
Business Development Manager
8433 N. Black Canyon Highway
Suite 120
Phoenix, AZ 85021
623.242.7656
N/A
J34PH4CCSMJ4

SUBCONSULTANT FIRM NAME:	Andes Engineering, LLC
CONTACT PERSON:	Javier Guana
E-MAIL ADDRESS:	jguana@andes.us
TITLE:	President
ADDRESS:	20860 N Tatum Blvd.
	Suite 300
CITY, STATE ZIP:	Phoenix, AZ 85028
TELEPHONE:	480.409.4508
FAX NUMBER:	480.240.5892
UNIQUE ENTITY ID #:	KBYGNWWLNPP3

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.

SUBCONSULTANT FIRM NAME:	Cobb, Fendley and Associates, Inc.
CONTACT PERSON:	Sean Wolfe
E-MAIL ADDRESS:	swolfe@cobbfendley.com
TITLE:	Senior Vice President
ADDRESS:	1131 W Warner Rd.
	Suite 111
CITY, STATE ZIP:	Tempe, AZ 85284
TELEPHONE:	480.307.6923
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	CUN1V8AMLY29
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SUBCONSULTANT FIRM NAME:	Cooper Aerial Surveys Co.
CONTACT PERSON:	Phil Gershkovich
E-MAIL ADDRESS:	Phil@cooperaerial.com
TITLE:	President
ADDRESS:	11402 N. Cave Creek Road
CITY, STATE ZIP:	Phoenix, AZ 85020
TELEPHONE:	215.518.8917
FAX NUMBER:	602.678.5228
UNIQUE ENTITY ID #:	ZKNMTNFPGM57

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SUBCONSULTANT FIRM NAME:	Corral Design Group, Inc.
CONTACT PERSON:	Ed Corral
E-MAIL ADDRESS:	ecorral@corraldesigngroup.com
TITLE:	President
ADDRESS:	4632 S. 36th Street
CITY, STATE ZIP:	Phoenix, Arizona 85040
TELEPHONE:	602.222.9822
FAX NUMBER:	602.222.9079
UNIQUE ENTITY ID #:	D2PBVZ6LJMJ9
3.11.401 2.11.11 12 <i>  </i> 1.	

SUBCONSULTANT FIRM NAME:	Desert Archaeology, Inc.
CONTACT PERSON:	Dr. Sarah Herr
E-MAIL ADDRESS:	sherr@desert.com
TITLE:	President
ADDRESS:	3975 N. Tucson Blvd.
CITY, STATE ZIP:	Tucson, AZ 85716
TELEPHONE:	520.881.2244
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	K7QMPKYDZGE7

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SUBCONSULTANT FIRM NAME:	Ethos Engineering, LLC
CONTACT PERSON:	Pancho Garza
E-MAIL ADDRESS:	pgarza@ethosengineers.com
TITLE:	President/Senior Geotechnical Engineer
ADDRESS:	9180 S Kyrene Rd.
	Suite 104
CITY, STATE ZIP:	Tempe, AZ 85284
TELEPHONE:	480.326.8487
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	QQGVC86EHVA5

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J2 Engineering & Environmental Design
Jeff Holzmeister
jholzmeister@j2design.us
President
4649 E. Cotton Gin Loop
Suite B2
Phoenix, AZ 85040
602.438.2221
602.438.2225
FPF9FEV1HKC5

SUBCONSULTANT FIRM NAME:	JE Fuller/Hydrology & Geomorphology, Inc
CONTACT PERSON:	Jon Ahern
E-MAIL ADDRESS:	jon.ahern@jefuller.com
TITLE:	Vice President/Project Manager
ADDRESS:	8400 S. Kyrene Rd
	Suite 201
CITY, STATE ZIP:	Tempe, AZ 85284
TELEPHONE:	480.222.5708
FAX NUMBER:	
UNIQUE ENTITY ID #:	UZWAC5DQAUG3

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SUBCONSULTANT FIRM NAME:	Jana Kading, PLLC/K2 Site Assessments
CONTACT PERSON:	Kelly Kading
E-MAIL ADDRESS:	kellykading@k2siteassessments.com
TITLE:	Vice President
ADDRESS:	PO Box 3957
CITY, STATE ZIP:	Prescott, AZ 86302
TELEPHONE:	602.708.1993
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	NS5TPN21J987

SUBCONSULTANT FIRM NAME:	Lee Engineering, LLC
CONTACT PERSON:	Dave Bruggeman
E-MAIL ADDRESS:	dbruggeman@lee-eng.com
TITLE:	Principal
ADDRESS:	2944 N. 44th St.
	Suite 250
CITY, STATE ZIP:	Phoenix, AZ 85018
TELEPHONE:	602.618.0406
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	WC23BDJG3QB7

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SUBCONSULTANT FIRM NAME:	Lokahi, LLC
CONTACT PERSON:	Jamie Blakeman
E-MAIL ADDRESS:	jamie@lokahigroup.com
TITLE:	Founder/Principal
ADDRESS:	10555 N 114th Street
	Suite 105
CITY, STATE ZIP:	Scottsdale, AZ 85259
TELEPHONE:	480.292.0691
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	C1BKURT2RMF6

Newton Environmental Consulting
Angela Newton
angie@newtonec.com
Principal
9859 E Winchcomb Drive
Scottsdale, AZ 85260
602.332.9642
N/A
UFLBN1TNC5H9

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SUBCONSULTANT FIRM NAME:	Ninyo & Moore
CONTACT PERSON:	Steve Nowacyzk
E-MAIL ADDRESS:	snowacyzk@ninyoandmoore.com
TITLE:	Managing Principal Engineer
ADDRESS:	3202 E Harbour Drive
CITY, STATE ZIP:	Phoenix, AZ 85034
TELEPHONE:	602.243.1600
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	N2R6ZUKXCHH3
ONIQUE ENTITY ID #.	

T2 Utility Engineers (T2ue)
James Mueller
james.mueller@t2ue.com
Senior Project Manager
19621 N. 23rd Drive
Suite 150
Phoenix, AZ 85027
602.977.8076
N/A
VXR7DY7K6DJ7

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.

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SUBCONSULTANT FIRM NAME:	Terracon Consultants, Inc.
CONTACT PERSON:	Ramon Padilla
E-MAIL ADDRESS:	ramon.padilla@terracon.com
TITLE:	
ADDRESS:	4685 S. Ash Avenue
	Suite H-4
CITY, STATE ZIP:	Tempe, AZ 85282
TELEPHONE:	623.474.9189
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	QNHVEKMEE4Z3

SUBCONSULTANT FIRM NAME:	TRACE Consulting
CONTACT PERSON:	Chintan Jhaveri
E-MAIL ADDRESS:	cjhaveri@traceconsulting.us
TITLE:	Principal
ADDRESS:	1201 E Jefferson Street
	Suite 3
CITY, STATE ZIP:	Phoenix, AZ 85034
TELEPHONE:	602.680.8264
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	XM69KK5N31X5

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SUBCONSULTANT FIRM NAME:	Wheat Design Group, Inc.
CONTACT PERSON:	Laura Mielcarek
E-MAIL ADDRESS:	laura@wheatdesigngroup.com
TITLE:	Principal
ADDRESS:	500 N Tucson Blvd
	Suite 150
CITY, STATE ZIP:	Tucson, AZ 85716
TELEPHONE:	520.884.7911
FAX NUMBER:	N/A
UNIQUE ENTITY ID #:	E75NPKDMZ943
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SUBCONSULTANT FIRM NAME:	
CONTACT PERSON:	
E-MAIL ADDRESS:	
TITLE:	
ADDRESS:	
CITY, STATE ZIP:	
TELEPHONE:	
FAX NUMBER:	
UNIQUE ENTITY ID #:	

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#### **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.

Brahenhaf	04.01.2025
Signature	Date
Peter Brakenhoff	Area Transportation Business Group Manager
Printed Name	Title

## **SOQ SUBMITTAL CHECKLIST**

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

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

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

N/A