April 30, 2024

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

RE: Request for Qualifications | SR 30 (Tres Rios): 97th Ave – 71st Ave New Freeway and SR 30 (Tres Rios): 71st Ave – SR 202L South Mountain New Freeway and System Interchange | ADOT | Contract No. 2024-018.01 and 2024-018.02

Dear Members of the Selection Committee:

ADOT has the advantage of having the Stanley Consultants, Inc. (Stanley) team available and dedicated to design the crucial system traffic interchange (TI) at SR 30 and SR 202L South Mountain Freeway (SMF). The public's attention will be focused on ADOT's decision-making process for the design and construction of SR 30, which is funded by Proposition 479, the ½ cent sales tax. With the expertise of the Stanley team ADOT can confidently address the public's expectations and scrutiny regarding the design and construction of SR 30. Our team members are individuals and firms with unsurpassed first-hand knowledge of the SR 30 corridor. Their collective skills and history of delivering new roadway design, system TIs and widening projects is well-known by ADOT. These firms are featured on the right and the individuals are highlighted throughout this response. Led by Project Manager (PM) Mike Chase, PE (AZ #20893), we offer ADOT:

LOCAL INDIVIDUALS WHO SPECIALIZE IN INNOVATION, COLLABORATION AND FINAL DESIGN COMPETENCY

Mike is the highly respected PM on most Stanley-delivered urban system TI projects in Arizona. SR 30 is no exception. His unmatched experience provides ADOT with an assurance that our 100% local team knows your processes, navigates conflicts to resolutions, and effectively manages project risks. **Our implementation of the Performance Based Practical Design (PBPD) and Value Engineering (VE) recommendations, as presented in our SOQ, lead to significant cost savings of $281,253,000 million, improved geometric design, enhanced constructability, and the prevention of future rework.** Mike and this team created key technical elements that work – they are not ideas without merit – but are based on 40 years of practical application of system TIs in the Valley. These innovations include:

- **System TI Segment (STANLEY):** The northward shift to accommodate SR 30 passing under SR 202L offers visual benefits and cost savings. By restacking the system TI there are reduced expenses for structures, earthwork, and lighting. It simplifies the maintenance of traffic (MOT), decreases noise and minimizes visual impacts on nearby neighborhoods. The TI retains its capacity to meet the needs of a growing population.
- **SR 202L North Segment (POINT):** In anticipation of SR 30 and the system TI, Stanley designed the onsite drainage channel to provide for the two-lane northbound C-D road's construction. With Stanley's foresight and POINT's final design expertise, earthwork required for SR 30 is reduced. Brian Riley, with POINT, was on the Stanley team for SR 202LSMF and was involved in all aspects of the Salt River Segment. He will continue his involvement with SR 30, with Craig Borger leading the structures in the North Segment.
- **SR 202L South Segment (HDR):** Led by Ravi Sripada and Greg Lingor, this segment includes the longest bridge with 29 spans. Through alternative design, this team has refined the geometry and eliminated four spans. This approach is similar to Greg's design of the Gilbert Road Bridge over the Salt River and Stanley's design of the dual bridges over the Salt River for SR 202L SMF.

LONG-STANDING STAKEHOLDER RELATIONSHIPS

HDR and Brian Bombardier have been involved in SR 30 since 2005. Over the course of the last 14 years, Brian and ADOT had consistent involvement with the agencies in the corridor, including the Federal Highway Administration (FHWA), MAG, the Cities, the County, utilities, and regulatory agencies. Brian, as the Risk Manager/Corridor Historian, will make sure that our design honors the commitments made to ADOT and stakeholders.

A TEAM COMMITTED TO SMOOTH PROJECT EXECUTION

Our history of 16 successful system TIs in the MAG region and proven project executions include high-profile efforts like SR 24 which is exactly like SR 30 – a system TI at a new state route. Our proposal includes a Pre-Review Presentation aimed at preemptively informing ADOT Project Manager Rashidul Haque and reviewers of key or unique design elements. This allows ADOT to appropriate time and resources to the review process. Additionally, our team members use specialized tools to for efficiency and quality production like ProjectWise, Bluebeam, LumenRT and Workfront.

We are excited to formally express our interest in selection for this project. I, Karen Hobbs, P.E. (AZ #41977), will serve as the Project Principal and understand the importance of this project. We confirm the commitment of our key personnel identified in the submittal to meet and exceed your quality and schedule expectations. Stanley is not a certified DBE. We look forward to your favorable consideration.

Sincerely

Stanley Consultants INC.

Karen Hobbs, P.E.
Project Principal | AZ PE #41977

Michael R. Chase, P.E.
Project (Contract) Manager | AZ PE #20893

Stanley Consultants INC. + HDR

16
System TIs in the MAG Region

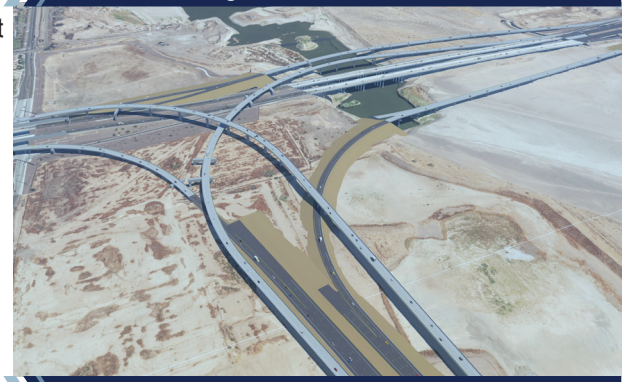
Mike Chase, PE
Dan Shiosaka, PE, SE
Gary Melita, PE
Brian Bombardier, PE

SR 30 Corridor History since **2005**

De-risked
programmed costs for SR 30

ARIZONA 30 | AEROTECH MAPPING | T2 utility engineers | cdg corral design group, inc. | ethos ENGINEERING, LLC. | WOOD PATEL | POINT ENGINEERS

SR 30 I Existing Conditions



SR 30 I Re-stacked (Lowered) System TI Rendering

Engineering Consultants Section
SOQ Proposal Certifications Form

Contract #: 2024-018.01 & 2024-018.02 Consultant Name: Stanley Consultants, Inc.

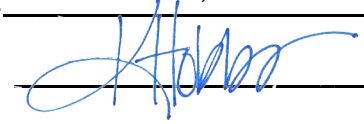
Please read the fifteen (15) statements below. The statements are to ensure Consultants are aware and in agreement with Federal, State and ECS guidelines related to the award of this contract. Consultants shall submit the specific Certification form attached to each RFQ advertised, as revisions to the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

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

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

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

Print Name: Karen Hobbs, PE Title: Project Principal

Signature:  Date: April 30, 2024

Revised 2/11/2022

ARIZONA DEPARTMENT OF TRANSPORTATION
ENGINEERING CONSULTANTS SECTION
PARTICIPATION IN BOYCOTT OF ISRAEL - CONSULTANT CERTIFICATION FORM

ADOT ECS Contract No.: 2024-018.01 & 2024-018.02

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

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

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

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

Under A.R.S. §35-393:

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

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

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

…

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

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

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

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

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

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

Stanley Consultants, Inc.	
Company Name	Signature of Person Authorized to Sign
3133 E. Camelback Rd. Suite 100	Karen Hobbs, PE
Address	Printed Name
Phoenix, Arizona 85016	Project Principal April 30, 2024
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:

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

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

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

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

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

Stanley Consultants, Inc.
Company Name

3133 E. Camelback Rd. Suite 100
Address

Phoenix | Arizona | 85016
City | State | Zip

Signature of Person Authorized to Sign

Karen Hobbs, PE
Printed Name

Project Principal
Title

1. PROJECT UNDERSTANDING AND APPROACH

The planned SR 30 freeway is the Arizona Department of Transportation's (ADOT) highest priority new freeway corridor in Maricopa County. The Maricopa Association of Governments' (MAG) decision to fund the final design between 97th Ave and SR 202L is proof of the strong regional support to make this new corridor a reality.

Concurrent design of SR 30 projects 71st Ave to SR 202L and 97th to 71st Ave will allow both projects to be ready for bid advertisement in September 2026. While the construction funding is not yet available, these are the first SR 30 projects programmed with Prop 479 funding. The discussion of our approach will focus on the 71st Ave to SR 202L segment that includes the SR 30/SR 202L System Traffic Interchange (TI) and SR 202L's widening for directional ramp connections.

Conditions have changed since the SR 30 Location/Design Concept Report (L/DCR) and Environmental Assessment (EA) were finalized in 2020, and decisions are needed to maximize the project scope while reducing construction costs. For the past two years, ADOT has completed substantial efforts with right-of-way (R/W) acquisitions and utility coordination based on the L/DCR geometry and any major modifications could jeopardize these efforts resulting in significant impacts to the project schedule. To reduce this risk, Stanley brings ADOT a committed team that has:

- Unparalleled MAG corridor knowledge to reduce project risks – our team members know the specific challenges and achieved stakeholder consensus during planning.
- In-depth SR 202L design experience that will streamline widening and minimizes construction impacts to the traveling public – Stanley incorporated aspects of SR 30 as we designed SR 202L.
- **Our PM, Mike Chase, who has served ADOT for 40 years and who has held a significant role as PM, GEC, or major subconsultant in the design of 10 system TIs in the MAG Region.**

Our team's SR 30 and SR 202L design work differentiates us from others as we comprehensively understand the tasks and institutional elements required for project delivery, as shown in ***Table 1***. The project has two primary phases – **Design Refinement (DR):** geometric modifications and value engineering to reduce the project's investment costs; and the **Construction Documents (CD):** PS&E development which includes EA Update; permitting, and clearances. Mike and the entire Stanley team have well established relationships with ADOT PMG, Central District, MAG, and City of Phoenix (COP) that elevate our abilities to mitigate risk and meet all schedule milestones.

A summary of the project's general design elements are shown in ***Figure 1***. Stanley is committed to continue providing ADOT with innovative value engineering, reliable project delivery, and excellent client service on the SR 30 and SR 202L corridors.

Table 1 - Tasks and Technical/Institutional Elements

Stakeholder Involvement
- Agency/Stakeholder Coordination
- Scope Clarification with ADOT/MAG/LPAs
- Public Involvement Plan (PIP)
- PI Meetings and Visualizations
- Coordination with Adjacent SR 30 Project

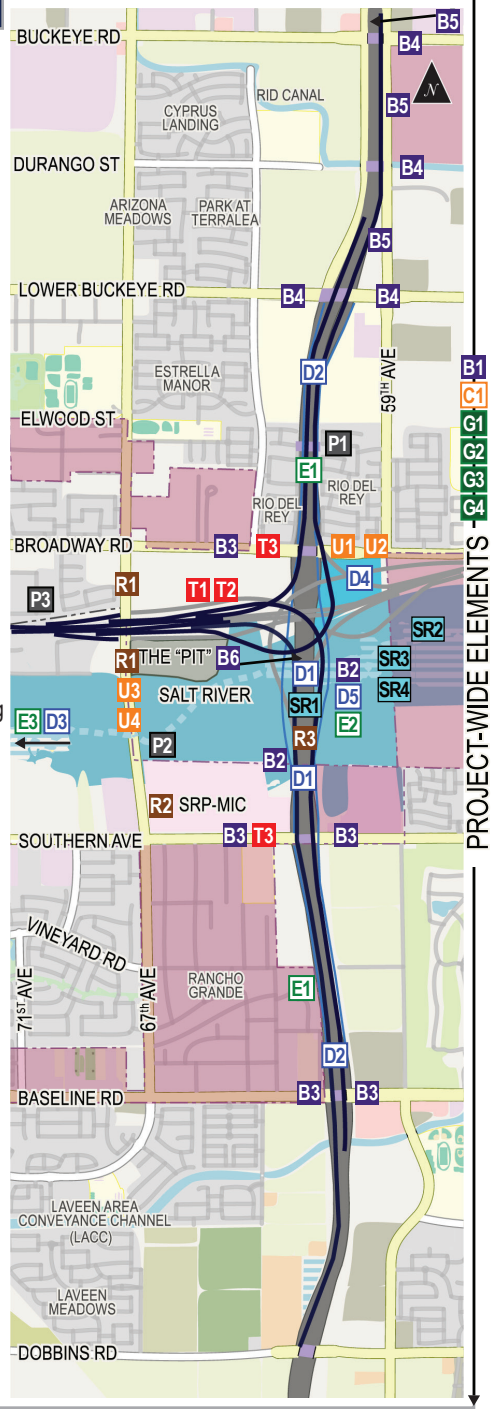
Design Development
- PBPD Development & Analysis
- CRA-VE Workshop
- Stage II, III, IV, V Submittals
- Technical Reports
- Design Exceptions(DE)/Design Variances (DV)
- Project Management Plan
- Workfront Uploads and Schedule Updates

Cost Estimating
- Cost Estimate Review (FHWA Guidelines)
- Scope Strategies to Address Funding Shortfall
- Quantity Takeoffs and Unit Price Determination
- Milestone Constructability Reviews

Project Clearances
- EA Reevaluation and Technical Reports
- Utility Coordination with Conflict ID/ Relocations
- R/W | TCE Delineation
- Clearance Documents

Figure 1 - Key Project Elements Shown with L/DCR

- B1 PBPD Bridge Design (Table 2)
- B2 Deep Foundation Depths for Scour Protection
- B3 Bridge Widening w/ Sound Walls
- B4 Bridge Widening
- B5 Exst Parallel Retaining Walls at ultimate width (Stanley Designed w/SMF)
- B6 SR 202L Drilled Shaft Load Test Site
- C1 C202P Maintenance Coordination
- D1 Protect in Place Salt River Bank Protection
- D2 Storm Drain Laterals & Open Channel conveys On-Site drainage
- D3 New Drainage Channel
- D4 Exst On-Site Drainage Basin (Stanley Designed w/ SMF)
- D5 Stormceptors on Salt River Bridges
- E1 Sound Walls
- E2 Section 404/401 Permit
- E3 Section 408 Coordination for 97th Ave Outfall
- G1 Ramp Gores Match Mainline Cross-slopes for reconstruction (Stanley Designed w/SMF)
- G2 Embankments are wide enough for widening - no sliver fills needed (Stanley Designed w/SMF)
- G3 Landform Graphics will not be impacted by widening (CDG Designed w/SMF)
- G4 All maintenance access routes installed to accommodate widening (Stanley Designed w/SMF)
- P1 Elwood St Pedestrian Bridge designed to ultimate width (Stanley Designed w/SMF)
- P2 Rio Reimagined
- P3 SR 30 Multi-use Path & Bridge over 67th Ave (MAG Concept Plan - March 2023)
- T1 High Mast System TI Lighting
- T2 FMS Connectivity with SR 202L
- T3 Signal Head Sight Distance
- R1 Access Control (Coordination w/COP)
- R2 Avoid Impacts to SRMG
- R3 BLM Highway Easement Deed Required
- SR1 Hydraulic 2D Modeling for New Bridges
- SR2 Mining Head/Tail-Cutting
- SR3 Migration of River Thalweg
- SR4 CLOMR Required
- U1 69kV & 230kV OH Power (SRP)
- U2 2-90" Sewer Lines (SROG)
- U3 54" Water Line (COP)
- U4 96" Storm Drain (FCDMC)



PROJECT APPROACH

Our team has developed performance-based strategies for cost effective elements to benefit ADOT and MAG. Through our discussions with Rashidul Haque, ADOT PM, MAG, ADOT's technical groups, and all stakeholders, and our team's SR 30 corridor historian, Brian Bombardier, our approach will focus on these corridor-wide key elements:

Proposed Implementation: As discussed in the technical memorandum (January 2024), a primary project goal is to reduce MAG's initial investment cost within this system TI. The technical memorandum developed an interim system TI configuration for cost reduction purposes. Its proposed alternative builds a few permanent elements in concert with temporary (throwaway) elements and defers others. Additionally, it has several long-term financial implications and constructability concerns along with quick to realize traffic operational failures (***Figure 2***).

Stanley's better approach is quite different and is based on our team's extensive planning and design experience for system TIs throughout the MAG region. We have reviewed the whole system TI in location and elevation based on current conditions and have evaluated each element based on its unique features and operational requirements to reduce or defer project costs.

Stanley's geometric refinements, combined with phased implementation suggestions, yields a fully operational system TI, with no throwaway or temporary elements, significantly reduces constructability risks, and has noteworthy cost reductions now and in the future.

Traffic Analysis is a key aspect of our approach. The technical memorandum's analysis only used HCS/HCM methodologies to evaluate discrete elements of their interim system TI. This approach looked at each element separately and assigned a Level of Service (LOS) that did not factor in interaction with other elements or queuing.

Stanley will develop a comprehensive VISSIM model to accurately analyze both SR 30's and SR 202L's operating conditions, ramp queueing, and merge/diverge distances to establish a more definitive LOS for all system components at various design horizon years, up to design year 2050. By analyzing the system TI at five-year increments, MAG and ADOT will be given vital data on when to build specific TI elements.

This approach will right-size the project from a traffic analysis perspective and reduce the risk of operating in LOS failures.

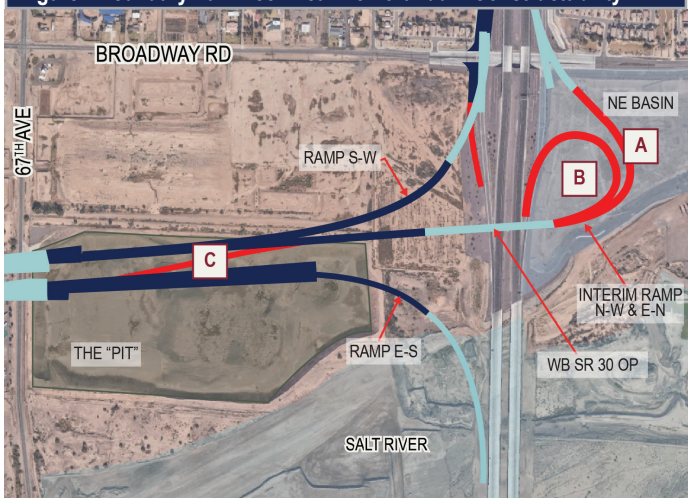
Performance Based Practical Design (PBPD): Our approach leverages innovation and performance with cost in order to meet the project's core purpose and need. PBPD includes a clear understanding of impacts to operational and safety performance, lifecycle costs, long-range corridor operations, and sustainability with cost savings. With that in mind, our team has identified PBPD innovations wholistically for the project as well as all key technical design disciplines.

The PBPD approach for bridge design is extremely valuable to the design of the system TI, as nearly 65% of the directional ramps' lengths are on bridges. Examples of our PBPD bridge approach is shown in ***Table 2***.

Table 2 - PBPD Bridge Approach & Benefits

Approach	Benefit
Maximize use of repetitive spans	Efficient design, fabrication, and construction; reduced cost
Standardize design and detailing (shafts, columns, pier caps, girders)	Design and construction efficiency; reduced cost
Utilize precast Bulb Tee (BT) girders throughout, similar to existing SR 202L bridges	Structural and construction efficiencies; Depth ranges from 34-inch to 90-inch
Use CIP post-tensioned box girders when longer, curvilinear spans are needed	Ideal when constructing over mainline freeways
Utilize straddle bents and inverted-T straddle bents	More flexibility for complex bridge geometry; inverted-T has reduced profile height and reduced cost
Align river piers with existing SMF bridge river piers	Hydraulic efficiency and reduced scour, reduced cost
Evaluate fill/wall versus bridge at bridge ends	Establish most economical and maintainable solution
Modify geometry and layouts for gores, transitions, & widenings	Simplify design and construction; reduce cost
Utilize PBES elements when feasible (i.e. precast pier caps and straddle bent caps, partial-depth precast deck panels)	Accelerated construction; reduce cost and shorten construction schedule
Utilize same precast BT girder size as existing for bridge widenings	Aesthetic and structural compatibility

Figure 2 - January 2024 Technical Memorandum Constructability



Since the completion of the L/DCR, new challenges and factors arise that warrant further review of the planned design. There are three notable changes that affect approach for the system TI development:

- The high cost of construction is driving MAG and ADOT to implement interim or phased designs to help balance RTP programming.
- Current MAG travel demand models are different which impacts design of the new freeway and service TI locations.
- Accommodation for a high-capacity transit corridor is no longer a factor and its removal created a $100 million cost reduction.

ADOT initiated the January 2024 technical memorandum to develop potential interim alternatives for the system TI that would reduce initial investment costs. The preferred Alternative B (shown above) provides an impressive $220 million cost reduction (without contingencies and below the line percentages); however, it has severe operational and constructability concerns including:

A Over 40% of the required borrow material for the interim project is considered throwaway, and will require removal in future phases.

B The two-lane loop ramp geometry is not conducive to interstate commercial trucks and ramp operations will degrade quickly to an unacceptable LOS very early upon opening to traffic.

C SR 30 Temporary Crossover vertical profile is not feasible for higher speeds and future construction phases under traffic.

Although, this alternative provides some TI elements in their final configuration with notable savings, it does not minimize temporary (throwaway) facilities and increases the ultimate TI construction and MOT costs, all of which will erase these initial reductions.

SPECIAL ISSUES AND TASKS

On the following pages, we discuss the special issues and tasks uniquely associated with the project (***Figures 3, 5, and 6***) including our approach for phased implementation (***Figure 4***) that eliminates the use of throwaway elements. Stanley has developed an alternate layout of the SR 30/SR 202L System TI that fits existing conditions better, constructs key project elements cost effectively, and highlights our team's PBPD strength and corridor knowledge to work for ADOT and MAG on this regionally significant project.

SYSTEM TI: SPECIAL ISSUES AND TASKS

The system TI is located along the SR 202L between the Salt River and Broadway Rd. This project will design the western half of the system TI to 71st Ave, 0.7-miles west of SR 202L. The project implementation goal is to lower the initial investment cost of the system TI and provide all critical movements between SR 202L and SR 30. ***Figure 3*** shows Stanley's alternate system TI layout, and provides the following investment benefits:

System TI Centroid shifts north 520 feet to allow SR 30 to traverse under SR 202L, eliminating construction of SR 30 mainline overpass bridges, deferring construction of SR 30 mainline underpass bridges, and pulls Ramp E-N out of the Salt River and away from the bank protection.

Reordering the stack sequence of the system TI so that SR 30 passes under SR 202L instead of over reduces the elevations of all the directional ramps by about 30 feet. Re-stacking benefits include reduced structures, earthwork, and lighting costs; simplifies MOT; and lowers noise and visual impacts to surrounding neighborhoods. **Savings $64.29M** 1 $

Table 3 - Stanley's System TI Re-Stacking Configuration

Stack Position	L/DCR		Stanley	Level Lowering
Level 4	*DHOV (Future)*		Eliminated	-
Level 3	Ramp E-N		*DHOV (Future)*	-1
Level 2	Ramp N-W		Ramp E-N	-1
Level 1	Ramp S-W NB C-D Rd	SR 30	Ramp N-W	-1
	SB C-D Rd			
	Ramp E-S			
	Existing SR 202L			
Level 0			Ramp S-W	-1
			NB C-D Rd	-1
	Existing Broadway Rd			
Level -1	None		SR 30	-2

The **Future Directional HOV ramps** will also benefit from this reordering. Their level drops by one, reducing construction costs and maintaining clearance under the SRP transmission lines that parallel Broadway Rd.

Impacts to the "Pit" are significantly reduced with the shift and re-stacking. The "Pit" was created by COP to mine its sand and gravel reserves. While mining stopped three years ago, L/DCR's SR 30 required 50% of the cavity to be filled. The Stanley Alternative re-aligns SR 30 across the northwest corner of the parcel, minimizing impacts and defining a new downward grade profile as it approaches SR 202L. These two factors minimize the overall footprint in the "Pit", reducing embankment needs by over 35%. **Savings $1.35M** 2 $

Figure 3 - Shifting System TI North Fits Existing Conditions

1 Relocating System TI Centroid 520 feet to the north 1 $

2 Re-Stacking System TI 1 $

3 Ramp E-N & Ramp W-N (future) geometry meets APS clearance requirements for their Condor boom truck

4 SR 30 realigned to minimize impacts to the "Pit" 2 $

5 Reduced length of river bank protection 7 $

6 Ramp N-E piers in Salt River and NE Basin are eliminated

7 Combining Ramp E-S and SB C-D Road eliminates SB Salt River bridge widening 3 $

8 Substructure design is for ultimate width

9 Defer SB C-D Road, Southern Ave off-ramp, and SB SR 202L bridge widening 6 →

10 Coordinate with BLM for New Highway Easement Deed

11 Ramp N-W geometry eliminates NB Salt River Bridge widening 4 $

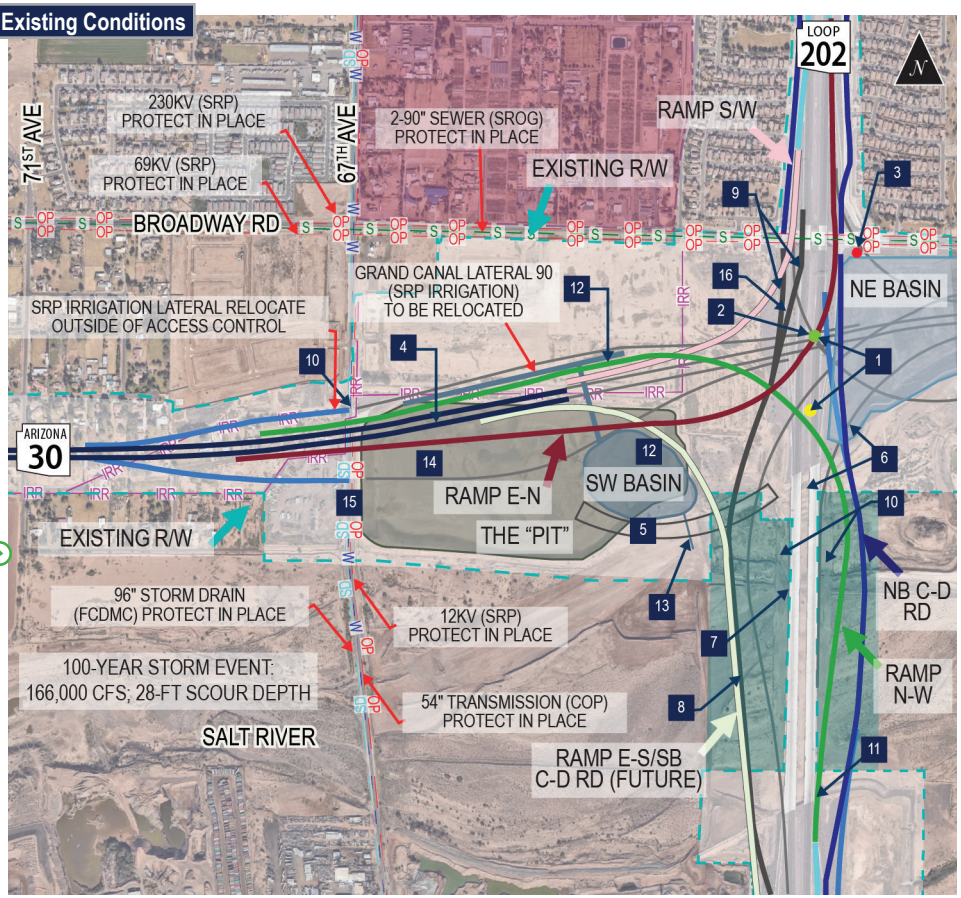
12 Onsite drainage channels outlet into SW Basin eliminates 67th Ave CBC, Reduces flows to 97th Ave Outfall 7 $

13 Tideflex Valve Outlet to prevent river flows inundating SW Basin 7 $

14 Ground Survey the "Pit" for accurate earthwork quantities

15 COP coordination for 67th Ave access control limits

16 VISSIM model provides guidance for when unacceptable LOS may occur (Exst Broadway Rd on-ramp)



Re-alignment of Ramp E-S to merge with SB C-D Road eliminates complex, expensive, and difficult to construct widening of the SB SR 202L Salt River Bridge and eliminates the widening of SB SR 202L to Southern Ave. **Savings $12.83M** 3 $

From a traffic management perspective, this re-alignment eliminates the weave concern that is introduced by merging Ramp E-S between Broadway Rd and Southern Ave. In Stanley's alternative, Ramp E-S traffic does not enter SR 202L until near Baseline Rd OP, providing a longer and safer merge.

Ramp N-W Geometric Refinements in concert with the NB C-D Road re-alignment allows for the directional ramp gore to slide to the south on SR 202L, avoiding the difficult to construct widening of the NB SR 202L Salt River Bridge and eliminates reconfiguring the existing bridge drainage system and first flush vaults (installed on pier #1). **Savings $6.52M** 4 $

The Stanley Alternative provides all four system TI critical movements (Ramps E-N, E-S, S-W, and N-W) in their final configuration within acquired R/W. Our alternative does not construct interim throwaway elements, introduce movements that quickly reach LOS failure, nor require expensive MOT or complex phasing when future phases are constructed.

SYSTEM TI: BRIDGE DESIGN

Our refinements to the geometry and bridge types will improve efficiency, constructability, and reduce investment costs. Nearly 65% of the L/DCR directional ramps' lengths are on bridges, accounting for 60% of the construction costs.

Table 4 shows the reduction in length of each of the four directional system TI ramps and the SB C-D Road in Stanley's Alternative compared to the L/DCR.

Table 4 - Stanley Alternative Bridge Length Reductions

Alignment	L/DCR	Stanley	Difference
Ramp E-N	5,220	2,850	(2,370)
Ramp S-W	1,025	916	(109)
Ramp E-S	1,362	4,428	3,066
Ramp N-W	4,834	4,816	(18)
SB C-D Road	4,374	-	(4,374)
Total Length	**16,815**	**13,010**	**(3,805)**

Ramp E-S and SB C-D Road will be combined in the future. **The Stanley re-stack configuration reduces the total of all bridge lengths by 23%**, a significant reduction to project costs.

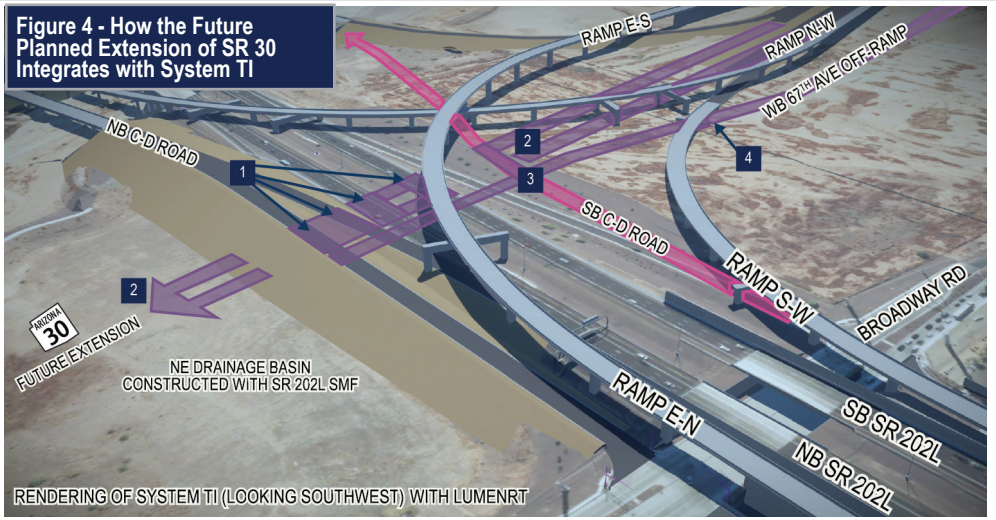
Salt River: There are three new bridges that cross the Salt River: Ramp E-S/SB C-D Road, Ramp N-W, and NB C-D Road. From our experience designing the SR 202L Mainline Salt River Bridges, we have the expertise to address all the key tasks with these river crossings including:

- **Geotechnical:** We anticipate that 45 borings will be completed within the Salt River. Unpredictable dam releases, monsoon events, and difficult drilling in gravel and cobbles could impact the duration of the field work. To reduce schedule risk, Stanley will utilize previous geotechnical work from the SR 202L bridges including the drilled shaft load test for preliminary design efforts while field work is completed.
- **Salt River Hydraulics and Scour:** The Salt River hydraulics is one of the more complex tasks that we know well after completing these tasks for the SR 202L Salt River Bridges. Many factors will be considered: complex hydrology, scour, sediment transport, mining, and river migration; bridge piers impacting the regulatory floodplain and floodway; and multi-agency oversight.
- **CLOMR and Section 404 Permit** are critical deliverables and will use updated river hydraulic modeling. The CLOMR is required for permanent impacts and Section 404 permit is required for both temporary and permanent impacts. These documents will be on similar schedules. To make certain of timely completion and reduce schedule risks, we will begin early stakeholder coordination with COP, FCDMC, FEMA, USACE, and ADEQ at NTP.

SYSTEM TI: PHASED IMPLEMENTATION

Stanley's Alternative is based on a phased implementation to reduce the initial investment costs without increasing future costs. During the DR Phase, Stanley will design for future structural, drainage, and roadway elements. We will identify clear ground spacing for future piers and straddle bents within the system TI to make certain constructability and construction access including crane operations are not impeded by the built elements. The system TI elements (Figure 4) that could be deferred to a future year based on the VISSIM model and coordinated between ADOT and MAG include:

Figure 4 - How the Future Planned Extension of SR 30 Integrates with System TI



1 Future UP bridges constructed with phased construction to maintain SR 202L traffic

2 Exst NE Basin and System TI infield provide areas for excavation under SR 202L to minimize future costs 5

3 SR 202L LOS will determine timing of SB C-D Road construction timeline compared to SR 30 Extension 6

4 Ramp S-W Straddle Bent constructed below grade for the future WB 67th off-ramp

SR 30 under SR 202L: SR 30, east of the SR 202L, has no defined construction time line. Therefore, any SR 30 crossing of SR 202L could be deferred. This project will construct mainline stubouts to the east of the directional ramp gores to eliminate risk of future construction conflicting with SR 30 traffic when it is extended. Beginning approximately 1,400 feet west of the SR 202L, Stanley recommends deferring mainline construction.

SR 202L/SR 30 Underpass (UP) Bridges: When implemented, the UP bridges would be constructed in phases on-grade and excavated from underneath to create the crossing. A similar construction sequence was utilized in 2019 on SR 101L for Miller Rd in the northeast Valley. For SR 30 to the east of SR 202L, construction can take advantage of the overwhelming size of the NE Basin, which has over 20 times the required drainage capacity needed to drain SR 202L. The contractor can excavate the UP bridges and construct SR 30 mainline while maintaining SR 202L traffic and Basin NE function. **Defers $25.10M** 5

SB C-D Road: The existing SB on-ramps at Broadway Rd and Southern Ave meet traffic demands until 2037. Pending differing results from the VISSIM model, the SB C-D Road including the widening of the Ramp E-S bridge, the relocation of the SB SR 202L Southern Ave (including widening of SB Broadway Rd OP), and the off-ramp from combined Ramp E-S/SB C-D Road to Southern Ave. **Defers $13.38M** 6

SYSTEM TI: DRAINAGE DESIGN

Drainage Channel along north side of TI will convey system TI drainage flows to the 3- 6'x6' CBC under 67th Ave and eventually into the 97th Ave Outfall. Stanley's drainage alternative would re-route the drainage flows to a proposed basin (SW Basin) in the infield of Ramp E-S, where flows will be outlet into the Salt River with a similar design as the NE Basin including a Tideflex backflow valve to prevent Salt River flooding from inundating the basin. The Basin outlet would be combined with the Salt River Scour Protection that will be constructed to protect the Ramp E-S/SB C-D Road Abutment. This proposed alternative would eliminate the need for the large 15-foot-wide concrete channel north of the system TI, the CBC under 67th Ave, and right-size the Salt River Bank Protection by reducing its length by 1,000 feet. **Savings $6.35M** 7 $

The 67th Ave TI will be constructed as a half-diamond TI with EB off-ramp and WB on-ramp. The critical elements for the TI will be the utility coordination to make certain the 96-inch storm drain (FCDMC) and 54-inch water transmission (COP) are protected in place; SRP's Grand Canal 90 Lateral relocation;, and all telecommunication (Lumen, Cox, and Sprint) facilities relocated outside of the PCC paving limits of 67th Ave.

As discussed above, Stanley's drainage alternative would eliminate the need for the box culvert under 67th Ave, this approach would eliminate conflict risks with both COP Water and FCDMC's storm drain for the 67th Ave crossroad improvements.

SR 202L CORRIDOR WIDE SOLUTIONS

Stanley, led by Mike Chase, has been an integrally involved in the development of SR 202L, South Mountain Freeway, since 2014 as segment PM with the Connect 202 Partners (C202P) P3 team. Throughout its development **Stanley planned for the future SR 30 System TI and SR 202L widening with our design** and this project will benefit from the following decisions:

Interim Gore Designs (A): Stanley designed interim ramp profiles to match widened mainline cross-slopes at ultimate gore locations to reduce reconstruction limits by over 50% compared to L/DCR limits.
Savings $5.58M 8 $

Constructed Embankments (B): SR 202L embankment was designed and constructed to accommodate the widening for SR 30. This approach eliminates reconstruction and sliver widening of all fill slopes and significantly reduces impacts to landform graphics (C), as these were designed and installed outside the work zone needed for mainline widening. Retaining walls (D) were also designed with the widening in mind to avoid future modifications.
Savings $7.15M 9 $

Drainage: The existing storm drain system is a series of small trunk lines, transverse to the SR 202L centerline, which collect runoff from a series of catch basins. The systems outlet into an open concrete channel that runs parallel along the east side of the freeway. Although no modifications are required to the trunk lines, the laterals and catch basins located in the outside curb lines require relocation. Stanley designed trunk lines for the ultimate pavement width; however, we will check to make certain new catch basin frequency meets ADOT guidelines.

Utility Relocations: All utilities within the corridor were relocated to the ultimate R/W footprint of SR 202L. The utility-specific guidelines/requirements will be included into the specifications and all utilities within SR 202L will be protected in place.

Maintenance of Traffic (MOT): With both SR 202L lanes and shoulders having the same full depth AC, the MOT for widening is straightforward. TCB will be placed 2 feet away from the outside edge line in the shoulder and traffic remains in the permanent configuration. Most of existing pavement markings will remain eliminating the lane line "ghosting" that occurs when markings are obliterated. At the completion of the widening, a ½-inch mill/replace of the AR-ACFC for edge line and gore marking removal will be required to eliminate ghosting in the new lanes.

Pavement Design (E): C202P constructed an asphaltic concrete pavement structural section for SR 202L. The widening will match the existing depths and design mix to facilitate ADOT and C202P discussions concerning any updates needed for the maintenance agreement.

Lighting (F): Stanley modeled the SR 202L median lighting to meet the required levels for the ultimate roadway width without light spilling outside of the R/W. This approach eliminates modifications to the existing system and provides a level of safety for workers and the traveling public throughout construction.

SR 202L NORTH SEGMENT SPECIAL ISSUES & TASKS

The SR 202L North Segment extends from just south of the Elwood Pedestrian Bridge to the north end of the NB widening at the Buckeye Rd OP bridge and are consistent with L/DCR.

To accommodate the **SB SR 30 directional ramps, Ramp S-W and future Ramp S-E**, the SB on-ramp from Lower Buckeye Rd (LBR) and NB off-ramp to LBR will be removed. The existing SB Frontage Rd will be extended from LBR to Broadway Rd.

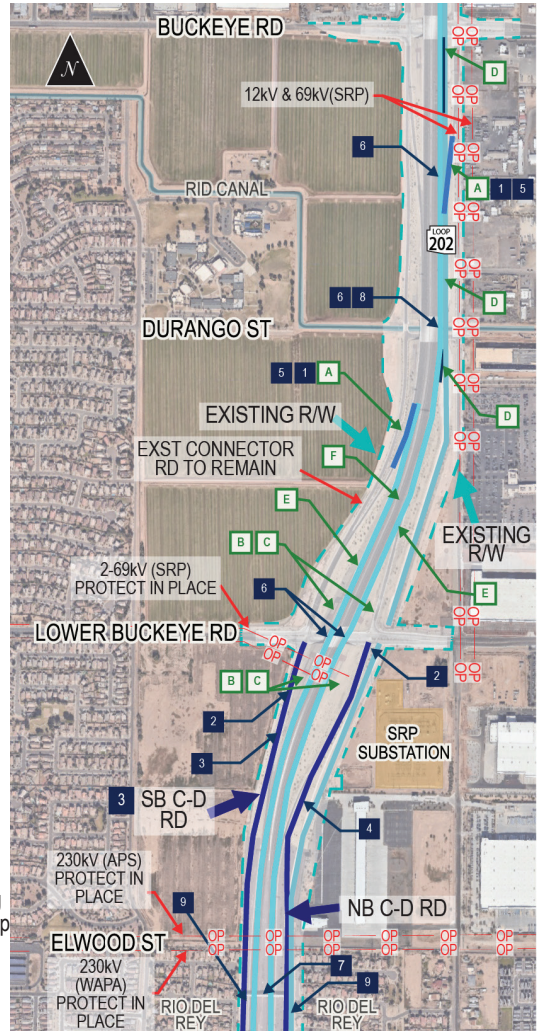
Based on the discreet analysis completed as part of the January 2024 memorandum, there is a risk of SB LBR off-ramp having LOS failure. With the closure of SB Broadway Rd off-ramp, drivers will use the SB LBR off-ramp and SB Connector Road for access to Broadway Rd. Stanley's VISSIM model will assist us to pinpoint when that failure will occur. This approach will guide ADOT's decision when a two-lane off-ramp is warranted.

North of Broadway Rd to Buckeye Rd, the **NB SR 202L will be widened** to accommodate the lane merges associated with Ramp E-N and future Ramp W-N. With both directional ramps merging north of Broadway Rd on the bridge spanning the crossroad, the NB SR 202L on-ramp will be eliminated and the NB C-D Road will be constructed to Lower Buckeye Rd between mainline and the onsite open drainage channel.

In anticipation of SR 30 and the system TI, Stanley designed the onsite drainage channel near the R/W to provide a 65-foot width for the two-lane NB C-D Road's construction. NB C-D Road's vertical profile will follow NB SR 202L reducing earthwork operations adjacent to NB SR 202L mainline.

Additionally, **COP's Elwood Pedestrian Bridge** was designed and constructed with the future SR 30 in mind. Both the onsite drainage channel and pedestrian bridge will be protected in place and no modifications are anticipated with this project.

Figure 5 - Paying it Forward SMF Planned for the Future



Coordination with Roosevelt Irrigation District (RID): The SR 202L will widen the OP bridge over the canal and access road. Stanley designed RID access roads and OP bridge to meet clearance requirements for the widened SR 202L. The onsite drainage channel box culvert provides space for the contractor to build the abutments and set the BT66 girders from outside of RID R/W. Stanley will assist ADOT with permit coordination and approvals. RID construction requirements will be included within the specifications.

SR 202L SOUTH SEGMENT SPECIAL ISSUES & TASKS

The South Segment extends from Southern Ave to Dobbins Rd. Within this southern segment, the **Stanley Alternative's Ramp E-S/SB C-D Road** alignment will parallel SR 202L, entering SB 202L just before the Baseline Rd OP. As discussed in the system TI section above, the Ramp E-S re-alignment defers nearly ¾-miles of SB SR 202L and the SB Southern Ave OP widening. **Defers $1.96M** 10

Only when SR 30 is constructed to the east will SB SR 202L be widened to accommodate the SR 30 Ramp W-S. At that time, SB SR 202L would be widened for the two-lane on-ramp and lane merges. This approach reduces SB SR 202L widening and SB Southern Ave OP by 24 feet. **Savings $3.92M** 11 $

From an operations perspective, Ramp E-S/SB C-D Road's geometry approaching Baseline Rd will be shifted towards SR 202L, constructing a new SB off-ramp to Baseline Rd which will align with the existing on-ramp, eliminating its reconstruction from the project. **Savings $541K** 12 $

The Ramp E-S/SB C-D Road is one of the longest structures on the project with 29-136-foot spans extending from the north bank of the Salt River to 550 feet south of Southern Ave. Stanley's Alternative refines the geometry is able to eliminate 4 spans totaling more than 500-feet of bridge. **Savings $7.5M** 13 $

For the NB C-D Road between Baseline Rd and the Salt River, Stanley's Alternative recommends the NB C-D Road shift toward NB SR 202L mainline over Southern Ave. This geometric refinement eliminates the left off- and on-ramp movements for the NB C-D Road to/from Southern Ave and preserves the Southern Ave PCCP. **Savings $193K** 14 $

Shifting the NB C-D Road alignment, as described above, provides an opportunity for the NB Southern Ave OP to be widened for both NB 202L mainline and the C-D Road lanes. This approach eliminates the separate NB 5-Span bridge structure over Southern Ave and capitalizes on PBPD and uses BT66 girders to match the existing bridge. **Savings $9.85M** 15 $

SR 30 AND SR 202L PROJECT WIDE TASKS

Collaboration and Consensus: As stated previously, the SR 30, 71st Ave to SR 202L project will be designed in concert with the adjacent 97th Ave to 71st Ave project. In addition to the SR 30 alignment ties at 71st Ave, there are several key design and support components will be completed collaboratively between design teams including:

- Storm Drain/Channel Outlets including 97th Ave Outfall
- Earthwork and Construction Phasing
- Roadway, Structures, and Drainage Details
- Environmental Assessment Update
- Public Information Meetings
- Cost Risk Assessment – Value Engineering
- Cost Estimate Reviews (per FHWA guidelines)
- Stakeholder and Utility Coordination

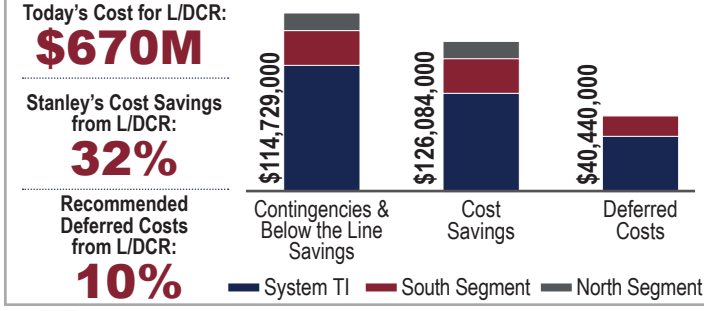
Stakeholder Coordination: Our team has established relationships from SR 30 L/DCR, EA, and as lead engineers for this section of SR 202L. Based on our experience and recent stakeholder discussions, we know what is important.

Table 5 - Stakeholder Corridor History Since 2005

Stakeholder	Important Elements
MAG	Innovation to reduce initial investment costs but not compromising safety or operations
City of Phoenix	67th Ave; SROG pipeline protection; 97th Ave Outfall
FCDMC	97th Ave Outfall; 96-inch storm drain; Durango ADMP; Permits for geotechnical borings in Salt River
RID	Permit to span RID Canal, south of Buckeye Rd (9 months to coordinate)
USACE	97th Ave Outfall; Tres Rios Levee; 404 Permits

Stanley's partnering approach is based upon mutual respect, trust, open communication, and integrity. We will use this approach, as we do on all projects, to further enhance relationships with ADOT and stakeholders to foster a team environment. The result will be a successful win-win outcome for this project just like all the other MAG freeway projects Stanley has developed for ADOT.

Table 6 - Stanley Alternative Summary



Mike and the Stanley team have already started developing performance-based strategies for implementing cost effective elements. Throughout the project approach discussions, we have highlighted **15 PBPD/VE** considerations. When combined with contingencies and below the line percentages, our team has presented over **$281,253,000 in reductions.**

Stanley's alternative provides a project that fits existing conditions better, constructs all four directional ramps in their final configuration with no interim elements, and no reconstruction or throwaway elements, only future expansion to the ultimate configuration when programming is available.

Figure 6 - Utilizing Available R/W Provides Traffic Management Benefits

1 SR 202L widening will reconstruct gore 8 $

2 Ramp E-S/SB C-D Rd eliminates SB SR 202L and SB Southern Ave OP widening 11 $

3 Refined Ramp E-S/SB C-D Road geometry avoids impacts to SRMG (SRP-MIC)

4 Ramp onto/from C-D Road instead of mainline 12 $ 14 $

5 Construct two-lane off-ramp

6 SB-CD Road profile refinements eliminate 4 of the 29 bridge spans 13 $

7 Widen crossroad OP bridges with same BT girders

8 Crossroad TI ramp removed as it conflicts with System TI Ramp

9 Re-align NB C-D Road to widen existing bridge in lieu of separate bridge 15 $

10 Avoid impacts (LACC) box culvert and light wells

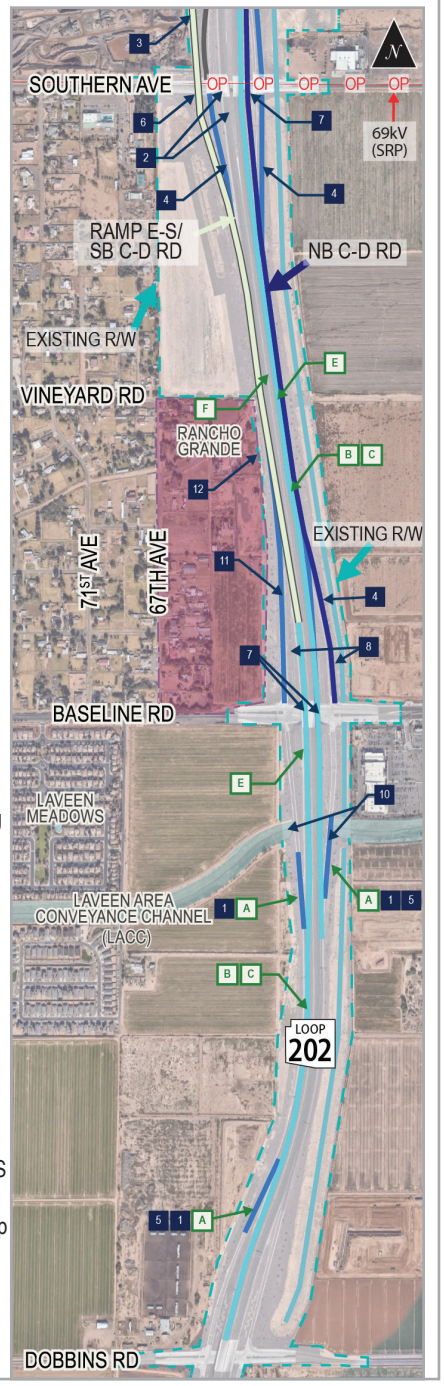
11 Noise Analysis re-evaluation to confirm if wall heights meet current requirements

LEGEND

- C-D Road
- Flyover Ramps E-S
- SR 202L Widening
- New/Modified Ramp

PBPD/VE

- X Deferred Cost
- X $ Cost Savings



ENVIRONMENTAL ASSESSMENT (EA) UPDATE AND CLEARANCE

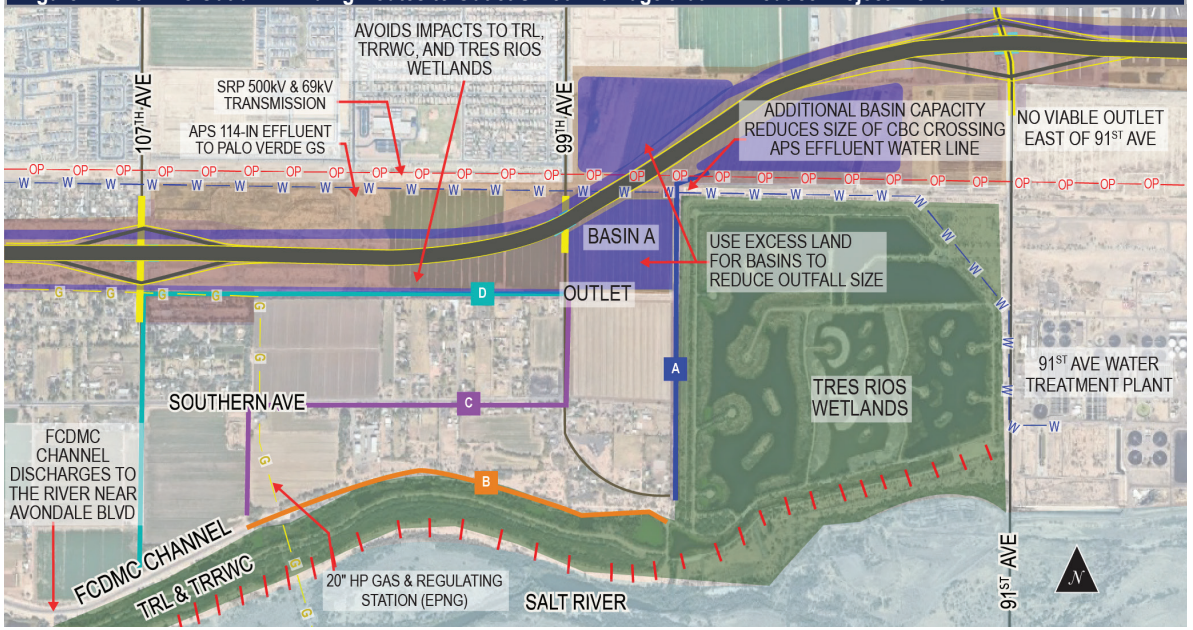
The EA Update will focus on the current planned improvements. Therefore, both the system TI and the SR 30 segment between 97th and 67th Ave will be included in this EA Update. Since the original EA/FONSI was approved by ADOT under NEPA Assignment, the EA Update can be approved by ADOT. The EA is nearly five years old and conditions in the corridor have not changed appreciably. Therefore, updates are expected to be minor, for biological evaluations, cultural resources, visual impact analysis, and hazardous materials. However, the following environmental elements will require more time to complete:

- **Noise Impacts:** The 2018 Final Noise Report, along with the vertical and horizontal alignments of the project elements will be used to verify the location and height of noise barriers. In addition to refined geometry, the analysis would utilize 2050 traffic volumes, current land uses, and existing ambient background noise. If barriers are needed, they will comply with ADOT's Noise Abatement Policy.
- **Air Quality Conformity:** We will work with ADOT and the adjacent project team to make certain the SR 30 projects are included in the State Transportation Plan (TIP) for construction and meet conformity requirements. EPA/FHWA have recently changed interpretation of federal air quality conformity modeling requirements, resulting in multiple reviews on ADOT widening projects and causing delays to environmental clearance. Our team understands and has experience with addressing the EPA/FHWA changes and we will work with ADOT to make certain conformity analyses are completed prior to programmed construction.
- **Biology:** There is no longer critical habitat for any of the endangered species identified in the EA/FONSI in the study area. Since the completion of the EA, Cactus Ferruginous Pygmy Owl, Gila Topminnow and Monarch Butterflies have been listed in the USFWS IPaC for the study area. Monarch butterfly habitat may be impacted, but would be mitigated with native plant seeding, as ADOT is working towards monarch conservation in new and established transportation corridors.

HDR led the SR 30 EA effort and participated in the SMF EIS. With this incredible environmental knowledge of the project, HDR will lead the EA Update for this project, providing valuable continuity for the NEPA effort.

Geotechnical: The scope of the geotechnical investigations and foundation report effort is a heavy lift. Some of the bridge foundations in the Salt River are expected to encounter old, backfilled gravel pits which cannot be considered adequate as load bearing material. Our preliminary assessments will use the geotechnical information collected during the SMF project. To meet the schedule, we will initiate FCDMC coordination after NTP to start developing the details of the Exploration Plan to obtain permits. FCDMC will require environmental documentation for the permit. A potential time saver will be to explore if SR 30's previously approved EA/FONSI will satisfy this clearance, ultimately saving time on the schedule.

Figure 7 - 97th Ave Outfall – Finding Routes to Outlet SR 30 Drainage that will Reduce Project Risks



The 97th Ave Outfall will drain SR 30 from 97th Ave to SR 202L. The outfall impacts the USACE's Tres Rios Levee (TRL) and Tres Rios Regulating Wetlands Channel (TRRWC) and requires a Section 408 permit with a 12-month approval process. We have investigated options to avoid impacts to the TRL, and have determined the no viable outlet locations are available to discharge runoff east of 91st Ave. However, four viable alternatives are described below, west of 97th Ave:

A (L/DCR) This outfall includes complex technical and regulatory challenges; requires to chute over or siphon under the TRL and TRRWC; and negatively impacts the recreational trails of the wetlands. To preserve the wetlands, siphoning is the more viable option and requires:
- Section 404 and 408 permitting (Schedule Risk)

B (Parallel TRL/TRRWC) This alternative constructs storm drain or open channel parallel TRL/TRRWC and outlets into existing FCDMC channel. Construction will negatively impact vegetation adjacent to trail. This requires:
- Additional R/W from multiple COP parcels (Schedule Risk)
- Conflict with 20-inch HP Gas (EPNG) (Schedule Risk)
- IGA with FCDMC for outlet into Channel (Coordination Risk)

C (99th/Southern/105th Ave) This alternative constructs storm drain from a new outfall in southwest corner of Basin A and outlets into the existing FCDMC channel.This requires:
- Multiple potential utility conflicts (Schedule Risk)
- IGA with COP for R/W (Schedule Risk)
- IGA with FCDMC for outlet into Channel (Coordination Risk)

D (SR 30/107th Ave) This alternative constructs a drainage channel along the south side of SR 30 to 107th Ave and into a storm drain under 107th Ave which outlets into existing FCDMC channel. The outfall channel remains within ADOT R/W until 107th Ave. This option requires:
- Increased design complexity adjacent to the eastbound TI ramps
- IGA with COP for R/W (Schedule Risk)
- IGA with FCDMC for outlet into Channel (Coordination Risk)

PUBLIC INFORMATION (PI) MEETINGS

Since the L/DCR's completion in 2020, Phoenix's growth necessitates a new PIP to bring awareness to the project and its benefits to the region's economy and quality of life. We will work in close coordination with ADOT Community Relations and the Civil Rights Office to develop and obtain approval of the project specific PIP which will include a community assessment outlining objectives, strategies, and tactics designed to achieve high-quality participation with a focus to communicate to diverse audiences and at-risk populations. We will spearhead a PI campaign and assist in facilitating three public meetings to provide updates on project activities since the last public hearing held in May 2019. The goal for these meetings is to complete the outreach needed to support the EA Update with messaging meant to engage the public on the project. These efforts include both the system TI and the 91st to 71st Ave segment projects.

UTILITY COORDINATION AND CLEARANCE

Per the clearance process, our team will build upon the ADOT coordination to date. We will review designation and record drawings to complete locating services (potholing) for potential conflicts prior to Stage III. Coordination efforts prior to Stage IV include determination of relocation schedules and clearance activities. If prior rights determination is still in process, Stanley will support the ADOT Utilities Coordinator in those discussions with design details and exhibits.

As with all new MAG regional freeway projects, SR 30 has 11 utilities that will be impacted or in close proximity of the new freeway footprint requiring mitigation. Based on our team's long-standing working relationships with each utility, we know their individual expectations and guidelines, finding a solution for each conflict that fits the project schedule. ***Table 7*** identifies the unique requirements we will encounter as part of utility coordination.

Table 7 - Unique Requirements for Utility Coordination

SRP Transmission	30-ft radius & point loading requirements for in-ground elements around 69kV and 230kV poles for their "Condor" boom truck (Broadway Rd)
SRP Irrigation	Schedule relocation within dry-up period - annually in Nov/Dec (Grand Canal Lateral 90)
APS	Protect in Place - 114-inch Effluent to PVGS
City of Phoenix Water	Protect in Place - No drilling within 20 feet of transmission lines (54-inch under 67th Ave)
City of Phoenix Sewer	Protect in Place - (114-inch Effluent to PVGS and (2-90-inch SROG in Broadway Rd)
FCDMC Storm Drain	Protect in Place (Minimum separation 3 times drilled shaft diameter for OP (96-inch at 67th Ave)
Lumen, Cox, Sprint Telcom	Relocate facilities in crossroad from under new PCCP; sleeve across R/W

R/W CLEARANCE

Based on recent review of the Maricopa County assessor maps, ADOT has acquired all private parcels needed for the L/DCR R/W for the 71st Ave to SR 202L project limits. We do not anticipate needing any modifications to those limits and will be prepared to confirm final R/W at Stage III submittal. The remaining tasks associated with R/W are:

Bureau of Land Management's (BLM) Parcel in the Salt River will require a Highway Easement Deed (HED) for new C-D bridges. Similar to the original HED acquired for the SR 202L mainline bridges, we will confirm easement limits at Stage II to maximize the time to reach consensus and process documents with BLM and FHWA.

Coordination with **COP for ADOT R/W and Access Control Limits** for crossroad TIs. We will work with the adjacent project's designer to develop a set of guidelines for R/W and access control limits at 67th, 83rd, and 91st Ave. Coordination for both projects will be completed simultaneously with ADOT R/W, Central District, and COP.

Table 8 - Project Wide Special Issues & Tasks

Task	Approach	Benefit to ADOT
Survey & Mapping	Utilize a combination of aerial and conventional hard ground surveys to provide accurate verifiable data to reduce earthwork quantity risks.	Earthwork is a significant portion of the overall cost of the project. Accurate estimates of quantities allows efficient balancing of earthwork construction and can help lower bid costs.
C202P Coordination & Maintenance Contract	Stanley's alternative coupled our approach during the SMF design prepared for SR 30 and has significantly reduced the amount of obliteration and restriping necessary on SR 202L.	Our approach significantly reduced impacts to the C202P maintenance area thereby simplifying modifications to limits in the agreement and will reduce cost impacts
ADA Compliance	SR 202L ADA elements were designed to be compliant with current ADAAG and PROWAG requirements. Our team will complete a thorough field review of existing ADA elements for verification. Any non-compliant elements will be documented in the Feasibility Report and redesigned.	Stanley designed all crossroad ADA elements as part of the SR 202L project and will be able to easily confirm compliance. All ADA element details will be shared with the adjacent SR 30 segment to make certain consistency in design for both projects.
Design Exception (DE) Requests	There are three anticipated DE requests. For system TI designs, the DE for stopping sight distance on the directional ramps will be developed. The other two requests will be for all two-lane entrance ramps, as the standard ADOT guidelines for travel lane and shoulder widths do not meet AASHTO's required values.	We have completed similar coordination between ADOT and FHWA on all of our previous system TI projects to complete all predictive analyses and provide appropriate justifications in a clear and concise manner.
Noise Walls	At the conclusion of the traffic analysis with 2050 volumes, our team will coordinate with Ivan Racic to evaluate the existing noise walls and their effectiveness.	Identification and height of noise wall modifications or new wall locations early in the design development will reduce schedule risk and facilitate PI support.
Pavement Design	SR 202L's pavement is full depth AC pavement; therefore, our design will match depth and design mix developed as part of the original design. Transition points will be coordinated with ADOT to coincide with C202P maintenance limits.	Use of AC pavement for SR 202L widening will reduce costs and improve constructability. The design will match the existing pavement depth to facilitate maintenance coordination with C202P. It is anticipated SR 30 directional ramps and mainline will be PCCP.
FMS	SR 202L FMS requires modification for SR 30 connection at Broadway Rd. The design will coordinate with TSMO and completed in accordance with ADOT guidelines.	Designing FMS in the most challenging situations throughout the MAG region has given ADOT TSMO the confidence in our capabilities to design the SR 30 facilities efficiently and cost consciously.
Signing & Pavement Marking	SR 202L signing will require modifications for system TI approaches and guide sign concepts will be developed at Stage III for ADOT concurrence. Pavement Markings will be consistent with MUTCD and ADOT guidelines.	Stanley designs signing plans with the future in mind. Development of the ultimate signing locations and layout reduce relocation risks when expansion projects are planned providing better value to ADOT.
Lighting	SR 202L lighting will be supplemented with new high mast lighting for the system TI as the existing median lighting was designed for the ultimate width of SR 202L. Ramp/gore offset lighting for the 67th Ave TI will be included for SR 30.	ADOT concurred with this lighting approach on Stanley's SR 24 project as it eliminated any throwaway elements during future expansion projects – we will use the same approach for SR 30.
Landscape & Aesthetics	Stanley is very familiar with the SR 202L aesthetics and landscaping, CDG's design considered the future SR 30 improvements. Plans will transition the SR 202L's "character areas" - Arcosanti Leaf Portal and Taliesin Urban Link to a riparian and three-wave water pattern to symbolize "Tres Rios" and Rio Reimagined for SR 30.	Stakeholder consensus on a corridor's aesthetics theme can be challenging to achieve; therefore, the Stanley team will begin this effort after Stage II comment resolution, to reduce schedule risk and complete plan development for Stage IV submittal.
3D Modeling & Visualization	Stanley will prepare 3D modeling and visuals at the Stage II submittal to communicate project elements to the public and stakeholders for decision making and consensus.	We use LumenRT, a Bentley product, for our visualization tasks. The software is able to combine 4D/5D and VISSIM models into a 360° fly through for use in public information and stakeholder coordination meetings throughout design.
Cost Estimates	We will leverage our experience from numerous MAG freeway and system TI projects to develop the stage estimates and Cost Estimate Reviews in accordance with FHWA guidelines.	We are known for our efficient designs, constructibility and sequencing expertise, accurate quantities, and awareness of market trends for cost drivers like concrete, steel, and long lead items such as light poles and sign structures.

2. PROJECT RISKS AND SCHEDULE

SCHEDULE | REALISTIC BASED ON SR 30 CORRIDOR HISTORY

The schedule for SR 30 from 71st Ave to SR 202L is presented in ***Figure 8***. This schedule is based on 700 calendar days, with 30 days of float. We are aware that coordination between the two selected consultants is important to achieving ADOT's vision. We are prepared to lead the effort to bring SR 30 to reality – and Mike Chase is the right PM to do that.

Our experience delivering MAG system TIs and freeway projects gives us the in-depth knowledge to know ***what*** is on the critical path, ***why*** it is important, and ***how*** to gauge schedule impacts. Critical path elements are highlighted with a **red bar** and include the relationships between establishing a baseline estimate in the Stage II plans for programming and environmental clearance by Stage III. We always communicate consistently with stakeholders including inter-ADOT Departments, City of Phoenix and the FCDMC and perform continuous monitoring of construction costs throughout the project.

Strategies to Avoid Schedule Slippage: Our intuition and experience will avoid schedule slippage – we know ***what has to be completed, by who, and when***. This experience will be supported by:

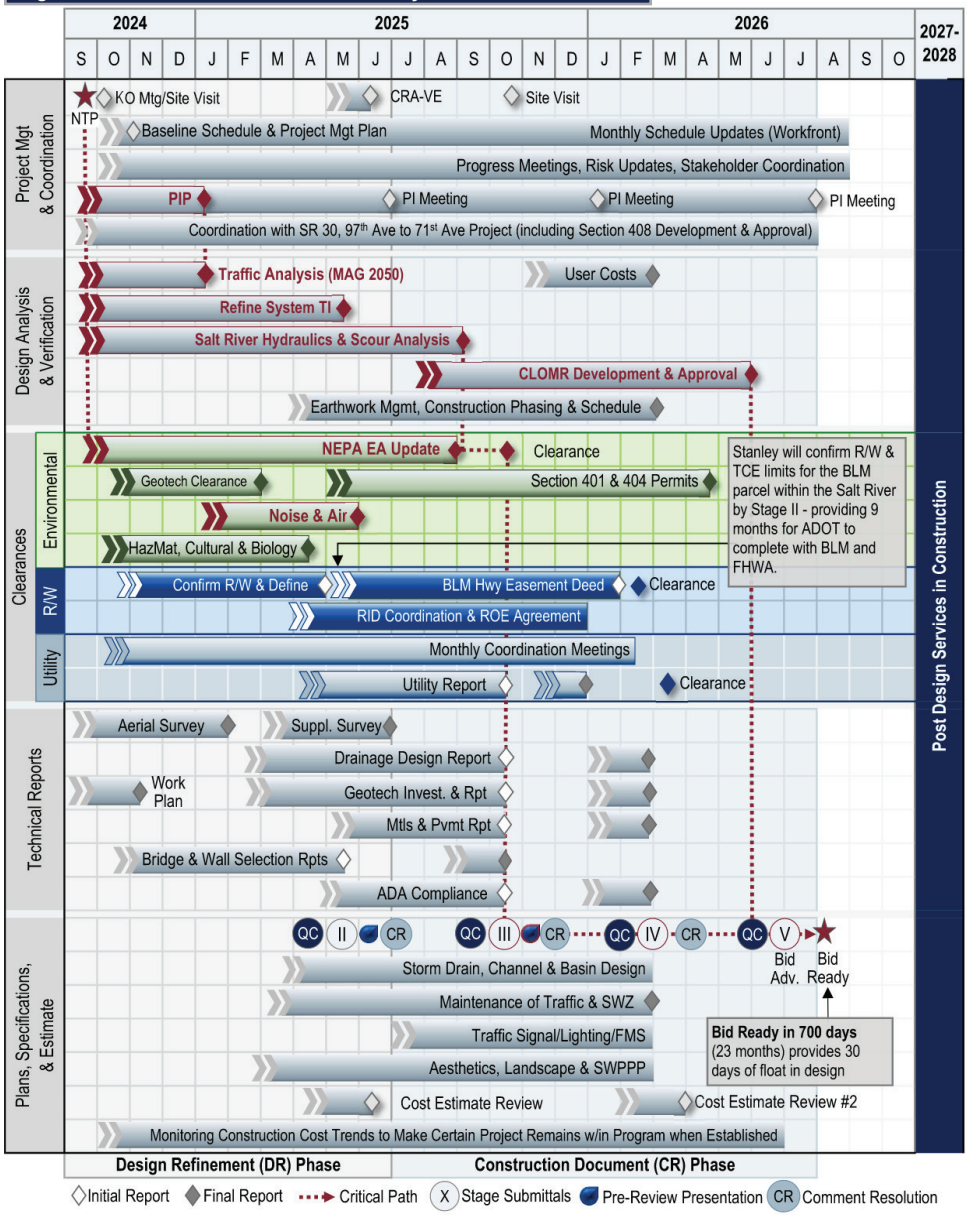
- Documenting and maintaining progress with agencies, stakeholders, and third-party utilities (noted in our Risk Register)
- Risk Register management to address elements of concern, such as Sections 401/404/408
- Capitalize on HDR's corridor history of SR 30 to lock in the geometry and bridge layouts and the team's relationships with FCDMC for impacts to the Salt River
- A QA/QC program, under Gary Melita, that is ingrained in the day-to-day design efforts which eliminates rework

Strategies to Recover from Schedule Slippage: In the rare situation that schedule slippage occurs, Mike will work with this team to identify the root cause, openly discuss schedule recovery strategies with ADOT, then take action to regain positive forward momentum. Recovery includes:

- Expediting decisions on technical design items with ADOT and stakeholders by developing the geometry refinements, bridge layouts and boring plan with Rashidul, the ADOT PM, and creating effective communication lines to streamline the decision-making process
- Coordinating with ADOT EP to streamline approval process for Air and Noise components to mitigate environmental clearance risk
- Completing all activities for R/W and utility coordination prior to Stage III submittal to facilitate clearances in quick succession after Environmental Clearance is issued
- Tracking the earned value of progress to identify potential schedule issues early
- Identifying risks and monitoring mitigation actions throughout project delivery to make certain resolution is reached prior to Stage IV submittal
- Creating a supplemental staffing plan at project kickoff to prevent milestone submittal dates from being negatively impacted by production or QA/QC tasks

SR 30 is a complex effort. To facilitate an easier review experience for ADOT, we will stagger our reviews by the system TI and the North and South segments, allowing ADOT six weeks to do a thorough review. ADOT will have the time needed for review yielding productive comment resolution meetings.

Figure 8 - Achievable Schedule with 30 Days of Float



Adobe Workfront

Realistic milestone schedules, monitored critical path progress, and archived project documents in Adobe Workfront™ make information available in real-time for the ADOT PM. Concerns with schedule versus effort are identified quickly so corrective measures can be discussed promptly.

RISK REGISTER AND COUNTER MEASURES | DE-RISKING SR 30

Through our extensive knowledge and long history with SR 30, as well as our conversations with ADOT and stakeholders, we developed an initial comprehensive list of risks that could impact schedule and cost. **These risks are summarized in *Figure 9***. This Risk Register will serve as a living document to actively monitor risks. Mike will update the Register regularly as part of project development and include recommendations from the Cost Risk Analysis Value Engineering (CRA-VE) workshop held after Stage II. Several of these risks and mitigations are also discussed in our Understanding and Approach.

Mike will lead the team in identifying, resolving, and managing risks by:

- Advancing the Risk Register at the kickoff to further identify risks and mitigations
- Assigning a Risk owner to follow through on action items
- Monitoring Risks with Rashidul (ADOT PM)
- Updating the Register at monthly progress meetings
- Conducting Risk Assessments at milestones with ADOT PMG, Central District, and C&S

Figure 9 - SR 30 Specific Risk Register Based on Corridor Knowledge and History

Risk Level High Med Low

Impact Legend: Scope | Schedule | Budget

	Risk Event | Owner	Impacts			Before Mitigation			Risk Mitigation & Countermeasures	After
		Scope	Schedule	Budget	Severity 0-3"	Probability 0-3"	Risk Level		
PROCESS	**Funding Shortfall:** There is a deficit in funding to construct Phase 1. | **ADOT, MAG, STANLEY**	■	■	■	3	3	9	Use PBPD, including performing the traffic analyses, to develop Stage II benefits/costs so ADOT is positioned to make informed decisions for initial investments, interim conditions and implementation of the ultimate TI.	4
PROCESS	**Environmental Update / Air and Noise:** Preparation and approvals related to Air Quality approval from FHWA and EPA. | **ADOT, STANLEY**	■	■	■	3	3	9	Engage ADOT EP/FHWA/EPA at NTP to develop review schedule and establish expectations. Use updated Traffic and Air Quality (AQ) and Noise data as basis of analysis, avoid delays associated with new data by outside entities. Include monthly AQ conformity meetings.	3
DESIGN	**Earthwork Material Availability/Cost:** Borrow is a significant component of investment cost and can have an adverse impact on the parametric estimate. | **ADOT, STANLEY**	■		■	3	3	9	The Stanley alternative shifts alignments in the "PIT" and lowers roadways by one level. This system TI height reduction reduces retaining wall height, shortens abutments, piers and bridge lengths. The alternative reduces borrow need.	4
DESIGN	***Stakeholder Approvals and Agreements:** Delay in obtaining approvals and executed agreements on an array of items including CLOMR, Section 401/404/408 permits, C202P Maintenance Agreement and aesthetics | **ADOT, STANLEY**	■	■	■	3	3	9	Our approach is early identification and coordination of stakeholder involvement. Streamlined agency meetings will efficiently discuss project elements. We will develop a comprehensive agreement/IGA/JPA/permit register with clear deadlines that assure successful execution and approvals by Stage IV.	4
DESIGN	***The 97th Ave Drainage Outfall:** Not finding an acceptable solution by Stage II will delay the EA update, environmental clearance and permitting.This requires a challenging design and its own Section 404 and 408 permits | **ADOT, STANLEY**	■	■	■	3	3	9	Before the CRAVE we will hold an individual workshop to reach consensus on conveying attenuated SR 30 stormwater flows to the Salt River avoiding impacts to Tres Rios. Clearly define the extent of improvements for the EA update and for R/W delineation through our solid relationships with regulatory and permitting agencies. This consensus will expedite the approvals.	4
DESIGN	***The "Pit" and Salt River Materials Group:** Creating zones of unsuitable material unacceptable for support of foundations or embankments resulting in excessive settlement. due to Gravel Mining operations | **STANLEY**			■	3	2	6	Leveraging our geotechnical expertise, we'll assess the "Pit" using existing records and aerial photos, identifying areas needing further evaluation. Soil conditions will be analyzed for loose materials requiring removal and recompaction before embankment placement. If foundations are located in the "Pit" we will evalaute settlement from occasional flooding.	3
DESIGN	**Easements and TCEs for Salt River Crossings:** The process for completing acquisition and permitting from BLM can take significant time | **ADOT, STANLEY**		■		3	2	6	By 30% completion, we'll finalize TCE & easement limits and initiate the BLM approval process. Regular meetings will ensure clear communication and keep the project on track.	2
DESIGN	**Salt River Flows During Construction:** Flows in the river historically raise goundwater table innundating the "Pit" and low areas within the river bed. After the flows recede it takes months before the water in these abandoned pits dry up | **ADOT, STANLEY**		■		2	2	4	Our alternative for the system TI limits exposure of the construction footprint in the "Pit" and the Salt River by shifting the SR 30 alignment to the north as much as possible. We have also adjusted the E-S bridge alignment to avoid old mine pit in the river at the north bank.	2
MAINTENANCE	***City Stakeholders request out of scope items:** Requests for lighting, new signals, pavement widening, rehabilitation of local streets and utility betterments Impact: Increased costs and environmental clearance limits | **ADOT, STANLEY**	■	■	■	3	3	9	Set process expectations for out of scope requests at kickoff meeting. Coordinate with ADOT PM/ Management to determine viability of request. All approved elements incorporated into project by Stage III to eliminate schedule impacts.	4
MAINTENANCE	C202P Contractual Maintenance Responsibilities: Construction tie in to SR 202L will impact pavement (asphalt vs, concrete) and bridges and landscaped surfaces under contract for maintenance by C202P | **ADOT, STANLEY**	■		■	2	2	4	Our design effort will include evaluation of the current C202P maintenance responsibilities and we will work closely with ADOT Major Projects to address potential issues and place specific limits in the contract on disturbance area, impacts to pavement, bridge components, drainage features and other items that are under C202P maintenance responsibility.	2

*Items of concern specifically mentioned by ADOT during our discussions.

3. PROJECT TEAM EXPERIENCE AND AVAILABILITY

The Stanley team with Mike Chase and Brian Bombardier bring unmatched familiarity of what has been built on SR 202L and what has been studied and planned for SR 30. This is a significant benefit to ADOT in delivering final design.

MIKE CHASE, PE | Project (Contract) Manager

43 Years of Experience | **35** Years as PM

AZ PE #20893 | 85% Availability | 15% Commitments

In serving ADOT on more than 65 system TI's, heavy highway and bridge projects as Project Manager, QA/QC Manager, and Design Manager, Mike has worked directly with the Stanley team members. Projects include the SR 202L/SR 24 System TI; US 60/ SR 303L System TI and SR 101L/SR 202L System TI (detailed on page 13). He is a recognized Subject Matter Expert (SME) for his command of design standards, thorough understanding of contractor means and methods, construction phasing and maintenance of traffic.

Prioritizing ADOT's Success: Mike's technical skills, solid ADOT design practices and development process, and an extensive quality control background are attributed to his 42 years of serving ADOT. He has led multi-disciplined teams in providing more than 15,000 plan sheets for 3 system TIs and freeway widenings. Mike is well known for his proactive communication skills with his team, ADOT technical groups, stakeholders and utilities. He has strong community relationships that benefit the SR 30 project.

System TI Knowledge and Experience: Mike's knowledge and experience with all aspects of system TI's including understanding the nuances of bridge layouts, lane balance, constructability, clearances, drainage, phasing, and MOT is crucial for SR 30. ADOT will benefit from Mike's technical and institutional knowledge, along with HDR's established SR 30 stakeholder relationships, as he leads our multi-discipline design team.

NOTABLE MAG REGION SYSTEM TI EXPERIENCE:

- SR 24/SR 202L Phase I System TI and Phase II
- SR 202L South Mountain Freeway (Salt River Segment Lead which connects to SR 30)
- SR 101L Price/ SR 202L Santan System TI
- I-10/US 60 System TI

CURRENT COMMITMENTS

(Projects will be completed before SR 30 Notice To Proceed)

- I-10 / Broadway Curve, I-17 to SR 202L (QA/QC)
- Design-Build I-17 Anthem to Sunset Point GEC Team Member

DAN SHIOSAKA, PE, SE | Structures Lead

47 Years of Experience | **40** Years as Structural Lead

AZ PE #10483
SE #30564 | 90% Availability | 10% Commitments

Dan is commended for innovative and value-engineered system TI and bridge solutions. His ADOT experience dates back to 1986 with his work on the I-17/SR 101L System TI. SR 30 / SR 202L is no exception and he was instrumental in our workable approach discussed in this response.

Dan's portfolio spans multi-level system TIs with steel, precast concrete, and cast-in-place (CIP) concrete structures. Project complexity varies from straight, single-span, precast prestressed concrete bridges to curvilinear, multi-span continuous, CIP post-tensioned concrete bridges. Setting him apart is his firsthand construction experience providing field inspection services directly to contractors and Value Analysis solutions.

NOTABLE MAG REGION SYSTEM TI EXPERIENCE:

- SR 24/SR 202L Phase I System TI flyover structures
- SR 51/SR 101L HOV bridges NE and WS
- SR 101L Price/ SR 202L Santan System TI
- I-17/SR 101L System TI structures
- I-10/US 60 System TI Ramp SE Flyover and Ramp WS Flyover
- SR 202L South Mountain Freeway (Twin 2,500-foot-long bridges over the Salt River - 170-foot long girders, the longest in Arizona)

BRIAN BOMBARDIER, PE | Risk Manager, Corridor History Resource

33 Years of Experience | **25** Years as Risk Manager and Corridor Historian

AZ PE #30002 | 20% Availability | 80% Commitments

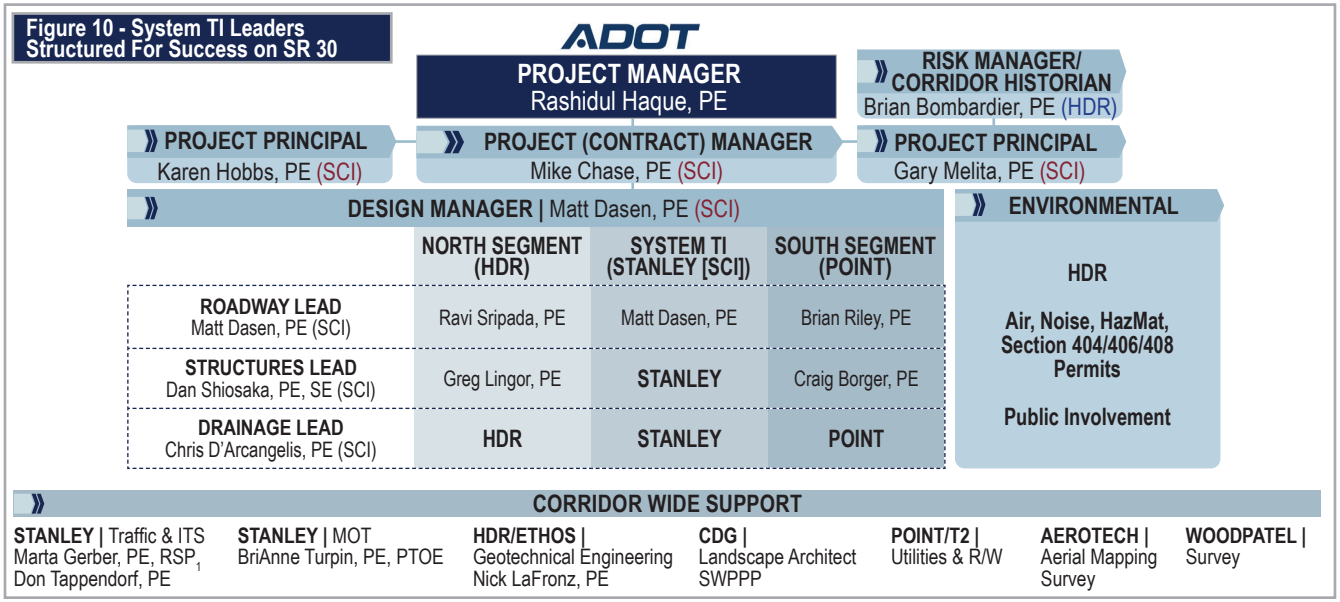
Brian served as both the engineering lead and PM on the SR 30 L/DCR and EA and is considered ADOT's go-to expert for this corridor over the past 15+ years. As the author of the detailed ISR for his specific interchange, Brian has worked with ADOT through the what ifs and design alternative discussions.

His historical knowledge of which elements are paramount to keeping this project moving forward and eliminating rework helped craft the response discussed in this SOQ. The geometric complexity of the system TI at SR 30 and SR 202L is the key to success and understanding that every small change, even if well intentioned, will have a snowball effect on the entire project.

NOTABLE MAG REGION SYSTEM TI EXPERIENCE:

- SR 30 L/DCR and EA
- SR 30, SR 202L to I-17 Corridor Study
- I-10, SR 202L to SR 387 DCR/EA
- I-10/SR 202L TI

Figure 10 - System TI Leaders Structured For Success on SR 30



Stanley, HDR and POINT have worked on nearly every system TI built in the Valley over the past 25 years. Our work includes I-10 and I-17; SRs 101L, 202L, 303L, 51, 24, and 30. Our ADOT experience on a new freeway (SR 30) connected to a system TI (202L South Mountain Freeway) is unmatched.

A Availability C Current Commitments

Name | Role Years of Experience | Years in Role	A	C	Relevant ADOT Experience *Project Detailed in Section 3	Benefits to ADOT	ADOT Exp. with Mike & Dan
 Gary Melita, PE, QA/QC | AZ PE #30516 33 Years | 25 Years in Role	25%	75%	*SR 24 System TI, New Freeway Phase I *SR 101L/SR 202L Price-Santan System TI *US 60 (Grand Ave) / SR 303L TI	• QA/QC knowledge from being the Design Manager on SR 24/SR 202L Phase I System TI. • Three decades of ADOT final design for system TIs.	☑
 Matt Dasen, PE, Lead System TI | AZ PE #52082 17 Years | 10 Years in Role	85%	15%	*US 60 (Grand Ave) / SR 303L TI *SR 101L 75th Ave to I-17 Camelback Rd, SR 303L to Litchfield Rd	• Considerable experience with Mike and Gary make him an intuitive team member - Matt is well versed on system TIs that focus on ramp spacing, guide signing, route continuity, and lane balance.	☑
 Chris D'Arcangelis, PE, Drainage Lead | AZ PE #26313 36 Years | 26 Years in Role	70%	30%	*SR 24 System TI, New Freeway Phase I *SR 202L South Mountain Freeway *US 60 (Grand Ave) / SR 303L TI	• Maintenance-friendly drainage solutions on over 30 ADOT projects including SR 24/SR 202L System TI Phase I. • Intimate knowledge of South Mountain Freeway design as it relates to the SR 30/SR 202L TI.	☑
 Marta Gerber, PE, RSP1,Traffic Lead | AZ PE #41369 25 Years | 20 Years in Role	70%	30%	*SR 101L 75th Ave to I-17 I-17 & Indian School Rd TI SR 24 Phase II SR 202L Santan Fwy to Ironwood	• Experience with ADOT for capacity analysis, access management, and design of signing, marking and lighting – all are instrumental for this project.	☑
 BriAnne Turpin, PE, PTOE, MOT Lead | AZ PE #51481 | #5361 18 Years | 11 Years in Role	70%	30%	*SR 24 System TI, New Freeway Phase I *SR 101L 75th Ave to I-17 SR 202L – Baseline to Elliot Roads	• BriAnne has delivered safe traffic control plans for more than 75 miles of the ADOT network, including 15 new, widened and reconstructed bridges.	☑
 Don Tappendorf, PE, ITS/FMS Lead | AZ PE #22213 38 Years | 31 Years in Role	60%	40%	*SR 24 System TI, New Freeway Phase I SR 303 FMS PA/I-10 to I-17 I-17 Design-Build Anthem Way-Sunset GEC	• Don's work on I-10, I-17, SR 101L, SR 202L, SR 303L, SR 51, and SR 143 reflects his career knowledge of ADOT's FMS and ITS program.	☑
 Nick LaFronz, PE, Geotechnical Lead | AZ PE #22198 40 Years | 31 Years in Role	60%	40%	*SR 202L South Mountain Freeway GEC I-17 Design-Build Anthem Way-Sunset GEC I-10/SR 303L System TI, Phase 1, Phase 2	• Significant experience in foundation systems, cut and embankment fill slope designs in soil and rock, soil-nail, and full-scale drilled shaft load test program, including working in the Salt River for SR 202L South Mountain Freeway right under this TI.	☑
 Brian Riley, PE, North Segment Lead | AZ PE #45657 22 Years | 17 Years in Role	65%	35%	*SR 24 System TI, New Freeway Phase I *SR 202L South Mountain Freeway *US 60 (Grand Ave) / SR 303L TI	• Was lead designer on SR 24 that optimized design to fit directional movements, minimized earthwork and overall cost, and kept multiple lanes of SR 202L open during construction.	☑
 Craig Borger, PE, North Segment Bridge Lead | AZ PE #32830 27 Years | 22 Years in Role	70%	30%	SR 303L Happy Valley Rd to Lake Pleasant Pkwy I-10 North of Nelson Rd to Dirk Lay Rd I-10 Corridor (Ina Rd, Ruthrauff Rd) Reconstruction	• Preliminary and final design of over 25 freeway bridges including overpasses, underpasses, fly-over ramps, canal crossings and river crossings on the MAG Regional Freeway System.	☑
 Ravi Sripada, PE, South Segment Lead | AZ PE #52416 17 Years | 10 Years in Role	80%	20%	SR 303 51st Ave - I-17 System TI SR 101L Pima Freeway I-17 to Princess Dr I-10 Fairway Drive TI UP	• Extensive work on complex horizontal and vertical geometrics and fully-directional system interchanges.	
 Greg Lingor, PE, South Segment Bridge Lead | AZ PE #33998 29 Years | 22 Years in Role	80%	20%	SR 202L/US 60 System TI I-10/SR 202L System TI I-17/SR 303L TI Phase I Mgmt. Consultant	• Proven design roles on ADOT freeway projects including System TIs. • Experience with multiple Salt River bridge crossings–he brings understanding of the key issues to SR 30.	☑

POSITIVE PROJECT DELIVERY FOR ADOT | The projects discussed represent Stanley's considerable experience – 40 years - on ADOT system TIs. Also featured is Stanley and HDR's work on SR 202L South Mountain Freeway and SR 30. Featured is the system TI at SR 24 which is exactly what is required for SR 30 – integrating design of a free-flowing system TI (SR 202L) and a new SR 24, a specialty of PM Mike Chase.

ADOT SR 24 PHASE 1 SYSTEM TI, SR 202L TO ELLSWORTH // Prime Designer | 1,500+ Plan Sheets | ADOT PM Annette Riley

A complex four-level, fully directional urban freeway system TI connecting SR 202L to SR 24.

- More than one mile of new urban freeway.
- An interim half diamond TI.
- .5 mile of Ellsworth Rd reconstruction.
- SR 202Lwidening.
- ADOT saved $18 Million from Stanley's smart design for the future Phases II and III.

SUCCESS | Generated onsite excavation to reduce imported material and cost. Forward thinking for future phased improvements reduced throwaway and cost. The project won the AZ ACEC Engineering Excellence award.

ADOT SR 202L // SOUTH MOUNTAIN FREEWAY (HDR SERVED ADOT AS OWNER'S REP) // 22 miles, 7 Miles Salt River Segment (SRS) and dual 2,500 feet Salt River Bridges | Prime Designer SRS | 2,000+ Plan Sheets | ADOT PM Rob Samour

Mainline freeway with 15 bridges and seven interchanges with a future connection to SR 30.

- Dual 2,500 feet long twin bridges across the Salt River.
- 230-foot-long multi-span pedestrian bridge.
- Mike Chase coordinated designs of three firms in the Salt River Segment which contains the entire limits of the SR 30 TI connections with SR 202L.

SUCCESS | Mike Chase, Brian Riley and Matt Dasen led the C202P compatibility exercise in proving the preliminary design and functionality of SR 30/SR 202L system TI.

ADOT SR 30 // SR 303L TO SR 202 L/DCR AND EA // 14 Miles | HDR Prime | ADOT PM Velvet Mathew

- Alternative Selection Report for ultimate freeway design including service TIs nearly every mile and the SR 30/SR 202L System TI with provisions for SR 30 to extend east.
- L/DCR.
- ISR for the SR 30/SR 202L System TI.
- EA/FONSI.
- Development and evaluation of roadway alignment
- TI alternatives with environmental studies.

SUCCESS | HDR defined the project scope, overcoming technical, political, and environmental challenges to achieve stakeholder buy-in and assure future compatibility.

ADOT SR 101L AND 202L PRICE SANTAN SYSTEM TI // 5 Miles | Prime Designer | 2,000+ Plan Sheets | ADOT PM Ron McCally (Ret'd)

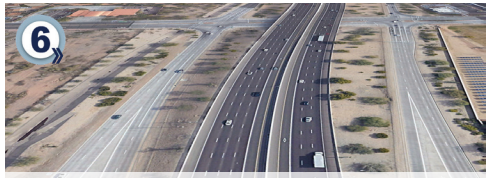
- Geometric configuration with a nested diamond-service interchange within the directional system TI.
- Complex five-level, three-legged interchange.
- "Overall, Stanley Consultants did an excellent job. I haven't given out many consultant evaluations where the overall grade was excellent or exceeding expectations, but on this one I did." – Ron McCally, ADOT PM (Ret'd)

SUCCESS | Innovative construction sequencing allowed continuous traffic flow and provided the contractor with easy access to large open work areas with minimal motorist contact.

ADOT, US 60 GRAND AVE/SR 303L SYSTEM TI // Prime Designer | 1,000+ Plan Sheets | ADOT PM Bharat Kandel

- System TI (interim) connecting US 60 (Grand Ave) and SR 303L. Stanley's Precast Bridge Elements and Systems eliminated falsework, saved ADOT $1.6M and accelerated construction by seven weeks.
- Reconstructing two miles of SR 303L to a six-lane freeway.
- On and offsite drainage
- Construction over an active highway and BNSF Railway.
- Four service ramps for full directional access.

SUCCESS | Originally slated to be widened on both sides, our value engineering recommendation to shift the centerline by just 24 feet moved construction to one side, saving ADOT $1 million.

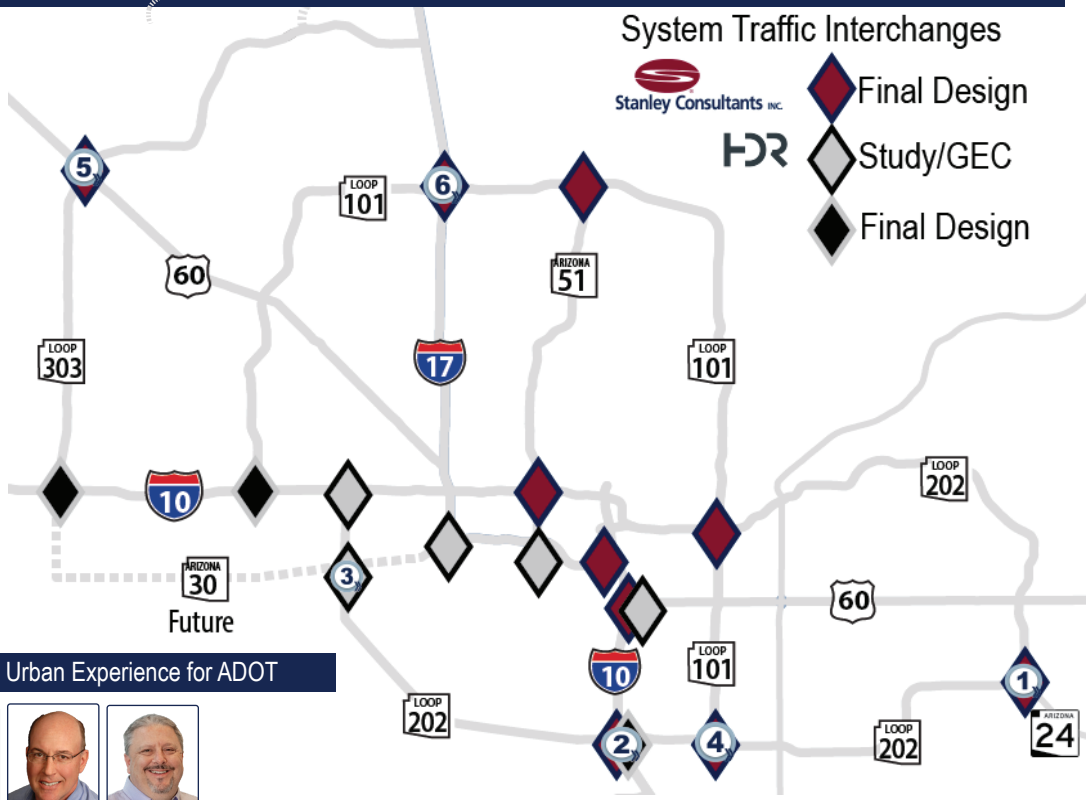


ADOT SR 101L, 75TH AVE TO I-17 // 9.6 Miles | Prime Designer | 1,282 Plan Sheets | ADOT PM Rashidul Haque

- Widening mainline freeway.
- Widening three SR 101L overpass bridges.
- New retaining and screen walls.
- Improving the I-17/SR 101L System TI.
- Modifying onsite and offsite drainage facilities.

SUCCESS | Delivered the approved scoping document within six months of receiving an ANTP. The final design PS&E recently advertised for construction.

STANLEY+HDR | Extensive expertise in multi-level system interchanges and intricate bridge structures



System TI Leader's Urban Experience for ADOT

ADDITIONAL NOTABLE COMPLEX PROJECTS BY STANLEY & HDR

SR 202L Red Mountain Freeway Final Design
- Mike led the four-mile, six lane improvement which was developed in three phases with PS&E prepared for each construction package on accelerated schedules.

MAG SR 30 SR 202L to I-17 Corridor Study
- HDR, led by Brian Bombardier, identified a preferred corridor for SR 30 and accompanying ADOT PEL study.

I-17 Pinnacle Peak Road and Happy Valley Road TIs Final Design
- HDR provided final design for two DDIs in the widening and full reconstruction of two service TIs.

GEC I-17 Anthem Way to Sunset Point Design-Build
- Stanley DCR | HDR/Stanley General Engineering Consultant. The team has reviewed and commented on more than 10,000 plan sheets on behalf of ADOT.

I-17 Happy Valley Road to Carefree Highway Final Design
- Mike's innovative construction sequencing plan assured traffic flow for over 130,000 ADT vehicles even during construction of three service interchanges.

STANLEY+HDR *Experience*

30 YEARS Average Experience Level of Key Personnel

16 ADOT SYSTEM TIS *IN THE MAG REGION* Mike Chase, Dan Shiosaka, Gary Melita, Brian Bombardier

$1.3 BILLION in system TI Construction

65 YEARS of Service to ADOT

SUBCONSULTANT NOTABLE EXPERIENCE, CAPACITY INCREASE AND SPECIAL CAPABILITIES

AeroTech (DBE) has worked with ADOT since 2010 in completing more than 60 mapping and survey projects. The firm's relevant West Valley work includes SR 303L FMS I-10 to Northern Ave, SR 303L MC 85 to Van Buren (Stanley subconsultant), and SR 303L to Jomax Road (awaiting NTP).

CDG (DBE) has successfully performed landscape architecture and SWPPP across the West Valley serving ADOT directly on SR 303L Glendale to Camelback, SR 101L 75th to I-17 (Stanley prime under Gary Melita), SR 202L South Mountain Freeway (Stanley SRS Lead under Mike Chase), and I-17 Flex Lanes GEC (HDR/Stanley with Mike Chase as the PM).

ETHOS (DBE), a trusted partner with 25 projects completed alongside Stanley in the past five years, brings expertise in structural engineering for bridges and retaining walls, along with geotechnical services, to the SR 30 project. They boast a strong history of similar ADOT projects, including SR 101L I-10 HOV Ramps DCR and Final Design (Elliot Rd. to Buckeye Rd.), SR 101L Shea Blvd. to SR 202L (Red Mountain), and the VE On-Call project.

From 2005 to 2020, **HDR** served as ADOT's lead corridor manager for the SR 202L South Mountain Freeway and the SR 30 corridors. In this role, they led the development of planning, predesign, and NEPA documentation for both corridors, while also fulfilling the GEC role for the South Mountain Freeway. HDR also delivered the SR 30 corridor study for MAG between SR 202L and I-17. Stanley and HDR's extensive collaboration spans numerous projects, including the recent South Mountain Freeway and the I-17 Flex Lanes.

POINT (DBE) will lead the North Segment roadway and bridges design under the leadership of Brian Riley and Craig Borger. POINT's staff has worked on segments of SR 303L and SR 202L South Mountain in the West Valley. POINT has teamed with Stanley on notable ADOT projects at I-19 Ruby Road and I-10 Pinal Airpark. Stanley is currently a major subconsultant to POINT on the widening of I-10 south of Nelson Road.

T2ue has completed major SUE investigations over the last years for improvements to SR 303L and I-17. Stanley and T2ue have teamed on many projects in the Valley.

WOODPATEL has performed on more than 85 ADOT projects in the last ten years through acquisition of Geomatics Consulting Group. They will work with AeroTech, a firm they work with routinely in performing survey.

MIKE CHASE PE
PROJECT (CONTRACT) MANAGER

TECHNICAL EXPERTISE

- ☑ System TI Geometry
- ☑ Roadway Geometrics (Urban and Rural Highways, Arterials, Intersections, and TIs)
- ☑ Cross Sections and Earthwork Calculations
- ☑ Construction Plans and Details
- ☑ Value Engineering
- ☑ Design and Construction Scheduling
- ☑ Construction Sequencing and MOT
- ☑ Post Design Services

EDUCATION
BS, Civil Engineering, Arizona State University

REGISTRATIONS
Civil Engineer: AZ #20893

PROFESSIONAL SOCIETIES
- American Society of Civil Engineers
- American Council of Engineering Companies
- Arizona Consulting Engineers Association
- American Public Works Association
- American Society of Highway Engineers

STANLEY TENURE
40 Years

INDUSTRY TENURE
43 Years

PROJECT AVAILABILITY
85%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Senior Project Manager, Regional Manager West Region

ON-GOING COMMITMENTS
GEC member I-17 Flex Lanes - 10% - will be finished at the time of Notice To Proceed for SR 30
QA/QC SR 24 Phase III
5%

BASIS OF SELECTION
Mike was selected based on his successful history with ADOT for system TIs in Maricopa County. Going back to Prop 300 and building out the Loop system, Mike is the consistent leader that has lived the complexities, constructability, and risks associated with design and construction of system TIs. **Taking system TIs one notch further, Mike was the PM for SR 24/SR 202L TI which was the first leg of the brand new SR 24 highway - exactly like SR 30.** ADOT knows the quality of his engineering through the diversity of projects he has worked on, the level of responsibility he has held, his ability to innovate to optimize land use, overcome R/W and clearance challenges and his overall performance and achievements throughout his career.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***SR 24, SR 202L to Ironwood Drive Phases I & II, Mesa and Queen Creek, AZ; ADOT Phase I Project Manager, Phase II Technical Advisor/QA/QC.**
An $85 million four-level urban freeway system TI between SR 202L and SR 24; over a mile of new urban freeway; an interim Ellsworth Rd diamond TI; widening SR 202L; and arterial roadway reconstruction. Phase II was for an $80 million project to construct six miles of new four-lane interim freeway with four diamond TIs, and the ultimate Ellsworth Rd TI. Phase I and II included multiple bridges, walls, onsite and offsite drainage, traffic control, lighting, signals, FMS, signing, marking, utility relocations, and new R/W.

NOTABLE ACHIEVEMENT
Mike's work on SR 24 Phase I included the new system TI and preparation for Phase II.

***SR 202L, South Mountain Freeway, Phoenix, AZ; ADOT - Salt River Segment Design Manager.**
7.5-miles of the new South Mountain Freeway from I-10 to 51st Ave for this $1.2 billion project. Scope included eight new traffic interchanges, crossroad improvements and the new dual Salt River Bridges. Work encompassed all aspects of freeway design including roadway, bridges, walls, drainage, signing and marking, lighting, and MOT. This SR 202L segment encompasses all of the ramp connections to SR 30 and requires discussion with Fluor Maintenance as SR 202L is asphalt pavement vs. concrete and will be maintained by Fluor for 25 more years. Gary Melita was the Roadway Lead and Dan Shiosaka was Structural Lead. Chris D'Arcangelis was the Drainage Lead for the entire SR 202L South Mountain Freeway.

***SR 101L and 202L Price Santan System TI, Chandler, AZ; ADOT – Project Manager.**
TI design for four-level directional urban traffic interchange alleviates congestion, reduces commute time, and provides access to the south Valley. Gary Melita was Roadway Lead.

***US 60 Grand Ave/SR 303L System TI, Surprise, AZ; ADOT -QA/QC Manager.**
Performed as QA/QC reviewer for engineering services for final design for replacement of the signalized intersection with a system traffic interchange providing direct connectivity between US 60 (Grand Ave) and SR 303L. Scope of work also included roadway improvements for 2 miles of the SR 303L corridor and ¾- mile of US 60. Improvements serve the transportation needs of the West Valley. Gary Melita was Project Manager and Dan Shiosaka was Structural Lead.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

MIKE'S VALUE TO ADOT

- ADOT commends Mike's SR 24 expertise and technical skills in designing and building urban traffic improvements for ADOT
- Proven Interpersonal skills in leading multi-disciplined teams that are innovative in design and constructability measures, are cost conscious, and value engineering driven that exceed ADOT's expectations for value and quality. Mike was instrumental in developing Section 1 Project Understanding and Approach and the Risks and Schedule discussed in Section 2.
- He will preserve ADOT's investment in the SR 24 corridor by minimizing design and construction risks through his institutional knowledge of ADOT processes and his knowledge of this specific corridor. He will pay it forward from his roles as Project Manager for SR 24 and as Professional Services Quality Manager on I-10 Broadway Curve.
- Biddability and constructability will be a factor in the QA/QC role – Mike, working intuitively with Gary Melita, PM has delivered ADOT PS&E that were within four (4) percent of the contractor's original bid.

MIKE CHASE, PE | Page 2

Project (Contract) Manager | Stanley Consultants
43 Years of Experience | 40 Years with Stanley | A Career in System TIs

***SR 101L, 75th Ave to I-17, Glendale, AZ; ADOT - QA/QC.**
Completion of the DCR and final design for a $150 million project to construct over six miles of GP and auxiliary lanes, I-17 /SR 101L system TI Ramp WN conversion from one lane to two, and improvements to create a triple left-turn from SB 75th Ave to EB SR 101L. The project includes three bridge widenings, numerous retaining and sound walls, lighting, signals, FMS, signing, marking, utility relocations, and two public information meetings presenting 3D video simulations. Gary Melita was PM.

SR 202L (Red Mountain Freeway) Design-Build General Engineering Consultant (GEC), Phoenix, AZ; ADOT – GEC Project Manager.
Project involved widening eight miles of the SR 202L Red Mountain Freeway mainline from SR 51 to SR 101L and widening 22 bridges, including the mile-long Salt River Bridge.

SR 202L (Santan Freeway) Design-Build General Engineering Consultant (GEC), Chandler, AZ; ADOT – GEC Project Manager.
The project consisted of widening 12 miles of Santan Freeway for HOV lanes along SR 202L from I-10 to Gilbert Road and construction of HOV flyovers from I-10 to SR 202L Santan Freeway and SR 101L. Dan Shiosaka was Structural Oversight Lead.

I-19 Ajo Way TI, Tucson, AZ; ADOT - Project Manager.
This multi-phased $84 million award-winning project replaced the old traffic interchange with a new single point urban interchange and widened two miles of I-19 including a mile of widening of Ajo Way. Dan Shiosaka was Structural Lead.

I-17, Jomax Rd to SR 74 (Carefree Highway), Phoenix, AZ; ADOT – Project Manager.
This project involved full reconstruction and widening of I-17 with replacement of Cave Creek Wash bridges, six new bridges including the Phase 1 EN bridges for the new freeway to freeway TI at I-17/SR 303L, new HOV lanes, lighting, utility relocations, ITS and median barrier. Gary Melita was Design Manager; Dan Shiosaka was Structural Lead.

I-17 Flex Lanes, Anthem Way to Sunset Point General Engineering Consultant (GEC), Maricopa/ Yavapai Counties, AZ; ADOT – Design Oversight Team Manager.
The project involves widening of I-17 and addition of flex lanes that will provide additional capacity and ability to change traffic flow directions for incident management on the Black Canyon highway.

HOW WILL YOU MAKE SURE ALL ADOT REQUIREMENTS ARE MET?

ADOT is a progressive agency - they are always looking at smarter ways to engage engineers with the balance of tools and technology. From my experience in alternative delivery, I am aware of the changes from both a design and construction perspective. ADOT moved to OpenRoads; simple things like custom line styles in the CADD drawings to the use of 3-D methodologies and techniques to develop the geometric design are often overlooked. How primes manage their subconsultants has a bearing on scope creep and consequently design fees and contract mods. In my role as a GEC on behalf of ADOT, and doing the plan reviews, it has become apparent that all primes are not the same. My tenure with Stanley is a testament to the quality of our people which in turn speaks to our positive relationship with ADOT.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

Mike Chase, PE . . . In His Own Words

Q **What did you want to be when you grew up?**

A Don't laugh...but I wanted to be a fisherman. I guess I am a fisherman in a lot of ways. Like fishermen, engineers need to be agile, flexible, adaptive to different weather patterns - be it snow, ice, or the desert. Engineers often work long hours wrestling with a challenge and being focused on the solution. I spend a lot of time in the field at project sites - there is no comparison to seeing a project site close-up and personal, learning from the contractor how they look at constructing a project. After all, I am an end user of what I design and what the contractor builds. I want the best and safest geometry possible.

Q **What are you most proud of accomplishing during your career?**

A Being a well recognized engineer with a great reputation for delivering many successful projects to ADOT.

Q **What are some of the lessons learned with ADOT projects that enable you to Pay it Forward?**

A Through my experience working with contractors, I have come to understand that they often attempt to find ways to circumvent the requirements outlined in the plans and specifications. However, I have also learned that these requirements, details, and standards have been developed from historical refinement by our predecessors. They have been designed to enhance quality, durability, and consider constructability. While we should respect and adhere to these established guidelines, there is still room for innovation and the incorporation of new ideas, as long as we continue to move forward.

DAN SHIOSAKA PE, SE
STRUCTURES LEAD

TECHNICAL EXPERTISE

- ☑ System TI Bridges
- ☑ Innovations for ADOT Structure Types
- ☑ Bridges over ADOT Roadways, Railways and Waterways
- ☑ Accelerated Bridge Construction/ Prefabricated Bridge Elements and Systems
- ☑ Value Engineering
- ☑ Specifications and Cost Estimating
- ☑ Construction Sequencing and MOT
- ☑ Post Design Services

EDUCATION
MS, Civil Engineering, California State University, Fullerton
BS, Civil Engineering, California State University, Fullerton

REGISTRATIONS
Structural Engineer: AZ #30564
Civil Engineer: AZ #14083

PROFESSIONAL SOCIETIES
- Precast/Prestressed Concrete Institute
- American Society of Civil Engineers
- Society of American Value Engineers

STANLEY TENURE
32 Years

INDUSTRY TENURE
47 Years

PROJECT AVAILABILITY
90%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Principal Structural Engineer

ON-GOING COMMITMENTS
GEC Team Member for I-17 Flex Lanes – 5%; I-10 Broadway Curve - 5%

BASIS OF SELECTION
Dan was selected based on his work on essentially every Arizona transportation project. Dan's services to ADOT Bridge Group began in 1986 for the I-17/SR 101L North Stack, comprising 16 ramp and gore bridges. ADOT placed their confidence in Dan to develop the structures geometry for this early system TI. Every Stanley Consultants System TI for ADOT contains his enhancements and innovations – often setting First-In-Arizona precedents, such as the ADOT Bulb Tee used on the SR 202L South Mountain Freeway. Working with PM Mike Chase, his institutional knowledge and history of SR 30 will influence each milestone submittal made to ADOT.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***SR 24, SR 202L to Ironwood Drive Phases I & II, Mesa and Queen Creek, AZ; ADOT – Structures Design Manager.**
Full 3-Leg Tee, four-level System TI Phase I. Structures Design Manager. Mainline Phase II.

NOTABLE ACHIEVEMENT
Dan is recognized by ADOT for his expertise and innovation for third level and fourth level flyovers for System TIs in Maricopa County.

***SR 202L, South Mountain Freeway, Phoenix, AZ; ADOT – Structures Design QC Manager.**
Salt River Segment Bridges including preparation for SR 30 Tres Rios Fwy / SR 202L System TI.

***SR 101L Price Fwy / SR 202L Santan Fwy System TI, Phoenix, AZ; ADOT – Structures Design Manager.**
Full 3-Leg Tee System TI Final Design constructed in two (west ½ & east ½ TI).

***US 60 Grand Ave / SR 303L System TI Final Design, Surprise, AZ; ADOT – Structures Design Manager.**
System TI major widening for SR 303L.

***SR 101L, 75th Ave to I-17, Glendale, AZ; ADOT– Structures Design Manager.**
Widening for General Purpose Lane (GPL).

I-17, Happy Valley Rd to SR 74 (Carefree Highway), Phoenix, AZ; ADOT – Structures Design Manager.
I-17 widening including preparation for I-17 / SR 303L System TI.

I-17 Black Canyon Freeway / Indian School Rd (3-Level Platform Diamond) TI, Phoenix, AZ; ADOT – Structures Design Manager.
DCR and Final Design (on hold) Interchange Selection Report (ISR) TI UP bridge and two pedestrian/ bicycle bridges.

DAN'S VALUE TO ADOT

- Dan has served on VE teams for ADOT projects for over 15 years, yielding savings of tens of millions of dollars.
- Led structures for Stanley Consultants teams for the past 30 years on ADOT freeways and was the innovator of solutions for third and fourth level flyovers on system Tis in the Central District.
- ADOT has genuine confidence in Dan's ability to address structures requirements at each unique location.
- Historical knowledge of the ADOT system going back to Prop 300. Dan and Stanley Consultants have ADOT's confidence that the structures are accurate and innovative in design, exceed quality expectations, and are constructable by the contracting community.
- Dan follows through on all projects through post design, including working with the contractor for unforeseen conditions that affect structures work. ADOT confidently relies on Dan and the partnering process to quickly, and efficiently, resolve construction field issues.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

BRIAN BOMBARDIER PE

RISK MANAGER | CORRIDOR HISTORIAN

TECHNICAL EXPERTISE

- ☑ Risk-based Management Approach
- ☑ Effective Public Outreach
- ☑ Critical Path Focus and Schedule Adherence
- ☑ TI and Roadway Compatibility with Future Plans TI phases
- ☑ Track Record of Gaining Consensus
- ☑ Diplomatic Acumen
- ☑ Value Engineering

EDUCATION

MS, Civil Engineering, University of Washington
BS, Civil Engineering, Washington State University

REGISTRATIONS

Civil Engineer: AZ #30002

PROFESSIONAL SOCIETIES

- American Council of Engineering Companies
- American Society of Highway Engineers

HDR TENURE

28 Years

INDUSTRY TENURE

33 Years

PROJECT AVAILABILITY

20%

COMPANY RESPONSIBILITY/ CORPORATE TITLE

Senior Transportation Project Manager

ON-GOING COMMITMENTS

Valley Metro 10WEST- 80%

BASIS OF SELECTION | EXCLUSIVE TO STANLEY

Brian was selected for his role based on his 19-year commitment (since 2005) to seeing SR 30 come to fruition. Brian was the project manager for the SR 30 L/DCR & EA between SR 303L and SR 202L and led the engineering effort on the SR 30/SR 202L TI during that effort. His knowledge of the corridor and the stakeholders is unsurpassed. In this role he will make certain that Mike's design meets ADOT goals, and fulfills ADOT's commitments to the cities and stakeholders.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

ADOT, SR 30: SR 303L to SR 202L L/DCR and EA - Project Manager.
Brian served as the project manager for a L/DCR and EA for over $2 billion of new urban freeway in the southwest Phoenix metropolitan area totaling 14 miles in length. Conceptual design focused on physical, environmental, operational, geometric and political constraints. Study included nine service interchanges and the SR 30/SR 202L system interchange and crossed three cities and the Agua Fria River.

NOTABLE ACHIEVEMENT
Brian's work on SR 30 since 2005 and his corridor knowledge is unsurpassed.

MAG, SR 30: SR 202L to I-17 Corridor Planning Study - Project Manager.
Brian led this 5.5 mile transportation planning study to establish a recommended route for the SR 30 corridor between the SR 202L and I-17, connecting to the east leg of the SR 30/SR 202L system TI to I-17 at the Durango Curve.

ADOT, I-10: SR 202L to SR 387 DCR and EA - Project Manager.
Brian was responsible for the development of the DCR and EA to widen 26 miles of I-10 and improve ten crossroads and interchanges across the Gila River Indian Community. Complex coordination issues were a major part of this study including ADOT, MAG, the Gila River Indian Community, FHWA, and Bureau of Indian Affairs, to name just a few.

MAG, I-10/I-17 Spine Study Corridor Master Plan - Project Manager.
Brian led this complex 32 mile transportation build out planning study for the congested urban freeway backbone of Phoenix on I-10 and I-17. Study included five system TI and more than 20 service TI modifications, and involved complex stakeholder negotiations from multiple agencies to develop a consensus vision for this challenging urban corridor.

ADOT, I-10/SR 101L System Interchange - Design Lead.
Lead engineer for a three-leg system interchange that intersects the new Agua Fria Loop SR 101L Freeway with existing I-10 near 99th Ave. Project included the new system interchange, reconstructing portions of two existing interchanges on I-10, widening I-10 to accommodate auxiliary lanes and median HOV lanes and constructing a new half-diamond interchange at McDowell Rd on SR 101L. Brian also managed the post design effort through construction.

BRIAN'S VALUE TO ADOT

- ADOT recognizes Brian and HDR as industry leaders in the provision of accurate DCRs and studies.
- Proven experience with different funding sources and grants received by ADOT on a project by project basis.
- Served as the engineering lead and PM on SR 30 L/DCR and EA and ADOT's go-to expert for this corridor over the past 15+ years.
- As the author of the detailed Interchange Selection Report (ISR) for this specific interchange, Brian has been through the design alternative discussions.
- He knows which elements are paramount to eliminating rework.
- He brings lessons learned from preparing SR 30 for final design forward to Mike Chase to keep the project real and the stakeholders satisfied with the results.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

GARY MELITA PE

QA/QC LEAD

TECHNICAL EXPERTISE

- ☑ Roadway Geometrics (Urban and Rural Highways, Arterials, Intersections, and TIs)
- ☑ Roadway Modeling (OpenROADS)
- ☑ Cross Sections and Earthwork Calculations
- ☑ Construction Plans and Details
- ☑ Value Engineering
- ☑ Design and Construction Scheduling
- ☑ Construction Sequencing and MOT
- ☑ Post Design Services

EDUCATION

MS, Construction Management, Arizona State University
BS, Civil Engineering, Arizona State University

REGISTRATIONS

Civil Engineer: AZ #30516

PROFESSIONAL SOCIETIES

- American Council of Engineering Companies
- American Society of Highway Engineers

STANLEY TENURE

30 Years

INDUSTRY TENURE

34 Years

PROJECT AVAILABILITY

25%

COMPANY RESPONSIBILITY/ CORPORATE TITLE

Principal Transportation Engineer

ON-GOING COMMITMENTS

SR 24 Phase III - 70%.
SR 101L GPL, 75th Ave to I-17 - 5%.
This project is advertised.

BASIS OF SELECTION

Gary has built his career working with ADOT on urban projects alongside Mike Chase, with focused experience related to design and construction of ADOT urban freeways and system interchanges (TIs), development of safety projects, and roadway improvement and rehabilitation. Gary has worked with all ADOT departments including Roadway Design, TSMO, Drainage, Geotechnical, and Bridge. Gary's role extends to monitoring subconsultant actions for contract compliance.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***SR 24, SR 202L to Ironwood Drive Phases I & II, Mesa and Queen Creek, AZ; ADOT**
Phase I Project Engineer, Phase II Project Manager. An $85 million four-level urban freeway system TI between SR 202L and SR 24; over a mile of new urban freeway; an interim Ellsworth Rd diamond TI; widening SR 202L; and arterial roadway reconstruction. Phase II Project Manager for an $80 million project to construct six miles of new four-lane interim freeway with four diamond TIs, and the ultimate Ellsworth Rd TI. Phase I and II included multiple bridges, walls, onsite and offsite drainage, traffic control, lighting, signals, FMS, signing, marking, utility relocations, and new R/W. Phase II has garnered three awards including 2023 ACEC Engineering Excellence demonstrating the forward thinking, innovative team led by Gary.

NOTABLE ACHIEVEMENT

Gary has successfully worked with Mike Chase and ADOT for more than 30 years.

***SR 202L, South Mountain Freeway, Phoenix, AZ; ADOT - Salt River Segment Roadway Lead.**
Led roadway design for 7.5 miles of urban freeway design with seven service TIs. Salt River Segment design included new SR 202L mainline and ramp construction, crossroad reconstruction, numerous bridges, retaining and sound walls, onsite and offsite drainage facilities, concrete channel, erosion control, traffic signals, FMS, lighting, signing/pavement marking, and traffic control. Salt River Segment was part of four segments of the new 22-mile South Mountain Freeway Design-Build-Maintain project. The project included coordination with multiple disciplines, ADOT, City of Phoenix, and numerous utilities. This segment also connected to the future SR 30.

***US 60 Grand Ave / SR 303L System TI Final Design, Surprise, AZ; ADOT - Project Manager.**
A new $50 million system-to-system TI and two miles of urban freeway. Included widening a four span SR 303L structure over US 60 and the BNSF Railroad, retaining and sound walls, onsite and offsite drainage, traffic control, lighting, signals, FMS, signing, marking, utility relocations, and new R/W.

***SR 101L, 75th Ave to I-17, Glendale, AZ; ADOT - Project Manager.**
Completion of the DCR and final design for a $150 million project to construct over six miles of GP and auxiliary lanes, I-17 /SR 101L system TI Ramp WN conversion from one lane to two, and improvements to create a triple left-turn from SB 75th Ave to EB SR 101L. The project includes three bridge widenings, numerous retaining and sound walls, lighting, signals, FMS, signing, marking, utility relocations, and two public information meetings presenting 3D video simulations.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

GARY'S VALUE TO ADOT

- ADOT recognizes Gary for working collaboratively with ADOT Project Managers, responding quickly to project needs, paying close attention to details, developing sound design solutions, timely resolution of project challenges, and knowing all aspects of urban freeway final design. These are great technical traits in the role of QA/QC.
- Gary's design and management work on the I-10, SR 101, SR 202L, SR 303L, and SR 24, corridors and his 30-year career successfully delivering ADOT urban freeway projects is unmatched and will serve him well in the QA/QC role.
- He has served as Design Manager and/or Project Manager for several ADOT firsts, including design of the first diverging diamond interchange (DDI) at I-10 Houghton Rd.
- Biddability and constructability will be a factor in the QA/QC role – Gary Melita and Mike Chase have delivered ADOT PS&E that were within 4% percent of the contractor's original bid.

MATT DASEN PE
SYSTEM TI SEGMENT LEAD

TECHNICAL EXPERTISE

- ☑ Roadway Geometrics (Urban and Rural Highways, Arterials, Intersections, and TIs)
- ☑ Roadway Modeling (OpenROADS)
- ☑ Cross Sections and Earthwork Calculations
- ☑ Construction Plans and Details
- ☑ Value Engineering
- ☑ Design and Construction Scheduling
- ☑ Construction Sequencing and MOT
- ☑ Post Design Services

EDUCATION
BS, Civil Engineering, Arizona State University

REGISTRATIONS
Civil Engineer: AZ #52802

PROFESSIONAL SOCIETIES
- American Society of Civil Engineers
- American Society of Highway Engineers

STANLEY TENURE
10 Years

INDUSTRY TENURE
17 Years

PROJECT AVAILABILITY
85%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Senior Transportation Engineer

ON-GOING COMMITMENTS
ADOT Project Development On-Call (PDOC) Tasks - 15%

BASIS OF SELECTION
Matt has excelled working with Mike, Dan and Gary in the design of large, complex transportation projects, including system TIs. His work includes preliminary (conceptual) design and final design consisting of planning and preparing drawings, calculating quantities, cost estimates and earthwork. Matt also works with Marta and BriAnne to infuse safety into the project's design and incorporate MOT into his design development.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***US 60 Grand Ave / SR 303L System TI Final Design, Surprise, AZ; ADOT - Design Engineer.**
A new $50 million system-to-system TI and two miles of urban freeway. Included widening a four span SR 303L structure over US 60 and the BNSF Railroad, retaining and sound walls, onsite and offsite drainage, traffic control, lighting, signals, FMS, signing, marking, utility relocations, and new R/W. Matt was responsible for all construction phasing and detour design.

***SR 202L, South Mountain Freeway, Phoenix, AZ; ADOT - Salt River Segment Roadway Design Engineer.**
Was a member of the Stanley team for design of 7.5 miles of urban freeway design with seven service TIs. Salt River Segment design included new SR 202L mainline and ramp construction, crossroad reconstruction, numerous bridges, retaining and sound walls, onsite and offsite drainage facilities, concrete channel, erosion control, traffic signals, FMS, lighting, signing/pavement marking, and traffic control. The Salt River segment also connected to the future SR 30 where Matt produced preliminary design of SR 30's future system TI.

NOTABLE ACHIEVEMENT
Matt worked with Mike and Brian in the design for the compatibility exercise for the SR 30 system TI on behalf of C202P.

I-17 Flex Lanes, Anthem Way to Sunset Point, General Engineering Consultant (GEC), Maricopa/Yavapai Counties, AZ; ADOT – Plans Reviewer.
The project involves widening of I-17 and addition of flex lanes that will provide additional capacity and ability to change traffic flow directions for incident management on the Black Canyon highway. Matt is assisting the GEC team with technical review of contractor submittals. Matt also was responsible for the conceptual design of I-17 Black Canyon City to SR 69 for the Stanley-led DCR.

Project Development On-Call, ADOT – Design Engineer.
Matt serves as Project Engineer on task orders awarded to Stanley focused on transportation safety, bridges and retaining walls, and ADA compliance.

MATT'S VALUE TO ADOT

- Matt's experience with ADOT interchanges and roadways tells him that construction of complex interchanges often requires design choices for which there are few, if any, formal written guidelines. He will work with Mike and ADOT during design development to implement the best solution that fits the scenario and footprint established for SR 30.
- He is well versed with Mike and Gary on system TIs that focus on ramp spacing, guide signing, route continuity, and lane balance. These challenges can affect the project's design, traffic flow, safety, and cost.
- Matt develops designs that incorporate complex accesses to local roads and streets. In working with BriAnne and Marta, Matt designs arterial and urban freeways that assure cohesion between ADOT and city of Phoenix standards.
- Working with BriAnne he always designs with MOT in mind to make certain design coincides with MOT plans and constructability.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

CHRIS D'ARCANGELIS PE
DRAINAGE LEAD

TECHNICAL EXPERTISE

- ☑ Urban and System TI Freeway Drainage, Studies, Reports, and Design
- ☑ Storm Drain Studies and Design
- ☑ Bridge/Culvert Hydraulics and Design and Scour Evaluation
- ☑ Retention/Detention Basin Sizing and Design
- ☑ ADOT and Agency Approvals and Processes
- ☑ HECRAS, FLO-2D, StormCAD, HEC-1, HEC-2, HY8, Culvertmaster, Flowmaster

EDUCATION
BS, Civil Engineering, University of Texas-Arlington
Associate of Applied Science, Survey / Mapping, State University of New York-Alfred

REGISTRATIONS
Civil Engineer: AZ #26313

PROFESSIONAL SOCIETIES
- American Public Works Association
- Arizona Floodplain Management Association

STANLEY TENURE
23 Years

INDUSTRY TENURE
38 Years

PROJECT AVAILABILITY
70%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Senior Water Resources Engineer

ON-GOING COMMITMENTS
GEC Team Member for I-17 Flex Lanes – <5%
SR 24 Phase III - 25%

BASIS OF SELECTION
Chris was selected based on nearly 25 years of working with Mike Chase on system TIs, new roadways and existing roadway widenings. He is a trusted drainage engineer for recognizing and addressing the drainage challenges of a new system TI - locating basins and excavation vs. new roadway systems - culverts and drainage channels. Chris has expertise in both. His software proficiency includes HECRAS, FLO-2D, StormCAD, HEC-1, HEC-2, HY8, CulvertMaster and FlowMaster.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***SR 24, SR 202L to Ironwood Drive Phases I & II, Mesa and Queen Creek, AZ; ADOT - Lead Drainage Engineer.**
The project included providing a corridor for the future SR 24 and improving transportation between the cities of Mesa and Apache Junction as well as the towns of Gilbert and Queen Creek. He was responsible for drainage design associated with the system TI and five miles of urban freeway and lead coordination efforts for compatibility of projects improvements with the FCDMC Powerline Floodway channel.

NOTABLE ACHIEVEMENT
In directing the drainage design on over 30 ADOT projects and from first-hand experience on SR 24, Chris knows the challenges associated with a new system TI connecting to a new roadway.

***SR 202L, South Mountain Freeway, Phoenix, AZ; ADOT - Project Drainage Lead.**
This project involved the construction of 21.5 miles of new six-lane urban freeway with an HOV lane in each direction (a total of eight lanes) with frontage roads, two system interchanges, 20 service interchanges, five multi-use crossings, and three grade separations. Extensive onsite and offsite drainage systems and facilities (storm drains, channels, basins} including the river hydraulics and bank protection/ spur dike design for the Salt River bridges was the focus of his scope. Maintenance considerations for the corridor-wide new drainage system were very important as the Developer is responsible for maintaining the drainage system for 30 years in accordance with ADOT standards. The Salt River segment, designed by Stanley, connects to the future SR 30.

***SR 101L, 75th Ave to I-17, Glendale, AZ; ADOT - Lead Drainage Engineer.**
Completion of the DCR and final design for a $150 million project to construct over six miles of GP and auxiliary lanes, I-17 /SR 101L system TI Ramp WN conversion from one lane to two, and improvements to create a triple left-turn from SB 75th Ave to EB SR 101L. The project includes three bridge widenings, numerous retaining and sound walls, lighting, signals, FMS, signing, marking, utility relocations, and two public information meetings presenting 3D video simulations.

I-17 Indian School Rd TI, Phoenix; ADOT – Lead Drainage Engineer.
Alternatives to improve the safety and operational characteristics and maintain reasonable access around the I-17/ Indian School Rd TI. Phase 1 tasks involved traffic analyses, other engineering aspects, environmental documentation, utility coordination, right-of-way impacts, and public involvement.

CHRIS' VALUE TO ADOT

- Chris has led the drainage aspects for the Stanley team for making improvements to system TIs in Maricopa County including both Phases of SR 24.
- He is recognized for handling Arizona's unique topography, soil conditions, washes and rivers that traverse through and around ADOT's freeway system.
- Led drainage design on over 30 ADOT projects – Chris knows ADOT processes including the drainage report submittal at 30% and 60% milestones, and the importance of his role on a multi-disciplined team.
- Chris was responsible for the drainage design that accounts for drainage of the SR 24 system interchange and led final drainage design for the stretch from Ellsworth to Ironwood. Based on his experience, Chris is intimately familiar with ADOT and FCDMC requirements for the drainage considerations in this SR 30 corridor.
- Chris' software proficiency is commendable and leads to accurate drainage reports and design. Chris is confident in his decisions for the onsite and offsite drainage.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

MARTA GERBER PE, RSP[1]

TRAFFIC LEAD

TECHNICAL EXPERTISE

- ☑ Traffic Engineering for Urban Freeways
- ☑ Work Zone Safety and Smart MOT Plans
- ☑ Signal Timing and Coordination
- ☑ Intersection Geometry
- ☑ Capacity Improvements and Access Control
- ☑ Signing and Marking
- ☑ Lighting
- ☑ Post Design Services

EDUCATION
BS, Civil Engineering, Arizona State University

REGISTRATIONS
Civil Engineer: AZ #41369

PROFESSIONAL SOCIETIES
- Institute of Transportation Engineers – ITE
- Women's Transportation Seminar –WTS
- Intelligent Transportation Society of Arizona
- American Council of Engineering Companies (Arizona Section)
- Arizona Society of Highway Engineers – ASHE

STANLEY TENURE
7 Years

INDUSTRY TENURE
26 Years

PROJECT AVAILABILITY
70%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Traffic Engineering and ITS Group Manager

ON-GOING COMMITMENTS
MAG Transportation Safety On-Call - 30%

BASIS OF SELECTION
Marta specializes in ADOT traffic engineering with particular emphasis in preparing traffic studies and engineering design plans. Her career experience is invaluable - for example when constructed SR 30's SB frontage roads will be heavily used. Our design will accommodate this usage. Her responsibilities include analysis and design of traffic elements for large urban freeways, including efficient MOT plans, addressing Work Zone Safety, capacity improvements and access control. On a micro level Marta's expertise includes; signal timing and coordination; intersection geometric improvements analysis and design, traffic signal design for new, modified, and temporary traffic signals, interconnect, lighting and signing and marking design.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***SR 24, SR 202L to Ironwood Drive Phases I & II, Mesa and Queen Creek, AZ; ADOT - Lead Traffic Engineer.**
Marta was responsible for final design for all signing and marking, MOT, lighting design and four new signalized TIs and Ellsworth Rd existing signal modifications. The project included six miles of four-lane interim extension of SR 24 Gateway from SR 202L Santan Freeway 4-Level System TI to Ironwood Dr. and the full urban diamond TI at Ellsworth Rd.

NOTABLE ACHIEVEMENT
Marta is intuitive when working with Mike and Dan, and knowing the best practices for traffic engineering and lighting.

***SR 101L, 75th Ave to I-17, Glendale, AZ; ADOT - Lead Traffic Engineer.**
Marta was responsible for all traffic engineering including signing, pavement marking, lighting, MOT and signal design. The project included adding general purpose lanes to six miles of existing urban freeway between 75th Ave and I-17 and improvements to the 75th Ave TI to create a triple left-turn on SB 75th Ave to EB SR 101L.

SR 303L Glendale Ave to Peoria Rd, Glendale/Surprise/MCDOT, AZ; ADOT – Traffic Engineer.
Marta was responsible for plans, specifications and estimates for the existing traffic signal removals, temporary span wire traffic signal designs, and the design of the traffic signals for the SR 303L traffic interchanges with Northern Ave and Peoria Ave including special provisions for traffic signal related items along with appropriate cost estimates. Responsibilities also included the development of pre-emption timing for the temporary signal at the intersection of Olive Ave and SR 303L detour and the BNSF railroad.

I-10, SR 587 to Dirk Lay Rd, AZ; ADOT – Lead Traffic Engineer.
Marta is responsible for overseeing final design for all signing and marking, MOT, lighting design and Weigh In Motion (WIM) detector replacement coordination. The project includes bridge widening, construction of a new bridge and installation of a new traffic interchange and inside widening for the eight-mile capacity improvements.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

MARTA'S VALUE TO ADOT
- Marta is recognized for sharing ADOT and TSMO goals to improve system efficiency, enhance public safety and security, reduce traffic delays of road users, and improve access to information for travelers.
- As an engineer who has spent her career studying and designing for safe Arizona highways and freeways, Marta has the experience to anticipate how traffic engineering is interrelated with the project disciplines.
- She is proficient in overseeing MOT which balances safer and efficient movement of the public, with constructability and protected Work Zones.
- Marta is an advocate for the FHWA's newest initiatives for Safe System Approach and NEVI. The SafeSystem Approach improves safety for road users, vehicles, speeds, roads, and post-crash care. The NEVI program will install electric charging stations along the ADOT interstates, I-10 included but does not affect SR 30 at this time.

BRIANNE TURPIN PE, PTOE
MAINTENANCE OF TRAFFIC (MOT) LEAD

TECHNICAL EXPERTISE

- ☑ Work Zone Safety, Smart MOT Plans and Construction Sequencing
- ☑ Traffic Signal Design
- ☑ Lighting
- ☑ Signing and Marking
- ☑ Capacity Improvements and Access Control
- ☑ Intersection Geometry
- ☑ Design and Construction Scheduling
- ☑ Post Design Services

EDUCATION
BS, Civil Engineering, Northern Arizona University

REGISTRATIONS
Civil Engineer: AZ #51481
Professional Traffic Operations Engineer: #5361

PROFESSIONAL SOCIETIES
- Women in Transportation Society
- Institute of Transportation Engineers

STANLEY TENURE
7 Years

INDUSTRY TENURE
18 Years

PROJECT AVAILABILITY
70%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Senior Traffic Engineer

ON-GOING COMMITMENTS
Arizona Ave/Warner Rd Intersection Improvements - 15%
MAG Transportation Safety On-Call - 15%

BASIS OF SELECTION
BriAnne's relevant experience with Mike, Dan, Gary, and Stanley in her role of MOT lead is a testament to knowing the initial planning begins during the scoping phase - addressing the work zone impacts as early as possible allows the project team to adjust construction strategies and update the MOT throughout the project's development. MOTs that recognize that a work zone does not exist in a vacuum and it must be coordinated with other activities occurring in the area, including other work zones is a strength of BriAnne's. The MOT for widening SR 202L South Mountain Freeway is challenging due to the atypical pavement structural section - asphalt vs, concrete. This will be addressed early in the design process.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***SR 24, SR 202L to Ironwood Drive Phases I & II, Mesa and Queen Creek, AZ; ADOT - Senior Traffic Engineer.**
BriAnne was responsible for construction phasing and MOT plans as well as freeway, ramp, crossroad and underdeck lighting plans for the construction of SR 24 from its current terminus at Ellsworth Rd to Ironwood Drive. MOT along Ellsworth Rd was a key concern for both ADOT and the City of Mesa while building the SR 24 overpass bridges. BriAnne was responsible for the development of Ellsworth and Ironwood Drive's traffic control plans which included crossovers to shift traffic to one side of the road and allow for work to be completed on the opposite side.

NOTABLE ACHIEVEMENT
Notable about BriAnne is her understanding that SR 24 will improve safety for all modes of transportation, not just during construction. Also, she and ADOT worked together to develop the ADOT LED specifications which are relevant to SR 24 and SR 30.

***SR 101L, 75th Ave to I-17, Glendale, AZ; ADOT - Senior Traffic Engineer.**
BriAnne was responsible for all lighting elements including upgrading existing median lights to LED; underdeck lighting upgrades; and ramp lighting improvements. New underdeck lighting was designed for existing overpass structures that did not include lighting infrastructure. Full scope was completion of the DCR and final design for a $150 million project to construct over six miles of general purpose and auxiliary lanes, I-17 /SR 101L system TI Ramp WN conversion from one lane to two, and improvements to create a triple left-turn from SB 75th Ave to EB SR 101L.

I-10 Houghton Rd TI; Tucson, AZ; ADOT - Senior Traffic Engineer.
BriAnne was responsible for traffic engineering final design elements for the Houghton Rd TI OP bridge project, the first DDI in the Southcentral District. She developed the traffic control and pavement marking plans, special provisions, and cost estimates. Temporary signal plans accommodated the shift of Houghton Rd traffic for construction activities. BriAnne was responsible for photometric calculations for the ramp/gore, underdeck and crossroad to make sure the all light levels meet the design criteria set forth in RP-8-18.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

BRIANNE'S VALUE TO ADOT
- BriAnne has designed signing and pavement marking and MOT and traffic control plans for projects of all sizes, from one-mile urban corridors to more than 15 miles of freeway reconstruction, including SR 24 / SR 202L.
- She considers drainage in all MOT plans - often a discipline that is overlooked when barriers, signage, lighting and temporary traffic signals are being planned.
- She is proficient in leading successful MOT which balances safer and efficient movement of the driving public, with constructability and protected work zones.
- She is aware of the differences in day and night construction work and the sun glare that is prevalent in the West Valley. These are considerations that will be addressed in developing the MOT plans.
- She capitalizes on collaborating with Mike Chase, our proposed PM, for constructability of the TI and SR 30 and factoring it in to the MOT plans.

DON TAPPENDORF PE

ITS/FMS LEAD

TECHNICAL EXPERTISE

- ☑ Wireless, Electronic and Automated Technologies
- ☑ FMS and ITS
- ☑ DMS Programming
- ☑ Wrong-Way Driver Detection
- ☑ Value Engineering
- ☑ Design and Construction Scheduling
- ☑ Construction Sequencing and MOT
- ☑ Post Design Services

EDUCATION
MS, Civil Engineering, University of Illinois-Urbana-Champaign
BS, Civil Engineering, Arizona State University

REGISTRATIONS
Civil Engineer: AZ #22213

PROFESSIONAL SOCIETIES
- ITS Arizona Member
- Institute of Transportation Engineers – Mountain District

STANLEY TENURE
7 Years

INDUSTRY TENURE
39 Years

PROJECT AVAILABILITY
100%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Principal Transportation Engineer

ON-GOING COMMITMENTS
GEC (ITS) Team Member for I-17 Flex Lanes - <5%
POE Truck Screening Kingman - 15%
Pump Station Fiber Connectivity - 15%
I-10 Dirk Lay Rd - 5%

BASIS OF SELECTION
Don has ADOT's confidence, as well as the Stanley team's to lead all ITS design efforts with exceptional technical proficiency. His expertise in ITS and FMS has been tapped for determining the best way to install the flex lanes on I-17 as a member of HDR's GEC team and for the I-10 Broadway Curve where he led the ITS/FMS for the entire corridor.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***SR 24, SR 202L to Ironwood Drive Phases I & II, Mesa and Queen Creek, AZ; ADOT - Senior Engineer/ITS Lead.**
Don was responsible for designing new CCTV, conduit and fiber, and local agency interconnect fiber along this new freeway. Construction includes four new crossroad service TIs, two new overpass bridges, retaining walls, onsite and offsite drainage facilities, lighting, traffic signals, FMS, signing/pavement marking, erosion control, utility relocations and MOT.

NOTABLE ACHIEVEMENT
Don coordinated the CCTV camera locations with ADOT Traffic Operation Center (TOC) for full visual coverage for the SR 202L/SR 24 system TI and SR 24 to Ironwood Drive.

***SR 101L, 75th Ave to I-17, Glendale, AZ; ADOT- Senior Engineer/ITS Project Manager.**
Don was responsible as the corridor lead for the development of all ITS design. New or relocated field elements included 4 DMS, 9 CCTV, new or relocated ramp meters at all entrance ramps, seven miles of fiber optic cable and wrong-way driver detection sensors at every interchange.

I-17 Wrong-Way Driving Detection Pilot Project; Phoenix AZ; ADOT - Senior Engineer/ITS Lead.
Don led this first of its kind deployment in the nation that installed wrong way detection sensors on the freeway mainline as well as at every system interchange, illuminated Wrong-Way signs with flashing LED's, conduit, fiber, control cabinets, and associated electrical components.

I-10, SR 587 to Dirk Lay Rd, AZ; ADOT - Senior Engineer/ITS Lead.
Don is responsible for developing the design of two 7-way microduct conduits for ADOT and Gila River Telecommunications, Inc. (GRTI). The project links to the Gila River Bridge widening project on the north end of the limits, and to another segment design at Dirk Lay Rd. The project includes 15 miles of 7-way microduct (joint plowed), connection to 3 DMS signs, 4 CCTV, and mainline and wrong way vehicle detection systems at Casa Blanca Rd and Seed Farm Rd.

I-10 Broadway Curve Design-Build, Phoenix, AZ - ITS Design Lead.
Don was responsible for designing all new ITS/FMS devices within this corridor, while maintaining operation of existing equipment during construction. Notable aspects include 3D CCTV modeling to confirm 100% visibility of the corridor and new wrong way detection for every exit ramp.

DON'S VALUE TO ADOT
- Don has participated in ADOT pilot programs related to ITS in guiding solutions to the Freeway Management System for 30 years.
- Don's career focuses on using fiber optics that transmit data, voice, and video signals. As Arizona becomes increasingly digitized, Don understands fiber optic connectivity is critical for transportation delivery such as traffic safety and emerging technology for connected and automated vehicles.
- He has been a staunch supporter of the Wrong-Way Driver initiative. He will contribute his expertise in Wrong-Way Driver detection, employing experience from the I-17 WWD Pilot Project and four additional projects where he designed wrong-way driver detection.
- He has demonstrated and proven ADOT FMS experience on SR 202L; I-10; I-17; and SR 101L, all projects within the Central District.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

NICK LAFRONZ PE
GEOTECHNICAL LEAD

TECHNICAL EXPERTISE

- ☑ Rock and Soil Sames to Determine Ground Stability
- ☑ Review Design Plans to make sure they Match the Physical Environment
- ☑ Structures Recommendation for Foundations and Construction
- ☑ Water Tables and Floodplains
- ☑ Pavement Determination
- ☑ Testing for Future Erosion or Ground Settlement

EDUCATION
MS Civil Engineering (Soil Mechanics), Arizona State University
BS, Civil Engineering, Arizona State University

REGISTRATIONS
Civil Engineer: AZ #22198

PROFESSIONAL SOCIETIES
- American Society of Civil Engineers

HDR TENURE
19 Years

INDUSTRY TENURE
40 Years

PROJECT AVAILABILITY
60%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Senior Geotechnical Engineer

ON-GOING COMMITMENTS
ADOT I-10 GRIC GEC – 20%
Navajo County TO # 1 – 10%
Misc Projects – 10%

BASIS OF SELECTION | EXCLUSIVE TO STANLEY
ADOT and the project team stand to benefit greatly from Nick's 40 years of experience designing, coordinating, and implementing geotechnical investigation, analysis and design for transportation projects. Nick's experience includes as ADOT's GEC Geotechnical Lead includes SR 202L South Mountain Freeway and I-17 Flex Lanes, both projects that involve Stanley and Mike Chase.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***SR 202L South Mountain Freeway Design-Build-Maintain P3 Project, General Engineering Consultant, Phoenix, AZ; ADOT - Lead Geotechnical Engineer.**
Lead Geotechnical Engineer for ADOT's GEC for oversight and review of the Developer's geotechnical, structural, roadway and drainage design submittals and construction/shop drawings including for twin bridge crossings of the Salt River, MSE abutment and wing walls, soil-nail and conventional retaining walls, roadways and drainage structures for 22 miles of new urban freeway. About 400 geotechnical & interdisciplinary submittals were reviewed, including 80 drilled shaft inspection reports, 24 MSE wall shop drawings, 31 geotechnical reports & addenda, and 47 bridge design packages.

NOTABLE ACHIEVEMENT
Nick worked closely with Mike and Dan in reviewing C202P plans for the dual Salt River Bridges for future impacts to scour and erosion from piers in the Salt River.

I-17 Flex Lanes, Anthem Way TI to Jct. SR 69 (Cordes Jct.) Design-Build-Maintain Project, General Engineering Consultant, Phoenix, AZ; ADOT - Lead Geotechnical Engineer.
Responsible as a member of ADOT's GEC for preparation of the RFP and technical provisions for procurement, preliminary geophysical investigation of known and suspected landslides, and oversight and review of the Developer's geotechnical investigation and design and pavement design submittals, and co-review of roadway, structures, drainage and environmental design submittals, construction/shop drawing submittals including specialty retaining walls, and results of integrity testing of constructed drilled shafts.

Preliminary Geotechnical Investigation & Drilled Shaft Load Tests, SR 202L South Mountain Freeway, Phoenix, AZ; ADOT - Project Geotechnical Engineer/Lead QC Reviewer.
Preliminary investigation of rock cuts and bridges along SR 202L, including the Salt River, I-10 Papago TI flyover ramp bridges, three single-span frontage road bridges over the UPRR and a drainage siphon beneath the railroad right-of-way, and full-height MSE abutment walls and wingwalls. Full-scale Osterberg-method drilled shaft load tests were performed at the Salt River and I-10 Papago TI and data provided to competing P3 teams. Salt River bridge load test results justified use of design shaft side resistance 50% greater than the maximum nominal resistance permitted by the LRFD code.

NICK'S VALUE TO ADOT
- Nick has played a valuable role as a respected member of the GEC team for the SR 202L South Mountain Freeway and I-17 Flex Lanes projects, both projects where Stanley and Mike Chase play(ed) significant roles. His expertise and contributions have greatly enhanced overall project delivery as well as efficient review and acceptance of these important transportation initiatives.
- Nick's experience as ADOT's GEC Geotechnical Lead further adds to his value because of his familiarity with the specific requirements and complexities associated with SR 30. This knowledge will undoubtedly contribute to the successful final design of SR 30.
- His knowledge of the physical properties such as embankments, and outfall channels will be of benefit in providing the HDR-led individual Section 404 & 408 permits for environmental impacts to the 97th Ave outfall channel along the western border of the Tres Rios facilities.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

BRIAN RILEY PE
NORTH SEGMENT LEAD

TECHNICAL EXPERTISE

- ☑ Roadway Geometrics (Urban and Rural Highways, Arterials, Intersections, and TIs)
- ☑ Roadway Modeling (OpenROADS)
- ☑ Cross Sections and Earthwork Calculations
- ☑ Construction Plans and Details
- ☑ Value Engineering
- ☑ Quantity Take-offs and Calculations
- ☑ Construction Sequencing and MOT
- ☑ Post Design Services

EDUCATION
BS, Civil Engineering, Arizona State University

REGISTRATIONS
Civil Engineer: AZ #45657

PROFESSIONAL SOCIETIES
- American Council of Engineering Companies
- American Society of Highway Engineers

POINT TENURE
2 Years

INDUSTRY TENURE
23 Years

PROJECT AVAILABILITY
65%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Principal Transportation Engineer and Vice President

ON-GOING COMMITMENTS
I-10, North of Nelson Rd to Dirk Lay Rd - 25%
SR 24 Phase III - 10%

BASIS OF SELECTION | EXCLUSIVE TO STANLEY
He intuitively works well with Mike Chase, Dan Shiosaka and Gary Melita. He was instrumental in the success on the SR 202L at South Mountain Freeway and also at SR 24/SR 202L Brian was the project engineer who designed the roadway on the SR 24 Phase II project and can be counted on to again deliver accurate PS&E on the North Segment for SR 30.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

***SR 202L South Mountain Freeway P3, Salt River Segment | Connect 202 Partners, Phoenix, AZ; ADOT - Project Engineer.**
Design of the Salt River Segment. Responsibilities included design of mainline and ramps for the Salt River/South Papago Segments, which included 7.5 miles of new mainline freeway with eight traffic interchanges. Work encompassed all aspects of freeway design and coordination of roadway, bridges, retaining walls, noise walls, drainage, signing and marking, lighting, and MOT. The project design was completed on fast track with multiple interdisciplinary and constructability reviews and a rigorous design quality control process and extensive documentation of quality control activities.

NOTABLE ACHIEVEMENT
Brian worked with Mike and Matt on the C202P concept of lowering SR 202L profile over the Salt River did not adversely affect the future system interchange. ADOT accepted the concept.

***SR 24, SR 202L to Ironwood Drive Phases I & II, Mesa and Queen Creek, AZ; ADOT - Project Engineer.**
Responsible for designing the system interchange with SR 202L (Phase 1), 1-mile of new urban freeway, and one new partial service interchange (TI) at Ellsworth Rd. The project included mainline and system and service interchange design, earthwork modeling, and design refinement to reduce overall cost. The design effort included: one new crossroad service TI, four system ramp bridges, crossroad overpass bridges at Ray Rd, retaining walls, onsite and offsite drainage facilities, lighting, traffic signals, FMS, signing/pavement marking, erosion control, utility relocations, and maintenance of traffic. As part of the MOT in Phase 1, Brian designed a mainline cross-over detour to allow both fly-over structures' hinges to be built in the same phase while maintaining two lanes of SR 202L traffic in each direction. The project also required close coordination with the City of Mesa, adjacent developers, Mesa-Gateway Airport, and the Maricopa County Flood Control District.

I-10, North of Nelson Rd to Dirk Lay Rd; ADOT | Gila River Indian Community, AZ - Project Manager.
Final design of approximately 8 miles of widening Interstate 10 through the Gila River Indian Community. This project consists of widening I-10 to add one general purpose lane in each direction, concrete barrier between directions, a new service interchange at Seed Farm Rd, crossroad improvements at Nelson Rd, and Gas Line Rd, bridge widening at Nelson Rd, bridge replacements at Gas Line and Seed Farm Rds, culvert replacements, upgraded lighting, ITS infrastructure, and utility relocations.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

BRIAN'S VALUE TO ADOT
- ADOT recognizes Brian in the capacity of project manager through field inspector on multiple ADOT roadway projects. Brian goes to the field to view the project site and review the traffic patterns as part of design development.
- Brian's involvement in all three phases of SR 24, which includes a new roadway and a complex interchange with multiple lanes and high traffic volumes, showcases his ability to understand the larger context of a project while effectively working on a specific segment.
- By considering the big picture, Brian can recommendations that not only address the immediate segment he is working on but also contribute to the overall success and functionality of the entire roadway and interchange system. This perspective helps ADOT and the project team optimize traffic flow, enhance safety, and improve the overall transportation experience for motorists, bicyclists and pedestrians.

CRAIG BORGER PE

NORTH SEGMENT BRIDGE LEAD

TECHNICAL EXPERTISE

- ☑ Prepare and Review Design Computations, Plan Designs, and Drawings using LRFD
- ☑ Bridges Over Canals and Waterways
- ☑ Prepare ADOT Bridge Selection Reports
- ☑ Bridge Inspection for Structural Integrity
- ☑ Construction Plans and Details
- ☑ Fabrication and Post Design Services

EDUCATION

MS, Civil Engineering, University of Illinois at Urbana-Champaign
BS, Civil Engineering, University of Illinois at Urbana-Champaign

REGISTRATIONS

Civil Engineer: AZ #32830

PROFESSIONAL SOCIETIES

- American Society of Civil Engineers - Past President Bridge Technical Committee
- American Society of Highway Engineers

TRAINING

- National Highway Institute - LRFD for Highway Bridge Structures

POINT TENURE

17 Years

INDUSTRY TENURE

27 Years

PROJECT AVAILABILITY

70%

COMPANY RESPONSIBILITY/ CORPORATE TITLE

Vice President

ON-GOING COMMITMENTS

I-10, North of Nelson Rd to Dirk Lay Rd -15%
ADOT PDOC - 15%

BASIS OF SELECTION | EXCLUSIVE TO STANLEY

Craig is recognized as an ADOT bridge design expert and has completed over 25 preliminary and final designs on bridges in the MAG region alone including the recent Jomax Parkway and Beardsley Canal bridges on SR 303L. Craig has been a subconsultant to Stanley on previous ADOT projects, and he is currently leading the design work for POINT as the prime on the I-10 Dirk Lay project where Stanley is a major subconsultant. Craig is looking forward to continuing that successful relationship to help Stanley deliver the SR 30 project.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

ADOT – I-10 North of Nelson Rd to Dirk Lay Rd
Bridge design lead for the final design of the I-10 widening from MP 173.75 to 181.5. The project includes adding a third lane in each direction of I-10, bridge widening of the Nelson Rd UP, bridge replacement at Gas Line Rd, bridge replacement and a new TI at Seed Farm Rd and bridge removal at Dirk Lay Rd.

ADOT – MAG Regional Freeway System, Phoenix
Bridge designer and bridge design team leader for the preliminary and final design of over 25 freeway bridges in the Phoenix metro area including overpasses, underpasses, fly-over ramps, canal crossings and river crossings. Recent projects included the SR 303L, Happy Valley Rd to Lake Pleasant Parkway which included a bridge over the MWD Beardsley Canal and SR 101L Princess to Shea for which POINT designed the bridge widening over the CAP canal.

NOTABLE ACHIEVEMENT
ADOT selected Craig to do preliminary and final design for more than 25 freeway bridges in the Central District.

City of Peoria – Bridge Maintenance & Management
Project manager/lead bridge engineer providing program management and design services for the City's inventory of over 100 bridge structures. This on-going term contract involves evaluating bridge inspections, implementation of maintenance and repair needs, design of safety and structural improvements, and aesthetic treatment upgrades.

ADOT/City of Phoenix – I-17 Design-Build, Thomas Rd to Peoria Ave; Phoenix, AZ
Lead designer and inspector of modified urban service TI underpasses at Camelback Rd and Glendale Ave, which were part of the $80 million design-build improvements to I-17 from Thomas Rd to Peoria Ave. Each structure is a two-span urban TI with the characteristic hourglass shape. The structures were stage constructed over traffic. The bridges included custom aluminum and stone art enhancements custom designed by the artist.

CRAIG'S VALUE TO ADOT

- Craig is a go-to engineer for ADOT freeway bridges. His role on I-10 North of Nelson Rd to Dirk Lay is an example of his work in leading the bridge design as part of a multi-disciplined team.
- He he works intuitively with Brian Riley, who is the North Segment Roadway Lead which is a plus to ADOT in design development. Design development includes details on elevation, geometry (span lengths, deck widths) and vertical clearances for example.
- Craig is adept at using digital renderings to create virtual models to assist in visualizing SR 30. This helps the team picture the visual impacts and is extremely useful for ADOT and the public involvement process.

RAVI SRIPADA PE
SOUTH SEGMENT LEAD

TECHNICAL EXPERTISE

- ☑ Roadway Geometrics (Urban and Rural Highways, Arterials, Intersections, and TIs)
- ☑ Cross Sections and Earthwork Calculations
- ☑ Construction Plans and Details
- ☑ Value Engineering
- ☑ Design and Construction Scheduling
- ☑ Construction Sequencing and MOT
- ☑ Post Design Services

EDUCATION
MS, Civil Engineering, University of New Mexico
BS, Civil Engineering, Osmania University

REGISTRATIONS
Civil Engineer: AZ #52416

PROFESSIONAL SOCIETIES
- American Society of Civil Engineers
- American Society of Highway Engineers

HDR TENURE
2 Years

INDUSTRY TENURE
17 Years

PROJECT AVAILABILITY
80%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Project Manager

ON-GOING COMMITMENTS
ADOT I-17/SR 303L System TI – 15%
MCDOT – Gilbert Rd Bridge Post Design Services – 5%

BASIS OF SELECTION | EXCLUSIVE TO STANLEY
Ravi's expertise lies in the development of intricate horizontal and vertical geometrics for urban freeway projects, including diamond interchanges and fully-directional system interchanges. He has established strong relationships with ADOT through his involvement in multiple interchange projects. His expertise will make certain that the South Segment is designed with precision, optimizing traffic flow, safety and efficiency.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

ADOT, SR 303L 51st Ave - I-17 System TI, HDR Design Manager
As a subconsultant, HDR is responsible for the design of frontage roads, retaining walls, cost risk assessment, utility coordination and public involvement. This project includes direct connecting ramps at the I-17/Loop 303 system interchange; addition of a third general-purpose lane to SR 303L in each direction between Lake Pleasant Parkway and I-17 and drainage, lighting and signal improvements.

NOTABLE ACHIEVEMENT
Ravi's work in final design of the frontage roads is a benefit for the roadway design of the South Segment.

ADOT, Design-Build SR 101L Pima Freeway, I-17 to Princess Drive, Deputy Deign Manager/ Roadway Task Lead
Ravi was responsible for the preparation of final design documents/attending design progress meetings/ performing Inter Disciplinary Reviews and leading a 4-member roadway team. The project includes addition of one general purpose lane/Auxiliary Lane in each direction between I-17 and Pima Rd, retaining and sound walls, drainage, signal, FMS and AR-ACFC overlay.

ADOT, I-10 Fairway Drive TI UP, Deputy Project Manager/Roadway Task Lead
Ravi was responsible for the preparation of final design documents to construct a new traffic interchange on I-10 between Dysart Rd and Avondale Boulevard. The project includes a new two-span bridge over I-10, more than 41,000 square feet of retaining walls, new auxiliary lanes on I-10, 900 linear feet of arterial roadway and associated drainage, signal, FMS, and lighting improvements. The new traffic interchange will improve commercial truck access to I-10 for warehouses south of I-10.

RAVI'S VALUE TO ADOT
- Ravi's familiarity with ADOT's standards and practices allows for adherence to agency requirements.
- His knowledge of traffic management and work zones in busy, highly traveled areas further enhances the team's ability to plan construction activities.
- By working closely with Greg Lingor on the C-D roads in the South Segment, he brings a wealth of expertise to the successful completion of this critical aspect of the project.
- His experience in working on multi-discipline projects, particularly in roadway and bridge assures that ADOT and the project team can have confidence in the timely and high-quality completion of the C-D roads and structures.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

GREG LINGOR PE
SOUTH SEGMENT BRIDGE LEAD

TECHNICAL EXPERTISE

- ☑ Prepare and Review Design Computations, Plan Designs, and Drawings using LRFD
- ☑ Bridges Over Canals and the Salt River
- ☑ Prepare ADOT Bridge Selection Reports
- ☑ Bridge Inspection for Structural Integrity
- ☑ Construction Plans and Details
- Fabrication and Post Design Services

EDUCATION
MS, Civil Engineering, University of Arizona
BS, Civil Engineering, University of Arizona

REGISTRATIONS
Civil Engineer: AZ #33998

PROFESSIONAL SOCIETIES
- American Society of Civil Engineers
- American Society of Highway Engineers

HDR TENURE
6 Years

INDUSTRY TENURE
29 Years

PROJECT AVAILABILITY
80%

COMPANY RESPONSIBILITY/ CORPORATE TITLE
Senior Project Manager/Bridge Lead Design Engineer

ON-GOING COMMITMENTS
ADOT I-17 Airport Rd TI UP Post Design Services – 15%
ADOT I-15 Virgin River Bridge # 1 Post Design Services - 5%

BASIS OF SELECTION | EXCLUSIVE TO STANLEY
Greg has worked on numerous system interchanges in the Valley including roles where he led the initial structural layout efforts and others where he designed or led the final design. He also has solid experience with river crossings including multiple Salt River crossings. Working with Ravi and under Mike Chase's leadership, Greg's contribution to the team is instrumental for meeting the technical requirements of SR 30.

ADOT RELEVANT SYSTEM TI AND CAPACITY IMPROVEMENT EXPERIENCE

ADOT, SR 202L/US 60 System Interchange, Structures Lead
This project included the final design of a 4-level system interchange in Mesa that had several flyover ramps. Greg was responsible for leading the preliminary design and final design of one of the flyover ramps – Ramp WS. Ramp WS is an 8-span, post-tensioned box girder bridge consisting of three frames and totaling 1,715 feet in length. The bridge was built over US 60, so constructability and phasing/MOT were key components.

NOTABLE ACHIEVEMENT
Like SR 30 South Segment which has the longest structures on the project, Greg was responsible for designing the 8-span, 1,715 foot bridge over US 60.

ADOT, I-10/SR 202L (Santan) System Interchange, Senior Bridge Engineer
This project included the final design of a 4-level system interchange in the south Valley that had multiple flyover ramps. Greg was responsible for designing the superstructure for three of the four connector ramp structures. Combined, the three post- tensioned box girder bridges totaled 30 spans and more than 5,000 feet in length. The project was split into two design and construction packages, so constructability and phasing/MOT were key components.

ADOT, Management Consultant Contract for I-17 and SR 303L, Structures Lead
Greg was responsible for leading the preliminary structure type selection and layout of all bridges on two sections of I-17 and two sections of SR 303L. There were 32 new bridges ranging from 1-span to 11-span and 8 bridge widening ranging from 1-span to 3-span. The bridges totaled more than 120 spans and consisted of railroad bridges, interchange bridges, bridges over canals and large washes, and system interchange bridges. The system interchanges included Phase 1 of the I-17/SR 303L TI and a future US 60/Bell Rd interchange.

GREG'S VALUE TO ADOT
- Greg's extensive experience in the development and design of ADOT bridges including system interchanges, traffic interchanges and bridge widenings is a plus for ADOT and the project team.
- With Greg's involvement, ADOT can confidently rely on his expertise to navigate the intricacies of the South Segment bridge construction, optimize traffic flow, and enhance transportation infrastructure.
- Ultimately, Greg's contributions to the project team enhance ADOT's ability to provide safe and efficient bridge solutions that benefit the community and support the overall transportation network.

*Project presented in Section 3 | TEAM EXPERIENCE & AVAILABILITY

Iacovo, Pamela

From: ADOT Business Engagement and Compliance Office <AZUTRACS-Support@azdot.gov>
Sent: Tuesday, April 23, 2024 8:03 AM
To: Marketing - Phoenix
Cc: ContractorCompliance@azdot.gov
Subject: Bidders List for Stanley Consultants, Inc.

Stanley Consultants, Inc., AZUTRACS Number: 11094 has submitted a Bidder/Proposer list for **2024-018** on 04/23/2024 at 8:03 AM MST (UTC - 07:00).

Bidders/Proposers for this firm include:

Firm Name	AZUTRACS #	Expiration Date	Email Address	Phone Number
AeroTech Mapping Inc	21420	06/06/2026	leotorres@atmlv.com	702-228-6277
AZTEC Engineering Group, Inc.	11419	12/27/2024	MChase@aztec.us	602-454-0402
Corral Design Group, Inc.	10207	10/26/2025	ecorral@corraldesigngroup.com	602-222-9822
Ethos Engineering, LLC	10363	01/25/2027	pgarza@ethosengineers.com	480-326-8487
HDR Engineering, Inc.	10491	01/25/2027	phxmarketing@hdrinc.com	602-522-7700
Point Engineers, LLC	10869	08/25/2024	pwaung@pointengineers.com	602-814-0657
T.Y. Lin International	11144	08/14/2026	james.barr@tylin.com	480-968-8814
T2 UES, Inc.	18620	08/10/2025	jenelle.price@t2ue.com	702-990-7511
Wood, Patel & Associates, Inc.	16439	03/27/2027	Marketing@woodpatel.com	602-335-8500

CONSULTANT INFORMATION PAGES (CIP)

CONTRACT NO.: 2024-018.01 & 2024-018.02

CONTACT PERSON: Karen Hobbs, PE

E-MAIL ADDRESS: hobbskaren@stanleygroup.com

TITLE: Project Principal

CONSULTANT FIRM: Stanley Consultants, Inc.

ADDRESS: 3133 E. Camelback Road, Suite 100

CITY, STATE ZIP: Phoenix, Arizona 85016

TELEPHONE: (602) 333-2200

FAX NUMBER: (602) 333-2333

DUNS #: 87-7702381

ADOT CERTIFIED DBE FIRM? (YES/NO)

No

SUBCONSULTANT(S):	TYPE OF WORK	ADOT CERTIFIED DBE FIRM (YES/NO)
AeroTech Mapping, Inc.	Aerial Mapping	Yes
Corral Design Group	Aesthetics/Landscape/SWPPP	Yes
Ethos Engineering, LLC	Geotechnical/Structures Engineering	Yes
HDR	Roadway/Structures/Geotechnical/Environmental/Public Involvement	No
POINT Engineers	Roadway/Structures/Utility Coordination	Yes
T2 Utility Engineers	SUE	No
Wood, Patel & Associates, Inc.	Survey	No

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

SUBCONSULTANT(S) TABLE:

SUBCONSULTANT FIRM NAME:	AeroTech Mapping, Inc
CONTACT PERSON:	Leo Torres
E-MAIL ADDRESS:	leotorres@atmlv.com
TITLE:	President
ADDRESS:	8433 N. Black Canyon Highway
	#120
CITY, STATE ZIP:	Phoenix, AZ 85021
TELEPHONE:	(602) 242-7656
FAX NUMBER:	N/A
DUNS #:	12-856782

SUBCONSULTANT FIRM NAME:	Corral Design Group, Inc.
CONTACT PERSON:	Edward Corral
E-MAIL ADDRESS:	ecorral@corraldesigngroup.com
TITLE:	President
ADDRESS:	4632 South 36th Street
CITY, STATE ZIP:	Phoenix, AZ 85050
TELEPHONE:	(602) 222-9822
FAX NUMBER:	(602) 222-9079
DUNS #:	09-7254846

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

SUBCONSULTANT(S) TABLE:

SUBCONSULTANT FIRM NAME:	Ethos Engineering, LLC
CONTACT PERSON:	Keith Dahlen, PE
E-MAIL ADDRESS:	kdahlen@ethosengineers.com
TITLE:	Principal Senior Geotechnical Engineer
ADDRESS:	9180 South Kyrene Road
	#104
CITY, STATE ZIP:	Tempe, AZ 85284
TELEPHONE:	(602) 573-0000
FAX NUMBER:	N/A
DUNS #:	03-0828918

SUBCONSULTANT FIRM NAME:	HDR
CONTACT PERSON:	Aaron Meilleur
E-MAIL ADDRESS:	Aaron.Meilleur@hdrinc.com
TITLE:	Sr. Vice President/Area Manager
ADDRESS:	20 E. Thomas Road
	Suite 2500
CITY, STATE ZIP:	Phoenix, AZ 85012
TELEPHONE:	(602) 474-3921
FAX NUMBER:	(602) 522-7707
DUNS #:	18-7294624

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(S) TABLE:

SUBCONSULTANT FIRM NAME:	POINT Engineers, Inc.
CONTACT PERSON:	Paul Waung
E-MAIL ADDRESS:	pwaung@pointengineers.com
TITLE:	President
ADDRESS:	7600 N. 16th Street
	Suite 202
CITY, STATE ZIP:	Phoenix, AZ 85020
TELEPHONE:	(602) 814-0713
FAX NUMBER:	N/A
DUNS #:	80-6680703

SUBCONSULTANT FIRM NAME:	T2 Utility Engineers
CONTACT PERSON:	Robert Ramsey, PE, LEED AP
E-MAIL ADDRESS:	Robert.Ramsey@t2ue.com
TITLE:	SUE Professional Engineer
ADDRESS:	19621 N, 23rd Drive
	Suite 150
CITY, STATE ZIP:	Phoenix, AZ 85027
TELEPHONE:	(602) 977-8037
FAX NUMBER:	N/A
DUNS #:	11-7203635

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(S) TABLE:

SUBCONSULTANT FIRM NAME:	Wood, Patel & Associates, Inc.
CONTACT PERSON:	Ron Barbala
E-MAIL ADDRESS:	rbarbala@woodpatel.com
TITLE:	Survey Group Manager
ADDRESS:	2051 W. Northern Avenue
	#100
CITY, STATE ZIP:	Phoenix, AZ 85021
TELEPHONE:	(602) 335-8500
FAX NUMBER:	(602) 335-8530
DUNS #:	16-7228063

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

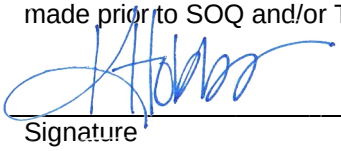
NOTE: Each Subconsultant listed in the SOQ must be included in the Subconsultant Table of the CIP. Add additional Subconsultant Table pages as necessary. The CIP is not evaluated by the Selection Panel but is used by Engineering Consultants Section for administrative purposes.

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

DBE GOAL ASSURANCE/DECLARATION

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

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



Signature

April 30, 2024

Date

Karen Hobbs, PE

Printed Name

Project Principal

Title

SOQ SUBMITTAL CHECKLIST

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

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

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