



**PRIORITY PLANNING ADVISORY COMMITTEE  
(PPAC)**

**AGENDA**

**MEETING OF: Thursday,  
March 7, 2024  
3:30 PM**

**ARIZONA DEPARTMENT OF TRANSPORTATION  
MULTIMODAL PLANNING DIVISION**

TO: PRIORITY PLANNING ADVISORY COMMITTEE MEMBERS:

KRISTINE WARD	STEVE BOSCHEN
BRENT CAIN	CLEMENC LIGOCKI
BARRY CROCKETT	JOHN MORALES
MATTHEW MUNDEN	BRET ANDERSON
GREG BYRES	JON BRODSKY (NON VOTING)

FROM: Chairman Paul Patane

SUBJECT: PRIORITY PLANNING ADVISORY COMMITTEE MEETING (PPAC)

Pursuant to the A.R.S. 28-6951(B), the ADOT Director has appointed the members of the Priority Planning Advisory Committee (PPAC) to develop the Five Year Transportation Facilities Construction Program. In addition, pursuant to A.R.S. 28-339, the PPAC is responsible for taking certain actions with respect to the State Match for the Rural Transportation (AZ-SMART) fund. This meeting is scheduled, pursuant to the above referenced statutes, to review the Five Year Transportation Facilities Construction Program, make changes and schedule new projects into the adopted Five Year Transportation Facilities Construction and take appropriate actions related to the AZ-SMART program and related applications.

Pursuant to Title VI of the Civil Rights Act of 1964, and the Americans with Disabilities Act (ADA), ADOT does not discriminate on the basis of race, color, national origin, age, sex or disability. Persons who require a reasonable accommodation based on language or disability should contact ADOT's Civil Rights Office at 602.712.8946 or at [civilrightsoffice@azdot.gov](mailto:civilrightsoffice@azdot.gov). Requests should be made as early as possible to ensure the State has an opportunity to address the accommodation.

The meeting of the Arizona Department of Transportation, Priority Planning Advisory Committee (PPAC) will be held on Thursday, March 7, 2024 at 3:30 PM. This will be a teleconference meeting. To access the meeting by internet, please go to <<https://meet.google.com/jjh-xkuo-mun>>. To access the meeting by phone, please dial: <+1 302-314-6428 PIN: 576 321 822#>.

The minutes and/or a recording of each meeting will be posted within three business days on the Priority Planning Advisory Committee's Meeting Documents web page at: <https://azdot.gov/about/boards-and-committees/priority-planning-advisory-committee/meeting-documents>

As a public meeting, ADOT invites participants to fill out the Voice of the Customer Survey to better serve the public. <<https://docs.google.com/forms/d/e/1FAIpQLSfBmeYkkygPOlyGpdWCF2o8b4wQZjfdnlksAQI63aMlvLMdrg/viewform> >

**Priority Planning Advisory Committee Meeting  
March 7, 2024 - 3:30 PM**

**AGENDA**

<b>Page#</b>	<b>Item #/Description</b>	<b>Speaker/Proposed Action</b>
	1. Call to Order	Chairman
	2. Roll Call	Information Only
3	3. Title VI the Civil Rights Act of 1964, as Amended	Information Only
	4. Call to Audience	Information Only
114	5. Approval of the Minutes	Discussion and Possible Action
	6. Program Monitoring Report	Information & Discussion
4	7. AZ SMART Fund Applications	Discussion and Possible Action
112	8. Project Modifications, New Projects & Airport Projects	Discussion and Possible Action
119	9. Meeting Recording and Minutes	Information Only
119	10. Upcoming Meeting	Information Only



## ADOT'S NONDISCRIMINATION NOTICE TO THE PUBLIC

The Arizona Department of Transportation (ADOT) hereby gives public notice that it is the Agency's policy to assure full compliance with Title VI of the Civil Rights Act of 1964, Title II of the Americans with Disabilities Act of 1990 (ADA), and other related authorities in all of its programs and activities.

ADOT's Title VI and ADA Programs require that no person shall, on the grounds of race, color, national origin, or disability, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity.

Any person, who believes his/her Title VI or ADA rights have been violated, may file a complaint. Any such complaint must be in writing and filed with the ADOT Civil Rights Office within one hundred eighty (180) days following the date of the alleged discriminatory occurrence. For additional information about ADOT's Civil Rights programs and the procedures to file a complaint contact ADOT Civil Rights Office via the information listed below:

## AVISO PÚBLICO DE LA LEY DE NO-DISCRIMINACIÓN DE ADOT

El Departamento de Transporte del Estado de Arizona (ADOT) informa al público que esta agencia tiene como regla asegurar el cumplimiento total del Título VI de la Ley de los Derechos Civiles de 1964, del Título II de la Ley de ciudadanos Americanos con Discapacidades de 1990 (ADA) y otras normas relacionadas con todos sus programas y actividades.

Los programas del Título VI y ADA de ADOT exigen que a ninguna persona se le excluya de participar, se le nieguen beneficios o de ninguna otra manera sea sujeta a discriminación en ningún programa o actividad de ADOT por motivo de raza, color, país de origen, o discapacidad.

Cualquier persona que crea que se han violado sus derechos bajo el Título VI o el ADA, puede presentar una queja. Esta queja debe presentarse por escrito a la Oficina de Derechos Civiles de ADOT dentro de ciento ochenta (180) días a partir de la fecha en que se alega que ocurrió la discriminación. Para recibir más información sobre los programas de Derechos Civiles de ADOT y los procedimientos para presentar una queja, por favor póngase en contacto con la Oficina de Derechos Civiles de ADOT a través la información que aparece abajo:

### KRYSTAL SMITH

ADA/504 Nondiscrimination Program Coordinator  
Ksmith2@azdot.gov

### DANIELLE VALENTINE

TITLE VI Nondiscrimination Program Coordinator  
Dvalentine@azdot.gov

### ADOT Civil Rights Office

206 S. 17th Avenue, Mail Drop 155-A  
Phoenix, AZ 85007  
602.712.8946  
602.239.6257 FAX  
azdot.gov  
CivilRightsOffice@azdot.gov



**AZ SMART Grant Applications**  
**March 7th, 2024 Special Priority Planning Advisory Committee**  
**March 15, 2024 State Transportation Board**

Description	Santa Cruz County - RCPP 2023	Pinetop-Lakeside - RAISE 2024	Town of Quartzsite - Rural Surface Transportation Grant Program 2024-2025
<b>Application Summary</b>			
AZ SMART Category	County Under 100K	Municipalities Under 10K	Municipalities Under 10K
COG/MPO	SEAGO	NACOG	WACOG
Project Type	Bridge	New Road & Bridge	Road Widening & Improvements
Project Name	Ruby Road Bridge over Potrero Creek and the Union Pacific Railroad	Pinetop Commons Road & Bridge	I-10 West Quartzsite Traffic Interchange & Frontage Road
Project Limits	The bridge over Potrero Creek is located approximately 1/4 mile east of I-19 on Ruby Road. The project proposes to reconstruct 1,500' of Ruby Road westerly from the eastern edge of the I-19 Arizona Department of Transportation (ADOT) right-of-way.	12) From Latitude 34.14140 Longitude -109.95335 to Latitude 34.14374 Longitude -109.95226	I-10 from MP 17 to MP 18
Project Description	The new bridge would be the only bridge in the County that would span both the floodplain and the Union Pacific Railroad (UPRR), providing a resilient and reliable east-west connection for all traveling public, including bicyclists, pedestrians, emergency services, businesses, tourists, and underserved residents. The plan calls for this area to be a future economic growth area in the County. Developments include moderate and high-density residential, large retail, offices, warehousing, and destination entertainment and cultural activities. The considerations in the Plan were identified through research and an extensive public participation plan involving many community partners, including ADOT, school districts, businesses, and residents. A significant transportation improvement called for in the Plan is a new interconnect between Nogales International Airport and I-19 at the Ruby Road Traffic Interchange (TI).	The Town is requesting funding assistance to widen the existing driveway, construct a bridge across Billy Creek and construct a road to complete the ingress/egress to cross the Creek. The amount of road is less than 1,000 feet. The project resides within the Town's right-of-way and the Town's property. The Town seeks to construct a bridge across the Creek so that the north side of the Creek can be developed into recreation land, potentially into a low-income, multi-family complex, provide an additional ingress/egress route for the existing and potential single-family dwellings north of the Creek, and allow the expansion of the Town on the north side of Creek. These plans can only proceed if another bridge is constructed to cross the Creek.	The project involves the complete full design and preparation of 30%, 60%, 95%, and 100% stage plans, specifications, and construction cost estimates for the proposed reconstruction and improvement of the existing standard diamond traffic interchange. The construction work to be designed includes the following elements: (1) Widening and reconstruction of Quartzsite Boulevard to add the additional lanes required to handle the forecasted traffic. (2) Two new overpass bridge structures over I-10 (one for northbound traffic lanes and one for southbound traffic lanes). (3) Widening and reconstruction of the freeway ramps and ramp intersections with Quartzsite Boulevard. (4) Widening and reconstruction of the frontage road intersections and approaches with Main Street to the north and with Dome Rock Road/Kuehn Street to the south. (5) New modern fully actuated traffic control signalization at the two frontage road intersection and at the two ramp intersections. (6) New lighting to enhance travel safety within the TI area. (7) Evaluate lowering the grade of the I-10 lanes below the new structures to reduce the slopes on the Quartzsite Boulevard overpass to facilitate heavy truck traffic movements. (8) Construct retaining walls where needed to eliminate the need for right of way acquisition on developed parcels. (9) Related grading, drainage, and paving improvements.
All in Applicant ROW?	No		
Application Received	10/16/2023 13:48:24	2/9/2024 15:25:16	2/22/2024 15:31:02
<b>AZ SMART Request</b>			
Federal Grant	Reconnecting Communities Pilot Program	RAISE	Rural Surface Transportation Grant Program
Federal Grant phase	Construction	Construction	ROW Acquisition
GDS requested	0	0	0
DOES requested	0	\$174,600	\$3,400,000
Match Requested	\$3,300,000	0	0
Applicant Match	\$6,000,000	0	0
Applicant Match %*			
Project Partners*			
Federal Grant Submission	Applicant or consultant will submit directly	Applicant or consultant will submit directly	Applicant requests ADOT to submit
Federal Grant Application Year	FY23	FY24	FY24-FY25
Federal Grant Project administration	Request ADOT administration (Project development administration fees will apply)	Direct Recipient if allowed by the NOFO	Request ADOT administration (Project development administration fees will apply)
<b>Cost Estimate Documentation (attached with application)</b>			
Estimates in YOE	Yes	Yes	Yes
Source of estimates	Developed by an engineering consultant	Developed by an engineering consultant	Developed by an engineering consultant

3. Form Date / 5. Form By: 3/5/2024 Meagan Bell
4. Project Manager / Presenter: Meagan Bell @ (619) 402-7008
1611 W Jackson St, - 4210 MPD PLANNING TEAM

6. Project Name: I-10 West Quartzsite Traffic Interchange & Frontage Road
7. Type of Work: Road Widening & Improvements

8. CPSID: 9. District: 10. Route: I-10 11. County: La Paz 12. Beg MP: 17 13. TRACS #: - ? 14. Len (Mi.): 1 15. Fed Id #:

16. Program Budget: \$0 17. Program Item #:
18. Current Approved Program Budget: \$0 18a. (+/-) Program Budget Request: \$3,400 18b Total Program Budget After Request: \$3,400

CURRENTLY APPROVED:
19. BUDGET ITEMS:

CHANGE / REQUEST:
19A. BUDGET ITEMS:
Table with columns: Item #, Amount, Description, Comments. Row 1: 73424, \$3,400, AZSMART Grant - DT6010

CURRENT SCHEDULE:
21. CURRENT FISCAL YEAR:
22. CURRENT BID READY:
23. CURRENT ADV DATE:

CHANGE REQUEST NEW SCHEDULE:
21A. REQUEST FISCAL YEAR:
22A. REQUEST BID READY:
23A. REQUEST ADV DATE:

20. JPA #'s: SIGNED: NO ADV: NO
CHANGE IN: 24a. PROJECT NAME: NO 24b. TYPE OF WORK: NO 24c. SCOPE: NO 24d. CURRENT STAGE: NOT APPLICABLE
24e. ENVIRONMENTAL CLEARANCE: NO 24f. MATERIALS MEMO COMP: NO
24g. U&RR CLEARANCE: NO 24h. C&S CLEARANCE: NO
24i. R/W CLEARANCE: NO 24j. CUSTOMIZED SCHEDULE: NO
24k. SCOPING DOCUMENT: NO

25. DESCRIPTION OF REQUEST
FYI ONLY

26. JUSTIFICATION OF REQUEST
This is an AZ SMART Application from the Town of Quartzsite requesting \$3.4 Mil in Design and Other Engineering Services. The Town of Quartzsite intends to go after the Rural Surface Transportation Grant in the FY24-FY25 round for ROW and Construction. The Town of Quartzsite is Requesting ADOT to submit the federal grant application as well as ADOT Administration.

Brief Project Description: Widen and Reconstruct Quartzsite Blvd for additional lanes, 2 new Overpass Bridges over I-10 (N & S), Widen and Reconstruct freeway ramps and ramp intersections, along with frontage road intersections to handle the forecasted traffic in the area and significantly reduce traffic delays.

27. CONCERNS OF REQUEST
28. OTHER ALTERNATIVES CONSIDERED

REQUESTED ACTIONS: FYI ONLY
APPROVED / RECOMMENDED ACTIONS: SUBJECT TO PPAC APPROVAL - 3/7/2024

3. Form Date / 5. Form By: 3/5/2024 Meagan Bell
4. Project Manager / Presenter: Meagan Bell @ (619) 402-7008
1611 W Jackson St, - 4210 MPD PLANNING TEAM

6. Project Name: Ruby Road Bridge over Potrero Creek and UPRR
7. Type of Work: New Bridge

8. CPSID: -
9. District:
10. Route:
11. County: Santa Cruz
12. Beg MP:
13. TRACS #: - ?
14. Len (Mi.):
15. Fed Id #:

16. Program Budget: \$0
17. Program Item #:
18. Current Approved Program Budget: \$0
18a. (+/-) Program Budget Request: \$3,300
18b Total Program Budget After Request: \$3,300

CURRENTLY APPROVED:
19. BUDGET ITEMS:

CHANGE / REQUEST:
19A. BUDGET ITEMS:

Table with 4 columns: Item #, Amount, Description, Comments. Row 1: 73724, \$3,300, , \$3,300,000 - DT6020

CURRENT SCHEDULE:
21. CURRENT FISCAL YEAR:
22. CURRENT BID READY:
23. CURRENT ADV DATE:

CHANGE REQUEST/NEW SCHEDULE:
21A. REQUEST FISCAL YEAR:
22A. REQUEST BID READY:
23A. REQUEST ADV DATE:

20. JPA #'s: SIGNED: NO ADV: NO
CHANGE IN: 24a. PROJECT NAME: NO 24b. TYPE OF WORK: NO 24c. SCOPE: NO 24d. CURRENT STAGE: NOT APPLICABLE
24e. ENVIRONMENTAL CLEARANCE: NO 24f. MATERIALS MEMO COMP: NO
24g. U&RR CLEARANCE: NO 24h. C&S CLEARANCE: NO
24i. R/W CLEARANCE: NO 24j. CUSTOMIZED SCHEDULE: NO
24k. SCOPING DOCUMENT: NO

25. DESCRIPTION OF REQUEST

FYI ONLY

26. JUSTIFICATION OF REQUEST

This is an AZ SMART Application from Santa Cruz County for a Match of \$3.3 mil. Santa Cruz County is requesting ADOT Administration and has already applied for the Reconnecting Communities Pilot Program grant for construction in the 2023 round. This new bridge would be the only bridge in the County that would span both the floodplain and the Union Pacific Railroad (UPRR), providing a resilient and reliable east-west connection for all traveling public, including bicyclists, pedestrians, emergency services, businesses, tourists, and underserved residents.

27. CONCERNS OF REQUEST

28. OTHER ALTERNATIVES CONSIDERED

REQUESTED ACTIONS:

FYI ONLY

APPROVED / RECOMMENDED ACTIONS:

SUBJECT TO PPAC APPROVAL - 3/7/2024

**04**

**Project Review Board (PRB) Request Form - Version 4.0**

1. PRB Meeting Date: 2/27/2024

2. Teleconference: No

3. Form Date / 5. Form By:

4. Project Manager / Presenter:

3/1/2024

Meagan Bell @ (619) 402-7008

Meagan Bell

1611 W Jackson St, - 4210 MPD PLANNING TEAM

6. Project Name:

7. Type of Work:

PINETOP COMMONS ROAD AT BILLY CREEK

NEW ROAD / NEW BRIDGE

8. CPSID: 9. District: 10. Route: 11. County: 12. Beg MP: 13. TRACS #: 14. Len (Mi.): 15. Fed Id #:

- Northeast

Navajo

- ?

16. Program Budget: \$0

17. Program Item #:

18. Current Approved Program Budget:

18a. (+/-) Program Budget Request:

18b Total Program Budget After Request:

\$0

\$175

\$175

**CURRENTLY APPROVED:**

**CHANGE / REQUEST:**

**19. BUDGET ITEMS:**

**19A. BUDGET ITEMS:**

Item #	Amount	Description	Comments
73424	\$175		\$174,600 - DT6010

**CURRENT SCHEDULE:**

**CHANGE REQUEST/NEW SCHEDULE:**

21. CURRENT FISCAL YEAR:

21A. REQUEST FISCAL YEAR:

22. CURRENT BID READY:

22A. REQUEST BID READY:

23. CURRENT ADV DATE:

23A. REQUEST ADV DATE:

20. JPA #'s: SIGNED: NO ADV: NO

CHANGE IN: 24a. PROJECT NAME: NO 24b. TYPE OF WORK: NO 24c. SCOPE: NO 24d. CURRENT STAGE: NOT APPLICABLE

24e. ENVIRONMENTAL CLEARANCE:	NO	24f. MATERIALS MEMO COMP:	NO
24g. U&RR CLEARANCE:	NO	24h. C&S CLEARANCE:	NO
24i. R/W CLEARANCE:	NO	24j. CUSTOMIZED SCHEDULE:	NO
24k. SCOPING DOCUMENT:	NO		

**25. DESCRIPTION OF REQUEST**

FYI ONLY

**26. JUSTIFICATION OF REQUEST**

This is an AZ SMART Application requesting design services in the Munis under 10k category. The town of Pinetop-Lakeside intends to submit a Local and Regional Project Assistance (RAISE) grant application in the 2025 round to construct the new road and bridge to provide additional routes and expansion of the town to the north side of Billy creek.

**27. CONCERNS OF REQUEST**

**28. OTHER ALTERNATIVES CONSIDERED**

**REQUESTED ACTIONS:**

**APPROVED / RECOMMENDED ACTIONS:**

FYI ONLY

FYI

# Arizona State Match Advantage for Rural Transportation (AZ SMART) Fund Application

Each application may address only one Project and one Federal Grant. Additional Projects and/or Federal Grants require a separate application. See the Application Guidelines for important information and detailed instructions for completing this Application. To ensure the Application is Administratively Complete and will be presented to the State Transportation Board, please respond to all questions and submit all requested documents.

**Document Checklist:** the following documents required to be uploaded to complete this application (PDFs required for all uploaded documents):

1. Documentation evidencing the COG/MPO approval to apply to the AZ SMART Fund
2. Map showing Project location (for infrastructure projects and studies).
3. Documentation showing the Project cost estimates (scoping document, cost estimation form, etc.). **NOTE:** Careful attention should be given to developing the cost estimate as the Applicant is responsible for all costs exceeding the amount awarded from the AZ SMART Fund and/or a Federal Grant.

Email \*

jfontesjr@santacruzcountyaz.gov

## Applicant Information

Please answer all the questions below.

1. Name of Applicant City, Town or County \*

Santa Cruz County

2. Name of Contact Person for Applicant \*

J. Leonard Fontes, Jr., RLS

3. By checking the box below, the Contact Person for the Applicant certifies they have read and agree to the **Program Guidelines and Application Instructions** for the AZ SMART Fund Program. \*

I have read and agree to the Program Guidelines and Application Instructions for the AZ SMART Fund Program.

4. Contact's Title \*

Public Works Director

5. Contact's Full Mailing Address \*

2150 N Congress Drive, Suite 116, Nogales, AZ 85621

6. Contact's Office Phone # \*

(520) 375-7830

7. Contact's Business Cell Phone # (if applicable)

5209070152

8. Contact's Business Email Address \*

jfontesjr@santacruzcountyaz.gov

9. Select the Applicant's COG/MPO. \*

Southeastern Arizona Governments Organization (SEAGO) ▼

**Project Information**

Please answer all the questions below.

**NOTE regarding ADOT project design administration (PDA) fees:** If requesting ADOT administration of the Project, initial ADOT PDA fees of \$30,000 will apply. These fees are eligible for AZ SMART Funding only when included in an Application for Design and Other Engineering Services or for Match on a federal grant application which will include design. The initial PDA fees are an estimate only and may be more or less, depending on the Project. By submitting this application, the Applicant understands that ADOT may bill additional PDA fees and agrees to pay such fees. Any fees not required for the Project will be refunded to the Applicant upon approval of the Project final voucher.

10. Select the Project Type. \*

- Road
- Bridge
- Transit
- Rail
- Other: .....

11. Project Name - enter a brief, intuitive name. \*

Ruby Road Bridge over Potrero Creek and the Union Pacific Railroad


12. Enter the Project limits as applicable. If an infrastructure Project is infrastructure, provide the name of the road and "From" and "To" Mileposts or Cross Streets. If a non-infrastructure project, enter the geographic area to which the plan or study will relate. \*

The bridge over Potrero Creek is located approximately 1/4 mile east of I-19 on Ruby Road. The project proposes to reconstruct 1,500' of Ruby Road westerly from the eastern edge of the I-19 Arizona Department of Transportation (ADOT) right-of-way.

13. Enter the Project's TIP number, if applicable. If the Project is not in the TIP, enter "NA". \*

SEAGO TIP SCC 22-01

14. Submit written documentation evidencing the COG/MPO approval to submit the Project to the AZ SMART Fund program (PDF format only). \*

 Santa Cruz-Ruby ...

15. Project Description - Provide a concise, specific description of the Project, including the type of work to be performed \* and benefits to be realized (3,000 character maximum, including spaces and punctuation).

The Ruby Road project, located in rural Santa Cruz County (the County), is in an area of persistent poverty, is within a Historically Disadvantaged Community, and has multiple physical barriers that impact connectivity. The project is in the southern part of unincorporated Rio Rico, a census designated place. Rio Rico is the fastest growing community in the County. The new bridge would be the only bridge in the County that would span both the floodplain and the Union Pacific Railroad (UPRR), providing a resilient and reliable east-west connection for all traveling public, including bicyclists, pedestrians, emergency services, businesses, tourists, and underserved residents. The County has begun to identify funding opportunities for transit to serve this area and Ruby Road would be a key transit hub.

Ruby Road is a vital connection between emergency services, mining, and residential areas east of the UPRR and a key Interstate 19 (I-19) access to business and industrial areas west of the UPRR. Ruby Road also provides primary access to tourist areas such as Coronado National Forest, Patagonia Lake State Park, the Town of Patagonia, and the Wine Country of Sonoita and Elgin.

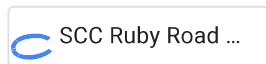
The existing bridge, constructed almost 50 years ago to local street standards, is nearing the end of its design service life and needs significant scour maintenance annually. The aging infrastructure, at-grade crossing of the UPRR, lack of bike lanes, and sidewalks present multiple hazards and barriers to multi-modal connectivity and social equity.

This project is consistent with the County's Comprehensive Plan (the Plan) and is proposed as a candidate for a scenic road. The plan calls for this area to be a future economic growth area in the County. Developments include moderate and high-density residential, large retail, offices, warehousing, and destination entertainment and cultural activities. The considerations in the Plan were identified through research and an extensive public participation plan involving many community partners, including ADOT, school districts, businesses, and residents.

A significant transportation improvement called for in the Plan is a new interconnect between Nogales International Airport and I-19 at the Ruby Road Traffic Interchange (TI). Another improvement discussed in the Plan is the ADOT planned improvement of the I-19, Ruby Road TI. ADOT has completed a Project Assessment for this TI, and the project team has worked closely with ADOT to ensure that the Ruby Road project enhances both the proposed ADOT improvements and the future interconnect.

The County has advanced the project to the point where construction could be advertised within twelve months of receiving funding and has secured approximately \$6M in funding for the project, about 50% of the funding needed for construction. This project is so vital to the County and this area, that the \$6M in funding represents 50% of the County's transportation CIP non-maintenance budget.

16. Please upload a map showing the Project location or study area (PDF format only).



17. Is the Project entirely in the Applicant's Right of Way? For non-infrastructure projects, check "Not applicable." \*

- Yes
- No
- Not applicable



18. If Project involves ADOT Right of Way, has the Applicant discussed the Project and obtained the consent of the applicable ADOT District office to proceed with this grant application? If no ADOT Right of Way or a non-infrastructure project, check "Not applicable."

\*

- Yes
- No
- Not Applicable

19. If Project involves privately-owned or another jurisdiction's Right of Way, has the Applicant discussed the Project with owner and obtained its consent to proceed with this grant application? If no other Right of Way or non-infrastructure project, check "Not applicable."

\*

- Yes
- No
- Not applicable

20. Project Schedule - check the boxes to show the State Fiscal Years in which each phase is scheduled to begin. Check only ONE box in each row. Non-infrastructure projects - check the boxes under Not Applicable for each row. **NOTE:** the State Fiscal Year runs from July 1 through June 30.

\*

	2023	2024	2025	2026	Not Applicable
Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (for non-infrastructure projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

21. Project Status - check the boxes to indicate the status of each phase. Check only ONE box in each row. Non-infrastructure projects - check the boxes under Not Applicable for each row. \*

	Not started	In progress	Completed	Not Applicable
Scoping/Pre-Design	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Design	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Right of Way Acquisition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (for non-infrastructure projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

22. Design Status - for each Stage, check one box to indicate the Project's Design Status. Non-infrastructure projects - check the boxes under Not Applicable for each row.

	Not started	In progress	Completed	Not Applicable
Stage 1, 15% design	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stage 2, 30% design	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Stage 3, 60% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 4, 95% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 5, 100%	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. Cost Estimate for Scoping/Pre-design - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

0

24. Enter the date of the Scoping/Pre-design estimate. Enter "NA" if not applicable. \*

NA

25. Cost Estimate for Design - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

\$940,000 (FY24)

26. Enter the date of the Design estimate. Enter "NA" if not applicable. \*

08/23/2023

27. Cost Estimate for Right of Way - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

\$20,000 (FY24)

28. Enter the date of the Right of Way estimate. Enter "NA" if not applicable. \*

08/23/2023

29. Cost Estimate for Utilities - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

0

30. Enter the date of the Utilities estimate. Enter "NA" if not applicable. \*

NA

31. Cost Estimate for Construction - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

\$13,330,000 (FY25)

32. Enter the date of the Construction estimate. Enter "NA" if not applicable. \*

08/23/2023

33. Cost Estimate for Other - enter in whole dollars (for example, 250,000) . Enter "0" if not applicable. \*

\$2,200,000 (Contingency)

34. Enter the date of the Other estimate. Enter "NA" if not applicable. \*

08/23/2023

35. Do the estimates provided reflect costs on a Year of Expenditure basis? Note: Year of Expenditure basis means the costs have been inflated in later years. \*

Yes

No


36. Please indicate the source of the Project Cost Estimates entered above. \*

Developed by the Applicant

Developed by an engineering consultant

Other: \_\_\_\_\_

37. Please upload documentation (PDF format only) showing the Project cost estimates (scoping document, cost estimation form, etc.). \*

 adot-cost-estima...

### AZ SMART Fund Request

Please answer all the questions below.

**NOTE: Careful attention should be paid to developing a thorough and complete cost estimate on a year of expenditure basis.** The Applicant will be responsible for all costs which exceed the amount of an AZ SMART Fund or federal grant award. ADOT has developed a Project Cost Estimating Tool which is available on the AZ SMART Fund webpage under Application Materials. This tool is provided as a courtesy only and does not purport to cover all possible costs or scenarios. Applicants are ultimately responsible for determining the Project cost estimate.

Unless the NOFO/NOFA includes the option to be a direct recipient, both CA and non-CA agencies should include initial project development fees for road/bridge/rail projects. For transit projects, an administration fee of 10% of the total project cost will apply.

38. County Applicants with population of 100,000 or less and municipalities with population of 10,000 or less ONLY: Enter the amount requested for Reimbursement of up to 50% of the costs associated with developing and submitting an application for the Federal Grant identified below. **The amount entered below should be no more than 50% of the total estimated costs of developing and submitting the grant** - enter in whole dollars (for example, 250,000).

0

39. Enter the amount requested from the AZ SMART Fund for Match for the Federal Grant identified in this application - enter in whole dollars (for example, 250,000). If not requesting Match, skip this question.

\$3,300,000

40. Beyond the amount requested from the AZ SMART Fund, enter the dollar amount of Matching cash funds to be committed by the Applicant for the Project in the Federal Grant identified in this application. If not requesting Match, skip this question.

\$6,000,000

41. Enter the percent to the second decimal place (for example, 15.05%) of Matching cash funds which will be provided by just the Applicant in the Federal Grant application - do not include the amount requested from the AZ SMART Fund. See Application Guidelines for directions to calculate the percentage. If not requesting Match, skip this question.

50.00

42. Enter the amount requested from the AZ SMART Fund for reimbursement of design and other engineering services expenditures that meet federal design standards for Projects eligible for the Federal Grant identified in this application. Enter in whole dollars (for example, 250,000). If not requesting design funds, skip this question.

43. Are ADOT Project Development Fees included in the amount requested for design and other engineering expenditures? If not, requesting design funding, skip this question.

Yes

No

43. Provide the names of any other entities the Applicant will partner with to deliver the Project. Identify and quantify the contribution of each partner(s) (dollar amount of cash match, type of in-kind services, etc.). If none, enter "NA."

NA .....

**Federal Grant**

Please answer all the questions below. NOTE: Federal grants eligible under the SMART Fund are federal discretionary grant programs administered by any federal agency for SURFACE TRANSPORTATION PURPOSES.

44. How does the Applicant intend to submit the federal grant application? **Note:** If requesting ADOT to submit, the following time frames apply: \*

A. At least thirty (30) day prior to the application deadline in the NOFO for the applicable federal discretionary grant, the Applicant is required to submit the ADOT Grant Coordination Support Request Form at <https://apps.azdot.gov/files/mvd/mvd-forms-lib/42-0103.pdf>.

B. At least seven (7) days before the NOFO/NOFA deadline, the completed application materials must be provided to the ADOT Grant office for submission.

Applicant or consultant will submit directly

Applicant requests ADOT to submit

Other: .....

45. How does the Applicant intend to administer the Project if awarded a federal grant? \*

Be a direct recipient if allowed in the NOFO

Request ADOT administration (Project development administration fees will apply)

Other: .....

46. Select the Federal Grant for which the Applicant intends to submit the Project - select one grant only. If the desired grant is not listed, select Other and provide the name of the grant and the applicable federal agency. **NOTE:** This list does not include all federal discretionary grants and may contain grants that are not currently available or funded. Applicants are responsible for conducting their own research to identify an appropriate federal grant for their Project. \*

- Active Transportation Infrastructure Investment Program
- Bridge Investment Program
- Defense Community Infrastructure Pilot
- Grants for Charging and Fueling Infrastructure
- Local and Regional Project Assistance (RAISE)
- Multi State Freight Corridor Planning
- National Culvert Removal, Replacement and Restoration Grant Program
- National Infrastructure Project Assistance (MEGA)
- Nationally Significant Freight and Highway Projects (INFRA)
- PROTECT Grant Program
- Reconnecting Communities Pilot Program
- Rural Surface Transportation Grant Program
- Safe Streets and Roads for All Program (SS4A)
- Strategic Innovation for Revenue Collection
- Strengthening Mobility and Revolutionizing Transportation Grant Program
- Wildlife Crossing Safety
- Rail - Consolidated Rail Infrastructure and Safety Improvements Grants
- Rail - Fixed Guideway Capital Investment Grants
- Rail - Restoration and Enhancement Grants
- Rail - Railroad Crossing Elimination Program
- Transit - All Stations Accessibility
- Transit - Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants Program
- Transit - Buses and Bus Facilities Program
- Transit - Develop Interoperable Standards for Bus Exportable Power Systems (BEPS)
- Transit - Innovative Coordinated Access and Mobility (ICAM) Pilot Program
- Transit - Low-No Emission Vehicle Program
- Transit - Public Transportation Innovation Program
- Transit - State of Good Repair Grants Program
- Transit - Technical Assistance, Standards Development, and Workforce Development Programs

Other: .....

47. In what Federal Fiscal Year does the Applicant intend to submit an application for the Federal Grant? **NOTE:** the Federal Fiscal Year runs from October 1 through September 30. Applications must be submitted prior to the expiration of the Infrastructure Investment and Jobs Act, currently expiring on September 30, 2026. \*

FY23 .....

48. Which phase of the Project will be submitted in the Federal Grant application? \*

Design

Right of Way Acquisition

Construction

Other: .....

**For State Purposes only**

Adopted at STB meeting on \_\_\_\_\_ Action taken:

\_\_\_ Approved

\_\_\_ Denied

\_\_\_ Modified as shown in the attached document

This form was created inside of State of Arizona.







## SouthEastern Arizona Governments Organization

*Serving our member governments and their constituents since 1972*

October 13, 2023

### SEAGO Member Entities

#### *Cochise County*

*Benson  
Bisbee  
Douglas  
Huachuca City  
Sierra Vista  
Tombstone  
Willcox*

#### *Graham County*

*Pima  
Safford  
San Carlos  
Apache Tribe*

*Thatcher*

#### *Greenlee County*

*Clifton  
Duncan*

#### *Santa Cruz County*

*Nogales  
Patagonia*

**SEAGO Office  
Administration  
CDBG  
Economic Dev.  
Housing  
Transportation**

*1403 W. Highway 92  
Bisbee, AZ 85603  
520-432-5301  
520-432-5858 Fax  
Housing Fax  
520-432-2646*

**Area Agency on  
Aging Office**

*1403 B W. Hwy 92  
Bisbee, AZ 85603  
520-432-5301  
520-432-9168 Fax*

**www.seago.org**

Jesus Valdez  
Santa Cruz County Manager  
2150 N. Congress Drive  
Nogales, AZ 85621

RE: Santa Cruz County (Ruby Road Bridge over the Potrero Creek and UPRR)

Dear Mr. Valdez,

It is our understanding that Santa Cruz County intends to submit an AZSMART Fund application to secure matching funds for the Reconnecting Communities and Neighborhoods grant that the County applied for in September for the Ruby Road Bridge over the Potrero Creek and UPRR.

This letter is to confirm that the SEAGO has included the Ruby Road Bridge over the Potrero Creek and UPRR in the SEAGO Regional TIP. It is located in the Future Projects section of the TIP. TIP ID is SCC 22-01. I have attached a copy of the TIP to this letter.

If I can provide you with any further information, please do not hesitate to contact me. My phone number is 520-432-5301 extension 209 and may email is [cdvertrees@seago.org](mailto:cdvertrees@seago.org).

Sincerely,

Christopher Vertrees  
Transportation Program Administrator  
SEAGO

TIP YEAR Project ID	PROJECT SPONSOR	PROJECT NAME	PROJECT LOCATION	LENGTH	TYPE OF IMP - WK - STRU	Functional Classifications	LANES BEFORE	LANES AFTER	FED AID TYPE	FEDERAL FUNDS	HURF EXCHANGE	LOCAL MATCH	OTHER FUNDS	TOTAL COST
DGS17-01	City of Douglas	Chino Road Extension Phase 2	Chino Road: 9th Street to SR90	.85 miles	Design	Urban Minor Arterial	2	2	CDS	\$238,912		\$15,370		\$254,282
BIS-24-01	City of Bisbee	Moon Canyon Bridge Rehabilitation	Moon Canyon at Tombstone Canyon Road	.10mile	Design/Admin. Costs	Local	2	2	OSB	\$530,000		\$0		\$530,000
CCH-23-01	Cochise County	Davis Road Rehabilitation, MP 5 & 13	Davis Road MP 5 & 13	1.81 miles	Construction	Rural Major Collector	2	2	CDS	\$2,893,000		\$174,869		\$3,067,869
CCH-23-01	Cochise County	Davis Road Rehabilitation, MP 5 & 13	Davis Road MP 5 & 13	1.81 miles	Design	Rural Major Collector	2	2	N/A	\$0		\$0	\$100,000	\$100,000
GEH-BR-07	Greenlee County	Scorpion Canyon Bridge Replacement (Structure 6149)	Scorpion Canyon Bridge (Structure 6149)	.10 miles	Bridge Replacement	Local	2	2	CDS	\$288,000				\$288,000
DGS-24-01	City of Douglas	Commercial Port of Entry Connector Road	City of Douglas from new Commercial POE to SR80	1.5 miles	Construction	N/A	0	2	N/A				\$8,170,000	\$8,170,000
PAT-24-01	Town of Patagonia	McKewon Ave Reconstruction	McKewon Ave between 4th Street West to SR82	2.540 feet	Construction	Rural Major Collector	2	2	N/A				\$1,500,000	\$1,500,000
GGH-24-01	Graham County	Norton Road & Reay Lane Intersection Reconstruction	Graham County - Norton Road & Reay Lane Intersection	300 feet	Construction	Rural Major Collector	2	2	N/A				\$500,000	\$500,000
GGH-24-02	Graham County	Talley Creek Crossing Improvements	Graham County - Safford Bryce Road at Talley Creek Crossing	400 feet	Construction	Rural Major Collector	2	2	N/A			\$1,781,500		\$1,781,500
THR-24-01	Town of Thatcher	8th Street Improvements	8th Street between 1st Avenue and I-19 Interchange		Construction	Rural Major Collector	2	2	N/A				\$4,526,400	\$4,526,400
SCC-24-01	Santa Cruz County	Improvements at Rio Rico Drive and Ruby Road	Santa Cruz County at Rio Rico Drive and Ruby Road	.93 miles	Construction	Rural Major Collector	2	2	N/A				\$8,600,000	\$8,600,000
NOG-21-01	City of Nogales	Multiluse Pathway along Patagonia Highway (SR82)	Patagonia Highway (SR82) from Morley Avenue to Royal Road	1.4 miles	Construction	N/A	N/A	N/A	CMAQ STP	\$1,090,546		\$65,919		\$1,156,465
										\$10,000		\$240,788		\$30,484,516
<b>2025</b>														
BIS-23-01	City of Bisbee	City of Bisbee Shared Use Path	SR80 from Downtown Bisbee to Erie Street	1.43 miles	Construction	Urban Principal Arterial	4	3	EDA	\$3,375,000		\$36,899		\$3,411,899
BIS-24-01	City of Bisbee	Moon Canyon Bridge Rehabilitation	Moon Canyon at Tombstone Canyon Road	.10mile	Construction	Local	2	2	OSB	\$750,000		\$0		\$750,000
DGS17-01	City of Douglas	Chino Road Extension Phase 2	Chino Road: 9th Street to SR90	.85 miles	Construction	Urban Minor Arterial	2	2	CDS STP	\$3,000,000		\$181,336		\$3,181,336
										\$10,000		\$0		\$10,000
<b>2026</b>										\$7,135,000		\$218,235	\$0	\$7,353,235
										\$10,000		\$0		\$10,000
<b>2027</b>										\$10,000		\$0		\$10,000
DGS17-01	City of Douglas	Chino Road Extension Phase 2	Chino Road: 9th Street to SR90	.85 miles	Construction	Urban Minor Arterial	2	2	STP	\$1,800,000		\$108,802		\$1,908,802
										\$10,000		\$0		\$10,000
<b>2028</b>										\$1,810,000		\$108,802		\$1,918,802
										\$10,000		\$0		\$10,000
<b>TOTAL FOR 2028</b>										\$13,776,546		\$567,624		\$14,344,170
<b>5-YEAR TOTALS</b>										\$43,776,546		\$1,186,830		\$44,963,376
<b>FUNDING OBLIGATED IN 2023</b>														
CLF21-01	Town of Clifton	Chase Creek Bridge #1 Replacement	Structure# 08536 Frisco Avenue - 0.1 mile north of Junction with Park Avenue	.01 mile	Construction	Rural Local	2	2	Off System Bridge	\$726,821		\$43,933		\$770,754
CLF21-01	Town of Clifton	Chase Creek Bridge #1 Replacement	Structure# 08536 Frisco Avenue - 0.1 mile north of Junction with Park Avenue	.01 mile	Construction	Rural Local	2	2	STEG	\$149,151		\$9,015		\$158,166
SCC-21-01	Santa Cruz County	Pendleton Drive - Roadway Dip Elimination	Pendleton Drive Dip at Sonoita Creek Wash	.25 miles	Construction	Minor Arterial	2	2	HSIP	\$424,350		\$25,650		\$450,000
SCC-21-01	Santa Cruz County	Pendleton Drive - Roadway Dip Elimination	Pendleton Drive Dip at Sonoita Creek Wash	.25 miles	Construction	Minor Arterial	2	2	STP	\$125,000		\$7,556	\$216,347	\$348,903
CCH-21-01	Cochise County	Double Adobe Road, SR 80 to Frontier Road, SR Installation of Rumble Strips	Double Adobe Road, SR 80 to Frontier Road	4.9 miles	Design	Major Collector	2	2	HSIP	\$284,000		\$0		\$284,000
GGH-21-01	Graham County	Golf Course Road, Cottonwood Wash Road - Shoulders and Rumble Strips	Golf Course Road from Hoopes Avenue to just west of 20th Avenue, Cottonwood Wash Road from Cottonwood Wash Loop to 1200 South.	5.1 miles	Construction	Major Collector	2	2	HSIP	\$1,992,408		\$186,830		\$2,179,238

Project ID	County	Project Name	2,477 linear feet	Design/Engineering Services	Various	Various	Various	AZ Smart Fund					
DUN 23-01	Town of Duncan	Town of Duncan Multiple Roads Systemwide Improvement Project		Design/Engineering Services	Various	Various	Various	AZ Smart Fund				\$595,000	
BIS 23-03	City of Bisbee	Commerce Street Bridge Replacement	520 feet	Design/Engineering Services	Local	1	1	AZ Smart Fund				\$208,500	
NOG 20-02	City of Nogales	East side of Grand Avenue from Beffert Drive to County Club Drive. Intersects with Grand Avenue path on south side of Frank Reed Road to Nogales High School.	3 miles	Design	N/A	N/A	N/A	CMAQ	\$18,860	\$1,140		\$20,000	
NOG 20-02	City of Nogales	Beffert Drive to County Club Drive. Intersects with Grand Avenue path on south side of Frank Reed Road to Nogales High School.	3 miles	Design	N/A	N/A	N/A	CMAQ	\$136,735	\$8,265		\$145,000	
BIS 23-01	City of Bisbee	SR80 from Downtown Bisbee to Erie Street	1.43 miles	PE/Design	Urban Principal Arterial	4	3	EDA	\$1,147,137	\$12,964		\$1,160,101	
WLX 23-01	City of Willcox	Vehicle Security Fencing	N/A	Capital	N/A	N/A	N/A	FTA Section 5339	\$51,732	\$12,933		\$64,665	
WLX 23-02	City of Willcox	Metal Parking Structure	N/A	Capital	N/A	N/A	N/A	FTA Section 5339	\$68,004	\$17,001		\$85,005	
NOG 21-01	City of Nogales	Multilane Pathway along Patagonia Highway (SR82)	1.4 miles	Design	N/A	N/A	N/A	CMAQ	\$32,576	\$1,970		\$34,546	
LITAP		Paigonia Highway (SR82) from Morley Avenue to Royal Road						STP	\$10,000	\$0		\$10,000	
<b>TOTAL FOR 2023</b>										<b>\$0</b>	<b>\$327,257</b>	<b>\$1,019,847</b>	<b>\$6,493,878</b>
<b>Future Construction Projects</b>													
CCH12-10	Cochise County	Davis Rd. Improvements	1 mile	Construction of Safety & Drainage Improvements	Rural Major Collector	2	2	TBD	\$924,560	\$55,885		\$980,445	
CCH 23-02	Cochise County	Charging and Fueling Infrastructure (CFI) Grant	N/A	Design/Purchase & Installation	N/A	N/A	N/A	TBD	\$500,000	\$125,000		\$625,000	
SCC 23-01	Santa Cruz County	Ruby Road Bridge at Putero Creek Replacement Project	.27 miles	Bridge Replacement	Minor Arterial	2	2	TBD	TBD	\$4,500,000	TBD	\$1,931,315	
WLX 23-01	Willcox	Capital - Miniv-Van with Lift Soapbox Canyon Bridge Replacement	N/A	Capital	N/A	N/A	N/A	TBD	\$85,000	\$13,000		\$78,000	
GEH 22-01	Greenlee County	Soapbox Canyon Bridge (Structure 8149)	.10 miles	Bridge Replacement	Local	2	2	TBD	\$240,000	TBD		\$240,000	
CCH 22-01	Cochise County	Davis Road -Central Highway to SR80	22.3 miles	PE/Design	Rural Major Collector	2	2	TBD	\$6,320,641	\$382,054		\$6,702,695	
DGS17-01	City of Douglas	Chino Road Extension Phase 2	.85 miles	Construction	Urban Minor Arterial	2	2	STP	\$1,029,000	\$62,198		\$1,091,198	
DGS 23-01	Douglas	Bicycle and Pedestrian Shared Use Path	N/A	Feasibility/Design	N/A	N/A	N/A	TBD	\$1,000,000	\$60,445		\$1,060,445	
SCC 23-01	Santa Cruz County	West Frontage Road at Camino Ramanote Roadabout	.25 miles	Construction	Rural Arterial/Rural Major Collector	2	2	TBD	\$1,200,000	\$72,534		\$1,272,534	
CCH 22-01	Cochise County	Davis Road -Central Highway to SR80	22.3 miles	ROW	Rural Major Collector	2	2	TBD	\$1,131,600	\$88,400		\$1,200,000	
CCH 22-01	Cochise County	Davis Road -Central Highway to SR80	22.3 miles	Construction	Rural Major Collector	2	2	TBD	\$61,084,658	\$3,392,286		\$64,476,944	
CCH15-01	Cochise County	Davis Rd. Improvements	0.61 miles	Construction of Safety & Drainage Improvements	Rural Major Collector	2	2	TBD	\$1,045,000	\$63,165		\$1,108,165	

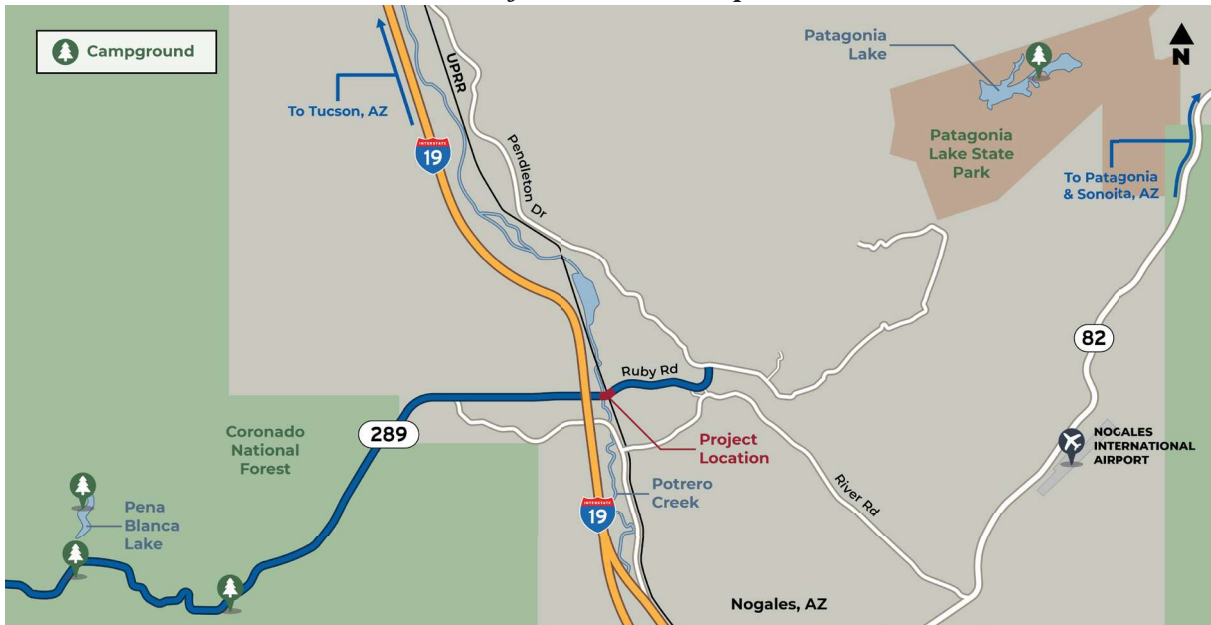




## Santa Cruz County, Arizona

### Ruby Road Bridge Over Potrero Creek and the Union Pacific Railroad

*Project Location Map*



*Project Limits Map*



## Estimated Project Costs

**INSTRUCTIONS:** List all items necessary to develop and construct your project. The applicant is responsible for verifying all costs and their accuracy. Construction cost overruns will be the responsibility of the sponsoring agency.

**Enter values into GREEN CELLS.**

The program will automatically calculate the Totals and Federal Share at 94.3%

**LOCAL PROJECTS:** Please note that the Stage I Costs shown below are to be funded by the sponsoring agency and are not eligible for Federal Reimbursement.

ITEM DESCRIPTION	UNIT	QUAN.	UNIT PRICE	TOTAL	FEDERAL FUNDS @ 94.3%	SPONSOR MATCHING FUNDS @ 5.7%
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### STAGE 1 – SCOPING (15% Preliminary Design)

#### SCOPING COSTS

Costs cannot be applied toward the federal participation or local match

SITE TOPOGRAPHIC SURVEY (2%-5% of constr. cost) <i>(Enter \$0 in Unit Price column if none required)</i>	LS	1	\$36,000.00	\$36,000.00		
SCOPING DOCUMENT (Scoping Letter, Project Assessment or DCR)	LS	1	\$20,000.00	\$20,000.00		
ENVIRONMENTAL DETERMINATION (Including technical supporting documents)	LS	1	\$35,000.00	\$35,000.00		
HAZARDOUS MATERIALS ASSESSMENT Including heavy metals & asbestos (If an assessment is necessary, anticipate \$1,500. <i>Enter \$0 in Unit Price column if none required</i> )	LS	1	\$1,500.00	\$1,500.00		
<b>SUBTOTAL – PROJECT SCOPING COSTS</b>				\$ 92,500	\$87,228	\$5,273

### STAGES II, III, IV - DESIGN (30%, 60%, 95%-100% Design)

#### DESIGN COSTS

Note: The use of federal funds for design is optional and subject to authorization. Design should not go beyond Stage II (30%) without environmental approval.

PS&E's - Plans, Special Provisions, Cost Estimates & Schedules (10%-20% of construction cost.) (Shall be refunded if project is not constructed)	LS	1	\$800,000.00	\$800,000.00		
GEOTECHNICAL INVESTIGATION (If a report is necessary, anticipate 5% of construction cost) Includes testing, Geotech Report, Materials & Pavement Design Report) <i>Enter \$0 in Unit Price column if none required.</i>	LS	1	\$25,000.00	\$25,000.00		
DRAINAGE REPORT (If a report is necessary, anticipate 5% of construction cost) <i>Enter \$0 in Unit Price column if none required</i>	LS	1	\$22,000.00	\$22,000.00		
STORM WATER POLLUTION PREVENTION PLAN (Required if there is over 1 acre of total disturbance, 1% of construction cost) <i>Enter \$0 in Unit Price column if none required.</i>	LS	1	\$5,000.00	\$5,000.00		
<b>SUBTOTAL – PROJECT DESIGN COSTS</b>				\$ 852,000	\$803,436	\$48,564
Federal Funds for design are calculated at 94.3% of the total design cost. If requesting less than 94.3% Federal Funds for design, enter new total or 0 in the Federal column.						

### STAGE V – CONSTRUCTION

ITEM DESCRIPTION	UNIT	QUAN.	UNIT PRICE	TOTAL	FEDERAL FUNDS @ 94.3%	SPONSOR MATCHING FUNDS @ 5.7%
<b>SITE ACQUISITION &amp; HARDSCAPE CONSTRUCTION</b>						
RIGHT-OF-WAY ACQUISITION (if necessary)	LS	1	\$20,000.00	\$20,000.00	\$18,860.00	\$1,140.00
INSTALLATION OF STORMWATER POLLUTION PREVENTION MEASURES (If over 1 acre of disturbance, 5% of constr. costs) <i>Enter \$0 in Unit Price column if area of disturbance is less than one acre.</i>	LS	1	\$80,000.00	\$80,000.00	\$75,440.00	\$4,560.00
SITE PREPARATION (Clearing and grubbing, plant salvage)	LS	1	\$33,000.00	\$33,000.00	\$31,119.00	\$1,881.00
<b>DEMOLITION</b>						
Sawcut	LF	0	\$0.00	\$0.00	\$0.00	\$0.00
Remove Structures and Obstructions	LS	1	\$33,000.00	\$33,000.00	\$31,119.00	\$1,881.00
Remove Fencing	LF	0	\$0.00	\$0.00	\$0.00	\$0.00
Remove Structural Concrete		0	\$0.00	\$0.00	\$0.00	\$0.00
Remove Asphaltic Concrete Pavement	CY	0	\$0.00	\$0.00	\$0.00	\$0.00
Remove Concrete Sidewalks, Slabs		0	\$0.00	\$0.00	\$0.00	\$0.00
HAZARDOUS MATERIALS ABATEMENT (If applicable; include heavy metals & asbestos; 5% of construction cost) <i>Enter \$0 in Unit Price column if none required.</i>	LS	1	\$0.00	\$0.00	\$0.00	\$0.00
UTILITY RELOCATION (If necessary) Only the cost of utilities needing relocation as a direct result of the enhancement project are eligible for federal reimbursement. Because of the costs involved, the undergrounding of overhead utilities is not eligible	LS	1	\$0.00	\$0.00	\$0.00	\$0.00
RETAINING WALL (Concrete; SF of face above the footing)	SFF	13,000	\$135.00	\$1,755,000.00	\$1,654,965.00	\$100,035.00
<b>EARTHWORK</b>						
General Excavation		1,050	\$45.00	\$47,250.00	\$44,556.75	\$2,693.25
Drainage Excavation		25	\$55.00	\$1,375.00	\$1,296.63	\$78.38
Structural Excavation	CY	2,250	\$55.00	\$123,750.00	\$116,696.25	\$7,053.75
Structural Backfill		270	\$220.00	\$59,400.00	\$56,014.20	\$3,385.80
Borrow (In Place)		7,600	\$40.00	\$304,000.00	\$286,672.00	\$17,328.00
CURB & GUTTER	LF	1,000	\$72.00	\$72,000.00	\$67,896.00	\$4,104.00
AGGREGATE BASE	CY	1,170	\$105.00	\$122,850.00	\$115,847.55	\$7,002.45
<b>PATHWAY OR SIDEWALK MATERIALS</b>						
Concrete		2,400	\$17.50	\$42,000.00	\$39,606.00	\$2,394.00
Colored Concrete	SF	0	\$0.00	\$0.00	\$0.00	\$0.00
Stamped Color Concrete		0	\$0.00	\$0.00	\$0.00	\$0.00
Precast Concrete Pavers		0	\$0.00	\$0.00	\$0.00	\$0.00
Asphaltic Concrete	Ton	1,800	\$165.00	\$297,000.00	\$280,071.00	\$16,929.00
Polymer or Resin Stabilized Surface	SF	0	\$0.00	\$0.00	\$0.00	\$0.00
<b>CROSSWALK ENHANCEMENT</b>						
Concrete Pavers		0	\$0.00	\$0.00	\$0.00	\$0.00
Stamped Asphalt	SF	0	\$0.00	\$0.00	\$0.00	\$0.00
Stamped Concrete		0	\$0.00	\$0.00	\$0.00	\$0.00
Concrete		0	\$0.00	\$0.00	\$0.00	\$0.00
Integral Color Concrete		0	\$0.00	\$0.00	\$0.00	\$0.00
PEDESTRIAN ADA RAMP	SF	600	\$16.00	\$9,600.00	\$9,052.80	\$547.20
CULVERT EXTENSIONS	LF	55	\$200.00	\$11,000.00	\$10,373.00	\$627.00
PEDESTRIAN LIGHTING (Includes conduit and trenching) Street lighting is not eligible for federal reimbursement.	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
HANDRAIL			1			

ITEM DESCRIPTION	UNIT	QUAN.	UNIT PRICE	TOTAL	FEDERAL FUNDS @ 94.3%	SPONSOR MATCHING FUNDS @ 5.7%
Standard	LF	0	\$0.00	\$0.00	\$0.00	\$0.00
Decorative		0	\$0.00	\$0.00	\$0.00	\$0.00
<b>SUBTOTAL - SITE ACQUISITION &amp; HARDSCAPE CONSTRUCTION</b>				\$ 3,011,225	\$2,839,585	\$171,640
<b>LANDSCAPING &amp; IRRIGATION ITEMS</b>						
TREES (Above 15 gallon in size as required per local code or special design requirements)	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
TREES (15 GALLON SIZE)	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
TREES (5 GALLON SIZE)	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
SHRUBS (5 GALLON SIZE)	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
SHRUBS (1 GALLON SIZE)	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
CACTUS (5 GALLON SIZE)	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
MULCH						
Decomposed Granite	CY	0	\$0.00	\$0.00	\$0.00	\$0.00
Organic		0	\$0.00	\$0.00	\$0.00	\$0.00
TOPSOIL	CY	0	\$0.00	\$0.00	\$0.00	\$0.00
SEEDING	Acre	0	\$0.00	\$0.00	\$0.00	\$0.00
TURF SOD	SY	0	\$0.00	\$0.00	\$0.00	\$0.00
BOULDERS	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
IRRIGATION SYSTEM						
Drip	SF	0	\$0.00	\$0.00	\$0.00	\$0.00
Turf		0	\$0.00	\$0.00	\$0.00	\$0.00
SLEEVING FOR IRRIGATION SYSTEM						
Directional Bore	LF	0	\$0.00	\$0.00	\$0.00	\$0.00
Cut and Patch		0	\$0.00	\$0.00	\$0.00	\$0.00
LANDSCAPE HEADER CURB	LF	0	\$0.00	\$0.00	\$0.00	\$0.00
LANDSCAPE ESTABLISHMENT (Typically 4.5% of the cost of landscaping)	LS	0	\$0.00	\$0.00	\$0.00	\$0.00
<b>SUBTOTAL – LANDSCAPING &amp; IRRIGATION ITEMS</b>				\$ -	\$0	\$0
<b>SITE FURNISHINGS</b>						
BENCHES	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
SEATWALLS	LF	0	\$0.00	\$0.00	\$0.00	\$0.00
BIKE RACKS	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
TRASH RECEPTACLES	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
DRINKING FOUNTAINS	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
SIGNAGE (Standard Traffic Control)	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
TREE GRATES	Each	0	\$0.00	\$0.00	\$0.00	\$0.00
<b>SUBTOTAL – SITE FURNISHINGS</b>				\$ -	\$0	\$0
<b>OTHER CONSTRUCTION ITEMS (List line items)</b>						
Bridge Removal	LS	1	\$165,000.00	\$165,000.00	\$155,595.00	\$9,405.00
New Bridge	LS	1	\$5,800,000.00	\$5,800,000.00	\$5,469,400.00	\$330,600.00
Misc	LS	1	\$200,000.00	\$200,000.00	\$188,600.00	\$11,400.00
				\$0.00	\$0.00	\$0.00
				\$0.00	\$0.00	\$0.00
				\$0.00	\$0.00	\$0.00
				\$0.00	\$0.00	\$0.00
				\$0.00	\$0.00	\$0.00
<b>SUBTOTAL - OTHER CONSTRUCTION LINE ITEMS</b>				\$ 6,165,000	\$5,813,595	\$351,405
<b>MOBILIZATION AND ADMINISTRATION COSTS</b>						

ITEM DESCRIPTION	UNIT	QUAN.	UNIT PRICE	TOTAL	FEDERAL FUNDS @ 94.3%	SPONSOR MATCHING FUNDS @ 5.7%	
CONTRACTOR MOBILIZATION (Typically 8% of construction cost)	LS	1	\$1,400,000.00	\$1,400,000.00	\$1,320,200.00	\$79,800.00	
TRAFFIC CONTROL (0-8% of construction cost)	LS	1	\$900,000.00	\$900,000.00	\$848,700.00	\$51,300.00	
CONSTRUCTION SURVEY & LAYOUT (Typically 1% of construction cost)	LS	1	\$150,000.00	\$150,000.00	\$141,450.00	\$8,550.00	
CONSTRUCTION CONTINGENCIES (Typically 5% of construction cost)	LS	1	\$2,200,000.00	\$2,200,000.00	\$2,074,600.00	\$125,400.00	
CONSTRUCTION ADMINISTRATION (Averaging 18% of construction cost)	LS	1	\$1,650,000.00	\$1,650,000.00	\$1,555,950.00	\$94,050.00	
<b>SUBTOTAL – MOBILIZATION &amp; ADMINISTRATION COSTS</b>				\$ 6,300,000	\$5,940,900.00	\$359,100.00	
<b>TOTAL STAGE V COSTS (CONSTRUCTION)</b> (Enter this amount in Box A below.)				\$ 15,476,225	\$14,594,080.18	\$882,144.83	
ADOT REVIEW FEES (Cannot be applied to the federal participation or the local match. On local Certification Acceptance or Self-administration projects, change to \$3,000)	LS	1	\$30,000.00	\$30,000.00	NO ENTRY		
<b>TOTAL PROJECT COST (All subtotals + ADOT review fee)</b>				\$ 16,450,725	NO ENTRY		
<b>SUMMARY OF FEDERAL AND LOCAL FUNDS</b>							
<b>TOTAL STAGE V COSTS (CONSTRUCTION) FROM THE ESTIMATE ABOVE, AND DESIGN COSTS IF REQUESTING FEDERAL FUNDS FOR DESIGN.</b> Include design costs (Stages II thru IV) if federal funds are requested for design as shown under Design Costs in the federal column above.						<b>BOX A</b>	\$ 16,328,225
<b>TOTAL FEDERAL FUNDS CAPPED @ 94.3% (.943 x amount shown in Box A above).</b> <i>Note: For local projects, the maximum federal funds that can be requested is \$500,000 (\$1,000,000 for state projects).</i>						<b>BOX B</b>	\$ 15,397,516
<b>TOTAL SPONSOR MATCHING FUNDS (.057 x cost shown in Box A above).</b> <i>Note: The maximum amount that should be shown on this line is \$30,223 for local projects (\$60,445 for state projects).</i>						<b>BOX C</b>	\$ 930,709
<b>TOTAL SPONSOR ADDITIONAL FUNDS (OVERMATCH).</b> Enter the amount in Box A in excess, if any, of \$530,223 for local projects or \$1,060,445 for state projects.						<b>BOX D</b>	\$ 0
<b>TOTAL SPONSOR FUNDS (Sum of Box C and Box D).</b>						<b>BOX E</b>	\$ 930,709



# Arizona State Match Advantage for Rural Transportation (AZ SMART) Fund Application

Each application may address only one Project and one Federal Grant. Additional Projects and/or Federal Grants require a separate application. See the Application Guidelines for important information and detailed instructions for completing this Application. To ensure the Application is Administratively Complete and will be presented to the State Transportation Board, please respond to all questions and submit all requested documents.

**Document Checklist:** the following documents required to be uploaded to complete this application (PDFs required for all uploaded documents):

1. Documentation evidencing the COG/MPO approval to apply to the AZ SMART Fund
2. Map showing Project location (for infrastructure projects and studies).
3. Documentation showing the Project cost estimates (scoping document, cost estimation form, etc.). **NOTE:** Careful attention should be given to developing the cost estimate as the Applicant is responsible for all costs exceeding the amount awarded from the AZ SMART Fund and/or a Federal Grant.

Email \*

joseph@tripjllc.com

## Applicant Information

Please answer all the questions below.

1. Name of Applicant City, Town or County \*

Town of Pinetop-Lakeside, Arizona

2. Name of Contact Person for Applicant \*

Matt Patterson

3. By checking the box below, the Contact Person for the Applicant certifies they have read and agree to the **Program Guidelines and Application Instructions** for the AZ SMART Fund Program. \*

I have read and agree to the Program Guidelines and Application Instructions for the AZ SMART Fund Program.

4. Contact's Title \*

Public Works Director

5. Contact's Full Mailing Address \*

958 S Woodland Road, Lakeside AZ 85929

6. Contact's Office Phone # \*

928-368-8885

7. Contact's Business Cell Phone # (if applicable)

8. Contact's Business Email Address \*

mpatterson@pinetoplakesideaz.gov

9. Select the Applicant's COG/MPO. \*

Northern Arizona Council of Governments (NACOG) ▼

**Project Information**

Please answer all the questions below.

**NOTE regarding ADOT project design administration (PDA) fees:** If requesting ADOT administration of the Project, initial ADOT PDA fees of \$30,000 will apply. These fees are eligible for AZ SMART Funding only when included in an Application for Design and Other Engineering Services or for Match on a federal grant application which will include design. The initial PDA fees are an estimate only and may be more or less, depending on the Project. By submitting this application, the Applicant understands that ADOT may bill additional PDA fees and agrees to pay such fees. Any fees not required for the Project will be refunded to the Applicant upon approval of the Project final voucher.

10. Select the Project Type. \*

Road

Bridge

Transit

Rail

Other: Bridge and supporting roads

11. Project Name - enter a brief, intuitive name. \*

Pinetop Commons Road & Bridge

12. Enter the Project limits as applicable. If an infrastructure Project is infrastructure, provide the name of the road and "From" and "To" Mileposts or Cross Streets. If a non-infrastructure project, enter the geographic area to which the plan or study will relate. \*

12) From Latitude 34.14140 Longitude -109.95335 to Latitude 34.14374 Longitude -109.95226

13. Enter the Project's TIP number, if applicable. If the Project is not in the TIP, enter "NA". \*

NA

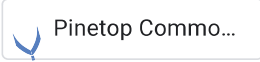
14. Submit written documentation evidencing the COG/MPO approval to submit the Project to the AZ SMART Fund program (PDF format only). \*



15. Project Description - Provide a concise, specific description of the Project, including the type of work to be performed and benefits to be realized (3,000 character maximum, including spaces and punctuation). \*

The Town is requesting funding assistance to widen the existing driveway, construct a bridge across Billy Creek and construct a road to complete the ingress/egress to cross the Creek. The amount of road is less than 1,000 feet. The project resides within the Town's right-of-way and the Town's property. The Town seeks to construct a bridge across the Creek so that the north side of the Creek can be developed into recreation land, potentially into a low-income, multi-family complex, provide an additional ingress/egress route for the existing and potential single-family dwellings north of the Creek, and allow the expansion of the Town on the north side of Creek. These plans can only proceed if another bridge is constructed to cross the Creek.

16. Please upload a map showing the Project location or study area (PDF format only).

 Pinetop Commo...

17. Is the Project entirely in the Applicant's Right of Way? For non-infrastructure projects, check "Not applicable." \*

- Yes
- No
- Not applicable

18. If Project involves ADOT Right of Way, has the Applicant discussed the Project and obtained the consent of the applicable ADOT District office to proceed with this grant application? If no ADOT Right of Way or a non-infrastructure project, check "Not applicable." \*

- Yes
- No
- Not Applicable

19. If Project involves privately-owned or another jurisdiction's Right of Way, has the Applicant discussed the Project with owner and obtained its consent to proceed with this grant application? If no other Right of Way or non-infrastructure project, check "Not applicable." \*

- Yes
- No
- Not applicable

20. Project Schedule - check the boxes to show the State Fiscal Years in which each phase is scheduled to begin. \*  
 Check only ONE box in each row. Non-infrastructure projects - check the boxes under Not Applicable for each row. **NOTE:** the State Fiscal Year runs from July 1 through June 30.

	2023	2024	2025	2026	Not Applicable
Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (for non-infrastructure projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

21. Project Status - check the boxes to indicate the status of each phase. Check only ONE box in each row. Non-infrastructure projects - check the boxes under Not Applicable for each row. \*

	Not started	In progress	Completed	Not Applicable
Scoping/Pre-Design	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Right of Way Acquisition	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Environmental	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (for non-infrastructure projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

22. Design Status - for each Stage, check one box to indicate the Project's Design Status. Non-infrastructure projects - check the boxes under Not Applicable for each row.

	Not started	In progress	Completed	Not Applicable
Stage 1, 15% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 2, 30% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 3, 60% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 4, 95% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 5, 100%	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. Cost Estimate for Scoping/Pre-design - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

0

24. Enter the date of the Scoping/Pre-design estimate. Enter "NA" if not applicable. \*

NA

25. Cost Estimate for Design - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

174600

26. Enter the date of the Design estimate. Enter "NA" if not applicable. \*

1/5/2024

27. Cost Estimate for Right of Way - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

0

28. Enter the date of the Right of Way estimate. Enter "NA" if not applicable. \*

NA

29. Cost Estimate for Utilities - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

0

30. Enter the date of the Utilities estimate. Enter "NA" if not applicable. \*

NA

31. Cost Estimate for Construction - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

3149735

32. Enter the date of the Construction estimate. Enter "NA" if not applicable. \*

1/15/2024

33. Cost Estimate for Other - enter in whole dollars (for example, 250,000) . Enter "0" if not applicable. \*

0

34. Enter the date of the Other estimate. Enter "NA" if not applicable. \*

NA

35. Do the estimates provided reflect costs on a Year of Expenditure basis? Note: Year of Expenditure basis means the costs have been inflated in later years. \*

Yes

No

36. Please indicate the source of the Project Cost Estimates entered above. \*

Developed by the Applicant

Developed by an engineering consultant

Other: .....

37. Please upload documentation (PDF format only) showing the Project cost estimates (scoping document, cost estimation form, etc.). \*

 Construction Co...

### AZ SMART Fund Request

Please answer all the questions below.

**NOTE: Careful attention should be paid to developing a thorough and complete cost estimate on a year of expenditure basis.** The Applicant will be responsible for all costs which exceed the amount of an AZ SMART Fund or federal grant award. ADOT has developed a Project Cost Estimating Tool which is available on the AZ SMART Fund webpage under Application Materials. This tool is provided as a courtesy only and does not purport to cover all possible costs or scenarios. Applicants are ultimately responsible for determining the Project cost estimate.

Unless the NOFO/NOFA includes the option to be a direct recipient, both CA and non-CA agencies should include initial project development fees for road/bridge/rail projects. For transit projects, an administration fee of 10% of the total project cost will apply.

38. County Applicants with population of 100,000 or less and municipalities with population of 10,000 or less ONLY: Enter the amount requested for Reimbursement of up to 50% of the costs associated with developing and submitting an application for the Federal Grant identified below. **The amount entered below should be no more than 50% of the total estimated costs of developing and submitting the grant** - enter in whole dollars (for example, 250,000).

.....

39. Enter the amount requested from the AZ SMART Fund for Match for the Federal Grant identified in this application - enter in whole dollars (for example, 250,000). If not requesting Match, skip this question.

.....



40. Beyond the amount requested from the AZ SMART Fund, enter the dollar amount of Matching cash funds to be committed by the Applicant for the Project in the Federal Grant identified in this application. If not requesting Match, skip this question.

.....

41. Enter the percent to the second decimal place (for example, 15.05%) of Matching cash funds which will be provided by just the Applicant in the Federal Grant application - do not include the amount requested from the AZ SMART Fund. See Application Guidelines for directions to calculate the percentage. If not requesting Match, skip this question.

.....

42. Enter the amount requested from the AZ SMART Fund for reimbursement of design and other engineering services expenditures that meet federal design standards for Projects eligible for the Federal Grant identified in this application. Enter in whole dollars (for example, 250,000). If not requesting design funds, skip this question.

174600

43. Are ADOT Project Development Fees included in the amount requested for design and other engineering expenditures? If not, requesting design funding, skip this question.

Yes

No

43. Provide the names of any other entities the Applicant will partner with to deliver the Project. Identify and quantify the contribution of each partner(s) (dollar amount of cash match, type of in-kind services, etc.). If none, enter "NA."

Low-Income Multi-Family Housing Developer will contribute \$2,000,000 towards construction

**Federal Grant**

Please answer all the questions below. NOTE: Federal grants eligible under the SMART Fund are federal discretionary grant programs administered by any federal agency for SURFACE TRANSPORTATION PURPOSES.

44. How does the Applicant intend to submit the federal grant application? **Note:** If requesting ADOT to submit, the following time frames apply: \*

A. At least thirty (30) day prior to the application deadline in the NOFO for the applicable federal discretionary grant, the Applicant is required to submit the ADOT Grant Coordination Support Request Form at <https://apps.azdot.gov/files/mvd/mvd-forms-lib/42-0103.pdf>.

B. At least seven (7) days before the NOFO/NOFA deadline, the completed application materials must be provided to the ADOT Grant office for submission.

- Applicant or consultant will submit directly
- Applicant requests ADOT to submit
- Other: .....

45. How does the Applicant intend to administer the Project if awarded a federal grant? \*

- Be a direct recipient if allowed in the NOFO
- Request ADOT administration (Project development administration fees will apply)
- Other: .....

46. Select the Federal Grant for which the Applicant intends to submit the Project - select one grant only. If the desired grant is not listed, select Other and provide the name of the grant and the applicable federal agency. **NOTE:** This list does not include all federal discretionary grants and may contain grants that are not currently available or funded. Applicants are responsible for conducting their own research to identify an appropriate federal grant for their Project. \*

- Active Transportation Infrastructure Investment Program
- Bridge Investment Program
- Defense Community Infrastructure Pilot
- Grants for Charging and Fueling Infrastructure
- Local and Regional Project Assistance (RAISE)
- Multi State Freight Corridor Planning
- National Culvert Removal, Replacement and Restoration Grant Program
- National Infrastructure Project Assistance (MEGA)
- Nationally Significant Freight and Highway Projects (INFRA)
- PROTECT Grant Program
- Reconnecting Communities Pilot Program
- Rural Surface Transportation Grant Program
- Safe Streets and Roads for All Program (SS4A)
- Strategic Innovation for Revenue Collection
- Strengthening Mobility and Revolutionizing Transportation Grant Program
- Wildlife Crossing Safety
- Rail - Consolidated Rail Infrastructure and Safety Improvements Grants
- Rail - Fixed Guideway Capital Investment Grants
- Rail - Restoration and Enhancement Grants
- Rail - Railroad Crossing Elimination Program
- Transit - All Stations Accessibility
- Transit - Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants Program
- Transit - Buses and Bus Facilities Program
- Transit - Develop Interoperable Standards for Bus Exportable Power Systems (BEPS)
- Transit - Innovative Coordinated Access and Mobility (ICAM) Pilot Program
- Transit - Low-No Emission Vehicle Program
- Transit - Public Transportation Innovation Program
- Transit - State of Good Repair Grants Program
- Transit - Technical Assistance, Standards Development, and Workforce Development Programs

Other: .....

47. In what Federal Fiscal Year does the Applicant intend to submit an application for the Federal Grant? **NOTE:** the Federal Fiscal Year runs from October 1 through September 30. Applications must be submitted prior to the expiration of the Infrastructure Investment and Jobs Act, currently expiring on September 30, 2026. \*

2024 .....

48. Which phase of the Project will be submitted in the Federal Grant application? \*

Design

Right of Way Acquisition

Construction

Other: .....

**For State Purposes only**

Adopted at STB meeting on \_\_\_\_\_ Action taken:

\_\_\_ Approved

\_\_\_ Denied

\_\_\_ Modified as shown in the attached document

This form was created inside of State of Arizona.





**Chris Fetzer**  
Executive Director

January 18th, 2024

The Honorable Pete Buttigieg  
U.S. Department of Transportation  
1200 New Jersey Ave., SE  
Washington, DC 20590

Dear Secretary Buttigieg,

I am writing to express support for the *Pinetop Commons Road & Bridge project* located within the Town of Pinetop-Lakeside in Navajo County, Arizona. Pinetop-Lakeside has identified the need for this bridge to allow development on the north side of Billy Creek. Therefore, this projects serves a major need towards the overall growth and safety of mobility in Pinetop-Lakeside. As an effort supported by the Northern Arizona Council of Governments (NACOG) as the preferred method for improving transportation in the area, this project will be included in the NACOG FY2024 – 2029 Transportation Investment Plan (TIP) if RAISE Grant Program funding is awarded.

Improving community connectivity and economic activity is central to this project and NACOG priorities. The Town of Pinetop-Lakeside seeks to construct a bridge across Billy Creek so that the north side of the creek can be developed potentially into a low-income, multi-family complex, and provide an additional ingress/egress route for the existing and potential single-family dwellings. These development plans can only proceed if a bridge is constructed to cross the creek.

I want to thank you in advance for your consideration of this project. It is our hope that you will see the importance of this project in increasing the safety of residents and regional visitors who travel in the NACOG region regularly and will support full funding for the project.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Fetzer", written in a cursive style.

Chris Fetzer  
Executive Director



TOWN OF  
PINE TOP-LAKESIDE  
PUBLIC WORKS  
DEPARTMENT  
908 W. ARIZONA  
LAKESIDE, AZ 85929  
(928) 368-4885  
CITY/STATE/ZIP FAX

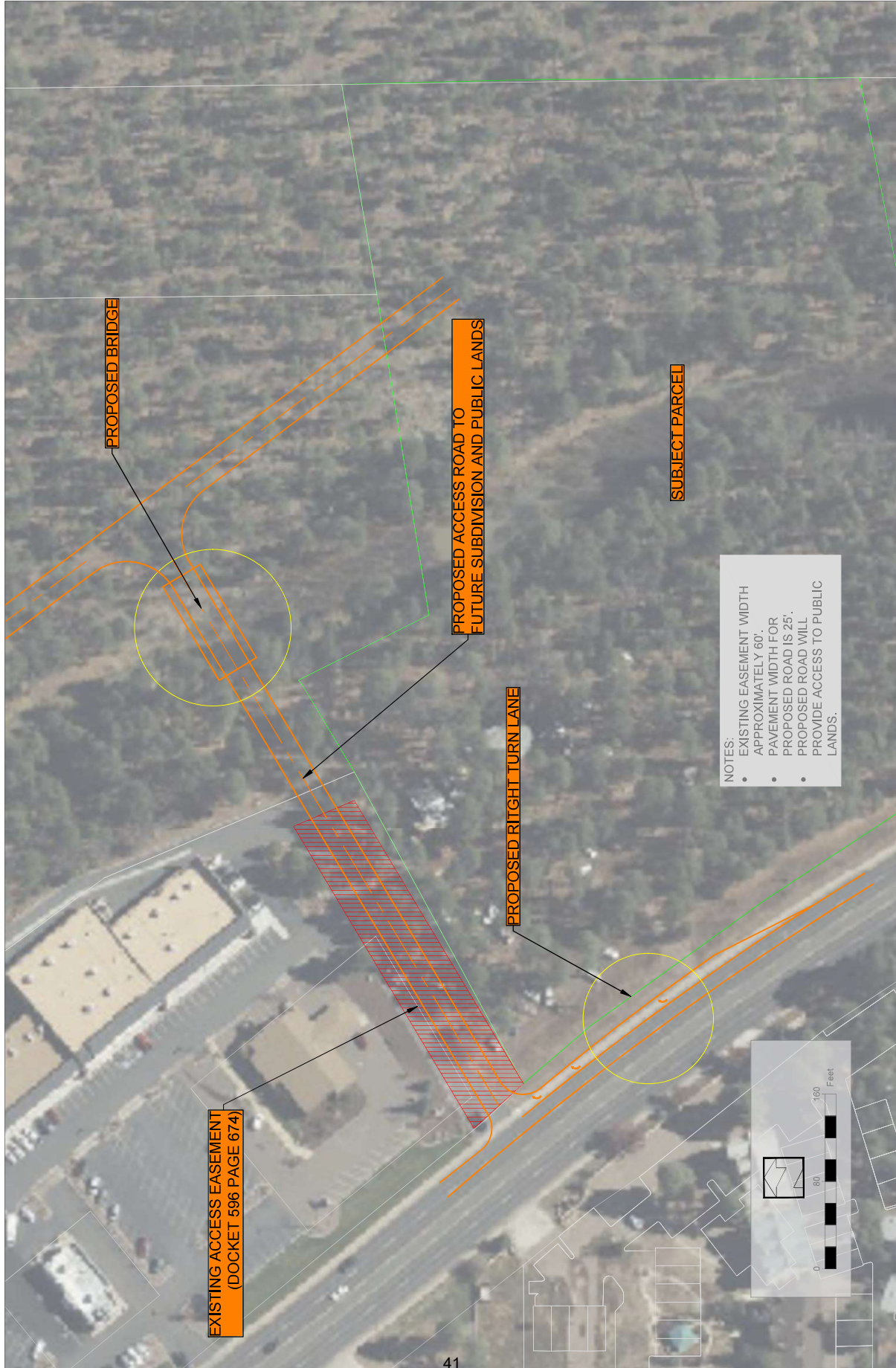
PROPOSED LOCATION FOR ACCESS  
ROAD AND BRIDGE

NO.	DATE	DESCRIPTION

DRAWN BY  
SCALE ADJUSTED  
DATE PLOTTED

PROPOSED  
IMPROVEMENTS

SHEET NO.  
01





**Date: December 18, 2023**

**Project: CBC Financial**

**Scope: Bridge Design, Bridge Manufacturing**

**Contact: Jim Danaher**

**Our Estimate below defines our full scope of work for the bridges on the above-referenced project. The price on this proposal is only valid for thirty (30) days.**

**Bridge Brother's scope will include all structural engineering, manufacturing, installation, and site construction for your project. Any associated designs will be in adherence to the engineering standards set forth in the proposal. Any additional work outside of the proposed scope below will be priced in the form of a Change Order.**

**Structural & Civil Engineering: Included**

- PE Stamped Design & Calculation Package
- PE Stamped Abutment & Anchor Design - Add \$15,000
  - Permits/Geotechnical Reports/Site Surveys Supplied by Others

**Bridge Manufacturing (Excluding Sales Tax): \$1,299,574**

- Qty (1) 28' x 125' Vehicle Bridge
  - 1 @ 11' travel lanes
  - 1 @ 1' curb
  - 1 @ 5' build up sidewalk
- Bridge Design and Member Size is Based on Bridge Brothers Stamped Design
- Finish (Weathering)
- Truss Configuration (Pratt)
- Decking (SIP Galvanized Pan for concrete to be poured by GC)
  - Shipped Loose
- HL-93 vehicle loading (72,000#)
- Railing (42" Horizontal railing) one side
- 1' curb
- Splices (Whipped in 4 threes and disassembled floor beams)
- Additional Options included (Anchor Bolt Supply, Bearing Plate Supply, Expansion Plate Supply)
- Sales Tax is EXCLUDED
- Freight to Project Site (FOB)

- The bridge will be shipped in 4-12 pieces ( Length and or floor splice) with a current estimated value of freight of (\$80,000)
- Estimated total bridge weight is 175,000#)

---

**Bridge Sitework & Erection (Excluding Sales Tax): \$1,374,177**

- QTY (2) Precast or poured-in-place foundations - Assumed to be no more than 6' tall
- Site excavation and grading estimate could be subject to change based on geotechnical report, site survey, and site constraints/conditions
- Site must have clear accessible graded access for crane to travel to abutment locations
- Site must be cut to grade and pre-excavated, ready for either precast or poured in place abutments. Site must have sufficient site access for construction/installation equipment to both sides of the bridge.
- Site is to have clear crane access within a 10' radius of abutments backwall - if radius is more than 10' a Change Order may be issued for the difference in crane value.
- Rip rap, piles, dewatering, and suitable fill are excluded and will be charged at T&M rates if required for project site conditions.
  - If piles are required \$1,500 per pile will be charged and \$175 per ln/ft
- Excess soils to be removed by others.
- Unload and splice/fit-up bridge sections.
- Utilities and overhead powerlines are to be covered, protected or relocated at the owner expense prior to Bridge Brothers mobilization.
- Lane closures by others
- Erect bridge and install bridge anchors per project plans
- Pour Bridge deck

**Estimated Project Schedule**

- **Structural Design Package**
  - 8 weeks
- **Bridge Manufacturing and Freight**
  - 24-30 Weeks from the Date of Approved Drawings Depending on Project Scope
    - Delivery may vary due to mill lead times
- **Bridge Site Work and Erection**
  - 3-5 Weeks depending on project specific details



**Qualifications:**

- Bridge Brothers Terms and Conditions are required to be signed, in the circumstance where they are not, please allow a minimum of ten (10) working days for contract review.
- Any language listed within this proposal shall be fully incorporated into the final contract.
- Bridge Brothers will require a payment to serve as a deposit to begin engineering services.
- Bridge Brothers will require a payment following the approval of engineering submittals.
- Bridge Brothers will require a payment following the completion of fabrication.
- Bridge Brothers will require the payment of Change Orders prior to shipment.
- Bridge Brothers will require a payment that serves as an erection deposit before any Bridge Brothers mobilization.
- Bridge Brothers will not accept any retention holdbacks thirty (30) days after the completion of our scope of work.
- The Customer must provide sufficient space for delivery trucks to safely park and be unloaded, any time delays at delivery which result in additional freight charges will be billed to the customer.
- Means and methods of installation are Bridge Brothers and any measure requested and/or required outside of this will be charged at Time and Material from our standard rate sheet.
- Pricing may be subject to change based on the Geotechnical Report, Site Survey, and Site Constraint.
- Utilities, overhead power lines, or anything in relation are to be covered, protected, or relocated at the Customers' expense prior to Bridge Brother's mobilization.
- Customer needs to provide graded access to both abutment locations for erection equipment, the following will apply:
  - o Bridge Brothers is not responsible for the following:
    - Tree removal.
    - Brush removal.
    - Excess dirt removal.
    - Excess grubbing.
  - o Bridge Brothers will bill a fee for where site conditions are not in compliance and any delays/down time as a result of non compliance will be billed double our T&M rates.
- Any equipment or tools used on site that are owned/rented by the Customer is at the expense of the Customer; Bridge Brothers will not be responsible for any cost associated with such unless discussed prior to mobilization.
- The following requirements must be satisfied in relation to Unloading and Splice Fit Up Bridges:
  - o 80% Safety Factor to be used on all cranes, if a lower safety percentage is required/requested and a larger crane is required, any cost associated with such will be billed in the form of a Change Order.
- Lane Closures and traffic control will be completed by Others at no cost to Bridge Brothers.
- If Bridge Brothers is to be pouring concrete the following applies:
  - o Concrete cure time and setting of the Bridge is dependent on project specifics and project P.E.
  - o The cost associated with the concrete tes/heating is on the Customer.
  - o The cost associated with the sealing of concrete is on the Customer.
  - o The cost associated with any epoxy-coated rebar is on the Customer.
  - o Concrete is poured in conformance to structural requirements, not architectural requirements.
  - o Where Bridge Brothers performs any of the above-mentioned work or work in relation to the

above-mentioned this will be billed in the form of a Change Order at our T&M standard rates.

- Bridge Brothers is responsible for the precast or poured-in-place abutments, this is up to 6' tall; anything above 6' tall will require a Change Order at our T&M rates.
  - o Abutment backfilling will be done by Others.
- Where Piles are required, they will be billed at the following:
  - o Piles are priced at \$1,500 per pile and \$175 per In/ft
- Rip Rap, Wingwalls, and Dirt are not included in this price; where this is required the cost of such will bill in the form of a Change Order at our standard T&M rates.
- Where the project includes cable railing, Bridge Brothers will tension cables to the design specifications:
  - o Bridge Brothers will leave a tension tool upon written request from the Customer.
  - o Bridge Brothers will remobilize to tension cables following the final walkthrough, where the Customer requests any re-tensioning of cable railing; this will be billed in the form of a Change Order and will be completed at the discretion of the Bridge Brothers installation schedule.
- Where the project is painted or galvanized the following will apply:
  - o Any additional touch-up galv or paint will be completed by Bridge Brothers while on site, anything requested following the final walkthrough will be billed in the form of a Change Order.
  - o Bridge Brothers will leave additional paint with the customer following the final walkthrough.
- Bridge Brothers will require a final walk-through with a customer representative following such a project completion and the acceptance form will be signed while Bridge Brothers personnel is onsite.
- Bridge Brothers is a nondiscriminatory employer.

**Exclusions:**

- Any item not listed in this proposal is not included in Bridge Brothers' Scope of Work.
- Any proposed scope of work additions will be billed in the form of a Change Order.
- Sales Tax is not included here and shall be paid by the Customer to Bridge Brothers.
- Where Bridge Brothers is required to obtain higher insurance limits to match Customer requirements, the cost of such will be billed in the form of a Change Order.
- Bridge Brothers reserves the right to adjust pricing for material, freight, onsite equipment and labor escalation.
- Any additional inspection beyond visual is the responsibility of the customer.
- Any additional compliance requirements are excluded from this proposal.
- Any design revision after Rev1 submittals will be billed in the form of a Change Order at our standard hourly rates.
- Any cost associated with union labor is not included in this proposal.
- Any cost associated with prevailing wage is not included in this proposal.
- Any cost associated with dewatering is not included in this proposal.
- Any cost associated with soil compaction, dirt removal, bull rock, erosion control, silt fencing, or anything in relation is not included in this proposal.
- Bridge Brothers does not perform site elevation references, centerline work, site layout, surveys, or control points.
  - o Bridge foundations and/or supports must be surveyed and verify locations/elevations and be provided to Bridge Brothers prior to mobilization.

- Due to the nature of this business, engineering, and market delays shall not result in any consequential or liquidated damages for which Bridge Brothers may be held liable.
- Bridge Brothers reserves the right to make schedule adjustments for installation due to site conditions.



## TURNKEY PREFABRICATED BRIDGES





**If you have any follow-up questions in relation to this proposal or require additional information, please feel free to contact us at the following:**

Aaron Gentilucci - Sales - 540.266.8473 - [aaron@bridgebrothers.com](mailto:aaron@bridgebrothers.com)

**Access Rd for Pinetop Commons Bridge**  
**CONCEPT ENGINEERS ESTIMATE OF CONSTRUCTION COST**  
*(Per Concept Plan - 01/2024)*

	Est		Unit	Total
	Quant.	Units	Price	Price
<b>ROADWAY AND DRAINAGE</b>				
Traffic control	1	LS	\$50,000	\$50,000
SWPPP	1	LS	\$30,000	\$30,000
Remove existing pavement	1,040	SY	\$12	\$12,480
Remove existing Sidewalk and C&G	411	SY	\$12	\$4,933
6" vertical C&G (Type "A" on 3" ABC)	1,400	LF	\$30	\$42,000
Roadway	1,946	SY	\$70	\$136,189
ADOT Turn Lane	658	SY	\$150	\$98,667
Sidewalk (5' Wide, 1 side)	4,425	SF	\$20	\$88,500
ADA ramp	4	EA	\$3,000	\$12,000
Bridge (NOT Included)	1	LS	--	
<b>Roadway &amp; drainage subtotal</b>				<b>\$474,769</b>
Contingency of 15%				\$71,215
<b>Roadway &amp; drainage total</b>				<b>\$545,984</b>
This estimate is based on the survey for the project dated 10/24.				
This Cost Estimate is made on the basis of our experience and qualifications and represents our best judgement. However, since so many aspects of costs are beyond our control, we cannot and do not guarantee that Costs will not vary from this Estimate.				
Project Length	515	LF		
Pavement Width	34	LF		
26' Lanes and 4' Bike Lanes				
ADOT Turn Lane	370	LF		
Pavement Width	16			

# Arizona State Match Advantage for Rural Transportation (AZ SMART) Fund Application

Each application may address only one Project and one Federal Grant. Additional Projects and/or Federal Grants require a separate application. See the Application Guidelines for important information and detailed instructions for completing this Application. To ensure the Application is Administratively Complete and will be presented to the State Transportation Board, please respond to all questions and submit all requested documents.

**Document Checklist:** the following documents required to be uploaded to complete this application (PDFs required for all uploaded documents):

1. Documentation evidencing the COG/MPO approval to apply to the AZ SMART Fund
2. Map showing Project location (for infrastructure projects and studies).
3. Documentation showing the Project cost estimates (scoping document, cost estimation form, etc.). **NOTE:** Careful attention should be given to developing the cost estimate as the Applicant is responsible for all costs exceeding the amount awarded from the AZ SMART Fund and/or a Federal Grant.

Email \*

jim.ferguson@quartzsite.org

## Applicant Information

Please answer all the questions below.

1. Name of Applicant City, Town or County \*

Town of Quartzsite

2. Name of Contact Person for Applicant \*

James Ferguson

3. By checking the box below, the Contact Person for the Applicant certifies they have read and agree to the **Program Guidelines and Application Instructions** for the AZ SMART Fund Program. \*

I have read and agree to the Program Guidelines and Application Instructions for the AZ SMART Fund Program.

4. Contact's Title \*

Town Manager

5. Contact's Full Mailing Address \*

465 N Plymouth Ave, PO Box 2812, Quartzsite, AZ 85346

6. Contact's Office Phone # \*

928-927-4333

7. Contact's Business Cell Phone # (if applicable)

928-916-7474

8. Contact's Business Email Address \*

jim.ferguson@quartzsiteaz.org

9. Select the Applicant's COG/MPO. \*

Western Arizona Council of Governments (WACOG) ▼

**Project Information**

Please answer all the questions below.

**NOTE regarding ADOT project design administration (PDA) fees:** If requesting ADOT administration of the Project, initial ADOT PDA fees of \$30,000 will apply. These fees are eligible for AZ SMART Funding only when included in an Application for Design and Other Engineering Services or for Match on a federal grant application which will include design. The initial PDA fees are an estimate only and may be more or less, depending on the Project. By submitting this application, the Applicant understands that ADOT may bill additional PDA fees and agrees to pay such fees. Any fees not required for the Project will be refunded to the Applicant upon approval of the Project final voucher.

10. Select the Project Type. \*

Road

Bridge

Transit

Rail

Other: I-10 Exit 17 Traffic Interchange & Frontage Road Improvements

11. Project Name - enter a brief, intuitive name. \*

I-10 West Quartzsite Traffic Interchange & Frontage Road Improvements


12. Enter the Project limits as applicable. If an infrastructure Project is infrastructure, provide the name of the road and "From" and "To" Mileposts or Cross Streets. If a non-infrastructure project, enter the geographic area to which the plan or study will relate. \*

I-10 from MP 17 to MP 18

13. Enter the Project's TIP number, if applicable. If the Project is not in the TIP, enter "NA". \*

NA

14. Submit written documentation evidencing the COG/MPO approval to submit the Project to the AZ SMART Fund program (PDF format only). \*


 2024-02-22 WAC...



15. Project Description - Provide a concise, specific description of the Project, including the type of work to be performed \* and benefits to be realized (3,000 character maximum, including spaces and punctuation).

The project involves the complete full design and preparation of 30%, 60%, 95%, and 100% stage plans, specifications, and construction cost estimates for the proposed reconstruction and improvement of the existing standard diamond traffic interchange. The construction work to be designed includes the following elements: (1) Widening and reconstruction of Quartzsite Boulevard to add the additional lanes required to handle the forecasted traffic. (2) Two new overpass bridge structures over I-10 (one for northbound traffic lanes and one for southbound traffic lanes). (3) Widening and reconstruction the freeway ramps and ramp intersections with Quartzsite Boulevard. (4) Widening and reconstruction of the frontage road intersections and approaches with Main Street to the north and with Dome Rock Road/Kuehn Street to the south. (5) New modern fully actuated traffic control signalization at the two frontage road intersection and at the two ramp intersections. (6) New lighting to enhance travel safety within the TI area. (7) Evaluate lowering the grade of the I-10 lanes below the new structures to reduce the slopes on the Quartzsite Boulevard overpass to facilitate heavy truck traffic movements. (8) Construct retaining walls where needed to eliminate the need for right of way acquisition on developed parcels. (9) Related grading, drainage, and paving improvements. Benefits include: (1) Better operational performance to enable efficient and effective movement of traffic, including for the significant number of heavy trucks, through the TI area at a suitable level of service throughout the planning period. (2) Enhanced traffic safety. (3) Allow for additional development in the area to occur with the resulting economic growth for the region. (4) Provide capacity needed to handle the influx of seasonal traffic during the winter months. (5) Elimination of the deficient height bridge enabling use of I-10 for oversized vehicle transport. (6) Significantly reduced travel delays and queues, including eliminating the potential for traffic backup onto the main line of I-10, resulting in less air pollution and a better experience for the interchange area users. (7) Maximizing the use of the existing right of way. The proposed Quartzsite West TI and Frontage Road Improvements will replace the existing pavements that are in poor condition, replace the existing two lane deficient, obsolete, and aged bridge structure, and alleviate the traffic delays and queuing currently experienced by providing added lanes and improved roadway geometrics resulting in a better and safer travel for the community, the traveling public, and commercial transportation. At the 30% plan development stage, the Town of Quartzsite intends on applying for various sources of grants to secure funds for the construction of the proposed TI and frontage road improvements. The AZ Smart Fund monies will enable the design to be completed at this time.

16. Please upload a map showing the Project location or study area (PDF format only).

 2024-02-08 Proje...

17. Is the Project entirely in the Applicant's Right of Way? For non-infrastructure projects, check "Not applicable." \*

- Yes
- No
- Not applicable

18. If Project involves ADOT Right of Way, has the Applicant discussed the Project and obtained the consent of the applicable ADOT District office to proceed with this grant application? If no ADOT Right of Way or a non-infrastructure project, check "Not applicable." \*

- Yes
- No
- Not Applicable

19. If Project involves privately-owned or another jurisdiction's Right of Way, has the Applicant discussed the Project with owner and obtained its consent to proceed with this grant application? If no other Right of Way or non-infrastructure project, check "Not applicable." \*

- Yes
- No
- Not applicable

20. Project Schedule - check the boxes to show the State Fiscal Years in which each phase is scheduled to begin. Check only ONE box in each row. Non-infrastructure projects - check the boxes under Not Applicable for each row. **NOTE:** the State Fiscal Year runs from July 1 through June 30. \*

	2023	2024	2025	2026	Not Applicable
Design	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other (for non-infrastructure projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

21. Project Status - check the boxes to indicate the status of each phase. Check only ONE box in each row. Non-infrastructure projects - check the boxes under Not Applicable for each row. \*

	Not started	In progress	Completed	Not Applicable
Scoping/Pre-Design	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Right of Way Acquisition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utilities	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (for non-infrastructure projects)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

22. Design Status - for each Stage, check one box to indicate the Project's Design Status. Non-infrastructure projects - check the boxes under Not Applicable for each row.

	Not started	In progress	Completed	Not Applicable
Stage 1, 15% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 2, 30% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 3, 60% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 4, 95% design	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Stage 5, 100%	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

23. Cost Estimate for Scoping/Pre-design - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

\$0

24. Enter the date of the Scoping/Pre-design estimate. Enter "NA" if not applicable. \*

NA

25. Cost Estimate for Design - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

\$3,400,000

26. Enter the date of the Design estimate. Enter "NA" if not applicable. \*

01-29-2024

27. Cost Estimate for Right of Way - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

\$0

28. Enter the date of the Right of Way estimate. Enter "NA" if not applicable. \*

NA

29. Cost Estimate for Utilities - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

\$0

30. Enter the date of the Utilities estimate. Enter "NA" if not applicable. \*

NA

31. Cost Estimate for Construction - enter in whole dollars (for example, 250,000). Enter "0" if not applicable. \*

\$33,000,000 (includes ADOT ICAP fee)

32. Enter the date of the Construction estimate. Enter "NA" if not applicable. \*

10-31-2023

33. Cost Estimate for Other - enter in whole dollars (for example, 250,000) . Enter "0" if not applicable. \*

\$0

34. Enter the date of the Other estimate. Enter "NA" if not applicable. \*

NA

35. Do the estimates provided reflect costs on a Year of Expenditure basis? Note: Year of Expenditure basis means the costs have been inflated in later years. \*

Yes

No


36. Please indicate the source of the Project Cost Estimates entered above. \*

Developed by the Applicant

Developed by an engineering consultant

Other: \_\_\_\_\_

37. Please upload documentation (PDF format only) showing the Project cost estimates (scoping document, cost estimation form, etc.). \*

 2023-10-31 I-10 ...

### AZ SMART Fund Request

Please answer all the questions below.

**NOTE: Careful attention should be paid to developing a thorough and complete cost estimate on a year of expenditure basis.** The Applicant will be responsible for all costs which exceed the amount of an AZ SMART Fund or federal grant award. ADOT has developed a Project Cost Estimating Tool which is available on the AZ SMART Fund webpage under Application Materials. This tool is provided as a courtesy only and does not purport to cover all possible costs or scenarios. Applicants are ultimately responsible for determining the Project cost estimate.

Unless the NOFO/NOFA includes the option to be a direct recipient, both CA and non-CA agencies should include initial project development fees for road/bridge/rail projects. For transit projects, an administration fee of 10% of the total project cost will apply.

38. County Applicants with population of 100,000 or less and municipalities with population of 10,000 or less ONLY: Enter the amount requested for Reimbursement of up to 50% of the costs associated with developing and submitting an application for the Federal Grant identified below. **The amount entered below should be no more than 50% of the total estimated costs of developing and submitting the grant** - enter in whole dollars (for example, 250,000).

\$0

39. Enter the amount requested from the AZ SMART Fund for Match for the Federal Grant identified in this application - enter in whole dollars (for example, 250,000). If not requesting Match, skip this question.

\$0

40. Beyond the amount requested from the AZ SMART Fund, enter the dollar amount of Matching cash funds to be committed by the Applicant for the Project in the Federal Grant identified in this application. If not requesting Match, skip this question.

\$0

41. Enter the percent to the second decimal place (for example, 15.05%) of Matching cash funds which will be provided by just the Applicant in the Federal Grant application - do not include the amount requested from the AZ SMART Fund. See Application Guidelines for directions to calculate the percentage. If not requesting Match, skip this question.

0

42. Enter the amount requested from the AZ SMART Fund for reimbursement of design and other engineering services expenditures that meet federal design standards for Projects eligible for the Federal Grant identified in this application. Enter in whole dollars (for example, 250,000). If not requesting design funds, skip this question.

\$3,400,000

43. Are ADOT Project Development Fees included in the amount requested for design and other engineering expenditures? If not, requesting design funding, skip this question.

Yes

No

43. Provide the names of any other entities the Applicant will partner with to deliver the Project. Identify and quantify the contribution of each partner(s) (dollar amount of cash match, type of in-kind services, etc.). If none, enter "NA."

NA .....

**Federal Grant**

Please answer all the questions below. NOTE: Federal grants eligible under the SMART Fund are federal discretionary grant programs administered by any federal agency for SURFACE TRANSPORTATION PURPOSES.

44. How does the Applicant intend to submit the federal grant application? **Note:** If requesting ADOT to submit, the following time frames apply: \*

A. At least thirty (30) day prior to the application deadline in the NOFO for the applicable federal discretionary grant, the Applicant is required to submit the ADOT Grant Coordination Support Request Form at <https://apps.azdot.gov/files/mvd/mvd-forms-lib/42-0103.pdf>.

B. At least seven (7) days before the NOFO/NOFA deadline, the completed application materials must be provided to the ADOT Grant office for submission.

Applicant or consultant will submit directly

Applicant requests ADOT to submit

Other: .....

45. How does the Applicant intend to administer the Project if awarded a federal grant? \*

Be a direct recipient if allowed in the NOFO

Request ADOT administration (Project development administration fees will apply)

Other: .....

46. Select the Federal Grant for which the Applicant intends to submit the Project - select one grant only. If the desired grant is not listed, select Other and provide the name of the grant and the applicable federal agency. **NOTE:** This list does not include all federal discretionary grants and may contain grants that are not currently available or funded. Applicants are responsible for conducting their own research to identify an appropriate federal grant for their Project. \*

- Active Transportation Infrastructure Investment Program
- Bridge Investment Program
- Defense Community Infrastructure Pilot
- Grants for Charging and Fueling Infrastructure
- Local and Regional Project Assistance (RAISE)
- Multi State Freight Corridor Planning
- National Culvert Removal, Replacement and Restoration Grant Program
- National Infrastructure Project Assistance (MEGA)
- Nationally Significant Freight and Highway Projects (INFRA)
- PROTECT Grant Program
- Reconnecting Communities Pilot Program
- Rural Surface Transportation Grant Program
- Safe Streets and Roads for All Program (SS4A)
- Strategic Innovation for Revenue Collection
- Strengthening Mobility and Revolutionizing Transportation Grant Program
- Wildlife Crossing Safety
- Rail - Consolidated Rail Infrastructure and Safety Improvements Grants
- Rail - Fixed Guideway Capital Investment Grants
- Rail - Restoration and Enhancement Grants
- Rail - Railroad Crossing Elimination Program
- Transit - All Stations Accessibility
- Transit - Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants Program
- Transit - Buses and Bus Facilities Program
- Transit - Develop Interoperable Standards for Bus Exportable Power Systems (BEPS)
- Transit - Innovative Coordinated Access and Mobility (ICAM) Pilot Program
- Transit - Low-No Emission Vehicle Program
- Transit - Public Transportation Innovation Program
- Transit - State of Good Repair Grants Program
- Transit - Technical Assistance, Standards Development, and Workforce Development Programs



Other: \_\_\_\_\_

47. In what Federal Fiscal Year does the Applicant intend to submit an application for the Federal Grant? **NOTE:** the Federal Fiscal Year runs from October 1 through September 30. Applications must be submitted prior to the expiration of the Infrastructure Investment and Jobs Act, currently expiring on September 30, 2026. \*

Federal FY 2024-2025 (at 30% PS&E Stage) \_\_\_\_\_

48. Which phase of the Project will be submitted in the Federal Grant application? \*

Design

Right of Way Acquisition

Construction

Other: \_\_\_\_\_

**For State Purposes only**

Adopted at STB meeting on \_\_\_\_\_ Action taken:

\_\_\_ Approved

\_\_\_ Denied

\_\_\_ Modified as shown in the attached document

This form was created inside of State of Arizona.



1235 S Redondo Center Drive  
Yuma, AZ 85365  
928-782-1886  
928-329-4248 FAX  
1-800-782-1886  
www.WACOG.com



208 North 4th Street  
Kingman, AZ 86401  
928-753-6247  
928-753-7038 FAX

1317 S. Joshua Ave.  
Space S  
Parker, AZ 85344  
928-669-9530

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February 22, 2024

Arizona Department of Transportation  
Multimodal Planning Division  
1611 W Jackson St  
Phoenix, AZ 85007

West Quartzsite Traffic Interchange – Interstate-10 at MP17

To Whom It Might Concern:

The Western Arizona Council of Governments (WACOG) is pleased to support the Arizona State Match Advantage for Rural Transportation (SMART) Fund grant application for the West Quartzsite Traffic Interchange – Interstate-10 at MP17 Project, located within the city limits of Quartzsite, Arizona.

Being located at the intersection of two major thoroughfares, State Highway 95 and US Interstate 10, the Town of Quartzsite is strategically positioned to serve as a transportation hub for both travelers and heavy freight. With six existing commercial centers in the immediate area and with four more developments planned for the near future, average daily traffic over the West Quartzsite TI is projected to increase substantially by 2045. The existing interchange will need to be expanded or replaced to accommodate the steadily increasing vehicle traffic.

With an aim to accommodate the projected increase in interstate vehicle and residential traffic and being performed in conjunction with the recommendations from the 2024 I-10 MP17 Traffic Interchange Alternatives Analysis Report, the **West Quartzsite Traffic Interchange – Interstate-10 at MP17 Project** will fund the design of a Standard Diamond Interchange (SDI). Including not only the installation of a new bridge and seven travel lanes, but also widened off-ramps and new safety barriers, the construction of a Standard Diamond Interchange presents a cost-effective option to expand and expedite interstate access.

The Western Arizona Council of Governments enthusiastically supports this project as the improvement of the West Quartzsite traffic interchange will safely and effectively facilitate the steadily increasing interstate traffic through 2045.

Please feel free to contact me should you have any questions or require additional information.

Sincerely,

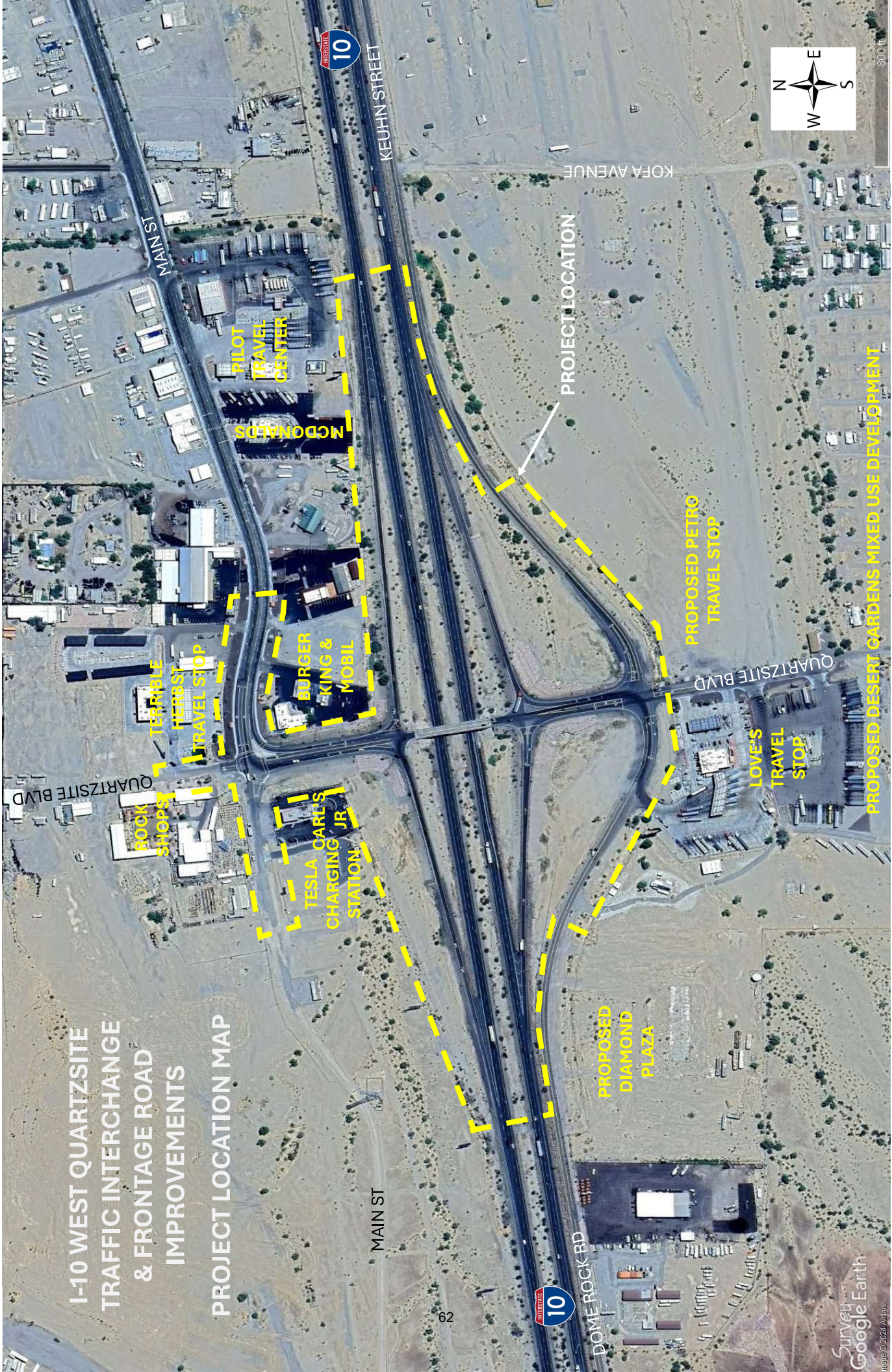
A handwritten signature in black ink, appearing to read 'Brian H. Babiaris', is written over a light blue horizontal line.

Brian H. Babiaris  
Executive Director  
Western Arizona Council of Governments



# I-10 WEST QUARTZSITE TRAFFIC INTERCHANGE & FRONTAGE ROAD IMPROVEMENTS

## PROJECT LOCATION MAP



800 FT





# I-10 MP 17 TRAFFIC INTERCHANGE ALTERNATIVES ANALYSIS REPORT

31 OCTOBER 2023



**TABLE OF CONTENTS**

Table of Contents

TABLE OF CONTENTS ..... i

1. INTRODUCTION ..... 1

    a. Location and Extents ..... 1

    b. Purpose and Need ..... 2

2. BACKGROUND INFORMATION ..... 2

    a. Roadway Data ..... 2

    b. Traffic Data and Related Development Considerations ..... 6

    c. Structures ..... 8

    d. Right-of-Way ..... 9

    e. Environmental Data ..... 9

    f. Utilities ..... 11

3. ALTERNATIVES ANALYSIS ..... 11

    a. Scope ..... 11

    b. Year 2045 Traffic Forecasts ..... 11

    c. Overview of Alternatives ..... 14

    d. Evaluation Criteria ..... 21

    e. Traffic Analysis ..... 22

    f. Estimated Construction Cost of Alternatives ..... 32

    g. Construction Impacts ..... 33

    h. Safety ..... 33

    i. Scoring and Evaluation Results ..... 35

    j. Sensitivity Analysis ..... 39

4. OTHER CONSIDERATIONS ..... 40

    a. Median Crossing Restrictions for Emergency Response ..... 40

    b. Wrong Way Drivers ..... 40

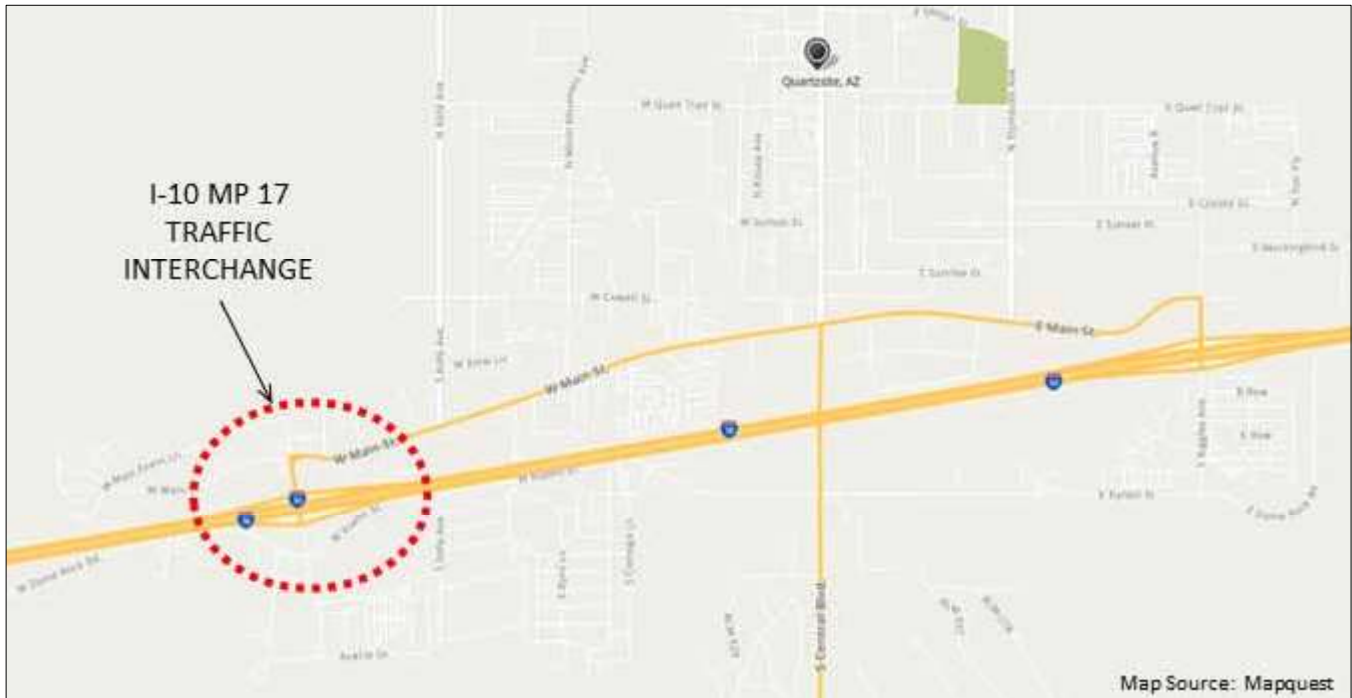
    c. Oversize Trucks ..... 40

- 5. RECOMMENDED IMPROVEMENTS ..... 41
  - a. Recommended Improvement Option .....41
  - b. Rationale for Selection .....41
  - c. Budgetary Implementation Costs.....41
- 6. SUMMARY .....41
  - a. Findings.....41
  - b. Phasing of improvements.....43

## 1. INTRODUCTION

### a. Location and Extents

The site of this Alternatives Analysis study is the Interstate 10 (I-10) West Quartzsite traffic interchange (TI) at Milepost 17 (MP 17) area in the Town of Quartzsite, La Paz County, Arizona. The TI is located in ADOT's Southwest District approximately 17 miles east of the California state line (Figure 1, Project Location Map).



**Figure 1, Project Location Map**

The study limits (Figure 2, Project Detail Map – next page) include the TI ramps, frontage roads (Main Street to the north and Dome Rock Road/Kuehn Street to the south), and Quartzsite Boulevard within existing ADOT right-of-way (R/W).

The nearest TIs on either side of the study location are Dome Rock Road (Exit 11) to the west and East Quartzsite (Exit 19) to the east.

ADOT classifies I-10, which has two through travel lanes in each direction, as a Rural Principal Interstate.

Main Street is classified as Business Route 10 (B-10) in the study area.

Kuehn Street is classified as a Rural Major Collector and Dome Rock Road as a Rural Local Road.



**Figure 2, Project Detail Map**

### b. Purpose and Need

The purpose of this study and report is to perform an expanded alternatives study, using year 2045 traffic forecasts, to evaluate initial and future alternatives that encompass the four intersections on Quartzsite Boulevard at the TI. From south to north, the intersecting cross roads are:

- i. Dome Rock Road (west of the intersection) and Kuehn Street (to the east) — the south frontage road
- ii. South I-10 TI ramp intersection (with one-way eastbound [EB] off- and on-ramps)
- iii. North I-10 TI ramp intersection (with one-way westbound [WB] off- and on-ramps)
- iv. Main Street (also known as B-10) — the north frontage road

## 2. BACKGROUND INFORMATION

### a. Roadway Data

This section of I-10, including the West Quartzsite TI, was constructed in 1964 as part of the main coast-to-coast interstate highway connecting Los Angeles, Phoenix, southern Texas, and Jacksonville, Florida. It was one of the first segments of I-10 built in Arizona west of Phoenix. The ADOT milepost strip map shows that eight projects were constructed within the study limits during and after 1964. Table 1 summarizes these previous projects, listed in chronological order.



**Table 1, Summary of Previous Projects**

Project No.	Begin MP	End MP	As-Built Date	Description
I-10-1(5)	17.03	20.20	1964	Grading, bridge, pavement.
I-10-1(39)	1.63	29.95	1976	Signing.
I-10-1(55)	17.17	20.10	1978	Lighting.
I-10-1(54)	1.75	20.20	1981	Safety.
IR-10-1(71)	17.50	19.79	1992	Ramp widening.
I-10-1-510	17.50	17.90	1994	Construct cross road.
H7075 01C	17.51	18.67	2008	B-10 reconstruction.
010 LA 017 H8517 01L Final Project Assessment	17	18	2013	Add traffic signals to existing frontage road intersections and widen Quartzsite Boulevard to improve capacity and safety of existing West Quartzsite TI. <i>Note: These improvements were not constructed.</i>
010 LA 017 H8517 01C Spot improvement as built	15	25	2021	Add a second northbound (NB) and a second southbound (SB) lane between Main Street and the WB ramp intersections, and between Dome Rock Road and the EB ramp intersections.* Add a right turn lane in each direction on Quartzsite Boulevard.

Sources: Quartzsite -- I-10 West Quartzsite TI Pre-Scoping: WSP February 2017.

Table 2 lists relevant previous studies in the project area.

**Table 2, Relevant Previous Studies**

Identification	Extent	Length (miles)	Description
Traffic Impact Analysis, Quartzsite 2014	I-10 MP 17-18	1	Studied traffic impact of West Quartzsite TI project and potential new development in the town.
La Paz Transportation Study June 2010	I-10 from Arizona / California border to La Paz County / Maricopa County border	92	Identified roadway and multimodal improvements on I-10 in La Paz County to meet the needs of a growing population and changing land uses, and to encourage sustainable development.
Quartzsite Transit Feasibility Study November 2015	I-10 MP 16-22	6	Presented possible transit solutions to meet the needs of residents and winter visitors; proposed regional connections to nearby towns and cities.
010 LA 017 H8517 01C Environmental Clearance 2014	I-10 MP 15-25	10	Found that West Quartzsite TI project meets criteria of a Group Two Categorical Exclusion (CE).

Identification	Extent	Length (miles)	Description
MPD 013-16 I-10/SR 85 Corridor Profile Study March 2017	I-10 from Arizona/California border to MP 113	113	Recommended no strategic solutions for corridor improvement near the West Quartzsite TI.

Sources: Quartzsite -- I-10 West Quartzsite TI Pre-Scoping: WSP February 2017.

Each directional roadway of the existing I-10 mainline consists of two 12-foot through traffic lanes, a 10-foot outside shoulder, and a 4-foot inside shoulder. The EB and WB roadways are separated by a naturally vegetated median approximately 76 feet wide. The typical section is rural with roadside ditches. The posted speed limit is 75 miles per hour. I-10 traverses level terrain with an average elevation of 910 feet above mean sea level.

The West Quartzsite TI entrance ramps are taper-type ramps varying in width from 18 to 22 feet. The cross-section consists of a 12-foot lane, a 2-foot left (inside) shoulder, and a right (outside) shoulder varying from 4 to 8 feet in width. The two exit ramps are also taper-type ramps 18 feet in width, consisting of a 12-foot lane, a 4-foot left shoulder, and a 2-foot right shoulder. At the EB ramp intersection with Quartzsite Boulevard, the EB exit ramp was widened by ADOT to include left and right turn lanes. The ramp intersections with Quartzsite Boulevard are spaced 440 feet apart.

Quartzsite Boulevard varies in width. Between the Dome Rock Road/Keuhn Street intersection and the I-10 EB ramp intersection, there are two NB lanes (1 through lane and one right turn lane) and two SB lanes (one through/right turn lane and one left turn lane). Between the two ramp intersections, there are only two lanes on the existing bridge, one NB through/left turn lane and one SB through/left turn lane. Between the WB I-10 ramp intersection and the Main Street intersection, there are two NB lanes (1 through/left turn lane and 1 right turn lane) and two SB lanes (one though lane and one right turn lane).

The existing bridge over I-10 is a two-lane, four-span, steel girder bridge. As-built plans show that the Quartzsite Boulevard cross road was constructed on a horizontal tangent section and the bridge is on a 400-foot vertical curve. The approach grades are 4.9% from the north and 5.5% from the south.

The speed limit on Quartzsite Boulevard is 25 mph per Town of Quartzsite Ordinance. The speed limit is not posted within the project limits.

All four intersections are currently STOP-controlled, with no conventional traffic signals located within the project limits. The northern intersection with Main Street has a flashing red light facing all directions, representing an all-way STOP control.

Frontage roads exist on both the north and south sides of the TI. See the Vicinity Map on the next page.

The Dome Rock Road/Kuehn Street (south frontage road) intersection with Quartzsite Boulevard is approximately 400 feet south of the south ramp intersection. The Love’s Travel Center/Truck Stop is located at the southwest corner of this intersection. There is a proposed development project located to the west of the Love’s Travel Center known as Diamond Plaza, a commercial development with

potentially travel center and a hotel. At the southeast corner of the intersection, there is another truck stop proposed by Petro Travel Stop. South of the Loves Truck Stop and the proposed Petro Travel Stop is a proposed development known as Desert Gardens, a mixed use subdivision.

The intersection of Quartzsite Boulevard with Main Street (north frontage road) is approximately 515 feet north of the north I-10 ramp intersection. There is a Carl’s Jr. fast food restaurant and a Tesla E-vehicle Charging Station at the southwest corner. There are rock/mineral shops at the northwest corner. Terrible Herbst Travel Stop and another Tesla EV charging station is located at the northeast corner. There are Burger King and McDonalds fast food restaurants and a Mobil vehicle fueling station and Pilot Travel Center located at the southeast corner.



**Figure 3, Vicinity Map**

An American Association of State Highway and Transportation Officials (AASHTO) Controlling Design Criteria Report was completed in 2013. Table 3 summarizes existing design features that did not meet the currently recommended AASHTO guidelines at that point in time.

**Table 3, Summary of AASHTO Non-Conforming Design Features**

Location	Description
Quartzsite Boulevard (cross road)	<ul style="list-style-type: none"> <li>Existing shoulder width is less than the AASHTO-recommended 8 feet. <i>Corrected with the 2017 West Quartzsite TI Improvements Project.</i></li> <li>Vertical stopping sight distance is less than recommended.</li> <li>Bridge rails are structurally deficient and do not meet AASHTO recommendations.</li> </ul>
Ramps	<ul style="list-style-type: none"> <li>Existing pavement width is less than the AASHTO-recommended 21 feet. <i>Addressed with the 2017 West Quartzsite TI Improvements Project.</i></li> <li>Existing superelevation rate is less than the recommended 0.031 feet per foot at the mainline gore.</li> </ul>
North frontage road	<ul style="list-style-type: none"> <li>Existing shoulder width is less than the AASHTO-recommended 8 feet. <i>Main Street (B10) to the east is an urban roadway section.</i></li> </ul>
South frontage road	<ul style="list-style-type: none"> <li>Existing shoulder width is less than the AASHTO-recommended 8 feet. <i>Addressed with the 2017 West Quartzsite TI Improvements Project.</i></li> <li>Existing superelevation rate is less than recommended in two locations.</li> <li>Existing degree of curve exceeds the recommended maximum of 8 degrees, 15 minutes, 0 seconds.</li> </ul>

Source: Quartzsite--I-10 West Quartzsite TI Pre-Scoping: WSP February 2017.

#### **b. Traffic Data and Related Development Considerations**

Data provided by the Town of Quartzsite and ADOT was collected for the purpose of developing a traffic forecast for the interim (near future, 5 to 10 years) and 2045-time frames.

Traffic counts taken in January 2019 were used as the starting point for the forecast, as these counts occurred pre-Covid during the peak months of activity in Quartzsite.

Traffic in Quartzsite is unimodal in nature and the peak traffic occurs midday versus morning and evening peaks.

Table 4, West Quartzsite TI Traffic Counts, Midday Peak Hour, January 2019, found on the next page shows the results of midday peak hour turning movement counts taken at the four study intersections in January 2019.

**Table 4, West Quartzsite TI Traffic Counts, Midday Peak Hour, January 2019**

<b>Intersection and Movement</b>	<b>Peak Hour Vehicles Reported</b>
<b><i>Dome Rock Rd/Kuehn St</i></b>	
Eastbound left (EBL)	154
Eastbound through (EBT)	79
Eastbound right (EBR)	17
Westbound left (WBL)	43
Westbound through (WBT)	54
Westbound right (WBR)	307
Northbound left (NBL)	15
Northbound through (NBT)	132
Northbound right (NBR)	56
Southbound left (SBL)	197
Southbound through (SBT)	172
Southbound right (SBR)	100
<i>Intersection Total</i>	<i>1326</i>
<b><i>I-10 Eastbound Ramps</i></b>	
Eastbound left (EBL)	107
Eastbound through (EBT)	1
Eastbound right (EBR)	118
Northbound through (NBT)	471
Northbound right (NBR)	115
Southbound left (SBL)	34
Southbound through (SBT)	403
<i>Intersection Total</i>	<i>1249</i>
<b><i>I-10 Westbound Ramps</i></b>	
Westbound left (WBL)	56
Westbound through (WBT)	3
Westbound right (WBR)	114
Northbound left (NBL)	70
Northbound through (NBT)	482
Southbound through (SBL)	377
Southbound right (SBR)	199
<i>Intersection Total</i>	<i>1301</i>
<b><i>Main Street (B-10)</i></b>	
Eastbound left (EBL)	3
Eastbound through (EBT)	68
Eastbound right (EBR)	61
Westbound left (WBL)	473
Westbound through (WBT)	111
Westbound right (WBR)	51
Northbound left (NBL)	26
Northbound through (NBT)	20
Northbound right (NBR)	550
Southbound left (SBL)	120
Southbound through (SBT)	29
Southbound right (SBR)	8
<i>Intersection Total</i>	<i>1520</i>



*Impacts of Neighboring Development*

The results of current and planned development near the TI have a significant impact on all traffic movements at the Dome Rock Road and Main Street intersections with Quartzsite Boulevard. At Dome Rock Road/Kuehn Street (south frontage road), the travel demand along the east, west, and south legs will increase substantially. At Main Street (north frontage road), the anticipated growth will occur along the north leg and west leg as there is vacant land within close proximity and some along the east leg of the intersection where local shopping and dining is concentrated. A notable increase has already taken place on the north leg because of the recently constructed Terrible Herbst vehicle fueling stop.

All this additional traffic will result in a large increase in volume between the Dome Rock Road/Kuehn Street and Main Street intersections along Quartzsite Boulevard, and therefore between the EB and WB I-10 ramp intersections.

The ADOT Southwest District pointed out that the regional shopping destination is Parker, the La Paz County seat. As a result, the trip distribution from the proposed Desert Garden development may be heavier to and from Main Street and Kuehn Street (the easterly extension of Dome Rock Road) than to I-10 as those streets provide direct access to Highway 95 north through Quartzsite to Parker. The proposed Desert Garden mixed use development is located south of the Love's Travel Center and the proposed Petrol Travel Stop and is shown on Figure 3, Vicinity Map, found on page 5.

The 2019 trip distribution was retained for this report as the study team agreed that doing so will not affect the final geometry of the intersections.

**c. Structures**

For the existing Quartzsite Boulevard overpass bridge structure across I-10 (Structure No. 00826), ADOT provided a Structural Inventory and Appraisal report dated 06/24/2020 for the inspection made on 05/27/2020. Pertinent data:

- The bridge has two lanes of traffic over I-10, one NB lane and one SB lane.
- The minimum vertical clearance under the bridge to the I-10 lanes is 15.92 feet. The existing bridge does not meet ADOT's current standard of 16.5 feet for vertical clearance over the travel lanes. New bridge structures must provide 16.5 feet of vertical clearance which would be 7" higher than the existing bridge.
- Average daily traffic on I-10 passing beneath the structure in 2019 was 25,359 vehicles.
- Truck traffic on the structure was reported as 15% on the bridge and 26% passing beneath the structure over I-10 eastbound and westbound lanes combined.
- ADOT owns and maintains the bridge structure.
- Roadway width is 28 feet.
- Structure length is 249 feet with a maximum span length of 78 feet.
- Structure was built in 1964.
- The sufficiency rating was 78.40 (rating can vary from 0 percent or poor condition to 100 percent or very good condition. The formula considers structural adequacy, whether the bridge is functionally obsolete, and level of service provided to the public.

- The bridge was rated as being in ‘fair’ condition. The bridge deck condition was rated ‘fair’, the superstructure was rated ‘satisfactory’, and the substructure was rated ‘good’.
- Comment made “Approach barriers exhibit collision damage in the curved sections.”
- Comment made “Deck vibrates under heavy live loads.”

#### d. Right-of-Way

R/W information was obtained from the original as-built plans from Project I-10-I(5) and R/W Project I-10-1-707. The existing R/W corridor varies within the project limits, as Table 5 shows.

**Table 5, Existing Right-of-Way**

Location	Centerline Reference	Offset Distance (feet)
Along south frontage road	South frontage road	100 (south)
Along WB I-10 west of cross road	Original/abandoned US 60 alignment	50 (north)
Along WB I-10 east of cross road	WB off-ramp	Varies, 35 to 90 (north)
Along cross road north of I-10	Cross road	126 (west); 84 (east)
Along north frontage road	North frontage road	75 (north); 75 (south)

Source: Project Number 010 LA 017 H 8517 01L 010-A(219)S West Quartzsite Traffic Interchange Ehrenburg to Phoenix Highway Interstate 10, Final Project Assessment, January 2014, prepared for ADOT Statewide Project Management Section by Parsons Brinckerhoff.

#### e. Environmental Data

The environmental data reported herein was extracted in part from February 2017 Quartzsite – I-10 West Quartzsite Traffic Interchange Pre-Scoping Document. No additional environmental reviews were conducted for this report.

It is expected that funding from the Federal Highway Administration will be used for construction of the recommended improvements. Therefore, the project will require compliance with the National Environmental Policy Act.

The proposed improvements to the West Quartzsite TI (ramps and structures) will most likely occur within existing R/W and would qualify as a Group 2 Categorical Exclusion (CE) in accordance with 23 Code of Federal Regulations (CFR) 771.117(d). A CE was approved on December 5, 2014 for proposed TI improvements on a smaller scale than currently proposed. Therefore, ADOT would most likely approve a CE reevaluation. Associated technical reports would be updated from earlier reports that supported the 2014 CE, in accordance with ADOT’s required guidelines and formats.

The reconstruction of the frontage road intersections at Dome Rock Road/Kuehn Street and Main Street will require some additional R/W to be acquired to complete the anticipated improvements.

#### *Flood Plains and Waters of the United States*

Federal Emergency Management Agency Flood Insurance Rate Map panel 04012C1286C covers the southeast quadrant of the I-10/West Quartzsite TI and shows one flood hazard zone (designated AE) along Granite Mountain Wash West beginning just east of Quartzsite Boulevard and continuing east,

running parallel to Kuehn Street, the south frontage road. This has been preliminarily identified as a water of the U.S. under the jurisdiction of the U.S. Army Corps of Engineers.

#### *Species of Special Interest*

No federally listed species or critical habitat exist in the project area. No Bureau of Land Management sensitive species are present within two miles of the project area. No wildlife corridors or linkage zones are present.

#### *Cultural Resources*

No known archaeological or historic sites exist within the study limits.

#### *Social, Economic, and Land Use Impacts*

The project is in a predominately developed urban area with commercial and light industrial development. In accordance with current ADOT guidance, the presence of Title VI/Environmental Justice populations may not need to be determined because the project would have no new effects on the immediate surrounding area. The need for additional analysis will be evaluated during the environmental clearance process for subsequent federally funded improvement projects.

The proposed TI improvements will have no detrimental effect on existing or future land uses, although the developments proposed on the south side of I-10 will have an impact on the volume of traffic in the area.

#### *Survey/Right-of-Way*

Most of the construction is expected to take place inside the existing R/W boundaries. However, temporary construction and drainage easements may be required to construct intersection improvements and accommodate associated drainage features.

Existing survey monuments and section corner monuments exist inside the project limits. The monument locations will be investigated during subsequent designs and provisions will be made to avoid and/or mitigate disturbing them during construction.

#### *Fuel Storage Tanks*

A regulatory database search identified three underground storage tanks on the Mobil Mart/Burger King property at the SWC of the Main Street/Quartzsite Boulevard Intersection and six at the Love's Travel Stop at the SWC of the Dome Rock Road/Quartzsite Intersection. Two leaking underground storage tanks exist in the area: one at the Main Event RV Park and one at the Pilot Travel Center, both located north of I-10.



*Environmental Conditions that the Project Would Not Affect*

Based on the previous studies for this TI, the proposed project would have no impact on Environmental Justice populations, jurisdictional waters, wetlands, prime or unique farmland, wilderness areas, sole source aquifers, wild and scenic rivers, air quality, noise, Section 4(f) or 6(f) (recreational) resources, visual quality, or national natural landmarks because these issues and resources do not occur in the project area.

**f. Utilities**

A number of utilities exist in the project corridor. According to Arizona Blue Stake, the utilities include:

- APS (electric)
- AT&T (fiber)
- Sprint (fiber)
- TDS Telecom (fiber, copper)
- Town of Quartzsite (water, sewer)

The proposed improvements are not expected to conflict with APS, AT&T, or Sprint. Relocations related to TDS Telecom and the Town of Quartzsite facilities are expected to be minor in conjunction with the proposed improvements. Potential work typically includes relocation of power poles and/or fire hydrants, valve/manhole adjustments, and conflict mitigation for underground work near buried utility lines. Precautions will need be taken near the overhead electric lines that cross Main Street on the east and west sides of Quartzsite Boulevard and cross Main Event Way on the north side of Main Street.

**3. ALTERNATIVES ANALYSIS****a. Scope**

The scope of this analysis includes:

- Forecasting traffic for the design year 2045.
- Screening and evaluation of alternatives.
- Applying ADOT-approved criteria and weights.
- Recommending future improvements based on the preferred alternative.

**b. Year 2045 Traffic Forecasts**

As noted above under *Traffic Data*, the Town of Quartzsite and ADOT provided January 2019 traffic counts to the study team as a starting point to forecast traffic for the design year 2045. Forecasts for the midday peak hour were developed by adding estimated trips generated from the following sources to the 2019 counts:

- One percent (1%) background traffic growth in each of the 26 years from 2019 to 2045.
- Combined 2045 forecasts of additional trips generated by the four proposed new or expanded developments: Diamond Plaza, Love's Truck Stop, Petro/TA Stopping Center, and Terrible Herbst.
- Trips that the 140-acre Desert Gardens property is expected to generate.

The Terrible Herbst vehicle fueling center has opened since the traffic counts were conducted. The three additional developments, Love's Truck Stop expansion, Petro/TA truck stop, and the Diamond Plaza commercial development, are planned and pending.

New trips generated by the four proposed developments, plus the Desert Gardens mixed use development, are expected to contribute substantially to all traffic movements at the Dome Rock Road/Kuehn Street and Main Street intersections with Quartzsite Boulevard. At Dome Rock Road/Kuehn Street, travel demand on each leg of the intersection will increase substantially from today.

At Main Street (the north frontage road), the bulk of the growth during the planning period is expected to occur on the east leg of the intersection (B-10), although a notable increase is also forecast on the north leg due to Terrible Herbst.

When the impacts of the pending developments plus the background traffic growth are combined, the result is a large increase in traffic on Quartzsite Boulevard between the Dome Rock Road and Main Street intersections. This growth will affect the EB and WB I-10 ramp intersections, which are located between Dome Rock Road/Kuehn Street and Main Street.

Table 6 shown below summarizes the 2045 forecasts of turning and through movements during the midday peak hour at each of the four intersections. Forecasts are reported for each traffic movement and for each entire intersection.

**Table 6, Forecast Growth in Traffic by Intersection and Turning Movement, 2019-2045  
(Midday Peak Hour)**

Quartzsite Blvd Intersections and Turn Movements	2045 Forecast Traffic (No. of Vehicles)	Growth in Traffic, 2019-2045		Contribution to Total Growth, 2019-2045 (percent)		
		No. of Vehicles	Percent	1% Annual Background Growth <sup>^</sup>	Four Planned Developments <sup>*^</sup>	Desert Gardens <sup>^</sup>
<b><i>Dome Rock Rd/Kuehn St</i></b>						
EBL	364	210	136	21	79	0
EBT	148	69	87	33	62	4
EBR	36	19	112	26	42	32
WBL	60	17	40	76	24	0
WBT	119	65	120	25	71	5
WBR	501	194	63	47	3	50
NBL	34	19	127	21	47	32
NBT	584	452	342	9	44	48
NBR	77	21	38	81	19	0
SBL	358	161	82	36	4	60
SBT	637	465	270	11	43	46
SBR	309	209	209	14	86	0
<i>Subtotals</i>	<i>3227</i>	<i>1,901</i>	<i>143</i>	<i>21</i>	<i>46</i>	<i>34</i>

Quartzsite Blvd Intersections and Turn Movements	2045 Forecast Traffic (No. of Vehicles)	Growth in Traffic, 2019-2045		Contribution to Total Growth, 2019-2045 (percent)		
		No. of Vehicles	Percent	1% Annual Background Growth <sup>^</sup>	Four Planned Developments * <sup>^</sup>	Desert Gardens <sup>^</sup>
<b><i>I-10 EB ramps</i></b>						
EBL	177	70	65	46	54	0
EBT	1	0	0	0	0	0
EBR	383	265	225	13	57	29
NBT	1070	599	127	23	38	39
NBR	370	255	222	13	56	31
SBL	82	48	141	21	79	0
SBT	987	584	145	20	40	40
<i>Subtotals</i>	<i>3070</i>	<i>1,821</i>	<i>146</i>	<i>20</i>	<i>45</i>	<i>34</i>
<b><i>I-10 WB ramps</i></b>						
WBL	299	243	434	7	61	32
WBT	4	1	33	100	0	0
WBR	186	72	63	47	53	0
NBL	313	243	347	9	59	32
NBT	897	415	86	34	28	38
SBT	765	388	103	29	31	40
SBR	296	97	49	61	39	0
<i>Subtotals</i>	<i>2760</i>	<i>1,459</i>	<i>112</i>	<i>26</i>	<i>42</i>	<i>32</i>
<b><i>Main Street (B-10)</i></b>						
EBL	10	7	233	14	86	0
EBT	88	20	29	100	0	0
EBR	97	36	59	50	19	31
WBL	809	336	71	42	17	42
WBT	144	33	30	100	0	0
WBR	93	42	82	36	64	0
NBL	45	19	73	42	0	58
NBT	130	110	550	5	90	5
NBR	868	318	58	51	5	44
SBL	189	69	58	51	49	0
SBT	138	109	376	8	87	5
SBR	56	48	600	4	96	0
<i>Subtotals</i>	<i>2667</i>	<i>1,147</i>	<i>75</i>	<i>39</i>	<i>34</i>	<i>27</i>
<b>Total for all intersections</b>	<b>11,724</b>	<b>6,328</b>	<b>117</b>	<b>25</b>	<b>42</b>	<b>32</b>

\*Petro, Terrible Herbst, Diamond Plaza, and Love's.

<sup>^</sup>Percents in these three columns may not add exactly to 100 because of rounding.

The second column in Table 6 shows forecast 2045 peak hour volumes entering from each approach to the intersections, while the third and fourth columns provide the numerical and percent growth from 2019.

For the 36 movements with substantial activity (10 or more entering vehicles), expected growth during the midday peak hour ranges from 29% to 600%. Taking each intersection as a whole, the 26-year growth forecast ranges from 75% at the Main Street intersection to 146% at the I-10 EB ramp. Midday traffic volumes in 2045 are forecast to range from 2,667 entering the Main Street intersection to 3,227 entering Dome Rock Road/Kuehn Street.

The last three columns show how forecast midday traffic increases will likely be distributed among the three sources of growth: the 1% annual growth in background traffic, additional traffic generated by the four new or expanded developments, and traffic due to the Desert Gardens development.

The distribution of growth will vary widely by intersection and by individual movement. Background traffic growth will contribute as little as 4% to SB rights at Main Street and as much as 100% to three movements at the I-10 WB ramps and Main Street. The combined contribution of new trips generated by the four developments range from 0% to 96% of the total and that of Desert Gardens from 0% to 60%.

For the four studied intersections collectively, the forecast increase in midday traffic from 2019 to 2045 is 117 percent, meaning that traffic movements through the intersections will more than double. The contributions of background traffic, the new development openings and expansions, and Desert Gardens, will be approximately 25%, 42%, and 32% respectively (percents do not add to exactly 100 because of rounding).

### c. Overview of Alternatives

Following the traffic study that forecast the Year 2045 Traffic presented above, the study team developed a draft report for the TI presenting these preliminary alternatives:

1. New Diamond TI with Signalized Frontage Road Intersections.
2. Roundabout TI with Signalized Frontage Road Intersections.
3. Modified (oversized) Roundabout South of I-10 with Ramp Roundabout North of I-10.
4. DDI TI with Signalized Frontage Road Intersections.

This draft report was reviewed by ADOT, and working together with the study team, a new set of four TI design alternatives were discussed and selected for further analysis. The purpose of each alternative is to provide safe and efficient travel on the I-10 mainline, ramps, and frontage/access roads through the design year 2045.

The four selected alternatives are:

1. **Standard Diamond (SD) TI** – with signals at each ramp and frontage road intersection along Quartzsite Boulevard and two through lanes in each direction (northbound and southbound).
2. **Diverging Diamond Interchange (DDI) TI** – with signals at each ramp and frontage road intersection and two through lanes in each direction on Quartzsite Boulevard.
3. **Roundabouts (RAs) TI** – with a roundabouts at each ramp and frontage road intersection for a total of four roundabouts with two through lanes in each direction.
4. **Restricted Lefts (RLs) TI** – with right turns only allowed at the ramps onto Quartzsite Boulevard and roundabouts at the two frontage road intersections, requiring U-turns at the frontage road

roundabouts, with one through lane in each direction between the ramp intersections and across the bridge over I-10.

#### *Alternative 1: Standard Diamond*

This type of traffic interchange, illustrated in Figure 4, Alternative 1 – Standard Diamond (SD) TI, is familiar to Arizona drivers on both rural and urban freeways. The existing bridge over I-10 would be removed and replaced by a new one carrying seven lanes of traffic to accommodate both the through and turning movements. The I-10 off-ramps would be widened to provide left and right turn lanes and reprofiled to tie into the widened Quartzsite Boulevard. The on ramps would also be re-profiled. The existing bridge/ramp barriers would be removed, and new safer barriers provided. At the Main Street/Quartzsite Boulevard intersection, the existing WB lane through lane would be re-marked for use as an additional left turn/through lane. At the Dome Rock Road/Kuehn Street intersection, widening and lane reassignment would be needed to meet the forecast 2045 traffic demand. All four intersections would be signalized.

#### *Alternative 2: Diverging Diamond*

This type of freeway interchange is relatively new in the United States, having first been introduced in Missouri in 2009. Since then, more than half the states have constructed DDIs at one or more locations. ADOT's recent DDI installations include I-10/Houghton Road in Tucson, I-10/Miller Road and I-10 Watson Road in Buckeye, and I-17/Happy Valley Road in Phoenix, with more under development.

The DDI is designed to improve the safety and efficiency of traffic movements by comparison with the more traditional diamond design. Between the two sets of freeway ramps, each direction of traffic on the intersecting roadway temporarily crosses to the left of the opposing lanes. This allows vehicles turning left at the far side ramp intersection to flow freely at a green signal indication, without interference from opposing traffic. The DDI results in fewer vehicle conflict points, greater safety on the crossroad and ramps, and faster traffic flow because it obviates a separate phase for left turns.

Figure 5, Alternative 2 – Diverging Diamond (DDI) TI, illustrates the conceptual layout of this alternative at Quartzsite Boulevard. The existing bridge would be used for SB traffic. A new three-lane bridge to the west of the existing bridge would be needed for NB vehicles. The EB off-ramp would be widened to provide left and right turn lanes and re-profiled to tie into the new SB roadway. The EB on-ramp would require changes to the existing barrier in the SE corner of the bridge. The WB off-ramp would require changes to the barrier in the NE corner of the bridge to accommodate turning trucks, with changes to the approach to match the proposed layout. The WB on-ramp would require changes to match the layout and re-profiling to tie into the new locations of the DDI lanes. The frontage road intersection improvements would be the same as in Alternative 1.

#### *Alternative 3: Roundabouts Alternative (Four Roundabouts at Frontage Road and Ramp Intersections)*

Figure 6, Alternative 3 – Roundabout (RA) TI, illustrates the conceptual layout of this “Four Roundabout” alternative. A new bridge across I-10 would be constructed on the west side of the existing bridge to carry the two SB traffic lanes, while the existing bridge would be used to carry the two NB lanes. Two-

lane roundabouts would be provided at each ramp intersection to improve traffic ingress and egress to and from the freeway.

The ramps would need to be regraded and reconstructed on all four legs, as the roundabouts would be built with a cross slope less than the existing ramp approach grades. Therefore, the ramps would need to be steepened somewhat to tie into the new roundabouts. The additional lanes connecting the ramp intersections to the frontage road intersections would require earth fill and new pavement construction on the west side of the existing Quartzsite Boulevard pavement, both north and south of the freeway. The east side of the north ramp roundabout would likely require a retaining wall to keep the proposed improvements within the existing R/W.

The Main Street intersection would be reconstructed to accommodate the larger footprint of the roundabout, with the impact mostly on the west side and the northeast corner. The roundabout at Dome Rock Road/Kuehn Street would be more centered on the existing intersection and would require widening of the pavement in all four quadrants. The Kuehn Street WB approach would need to be widened as shown in Figure 6 to provide the additional WB right turn lane. New R/W would be needed.

*Alternative 4: Restricted Lefts Turns at Ramp Intersections with Roundabouts at Frontage Road Intersections*

Figure 7, Alternative 4 – Restricted Left (RL) TI, illustrates the conceptual layout of this alternative, also known as the “One-Way Loop.” The existing bridge across I-10 could be used for current and future traffic in each direction. This alternative would require comparatively less reconstruction of the four ramps in the immediate vicinity of their intersections with Quartzsite Boulevard. The EB and WB off-ramps would be retrofitted with barrier islands to allow only right turns onto Quartzsite Boulevard for approaching traffic. Similarly, the EB and WB on-ramps would be retrofitted with barrier islands to allow only right turns onto the freeway on-ramps from Quartzsite Boulevard.

The roadway segments between the ramp intersections and the frontage road intersections would be widened to accommodate:

- Four lanes of traffic.
- The northbound right turn lane between the WB off-ramp and Main Street.
- Construction of the splitter islands on the approaches to the roundabouts at the two frontage roads.

This widening would require earth fill and new pavement construction on both sides of the existing Quartzsite Boulevard pavement north and south of the freeway.

The Main Street intersection would be reconstructed to accommodate the larger footprint of the roundabout. This roundabout needs to have a third lane for WB to SB turning movements to accommodate the forecast traffic. The restricted left turns at the ramp intersection causes more traffic to use the Main Street roundabout than in Alternative 3 to be able to travel SB on Quartzsite Boulevard.

The roundabout at the Dome Rock Road/Kuehn Street is essentially the same configuration as Alternate 3. The Kuehn Street WB approach would need to be widened as shown in Figure 7 to provide the additional WB right turn lane. Additional R/W will be needed at both frontage road intersections.





Figure 4, Alternative 1 – Standard Diamond (SD) TI





Figure 5, Alternative 2 – Diverging Diamond (DDI) TI





Figure 6, Alternative 3 – Roundabouts (RAs) TI



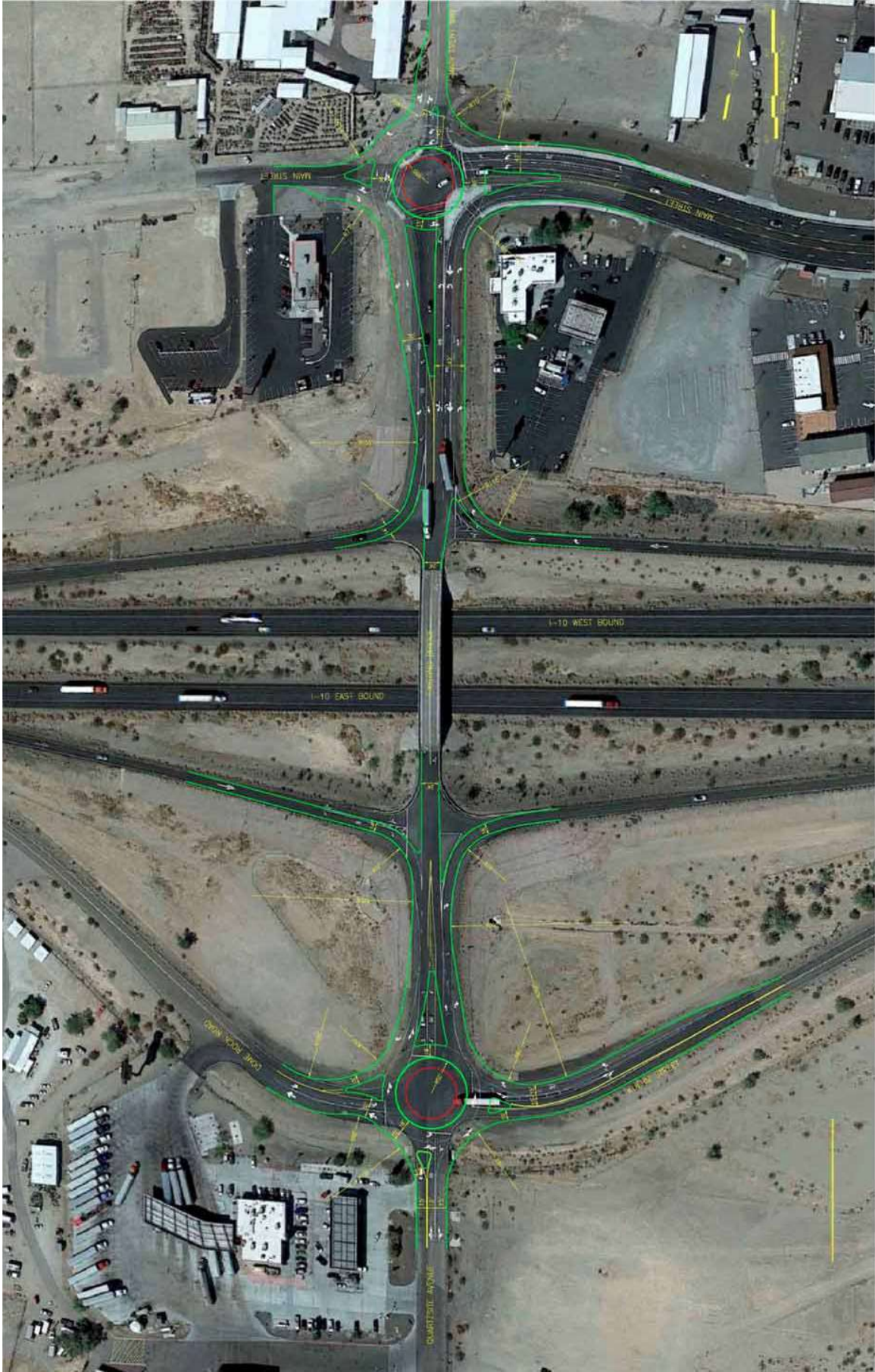


Figure 7, Alternative 4 – Restricted Left (RLs) TI

**d. Evaluation Criteria**

ADOT and the study team chose six criteria to evaluate the four design alternatives:

- *Use of Existing Bridge*

Indicates the extent to which the existing bridge will be retained and used to carry traffic across I-10 at West Quartzsite TI, thereby minimizing the need for, or width of, a new bridge structure. Retaining the existing bridge and maximizing its use, as opposed to supplementing or replacing it with a new structure, is desirable for reasons of cost, avoidance of disruption to traffic during construction, compatibility with existing elements of the TI, and conservation of materials.
- *Delay and Queuing (Capacity)*

Shows how rapidly and efficiently vehicles will be able to move through intersections at the TI during the 2045 peak hour. Minimal delays and short queues are desirable for roadway users. The more efficiently traffic can move through the intersections, the less impact to the environment and less operational cost for the vehicle user. This aspect of the evaluation is also discussed in the next section, which covers the traffic analysis.
- *Construction Cost*

Cost estimates of the overall construction cost of each alternative in current dollars. These are preliminary, planning-level cost estimates for use only in this evaluation to compare the relative cost for each alternative. Detailed costs will be developed during subsequent design of the selected alternative. Obviously, the lower the cost, the better. ADOT provided the costs to use.
- *Construction Impact*

Gauges the estimated duration of construction from start to finish. This duration differs between alternatives. A shorter construction period means faster completion and less protracted disruptions to traffic. ADOT provided the construction periods to use for evaluation purposes.
- *Safety*

Considers the number of crossing conflict points and the improvement's crash modification factor. Fewer conflict points and a lower CMF represent a lower potential for crashes and thus an improvement in safety. A crash modification factor (CMF) is used to compute the expected number of crashes after implementing a countermeasure on a road or intersection. CMF is a multiplicative factor used to compute the expected number of crashes after implementing a given countermeasure at a specific site. For example, if an intersection has 100 angle crashes per year and ADOT applies a countermeasure with a CMF of 0.80, one expects 80 angle crashes per year [100 x 0.80] after implementation. A CMF less than 1.0 represents improvement and a CMF greater than 1.0 represents degradation of safety performance.
- *Community Acceptance*

Attempts to translate the extent to which the local community welcomes each alternative. The Town of Quartzsite Council and staff have given their input on community acceptance.

The study team and ADOT has given these criteria different weights based on their estimated importance to the Town, the State, its taxpayers, and the traveling public. Delay/Queuing and Safety have been assigned the greatest weight, with a maximum score of 30 points for each. Each alternative can be awarded up to 15 points for Cost, 10 points for Use of Existing Bridge, 10 points for Construction Impacts, and 5 points for Community Acceptance. The maximum number of points for all six criteria is 100.

**e. Traffic Analysis**

Level of Service (LOS) is a qualitative measure used to relate the quality of motor vehicle traffic service. LOS is used to analyze roadways and intersections by categorizing traffic flow and assigning quality levels of traffic based on performance measure like vehicle speed, density, congestion, delay, queues, etc. Vehicle delay is a numerical surrogate for several related variables such as driver discomfort, frustration, and lost travel time. LOS criteria are specified as average delay per vehicle during a specified period — in this case, the midday peak hour. Vehicle delay, in turn, is a complex measure based on variables such as progression of movements through the intersection, signal phasing, signal cycle length, and traffic volumes in relation to intersection capacity.

Levels of service range from A (best) to F (over capacity or failing). ADOT considers LOS D for an individual approach acceptable, LOS E concerning, and LOS F unacceptable. Table 7 shows LOS criteria for signalized intersections, as described in the 2016 *Highway Capacity Manual*, Chapters 19 and 20.

**Table 7. Level of Service Criteria Used for Signalized Intersections and Roundabouts**

Level of Service	Average Control Delay* (seconds per vehicle)	Description
A	≤10	Free flow
B	>10-20	Stable flow (slight delays)
C	>20-35	Stable flow (acceptable)
D	>35-55	Approaching unstable flow (tolerable delay, occasional wait through more than one cycle before proceeding)
E	>55-80	Unstable flow (intolerable delay)
F	>80	Forced flow (jammed)

\*Control delay represents the increased travel time that a vehicle experiences because of traffic control at the intersection. Sources: 2016 *Highway Capacity Manual*, Sixth Edition.

Several iterations of alternatives analysis were completed using the 2045 traffic forecast. The first iteration used the VISSIM simulation software to model the alternatives. VISSIM was selected for use as it has the capability of modeling a system of intersections versus an isolated intersection. The VISSIM model was calibrated for the predicted travel speed of each vehicle type, the percent distribution of vehicles by type for each movement (left, right, and through), and other lesser variables.

ADOT concluded that VISSIM is too restrictive in facilitating movements through a roundabout. ADOT therefore requested the use of another model, Rodel, to analyze the individual roundabout intersections. The Rodel results show that each roundabout intersection would provide an acceptable LOS of C or better overall under every alternative. Rodel uses a heavy truck equivalency of two passenger vehicles for analysis purposes.

The study team then agreed that the VISSIM model would be calibrated to closely reflect the results of the Rodel model for the roundabout alternatives. Driver behavior parameters were shifted to the least conservative values within generally accepted modeling ranges to improve the operation results to emulate the Rodel model results. Each truck movement was then converted to two passenger car equivalents.



Figure 8, 2045 Traffic Movements, schematically illustrates the resulting number of 2045 peak hour traffic movements at each intersection along Quartzsite Boulevard, along with the percent distribution of movements on each approach. Separate numbers are shown for three types of vehicles: commercial trucks, passenger cars, and other vehicles such as motorcycles.

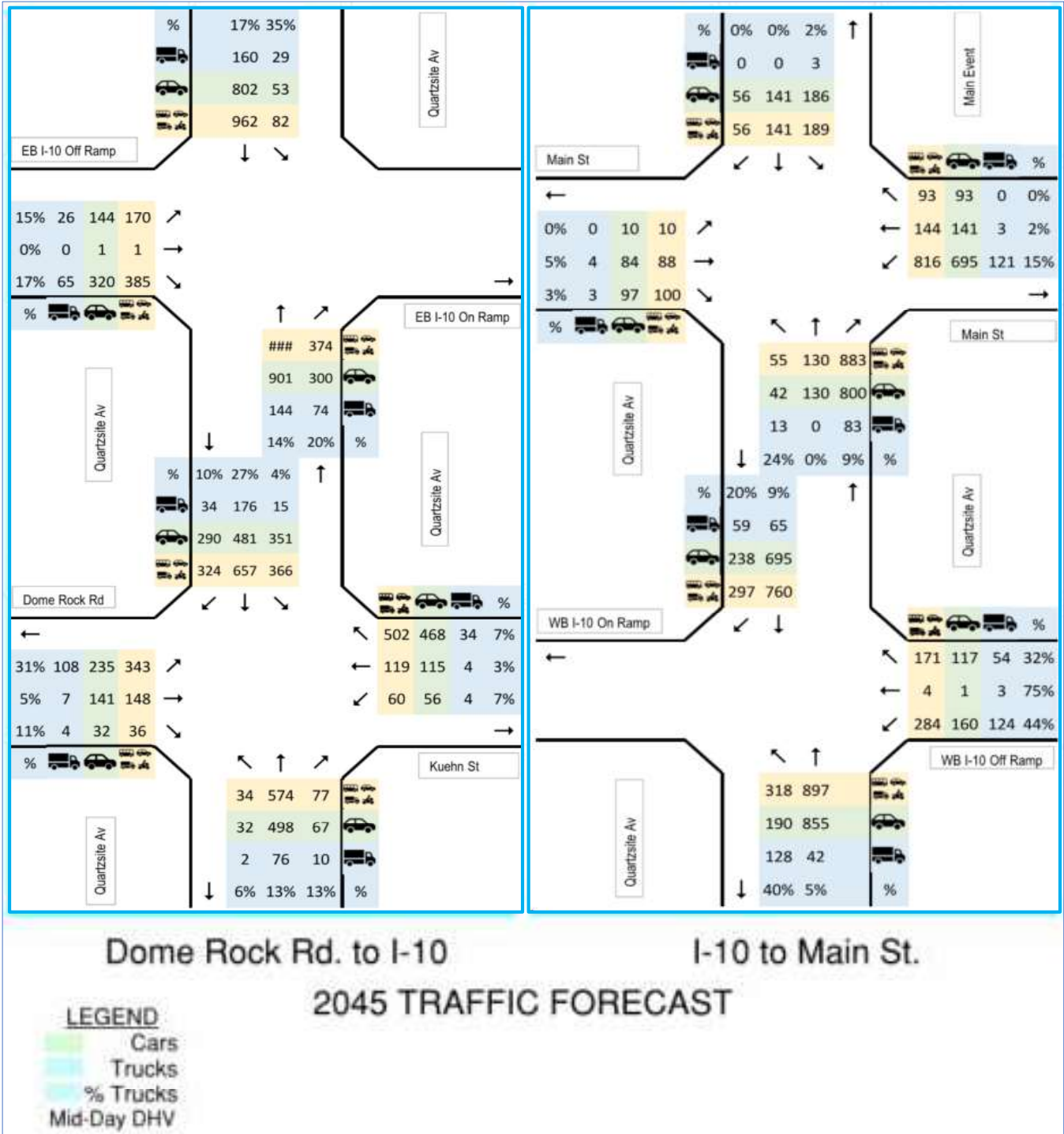


Figure 8, 2045 Traffic Movements

To derive the total volume for each traffic movement, passenger car equivalents for larger and smaller vehicles were factored into the model. The number of trips for each traffic movement was balanced during the modeling process. Hence, some of the vehicle movement totals derivable from Figure 8 differ slightly from those reported in Table 6.

#### Year 2045 Average Delay and LOS at Intersections

Using the VISSIM model calibrated to closely match the Rodel model results, the study team estimated Year 2045 average delays and LOS at each of the four Quartzsite Boulevard intersections, as shown in Table 8 below. Forecast LOS worse than C is color-coded: D as orange and E and F as red. All results apply to the midday peak hour.

**Table 8, Average Delay and LOS**

Quartzsite Boulevard Intersection	Approach	Average Delay (seconds)				LOS (Signalized Criteria)			
		SD	DDI	RA <sub>s</sub>	RL <sub>s</sub>	SD	DDI	RA <sub>s</sub>	RL <sub>s</sub>
<b>DOME ROCK RD/ KUEHN ST</b>	NB	29	27	28	23	C	C	C	C
	SB	11	13	2	6	B	B	A	A
	EB	36	35	18	81	D	C	B	F
	WB	29	34	14	66	C	C	B	E
	INT	23	24	13	33	C	C	B	C
<b>I-10 EB RAMPS</b>	NB	6	14	3	1	A	B	A	A
	SB	8	12	1	7	A	B	A	A
	EB	34	16	38	3	C	B	D	A
	INT	12	14	9	3	B	B	A	A
<b>I-10 WB RAMPS</b>	NB	8	6	1	2	A	A	A	A
	SB	12	18	10	3	B	B	A	A
	WB	28	18	75	2	C	B	E	A
	INT	13	13	19	2	B	B	B	A
<b>MAIN ST</b>	NB	25	43	2	3	C	D	A	A
	SB	36	35	15	15	D	D	B	B
	EB	24	23	13	13	C	C	B	B
	WB	21	21	2	2	C	C	A	A
	INT	17	18	4	4	B	B	A	A

The intersection average for the four alternatives is LOS C or better. A LOS D (shown in orange) occurred at two locations in the SD and DDI alternatives. A LOS D and E (shown in orange and red respectively) occurred in the RA alternative. A LOS E and F (shown in red) occurred at two locations in the RL alternative.

Of the 14 approaches to the ramp and frontage road intersections, two are expected to operate at LOS D or worse in Alternatives 1, 2, and 3, and 4. However, only Alternatives 3 (Four Roundabouts) and Alternative 4 (Restricted Lefts) would have one or more approaches that experience a peak hour LOS of E or F.

Year 2045 average peak hour delay would range from less than 10 seconds on one or more intersection approaches (in every alternative) to more than a minute on one approach in Alternative 3 (Four Roundabouts) and two approaches in Alternative 4 (Restricted Left Ramps) as shown in red. Approaches experiencing at least one minute of average delay under Alternative 3 or 4 are EB Dome Rock Road, WB Kuehn St, and the I-10 WB off-ramp.

### Queuing Analysis

Because of the proximity of the frontage road intersections to the I-10 ramp intersections, queuing is important in determining the number of through and turn lanes required to provide an acceptable level of service (D or better).

Table 9 shows both average and maximum year 2045 midday peak hour queue lengths at each intersection approach for the four alternative TI configurations.

**Table 9, Average and Maximum Lane Queue Lengths**

Quartzsite Av Intersection	Approach	Average Lane Queue (ft)				Maximum Lane Queue (ft)			
		SD	DDI	RAs	RLs	SD	DDI	RAs	RLs
<b>DOME ROCK RD / KUEHN ST</b>	NB	55	50	129	88	224	227	653	314
	SB	35	32	7	72	275	237	264	497
	EB	42	39	34	174	174	180	200	519
	WB	35	47	42	288	170	180	346	735
<b>I-10 EB RAMPS</b>	NB	19	45	2	0	223	232	112	2
	SB	10	23	0	18	198	137	36	315
	EB	39	17	144	0	161	137	671	51
<b>I-10 WB RAMPS</b>	NB	17	26	0	0	241	218	23	0
	SB	33	46	31	28	151	166	276	396
	WB	32	23	335	0	125	158	1,007	0
<b>MAIN ST</b>	NB	11	24	1	3	128	149	74	158
	SB	34	34	23	0	175	182	245	0
	EB	15	15	9	125	109	110	113	320
	WB	64	58	1	20	283	278	88	217

The queue refers to the length of the line of cars (measured in feet) that are stopped while waiting to enter the intersection. Queuing was calculated in two ways. The average queue was derived based on the average length of queuing on each approach at 0.1 second intervals over the one-hour simulation period and ten VISSIM model runs. The maximum queue was derived from the average of the longest queue observed at any time within the one-hour simulation period in each of the ten VISSIM model runs. The maximum result represents a sensitive analysis that aids in predicting where the first failures of an intersection will occur.

The results in Table 9 may be summarized as follows:

- The average queue for each movement at the SD and DDI intersection alternatives is 64' or less.
- The maximum queue for each movement at the SD and DDI intersection alternatives 283' or less.
- The average queue for each movement at the RA intersection alternative is 144' or less than with the exception of the 335' queue at the WB approach at the I-10 WB ramp intersection.
- The maximum queue for each movement at the RA intersection alternative is 346' or less with the exceptions of the 653' (orange) queue for the NB approach to the Dome Rock Rd/Kuehn St intersection, the 671' (orange) queue for the EB approach to the I-10 EB ramp intersection, and the 1,007' (red) queue for the WB approach to the I-10 WB ramp intersection.

*The 1,007 feet long queue on the westbound I-10 off-ramp will not back up traffic into the through lanes but will consume about 2/3 of the entire length of the ramp.*

- The average for each movement at the RL intersection alternative is 174' or less with the exception of the 288' queue at the WB approach at the Dome Rock Rd/Kuehn St intersection.
- The maximum for each movement at the RL intersection alternative is 396' or less the exception of the 497' (orange), 519' (orange), and 735' (red) queues for the SB, EB and WB approaches, respectively, at the Dome Rock Rd/Kuehn St intersection.

Figures 9, 10, 11, and 12 starting on the next page show visually the lengths of both the average queue length and the maximum queue length for each approach at each alternative Traffic Interchange. The average queue length is shown by a yellow bar and the maximum queue length is shown with a red bar.

The following list identifies the approaches of concern where the queue lengths have the potential to interfere with the traffic movements at the adjacent intersection thereby worsening congestion issues.

1. Figure 11, RAs TI – NB maximum queue extends south beyond the Love's Travel Stop entrances.
2. Figure 11, RAs TI – EB max. queue extends 671' on the EB off-ramp (approx. 2/3 the distance).
3. Figure 11, RAs TI – WB max. queue extends 1,007' on the WE off-ramp (approx. 2/3 the distance).
4. Figure 11, RAs TI – SB max. queue extends north beyond the Terrible Herbst Travel Stop driveway.
5. Figure 12, RLs TI – NB maximum queue extends south beyond the Love's Travel Stop entrances.
6. Figure 12, RLs TI – WB max. queue extends 735' E on Kuehn Street and 519' W on Dome Rock Rd.
7. Figure 12, RLs TI – SB maximum queue extends from Dome Rock Road to Main Street.
8. Figure 12, RLs TI – EB maximum queue on Main St extends beyond business' entrances.



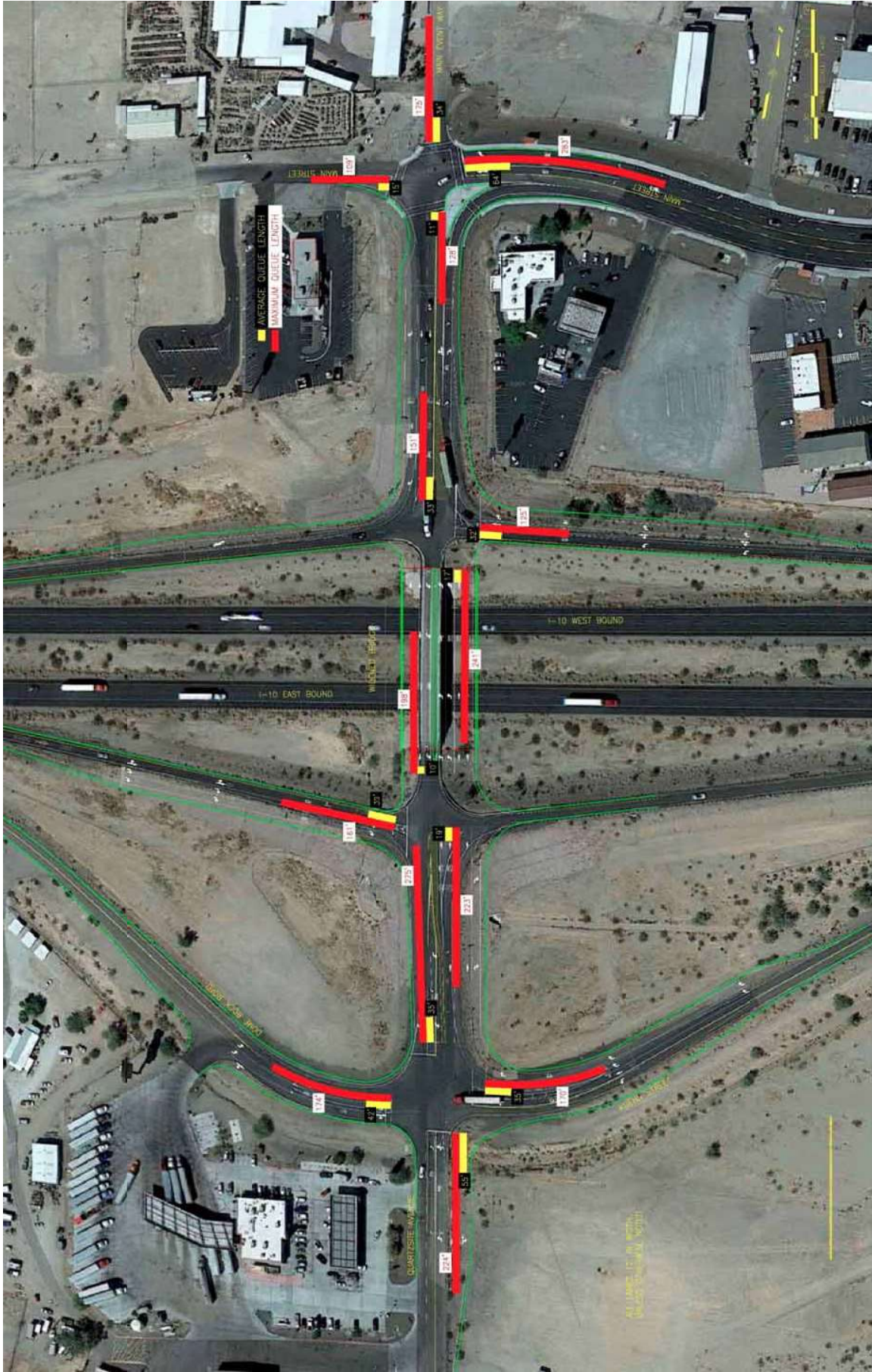


Figure 9, Average & Maximum Queue Lengths – Standard Diamond (SD) TI



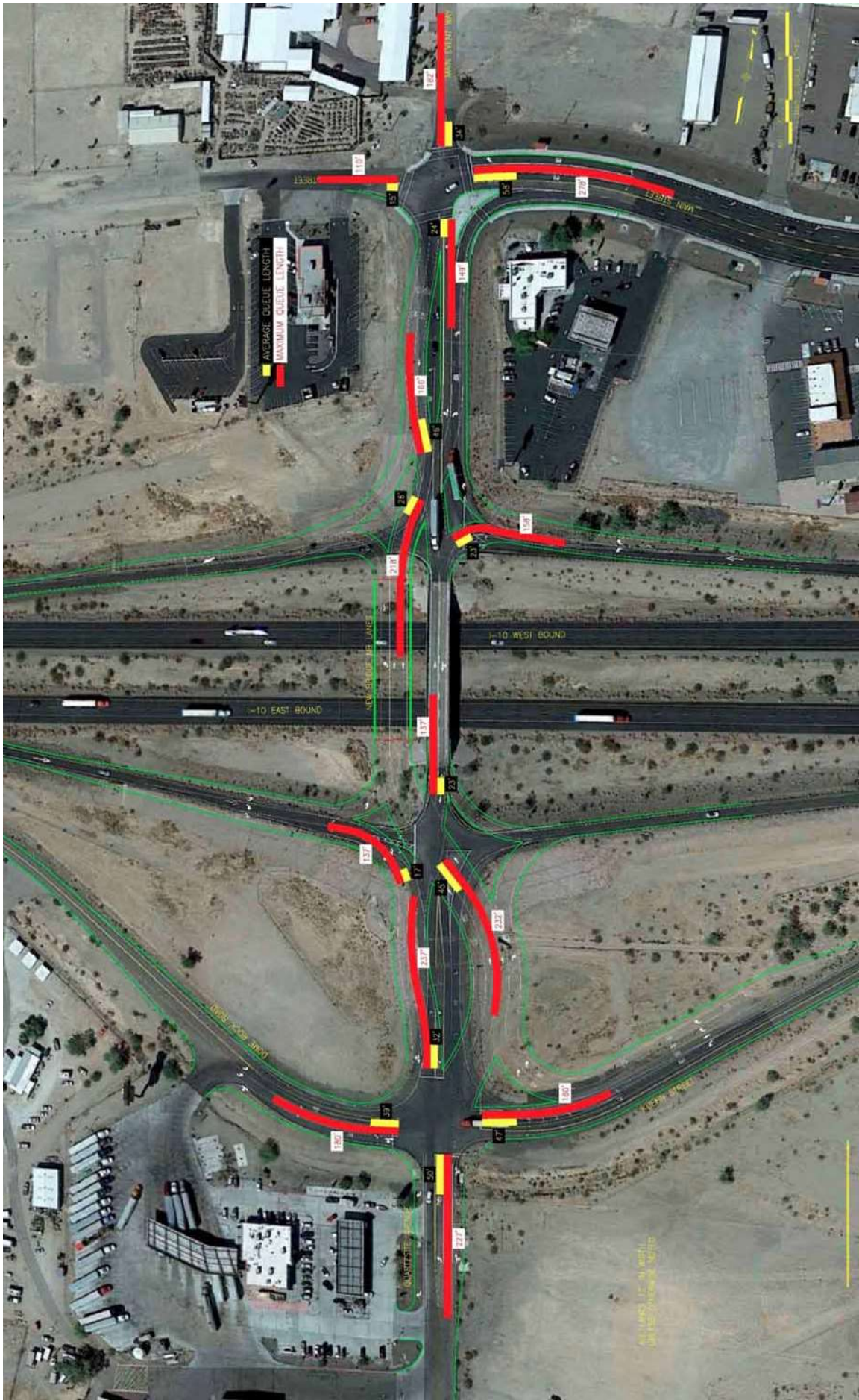


Figure 10, Average & Maximum Queue Lengths – Diverging Diamond (DDI) TI



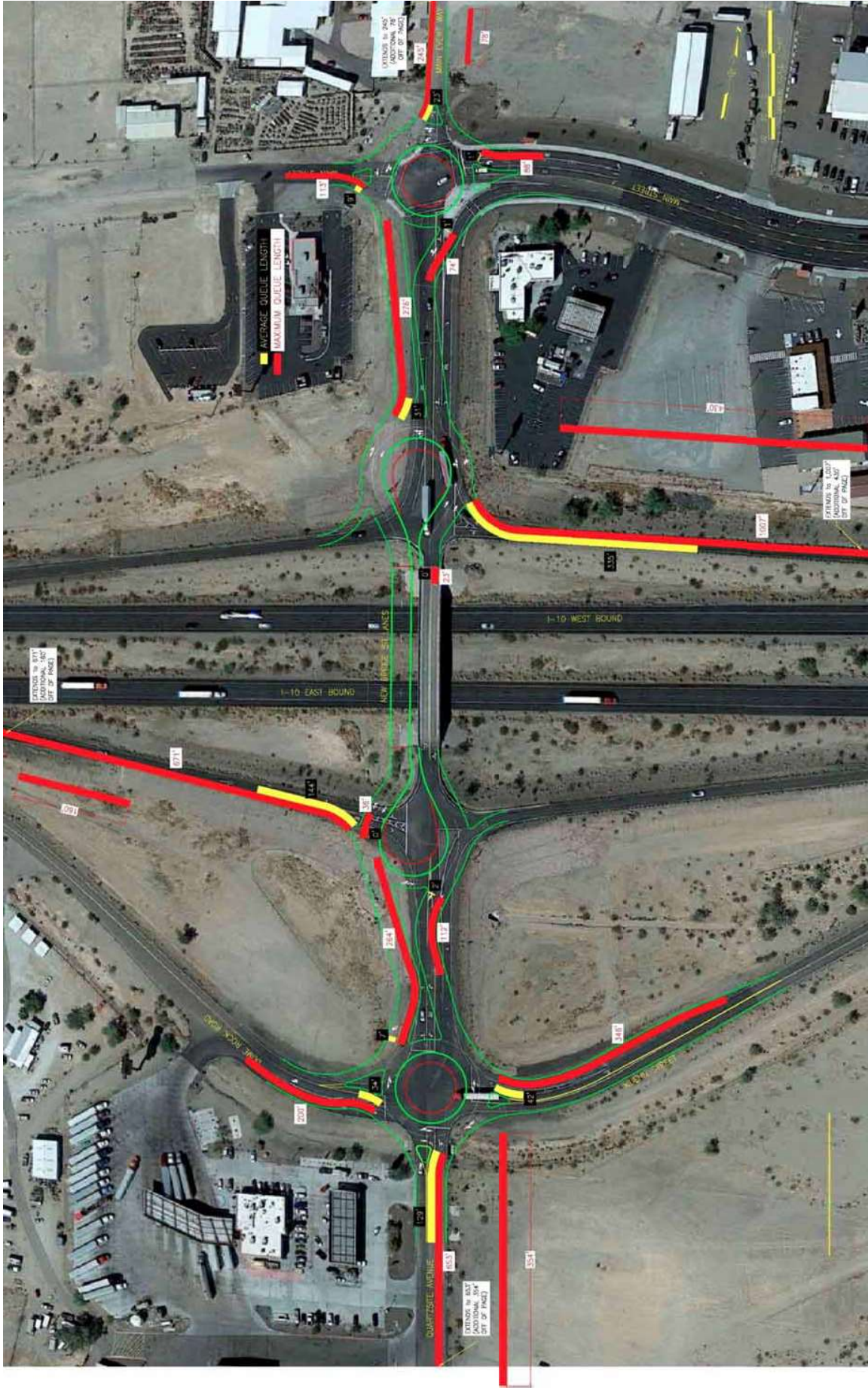


Figure 11, Average & Maximum Queue Lengths – Roundabouts (RAs) TI



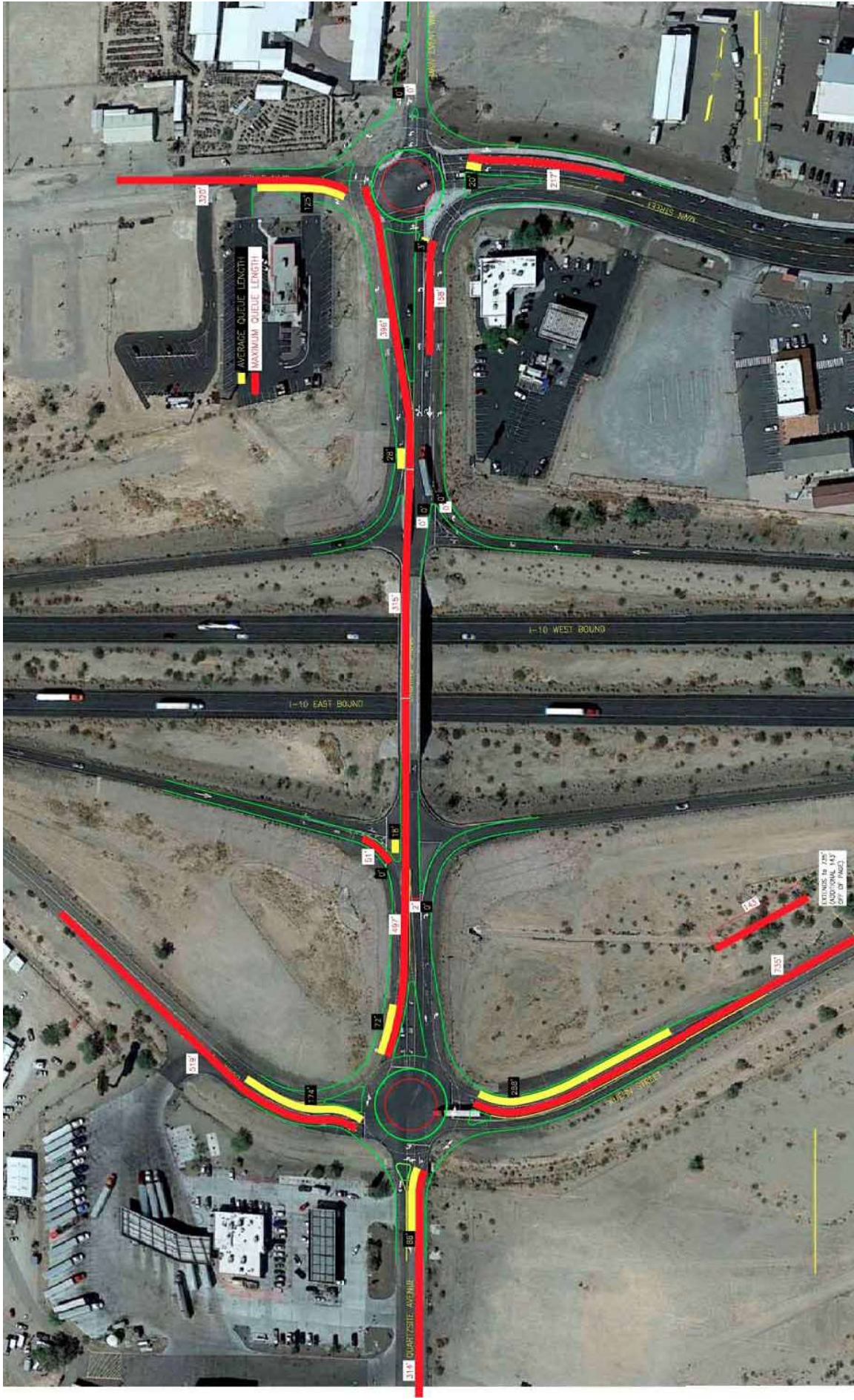


Figure 12, Average & Maximum Queue Lengths – Restricted Lefts (RLs) TI

*Conclusions of Traffic Analysis*

Using Rodel modeling results to calibrate VISSIM served to improve the LOS and reduced queue lengths for all alternatives, but especially for the roundabout alternatives 3 and 4. Both the LOS and queuing analyses suggest that every alternative is viable. A LOS D for an individual approach is acceptable. A LOS E for an individual approach is concerning. A LOS F for an individual approach is not acceptable.

The sensitivity analysis of queue length for Alternatives 3 and 4 indicate, however, that the roundabout alternatives have the potential to fail before either of the standard diamond or diverging diamond/signalized alternatives (1 and 2) due to the excessive queueing lengths on some approaches. In addition, Alternative 4 (RL) has more substandard levels of service (E or F) than Alternative 3 (RA).

The intersection and individual approach LOS and queuing results for Alternatives 1 (SD) and 2 (DDI) are similar and both are acceptable.

The overall intersection LOS of Alternative 3 (RA) is slightly better than that of 1 and 2. However, Alternative 3 results in LOS E for the WB approach to the WB ramp intersection. The longest average queue length for this approach is more than 10 times longer than the corresponding queue in Alternatives 1 and 2.

Three maximum queue lengths in Alternative 3 (RA) elicit concern:

- The WB approach to the WB ramp intersection -- 1,007 feet.
- The EB approach to the EB ramp intersection — 671 feet.
- The NB approach to Dome Rock Road/Kuehn Street — 653 feet.

The overall intersection LOS for Alternative 4 (RL) is slightly better than either the SD or DDI alternatives and roughly the same as the RA alternative. However, it does provide a LOS E for the WB approach and LOS F for the EB approach to the Kuehn/Dome Rock intersection. The maximum queues for all the approaches were acceptable. There are three maximum queues for the RL alternative that signal concern:

- WB at Dome Rock Road—735 feet
- EB at Dome Rock Road—519 feet
- SB at Dome Rock Road—497 feet

It is concluded that each alternative is viable in its peak hour LOS. Caution is advised with either of the roundabout alternatives (3 and 4), as both provide an LOS of E or F for two approaches. In addition, the maximum queuing analysis suggests that these alternatives would fail before Alternatives 1 and 2.

*Delays and Queuing Scoring and Ranking Criteria*

ADOT stated that the ramps must be given preference because of the potential safety ramifications if ramps fail and result in traffic backups onto a high speed freeway.

The TI alternatives maximum queue lengths are:

- SD – 161 feet maximum queue length on the EB entrance ramp
- DDI – 158 feet maximum queue length on the WB entrance ramp
- RA – 1,007 feet on the WB entrance ramp
- RL – 51 feet on the EB entrance ramp

Therefore, if the scoring is solely based on a comparison of the maximum queue length of each alternative for the eastbound and westbound approach ramps, the Restricted Left TI performs the best and the Roundabouts TI performs the worst. Because the Roundabout (RA) alternative comes the closest to potentially backing up traffic onto the I-10 mainline, that alternative would rate a score of 1 – worst. The other three TI alternatives all have maximum queue lengths at the ramp approaches of 161 feet or less. A review of Figures 9, 10, and 13 shows that these three TI systems of all four intersections perform comparable to each other for average delays and queue lengths. However, during peak periods, the RL TI has extensive maximum queuing. Consequently, the average of the maximum queue lengths for each approach is the proposed method for comparing the alternatives.

- SD – 188 feet
- DDI – 185 feet
- RA – 293 feet
- RL – 252 feet

**f. Estimated Construction Cost of Alternatives**

Cost is one of the six evaluation criteria whereby the study team evaluated the alternatives. The cost rating value accounts for 15% of the 100 possible points awarded. Continuing operation and maintenance (O&M) costs are not included in the planning level analysis, but typically the O&M cost differences between alternatives would be relatively small. As the two roundabout alternatives 3 and 4 do not have traffic signals, the annual O&M costs would be expected to be nominally less for each compared to the two signalized alternatives.

ADOT provided planning level cost estimates for each alternative traffic interchange type. These costs are for comparison and ranking purposes only. Detailed cost estimates would be performed when a preferred alternative has been selected.

**Table 10, Preliminary Planning-Level Cost Estimates, Millions of Dollars**

Item	Alt. 1 (SD)	Alt. 2 (DDI)	Alt. 3 (RA)	Alt. 4 (RL)
Planning Level Project Cost	18.0	20.0	19.0	10.0
Contingency @ 20% +/-	3.6	4.0	3.8	2.0
<b>Subtotals</b>	<b>21.6</b>	<b>24.0</b>	<b>22.8</b>	<b>12.0</b>
R/W	0.0	0.0	4.0	4.0
<b>Totals</b>	<b>\$21.6 M</b>	<b>\$24.0 M</b>	<b>\$26.8 M</b>	<b>\$16.0 M</b>

\*Roundabout alternatives should be constructed with PC concrete pavement due to heavy truck turning movements.



The two roundabout alternatives are expected to have R/W acquisition needs both at the Main Street and at Dome Rock Rd/Kuehn Street intersections due to their larger footprints. The ranking in terms of costs from least to most are:

- Restricted Left TI -- \$16.0 million
- Standard Diamond TI -- \$21.6 million
- Diverging Diamond TI -- \$24.0 million
- Four Roundabout TI -- \$26.8 million

Costs are estimated in current (2023) dollars and do not account for expected inflation during the construction period or thereafter due to the uncertainty of when funding may be available.

#### **g. Construction Impacts**

The length of time to construct the complete roadway improvements has a significant impact to the public and the community in terms of delays, congestion, detours, noise, dust, vibrations, debris, visual effects, frustration levels, and more.

ADOT provided the anticipated total length of construction time to complete each of the four alternative interchange types based on their previous experiences.

These construction time frames are for comparison and ranking purposes only. A more detailed estimate of the anticipated construction time period would be performed when a preferred alternative has been selected.

- Standard Diamond TI – 15 months
- Restricted Left TI – 15 months
- Diverging Diamond TI – 20 months
- Four Roundabout TI – 20 months

#### **h. Safety**

##### *Standard Diamond TI (SD)*

A full diamond interchange is formed when a one-way diagonal ramp is provided in each quadrant of the interchange. The ramps are aligned with free flow from the interstate highway and an intersection on the crossroad. The ramp intersections have four legs, two of which are one-way. They can present a problem in traffic control to prevent wrong-way entry from the crossroad. Diamond interchanges may need additional traffic control when the crossroad carries moderate to large volumes of traffic. Traffic signals and other interchange types are options typically considered.

The existing traffic interchange is a standard diamond type. Thus, this serves as the basis for comparison with the three alternative TI types.



There are 22 potential conflict points (6 crossing, 8 merging, and 8 diverging) at a SD interchange. The crash modification factor (CMF) is set a 1.00 as the comparison baseline.

#### *Diverging Diamond TI (DDI)*

A diverging diamond interchange allows free-flowing turns when entering and exiting an interstate, eliminating the left turn against oncoming traffic and limiting the number of traffic signal phases. It is easy to navigate, eliminates last-minute lane changes, and provides better sight distance at turns, resulting in fewer crashes. The design reduces congestion and better moves high volumes of traffic without the need to increase the number of lanes in an interchange.

In a national study, the design reduced crashes by an average of 37 percent after it was constructed at 26 interchanges across the United States. The design also reduced injury and fatal crashes by an average of 54 percent. (Source: 2019 article published in the Transportation Research Record, the journal for the Transportation Research Board).

There are 18 potential conflict points (2 crossing, 8 merging, and 8 diverging) at a DDI interchange. Per the cited study, the CMF would be 0.63. A review of the Crash Modifications Factors Clearinghouse database showed an average CMF of 0.58 for all crashes.

#### *Roundabout TI (RA)*

A grade-separated interchange design where all freeway ramps begin or end at one of two roundabouts. The roundabouts are circular, unsignalized intersections where all traffic moves in a counter clockwise direction around a central island. Roundabouts are considered for use where the interchange has heavy left turns volumes onto the freeway ramps and at locations where there is limited room between the ramp intersections for vehicles to wait at traffic signals.

Roundabout interchanges reduce the number of vehicle crossing/conflict points and eliminates the potential for right-angle and head-on crashes. There are 16 potential conflict points (0 crossing, 8 merging, and 8 diverging) at a two-roundabout interchange. A review of the Crash Modifications Factors Clearinghouse database showed an average CMF of 0.92 for all crashes.

#### *Restricted Left TI (RL)*

In this instance, the restricted left interchange requires vehicles departing the interstate highway to make a right turn only at the crossroad intersection. For drivers wanting to turn left, they would make the right turn and use the downstream roundabout located on the frontage road on each side of the interchange to make a U-turn to head the desired direction of travel. Vehicles are prohibited from making a left turn or crossing over the street by installation of a barrier median. Similarly, left turns onto the freeway ramp are barred and the driver is to use the frontage road roundabout to reverse the direction and make a right turn onto the on-ramp.

Restricted (or indirect) left turn interchanges have 16 potential vehicle conflict points (0 crossing, 8 merging, and 8 diverging) similar to a roundabout. One study reported the restricted left maneuver could reduce the accident rate by 20% at unsignalized intersections and by 35% at signalized

intersections. This would be the equivalent of a CMF of 0.80 for this type of interchange. (Source: Impacts of Access Management Techniques. 1999, NCHRP Report 420, Transportation Research Board, Washington DC).

### *Signalized Intersections*

At the frontage roads for the SD & DDI alternatives, a signalized four leg intersection has 32 vehicle conflict points (16 crossing, 8 merging, and 8 diverging).

### *Safety Comparison and Ranking of the Interchange Alternatives*

A report entitled “Safety Comparisons Between Interchange Types”, Publication Number FHWA-HRT-23-049, dated April 2023, developed a predictive analysis for crashes at various traffic interchange types based on reported crashes by DOTs across the U.S. including Arizona. The results of the study were summarized by Scott Himes (report author) from VHB, in a presentation at the MassDOT Transportation Innovation Conference. The findings serve as a good basis for comparison of the four interchange alternatives in terms of safety and are presented in the table below.

**Table 11, Comparative Summary of Safety Criteria for each TI Type**

TI Type	Crossing Conflict Points	Merge/Diverge Conflict Points	CMF		Total Crashes*	KABC Crash Frequency**	Ranking
SD	6	16	1.00		26.21	6.47	Highest
DDI	2	16	0.63		21.69	5.96	Middle
RA	0	16	0.92		20.42	4.95	Lowest
RL	0	16	0.80		20.42***	4.95***	Lowest

\*Expected total crash frequency (KABC + PDO) – crashes per year

\*\*Expected KABC crash frequency – injury and fatal crashes per year

\*\*\*Restricted Left TI assumed to be equivalent to Roundabout TI

The total crash frequency number was used for the Safety ranking of the alternatives as it includes all crash types for each traffic interchange type and is a fair representation of the overall comparative safety of each TI type.

### **i. Scoring and Evaluation Results**

Table 12 on the next page shows the categories selected for scoring the four design alternatives on each of the six criteria used in the evaluation.

Each alternative is rated consistently on a 1 to 5 scale, with 1 being the worst score and 5 the best score.

**Table 12, Scoring of West Quartzsite Alternatives by Evaluation Criterion**

Criterion	Scoring (1 is worst and 5 is best)
Use of Existing Bridge	1 Removal of existing bridge and construction of a new 7-lane bridge. 2 Removal of existing bridge and construction of a new 2 or 3-lane bridge. 3 Uses existing bridge in place plus construction of new 3-lane bridge. 4 Uses existing bridge in place plus construction of new 2-lane bridge. 5 Uses existing bridge in place.
Delay and Queuing	1 Average of Maximum Queue Length on all Approaches: 276 feet to 300 feet 2 Average of Maximum Queue Length on all Approaches: 252 feet to 275 feet 3 Average of Maximum Queue Length on all Approaches: 228 feet to 251 feet 4 Average of Maximum Queue Length on all Approaches: 204 feet to 227 feet 5 Average of Maximum Queue Length on all Approaches: 180 feet to 203 feet
Construction Cost	1 \$24.8 million - \$27.0 million 2 \$22.6 million to \$24.7 million 3 \$20.4 million to \$22.5 million 4 \$18.2 million to \$20.3 million 5 \$16.0 million to \$18.1 million
Construction Impacts	1 24 months to 26 months 2 21 months to 23 months 3 18 months to 20 months 4 15 months to 17 months 5 12 months to 14 months
Safety	1 Predictive Total Crash Frequency Rate: 20.00 to 21.39 2 Predictive Total Crash Frequency Rate: 21.40 to 22.79 3 Predictive Total Crash Frequency Rate: 22.80 to 24.19 4 Predictive Total Crash Frequency Rate: 24.20 to 25.59 5 Predictive Total Crash Frequency Rate: 25.60 to 26.99
Community Acceptance	1 TI Alternate least preferred by Town Council and staff 2 Third most preferred TI Alternate preferred by Town Council and staff 3 Not used 4 Second most TI alternate preferred by Town Council and staff 5 TI Alternate most preferred by Town Council and staff

The evaluation on the first criterion, Use of Existing Bridge, depends on whether the existing Quartzsite Boulevard bridge can remain in use, if a new bridge is required, and how wide it must be to carry traffic across I-10. The next four criteria—Delay and Queuing, Construction Cost, Construction Impacts, and Safety are rated according to quantitative measures such as seconds of delay, average length of maximum queues at intersections, cost in dollars, estimated duration of construction, and established safety indicators. Community Acceptance is based on the insights, observations, and experience of Town Council members and staff at the Town of Quartzsite.

Table 13 puts all this information together to score the four design alternatives on each of the six criteria, according to the best and latest data available to ADOT. The criteria weights in the table are those introduced in Section 3c above. Information presented in the table reveals substantial differences in the performance of the alternatives, both within each criterion and across the board. Because of the 1 to 5 rating scheme, the best alternative may perform five times as well as the worst. The differences in total score, while not as great proportionately, are nonetheless dramatic, as the following paragraphs discuss.

**Table 12. Evaluation of Alternatives & Scoring Summary**

CRITERION	WEIGHT	ALTERNATE 1 STANDARD DIAMOND		ALTERNATE 2 DIVERGING DIAMOND		ALTERNATE 3 ROUNDBOUTS (FOUR)		ALTERNATE 4 RESTRICTED LEFTS	
		VALUE (1-5)	SCORE (WEIGHT X VALUE)	VALUE (1-5)	SCORE (WEIGHT X VALUE)	VALUE (1-5)	SCORE (WEIGHT X VALUE)	VALUE (1-5)	SCORE (WEIGHT X VALUE)
USE OF EXISTING BRIDGE	10	1	10	3	30	4	40	5	50
DELAY & QUEUEING	30	5	150	5	150	1	30	2	60
CONSTRUCTION COST	15	3	45	2	30	1	15	5	75
CONSTRUCTION IMPACTS	10	4	40	3	30	3	30	4	40
SAFETY	30	1	30	4	120	5	150	5	150
COMMUNITY ACCEPTANCE	5	4	20	5	25	2	10	1	5
<b>TOTALS</b>	<b>100</b>		<b>295</b>		<b>385</b>		<b>275</b>		<b>380</b>
<b>RANKINGS</b>			<b>#3</b>		<b>#1</b>		<b>#4</b>		<b>#2</b>

The evaluation results for **Alternative 1, Standard Diamond TI**, can be summarized as follows:

- *Use of Existing Bridge:* 1 (worst); requires replacing the existing bridge with a new bridge with seven lanes.
- *Delay and Queuing:* 5 (best); based on the average of maximum queue lengths on all approaches at 188 feet; also has delay on any approach that is no greater than 36 seconds and average queue no greater than 64 feet and maximum queue of 283 feet.
- *Construction Cost:* 3 (fair); based on the planning-level costs of \$21.6 million.
- *Construction Impacts:* 4 (good); refers to the anticipated 15-month duration of construction.
- *Safety:* 1 (worst); highest number of predicted total crashes at 26.21 per year; also the highest number of conflict points at 22 and a CMF of 1.00.
- *Community Acceptance:* 4 (good); Town Council and staff rating, based on the familiarity of the design and its efficiency at moving substantial traffic relatively quickly.

The evaluation results for **Alternative 2, Diverging Diamond TI**, can be summarized as follows:

- *Use of Existing Bridge:* 3 (fair); would use the existing bridge but will also require a new three-lane bridge to accommodate one direction of traffic.
- *Delay and Queuing:* 5 (best); based on the average of maximum queue lengths on all approaches at 185 feet; also has delay on any approach that is no greater than 43 seconds and an average queue no greater than 58 feet and a maximum queue of 278 feet.
- *Construction Cost:* 2 (poor); based on the planning-level costs of \$24.0 million.
- *Construction Impacts:* 3 (fair); refers to the anticipated 20-month duration of construction.
- *Safety:* 4 (good); based on predicted total crashes at 21.69 per year; also on 18 conflict points and a CMF of 0.58.
- *Community Acceptance:* 5 (best); Town Council and staff rating based on their knowledge of the design and review of video simulations of DDI's in operation.

Per ADOT's web site, the design has increased in popularity because of safety, operational. and cost benefits. Consequently, there are an increasing number of DDIs being planned and constructed in Arizona. Locations of DDIs already constructed include:

- I-10 and Houghton Road on the far southeast side of Tucson.
- I-10 and Miller Road in Buckeye.
- I-10 and Watson Road in Buckeye.
- I-17 and Happy Valley Road in north Phoenix.

The evaluation results for **Alternative 3, Four Roundabout TI**, can be summarized as follows:

- *Use of Existing Bridge:* 4 (good); would use the existing bridge but would also require a new two-lane bridge to accommodate one direction of traffic.
- *Delay and Queuing:* 1 (worst); based on the average of maximum queue lengths on all approaches at 293 feet; also has delay on any approach no greater than 75 seconds and an average queue no greater than 335 feet and the worst maximum queue of 1,007 feet.
- *Construction Cost:* 1 (worst); based on the planning-level costs of \$26.8 million.
- *Construction Impacts:* 3 (fair); refers to the anticipated 20-month duration of construction.
- *Safety:* 5 (best); based on predicted total crashes at 20.42 per year; also on 16 conflict points and a CMF of 0.92.
- *Community Acceptance:* 2 (poor); based on Town Council and staff rating because of the heavy use of large trucks and the high number of visitors in the corridor and having four in close proximity to traverse.

The evaluation results for **Alternative 4, Restricted Left TI**, can be summarized as follows:

- *Use of Existing Bridge:* 5 (best); would use the existing bridge and would not require construction of a new one.
- *Delay and Queuing:* 2 (poor); based on the average of maximum queue lengths on all approaches at 252 feet; also has delay on any approach no greater than 81 seconds and an average queue no greater than 288 feet and a maximum queue of 735 feet.

- *Construction Cost:* 5 (best); based on the planning-level costs of \$16.0 million.
- *Construction Impacts:* 4 (good); refers to the anticipated 15-month duration of construction.
- *Safety:* 5 (best); based on predicted total crashes at 20.42 per year; also on 16 conflict points and a CMF of 0.80.
- *Community Acceptance:* 1 (worst); based on Town Council and staff rating because of the unfamiliarity of one-way loops (restricted/indirect lefts intersections) with concern for the high number of heavy trucks and visitors traversing the corridor.

#### j. Sensitivity Analysis

At ADOT's request, a sensitivity analysis was conducted on the evaluation, scoring, and ranking of the four alternatives. The evaluation criteria was reduced to three categories: (1) Capacity, (2) Safety, and (3) Cost. Each of the three criterion received a weight of 33.33.

To determine the value for each criterion, the following assignment of the evaluation criteria was used.

Capacity: Used the Delay and Queuing Value previously determined.

Safety: Used a weighted value of the combination of Safety and Community Acceptance.

Costs: Used a weighted value of the combination of Construction Cost, Construction Impacts, and Use of Existing Bridge.

The results of the sensitivity analysis completed for the four alternatives is summarized in Table 13.

**Table 13. Alternatives Scoring Summary based on Capacity, Safety, and Cost**

CRITERION	WEIGHT	ALTERNATE 1 STANDARD DIAMOND		ALTERNATE 2 DIVERGING DIAMOND		ALTERNATE 3 ROUNDBABOUTS (FOUR)		ALTERNATE 4 RESTRICTED LEFTS	
		VALUE (1-5)	SCORE (WEIGHT X VALUE)	VALUE (1-5)	SCORE (WEIGHT X VALUE)	VALUE (1-5)	SCORE (WEIGHT X VALUE)	VALUE (1-5)	SCORE (WEIGHT X VALUE)
CAPACITY	33.33	5.00	166.65	5.00	166.65	1.00	33.33	2.00	66.66
SAFETY	33.34	1.43	47.63	4.14	138.12	4.57	152.41	4.43	147.65
COST	33.33	2.71	90.47	2.57	85.71	2.43	80.94	4.71	157.13
<b>TOTALS</b>	<b>100</b>		<b>304.75</b>		<b>390.48</b>		<b>266.69</b>		<b>371.44</b>
<b>RANKINGS</b>			<b>#3</b>		<b>#1</b>		<b>#4</b>		<b>#2</b>

While the scoring numbers changed somewhat, the rankings remained the same.

The Diverging Diamond Traffic Interchange alternative scored first, followed by the Restricted Lefts TI, the Standard Diamond TI, and lastly the Four Roundabouts alternatives.

#### **4. OTHER CONSIDERATIONS**

##### **a. Median Crossing Restrictions for Emergency Response**

ADOT advised the study team that incident response in rural areas may require the use of off-ramps and on-ramps as a detour in the event of a crash that occurs within the limits of the TI, and as an option to a full closure of the interstate highway. The diverging diamond and the restricted left options would block through traffic from directly crossing Quartzsite Boulevard at the ramp intersections. Therefore, per ADOT, a diverging diamond may not be acceptable unless the traffic interchanges on each side of the Quartzsite Boulevard interchange with the diverging diamond or restricted left TI are connected to each other via a suitable parallel street for frontage road.

ADOT reported the most recent example of the need to use the off-ramps and on-ramps during an incident occurred on Thursday, August 3, 2023, when westbound I-10 had three semi-trucks crash at Exit 98 and ADOT avoided closing westbound I-10 for 2 hours by using the ramps. Within the past six months, the same thing also occurred along eastbound I-10 at Exits 19 and 45.

At this location, the east Quartzsite TI is connected to the Quartzsite Boulevard TI with Main Street on the north side and Kuehn Street on the south side of I-10. Either or both of those streets could serve as a detour route, perhaps with eastbound traffic using Kuehn Street and westbound traffic using Main Street. To the west, the Dome Rock Road TI is connected to the Quartzsite Boulevard TI with Dome Rock Road on the south side of I-10. This road could serve as a detour route for either or both east bound and west bound traffic depending on whether one direction of lanes are closed or if there needs to be full closure of the freeway. There is not a suitable connecting route on the north side of I-10 between the Dome Rock Road TI and the Quartzsite Road TI.

##### **b. Wrong Way Drivers**

The diverging diamond TI and restricted lefts TI are less susceptible to wrong way drivers accessing the wrong freeway ramps due to their geometric layouts at the ramp intersections.

##### **c. Oversize Trucks**

Oversize trucks require a route through Arizona. Most oversize trucks currently use SR 95 through Parker, then SR 72 to Vicksburg Road, and then connecting to I-10 there. Correcting the existing height restriction along I-10 caused by the at the Quartzsite Boulevard bridge would be beneficial for the movement of oversize trucks through Arizona.

The only alternative proposed that replaces the exiting bridge is the Standard Diamond TI.



If ADOT chooses to prioritize the replacement of the existing bridge, the other TI alternatives can readily include the replacement of the existing bridge which would serve to increase the respective construction costs for the DDI, RA, and RL TI alternatives

## **5. RECOMMENDED IMPROVEMENTS**

### **a. Recommended Improvement Option**

Based on the alternatives analysis presented herein, the recommended improvements for the I-10 MP 17 (Quartzsite West) Traffic Interchange include a Diverging Diamond along with geometric modifications and addition of traffic signals to the adjacent Dome Rock Road/Kuehn Street and Main Street intersections with Quartzsite Boulevard.

ADOT will need to weigh the whether replacement of the existing bridge and/or if the ability to detour traffic through the TI ramps across Quartzsite Boulevard are priorities for freeway traffic operations.

### **b. Rationale for Selection**

In the preceding evaluation (Chapter 3 – Alternatives Analysis), Alternative 2, the diverging diamond interchange, achieved the highest weighted point score (385 of a possible 500) and is therefore recommended for implementation.

It is recognized that the Restricted Lefts TI score is a very close second at 380 points. But the DDI TI score ranks highest (5 score) on two of the six criteria for delay/queuing and community acceptance, and ranked second highest in the safety criteria. Delay/queuing and safety are the two heaviest-weighted criteria accounting for 60 of the 100 points available.

The Standard Diamond and Four Roundabout alternatives scored substantially less in the evaluation and ranking process.

### **c. Budgetary Implementation Costs**

The planning-level construction cost was estimated to be approximately \$24 million dollars. Professional engineering services required for design and post-design phases would likely add an additional \$3 million.

No additional right of way should be needed for the project. However, temporary construction easements will likely be required to complete the project.

## **6. SUMMARY**

### **a. Findings**

This report describes and evaluates four alternative designs for improvements to ADOT's West Quartzsite traffic interchange located on I-10 at milepost 17 in La Paz County, Arizona. Projected traffic

growth to the year 2045, consisting of increases in background traffic as well as trips to be generated by new local development, will necessitate an expansion of peak period capacity at the facility.

The alternatives analysis study focuses on the intersections of Quartzsite Boulevard (the cross road) with Dome Rock Road/Kuehn Street to the south, the eastbound I-10 ramps, the westbound I-10 ramps, and Main Street to the north. These are the control points that combined determine the traffic carrying capacity of the traffic interchange.

The study team conducted a detailed analysis of four improvement alternatives.

1. A standard diamond interchange.
2. A diverging diamond (DDI) interchange, in which northbound and southbound traffic on the Quartzsite Boulevard would temporarily diverge to the left to facilitate unconflicted left turns to the I-10 on-ramps.
3. A roundabouts interchange, that provides for roundabouts at the four cross road intersections.
4. A restricted left interchange, that provides for roundabouts at the frontage road intersections and bars left and crossover maneuvers at the ramp intersections, creating a one-way loop for traffic entering I-10 at the eastbound and westbound on-ramps.

A detailed evaluation of these four alternatives focused on six criteria considered important to ADOT and the Town of Quartzsite.

1. Use of Existing Bridge.
2. Delay and Queuing (i.e., capacity and operational performance).
3. Cost.
4. Construction Impact.
5. Safety.
6. Community Acceptance.

Appropriate weights were assigned to each criterion, with Delay/Queuing and Safety assigned the greatest weight and Community Acceptance the least. Each of the four alternatives then received a rating from 1 (worst) to 5 (best), a score on each criterion (equal to the rating multiplied by the weight), and finally a total score on all six criteria combined.

When the scores of each alternative were added to obtain a total, the study team found that the DDI TI option performs the best of the four alternatives, with an overall score of 385 points versus 380 points for the restricted lefts alternative or less for the other two options. Per ADOT, DDI's have increased in popularity because of safety, operational. and cost benefits.

Therefore, the diverging diamond interchange is recommended for implementation at an appropriate date when the necessary funding can be secured.

At that point, the project will undergo the usual prioritization, programming, and procurement process according to standard ADOT standard procedures.

Upon ADOT's approval of the report and concurrence with the recommendation for a Diverging Diamond Interchange solution, The Town of Quartzsite intends on seeking funding for the design and construction of the TI as soon as it is approved by ADOT.

The Town will immediately apply for funding for the design of the TI and frontage road improvements through the AZ State Match Advantage for Rural Transportation (SMART) Fund. This will include development of a 30% level plan along with a more detailed construction cost estimate.

These documents would then be used to place the project on ADOT's five-year program and then to inform the subsequent planning, design, and construction of the DDI. The Town will continue to apply for funding for the construction of the TI and frontage improvements through the new infrastructure program and legislative priority funding grants.

#### **b. Phasing of improvements**

It is possible for the implementation of the improvements to be a program of phased improvements.

1. Dome Rock Road/Kuehn Street Intersection – geometric widening and installation of traffic signals with capacity for the 2045 forecasted traffic.
2. Main Street intersection – geometric widening and installation of traffic signals with capacity for the 2045 forecasted traffic.
3. New Bridge over I-10 – located north of the existing bridge to carry three lanes of traffic.
4. DDI lanes from the Dome Rock Road/Kuehn Street Intersection to the existing and new bridges and between the existing and new bridges to the Main Street intersection – closing the gaps to fully complete the DDI TI.

*End of Alternatives Analysis Report*

<b>I-10/Quartzsite Avenue TI - Final Design Fee Proposal</b>	
<b>Pre Design Tasks</b>	
Task	Cost
Environmental Categorical Exclusion - Lump Sum \$75,000	\$ 75,000
AASHTO FHWA Change of Access Report - Lump Sum \$50,000	\$ 50,000
Pre Design Tasks	\$ 125,000
<b>Data Collection, Geotech Studies &amp; Design</b>	
Type	Cost
Geotechnical Studies/Report	\$ 29,810
Pavement Design	\$ 22,360
Bridge Foundation Design	\$ 26,080
Geotech Borings & Testing	\$ 65,200
Survey & R/W Definition	\$ 55,890
Data Collection, Geotech Studies & Design	\$ 199,340
<b>Up Front Plan Sheets</b>	
Type	Cost
Cover/Standard, etc.	\$ 13,410
General Design Sheet	\$ 5,960
Roadway Schedules	\$ 119,230
Misc/Typicals	\$ 37,260
QC	\$ 17,210
Up Front Plan Sheets	\$ 193,070
<b>Roadway Report &amp; Sheets</b>	
Type	Cost
Project Assessment Report	\$ 44,710
Plans	\$ 67,070
Profile	\$ 60,360
Staking	\$ 53,650
Barrier	\$ 29,810
Details	\$ 104,330
QC	\$ 33,200
Roadway Report & Sheets	\$ 393,130
<b>Bridges (2) Report &amp; Sheets</b>	
Type	Cost
BSR	\$ 48,290
Load Ratings Reports	\$ 16,100
Location Plan, Notes, P&E	\$ 38,630
Foundation Data Sheets	\$ 57,950
Substructure	\$ 115,890
Superstructure	\$ 183,500
Aesthetics	\$ 32,190
QC	\$ 46,230
Bridges (2) Report & Sheets	\$ 538,780
<b>Wall Sheets</b>	
Type	Cost
Plan & Profile	\$ 47,690
Details/Aesthetics	\$ 40,990

QC	\$	6,390
Wall Sheets	\$	95,070
<b>Drainage Report &amp; Sheets</b>		
Type		Cost
Report	\$	37,260
Plan & Profile	\$	80,480
Hydraulics and Hydrology	\$	59,620
Schedules	\$	35,770
Details	\$	53,650
QC	\$	33,940
Drainage Report & Sheets	\$	300,720
<b>Utilities (No Design)</b>		
Type		Cost
Office Coordination & Designation	\$	44,710
External Coordination & Meetings	\$	29,810
Potholes	\$	37,260
Utilities (No Design)	\$	111,780
<b>Traffic Sheets</b>		
Type		Cost
Signals (4)	\$	89,420
Lighting & Calc's	\$	53,650
Signing w/ Schedules	\$	80,480
Striping	\$	33,530
ITS	\$	53,650
MOT (Notes, Phasing Plan, Matrix & Specs)	\$	47,690
QC	\$	25,340
Traffic Sheets	\$	383,760
<b>Miscellaneous Tasks</b>		
Task		Cost
SWPP	\$	29,810
Quantities	\$	29,810
Cost Estimate	\$	22,360
Spec's	\$	29,810
ADOT Submittals (Checklists, Comment Resolution, Permit)	\$	37,260
Clearances (Environmental, Materials, Utilities)	\$	22,360
Clearances (Right of Way & TCEs)	\$	125,000
Miscellaneous Tasks	\$	296,410
Subtotal #1	\$	2,637,060
<b>Project Management (8% of Subtotal #1)</b>	\$	211,000
<b>Estimated Consultant Design Fee</b>	<b>\$</b>	<b>2,850,000</b>
<b>ADOT Fees Estimate</b>		
ICAP (10.7% of Estimated Design Fee)	\$	305,000
ADOT Project Development Administration Fee & Design Contingencies	\$	245,000
	\$	550,000
<b>Total Design Funding Request</b>	<b>\$</b>	<b>3,400,000</b>

## 8. PPAC - PROJECT MODIFICATIONS AND NEW PROJECTS - DISCUSSION AND POSSIBLE ACTION

8-1            **Route & MP:**            SR 101, MP 51.5 - MP 61.5  
                 **Project Name:**        SR 202 SOUTH MOUNTAIN - SR 202 SANTAN  
                 **Type of Work:**            Pavement Rehabilitation  
                 **County:**                    Maricopa  
                 **District:**                    Central  
                 **Schedule:**                    FY 2024  
                 **Project Manager:**        Kirstin Huston  
                 **Program Amount:**        \$13,612  
**New Program Amount:**       \$13,612  
                 **Requested Action:**        Establish new project

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3. Form Date / 5. Form By:
3/5/2024
Kirstin Huston

4. Project Manager / Presenter:
Kirstin Huston @ (602) 712-2167
205 S 17th Ave, , 121F - 4983 PROJECT MANAGEMENT

6. Project Name:
SR 202 RED MOUNTAIN - SR 202 SANTAN

7. Type of Work:
PAVEMENT REHABILITATION

8. CPSID: OP1Q 9. District: Central 10. Route: 101L 11. County: Maricopa 12. Beg MP: 51.5 13. TRACS #: F073501C ? 14. Len (Mi.): 10 15. Fed Id #:

16. Program Budget: \$0 17. Program Item #: 104442

18. Current Approved Program Budget: \$0 18a. (+/-) Program Budget Request: \$13,612 18b Total Program Budget After Request: \$13,612

CURRENTLY APPROVED:

CHANGE / REQUEST:

19. BUDGET ITEMS:

19A. BUDGET ITEMS:

Table with 4 columns: Item #, Amount, Description, Comments. Row 1: 49924, \$13,612, 100 pct RARF - MAG TIP ID DOT24-224

CURRENT SCHEDULE:

CHANGE REQUEST NEW SCHEDULE:

21. CURRENT FISCAL YEAR:
22. CURRENT BID READY:
23. CURRENT ADV DATE:

21A. REQUEST FISCAL YEAR: 24
22A. REQUEST BID READY:
23A. REQUEST ADV DATE:

20. JPA #'s: SIGNED: NO ADV: NO [checked] PROJECT FUNDING VERIFIED BY PM

CHANGE IN: 24a. PROJECT NAME: NO 24b. TYPE OF WORK: NO 24c. SCOPE: NO 24d. CURRENT STAGE: NOT APPLICABLE

24e. ENVIRONMENTAL CLEARANCE: NOT APPLICABLE 24f. MATERIALS MEMO COMP: NOT APPLICABLE
24g. U&RR CLEARANCE: NOT APPLICABLE 24h. C&S CLEARANCE: NOT APPLICABLE
24i. R/W CLEARANCE: NOT APPLICABLE 24j. CUSTOMIZED SCHEDULE: NOT APPLICABLE
24k. SCOPING DOCUMENT: NOT APPLICABLE

25. DESCRIPTION OF REQUEST

Establish new project.

26. JUSTIFICATION OF REQUEST

Pavement rehabilitation project on SR 101 from SR 202 Red Mountain to SR 202 Santan, consisting of diamond grinding as part of the Maricopa Association of Governments (MAG) expansion of the Diamond Grind Pilot Program. Project will use a procurement contract. Funds approved at MAG Regional Council on February 28, 2024.

27. CONCERNS OF REQUEST

28. OTHER ALTERNATIVES CONSIDERED

REQUESTED ACTIONS:

APPROVED / RECOMMENDED ACTIONS:

ESTABLISH A NEW PROJECT

REQUEST APPROVED
SUBJECT TO PPAC APPROVAL - 3/7/2024

PRB APPROVED

## 5. Approval of the Minutes

**DRAFT MINUTES FOR THE  
ARIZONA DEPARTMENT OF TRANSPORTATION  
PRIORITY PLANNING ADVISORY COMMITTEE  
Mary Peters Conference Room  
206 South 17th Avenue, Phoenix, AZ 85007.  
Wednesday February 28, 2024 @ 11:30AM**

Minutes and/or a recording of each meeting will be posted within three business days on the Priority Planning Advisory Committee's Meeting Documents webpage on ADOT's website. To view this information or any of the past PPAC agendas or minutes, please visit:

<https://azdot.gov/about/boards-and-committees/priority-planning-advisory-committee/meetings-ppac>

The meeting of the Priority Planning Advisory Committee (PPAC) was held on Wednesday February 28, 2024 @ 11:30AM with Chairman Paul Patane presiding.

Other committee members were present as follows: Steve Boschen, Greg Byres, Brent Cain, Barry Crockett, Clemenc Ligocki, Elise Maza, John Morales, Matthew Munden, Jon Brodsky (non-voting)

### 1. **CALL TO ORDER**

Chairman Patane called the Priority Planning Advisory Committee meeting to order at 11:32 AM.

### 2. **ROLL CALL**

conducted a roll call of the committee members. A quorum was present.

### 3. **TITLE VI OF THE CIVIL RIGHTS ACT OF 1964, AS AMENDED**

Chairman Patane asked if any persons from the public were at the meeting. There were none. Chairman Patane stated that in accordance to the Title VI Civil Rights Act of 1964, and the Americans with Disabilities Act, ADOT will not discriminate on the basis of race, color, national origin, age, sex, or disability. If accommodations are requested, the public may contact someone on the PPAC Committee or the Civil Rights Office at 602-712-8964.

### 4. **CALL TO THE AUDIENCE**

Chairman Patane requested a call to the Audience for any comments or issues to be addressed, There were no requests to speak..

### 5. **APPROVAL OF PPAC MINUTES FROM THE 1/31/2018 MEETING**

The minutes from the PPAC meeting held on 1/31/2018 were approved.

**Chairman Patane called for a motion to approve the PPAC minutes from the meeting on 1/31/2018.**

**Greg Byres made a motion to approve.**

**Steve Boschen seconded the motion. The motion Motion carried unanimously.**

### 6. **PROGRAM MONITORING REPORT**

The Program Monitoring Report was distributed to the Committee. There were no comments.

### 7. **2024-2028 TRANSPORTATION FACILITIES CONSTRUCTION: DISCUSSION AND POSSIBLE ACTION ON PROJECT MODIFICATIONS & NEW PROJECTS**

7-1            **Route & MP:**            77 @ MP 358.0  
**Project Name:**            TOWN OF TAYLOR - RODEO RD  
**Type of Work:**            INSTALL SIDEWALK & CURB & GUTTER  
**County:**                    Navajo  
**District:**                   Northeast  
**Schedule:**  
**Project:**                    F071701D TIP#: 102767  
**Project Manager:**        Arash Ghazanfari  
**Program Amount:**        \$0  
**New Program Amount:**    \$39,000  
**Requested Action:**        Establish new project

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**Item 7-1 was presented by: Arash Ghazanfari**  
**Chairman called for a motion to approve Item 7-1.**  
**Steve Boschen made the motion to approve.**  
**Greg Byres seconded the motion. Motion carried unanimously**

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7-2            **Route & MP:**            0000 @ MP NNA  
**Project Name:**            SHUMWAY RD @ SILVER CREEK BRIDGE, S OF TAYLOR  
**Type of Work:**            BRIDGE REPLACEMENT  
**County:**                    Navajo  
**District:**                   Northeast  
**Schedule:**  
**Project:**                    T047301L TIP#: 104424  
**Project Manager:**        Bharat Kandel  
**Program Amount:**        \$0  
**New Program Amount:**    \$30,000  
**Requested Action:**        Establish Scoping Subphase

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**Item 7-2 was presented by: Bharat Kandel**  
**Chairman called for a motion to approve Item 7-2.**  
**Steve Boschen made the motion to approve.**  
**Greg Byres seconded the motion. Motion carried unanimously**

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**Route & MP:** 0000 @ MP NNA  
**Project Name:** SHUMWAY RD @ SILVER CREEK BRIDGE, S OF TAYLOR  
**Type of Work:** BRIDGE REPLACEMENT  
**County:** Navajo  
**District:** Northeast  
**Schedule:**  
**Project:** T047303L TIP#: 104424  
**Project Manager:** Bharat Kandel  
**Program Amount:** \$0  
**New Program Amount:** \$150,000  
**Requested Action:** Establish Scoping Subphase

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**Item 7-3 was presented by: Bharat Kandel**  
**Chairman called for a motion to approve Item 7-3.**  
**Steve Boschen made the motion to approve.**  
**Greg Byres seconded the motion. Motion carried unanimously**

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7-4

**Route & MP:**  
**Project Name:** Electric Vehicle Charging Infrastructure (Interstate) (FY24)  
**Type of Work:** Prepare Solicitation  
**County:** Statewide  
**District:**  
**Schedule:**  
**Project:** PEV2301X TIP#: 104434  
**Project Manager:** Emily Christ  
**Program Amount:** \$0  
**New Program Amount:** \$1,200,000  
**Requested Action:** Establish new project.

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**Item 7-4 was presented by: Emily Christ**  
**Chairman called for a motion to approve Item 7-4.**  
**Greg Byres made the motion to approve.**  
**Elise Maza seconded the motion. Motion carried unanimously**

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7-5

**Route & MP:** 0000 @ MP YYV  
**Project Name:** BIG BUG CREEK BRIDGE STR #8252  
**Type of Work:** BRIDGE REHABILITATION  
**County:** Yavapai  
**District:** Northwest  
**Schedule:**  
**Project:** T051301D TIP#: 104439  
**Project Manager:** Frank Fry  
**Program Amount:** \$0  
**New Program Amount:** \$30,000  
**Requested Action:** Establish new project.

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**Item 7-5 was presented by: Frank Fry**  
**Chairman called for a motion to approve Item 7-5.**  
**Steve Boschen made the motion to approve.**  
**Greg Byres seconded the motion. Motion carried unanimously**

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7-6

**Route & MP:** 0000 @ MP YYV  
**Project Name:** BIG BUG CREEK BRIDGE STR #8252  
**Type of Work:** BRIDGE REHABILITATION  
**County:** Yavapai  
**District:** Northwest  
**Schedule:**  
**Project:** T051303D TIP#: 104439  
**Project Manager:** Frank Fry  
**Program Amount:** \$0  
**New Program Amount:** \$350,000  
**Requested Action:** Establish new project.

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**Item 7-6 was presented by: Frank Fry**  
**Chairman called for a motion to approve Item 7-6.**  
**Steve Boschen made the motion to approve.**  
**Greg Byres seconded the motion. Motion carried unanimously**

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7-7            **Route & MP:**            191 @ MP 316.0  
**Project Name:**            LITTLE COLORADO BRIDGE - CEMETERY RD  
**Type of Work:**            PAVEMENT REHABILITATION  
**County:**                    Apache  
**District:**                    Northeast  
**Schedule:**  
**Project:**                    F053301C TIP#: 103411  
**Project Manager:**        Patrick O`Leske  
**Program Amount:**        \$0  
**New Program Amount:**    \$1,300,000  
**Requested Action:**        Establish new project.

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**Item 7-7 was presented by: Patrick O`Leske**  
**Chairman called for a motion to approve Item 7-7.**  
**Steve Boschen made the motion to approve.**  
**Greg Byres seconded the motion. Motion carried unanimously**

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7-8            **Route & MP:**            191 @ MP 62.5  
**Project Name:**            US 191 COCHISE RAILROAD OVERPASS  
**Type of Work:**            BRIDGE REPLACEMENT  
**County:**                    Cochise  
**District:**                    Southeast  
**Schedule:**                    FY 2024  
**Project:**                    F038301C TIP#: 101614  
**Project Manager:**        Rashidul Haque  
**Program Amount:**        \$41,250,000  
**New Program Amount:**    \$41,250,000  
**Requested Action:**        Defer Project to FY25.

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**Item 7-8 was presented by: Rashidul Haque**  
**Chairman called for a motion to approve Item 7-8.**  
**Steve Boschen made the motion to approve.**  
**Greg Byres seconded the motion. Motion carried unanimously**

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7-9

**Route & MP:** 40 @ MP 0  
**Project Name:** CA BORDER - NEEDLE MT. ROAD  
**Type of Work:** PAVEMENT REHABILITATION  
**County:** Mohave  
**District:** Northwest  
**Schedule:** FY 2025  
**Project:** F055701C TIP#: 103130  
**Project Manager:** Sandy Thoms  
**Program Amount:** \$14,520,000  
**New Program Amount:** \$19,200,000  
**Requested Action:** Change in schedule  
Change in budget  
Change in project limits

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**Item 7-9 was presented by: Sandy Thoms**  
**Chairman called for a motion to approve Item 7-9.**  
**Steve Boschen made the motion to approve.**  
**Greg Byres seconded the motion. Motion carried unanimously**

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7-10

**Route & MP:**  
**Project Name:**  
**Type of Work:**  
**County:** Maricopa  
**District:** Central  
**Schedule:** FY 2024  
**Project:** F055701C TIP#: 103130  
**Project Manager:** Amy Ritz  
**Program Amount:** \$  
**New Program Amount:** \$400,000  
**Requested Action:** Establish new project.

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**Item 7-10 was presented by: Amy Ritz**  
**Chairman called for a motion to approve Item 7-10.**  
**Steve Boschen made the motion to approve.**  
**Greg Byres seconded the motion. Motion carried unanimously**

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**9. Meeting Recording and Minutes**

The minutes and/or a recording of each meeting will be posted within three business days on the Priority Planning Advisory Committee's Meeting Documents web page at: <https://azdot.gov/about/boards-and-committees/priority-planning-advisory-committee/meeting-documents>

**10. Upcoming PPAC Meetings**

**2024 PPAC Schedule**

Meeting Dates	Day	Time
Jan. 3, 2024	Wednesday	10 a.m.
Jan. 31, 2024	Wednesday	10 a.m.
Feb. 28, 2024	Wednesday	11:30 a.m.
Apr. 3, 2024	Wednesday	10 a.m.
May 1, 2024	Wednesday	10 a.m.
Jun. 5, 2024	Wednesday	10 a.m.
Jul. 2, 2024	Tuesday	10 a.m.
Jul. 31, 2024	Wednesday	10 a.m.
Sep. 4, 2024	Wednesday	10 a.m.
Oct. 2, 2024	Wednesday	10 a.m.
Oct. 30, 2024	Wednesday	10 a.m.
Dec. 4, 2024	Wednesday	10 a.m.

**WEB LINKS FOR REFERENCE**

*Priority Programming Website:*

<https://azdot.gov/about/boards-and-committees/priority-planning-advisory-committee>

*PPAC Meeting Dates:*

<https://azdot.gov/about/boards-and-committees/priority-planning-advisory-committee/meeting-schedule-ppac>