## Appendix A

Agency and Public Meeting Materials

## I-10 (Tangerine Road to Ina Road) Study <br> Agency Scoping Meeting <br> heeler Taft Abbett, Sr. Branch Library

Wednesday, Dec. 7, 2011-10 a.m.

## Meeting Summary

## In Attendance

Arizona Department of Transportation (ADOT): Danny Granillo, Nasreen Hasan, David Locher, Tom Martinez, Robin Raine, Ashek Rana, Paki Rico, Linda Ritter, Joe Schwer
Arizona Game and Fish Department (AGFD): Kristin Terpening, Chip Young Central Arizona Project (CAP): Aaron Ashcroft, Paul Zellmer
Coalition for Sonoran Desert Protection: Kathleen Kennedy
Federal Highway Administration (FHWA): Aryan Lirange
Pima Association of Governments (PAG): David Ruelas
Pima County Department of Transportation (PCDOT): Robert Young
Pima County Regional Flood Control District (PCRFCD): Bill Zimmerman
Town of Marana: Keith Brann, Scott Leska, Fernando Pro
Tucson Electric Power Company (TEP): Cheryl Hall
AECOM: Rodney Bragg, Felipe Ladron de Guevara, Jessica Popp, Bill Schlesinger
Gordley Group: Lucy Amparano, Adriana Mariñez

## Attachments: Sign-In Sheet

PowerPoint Presentation
Robin Raine opened the meeting by welcoming everyone in attendance. Meeting attendees introduced themselves by stating their names and organizations. Robin explained the agency scoping meeting is intended to introduce the study and gather agency input. This project is in the pre-design phase. Project-related issues should be directed toward project managers Nasreen Hasan (ADOT Pre-Design) and Bill Schlesinger (AECOM). Agencies were encouraged to attend the public scoping meeting on Wednesday, Dec. 14, 2011, at Coyote Trail Elementary School.

Bill Schlesinger explained the purpose of the meeting, which is to introduce and provide an overview of the study, discuss the study process and schedule, and receive comments and suggestions. The goal of the scoping process is to receive public and agency comments, identify public and agency concerns for consideration and provide an early opportunity for input and involvement.

The project is in the early stages and agency input is requested, which can be provided in the following ways: by filling out comment forms, commenting during this meeting or providing a formal response by letter. A written letter is the preferred way to document comments and concerns.

FHWA will serve as the lead federal agency for this project. Their role is to participate in the study and design process; coordinate environmental compliance; provide leadership, expertise and guidance; review environmental evaluations; approve final documents and provide federal funding

ADOT will study and develop alternatives, conduct environmental analysis, administer construction and maintenance, and conduct public outreach and participation.

The study area is along Interstate 10 (l-10), between Tangerine Road and Ina Road. mprovements to the Tangerine Road and Ina Road traffic interchanges will be addressed as part of other projects. The goal of this study is to develop a long-rang plan that provides an improved roadway for general traffic, commuters and truck traffic. Design alternatives will be based on design year 2040 traffic projections. There are no predetermined design alternatives for this project. Data collection is currently under way that will lead to development of the design alternatives. Completed engineering and environmental studies are anticipated in 2013. Design and construction are not ye programmed or funded.

The study will include an Alternative Selection Report, Design Concept Report (DCR and Environmental Assessment (EA). The Alternative Selection Report will identify and assess possible alternatives, including the possibility of not making any improvements the No-Build Alternative). The DCR will document the preferred alternative and include an Implementation Plan. The EA will evaluate the recommendations made in the DCR and will document potential impacts to the social, economic and natural environments, as well as public and agency outreach.

The project schedule anticipates the Initial DCR will be completed in summer 2012, the Draft EA in early 2013, and the final Environmental Document and DCR in summer 2013.

Engineering elements also include traffic analysis, roadway design, interchanges and structures, right of way, drainage features, implementation plan, Stage One Plans (15 percent) and Stage Two Plans (30 percent)

The environmental studies will include noise studies, cultural/historical/biologica esources, wildlife connectivity, land use, socioeconomics, environmental justice, air quality, water resources and floodplains, and Section 4(f).
he next steps for this project include a public scoping meeting, data collection environmental studies and an alternative development

The project team requested that written responses to the scoping letter be submitted by Dec. 22, 2011, and they will continue to coordinate with agencies as needed.

Agency comments included:

## GFD

The main concern is for wildlife connectivity to be preserved. There is a missing wildlife linkage between the Tortolita and Tucson mountains that is crucial for wildlife.

CAP
CAP has an 11-foot diameter siphon ( $\mathrm{I}-10 /$ Santa Cruz Siphon) that crosses $\mathrm{I}-10$ approximately 400 feet south of Tangerine Road. The siphon was constructed by the Bureau of Reclamation and has more than 30 feet of cover. An existing communications cable runs through the siphon but it is anticipated it will be replaced by fiber optic within the next two years. There should not be any issue with the siphon as it used a steel plate liner to reinforce the pipe; however, CAP will be interested in what gets constructed above the siphon, and ADOT will need to obtain a Construction Period Lands Use License (CPLUL) for construction.

## PAG/Regional Transportation Authority (RTA)

PAG had no comments. The RTA would like funds to be maximized and used accordingly. They would like continued involvement with the project throughout the study process.

## PCDOT

There is a small community south of Tangerine Road on the west side of the interstate called Rillito Vista. The study needs to consider the impact of converting the two-way frontage roads to one-way.

There is an approved development plan south of the Avra Valley Road traffic interchange and west of $\mathrm{I}-10$ that includes improvements to Avra Valley Road.

The County is concerned about wildlife linkages.

## PCRFCD

Pima County is concerned with upgrading drainage culverts in Marana. The bridge near the Santa Cruz River levee is the main culvert.

## Town of Marana

The Town of Marana has formally submitted their comments by letter. Representatives provided a brief summary of the following concerns.

- Community of Rillito Vista
- Avra Valley Road/Lambert Lane extension
- Wildlife linkages
- Union Pacific Railroad (UPRR)
- Culverts and drainage associated with UPRR that have been upsized
- Traffic access around the Cortaro Road traffic interchange and access to businesses on the west side of I-10
- Future development near the Twin Peaks traffic interchange and the additional traffic associated with that development

The Town will provide the project team with the studies for the Twin Peaks Road traffic interchange.

TEP is interested in how the interchange reconfiguration will be handled on the east side of I-10.

TEP is a landowner along the east side of $\mathrm{l}-10$ within the project area and would like to know about potential impacts.

TEP is concerned about the wildlife linkage near Avra Valley Road that is under discussion.

Bill mentioned the project team met with UPRR on Dec. 6, 2011, and has received a lis f their concerns.

With no additional agency comments, the meeting adjourned at 10:30 a.m.

| Project: | I-10, Tangerine Road to Ina Road Study | Date: | December 7, 2011 |
| :--- | :--- | :--- | :--- |
|  |  | Time: | 10:00 AM |
|  |  | 010 PM 240 H7960 01L |  |
| Location: | Wheeler Taft Abbett Library |  |  |
| Purpose: | Agency Scoping Meeting |  |  |

ATTENDEES


| Project: | 1-10, Tangerine Road to Ina Road Study | Date: | December 7, 2011 |
| :--- | :--- | :--- | :--- |
|  |  | Time: | $10: 00$ AM |
|  |  | 010 PM 240 H7960 01L |  |
| Location: | Wheeler Taft Abbett Library |  |  |
| Purpose: | Agency Scoping Meeting |  |  |

ATTENDEES

|  | Name | Representing | Phone/Fax/E-Mail | Attended |
| :---: | :---: | :---: | :---: | :---: |
| 1. | Nasreen Hasan | ADOT | $\begin{aligned} & \text { 602-712-8879 } \\ & \text { nhasan@azdot.gov } \end{aligned}$ |  |
| 3 | Pauc ZELMME? | CAP | 623-8692671 PZELLNERE CAP-AZ. | OM1 |
| 3. | Kristin Teipening | $A G F D^{\text {inison }}$ | $5203884447$ <br> kterpening@azafol.gov |  |
| 4. | Chip Young | $A G F D{ }^{\text {Phoenix }}$ | cyoung@azgfd. | $\checkmark$ |
| 5. | Eyll Zimmerncos | PCRFCD | 520-243-1331 <br> bill. 2 mimernmearfod pinn. |  |
| 6. | Scajt Leska | Marana | 382-2675/382-2640 sleska @ Maraar. com | 5 |
| 7. | Keith Brann | Marana | 382-2629 382-2644न kbrain@marana.com | $-$ |
| ${ }^{8 .}$ | Robert Young | Pima (orent) DOT | $740-6717$ <br> robert. youngodet, pinca gou | $\sqrt{2}$ |
| 9. | Kathleen Kenredy | Ooclecien for soncoran Desent Pofection | kadween. Kennedy $\omega_{\text {deselt. org }}^{\text {Son }}$ | $J$ |
| 10. | Cheryl Hall | TEP | $520-9,5-8344$ <br>  | 2 |
| 11. | tshex Rana | ADOT MATERIALS | 602-712-8091 arana@ a3dot.gor. |  |
| 12. | Voe S.4~ | ADOT | 520-837-9006 <br>  | - |
| 13. |  |  |  |  |
| 14. |  |  |  |  |
| ${ }^{15}$. |  |  |  |  |
| 16. |  |  |  |  |

## I-10 (Tangerine Road to Ina Road) Study



Agency Scoping Meeting
Team Sign-In Sheet Wheeler Taft Abbett Public Library
 Wednesday, Dec. 7, 2011, 10 a.m.

## AロロT

Agency Scoping Meeting
Team Sign-In Sheet Wheeler Taft Abbett Public Library Wednesday, Dec. 7, 2011, 10 a.m


## I-10 (Tangerine Road to Ina Road) Study



Agency Scoping Meeting
Team Sign-In Sheet
Wheeler Taft Abbett Public Library

Wednesday, Dec. 7, 2011, $10 \mathrm{a} . \mathrm{m}$.

| Initial tame | Agency and Address | Phone and Fax | E-mail |
| :---: | :---: | :---: | :---: |
| ${ }^{\text {LINDA RITTER }}$ | Arizona Department of Transportation 1221 S 2ND AVE MD T100 TUCSON, AZ 85713 | Phone 520-388-4266 | \|ritter@azdot,gov |
| 4 |  | Fax 520-388-4255 |  |
| GrICEL SATO | Arizona Department of Transportation 206 S 17TH AVE MD175A PHOENIX, AZ 85007 | Phone 602-712-4676 | gsato@azdot.gov |
|  |  | Fax 602-712-7855 |  |
| KEN DAVIS | Federal Highway Administration 4000 N CENTRAL AVE \#1500 PHOENIX, AZ 85012 | Phone 602-379-3645 $\times 120$ | ken.davis@fhwa.dot.gov |
|  |  | Fax 602-382-8998 |  |
|  | Federal Highway Administration 4000 N CENTRAL AVE STE 1500 PHOENIX, AZ 85012 | Phone 602-382-8973 | Aryan.Lirange@fhwa.dot.gov |
|  |  | Fax 502-382-8999 |  |
| LUCY AMPARANO | Gordiey Group 2540 N TUCSON BLVD TUCSON, AZ 85716 | Phone 520-327-6077 | lucy@gordeygroup.com |
|  |  | Fax |  |
| JAN GORDLEY | Gordiey Group2540 N TUCSON BLVDTUCSON, AZ 85716 | Phone 520-327-6077 $\times 101$ | jan@gordleygroup.com |
|  |  | Fax 520-327-4687 |  |











10
－Written response to Scoping Letter－due December 22， 2011
－Verbal input today
－Continued coordination




I-I0 (Tangerine Road to Ina Road) Study Wednesday, Dec. I4, 201 I 5:30 to 7 p.m.

## Prepared for:

Arizona Department of Transportation

## Prepared by: <br> Gordley Group



MEETING SUMMARY

## Overview

The Arizona Department of Transportation, in conjunction with the Federal Highway Administration, held a public scoping meeting to introduce the Interstate 10 Tangerine Road to Ina Road Study. The purpose of the meeting was to discuss the study's Road to Ina Road Study. The purpose of the meeting was to discuss the stidy's environmental and engineering processes and sch
an opportunity to ask questions and provide input.

The public scoping meeting was held on Wednesday, Dec. 14, 2011, from 5:30 to 7 p.m., with a presentation at 5:45 p.m., at Coyote Trail Elementary School in Marana, Arizona. Approximately 50 members of the public were in attendance.

## Notification

Nov. 28, 2011
ADOT internal memorandum distributed to ADOT group managers by ADOT Communication and Community Partnerships
Postcard invitation announcing meeting mailed to residents, businesses and property owners within a two-mile radius east and west of Interstate 10, halfmile north of Tangerine Road and half-mile south of Ina Road within the project area, as well as project stakeholders, interested parties and agencies

Nov. 30, 2011
Newspaper advertisement published in the Explorer and the Arizona Daily Star Northwest
Invitation postcard posted on project website
News release sent to local media by ADOT CCP
Copies of the notification materials are included in Appendix A.
Meeting Format, Materials and Presentation
Participants were asked to sign in and were provided a meeting agenda, project fact sheet, comment form and question card. Comment forms encouraged public input. Participants were asked to fill out and leave completed comment forms at the meeting or submit them by Dec. 28, 2011. Participants were requested to write questions on question cards, which were read and addressed during the question and comment session at the end of the presentation.

Display boards included information about the study process schedule and aerial maps of the project area．These areas included Area \＃1（Tangerine Road），Area \＃2 （Avra Valley Road），Area \＃3（Avra Valley Road to Twin Peaks Road），Area \＃4（Twin Peaks Road），Area \＃5（Cortaro Farms Road），and Area \＃6（Ina Road）．Participants were encouraged to view the areas，ask questions and provide feedback on needed improvements at these locations．

A presentation began at 5：45 p．m．with a welcome address by ADOT Senior Community Relations Officer Linda Ritter，who explained the meeting agenda and introduced the project team and Tucson District Engineer，Todd Emery．Todd explained the project is the last piece to be evaluated between interstate 8 and Ruthrauff Road．The segments of I－10 from I－8 to Tangerine Road and from Ina Road to Ruthrauff Road have been evaluated and addressed as separate projects．This study addresses the portion of I－10 from Tangerine Road to Ina Road between the two projects and is important for future growth and traffic planning．Todd encouraged participants to provide input and make recommendations for possible improvements． Todd introduced Bill Schlesinger，consultant project manager with AECOM

Bill provided a PowerPoint presentation describing the meeting＇s purpose and the study＇s area，goals，process，anticipated schedule and next steps．Bill ended the presentation by asking that questions be submitted on the question cards for response and encouraging attendees to visit displays，provide input and ask questions．

Copies of the meeting materials are included in Appendix B．The PowerPoint presentation is included in Appendix $C$

## Question and Comment Session

Questions received and answered during the question and comment session are listed below．

Q：Can comments be provided through email？
A：You are more than welcome to send us a comment as an email．Our email address is located on the project fact sheet．

Q：What is the point of no return on this project？（Before／after agency approval／funding，etc．）
A：Usually the＂point of no return＂is sometime during or after design．This study will evaluate whether the area requires improvements or not．If it does not，the point of no return would be at the end of this study．The point of no return for an improvement， whether widening the road or a new traffic interchange，is usually somewhere in the middle of the design process when funding is determined．

Q：How has this program been coordinated with the Twin Peaks interchange project？ A：URS Corporation was one of the consultants on the Twin Peaks project and is also a consultant for this project．The team is knowledgeable about the project and
amiliar with the issues and constraints of the Twin Peaks project．This project will not address the Twin Peaks traffic interchange，only the interstate at Twin Peaks Road The Twin Peaks traffic interchange can accommodate additional lanes on I－10．

Q：The Cortaro Road interchange has been＂fixed＂three times and still is marginally unctional．What will be done to really fix the interchange？
A：We are aware that interim improvements will be made．The team is currently evaluating traffic volumes for the year 2040 and will develop proposed improvements in the study process to address concerns and issues for the long－term．

Q：In light of the North American Free Trade Agreement（NAFTA），is there any idea of highway／railway traffic increases／congestion？
A：The team has received traffic projections for the year 2040 from the Pima Association of Governments（PAG）．PAG takes NAFTA and other criteria into consideration with these projections．One of the team＇s partners is Union Pacific Railroad（UPRR）．UPRR has met with the team and provided us with information about the increase of rail traffic they are anticipating．This information will be used in our decision－making process．

Q：On－off ramps that do not require waiting through multiple light cycles（e．g．a loverleaf）have a more rounded turn onto on－ramps（wider angle）．In Los Angeles， here are on－ramps that don＇t require a wait through three and four cycles of a light in order to merge onto the ramp．Has that technique been abandoned in the freeway system？
A：We cannot speak to other projects．The project team has not decided on anything Please write your recommendation on a comment form．

Q：The outer turn lane at Twin Peaks is very sharp．Why did you make it so sharp instead of a nice，broad turn？
A：We cannot speak to other projects．Please write your comment on a comment form．

Q：Is this project part of an overall Tucson to Phoenix project？Or，are these ndividual projects？
A：Any time we look at the freeway，we think of it as part of a system．This is a specific project for this area，but Interstate 10 from Tucson to Phoenix is a coordinated system．We share information and coordinate with other projects．

Q：It is almost a 30－or 40－year study to see what 2040 is going to be like．When do you think this construction，if it does go through，is going to end？Is it going to end in 2040 or end before then？If it ends in 2040，we are going to have to look at 2060 and 2070．I＇ve been here for 17 years（since there was a four－way stoplight）and I＇ve seen ive interchanges at Cortaro Farms Road．They still haven＇t gotten it riaht You have medians that are a lane and a half and they could easily be bulldozed to ease traffic congestion．By the time you get to this point are we going to be sitting here waiting to
see what the next 30 years is going to look like？Or，are you going to make this reeway last 50 or 60 years down the road？
A：The study will be complete in about 18 months．We will be looking into the year A：The study will be complete in about 18 months．We will be looking into the year
2040．We aren＇t sure if there will be funding available for recommended improvements．Sometimes we are able to make the improvements before the anticipated traffic increase occurs，and sometimes we are not able to make the improvements until several years after the traffic has increased to a poor level．The funding system is directly related to tax revenue．When the public travels less，gas taxes decrease and there is less funding for roadway improvements．When there is decreased funding available for projects，we sometimes need to improve the road in the best way possible，without making all the recommended improvements

Q：Does the study include considering potential land use along the corridor？
A：Yes．We get our traffic projections from PAG，which determines traffic projections based on population projections．PAG works with communities like the Town of Marana to see what they think the growth will be like in their areas．We build this information into our model of traffic projections．

Q：How long is the stretch from Tangerine Road to Ina Road？
A：It is seven－and－a half or eight miles．
Q：What is the future of Lambert Lane？The east side of $\mathrm{I}-10$ needs more options．
A：（The question card was submitted after the question and comment session ended．）

Copies of the question cards are included in Appendix $D$

## Written Comments from the Public

Approximately 18 comments and questions were received in the form of comment forms through mail，email，phone and fax between Dec． 14 and 31， 2011

A transcription of comments is included in Appendix E．

## Appendices

A：Notification
B：Meeting Materials
C：PowerPoint Presentation
D：Question and Comment Session
E：Comment Transcription


Appendix A：
Notification

## Arizona Department of Transportation

Communication and Community Partnerships
MEMORANDUM


From: LINDA RITTER, Communication and Community
Partnerships Partnerships

Date: $\quad$ Dec. 1, 2011
Subject: Public Meeting Project No.: 10 PM 240 H7960 01L Project Name: Interstate 10: Tangerine Road to Ina Road Study
Federal Aid Project No: 010-D(209)A

The Arizona Department of Transportation and Federal Highway Administration are beginning an engineering and environmental study of Interstate 10 between Tangerine Road and Ina Road. The goal of this study is to develop a longrange plan for an improved roadway along this portion of the I-10 corridor. To support that goal, the study will develop and evaluate possible alternatives to widen I-10, reconstruct the Avra Valley Road traffic interchange, reconstruct the Cortaro Road traffic interchange to provide a grade separated crossing with the Union Pacific Railroad and review potential improvements to frontage roads in the study area.
A public meeting has been scheduled to introduce the study, discuss the environmental and engineering processes and schedule, and provide an opportunity to ask questions and gain input.

The public meeting will be held on:
Wednesday, Dec. 14, 2011
5:30-7 p.m. (brief presentation at 5:45 p.m.)
Coyote Trail Elementary School
8000 N. Silverbell Road
Tucson, AZ 85743
Attachment: Advertisement placed on Nov. 30 in Explorer and Dec. 1 in Arizona Daily Star.
cc: Bill Feldmeier, Chairman, State Transportation Board
Kelly O. Anderson, State Transportation Board Member
Stephen W. Christy, State Transportation Board Member
James Rindone, EPG
Toni Towne, Department of Administration
Aryan Lirange, FHWA
Rebecca Swiecki, FHWA
Teresa Welborn, CCP


The Arizona Department of Transportation (ADOT) and Federal Highway Administration (FHWA) invite you to attend a public scoping meeting on Wednesday, Dec. 14, 2011, to learn about a new study of Interstate 10 between Tangerine Road and Ina Road.
The purpose of the meeting is to introduce the study, discuss the environmental and engineering processes and schedule, and provide the opportunity for you to ask questions and provide input. The meeting will include a brief presentation. Before and after the presentation, you may look through maps and displays about the study and talk with team members who will be available to listen to your comments and answer questions.

The purpose of the study is to increase capacity and enhance safety from immediately south of the Tangerine Road traffic interchange to immediately north of the Ina Road traffic interchange for commuters and general traffic, including trucking traffic. Potential improvements will be evaluated in a Design Concept Report and Environmental Assessment. Potential improvements may include freeway widening, improvement of traffic interchanges and crossroads, and possible grade separation of Cortaro Farms Road and the Union Pacific Railroad.

For additional information, or to submit comments in writing, please contact the ADOT Outreach Team at 2540 N. Tucson Blvd. Tucson, AZ 85716 or 520-327-6077, ext. 110; Fax: 520-327-4687; or email tangerine2ina@azdot.gov.

Written comments must be received by Dec. 28, 2011, to be included in the scoping summary report.


WEDNESDAY, DEC. 14, 2011 5:30 to 7 p.m.
Brief presentation at 5:45 p.m. Coyote Trail Elementary School
8000 N. Silverbell Road, Tucson, AZ 85743
Americans with Disabilities Act: Persons with a disability may request reasonable accommodations by calling Lucy Amparano at 520-327-6077 Requests should be made by Dec. 7, 2011 to allow time to arrange ccommodations. Este documento está disponible en español Ilamando al 520-327-6077.

## WE WANT YOUR INPUT

I－IO（Tangerine Road to Ina Road）Study


## WE WANT YOUR INPUT!



The Arizona Department of Transportation (ADOT) and Federal Highway Administration (FHWA) invite you to attend a public scoping meeting on Wednesday, Dec. 14, 2011, to learn about a new study of Interstate 10 between Tangerine Road and Ina Road.
The purpose of the meeting is to introduce the study, discuss the environmental and engineering processes and schedule, and provide the opportunity for you to ask questions and provide input. The meeting will include a brief presentation. Before and after the presentation, you may look through maps and displays about the study and talk with team members who will be available to listen to your comments and answer questions.
The purpose of the study is to increase capacity and enhance safety from immediately south of the Tangerine Road traffic interchange to immediately north of the Ina Road traffic interchange. Potential improvements will be evaluated in a Design Concent Report and Environmental Assessment and may include

- Freeway widening
- Improvement of traffic interchanges and crossroads
- Possible grade separation of Cortaro Farms Road and the Union Pacific Railroad
Americans with Disabilities Act: Persons with a disability may request reasonable accommodations by calling Lucy Amparano a s20-327-607. Kequests should be made by De.. 7,2010 disponible en español Ilamando al 520-327-6077.
$\qquad$ NASREEN HASAN
ADOT Project Manage JENNIFER TOTH ND other project information are avallable at: www.azdot.gov/tangerine2ina
 an

Public meeting for I-10 Tangerine Road to Ina Road corridor study in Tucson set for December

The Arizona Department of Transportation and Federal Highway Administration invite the public to attend a public scoping meeting to learn about and provide feedback on a new study of Interstate 10 between Tangerine Road and Ina Road in Tucson

## Wednesday (Dec. 14)

5:30 to 7 p.m
Brief presentation begins at $5: 45 \mathrm{p} . \mathrm{m}$
Coyote Trail Elementary School
Tucson, Arizona 85743
The study will assess potential improvements to increase capacity and enhance safety for commuters, general traffic and truck traffic from immediately south of the Tangerine Road traffic interchange to immediately north of the Ina Road traffic interchange.

Potential improvements may include:

- Freeway widening

Reconstruction of traffic interchanges and crossroads
Reconstruction of Cortaro Farms Road to pass over the Union Pacific Railroad
The purpose of the meeting is to:
Provide an overview of the study with maps, displays and a presentation
Discuss the study process and schedul

- Address questions

What to expect at the meeting:
Maps and project information will be on display
Comment forms will be available and can be submitted to project team members at the meeting

- A brief question and answer session will follow the presentation

Team members will be on hand before and after the presentation to personally meet with attendees and address their specific questions and concerns

After the meeting, materials about the project will also be available online at
www.azdot.gov/tangerine2ina. The public may also submit comments by downloading a commen form and sending it to the project team. To be included in the public scoping summary report, written comments must be received by Dec. $28,2011$.

Comments received by the deadline will be part of an evaluation of potential improvements that will be included in a Design Concept Report and Environmental Assessment for the project.

More information is available at www.azdot.gov/tangerine2ina. For additional information, or to submit comments in writing, please contact the ADOT Outreach Team by mail. 2540 N . Tucson Blyd., Tucson, AZ 85716; phone: 520-327-6077, ext. 110; fax: 520-327-4687; or ema tangerine2ina@azdot.gov.

Please do not reply to this message - use the contact information above.


Design Concept Report and Environmental Assessment Public Scoping Meeting
Wednesday, Dec. 14, 2011
- Please visit the information stations to view displays.
5:45 to 6 p.m

- Presentation

Welcome - Linda Ritter, Arizona Department of Transportation (ADOT) Tucson District Senior Community Relations Officer

- Introductions - Todd Emery P. E, ADOT Tucson District Engineer
- Project Presentation - Bill Schlesinger, P.E., AECOM Consultant Project Manager


## Meeting Materials

6 to 6:30 p.m.
General Question and Comment Session

- In order to respond to as many questions as possible in the time available, please ask
- general project questions by writing them on the yellow question cards.
- Submit this card to a project team member before or during the presentation so your
question can be read aloud and answered. Please ask more detailed or individual property questions at the information stations during the open house periods.
6:30 to 7 p.m.
Open House Continues - Questions and Answers at Displays
pen House Continues - Questions and Answers at Displays
- Please direct property-specific questions and comments to project team members at Please di
displays.

Comment Forms: Please write comments, questions or requests on the comment forms provided ublic comments are an important part of the project and are welcome at any time for review and consideration. Comments returned by Wednesday, Dec. 28, 2011, will be included in the summary of this public meeting
Please send comments to the ADOT Outreach Team at 2540 N. Tucson Blvd., Tucson, AZ 85716 phone: 520-327-6077, ext.110; fax: 520-327-4687; email: tangerine2ina@azdot.gov.

For more information, please visit the project website: www.azdot.gov/tangerine2ina


Study Overview
The Arizona Department of Transportation and Federal Highway Administration are beginning an engineering and environmenta study of Interstate 10 between Tangerine Road and Ina Road Th oal of this study is to develop a long-range plan for an improved oadway along this portion of the l-10 corridor To support the goal, the study will: goal, the study will:

- Develop and evaluate possible alternatives to widen I-10.
- Develop and evaluate possible alternatives for the reconstruction of the Avra Valley Road and Cortaro Road traffic interchanges.
- Review potential improvements to frontage roads in the study area.


## The study will include:

- Alternative Selection Report (ASR) to identify and assess possible alternatives, including the consequences of not making any improvements along this corridor (no-build alternative).
- Design Concept Report (DCR) to document the preferred alternative.
Environmental Assessment (EA) to document public and agency outreach and the potential impacts to the social, economic and natural environments.
- Corridor Implementation Plan for recommended improvements.


## Study Process

The study is currently in the scoping phase, which is the initia portion of the study when the public and agencies are given the opportunity to learn about the study and identify issues that need to be addressed.

The study is anticipated to take about two years to complete. Please note that the schedule is subject to change due to funding availability.

## Anticipated Schedule

October 2011: Study kick-off; scoping begins


- December 2011: Public and agency scoping meetings
- Spring 2012: Development of possible alternatives and initial DCR
- Spring 2012: Public meeting to review and provide feedback on the possible alternatives and initial DCR
- Late 2012: Technical analysis to develop the preferred alternative; development of the EA
- Early 2013: Public hearing to review the preferred alternative and provide formal comments on the draft EA
- Summer 2013: Final DCR and EA will be released

Public participation is an important part of the study process. As the study progresses, variety of participation opportunities will be available, including additional public meetings. You may also visit the study website at www.azdot.gov/tangerine2ina to stay up-to-date on the study progress, provide input by email or subscribe to receive email updates.

## Contact Information

- ADOT Outreach Team: 520-327-6077 or tangerine2ina@azdot.gov ADOT Senior Community Relations Officer Linda Ritter: 520-388-4266 or |ritter@azdot.gov


COMMENT FORM
$\qquad$
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$\qquad$

|  |  | Contact Information |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Address: | City: | State: | ZIP: |
| Name: | Fax: | Email: |  |  |
| Phone: |  |  |  |  |

Public comments are an important part of the project and are welcome at any time for review and consideration. Comments returned by Wednesday, Dec. 28, 2011, will be included in the summary of this public meeting. Please send comments to the ADOT Outreach Team at 2540 N. Tucson Blvd., Tucson, AZ 85716; phone: 520-327-6077 ext. 110; fax: 520-327-4687; e-mail: tangerine2ina@azdot.gov.

My question／comment is regarding：
Construction $\square$ Environment $\quad$ Right of Way $\square$ Property $\square$ Other $\square$
$\square$
AロロT

Question card
I－10（Tangerine Road to Ina Road）Sudy
Dec． 14, ， 2011 －Public Scoping Meeting Please print llearly and use one card per question．
Return your card to a project team member before or during the presentation．
My question／comment is regarding：





## Study Team Members

10

## Welcome and introductions

- Linda Ritter, ADOT Senior Community Relations Officer


## Presenters

- Todd Emery, ADOT Tucson District Engineer
- Bill Schlesinger, AECOM Consultant Project Manager


## Agenda

## Agenda (cont'c)

## Presentation

- Meeting purpose
- Purpose of study
- Study overview
- Anticipated schedule
- Next steps

General question and answer session

- Submit your question card


## Open house

- Visit information stations
- Fill out a comment form
- Ask property-specific questions



## ADOT Perspective



## Study Overview

Bill Schlesinger, P.E.

- AECOM Consultant Project Manager


## Meeting Purpose

- Overview of the study
- Study process and schedule
- Receive comments and suggestions
- Answer questions


## Purpose of Scoping

## FHWA's Role

10

- Receive public and agency comments
- Identify public and agency concerns for consideration
- Provide early opportunity for input and involvement

- Serve as lead federal agency
- Participate in study and design process
- Coordinate environmental compliance
- Provide leadership, expertise, guidance and review environmental evaluations
- Approve final documents
- Provide federal funding


## ADOT's Role

- Study and develop alternatives
- Conduct environmental analysis
- Administer construction and maintenance
- Conduct public outreach and participation


## Your Role

1. Stay involved
2. Ask questions
3. Provide feedback

- Fill out a comment form
- Contact ADOT

- Visit www.azdot.gov/tangerine2ina


## Your Role (contid)

## Tell us:

- What is important to you as we develop possible alternatives along this section of the $\mathrm{I}-10$ corridor?
- What are your concerns with this section of the I-10 corridor?



## Study Goal

## Study Goal (contid)

10

- Develop a long-range plan for providing an improved roadway for general traffic, commuters and truck traffic
- Develop and evaluate possible alternatives for widening I-10
- Develop and evaluate possible alternatives for the reconstruction of the Avra Valley Road and North Cortaro Road traffic interchanges
- Look at potential improvements to frontage roads in the study area


## The Study Will Include

## Alternative Selection Report

- To identify and assess possible alternatives, including the possibility of not making any improvements (no-build option)


## Design Concept Report

- To document the preferred alternative and an implementation plan


## Project Development Process

## Engineering Elements

- Traffic analysis
- Alternative development
- Roadway design
- Interchanges
- Right of way
- Drainage features
- Implementation plan

Data gathering under way Design and construction not yet funded

## Environmental Elements

## Next Steps

- Noise studies
- Cultural/historical/biological resources
- Land use
- Socioeconomics
- Environmental justice
- Air quality
- Floodplains
- Section 4(f)
- Develop possible alternatives
- Begin environmental studies
- Present possible alternatives to public for review and comment
- Public meeting tentatively scheduled for spring 2012


## Question and Answer Session

## Thank you!

- Thank you for your participation!
- Please hand question cards and comment forms to team members
- The team will read questions


## We appreciate your time and participation.




## Appendix D: <br> Question and <br> Comment Session

question card 1-10 (Tangerine Road to Ina Road) Study
Dec. 14, 2011 - Public scoping Meeting
Prease print clearly and use one card per question
Retum your card to a project team member beforfe or during the presentation My questioncoorment is regarding
Construction - Environment a Right of Way Construction [ Environment a Right of Way D Property a other of What is future of Lambert? East side of $11 / 0$ needs more options

## ADOT @

Question card

- 10 (Tangerine Road to Ina Road) Stud
De. .14. 21011 - Public Scoping Meeting

Please pinit clearly and use one cart per question. Please pint tleanly and use one card per question or or
Retum your card to a project team member before or durng the presentation.
 IN LIEHT OF NAFTA IS THERE ANY 10 EA OF IHIGHWAY + RAILWAY TRAFFIC INCREASES/CONGESTION

AODT ख



| Public Involvement Summary |  |  |  |  | 1/26/2012 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Meeting/ Comment Type | Name | Comment Transcription | Response Transcription |  |
| 12/1/2011 | Email | Armando Urias | Due to my busy schedule, I am not sure if I will be able to attend the meeting. | Comment noted. |  |
|  |  |  | I am very interested in the construction and improvements. One thing I recommend is a bridge on Cortaro and Ina Road. It may not be necessary at Tangerine at this time, but the bridge at Twin Peaks is phenomenal. Traffic flows smoothly. I think you did a great job on Twin Peaks project. |  |  |
| 12/2/2011 | Email | Dorothy Mowatt | This wonderful desert has so many highways and so many strip malls. Less land is available for the wild plants and animals that make this area special. Why do you need to take more land away? | Comment noted. |  |
|  |  |  | Think of the noise more trucks will bring. It will be less safe for drivers and pedestrians alike. Also, the road will be less pleasant to travel as drivers speed down the many lanes. |  |  |
|  |  |  | Dorothy Mowatt (Five years retired to this "heaven") |  |  |
| 12/4/2011 | Email | Linda Ottley | I reside year-round in the Sunflower development, and use I-10 everyday. I am unable to attend the meeting on December 14th, because I will be out of town. | Comment noted. |  |
|  |  |  | I would like to make a suggestion though, that would greatly help with the safety issues of I -10. Since it is the only major route through Tucson, I believe one of the major causes of accidents/incidents is the semi-truck traffic. Several of my friends and I have discussed this issue at length, and we all believe that the |  |  |
| l-10 (Tang | e Road to Ina Road) | Study | 47 of 58 |  |  |10 (Tangerine Road to Ina Road) Stud

Date $\quad \begin{aligned} & \text { Meeting } \\ & \text { Comment Type }\end{aligned}$
Comment Transcription trucks travel at too high a speed through and around Tucson (and Arizona). I would like to suggest that the speed limit be dropped for
semi-truck haulers from the current $75 / 65$ to a semi-truck haulers from the current $75 / 65$ to a
standard 55 miles per hour.... at all times. AND, that they are NOT allowed in the far leftAND, that they are
We know that they have these or similar laws like this in California, Washington, and Oregon, and would like them implemented here in
Arizona.
Many, many, times when I am traveling on I -10 , I have to drive $70-72$ in a 65 mph zone just
to keep up with trafic, and the semi-trucks are o keep up with traffic, and the semi-trucks are passing me like nothing.....they need to slow
down! They cannot stop quickly - ever.
I certainly would like to see these changes for ruckers taken into consideration - and keep changes could be implemented all over
Arizona, IIm sure many lives would be saved.

1 am requesting information on a study of nterstate 10, webpage that I can view the display(s) on traftic/freeway improvements? If so, what is the
the website address for this study?
am a resident of Rillito, and my property is situated in the area facing $\mathrm{I}-10$ and frontage oad adjacent to the freeway (between
Tangerine Road and Avra Valley Road).

Response Transcription $\qquad$ -

Thank you for contacting the Arizona
Department of Tras egarding the Interstate 10, Tangerine Road to na Road study. The study's project website is $\frac{w}{}$ project fact.gov sheet and a a map of the study are project fact sheet and a map of the study are study is in its very early stages, so there are no displays or recommended improvements at
this time.

| Public Involvement Summary |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Date | Meeting/ Comment Type | Name | Comment Transcription | Response Transcription |
|  |  |  | I may attend the study presentation (at Coyote Trail Elementary School) on Wednesday, December 14th. Because of my hearing loss, require having sign language interpreter to facilitate communication in a meeting. Will you or Lucy Amparano be able to arrange acquiring sign language interpreter for the presentation on December 14th? <br> Another person with hearing loss may also attend the presentation on Dec. 14th, but the person does not have sign language proficiency. Will your department be able to acquire a real-time captioning service for this hearing-impaired individual in the meeting presented on that date? | As you have requested, arrangements have been made for an ASL and CART interpreter so you and your sister will be able to attend and participate in the public scoping meeting on Wednesday, Dec. 14. Since there is a 48 hour cancellation notice, can you please confirm you will both be attending so we can proceed with confirming the accommodations with the two interpreters? A response by noon tomorrow would be greatly appreciated. <br> Please let me know if you have any questions. We look forward to seeing you on Wednesday night. |
| 12/11/2011 | Comment Form | David Helgevold | The single most important improvement that could be made in the corridor in question is: <br> Grade separation of Cortaro Farms Road and the Union Pacific Railroad. <br> Their is no greater traffic tie up between Tangerine and Ina, just ask anybody who regularly drives in that area. | Comment noted. |
| 12/12/2011 | Phone | Anonymous | As a northwest resident here, I just ask that you put my vote in for No, do not do anymore widening. We've had enough construction up here; Cortaro, I-10, it's just been non-stop and its time to...enough is enough, no more road construction. | Comment noted. |

## 12/12/2011 Email

$\mathrm{l}-10$ (Tangerine Road to Ina Road) Study

Date $\quad \begin{aligned} & \text { Meeting/ } \\ & \text { Comment Type Name }\end{aligned}$
Comment Transcriptio
and for the map of the study area.
plan to attend the public scoping meeting on
Wednesday. December 14th. I am certaing on the tentatively reserved one ASL interpreter for
you and one CART interpreter for your sister edestay, eceerber inth. am certain that based on your email dated on Dec. 5 and our date. Two ASL interpreters for $11 / 2$ hours
$5: 30 \mathrm{PM}$ to $7: 00 \mathrm{PM}$ ) of the meeting is disability (and no sign language competenc) may benefit from using the CART service in this meeting. Please confirm the ASL and CART arrangements for this presentation on

Your department had previously mentioned contacting a court for information on
acquisition of ASL interpreting servic CART service. I had utilized interpreting services frequently in the past during my your information, you may contact the State Procurement Office regarding interpreting service agencies and CART service agencies under contract with the State.

In fact, it is inappropriate to have one ASL interpreter for any meetings (with three or more articipants) that are over one hour long. for the ADOT meeting on December 14th. I hope that the meeting will not be too exhaustive for one interpreter due to nature and length of presentation.

One CART (Communication Access Real-time Translation) translator for this presentation correct and sufficient.

| Public Involvement Summary |  |  |  |  | 1/26/2012 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Meeting/ Comment Type | Name | Comment Transcription | Response Transcription |  |
|  |  |  | In the future, please consider contacting a Statewide coordinator for the deaf and the hard of hearing or the Arizona Commission for the Deaf and the Hard of Hearing in regards to accommodation needs for persons with hearing loss. <br> Thank you again for your assistance. |  |  |
| 12/14/2011 | Comment Form | Linda Locicero | 1) Consider on-off ramps that allow for entry/exit without waiting at a traffic control signal. (Referring to Palo Verde on-off ramp.) 2) Have a wide turn radius for right turns on to an entry ramp. <br> 3) All interchanges/roads go over railroad like Twin Peaks. <br> 4) Frontage road extension all the way to <br> Phoenix vicinity. <br> 5) Access to frontage road in opposite direction <br> at more frequent points. <br> 6) Long merge lanes at each entry/exit lamp <br> left. (Referring to downtown I-10 area.) <br> achievement | Comment noted. |  |
| 12/14/2011 | Comment Form | Robert Cerri | Project should eliminate railway grade crossings. <br> - What is train/auto accident history at each? - UPRR is double tracking some portions of their main to increase capacity. How much more will it increase? <br> - Eliminating grade crossing will reduce delay to emergency response (police, fire and ambulance). | Comment noted. |  |
| 12/16/2011 | Comment Form | Allan Gaudette | Waiting for trains to frequently cross Cortaro Farms Road is aggravating. The ever frequent horn blasting is disturbing. The blasts are loud 51 of 58 | Comment noted. | 5 |



| Public Involvement Summary |  |  |  |  | 1/26/2012 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Meeting/ Comment Type | Name | Comment Transcription | Response Transcription |  |
|  |  |  | multiplied $\times 2$ with 4 lanes each running East \& West under the road/rail road tracks. The Cortaro Rd/l-10 interchange was an abomination from the time it opened. It's a very confusing interchange going either East or West on Cortaro, with the additional obstruction of the railroad crossing on the same level as East/West Cortaro Rd with frequent stops on the East side of the Interstate due to trains going through and backing up traffic in ALL directions; incredibly poorly thought out at the cost of millions to taxpayers. |  |  |
| 12/19/2011 | Comment Form | Jess G | For the westbound Cortaro Road, why not do something similar to Orange Grove where no one would have a train to disrupt the flow of traffic? You could then make the flow of traffic merge (westbound to southbound) onto the freeway with no light by going underneath the interstate and traffic coming off of the ramp. The traffic coming off of the ramp going west bound and east bound could merge with no lights also onto Cortaro itself. By doing this, you've just eliminated three lights and massive wait times. Feel free to email me back and I can provide a mock drawing if needed. | Comment noted. |  |
| 12/19/2011 | Comment Form | John Fink | The high speed lane of I-10 whereby you have 3 lanes or more in one direction need to limit 18 wheelers to the right lanes only! <br> Also, the interchange at Cortaro and I-10 needs to look like the interchange at Twin Peaks and l-10. | Comment noted. |  |
| 12/19/2011 | Comment Form | Rebecca Loporto | I can't wait to see the road improved from Tangerine to Ina here in Pima county. I am especially looking forward to having auto traffic | Comment noted. |  |
| $\mathbf{l - 1 0}$ (Tangerine Road to Ina Road) Study 53 of 58 |  |  |  |  | 7 |


| Date | Meeting/ Comment Type | Name | Comment Transcription | Response Transcription |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | and rail traffic separated to where railroad crossing signal lights will no longer be needed There is another problem on this freeway, and that is traffic going northwest on the road is sometimes backed up at the Orange Grove exit in the afternoon during 5 o'clock traffic. I have experienced this, and it is a surprise to be just going along and having traffic come to a complete stop in the right lane. Orange Grove is south of the Ina exit. |  |
| 12/20/2011 | Comment Form | David Dobbins | Please make the EB onramp at Twin Peaks Road access to $\mathrm{I}-10$ with a double lane similar to the Miracle Mile entrance to I-10. <br> There have been a number of collisions from vehicles failing to yield and not taking precautions when merging to enter I-10. A second onramp lane will help this. | Comment noted. |
| 12/21/2011 | Comment Form | Madeline Tammami | Improvements (Interchanges at Tangerine Road, Cortaro Road and Ina Road) should all be constructed similar to Twin Peaks. Ina and Cortaro's construction are top priority due to the traffic break up on railroad crossing and lights. Traffic light placed at Avra Valley. Improving roadway leading into $\mathrm{I}-10$ at Tangerine interchange. Widening alternatives along I-10 Tangerine to Ina section on 40 year plan should be for safety as well as reducing the traffic flow by: 1) Introducing a rail system between Marana and Tucson on the east end of the track with stops at Marana, Tangerine, Ina and Prince with bus terminals at those locations to take passengers to their locations 2) A truck bypass from Gila Bend to Tucson using Ajo Road. Widen it and make it an | Comment noted. |
| l-10 (Tanger | Road to Ina Road | d) Study | 54 of 58 |  |


| Public Involvement Summary |  |  |  |  | 1/26/2012 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Meeting/ Comment Type | Name | Comment Transcription | Response Transcription |  |
|  |  |  | interstate highway. <br> 3) Make Silverbell Road a parkway to link Twin Peaks to Saint Mary's to I-10. <br> 4) Encourage Marana and Pima County to run road that north and south and not use $\mathrm{I}-10$ as main street. <br> 5) Volume of traffic back up during emergencies have created endangerment. Install electronic signs every five miles before exits and designate one of your lanes for emergency vehicle use with your electronic sign device. <br> Currently, the volume of traffic on the west side of the frontage road by the cement plant has decreased since the road improvement on Tangerine interchange. The community of Rillito has no other alternative road to serve their community. If the road pattern is changed, Pima County must provide an alternative road to link over to Avra Valley and Tangerine. Truck Company, CTI and Truck for Soil Company have roads that lead to Avra Valley. Using that exit should be encouraged in your plan. Please consider: <br> 1) Vegetation to cut the noise and sound walls. <br> 2) Covering all open irrigation ditches "they encourage wildlife and road kills." <br> 3) Place proper fencing to keep animals off the l-10. <br> Please hold your meetings after the holidays it creates anxiety and is very inconsiderate. |  |  |
| 12/23/2011 | Comment Form | Diane Osgood | Don't know if it came up at the meeting at Coyote Trail but l'd like to see a Cloverleaf set up. So from Frontage Road to Cortaro you could get into Rte 10 going west to Phoenix without lights and if were coming from Ina and wanted to get on the frontage road going east. | Comment noted. |  |
| l-10 (Tanger | Road to Ina Road | Study | 55 of 58 |  | 9 |


| Public Involvement Summary |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Date | Meeting/ <br> Comment Type | Name | Comment Transcription | Response Tra |
|  |  |  | Similar setups are in Dallas and also on the 101/Scottsdale area at Raintree (?) |  |
| 12/23/2011 | Email | Duncan Maclntyre | I am in favor of the overall scope of the plan and I agree improvements need to be made. I believe that you should consider improving the traffic flow at Cortaro Road and I-10 as well as Ina Road and I-10. The traffic lights at Cortaro Road need to be reworked and you should consider raising the road above the railroad crossings at both Cortaro Road and Ina Road. <br> I think it is wise to keep the Twin Peaks interchange open. I would hope that it would continue to be easy to enter and exit in both directions. It is also important to allow traffic to flow as freely as possible between Twin Peaks Road and Tangerine Road. This is an important route for our delivery drivers. We frequently deliver to neighborhoods to the west and east of Tangerine Road and $\mathrm{I}-10$. | Comment noted |
| 12/23/2011 | Comment Form | Gene Burau | I attended the Dec. 14 meeting and I want to thank all who participated. I plan to attend future meetings as the study proceeds. <br> As is obvious the railroad will be laying a second line along this corridor which will only increase the already overly congested intersections. With this in mind I strongly encourage all future rail road crossings need to be over passes or underpasses. Any same grade level crossings should not be considered. With the planning looking at 40 years to the future it would be irresponsible to consider otherwise. At this time there is a lot of open land available and the opportunity to do it right lies in our hands. We along the Tucson I | Comment noted |

                4) Encourage Marana and Pima County to run
                main street.
                emergencies have created endangerment
                Install electronic signs every five miles before
                exits and designate one of your lanes for
                sign device
                Currently, the volume of traffic on the west sid
                decreased since the road improvement on
                Tangerine interchange. The community of
    Rillito has no other alternative road to servy
Rillito has no other alternative road to serve
their community. If the road pattern is changed,
Pima County must provide an alternative road
Truck Company CTI and Truck tongerin
Company have roads that lead to Avra Valley.
Using that exit should be encouraged in your
plan. Please consider:
Vegetation to cut the noise and sound walls.
2) Covering all open irrigation ditches "they
3) Placage proper fencing to keep animals off the
creates anxiety and is very inconsiderate.
Don't know if it came up at the meeting at
up. So from Frontage Road to Cortaro you
could get into Rte 10 going west to Phoenix
without lights and if were coming from Ina and


Date $\quad$| Meeting/ |
| :--- |
| Comment Type |

Comment Transcription sound.) First put real and enforceable noise estrictions upon the contractors. (For example: no jack hammers, pile drivers, other imiarly noisy activities within one mile residential neighborhoods, properties or
occupancies between 9 p.m. and 10 a.m.
Also get the train to turn down its horn. In
Also ent years the train horns have horn. In
much louder. A half a mile or more from the racks one has to cover one's ears to avoid pain from the loud train horns. Loud horns don't save lives. I am acquainted with others
who have seen persons hit by trains. Not one me would a louder horn have prevented these ccurrences. The louder train horns will never save a life, though they could render an
uninhabitable, especially when combined with
long term transportation construction proje
hat fails to have the same consideration for would have in the neighborhoods of the highest paid project personnel.
Residential neighborhoods should come first. $\qquad$

# PUBLIC MEETING SUMMARY May 2, 2012 

## Interstate 10 (Tangerine Road to Ina Road) Study

ADOT Project No.: 10 PM 240 H7960 01L Federal Aid No.: 010-D(209)A

Prepared for: Arizona Department of Transportation

Prepared by GORDLEY GROUP 2540 N. Tucson Blvd Tucson, AZ 85716

## MEETING SUMMARY



## Overview

The Arizona Department of Transportation (ADOT), in conjunction with the Federal Highway Administration, held a public information meeting to introduce the alternatives for the I-10 (Tangerine Road to Ina Road) Study. The purpose of the meeting was to present information to the public and to provide the opportunity for people to ask questions and provide input and feedback.

The public information meeting was held on Wednesday, May 2, 2012, from 5:30 to 7:15 p.m., with a presentation at 5:45 p.m., at Coyote Trail Elementary School in Marana, Arizona. A total of 92 people signed attendance sheets, not including 19 project team or affiliated agency members.

## Notification

April 16, 2012
distributed to ADOT group managers by ADOT (CCP)
Government official notification emailed by ADOT CCP
April 18, 2012
Postcard invitation announcing meeting mailed to residents, businesses and property owners within a two-mile radius east and west of Interstate 10, half-mile north of Tangerine Road and half-mile south of Ina Road, as well as project stakeholders, interested parties and agencies
Newspaper advertisement published in the Explorer
Invitation postcard posted on project website
News release sent to local media and stakeholders by ADOT CCP

## pril 19, 2012

Newspaper advertisement published in the Arizona Daily Star Northwest
Copies of the notification materials are included in Appendix A

## Meeting Format, Materials and Presentation

Participants were asked to sign in and were provided a project fact sheet, environmental fact sheet, comment form and question card. Comment forms encouraged public input. Participants were asked to fill out and leave completed comment forms at the meeting or submit them by May 16, 2012. Participants were requested to write questions on question cards, which were read and addressed during the question and comment session at the end of the presentation.

Display boards included information about the study goals and process schedule, as well as project area displays. Project area displays included: Cross-sections of the traffic interchange on l-10 at Cortaro Road and Avra Valley Road, as well as cross-sections of I10 with four- and five-lane sections; Cortaro Road traffic interchange (TI) and Avra Valley Road TI alignment alternatives; and Cortaro Road TI, Avra Valley Road II and I-10 alternatives evaluation matrices. A display board and brochures were also available regarding Title VI of the Civil Rights Act. Participants were encouraged to view the displays, ask questions and provide feedback on the alternatives

A presentation began at 5:45 p.m. with a welcome by ADOT Senior Community Relations Officer Linda Ritter. Linda explained the meeting agenda, encouraged participants to provide input and make recommendations for possible improvements, and introduced the project team. Next, ADOT Senior Project Manager Robin Raine explained that public participants are primary partners in the study because their comments, input and choices as to the preliminary alternatives being presented are crucial. She elaborated on the project roles of ADOT, including environmental evaluation, construction and maintenance, as well as the role of the Federal Highway Administration. Robin then introduced AECOM Consultant Project Engineer Rodney Bragg.

Rodney described the meeting's purpose and the study's area, goals and process. This is the last segment of the I-10 corridor to be evaluated between Interstate 8 and Ruthrauff Road, and Rodney noted that the segments of I-10 from I-8 to Tangerine Road and from Ina Road to Ruthrauff Road have been evaluated and addressed as separate projects. This study is important for future growth and traffic planning. Rodney explained that the study would include an Alternative Selection Report, Design Concept Report and Environmental Assessment, but noted that funding for design and construction proposals considered in the study is not yet designated or available, which means any related construction is at least five years in the future.

Next, AECOM Consultant Environmental Planner Jessica Popp provided an overview of environmental issues related to the study process, which will follow the National Environmental Policy Act (NEPA). Afterward, Robin outlined the next steps and anticipated schedule going forward.

Linda ended the presentation by asking that questions be submitted on question cards for response. She encouraged attendees to visit displays, provide input and ask questions. She also noted that written comments received by May 16, 2012, would be included in the

Q：Why even look at shifting the position of an interchange？
A：The previous question probably provided some insight into that．When switching grade levels，lowering I－10 and raising crossroads，it is very difficult to construct a TI．If we can move the interchange a half－mile away from the existing TI ，it is much easier to construct． We will be exploring options to help facilitate construction

Q：Who comes up with the designs molded into the bridge cement at ramps，etc．？
A：The bridge designs are usually part of the design phase．Landscape architects and public artists are hired to come up with design options．The community is involved in this process and there is usually at least one public meeting that shows various alternatives so the community can provide input on the options．Part of the reason this is done during the design phase is because the cost of public art correlates with the cost of the project and it needs to be something that can be reasonably built．

Q：Will Cortaro Road be closed at the freeway during construction of the bridge？ A：Probably．

Q：1）Which is safer in regard to accidents：open or closed medians？2）Can traffic be moved from l－10 to the frontage road when accidents occur in order to keep traffic moving？
A：Whether open or closed medians are safer is a complicated question．If a median is open，there is the ability for vehicles to cross to the other side of the highway．If medians are closed，vehicles could hit the median and collide with vehicles going the same direction．There are issues with both conditions．Within the limits of the project，traffic cannot be moved to the frontage roads when accidents occur since the frontage roads are two－way in some areas of the study．Additionally，the frontage roads do not currently connect very well to one another in some locations．Some areas further south of the study area do connect well and traffic can be diverted onto the frontage roads．The study team is looking into frontage roads in the study area．

Q：Is there an error in the Avra Valley poster？It looks like the bridge is in the same ocation for all three views．
A：The displays showing options for the Avra Valley TI are all slightly different．The Avra Valley Road displays show three different options although they all look similar．In option one，the TI would be on top of the existing bridge．In the second option，the TI is shifted slightly south．In the third option，the TI is shifted slightly to the north．The options show where the TI would cross over I－10．

Q：Will I－10 be lowered to grade level at interchanges before the overpasses are constructed？
A：That would probably have to happen around the same time，because we cannot lower the interstate into the middle of the existing TI．The TI would otherwise stay closed．The process would be similar to what is taking place with the I－10 Ruthrauff to Prince Road construction project

ADOT Project No． 10 PM 240 H7960 01L
Federal Aid No．010－D（209）A

Q：What happens to any businesses or homes in the path of the new roadways？
A：If your property were impacted severely enough where ADOT would have to acquire the property，the property would be appraised at current market value and you would be presented with an offer．You would have the right to refuse the offer or hire an outside appraiser．If ADOT accepts the outside appraisal，ADOT would pay for the appraisal ADOT would attempt to negotiate successfully，but a deal is not always reached．In that case，ADOT would use eminent domain；however，ADOT tries to avoid that．

Q：Will Cortaro Farms Road interchange take priority as it already is in desperate need of mprovements？
A：This study is meant to show us where the priority exists based on current traffic conditions in this area．It seems like Cortaro Road would take priority；however，traffic volumes on Cortaro Road have changed since work has been completed on Twin Peaks Road．Funding for improvements to Cortaro Road is not within the ADOT five－year plan

Q：How many people are working on the study？
A：There are a number of us．ADOT works with consultants with specialties varying from environmental，drainage，utilities，archaeology，traffic and roadway．The team meets on a monthly basis to discuss the progress of the study and regularly holds small group meetings to work out smaller details．

Q：What is best estimate of the length of time Cortaro Road would be closed？
A：The purpose of this study is to determine what，if anything will be done at Cortaro Road． If improvements were made to Cortaro Road，it would likely be closed for a similar amount of time as Prince Road．There would be detours and a complete closure may not happen．

Q：Would Cortaro Road be open during all options？Why consider an open median given recent head－on collisions on $\mathrm{I}-10$ ？What is the timing on the $\mathrm{I}-10$ Ruthrauff Road to Ina Road project？The website is very vague and only states that the DCR was completed summer 2012.
A：Addressed in previous responses．
Q：Will the new rubberized asphalt be used to reduce noise？
A：That is a design question．We first have to determine whether there will be any improvements．

Q：Exactly where does the Ruthrauff Road to Ina Road project stop and the Ina Road to Tangerine Road project start？
A：There is not an exact location．The study to the south is studying possible improvements to the Ina Road TI．Our study team is working with their study team to ensure the potential projects would flow together．

DOT Project No． 10 PM 240 H7960 01L
Federal Aid No．010－D（209）A

Q：Regarding regional and local planning efforts，did ADOT receive（scoping）comments from Pima County，Arizona Game and Fish，Town of Marana，and Coalition for Sonoran Desert Protection about this project＇s importance in furthering years of efforts and resources to recreate a wildlife connection between the Tucson and Tortolita Mountains？ This would necessitate a wildlife overpass（or underpass）near Avra Valley Road．If so， how does ADOT respond and how might you accomplish this and respect the local communities＇years of work？Which alternative（s）would allow for this？There is a local funding source！
A：The team received comments from the agencies listed，including Arizona Game and Fish and the Town of Marana．Many of the comments focused on wildlife connectivity in the area，specifically the existing railroad structure as a potential wildlife crossing．We are currently collecting information about existing conditions，identifying species in the area and what type of wildlife movement there should be．This information will be considered as we move forward with the design and the alternatives．

Q：Will you be evaluating bridge structures for their potential use as bat habitats（both endangered and non－endangered bats）？If appropriate for bats，will you design bridges that work best－that bats will use？
A：We cannot speak to any specific species at this time．The team is currently collecting data about potentially affected species．Should we determine potential impacts to any species，including bats，we would explore ways to avoid，minimize or alleviate them．

Q：I＇m a 41－year resident．It＇s an issue to me because we dealt with Marana on Cortaro Road，but the further out you go you guys get into ranches．I have a 48 －foot rig and I have horses．I still maintain the one－percent lifestyle．You still haven＇t run some of us out．On access roads，do you accommodate for turning radiuses in your infrastructure and design plans？I can only go one way on Cortaro Road，and I have to make a U－turn to go east．I block every lane of traffic．It was supposed to be in the infrastructure so we wouldn＇t have to deal with that．But you guys have cut some of us off．Do you take homesteads and people who have been here 40 years into consideration？
A：We live in a large city and we have a lot of people who live here．As the community grows，there will be changes．Interstate 10 is designed as a major traffic route．This study focuses on I－10 and the traffic interchanges．There is not a lot the state can do about local streets，since those are controlled by local jurisdictions．Unfortunately，not everyone can be accommodated，but we try．

Comments read with no response required are listed below．
C：I am really upset about huge tax measures to pay for all the road construction．My property taxes have gone from $\$ 1,500$ to $\$ 5,000$ ．Pima County has one at the highest sales tax to pay for all the road construction．

C：I propose limiting development as an alternative to all the road construction；this would give taxpayers a break．

ADOT Project No． 10 PM 240 H7960 011
Federal Aid No．010－D（209）A

C：You did Twin Peaks Road to Linda Vista Boulevard；and，now，the traffic is so bad in the morning and evening．There are bicycle lanes and a high school there．

## Copies of the question cards are included in Appendix D．

## Written Comments from the Public

Approximately 26 additional comments and questions were received in the form of comment forms through mail，email，phone and fax between April 17 and May 16， 2012.

A transcription of comments is included in Appendix E．

## Appendices

A：Notification Material
B：Meeting Materials
C：PowerPoint Presentation
D：Question Cards
E：Comment Transcription

DOT Proiect No． 10 PM 240 H7960 011
Federal Aid No．O10－D（209）A

## Arizona Department of Transportation

## Communication and Community Partnerships

MEMORANOUM

> To: JENNIFER TOTH, State Engineer
> DALLAS HAMMIT, Deputy State Engineer ODD EMERY, Tucson District Engineer
> $\begin{aligned} & \text { SCOTT OMER, Multimodal Planning Division } \\ & \text { PAULA GIBSON, Chief Right of Way Agent }\end{aligned}$
> PAULA GIBSON, Chief Right of Way Agent
> PAUL O'BRIEN, Predesign Section Manager
> ICHARD L. RICE, Chief Counsel, Transportatio
> HOR ANDERSON, Manager, Environmental Planning Group
> EVIN BIESTY, Government Relations
> Community Partnership
> ALLY STEWART, Communication and
> TIM TAIT, Communication and $\begin{aligned} & \text { Community Partnership }\end{aligned}$
> Con and
> ommunity Partnerships

Date: April 16. 2012

From: LINDA RITTER, Communication and Community Partnerships

## Subject: Public Meeting

Project No.: 10 PM 240 H7960 01L

Project Normad Interstate 10: Tangerine Road to Ina Study
Federal Aid Project No: 010-D(209)A
The Arizona Department of Transportation and Federal Highway Administration are conducting an engineering and environmental study of Interstate 10 between Tangerine Road and Ina Road. The goal of this study is to develop a long range plan for an improved roadway along this portion of the I- 10 corridor. To support that goal, the study will develop range plan for an improved roadway along this portion of the I-10 corridor. To support that goal, the study will develo Cortaro Road traffic interchange to provide a grade separated crossing with the Union Pacific Railroad and review potential improvements to frontage roads in the study area.

A public meeting has been scheduled to introduce the study alternatives, present information and receive input from the public.
The public meeting will be held on:
Wednesday, May 2, 2012
5:30-7 p.m. (brief presentation at 5:45 p.m.)
Coyote Trail Elementary School
8000 N. Silverbell Road
Tucson, AZ 85743
Attachment: Advertisement to be placed on April 18 in The Explorer and April 19 in The Arizona Daily Star
cc: Barbara Lundstrom, Chairwoman, State Transportation Board
Stephen W. Christy, State Transportation Board Member
mes Rindone, EPG
oni Towne, Department of Administration
Aryan Lirange, FHWA
Rebecca Swiecki, CCP

```
From: Paki Rico <orico@azdotgov>Q
Hbject: FW: I-10 Tangerine Road to Ina Road Public Meeting
    Date: April 16, 2012 10:28:16 AM MST
    To:Linda Ritter &Ritter@azdot.gov>, Gricel Sato <GSato@azdot.gov>
    Cc:Teresa Welbom <TWelbom@azdot.gov>
```

YYI - below and attached is what was sent to government officials in Pima County, Town of Marana, Town of Oro Valley and PAG. (I already received a thank you from Oro Valley Council Member Hornat.) Thanks.
Paki Rico
Community Relations Officer
Communication \& Community Partnerships
Arizona Department of Transportation
1221 S. 2nd Ave. Mail Drop T100
Tucson, AZ 85713
520-388-4233- office
20-343-9492 - mob
rom: Paki Rico
Sent: Monday, April 16, 2012 9:58 AM
subject: I-10 Tangerine Road to Ina Road Public Meeting
lease find attached a news release from the Arizona Department of Transportation announcing a public meeting for leasstate 10, Tangerine Road to Ina Road project, in case of constituent inquiries. The news release will be distributed later his week. Please let me know if you have any questions or concerns. Thank you

Paki Rico
Community Relations Officer
Communication \& Community Partnerships
rizona Department of Transportation
Tucson, AZ 85713
520-388-4233-office
$520-343-9492$ - mobile
520-343-9492 - mobil
prico@azdot.gov

- 「reeway wdenng

Reconstruction of traftic interchanges and crossroads at Cortaro and Avra Valley road
Grade separation of Cortaro Road and the Union Paciicic Rairroad
Grade separation of Avra Valley Road and the Union Pacific Rairoo
Erontage roaad imporovements
The purpose of the meeting is to:
Provide an overview and presentation about the study
Discuss the study poes
Discuss the study process and schedu
Receive comments and suggestions
Address questions
What to expect at the meeting:
Maps and project information will be on display
Comment forms will be
A brieq question and coavailable and can be submitted to project team members at the meeting Team members will beomen hand session wior ilfollow the presestation
attendees and addrest atendees and address their specific questions and concerns
Ater the meeting, project information will be available online at www.azdot.gov/tangerinezina. The public may sumbit commentit by downloading a comment orm and sending it to the propect team. Comments
received by neeting summary and the project's Design Concept Report and Environmental Assessment. More information is available at www.azdot.govitangerine2ina. Local media should contact the ADOT
Public Information Office at news@azdot.ovv or $1-800-949-8057$. For additional intormation or


## Public meeting for --10: Tangerine Road to Ina Road Study in Tucson set for May 2

The Arizona Department of Transporation and Federal Highway Administration invite the community to
Inerstate 10 between Tangerine and lna lo roads in Marad
Wednesday, May 2
$5: 30$ to 7 P.m. (Presentation a $5: 45$ p.m.)
Coyote Trail Elementary School
$000 N$. Silverbel
Roal
Tucoon. Silverbell Roaad
he study will assess potential improvements to increase capacity and enhance saiety for commuters,
traftic interchangs.
Potential improvements. may include:

From: Arizona Department of Transportation [mailto:adot@service.govdelivery.com]
Sent: Wednesday, April 18, 2012 10:36 AM
To: Linda Ritter
Subject: Courtesy Copy: Public meeting for I-10: Tangerine Road to Ina Road Study in Tucson set for May 2

## This is a courtesy copy of an email bulletin sent by Linda Ritter

## This bulletin was sent to the following groups of people

Subscribers of I-10 (Maricopa/Pinal County Line to Benson), Tucson District - Elected Officials (Pima County), Tucson District - I-10 Stakeholders, Tucson District - Print Media, Tucson District - Radio Media Tucson District - Safety, Tucson District - Television Media (1527 recipients)


## f

Public meeting for I-10: Tangerine Road to Ina Road Study in Tucson set for May 2
The Arizona Department of Transportation and Federal Highway Administration invite the community to attend a public meeting to learn about and provide feedback on the possible alternatives for a study of Interstate 10 between Tangerine and Ina roads in Marana

Wednesday, May 2
5:30 to 7 p.m. (Presentation at 5:45 p.m.)
8000 N. Silverbell Rtary School
Tucson, Arizona 85743
The study will assess potential improvements to increase capacity and enhance safety for commuters, general traffic and commercial truck traffic from the Tangerine Road traffic interchange to the Ina Road traffic interchange.

Potential improvements may include:

- Freeway widening
- Reconstruction of traffic interchanges and crossroads at Cortaro and Avra Valley roads
- Grade separation of Cortaro Road and the Union Pacific Railroad
- Grade separation of Avra Valley Road and the Union Pacific Railroad
- Frontage road improvements

The purpose of the meeting is to:

- Provide an overview and presentation about the study
- Discuss the study process and schedule
- Receive comments and suggestions
- Address questions


## What to expect at the meeting:

- Maps and project information will be on display
- Comment forms will be available and can be submitted to project team members at the meeting
- A brief question and comment session will follow the presentation
- Team members will be on hand before and after the presentation to personally meet with attendees and eddress their specific questions and concerns

After the meeting, project information will be available online at www azto sover the public may subm comments by downloading a comment form and sending it to the project team. Comments received by May 16 will be part of an evaluation of potential improvements that will be included in the meeting summary and the project's Design Conce Report and Environmental Assessment.
More information is available at www.azdot.gov/tangerine2ina. Local media should contact the ADOT Public Information Office at news @azdot.gov or 1-800-949-8057. For additional information, or to submit comments in writing, please contact David Mogollón with the ADOT Outreach Team at 2540 N. Tucson Blvd., Tucson, AZ 85716; phone: 520-327-6077; fax 20-327-4687; or email: tangerine2ina@azdot.gov.

## $\pm$ SHARE

SUBSCRIBER SERVICES
Manage Preferences | Delete Profile | Help

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WE WANT YOUR INPUT！


The Arizona Department of Transportation and Federal Highway Administration invite you to attend a public meeting on Wednesday，May 2，2012，to learn about a study of Interstate 10 between Tangerine Road and Ina Road．
The purpose of the meeting is to introduce the study alternatives，present information and provide the opportunity for you to ask questions and provide input． The meeting will include a presentation at 5：45 p．m．Before and after the presentation，you may look through maps and displays about the study and talk with team members who will be available to listen to your comments and answer questions．

The purpose of the study is to increase capacity and enhance safety from immediately south of the Tangerine Road traffic interchange to immediately north of the Ina Road traffic interchange．Potential improvements will be evaluated in a Design Concept Report and Environmental Assessment and may include：
－Freeway widening
－Improvement of Cortaro Road and Avra Valley Road traffic interchanges and crossroads
－Possible grade separation of Cortaro Farms Road and Avra Valley Road at the Union Pacific Railroad
－Frontage road improvements
Written comments received by May 16,2012 ，will be included in the summary of this meeting．

For additional information，or to submit comments in writing， please contact David Mogollón with the ADOT Outreach Team at 2540 N．Tucson Blvd．，Tucson，AZ 85716；phone：520－327－ 6077；fax：520－327－4687；or email：tangerine2ina＠azdot．gov．


WE WANT YOUR INPUT
I－IO（Tangerine Road to Ina Road）Study


WEDNESDAY，May 2， 2012 5：30 to 7 p．m．
Presentation
at 5：45 p．m．
Coyote Trail Elementary School 8000 N．Silverbell Road

WEDNESDAY，May 2， 2012
5：30 to 7 p．m．
Presentation at 5：45 p．m．
Coyote Trail Elementary School
8000 N．Silverbell Road，Tucson，AZ 85743

Americans with Disabilities Act：Persons with a disability may request
reasonable accommodations by contacting David Mogollón at $520-327-6077$ or reasonable accommodations by contacting David Mogollón at 520－327－6077 or
david＠gordleygroup．com．Requests should be made by April 25,2012 ，to allow time david＠gordleygroup．com．Requests should be made by April 25，2012，to allow time
to arrange accommodations．Este documento está disponible en español Ilamando al $520-327-6077$ ．

WE WANT YOUR INPUT!

WE WANT YOUR INPUT!


The Arizona Department of Transportation and Federal Highway Administration invite you to attend a public meeting on Wednesday, May 2, 2012, to learn about a study of Interstate 10 between Tangerine Road and Ina Road.
The purpose of the meeting is to introduce the study alternatives, present information and provide the opportunity for you to ask questions and provide input. The meeting will include presentation at $5: 45$ p.m. Before and after the presentation, you may look through maps and displays about the study and talk with team members who will be available to listen to your comments and answer questions.
The purpose of the study is to increase capacity and enhance safety from immediately south of the Tangerine Road traffic interchange to immediately north of the Ina Road traffic interchange. Potential improvements will be evaluated in a Design Concept Report and Environmental Assessment and may include:

- Freeway widening
- Improvement of Cortaro Road and Avra Valley Road traffic interchanges and crossroads
- Possible grade separation of Cortaro Farms Road and Avra

Valley Road at the Union Pacific Railroad
Frontage road improvements
Written comments received by May 16, 2012, will be included in the summary of this meeting.
For additional information, or to submit comments in writing, please contact David Mogollón with the ADOT Outreach Team at 2540 N. Tucson Blvd., Tucson, AZ 85716; phone: 520-3276077; fax: 520-327-4687; or email: tangerine2ina@azdot.gov.


WEDNESDAY, May 2, 2012 5:30 to 7 p.m. Presentation at 5:45 p.m. Covote Trail Elementary School 8000 N. Silverbell Road, Tucson, AZ 85743
Americans with Disabilities Act: Persons with a disability may request reasonable accommodations by contacting David Mogollón at 520-327-6077 or david@ogrdleygroup.com. Requests should be made by April 25,2012 , to allow time to arrange accommodations. Este documento está disponible en español llamando al 520-327-6077.
$\qquad$ TODD EMERY NASREEN HASAN JENNIFER TOTH

Аロロт this newspaper notice and other project information are avaliable at. www.aztot.go/tangerine2ina Fedeasal Aid No. 10.0 D(2009A


The Arizona Department of Transportation and Federal Highway Administration invite you to attend a public meeting on Wednesday, May 2, 2012, to learn about a Road and Ina Road.
The purpose of the meeting is to introduce the study alternatives, present information and provide the opportunity for you to ash and provide the opportunity for you to ask will include a presentation at $5: 45 \mathrm{p} . \mathrm{m}$. wili include a presentation at 5:45 p.m.
Before and after the presentation, you may ook through maps and displays about the study and talk with team members who will be available to listen to your comments and answer questions.
The purpose of the study is to increase capacity and enhance safety from immediately south of the Tangerine Road traffic interchange to immediately north of the Ina Road traffic interchange. Potential improvements will be evaluated in a Design may include


WEDNESDAY, May 2, 2012
5:30 to 7 p.m.
Presentation at 5:45 p.m. Covote Trail Elementary School
8000 N. Silverbell Road, Tucson, AZ 85743

- Freeway widening
- Improvement of Cortaro Road and Avra Valley

Railroad

Road traffic interchanges and crossroads

- Possible grade separation of Cortaro Farms

Road and Avra Valley Road at the Union Pacific
Frontage road improvements
Written comments received by May 16,2012 , will be
included in the summary of this meeting.
For additional information, or to submit comments in writing, please contact David Mogollón with the ADOT Outreach Team a 540 N. Tucson Blud., Tucson, AZ 85716; phone: 520-327-6077
mericans with Disabilities Act: Persons with a disability may reasonable accommodations by contactiting David Mogollón a a $520-327-6077$ or david@oordleygroup.com. Requests should be made by April 25,2012 , to allow time to arrange accommodations: Este documento estád disponible en español

NASREEN HASAN ADOT Project Manager

JENNIFER TOTH
D Other Project informa
www.azdot.fov/tangerine2ina


PUBLIC SIGN-IN SHEET (REGISTRO PUBLICO)
Please Print (Por Favor Imprim)
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ADOT МЕw


## Environmental Fact Sheet

The Arizona Department of Transportation and Federal Highway Administration are conducting an engineering and environmental study of Interstate 10 between Tangerine Road and Ina Road. The goal of this study is to develop a long-range plan for an improved roadway along this portion of the $\mathrm{I}-10$ corridor. To support that goal, the study will:
Develop and evaluate possible alternatives to widen I-10 and reconstruct the Avra Valley Road and Cortaro Road traffic interchanges
Review potential improvements to frontage roads in the study area
The study will follow the requirements of the National Environmental Policy Act and will be documented with an Environmental Assessment (EA)

## The Study Will Include:

- Alternative Selection Report to identify and assess possible alternatives, including the consequences of not making any improvements along this corridor (no-build alternative)
- Design Concept Report (DCR) to document the preferred Iternative
EA to document public and agency outreach, and the potential impacts to the social economic, natural and cultural environments
- Corridor Implementation Plan for recommended improvements


## Schedule

| Schedule |
| :--- |
| October 2011 Study kick-off; scoping began <br> December 2011 Public and agency scoping meetings <br> Spring 2012 Development of possible alternatives <br> May 2012 Public meeting to review and provide feedback <br> on the possible alternatives <br> Fall 2012 Technical analyssis to develop the preferred <br> alternative; development of the EA <br> Early 2013 Public hearing to review the prefered <br> alternative and provide formal comments on the <br> Draft EA; the Initial DCR will also be available for <br> review <br> Summer 2013 Final DCR and environmental decision <br> document released |



Public participation is an important part of the study process. As the study Public particication is an important part of the study process. As the study
progresses, a variety of participation opportunities will be available including a public hearing. You may also visit the study website at www.azdot.gov/tangerine2ina to stay up to date on the study progress, provide input by email or subscribe to receive email updates.
Study Process
The study is currently in the alternative development phase, which is the portion of the study when the public and agencies are given the opportunity to review possible alternatives and provide input for consideration by the study team.

The study is anticipated to take about two years to complete. Design and construction are not yet funded.

## Contact Information

- ADOT Outreach Team: 520-327-6077 or tangerine2ina@azdot.gov - ADOT Tucson District Senior Community Relations Officer Linda Ritter 520-388-4266 or Iritter@azdot.gov


## Related Projects

- I-10 Corridor: Ina Road Traffic Interchange (TI) to Ruthrauff Road TI Study www.azdot.gov/ina2r
I-10 Corridor: Jct. I-8 to Tangerine Road Study www.azdot.gov/highways//rojects/i10_i8_to_tangerine

The Interstate 10 (Tangerine Road to Ina Road) Study, which is being conducted by the Arizona Department of Transportation and Federal Highway Administration, will include an environmental process that ollows the National Environmental Policy Act (NEPA).

## What is NEPA?

- NEPA regulations establish the quiding principles for safeguarding the environment and directing agencies on how to make better decisions ( 40 Code of Federal Regulations [CFR] Parts 1500-1508).
- NEPA requires the federal government to consider environmental factors and impacts when making decisions and to ensure that environmental information is available to public officials and citizens before decisions are made and actions are taken.


## mportant Elements of the NEPA process

Study purpose and need - Explains why the study is needed
Public involvement-Caninclude public meetings, agency coordination, mailings, websites and public hearings in order to receive and hear public comments and requests and consider them in the evaluation of the potential improvements

## Alternatives developmen

- No-build alternative: What will happen if the project does no go forward?
Build alternative: This would include improvements to the existing highway facility.


## Environmental Analysis

- Assess existing condition
- Coordinate with stakeholder agencies
- Identify impacts and conduct technical studies
- Avoid and minimize impacts
- Prepare an Environmental Assessment document

Obtain necessary permits
Complete final Environmental Assessment/Conclusions and decision document

## Environmental resources that are studied

- Land use

Social and economic resources

- Title VI of the Civil Rights Act of 1964
- Environmental Justice - Addresses environmental and human health conditions in minority and low-income communities
Historic and cultural resources
- Section 4(f) of the Department of Transportation Act of 1966 - Addresses the use of land from publicly-owned parks, recreational areas, wildlife and waterfowl refuges, or public and private historical sites
- Air quality
- Noise levels
- Wetland and riparian areas
- Floodplains
- Biological resources - Addresses threatened and endangered species and critical habitat, Arizona species of concern vegetation, etc.
- Wildlife connectivity
- Prime or unique farmland and farmland of statewide or local importance
Hazardous materials
- Temporary construction impacts (access, congestion, etc.)
- Visual resources


## Contact Information

ADOT Outreach Team: 520-327-6077 or tangerine2ina@azdot.gov ADOT Tucson District Senior Community Relations Officer Linda Ritter: 520-388-4266 or ritter@azdot.gov Feteral Aid No: 010:012


COMMENT FORM
Please tell us what you like most and least about each alternative that interests you CORTARO ROAD TRAFFIC INTERCHANGE ALTERNATIVES

| MOST CORTARO ROAD TRAFFIC INTERCHANGE ALTERNATIVES |  |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


| AVRA VALLEY ROAD TRAFFIC INTERCHANGE ALTERNATIVES |  |
| :--- | :--- |
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| INTERSTATE 10 ALTERNATIVES |  |
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| MOST |  |
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GENERAL COMMENTS

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| Contact Information (Optional) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Name: | Address: | City: | State | ZIP: |

Public comments are an important part of the project and are welcome at any time for review and consideration. Comments returned by Wednesday, May 16, 2012, will be included in the summary of this public meeting. Please send comments to David Mogollón at 2540 N. Tucson Blvd., Tucson, AZ 85716; phone: 520-327-6077; fax: 520-327-4687; email: tangerine2ina@azdot.gov.
www.azdot.gov/tangerine2ina
ADOT Project No. 10 PM 240 H7960 01L
Federal Aid No. 010-D(209)A
question card
l－10（Tangerine Road to nina Road）Study
Please print llearly and use one card per question．
Return your card to a project team member before or during the presentation
My question／comment is regarding：
Fion Frontage Roads $\square$ Crossioads $\square$ Environment $\square$ Other $\square$

## ADOT ع

Question card

| （Tangerine Road tolna Road）Stuc |
| :--- |
| May 2,2012 －${ }^{2}$ ublic Meeing |

Please pirit clearly and use one card per question．
Relur y your card to a project teamm member
My question／comment is regarding：
1－10－Frontage Roads $\square$ Crossroads $\square$ Environment $\square$ Other $\square$

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Question card
-10 （Tangerine Road to Ina Road）Study
Please print tlearly and use one card per question．
Return your card to a project team member before or during the presentation．
My questioncoomment is regarding：
10 $\quad$ Frontage Roads $\square \quad$ Crosstroads $\square \quad$ Environment $\square$ Other $\square$
$\qquad$

Аロロт（2）

APPENDIX C
PowerPoint Presentation


## Welcome！

－5：30 p．m．－Open house
－5：45 p．m．－Presentation
－6：15 p．m．－Question and comment session
－6：45 p．m．－Open house（team members can further address questions）
－7：15 p．m．－Adjourn


## Study Team Members

## Welcome and introductions

- Linda Ritter

ADOT Senior Community Relations Officer

## Study Team Members (contid)

Presenters

- Robin Raine, ADOT Senior Project Manager
- Rodney Bragg, AECOM Consultant Project Engineer
- Jessica Popp, AECOM Consultant Environmental Planner


## Agenda

## Meeting Purpose



ADOT


## ADOT's Role

- Study and develop alternatives
- Conduct environmental analyses
- Oversee construction and maintenance
- Conduct public outreach and participation


## FHWA's Role

## Study Description

## Rodney Bragg, P.E.

AECOM Consultant Project Engineer


## Issues in the Study Area

## Study Goals

- Projected 2040 travel demand
- Avra Valley Road and Cortaro Road traffic interchanges
- At-grade railroad crossings
- Frontage roads

Develop a long-range plan for improving:

- Traffic operations (safety, movement and access) for general traffic, commuters and truck traffic
- Traffic capacity to accommodate demand through 2040
- Roadway characteristics to current design standards


## Study Goals (contic)

Develop and evaluate possible alternatives for:

- Widening I-10 between Tangerine Road and Ina Road
- Reconstructing the Avra Valley Road and Cortaro Road traffic interchanges
- Improving traffic movement along frontage roads


## The Study Will Include

## Alternative Selection Report

- To identify and assess possible alternatives, including the possibility of not making any improvements (no-build option)


## Design Concept Report

- To document the preferred alternative and an implementation plan


## The Study Will Include (contic)

## Environmental Assessment

- To document the potential impacts to the social, economic and natural environments
- To provide public and agency outreach


## Alternative Development

- No-build alternative
- Build alternative
- I-10 typical cross-section
- Avra Valley Road and Cortaro Road traffic interchanges


## Evaluation Criteria

- Engineering elements
- Environmental elements
- Public involvement and comment




## Cortaro Road Interchange

- Not feasible to move Cortaro Road interchange more than 100 feet from the existing alignment
- Two alternatives considered at Cortaro Road
- Keep Cortaro Road at-grade
- Raise Cortaro Road to cross over I-10 and UPRR

Cortaro Road Interchange

Cortaro Road TI Cortaro Road
Alternative 1 TI at Existing Alignment

## Preliminary Technical Evaluation

- Build alternative could include:
- Five lanes in each direction of I-10
- Closed median
- Continuous one-way frontage roads
- Reconstruct Avra Valley Road and Cortaro Road traffic interchanges so cross streets go over I-10 and the railroad


## Example Interchange



Photo Source: Town of Marand

## Environmental Issues

Jessica Popp
AECOM Consultant Environmental Planner

## Environmental Process

This study will include an environmental process that follows the National Environmental Policy Act (NEPA).

Environmental Assessment process:

- Project purpose and need
- Project alternatives
- Public meetings
- Assess existing conditions


## Environmental Process (contid)

## Environmental Assessment process:

- Determine effects and impacts
- Draft Environmental Assessment
- Public hearing
- Final Environmental Assessment/Conclusions significant impacts or Finding of No Significant Impact


## Social, Economic, Natural and Cultural Environment

## Environmental resources will be analyzed:

- Land use
- Social and economic resources
- Title VI of the Civil Rights Act of 1964
- Environmental justice
- Historic and cultural resources
- Section 4(f) of the Department of Transportation Act of 1966
- Air quality
- Noise levels


## Social, Economic, Natural and Cultural Environment (cont'd)



Aоסד

## Social, Economic, Natural and Cultural Environment (cont'd)

- Prime or unique farmland and farmland of statewide or local importance
- Hazardous materials
- Temporary construction impacts (access, congestion, etc.)

- Visual resources


## Next Steps

## Robin Raine, P.E.

ADOT Senior Project Manager

## Next Steps (contid)

- After presenting alternatives to public for review and comment at tonight's meeting:
o Continue alternative development and evaluation
o Continue technical studies (traffic, bridges, drainage)
o Continue environmental studies
o Identify recommended alternative


## Anticipated Study Schedule

# Question and Comment Session 

Spring 2013

- Draft Environmental Assessment and Initial Design Concept Report
- Public Hearing

Summer 2013

- Final Design Concept Report
- Environmental Decision Document released


## Question and Comment Session (cont'd)



ADOT Pase

## Thank you!

## We appreciate your time and participation.

Written comments received by May 16, 2012, will be included in the summary of this meeting.

Question Cards
www.azdot.gov/tangerine2ina

QUESTION CARD

| 1－10（Tangerine Road toina Road）Stucy |
| :--- |
| May 2,2012 －Public Meeting |


 1－10＠Frontage Roads $\square$ Crossroads $\square \square$ Environmentr other $\square$ －Does the Study includer dny
Considination of a propeosed （Ad system between TuCSm + PHX －What About Wild ife Avisinge？ －Projetal loses pan mule fré

ADOT（2）
question card
10 （Tangerine Road to ina Road）Stud

 How about inct including sound barrier walls \＆a hedge of desert trees \＆ shrubs to block noise from entering existing residential neighborhoods？

Question card
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May $2.2012-$ Public Meeting
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question card

## $1-10($ Trangerine Road to ina Road）Stud May $2,2012-$ Public Meeinn


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utedrage？
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| ADOT ® |  |
| :---: | :---: |
| Question card |  |
| －10（Tangerine Road to Ina Road）Study May 2， 2012 －Public Meeting |  |
| Please print clearly and use one card per question． <br> Retum your card to a project team member before or during the presentation． |  |
| My question／comment is regarding <br> Frontage Roads［ Crossroads［ Environment $\square$ |  |
| （fow did，TwinPeaks inn Linda Visko 3 ust |  |
| 1 Mox the taftue is so bad at |  |
| nm－ | －1m．There are biolulame＇s． |
| and thereisahah school there． |  |

ADOT ®
question card

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designs molded ints the Bridgo Cement at vomps $+\varepsilon+c$

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question card





QUESTION CARD
1.10 (Tangerine Road to Ina Road) Study
Myy $2.2012-$ Public Meeiin

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\text { My yuestioncommentis regarding: } \\
\text { (D) } 1-10 \text { M } \\
\text { Frontage Roads }
\end{gathered}
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unnch 15 sher open or
losed median? re mmidents (2) an trattic be moved from I-ro to froustage whau aceidaits owaut in order to keep tratie mouina?

## QUESTION CARD

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## ADOT @

## QUESTION CARD


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AVRavallen poster?
It looks Nike the bi-1dge is im
the ssme laration forall s views.

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question card
1-10 (Tangevini Ropad to nra Road) Study
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: Please pint clearly and use one card per question.
 WILC $1-10$ BE LOWERED TO GRADE. AT INTERCHANGES BEFORE THE OVERPASSES ARE CONTRVCTED.

## ADOT ®N:

## question card

> I-10 (Tangerine Rood tolna Road) Stud May 2, 2012-Public Meeting

- Please p pint clearly and use one carr per question. Retum your card do a project team member foforo or dunin the presentation.
- wound cortarro be oper puriat acl optane?
- why consloan Oper Mediar giver recert

Heatow oollisions on I-10

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wessite very value, ouly smes DCR cronpected
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Question card
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 What hovopens fo awy What hoypeno to any path of the new roadurays?

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QuESTION CARD
1-10 (Tangerine Road to nin Road) St $\begin{gathered}\text { May } 2,2012 \text { - Public Meeting } \\ \text { ( }\end{gathered}$
: Please pinit cleany and use one card per question. $R$ Retum yourcardto a project team member before or duning the presentation.

Will Cotambrame fl intencherse
tahe priontwlas itaher
in dispentet need of imporirmot!)
1-10 empervereit is in the foluse-povialts.
ADOT N


Ke: " Kegional unce questioncard Cocal Planning 140 (Tangerine Road to ina Road) Study


My questio

(3i) Did Abot receive (scoping) comments from Pimallo, A2 Game and Fish, Town of Mavana, Coaltion for sonoran Desent Protection about this project's importance in fuithering yeours of efforts and
$\$$ resources to re-cepute uhtife connectivi而

## ADOT

between Thesonglts and porolita hats?
This would necessitate wullife overpuss (or undurpuss) near Avra Vollee Roal.
If so, how does A007
respind and how
might you accomplish this and
respect the local commenities
years of wook?
Which alternative (s) would allow for this? There Is a local funding

Question card
1-10 Trangerine Road to ina Road) Stuc
May 2,2012 -ublic Meeing
: Please pint fleaty and use one card per question. $\begin{aligned} & \text { Retum y yur card to a project team member before or duning the p presentation }\end{aligned}$
 Will you be evaluexting bridge siruetures for
Heer potential use as Bat
Habitut - both endangered and
non-endangered nnts). If approporiate
ADOT \&
buts, will you desagn bridges
thet work best, that
buts will use?

APPENDIX E
Comment Transcription

Public Involvement Summary
Meeting/
Comment Typ Comment Transcription SIR I LIKE THE PLAN YOU HAVE FOR I110.
BUT I WOULD LIKE TO MAKE A SUGGESTIO AND THAT IS TO
THE 18 WHEELERS TRUCKS
USE EXISTING FRONTAGE ROOD EAST AND WEST TWO LANES EACH WAY FOR TRUCK BYPASS READY MADE AND REMOVE A LARGE ACCIDENT PROBLEM.
MOST OF THE ACCIDENTS ON I10 INVOLVE 18 WHEEELERS. THIS WOULD MAKE YOUR PLAN EVEN BETTER. THANKS FOR YOUR TIM
PS: I USE TANGERINE EXIT DAILY AND

| 5/2/2012 | Comment Form | Anonymous | Cortaro Road and 110 Alternatives: MOST: 2, <br> LEAST: 1; 1 Interstate 10 Alternatives: MOST:2 |
| :--- | :--- | :--- | :--- | :--- |

5/2/2012 Comment Form Anonymous Cortaro Road TI Alternatives: MOST: Same Comment noted.
Avra Valley Road TI Alternatives: MOST: Same location is fine. really doesn't make a difference General Comments: InalCortaro-NOT @ same time
Do Ina first
Do Ina first
My general comment is that Ina Road interchange needs to be fully complete before Ina/l10 interchange is done, I don't think people will care as much about the other changes.
Wildlife
Widdife connectivity is a pus

Public Involvement Summary

Comment Transcription No build is NOT an option $\qquad$
Pease do our bes to integrate alternative Comment noted. modes such as rail and cycling needs into the

Please do work to include wildlife crossings
5/2/2012 Comment Form Christina McVie Pima County \& Marana have spent $\$$, time \& Comment noted Pima County \& Marana have spent $\$$, time \&
effiort to purchase \& protect the Avra Valley
Widlifie Corridor-so has Widlife Corridor-so has Redpoint Developmen Cascada) on the east side of $\mathrm{I}-10$ @ Avra
Valley. ADOT needs to reflect the Coalition Sonoran Desert Protection's Widllife Bridge in heir plan - must be land bridge to go over 1 I\& all future rairroad lines! Marana's federa
HCP reflects this corridor as does the coun Federal Hwy's was familiar with this issue via USFWS as well. Pima County RTA (PAG) Widlife Linkage Working Group has identified this linkage//corridor as a p priority for a c crossing
structure, as has AZ, GFD, USFWS, Dr Paul structure, as has AZ, GFD, USFWS, Dr P Beier, NAU, etc. See CSDP's rendering Cortaro/Avra/to ITATternatives:

My main problem with this is all this spending
on roads is driving my property taxes way up. on roads is driving my property taxes way up. they didn't defeat the Growth Management 12 years ago, defeat Considering Arizona Future years ago delisted the Pigmy Owl and passed prop 207 to enable these big
developers to scrap our Sonoran Desert and developers to scrap our Sonoran Desert and spending all this money on roads. As a result
of all the spending on bigger roads to serve all

| Public Involvement Summary |  |  | Comment Transcription <br> the new development and Pima Co has some of the highest sales tax in the nation. Instead of accomoding development we need to take measures to limit development! | Response Transcription $\quad$ 5/25/2012 | Public Involvement Summary |  |  |  |  | 5/25/2012 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Meeting/ Comment Type | Name |  |  | Date | Meeting/ Comment Type | Name | Comment Transcription | Response Transcription |  |
|  |  |  |  |  |  |  |  | General comments: With the current fatality rates on this I-10 how can ADOT NOT accelerate funding on this project to save lives? The Phoenix area seems |  |  |
| 5/2/2012 | Comment Form | Gary Brostek | Send info on Ina to Ruthrauff | Postcard invitation to I-10: Ina Road to Ruthrauff Road Study public hearing mailed on June 5, 2012. |  |  |  | to be getting funds for these type of projects far in advance of District 2 (Tucson sector). |  |  |
|  |  |  |  |  | 5/2/2012 | Comment Form | Paul Keidel | I'm in favor of modernizing each crossing to match that at Twin Peaks. <br> - level I-10 <br> - overpass over I-10 and over RR tracks Follow process to minimize impact of each new crossing on surrounding area (utilities, drainage, etc.) | Comment noted. |  |
| 5/2/2012 | Comment Form | Mark Sprouts | Cortaro Road TI Alternatives: MOST: Using existing alignment and separated grade crossing has least negative impact on Cortaro Ranch and skill offers train whistle benefits. LEAST: Not building a separated grade crossing leaves traffic problems and train whistle noise problem. | Comment noted. |  |  |  |  |  |  |
|  |  |  |  |  | 5/3/2012 | Comment Form | Joseph N Fernando | Since we have provided access across without railroad constraints @ Orange Grove \& Twin | Comment noted. |  |
|  |  |  | General Comments: <br> A separated grade crossing at Cortaro Road would be welcomed by Cortaro Ranch residents. I have been active in the Cortaro Ranch HOA for 12 years and I am currently president. Many potential homebuyers voice strong concerns about train whistle noise. |  |  |  |  | Peaks, I do not believe the bridge over Cortaro |  |  |
|  |  |  |  |  |  |  |  | Road is a priority requirement. I believe the road \& bridge modifications at W . Tangerine |  |  |
|  |  |  |  |  |  |  |  | Road should be the next priority. This approach will not slow down tratic on $1-10$ |  |  |
|  |  |  |  |  |  |  |  | minimally \& still allow nominal E-W trafic on |  |  |
|  |  |  |  |  |  |  |  | Cortaro \& Ina already relieved by unhindered railway crossings @ Orange Grove \& Twin |  |  |
|  |  |  | Additionally, traffic delays are significant during workday drive times. especially during winter when winter visitors are in town and schools |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | Note: Sketch included |  |  |
|  | Comment Form |  |  |  | 5/3/2012 | Email | Roger Cracraft | I attended the meeting at Coyote Trail | Comment noted. |  |
| 5/2/2012 |  | Mike Studer | Cortaro Road TI Alternatives: MOST: Same placement less cost LEAST: North or South realignments are too costly <br> Avra Valley Road TI Alternatives: MOST: leave alone LEAST: North or South realignments are too costly <br> I10 Alternatives: MOST: 5 lanes now! closed median 1 lane frontage | Comment noted. |  |  |  | Elementary School. These are some of my thoughts. First, a bit of personal background. My wife and I spend the winters at Heritage Highlands in Marana. We are retired and both have backgrounds serving on transportation policy-making boards in Colorado: toll road authority, Colorado Transportation Commission, Denver Regional Transportation District board of directors. To this day I still |  |  |
| l-10 (Tangerine Road to Ina Road) Study |  |  |  | 3 | 1-10 (Tang | e Road to Ina Road) | Study |  |  |  |



## Public involvement Summary

Comment Transcription
Thank you for your presentation on the
mment noted.
Comment noted.
5/4/2012 Email
-
Jemie ${ }_{\text {Jindez }}$ Meeting/
Comment Type Name Jamie S .
Hernandez
proposed construction of an overpass
interchange at Cortaro and $-1-1$. . There are concerns with each prond $1-10$. There are
overarching issues regarding Vantage West
are:
. Visibility. Currently our branch is visibe fro
he Cortaro surface street, east and west
bound. The proposed overpass interchang
would create a 9 foot incline in front of our
Cortaro traffic.
2. Signage. With a 9 foot incline, our current
signage requirementslimitations would not be
ignage requiremeniss tly have
programmable marquee sign with up to the
programmable marquee sign with up to the
requirements would
be made and would $A D O T$ pay the costs to
change out the current signage? How wo
hange out the current signage? How would
he Marana Township and the shopping center
hodifi it's requirements? Accessibility The two major access points to
3. Accessibility. The two major access points
ur location would be eliminated. Members
our location would be eliminated. Members
would have to enter from behind our building.
How do you propose to ensure easy access
and visibility to direct traffic to our location?
and Visisility to direct traftic to our loc
onstruction the Cortaro interchange would be
losed for a year. This would severely
losed for a year. This would severely impede
xisting members. What is the plan to keep the
area vibrant? Would there be any
compensation for the detriment the
compensation for the detriment the
construction would cause to local businesses?
Please consider each point carefully. It is in the
township and the public we all serve, to
. Visibility. Currently our branch is visible from ound. The proposed overpass interchang would create a 9 foot incline in front of our 2. Signage. With a 9 foot incline, our current appropriate. We currently have a programmable marquee sign with up to the
minute advertising. This would not be seen. What signage aduustmentsrequirements would
be made and would ADOT pay the costs to change out the current signage? How would
the Marana Township and the shopping center . Accessibility. The two major access points to our location would be eliminated. Members How do you propose to ensure easy access and visibility to direct traficic to our loca
4. Closure. It was stated that during onstruction the Cortaro interchange would be our ability to garner new members and service rea vibrant? Would there be any
lease consider each point ocal businesses? Township and the public we all serve, to

| Public Involvement Summary |  |  | Comment Transcription 5/25/2012 |  | Public Involvement Summary |  |  |  | 5/25/2012 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Date | Meeting/ Comment Type | Name |  |  | Date | Meeting/ Comment Type | Name | Comment Transcription | Response Transcription |
|  |  |  | proceed with forethought and caution to address every issue for the benefit of all. |  |  |  |  | Freeway. Lots of public art, landscaping and sound walls. Thank you. |  |
| 5/5/2012 | Email | David Helgevold | Most important to me is grade separation at Cortaro Farms Rd AND also at INA. Especially at Ina because that is where the longest traffic tie ups occur when the train goes by. Forget the rest of the proposed improvements. They won't improve traffic flow significantly. | Thank you for your comments; they have been documented as part of the study's official record and forwarded to the study team for consideration. Please let me know if you have any additional questions or comments. | 5/10/2012 | Phone | Gary Emerson | Called regarding 43 acres of property for Tom Parsons on the SW corner of $\mathrm{I}-10$ and Avra Valley Road. Was unable to attend meeting. | Thank you for your interest in the Arizona Department of Transportation's Interstate 10 Tangerine to Ina Study. The May 2 public meeting's presentation and comment form regarding the study are now posted on the |
| 57/12012 | Comment Form | Lucille Smith | Relief is sorely needed on both Cortaro \& Ina due to Railroad traffic. Delays are excessive. <br> If frontage roads become 2-way, "cautions" accordingly should be displayed clearly. The general public is accustomed to one-way on | Comment noted. |  |  |  |  | study's web site at: <br> http://www.azdot. <br> gov/highways/Projects/I10_Tangerine_to_Ina If you have any questions, please feel free to contact me. |
|  |  |  | these frontage roads. <br> Good presentation given on May 2 at Coyote Trail School. |  | 5/11/2012 | Phone | John Cahill | Requested information about the public meeting. Didn't recall receiving notice of meeting. His law firm represents property owners and has an ownership stake in a large | The May 2 public meeting's presentation and comment form regarding the study are now posted on the study's website at: www.azdot. gov/highways/projects/i10_tangerine_to_ina. |
| 5/9/2012 | Comment Form | Anonymous | Public art Height mass lighting Landscaping | Comment noted. |  |  |  | industrial zoned property near 1-10 and Avra <br> Valley Rd. Would like to view presentation online and comment. | If you have any questions, please feel free to contact me. |
|  |  |  | Noise walls <br> Cortaro Road TI Alternatives: MOST: We need it now! <br> Avra Valley Road TI Alternatives: MOST: We need it now! <br> Interstate 10 Alternatives: MOST: 5 lanes for I -10 |  | 5/11/2012 | Phone | John Cahill | Requested information on the meeting, missed the event. Didn't recall receiving notice of meeting. His law firm represents property owners and has an ownership stake in a large industrial zoned property near I-10 and Avra Valley Rd. Would like to view presentation online and comment. | Was told we were going to check our database and add his information into our database for future mailings. The PowerPoint presentation and comment form were later posted to the website. A response was filed on behalf of his company by Jennifer Dorn on May 16, 2012. |
| 5/0/2012 | Comment Form | Tim Smith | Cortaro Road TI: This is much needed Avra Valley Road TI: " " <br> Interstate 10: Must be 5 lane on each side for future grow. <br> Needs high mass lighting. Very dark on | Comment noted. | 5/14/2012 | Email | Julie Prince | I am a nine-year resident in Continental Ranch, and I worked on the Twin Peaks project both professionally and in the civic arena. <br> My greatest concern from Ina to Twin Peaks is the number of semi trucks - who always seem | Thank you for your comments; they have been documented as part of the study's official record and forwarded to the study team for consideration. Please let me know if you have any additional questions or comments. |
| l-10 (Tangerine Road to Ina Road) Study |  |  |  | 7 | $\mathrm{l}-10$ (Tang | e Road to Ina Road) | Study |  | 8 |

## Public Involvement Summary

Date $\quad \begin{aligned} & \text { Meeting } \\ & \text { Comment Type }\end{aligned}$ Comment Transcription to take up the far right lane, which becomes one of the turning lanes from $1-10$ onto Twin
Peaks, when heading westbound. The speed Peaks, when heading westoound. The speed
limit turns to 75 between Cortaro and Twin Peaks on 1 -10. It appears to be an accident waiting to happen - as folks get on westbound
-10 from Cortaro into that far right lane the -10 from Cortaro into that far right lane, the
semi trucks are in that lane, and folks heading semi trucks are in that lane, and folks heading
homelto Twin Peaks Road are also trying to get into that right lane - usually travelling a lot
faster than both the semi trucks and those getting onto $\mathrm{I}-10$ from Cortaro. I think the biggest problem - both east bound
and west bound $1-10$ trom Twin Peaks to Ina and TP to Ina - is the high number of semi trucks - many of whom do not seem to "get it" that those coming onto the freeway don't hav
an extra lane - they have to get right onto the interstate, and the trucks need to merge/get
over. Many times getting on l-10 trom Twin over. Many times getting on I-10 from T
Peaks heading eastbound, I've avoided accidents with the semis - as this is a major on ramp for reace commuters, and the semis scenario, as this is on the outskits of Tucson, and the first "real" busy onramp for the locals.

There seems to be a need for a lane dedicated to the semi trucks and some signag regarding
the Arizona on ramp situation - requesting merging or something.

The interstate also, in my opinion, needs to be widinite Twi P ans to a directio delinitily twin Peaks to at least Ina. Those
planning these projects (a decade ago, when planning these projects (a decade ago, when
the Cortaro interchange with the construction

5/25/2012
Response Transcription $\qquad$
Public Involvement Summary
Comment Transcription
of Continental Ranch and all the businesses)
still need to really understand the high
volume/number of residents living and volume/number of residents living
commuting in this area - and that accomodations need to be made to keep everyone safe and moving along, with the very
high number of semi-trailer trucks traveling on high number of
interstate 10 .

5/15/2012 Comment Form Jamey Sumner
Cortaro Rd TI Alternatives:
Gratat Design Concept. We are very much need of this.
-10 Alternativ
Must be a 10 lane freeway for the growing metro. General comments:
Hight mass lighting on main line and interchanges. Lots of public art Lots of landscaping along the coridor Sounds walls.
Wanted more information on the public She was informed of the public meeting, iven meeting. Is skeptical and comments that she is the pi
a dolisabled" person that moved from New
form. Jersey upon retiring to avoid cold winters. She lives near Twin Peaks Road and $1-10$ and is unhappy, particularly due to increased nois now it is worse than in New Jersey.
Attached are l-10 Avra Valley Mining \& Comment noted.
Development, L.L.C.'s comment to reererenced study.

See attachments, including letter from Thomas Parsons representing l-10 Avra Valle,
${ }^{81}$

mar
Transcription
Comment noted
("l-10 Avra") owns property a the southwest corner of -10 and Avra Valley Road. 1 -10 Avra the current alignment of Avra Valley Road

Nearly ten years ago on August 14, 2003, the Dennis Alvarez, then ADOT's engineer for southern Arizona and his staff. ADOT's proposed plans at the time showed increased EXHIBIT A). To accommodate ADOT's future sordrainage and to anticipate the the interchange and frontage road, l-10 Aviluding and its contract buyers spent the next nine years and hundreds of thousands of dollars analyzing various proposals, counterproposals, alignments based on the future use of property, attached as EXLIDI Bo.this future
use of property may include a hotel and employment conter and could be valued well in
excess of $\$ 70,000,000$. The idea of locating the Avra Valley alignment to the south or to th
north would be ruinous to these plans. $I-10$ inated with the United States Department of Transportation in occasions, on August 14 , 2003 2004, June 2, 2005, a meeting with a subsequent ADOT southerr Arizona engineer,
Greg Gentscc, on August 20, , 2007 , June 3 , in a revised diamond interchange attached as
Exhibit C. Ultimately, this lead to the approval

5/25/2012
Public Involvement Summary

Comment Transcription
of a Specific Plan and Development
Agreement which expressly denominated the
Thasing and improvements to the interchange.
Thevelopment Agreement is recorded in
The Development Agreement is recorded
Docket 13369 Page 3467.
At no time, did ADOT suggest that iss future
ther than enhancement to the existing
other than
alignment.
5/16/2012 USPS Marie Edwards
saw your map. I recommend you not star hink about anything else till the county
finishes" the enormous project from Oracle to hornydale. It effects a lot of people. Lots of cones are put up. lots of signs - The county
need to put most all their men on finishing a east one area every street is torn up every corner. I understand pipes, lines poles, anybody start another project? Lambert is torn up also from La Canada. Some areas are not clearly signed. and signs are misslead
Please just finish what they start.

## Appendix B

Existing Conditions Plan Sheets










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M- M (

## ( 1$)$








## 

$\cdots(1)$





Sth $\sin$


## : 4 Union Pacific Railroad

 - $=0$

Interstate 10

$$
\begin{aligned}
& \text { Exst I-10 } \\
& \text { Med } \varepsilon
\end{aligned}
$$


$\cdots-$










# Appendix C <br> Inventory of Existing Pavement Structural Sections 

I-10 Corridor Study, Tangerine Road to Ina Road
Existing Pavement Structural Sections

| Segment/ Projects | AR- ACFC (in.) | $\begin{aligned} & \text { PCCP } \\ & \text { (in.) } \end{aligned}$ |  | $\begin{gathered} A B \\ \text { (in.) } \end{gathered}$ | $\begin{aligned} & \text { ACB } \\ & \text { (in.) } \end{aligned}$ | Select Base Material <br> (in.) | Total Thickness (in.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mainline -Tangerine Rd. to Avra Rd. I-IG-10-4(33) Outside and Middle Travel Lanes Sta. $4555+00$ to $4770+00$ | $0.5^{(2)}$ | -- | 6.0 | 4.0 | 6.0 | 4.0 | 20.5 |
| Mainline - Avra Rd. to Ina Rd. I-10-4(34) Outside and Middle Travel Lanes Sta. $4770+00$ to $4999+00$ | $0.5^{(2)}$ | -- | $3.5{ }^{(4)}$ | 4.0 | $6.0^{(3)}$ | 4.0 | 18.0 |
| Mainline - Ina Rd. to Sunset Rd. l-1-4-432) Outside and Middle Travel Lanes Sta. $4999+00$ to $5130+00$ | 0.5 | -- | $2.5{ }^{(4)}$ | 4.0 | $6.0^{(3)}$ | 6.0 | 18.5 |
| Mainline - Tangerine Rd. to Avra Rd. I-IG-10-4(33)/IR-10-4(118) EB Outside Shoulder Sta. $4400+40$ to $4770+11$ | -- | -- | 6.0 | 4.0 | 9.5 | 4.0 | 23.5 |
| Mainline - Tangerine Rd. to Avra Rd. <br> I-IG-10-4(33)/IR-10-4(118) <br> WB Outside Shoulder <br> WB Sta. $4400+40$ to $4742+21$ | -- | -- | 6.0 | 4.0 | $8.0^{(9)}$ | 4.0 | 22.0 |
| Mainline - Marana Rd. to Avra Rd. <br> I-IG-10-4(33)/IR-10-4(118) WB Outside Lane <br> WB Sta. $4400+40$ to $4742+21$ <br> WB Middle Travel Lane <br> WB Sta. $4715+80$ to $4720+80$ <br> WB Sta. $4737+21$ to $4742+21$ | $0.5^{(2)}$ | -- | $4.0{ }^{(5)}$ | 4.0 | 8.0 | 4.0 | 20.5 |
| Mainline - Marana Rd. to Avra Rd. <br> I-IG-10-4(33)/IR-10-4(118) WB Middle Travel Lane <br> WB Sta. $4400+40$ to $4715+80$ <br> WB Sta. $4720+80$ to $4737+21$ <br> WB Sta. $4742+21$ to $4770+37.27$ | $0.5^{(2)}$ | -- | $4.0{ }^{(5)}$ | 4.0 | 8.0 | 4.0 | 20.5 |
| Mainline - Marana Rd. to Avra Rd. <br> I-IG-10-4(33)/IR-10-4(118) <br> EB Lanes <br> EB Sta. $4400+40$ to $4770+11$ | $0.5^{(2)}$ | -- | $2.5-4.0{ }^{(5)}$ | 4.0 | 9.5 | 4.0 | 20.5-22.0 |
| Mainline - Marana Rd. to Cortaro Rd. NH-010-D(007)N New Inside Travel Lanes EB \& WB Sta. 4366+00 to 4953+79.48 | 0.5 | -- | 10.0 | $11.0^{(7)}$ | -- | --- | 21.5 |
|  | -- | -- | 10.0 | $11.0^{(7)}$ | -- | -- | 21.0 |
| Mainline - Avra Rd. to Ina Rd. <br> I-10-4(34)/IR-I-10-4(68) Middle Travel Lane <br> WB Sta. 4770+00 to 4897+00 <br> WB Sta. $4933+00$ to $5005+50$ | $0.5^{(2)}$ | -- | 7.0 | 4.0 | 6.0 | 4.0 | 21.5 |
| Mainline - Avra Rd. to Ina Rd. -10-4(34)/IR-I-10-4(68) WB Sta. $4770+00$ to $4897+00$ WB Sta. $4933+00$ to $5005+50$ | $0.5^{(2)}$ | -- | 6.5 | 4.0 | 6.0 | 4.0 | 21.0 |


| Segment/ Projects | $\begin{aligned} & \text { AR- } \\ & \text { ACFC } \\ & \text { (in.) } \end{aligned}$ | $\begin{aligned} & \text { PCCP } \\ & \text { (in.) } \end{aligned}$ | $\begin{gathered} \text { AC } \\ \left(\begin{array}{c} \left(34^{\prime \prime}\right) \\ (\text { in. }) \end{array}\right. \end{gathered}$ | $\begin{gathered} \mathrm{AB} \\ \text { (in.) } \end{gathered}$ | $\begin{aligned} & \text { (in.) } \end{aligned}$ | $\begin{gathered} \hline \text { Select } \\ \text { Base } \\ \text { Material } \\ \text { (in.) } \\ \hline \end{gathered}$ | Total Thickness (in.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mainline - Avra Rd. to Ina Rd. I-10-4(34)/IR-I-10-4(68)/ACIR-10-4(68) Outside Shoulder <br> EB Sta. 4770+11 to 4933+76 <br> WB Sta. $4770+11$ to $4937+20$ | $0.5^{(2)}$ | -- | 7.0 | 4.0 | 6.0 | 4.0 | 21.5 |
| Mainline - Twin Peaks TI STP-NH-010-D(201)N Widening EB Sta. $4784+74.29$ to $4799+30.59$ EB Sta. $4837+00.98$ to $4856+05.78$ WB Sta. $4780+16.59$ to $4800+58.30$ WB Sta. $4834+21.66$ to $4866+48.69$ | 0.5 | -- | 12.0 | 6.0 | -- | -- | 18.5 |
| Mainline - Cortaro Rd. to Ina Rd. <br> NH-010-D-(006)B <br> New Inside Travel Lane <br> EB Sta. $4933+75.92$ to $5020+44.05$ <br> WB Sta. $4937+20.31$ to $5020+44.05$ | 0.5 | -- | 11.0 | $12.0{ }^{(7)}$ | -- | -- | 23.5 |
| Mainline- Cortaro Rd. to Ina Rd. NH-010-D-(0.6)B Auxiliary Lane WB Sta. $4945+58.02$ to $4962+84.56$ | Fog Coat | -- | 5.5 | $11.0^{(7)}$ | -- | -- | 16.5 |
| Mainline - Cortaro Rd. to Ina Rd. NH-010-D-(006)B Auxiliary Lane WB Sta. $4945+58.02$ to $4962+84.56$ | 0.5 | -- | 5.5 | $11.0^{(7)}$ | -- | -- | 17.0 |
| $\begin{gathered} \text { Mainline - Cortaro Rd. to Ina Rd. } \\ \text { NH-010-D-(006)B } \\ \text { Outside Shoulder WB I-10 } \\ \text { EB Sta. } 397+895.395 \text { to } 398+020.013^{(10)} \\ \hline \end{gathered}$ | $0.6{ }^{(11)}$ | -- | $4.9{ }^{(11)}$ | $9.1{ }^{(11)}$ | -- | -- | $14.6{ }^{(11)}$ |
| Mainline - Cortaro Rd. to Ina Rd. NH-010-D-(007)B Median Shoulder EB Sta $4933+75.92$ to $020+444.05$ WB Sta. $4937+20.31$ to $5020+44.05$ | -- | -- | 11.0 | $12.0{ }^{(7)}$ | -- | -- | 23.0 |
| Mainline - Ina Rd. I-10-4(32)//R-I-10-4(68) Outside Shoulder EB Sta. $4933+75.92$ to $5020+44.05$ WB Sta. $4937+20.31$ to $4944+58.02$ WB Sta. $4962+84.56$ to $5020+44.05$ | -- | -- | 7.5 | 4.0 | $6 .{ }^{(3)}$ | 4.0 | 21.5 |
| Crossroad I-IG-10-4(33) Tangerine Road | $0.5{ }^{(2)}$ | -- | $2.0{ }^{(4)}$ | 4.0 | -- | 9.0 | 15.5 |
| $\begin{gathered} \text { Crossroad } \\ \text { I-IG-10-4(33)/IR-10-4(118) } \\ \text { Avra Valley Road } \end{gathered}$ | $0.5{ }^{(2)}$ | -- | 2.0 | 4.0 | 2.0 | 9.0 | 17.5 |
| Crossroad <br> STP-NH-010-D(201)N Twin Peaks Road Sta. $83+21.79$ to $109+00.00$ | 1.0 | 10.0 | -- | 4.0 | -- | -- | 15.0 |
| Crossroad STP-NH-10.-D(201)N Twin Peaks Road Sta. $6+77.02$ to $83+21.79$ Sta. $109+00.00$ to $138+00.00$ | 0.5 | -- | 6.0 | 6.0 | -- | -- | 12.5 |
| Crossroad NH-10-4(160)/NH-010-D(007)N Cortaro Road Inside Lanes | 0.5 | -- | $5.9{ }^{(11)}$ | $7.9{ }^{(11)}$ | -- | -- | $14.4{ }^{(11)}$ |


| Segment/ Projects | AR- <br> ACFC <br> (in.) | PCCP (in.) | $\begin{aligned} & \text { AC } \\ & \left(3 / 4^{\prime \prime}\right) \\ & (\text { in. }) \end{aligned}$ | $\begin{gathered} \text { AB } \\ \text { (in.) } \end{gathered}$ | $\begin{aligned} & \text { ACB } \\ & \text { (in.) } \end{aligned}$ | Select Base Material (in.) | Total Thickness (in.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Crossroad <br> NH-010-D(007)N <br> Cortaro Road Outside Lane Sta. $24+78.00$ to $31+60.73$ Sta. $31+93.74$ to $36+09.00$ | 0.5 | -- | 6.0 | $8.0^{(7)}$ | -- | -- | 14.5 |
| $\begin{gathered} \text { Crossroad } \\ \text { I-10-4(32)/NH-010-D-(006)B } \\ \text { Ina Road } \end{gathered}$ | Fog Coat | -- | 5.0 | 1.0 | -- | 9.0 | 15.0 |
| Frontage Roads - Tangerine Rd. to Ina Rd. I-IG-10-4(33)/I-10-4(32)/ I-10-4(34)/IM-10-4(106) Sta. $4555+00$ to $5130+00$ | $0.5^{(2)}$ | -- | $2.0^{(4)}$ | 4.0 | -- | 9.0 | 15.5 |
| EB Frontage Road - Cortaro Rd. NH-010-D(006)B <br> Sta. $1+018.821$ to $1+195.904{ }^{(10)}$ <br> WB Frontage Road - Cortaro Rd. Sta. $1+017.601$ to $1+283.577$ | $0.6{ }^{(11)}$ | -- | $4.9{ }^{(11)}$ | $9.1{ }^{(11)}$ | -- | -- | $14.6{ }^{(11)}$ |
| EB Frontage Road NH-010-D(006)B Sta. $0+441.260$ to $0+990.606^{(10)}$ Sta. $1+195.904$ to $1+375.879^{(10)}$ WB Frontage Road Sta. $0+787.408$ to $1+002.914^{(10)}$ | $0.6{ }^{(11)}$ | -- | $3.9{ }^{(11)}$ | $7.9^{(11)}$ | -- | -- | $12.4{ }^{(11)}$ |
| WB Frontage Road NH-010-D(006)B Sta. $0+699.877$ to $0+787.408^{(10)}$ Sta. $1+283.577$ to $1.399 .879^{(10)}$ | -- | -- | $3.9{ }^{(11)}$ | $4.9^{(11)}$ | -- | -- | $8.9{ }^{(11)}$ |
| WB Frontage Road NH-010-D(006)B Sta. 1792+07.87 to Ina Road | Fog Coat | -- | 5.0 | 1.5 | -- | 9.0 | 15.5 |
| EB Frontage Road NH-010-D(006)B Sta. $1803+16.02$ to $1804+75.00$ | Fog Coat | -- | 7.0 | -- | -- | -- | 7.0 |
| Frontage Roads SP-NH- $010-$-(201) N EBFR Sta. $1598+16.99$ to $1605+29.23$ WBFR Sta. $1600+77.05$ to $1607+28.77$ | 1.0 | 10.0 | -- | 4.0 | -- | -- | 15.0 |
| Frontage Roads STP-NH-010-D 201 ) Twin Peaks Road EBFR Sta. $1591+04.67$ to $1598+16.99$ EBFR Sta. $1605+29.23$ to $1611+10.84$ WBFR Sta. $1555+65.08$ to $160+77.05$ WBFR Sta. $1607+28.77$ to $1616+31.98$ | 0.5 | -- | 6.0 | 6.0 | -- | -- | 12.5 |
| Ramps - Tangerine Rd. to Avra Rd. <br> I-IG-10-4(33)/IR-1-10-4(67) Tangerine Road Avra Valley Road | 0.75 | -- | $3.5^{(4)}$ | 4.0 | -- | 7.0 | 15.25 |
| Ramps - Twin Peaks Road TI STP-NH-010-D(201)N <br> Ramp A Sta. $15+96.45$ to $17+41.32$ Ramp B Sta. $16+85.96$ to $18+56.06$ Ramp C Sta. $16+29.39$ to $18+30.30$ Ramp D Sta. $24+28.62$ to $25+47.55$ | 0.5 | -- | 12.0 | 6.0 | -- | -- | 18.5 |


| Segment/ Projects | AR(in.) | $\begin{aligned} & \text { PCCP } \\ & \text { (in.) } \end{aligned}$ | $\begin{gathered} \text { AC } \\ \left(\begin{array}{c} \left(3 / 4^{\prime \prime}\right) \\ (\text { in. } \end{array}\right. \end{gathered}$ | $\begin{gathered} \mathrm{AB} \\ \text { (in.) } \end{gathered}$ | $\begin{aligned} & \text { ACB } \\ & \text { (in.) } \end{aligned}$ | $\begin{gathered} \text { Select } \\ \text { Base } \\ \text { Material } \\ \text { (in.) } \end{gathered}$ | Total Thickness (in.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ramps - Twin Peaks Rd. TI STP-NH-010-D(201)N Twin Peaks Road Ramp A Sta. $17+41.32$ to $19+93.35$ Ramp B Sta. $18+56.06$ to $27+98.27$ Ramp C Sta. $15+56.91$ to $16+29.39$ Ramp D Sta. $15+70.26$ to $24+28.62$ | 0.5 | -- | 6.0 | 6.0 | -- | -- | 12.5 |
| Ramps Sta. $4770+00$ to $4999+00$ Cortaro Road | $0.5{ }^{(2)}$ | -- | $3.5{ }^{(4)}$ | 4.0 | -- | 8.0 | 16.0 |
| Ramps Sta. $4999+00$ to $5130+00$ Ina Road | $0.5{ }^{(2)}$ | -- | $2.5{ }^{(4)}$ | 4.0 | -- | 9.0 | 15.5 |
| Ramps I-IG-10-4(33)/IR-10-4(118) WB Exit Ramp Avra Valley Road TI | $0.5^{(2)}$ | -- | 1.5 | 4.0 | 2.0 | 7.0 | 15.0 |
| Ramps NH-010-4(160) Cortaro Road Ramp B Sta. $0+196.550$ to $0+242.723^{(10)}$ Cortaro Road Ramp A Sta. $0+485.678$ to $0+814.279^{(10)}$ | $0.6{ }^{(11)}$ | -- | $3.9^{(11)}$ | $7.9{ }^{(11)}$ | -- | -- | $12.4{ }^{(11)}$ |
| Ramps NH- $010-4(160)$ Cortaro Road Ramp C Sta. $0+180.071$ to $0+633.867^{(10)}$ Cortaro Road Ramp Sta. $0+234.098$ to $0+267.768^{(10)}$ | $0.6{ }^{(11)}$ | -- | $4.9{ }^{(11)}$ | $9.1{ }^{(11)}$ | -- | -- | $14.6{ }^{(11)}$ |
| Ramps I-10-4(34) Cortaro Road Ramp D | $0.6{ }^{(11)}$ | -- | 4.0 | 4.0 | -- | 8.0 | $16.6{ }^{(11)}$ |
| Ramps NH-010-D-(006)B Ina Road Ramp A Sta. $25+23.71$ to 32+58.50 | Fog Coat | -- | 5.0 | 3.0 | -- | 8.0 | 16.0 |
| Ramps NH-010-D- $(006) B$ Ina Road Ramp D Sta. $10+97.77$ to $14+03.76$ | -- | 10.0 | -- | $4.0^{(7)}$ | -- | -- | 14.0 |
| Ramps NH-O10-D-(006)B Ina Road Ramp D Sta. $14+03.76$ to $21+30.85$ Sta. $24+82.00$ to $38+56.60$ | Fog Coat | -- | 7.0 | -- | -- | -- | 7.0 |
| (1) Miscellaneous Structural <br> (2) Asphalt Concrete Friction Course <br> (3) Cement treated base <br> (4) AC Unspecified <br> (5) Recycled AC <br> (6) Class 3 <br> (7) Class 2 <br> (8) Borrow <br> (9) 2" ACB over existing pavement <br> (10) Metric Stationing <br> (11) Values converted from mm |  |  |  |  |  |  |  |

## Appendix D

Stage I Plans for Recommended Alternative


STATE OF ARIZONA
DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION
PROJECT PLANS
STATE HIGHWAY
CASA GRANDE - TUCSON HIGHWAY
I-10

## TANGERINE ROAD TO INA ROAD

## MIDPOINT OF PROJECT

Central Zone
tate Plane Coordinates
$X=946,527$
$Y=506,578$

## DESIGN DATA

I-10
ADT 2011 ADT 2040
Tangerine Road to Avra Valley Road:
Avra Valley Road to Twin Peaks Road: Avra Valley Road to Twin Peaks Road: Cortaro Road to Ina Road

| 53,700 | 185,100 |
| :--- | ---: |
| 58,900 | 190,700 |
| 74,200 | 203,500 |


| Avra Valley Road - North of I-10: | - | 13,700 |
| :--- | ---: | ---: |
| Avra Valley Road - South of I-10: | 6,100 | 18,700 |
| Cortaro Road - North of I-10: | 21,400 | 34,300 |
| Cortaro Road - South of I-10: | 21,800 | 35,000 |

## DESIGN SPEEDS

| I-10 | $=65 \mathrm{MPH}$ |
| :--- | :--- |
| Frontage Roads | $=50 \mathrm{MPH}$ |
| TangerIne Farms Road, Avra Valley Road | $=50 \mathrm{MPH}$ |
| Cortaro Road |  |
| Ramps: |  |
| Body |  |
| Entrance at Gore |  |
| Exit at Gore |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

## LENGTH OF PROJECT

I-10 Eastbound \& Westbound
Sta $4553+98.52$ to $4992+09.13=43.810 .61^{\prime}=8.30 \mathrm{Mlles}$ MP 239.9 to MP 248.2

Eastbound Frontage Road
Sta $4580+50.00$ to $4798+54.19=21,804.19^{\prime}=4.13$ Mlles Sta $4851+25.00$ to $4992+14.68=14,089.68^{\prime}=2.67$ Mlles

Westbound Frontage Road
Sta $4576+20.00$ to $4794+55.26=21,835.26^{\prime}=4.14$ Miles Sta $4853+33.89$ to $4991+95.36=13.861 .47^{\prime}=2.63$ MIles

Tangerine Farms Road
Sta $13+80.65$ to $24+50.58=1,069.93^{\prime}=0.20$ miles
Avra Valley Road
Sta $17+50.00$ to $52+00.00=3.450 .00^{\prime}=0.65$ Miles

## Cortaro Road

Sta $6+70.00$ to $35+32.05=2,862.05^{\prime}=0.54$ Miles
Total Gross Length $=122,783.19^{\prime}=23.25$ Mlles

## ACCESS CONTROL

Existing Control of Access
Propse

## INDEX OF SHEETS

Sheet No. Drawing No. Sheet Title

$$
\begin{array}{ccl}
1 & & \text { Face Sheet } \\
2 & \text { G-1.01 } & \text { Deslin Data Sheet } \\
3-13 & \text { G-2.01-6-2.11 } & \text { Typlcal Sections } \\
14-40 & \text { G-1.01-c-1.26 Genmetric 1avout s }
\end{array}
$$

$$
\begin{array}{cll}
\text { 3-13 } & \text { G-2.01-G-2.11 } & \text { Typlcal Sectlons } \\
14-40 & \text { C-1.01-c-1.26 } & \text { Geometric Layout Sheets }
\end{array}
$$

$$
\begin{array}{ccc}
14-40 & c-1.01-c-1.26 & \text { Geometric Layout Sheets } \\
41-104 & c-2.01-c-2.64 & I-10 \text { Plan \& Proflle Sheets }
\end{array}
$$

$$
\begin{array}{ll}
197-200 & c-3.01-c-3.04 \\
\text { Tangerine Farms Road Plan \& Proflle Shee } \\
\text { 201 }-212 & c-3.05-c-3.16 \\
\text { Avra Valley Road Plan \& Proflle Sheets }
\end{array}
$$

$$
\begin{array}{ll}
213-216 & c-3.17-c-3.20 \\
\text { Twin Peaks Ramp Profile Sheets }
\end{array}
$$

$$
217-224 \quad c-3.21-c-3.28 \text { Cortaro Road Plan \& Proflie Sheets }
$$

$$
\begin{array}{ccc}
7-224 & \text { C-3.21-C-3.28 } & \text { Cortaro Road Plan \& Proflle Sheets } \\
225 & C-3.29 & \text { Benta VIsta St / Portland Ave Plan Sheet }
\end{array}
$$

## GENERAL NOTES

1. The roadway plans have been designed utllizing the 2012 Construction Standard Drawings (C-Series) and current revsions. Construction Standard Drawings (C-Series) and current revsions.
Refer to the 1 A sheet for a llsting of current revision dates.
2. R/W markers shall be furnished and placed by ADOT R/W Plans Section forces.
3. The project roadway shall be striped by the contractor in accordance with the current ediltion of the Sligning and Marking
4. For R/W Information not shown, see RIght of Way project No._-
5. Bench markers will be furnished by the State and shall be placed by the Contractor: Std C-21.20.
6. Pavement llft thickness is nominal.
7. Where only the horizontal location of an existing utility is shown, the location is approximate. Where both the horizontal and vertical location of an existing utillity is shown, the location has been
verifled by field survey methods. The contractor shall comply verified by fleld survey methods. The contractor shall comply
with all current Blue Stake laws and Section 107.15 of the with afll current
Speciflcations.
8. The average project elevation is 2113.

|  |  | Nute orie | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMOOAL TRANSPORTATION DIVISIONROADWAY DESIGN SERVICE ROADWAY DESIGN SERVICES | PREL IM INARY <br> STAGE I <br> Review |
| :---: | :---: | :---: | :---: | :---: |
| OSSEOE | Јк | 12/12 |  |  |
|  |  |  |  |  |
|  |  |  | DESIGN DATA SHEET | not for |
| I-10 | tangerine rd to ina rd |  |  | OR RECORD ING |
|  |  |  |  | Wwo No. 6-1.01 |
| TRACS NO. H7960 Oll |  |  | 010-D(209) | OF |





(ON APPROACH TO AVRA VALLEY RD \& CORTARO RD)





WESTBOUND TYPICAL ENTRANCE RAMP SECTION TWIN PEAKS RD \& CORTARO RD


EASTBOUND TYPICAL EXIT RAMP SECTION EASTBOUND TYPICAL EXIT RAMP SECTION
TWIN PEAKS RD \& CORTARO RD


EASTBOUND TYPICAL ENTRANCE RAMP SECTION TWIN PEAKS RD \& CORTARO RD


WESTBOUND TYPICAL EXIT RAMP SECTION CORTARO RD \& TWIN PEAKS RD


Westbound Westbound
Frontage Rd


WESTBOUND TYPICAL ENTRANCE RAMP SECTION AVRA VALLEY RD


EASTBOUND TYPICAL EXIT RAMP SECTION aVRA ValLEY RD


EASTBOUND TYPICAL ENTRANCE RAMP SECTION AVRA VALLEY RD


WESTBOUND TYPICAL EXIT RAMP SECTION AVRA VALLEY RD



TANGERINE FARMS RD


aVRA VALLEY RD AT STRUCTURE





CORTARO ROAD TYPICAL SECTION Sta $18+90$ to Sta $21+10$


1. WBFR Intersection From Sta $21+10$ to Sta $21+98$

|  |  |  | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DEVISION ROADWAY DESIGN SERVICES | PREL IM INARY <br> STAGE I |
| :---: | :---: | :---: | :---: | :---: |
| Ofsen |  | 3/13 |  |  |
| Cituck | E Sibson |  |  |  |
| URS |  |  | CORTARO RD TYPICAL SECTIONS | NOT FOR CONSTRUCTION OR RECORDING |
| I-10 | tangerine rd to ina rd |  |  |  |
| ACS | H |  | 010-D |  |




































|  |  |  | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DVVIIION ROADWAY DESIGN SERVICES | preliminary <br> STAGE I |
| :---: | :---: | :---: | :---: | :---: |
| Ossion |  | , |  |  |
|  |  |  |  | Review <br> NOT FOR CONSTRUCTION or Recordina |
| URS |  |  | ETRIC LAYOUT SHE |  |
|  |  |  | STA $25+00$ TO STA 45+00 |  |
| 10 | NGERINE RD TO INA RD |  |  | OwG No c-0.1.26 |
| RACS |  |  | 010-D |  |

















































[^1]



[^2]I-10 Finished Proflle Grade
@ 37:
Rt \& Lt of Med Cst $\varepsilon$
$0.4400 \%$


Exst Gnd Line
e-37. Lt of -Med Cst - \&









|  | ${ }^{\text {Nume }}$ |  | ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DVVISION ROADWAY DESIGN SERVICES | PREL IM INARY <br> STAGE I <br> Review <br> NOT FOR CONSTRUCTION OR RECORD ING |
| :---: | :---: | :---: | :---: | :---: |
| Osscien | $\frac{\text { Brade }}{\text { WOLF }}$ | 3/13 |  |  |
|  |  |  | $\begin{gathered} \text { I-10 MAINLINE } \\ \text { PAVING PLAN } \\ \text { STA } 4923+00 \text { TO STA } 4937+00 \\ \hline \end{gathered}$ |  |
| URS |  |  |  |  |
|  | tangerine rd to ina rd |  |  |  |
|  |  |  |  | No C-O2, |
| RACS NO. H 7960 |  |  | 10- | OF |





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## Appendix E Environmental Overview

## Environmental Overview

for
Interstate 10 Corridor StudyTangerine Road to Ina Road

Pima County, Arizona

Federal Aid No. 010-D(209)A
ADOT Project No. 010 PM 240 H7960 01L

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[^14]| List of Acronyms and Abbreviations |  | LWCF | Land and Water Conservation Fund |
| :---: | :---: | :---: | :---: |
| AASHTO | American Association of State Highway and Transportation Officials | LWCFA | Land and Water Conservation Fund Act |
| ADEQ | Arizona Department of Environmental Quality | MP | Milepost |
| ADOT | Arizona Department of Transportation | MSAT | Mobile Source Air Toxics |
| AGFD | Arizona Game and Fish Department | MUSD | Marana Unified School District |
| APE | Area of Potential Effects | NAAQS | National Ambient Air Quality Standards |
| ARHP | Arizona Register of Historic Places | NEPA | National Environmental Policy Act |
| AST | Aboveground Storage Tank | $\mathrm{NO}_{2}$ | Nitrogen Dioxide |
| ASTM | American Society for Testing and Materials | $\mathrm{NO}_{\mathrm{x}}$ | Oxides of Nitrogen |
| AZ | Arizona | NPDES | National Pollutant Discharge Elimination System |
| AZPDES | Arizona Pollutant Discharge Elimination System | NRCS | Natural Resources Conservation Service |
| BG | Block Group | NRHP | National Register of Historic Places |
| CAA | Clean Air Act | $\mathrm{O}_{3}$ | Ozone |
| CAAA | Clean Air Act Amendments | PA | Programmatic Agreement |
| CANAMEX | Canada-America-Mexico | PAG | Pima Association of Governments |
| CAP | Central Arizona Project | PCRWRD | Pima County Regional Wastewater Reclamation Department |
| CDP | Census Designated Place | PISA | Preliminary Initial Site Assessment |
| CEQ | Council on Environmental Quality | $\mathrm{PM}_{10}$ or $\mathrm{PM}_{2.5}$ | Particulate Matter Smaller than 10 or 2.5 microns |
| CFR | Code of Federal Regulations | POM | Polycyclic Organic Matter |
| CMID | Cortaro-Marana Irrigation District | ppm | Parts per Million |
| CO | Carbon Monoxide | ROW | Right-of-way |
| CSDP | Coalition for Sonoran Desert Protection | RTA | Regional Transportation Authority |
| CT | Census Tract |  | Safe, Accountable, Flexible, Efficient, Transportation Equity Act - A Legacy for |
| CWA | Clean Water Act | SAFETEA-LU | Users |
| DCR | Design Concept Report | SHPO | State Historic Preservation Office (or Officer) |
| EA | Environmental Assessment | TAZ | Traffic Analysis Zone |
| EPA | US Environmental Protection Agency | TEP | Tucson Electric Power |
| FHWA | Federal Highway Administration | TI | Traffic Interchange |
| FPPA | Farmland Protection Policy Act | UPRR | Union Pacific Railroad |
| GIS | Geographic Information Systems | US | United States |
| I-10 | Interstate 10 | USACE | US Army Corps of Engineers |
| ISA | Initial Site Assessment | USC | United States Code |
| JD | Jurisdictional Delineation | USFWS | US Fish and Wildlife Service |
| LOS | Level of Service (or Level-of-Service) | UST | Underground Storage Tank |
| LUST | Leaking Underground Storage Tank | Waters | Waters of the United States |

## I Introduction

## A. Purpose of an Environmental Overview

The purpose of this Environmental Overview is to describe the existing social, economic, and environmental character within the I-10 Corridor Study, Tangerine Road to Ina Road study area and to identify potential concerns for future development of the I-10 corridor within the project limits. Information in this environmental overview is based on existing data sources from local, county, state, and federal agencies, field reconnaissance, preliminary technical studies, and input from the agency and public scoping process. This overview is not intended to meet the requirements of the National Environmental Policy Act (NEPA).

## B. Environmental Study Area

The ADOT designated project limits are from MP 240.0 to MP 247.5. The term "study area" is used throughout this section to refer to the area surrounding the project limits in a more general manner and defined as an area extending 0.5 miles north and south of $\mathrm{I}-10$ and shown in Figure 1. The "project corridor" refers to the ground-disturbance footprint of construction activities for the Recommended Alternative. It is anticipated that the proposed improvements included in the Recommended Alternative would extend from Station $4553+98$ at MP 240.0 to Station 4993+00 at MP 248.2, also shown in Figure 1. The width of the project corridor generally consists of an area extending approximately 50 feet beyond the existing ADOT ROW along I-10, as well as the existing ROW along Tangerine Road, Avra Valley Road, and Cortaro Road in the areas immediately surrounding the TIs. While the ADOT-designated eastern project limit is MP 247.5, the proposed improvements would extend beyond that location to MP 248.2.

While designated as an east-west Interstate, I-10 is oriented northwest-southeast in the study area. For the purposes of this document, locations along the I-10 corridor are described in reference to the east-west direction of travel. For example, the Pima County line is west of the Tangerine Road TI along I-10, but is due north from the project vicinity. Similarly, the direction perpendicular to I-10 is referred to as northsouth.

II Social, Economic, and Environmental Issues and Constraints
This environmental overview contains a description of the existing social, economic, and environmental conditions within the study area, as well as documents the potential impacts relative to the Recommended Alternative described in Chapter 4 of the Design Concept Report (DCR). The existing conditions and potential impacts are further documented in the following environmental technical studies completed for the project:

- Biological Evaluation (ADOT 2013a)
- Draft Noise Report (ADOT 2013b);
- Final Air Quality Assessment (ADOT 2013c);
- Final Hazardous Materials Report (ADOT 2013d);
- Summary of Field Survey for Jurisdictional Waters of the United Stated (ADOT 2013f).

The recommendations and proposed mitigation measures developed during this analysis address further studies, surveying, permitting, and stakeholder coordination requirements that would need to be addressed in future studies prepared in accordance with NEPA

## A. Issues Eliminated from Detailed Study

Based on early coordination and a review of the project area, the proposed project would have no impact on wild and scenic rivers, national natural landmarks, Bald and Golden Eagle Protection Act, and wilderness areas because these resources do not occur within the study area.

## B. Land Ownership, Jurisdiction, and Land Use

This section describes land ownership, jurisdiction, and land uses within the study area. Land ownership is identified in terms of public or private ownership; jurisdiction implies the authority to regulate land uses; and land use is a description of the existing occupation or physical use of land.

## 1. Existing Conditions

Land ownership in the study area is predominantly private, with the exception of an isolated parcel of Arizona State Land Department State Trust Land centered on I-10 near MP 244 (between Avra Valley and Twin Peaks roads). No tribal or federal lands exist within the study area, although pockets of Bureau of Land Management, Bureau of Reclamation (Reclamation), and National Park Service lands are located within or adjacent to the study area.

While study area lands are under the jurisdiction of both the Town of Marana and unincorporated Pima County, all of these lands are within the Town of Marana's planning area. ADOT owns the public ROW of the existing I-10 corridor, while the UPRR owns the ROW of its mainline Sunset Route, running directly parallel to $\mathrm{l}-10$ on the north side of the highway. Figure 1 illustrates land ownership and jurisdictional boundaries.

Most of the existing industrial and commercial development is concentrated on the south side of I-10 between Twin Peaks Road and Ina Road, with the highest concentration located near Cortaro Road. The Arizona Pavilions development and Continental Ranch Business Park and Retail Center, located on both sides of Cortaro Road at I-10, is a retail and hospitality area, serving as a key revenue generator for the private and public sectors. It is the leading source of high-wage jobs in the Town of Marana. The areas and westbound frontage ha Large swathes of single-family residential development are located between Twin Peaks and Cortaro Loads, south of 10 . wo larg tracts of open space are present in the study vicinity - Tortolita Mountai Park to the north and east of Tangerine Road and Saguaro National Park to the south and west of Ina Rach the agriculture Much of the remaining land adjacent to the study area is undeveloped. Existing land uses ar agriculture. Much of the remaing land adjacent to the study area is undeveloped. Existing land uses ar illustrated in Figure 2.

The future land use scenario (Town of Marana 2010) retains the open space associated with the Santa Cruz River. Continued growth and development is anticipated throughout the Town of Marana, building ou the remainder of the adjacent land along the $\mathrm{I}-10$ corridor, resulting in the conversion of undeveloped land and farmland to other uses. Land use changes will be determined and controlled by Marana land use codes. The General Plan notes several anticipated activity centers in the study vicinity, including:

- Tangerine Road I-10: Future buildout of this activity center, spanning I-10, depends upon reconstruction of the Tangerine Road TI . Land uses anticipated include mixed-use residential commercial, and employment development.
- Tangerine Corridor Activity Center: East of I-10 along Tangerine Road, this area is proposed to serve as a key location for high technology businesses/business park development. This area will serve as a transition area between the higher-intensity employment development at $1-10$ and the recreational/resort activity center planned at Dove Mountain to the east
- Airport Activity Center: This center is offset from the study area (south of I-10 along Avra Valley Road), but likely to increase travel to/from I-10. Manufacturing and distribution development is expected to increase around the Marana Airport. On the nearby Reclamation land, a destination sports park is proposed.
- South Marana Activity Center: Much of this area was built before annexation into Marana, and it has some of the town's oldest development. Much future growth will be focused around redevelopment opportunities, with continued growth in commercial, retail, and business park development.
- Twin Peaks Activity Center: With the Twin Peaks TI being completed, it will serve as a catalyst for new development. There is already industrial development south of I-10 and interest in residential and retail development to the north.

Several planned developments are currently recorded by the Town of Marana (information recorded from January 2013). These are illustrated on Figure 3. Many projects are currently inactive and will have to go through the development review process again before reinitiating implementation
Project Corridor UPPR Railroad Canal
Commercial
Industrial
Single Family Residentia Multi Family Residential Public/Institutional
Open Space
Parks and Recreation
River, Wash, Drainage Basin Agricultural
Vacant/Undeveloped
$\qquad$
Sources.
ADOT Townot Marana

Figure 2. Existing Land Use

## 2. Potential Impacts of the Recommended Alternative

The eastbound frontage road improvements, the Avra Valley Road TI reconstruction, and the Cortaro Road TI reconstruction in the Recommended Alternative would require new ROW. The project would potentially convert commercial, industrial, municipal, and golf-course-related uses to a transportation use. Based on preliminary calculations, ov 70 pecen or the Recommended Alternative is ue displandeveloped (see abr 4.2 in bould be encroachment on the railroad ROW is anticip ThR improvements would be consisten wh is anticipated. The improve pats transportation and land use plans of both the Town of Marana and Pima County
3. Conclusions and Potential Mitigation

The study area encompasses property under the jurisdiction of Pima County, the Town of Marana, and the Arizona State Land Department. Land in the study area is under a combination of public and private ownership. Continued coordination with these entities and affected property owners will be required as design of roadway improvements progresses
The following mitigation measures are proposed to address the potential impacts described above. Fina mitigation measures would be determined based upon further study and during NEPA document approval.

## ADOT Design Responsibilities

- Acquisition and relocation would be conducted through an assistance program in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR § 24), which identifies the process, procedures, and timeframe for ROW acquisition and relocation of affected residents or businesses. As part of this process, Arizona Department of Transportation would continue to coordinate with all affected property owners.


## C. Social and Economic Considerations

Social and economic considerations include access to adjacent properties, emergency access, and businesses, neighborhoods, community services, schools, and recreation facilities within the study area. These topics are addressed below.

## 1. Existing Conditions

Most of the project area is located in the southern portion of the Town of Marana, incorporated in 1977 According to the 2010 Census, Marana had an approximate population of 35,000 , representing a 158 percent increase during the preceding ten years. By contrast, Pima County grew by only 16 percent in the first decade of the $21^{\text {st }}$ century.


Figure 3. Study Area Planned Developments

## Business and Employment

The community profile on the Marana website shows 30,200 employees within the town limits, or one job for every 1.16 residents. Many of Marana's jobs and businesses are clustered along the I-10 corridor between Tangerine and Ina roads. Table 1 lists major employers (with 50 or more full-time equivalent positions) and their approximate locations

Table 1 reveals that much of the employment along the I-10 corridor between Tangerine and Ina roads is concentrated in groups of similar commercial and retail enterprises. At the eastern end of the study area several large retailers, including Costco, Home Depot, Lowe's, Target and Fry's, are located along In Road, approximately one-haff to two miles east of the -10 /na Road 7. Manufacturing and industria activity clusters are lo 1 , 1 employers accounting for 1,125 jobs. The Arizona Pavilions shopping center is the focus of another retal cluster, anchored by Walmart and located on both sides of Cortaro Road south of $1-10$. A few other large employers are scattered elsewhere around the study corridor, including one on either side of the Tangerin Road TI. A large Arizona Portland Cement facility lies between I-10, Avra Valley Road and the Santa Cruz River.

## Emergency Service

The principal private emergency service providers operating in the study area are Kords Southwes Rural/Metro Corporation (Pima) and the Northwest Fire District. The Avra Valley Fire District and Picture Rocks Fire Department have territories that touch the study area at Tangerine Road and Avra Valley Road. Three fire stations lie a short distance from the I-10 project corridor: two south of the highway and one to the north. These facilities consist of one Picture Rocks station and two Northwest stations. Police services are provided by the Arizona Department of Public Safety, Town of Marana Police Department, and Pima County Sheriff's Department. A police station is located in the Marana central business district west of Tangerine Road; another is on Ina Road west of I-10. The nearest hospital providing emergency care is Northwest Medical Center, located at Orange Grove Road and La Cholla Boulevard southeast of the project area. The Continental Reserve Urgent Care Center, located on Silverbell Road in the Continenta Ranch community, serves the Cortaro Road and Twin Peaks Road Tls

## Community Services and Facilities

Residential neighborhoods are present on both sides of I-10, although most of the development south of 10 is located south of the Santa Cruz River where access is controlled by available bridge crossings Residential developments north of I-10 are separated from the highway by the UPRR tracks and ROW. Neighborhoods directly adjacent to I-10 include

- Rillito neighborhood, south of I-10 between Tangerine and Avra Valley roads
- Continental Ranch community south of I-10 at the Cortaro Road TI
- Various master planned communities north of I-10 between Cortaro and Ina roads

Connectivity within neighborhoods is provided by existing local streets. Except for the TIs, there are no north-south streets with signalized intersections to provide easy access across the I-10 corridor and the UPRR tracks. In some places, such as in the Rillito neighborhood, the I-10 frontage roads are used for local circulation.

Table 1. Major Employers in the Project Vicinity

| Employer | Sector | Approximate Employment | Approximate Location |
| :---: | :---: | :---: | :---: |
| MUSD | Education | 1,800* | Various |
| Walmart | Retail | 450 | On Cortaro Road south of I-10 |
| Town of Marana | Government | 300* | Various |
| Sargent Aerospace | Manufacturing | 255 | Between Ina and Cortaro roads south of I- 10 |
| FL Smith Krebs | Manufacturing | 250 | Between Ina and Cortaro roads south of I- 10 |
| Fry's Food \& Drug | Retail | 240 | -Ina Road north of I-10 <br> -Cortaro Road south of I-10 (at Silverbell Road) |
| Northwest Fire District | Public Safety | 235 | Between Ina and Cortaro roads west of I10 |
| Hunter Contracting | Construction | 200 | Ina Road north of I-10 |
| Coca-Cola Enterprises | Distribution | 170 | Between Ina and Cortaro roads south of I10 |
| Comcast | Utilities | 150 | West of Cortaro Road TI |
| Costco | Retail | 130 | Southeast of Ina Road TI |
| Trico Electric Cooperative | Utilities | 130 | Tangerine Road east of I-10 |
| Home Depot | Retail | 125 | Southeast of Ina Road TI (near Costco) |
| Lowe's | Retail | 125 | Southeast of Ina Road TI (near Costco) |
| KOLD-TV | Media | 100 | Between Ina and Cortaro roads south of I10 |
| Lasertel | Manufacturing | 100 | Between Ina and Cortaro roads south of I10 |
| Target | Retail | 100 | Ina Road north of I-10 |
| Texas Roadhouse | Restaurant | 100 | North of Cortaro Road south of I-10 |
| Cracker Barrel | Restaurant | 90 | Northwest of Cortaro Road. TI |
| Johns Manville | Manufacturing | 90 | Southeast of Ina Road TI (south of Costco) |
| Cemex | Rock Products | 85 | Southwest of Tangerine Road TI |
| Safeway | Retail | 80 | South of I-10 at Silverbell Road |
| Waste Management | Waste Disposal | 80 | Ina Road south of I-10 |
| Sportsman's Warehouse | Retail | 70 | Southeast of Ina Road TI (near Costco) |
| Chili's | Restaurant | 50 | West of Cortaro Road TI |
| KD Engineering (METCON Research) | Mining and Mineral Processing | 50 | Between Ina and Cortaro roads south of I10 |
| RideNow Power Sports | Vehicle Sales and Service | 50 | Ina Road north of I-10 |
| Tusonix | Manufacturing | 50 | Between Ina and Cortaro roads south of I10 |

Sources: Town of Marana website, community profile: Google Maps

Community services within the study area include a park-and-ride lot, schools, and recreational facilities; although few of these are in or directly adjacent to the project corridor. The Marana Arizona Pavilions park and-ride is located at the southwest corner of Cortaro Road and Arizona Pavilions Drive. It is adjacent to but not within, the project corridor. The partially completed Anza Trail roughly parallels the Santa Cruz River to the south of I-10 through the southern part of Marana. When complete, this trail will extend approximately 1,200 miles from Nogales, Arizona to San Francisco, California. Trail access routes across l-10 exist at Tangerine Road and Cortaro Road. There are no schools immediand adjace corridor. Community facilities within one mile of I-10 are illustrated in Figure 4.

Sun Tran, the public transit system for the Tucson region, operates three bus routes within the projec limits. Route 104X is an express route connecting the Marana Arizona Pavilions park-and-ride lot with downtown Tucson via I-10, using the Cortaro Road TI ramps to enter and exit the freeway. In addition to the 104X, two "Sun Shuttle" community circulator routes serve the Marana Arizona Pavilions park-and-ride Route 411, Cortaro/Silverbell, and Route 413, Marana/l-10, operate Monday through Saturday. Both routes, especially 413, use the I-10 frontage road system between Ina and Tangerine roads in the study area.

## Special Events

Tucson and Marana host seasonal events that may incrementally increase traffic and use of particula routes during certain times of the year. Regional events include golf tournaments, the Tucson Gem and Mineral Show, and a number of cycling events. The Marana Parks and Recreation Department hosts many community events that use the town park system. Attendees from elsewhere in the region would likely use the I-10 TIs in the study area to reach these events. Examples include the New Year's Day 5K run/walk (Egg Nog Jog), monthly teen dances, movies at various parks, and Camping Under the Stars.

## Existing Impediments to Access

The study area has three major impediments or barriers to access between the south (west) and north (east) portions of the area. From north to south, they are:

- The UPRR, which has motor vehicle crossings at only six locations west of Ina Road: at three of the four Tis, Massingale Road, and two driveways along the westbound frontage road. Only one of these crossings (at Twin Peaks Road) is grade-separated. At the at-grade roadway/rail crossings, frequen rail freight service can cause traffic backups throughout the day as vehicles wait for trains to pass
- I-10, which is located just south of and generally parallel to the UPRR. The I-10 corridor is considered an impediment due to the limited number of crossings, which exist only at the TIs. Complex signalized intersections between the ramps, frontage roads and crossroads aggravate delays caused by the proximity of the railroad.
- The Santa Cruz River, which runs south of and generally parallel to I-10. It acts as a barrier, with only a few major roads crossing the river - generally the same roads that interchange with l-10.


Figure 4. Community Services and Facilities

## 2. Potential Impacts of the Recommended Alternative

Upon completion, the Recommended Alternative would improve the level of service for I-10 and the project vicinity. A crossroad bridge over the railroad would eliminate traffic delays resulting from railroad traffic at Cortaro Road. Emergency access and response would be improved by better levels of service and the elimination of delays due to trains crossing the new grade separations.

The Recommended Alternative would require acquisition of new ROW from various entities south of I-10 to accommodate the additional lanes, frontage road improvements, and reconstruction of the TIs. Generally, the ROW acquisitions are focused around the new TIs and along the eastbound frontage road. No new ROW would be acquired on the north side of $1-10$, as the northern ADOT ROW boundary coincides with the southern UPRR ROW line. Most of the necessary acreage would come from properties along the Avra Valley Road TI, with a small percentage of the required ROW acreage around the Cortaro Road TI an along the eastbound frontage road. Based upon preliminary calculations, over 70 percent of new ROW required for the Recommended Alternative is currently undeveloped.

As shown in Table 4.9 of the DCR there are seven full and 33 partial property acquisitions. Most of the full property acquisitions consist of well sites and utilities located within the existing ADOT ROW; the utilities in these parcels would need to be relocated. One of the properties proposed as a full acquisition currently contains a fast food restaurant and its parking lot.

Many of the partial property acquisitions are located along the eastbound frontage road and involve the loss of a narrow strip of land immediately adjacent to the frontage road. Properties along the eastbound frontage road that would be affected include the California Portland Cement Company mining operation, Tucson Quarter Midget Association race track, and the Quarry Pines Golf Club.

Reconstruction of the Cortaro Road TI would also require several partial and/or full acquisitions of properties that contain commercial businesses. The elevation of the reconstructed Cortaro Road would be much higher than the existing roadway eliminating some of the access points directly off of Cortaro Road While some of the partially acquired properties could potentially continue to function in their current use further coordination with the property owners would be required to assess these impacts.

It is anticipated that the elevated profile of Cortaro Road would remove an existing access point north of Cortaro Road at Joplin Lane. Joplin Lane is located on privately-owned TEP property and is currently used to access several residential and commercial properties northwest of the TI. The legal access to these properties is from the northwest via Hartman Lane and would not be affected by the Recommended Alternative. Previous coordination between the Town of Marana and the developers of the proposed Cortaro Ranch residential development has identified an alternative route that could continue to provide access to these properties via Joplin Lane. This alternative access route would use the Continental Ranch development's local road network to connect to Joplin Lane, bypassing the direct connection of Joplin Lane and Cortaro Road. Several neighborhoods in the planned Cortaro Ranch residential development have been constructed, but further development has been put on hold during the financial recession. Because this alternative access route to Joplin Lane would be constructed by the developer, its implementation is dependent upon the timing of the development. As design of the Cortaro Road TI improvements progress further coordination between ADOT, the Town Marana, and the developer is recommended to determine if an alternative access route could be implemented. However, because the legal access route via Hartman Lane would remain unaffected, it is not anticipated that implementation of the alternate access route via Cortaro Road would be required.

It is anticipated the park-and-ride lot south of Cortaro Road would be unaffected by the property acquisitions, but access to and from the facility would no longer be provided directly from Cortaro Road Upon reconstruction of the Cortaro Road TI the park-and-ride lot would be accessed via a driveway off of Cracker Barrel Road (see Figure 4.3 in the DCR). A traffic control plan to provide alternative access to the park-and-ride lot during construction would be required.

The Recommended Alternative would convert a segment of the eastbound frontage road between the Tangerine Road TI and Avra Valley Road TI from two-way operation to one-way operation, continuous with the rest of the frontage road system in the project corridor. The community of Rillito is located along this segment of frontage road (see Figure 4) that would be converted to one-way operation. Rillito lies within an unincorporated Pima County island but is part of the Marana planning area. During the agency scoping process, project stakeholders expressed particular concern with the potential effects of conversion of the I10 frontage road from two-way to one-way operation.

Prior to the initiation of this study, coordination between the Town of Marana and the residents/business owners of Rillito identified local road improvements that would replace the local circulation that the two-way frontage roads currently provide. Based upon the local road improvements discussed, the Recommended Alternative includes an extension of Benta Vista Street, a local roadway, westward across the CMID Canal. A new roadway would be constructed to connect Benta Vista Street with Rillito Village Trail along the Portland Avenue alignment. These roadways would provide a two-way route between the Rillito community and Tangerine Road to the west. Thus, local residents would not be forced to travel an indirect route on one-way roads to reach nearby destinations. The new local connection would need to be constructed prior to the frontage road improvements to ensure continued access throughout construction. Continued coordination with the Town of Marana and the residents/business owners of Rillito would be required to present the proposed local road improvements to the community and obtain their input on the design.

Reconstruction of the Avra Valley Road and Cortaro Road TIs would require closure of each TI for at least 15 to 18 months. Through traffic, including emergency vehicles, would need to travel east or west of each II on the frontage roads to cross I-10. Access to individual properties would be maintained during construction, but construction zones are likely to be congested and access routes may be circuitous. Minor modifications to the existing transit system routes by Sun Tran would be needed during the TI construction at Cortaro Road and reconfiguration of the frontage road system. During construction, all transit routes traversing the construction zone would likely experience some degree of congestion and delay, but bus routes on I-10 could be maintained during construction.

## 3. Conclusions and Potential Mitigation

The Recommended Alternative would require new ROW around the new TIs and along the eastbound frontage road. Reconstruction of the Cortaro Road TI would result in changes to direct access points along Cortaro Road, affecting access to businesses and residences. The conversion to one-way frontage road operation would change local access configurations within the community of Rillito. Continued coordination with the property owners, businesses, and residents affected by the acquisitions and access changes would be required.

The following mitigation measures are proposed to address the potential impacts described above. Final mitigation measures would be determined based upon further study and during NEPA document approval.

## Arizona Department of Transportation Design Responsibilities

- Acquisition and relocation would be conducted through an assistance program in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (49 CFR § 24), which identifies the process, procedures, and timeframe for ROW acquisition and relocation of affected residents or businesses. As part of this process, Arizona Department of Transportation would continue to coordinate with all affected property owners.
- During final design, ADOT would coordinate with the Town of Marana, residents, and business owners in Rillito to provide an opportunity for input on the local road improvements in Rillito.
- A traffic control plan would be prepared in a manner consistent with the FHWA's Manual on Uniform Traffic Control Devices for Streets and Highways. In addition, the transportation management plan would include the following considerations:
- During development of the final design, Arizona Department of Transportation would coordinate with emergency response and transit providers to accommodate emergency and transit needs in the transportation management plan.
- The plan would account for peak traffic associated with seasonal events (golf tournaments, gem and mineral show, cycling events, etc.).
- The plan would ensure provision and maintenance of access to all properties during construction
- Signs would indicate business access to commercial properties in the construction zone.


## Contractor Responsibilities

- The contractor, after coordination with the engineer, would communicate traffic control measures to the public, local officials, and the media before and during construction. Communication may include, but would not be limited to, media alerts, direct mailings to area businesses and property owners, information on freeway variable message signs, and paid newspaper notices.
- The contractor, after coordination with the engineer, would provide a construction notice to residents and businesses in the general project area at least two weeks before construction.
- The contractor, after coordination with the engineer, would notify the public and business owners of temporary access changes during construction at least seven days before the change.
- The contractor would contact local emergency responders at least 14 days before crossroad, traffic interchange or frontage road closures to allow planning of alternative travel routes
- The contractor would contact local transit providers at least 14 days before crossroad, traffic interchange, or frontage road closures to allow planning of alternative travel routes.
- At least 14 days prior to construction, the contractor would place advance warning signs a locations designated by the engineer to notify motorists, pedestrians, and bicyclists of construction related delays.
- Except for temporary, short-term driveway closures of less than three hours during non-business hours, the contractor would maintain driveway access to all businesses and residences throughout construction. If a property has multiple driveways, at least one would remain open at all times.
- The contractor, after coordination with the engineer, would notify the public at least 48 hours in advance of any road closures.


## D. Title VI and Environmental Justice

Under Title VI of the Civil Rights Act of 1964 and related statutes, federal agencies are required to ensure that no person is excluded from participation in, denied benefits of, or subjected to discrimination under any program or activity receiving federal financial assistance on the grounds of race, color, religion, national origin, sex, age, or disability. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, requires federal agencies to identify and address disproportionately high and adverse effects on minority and low-income populations. Consideration is also given to elderly, disabled, and female-head-of-household populations

The CEQ's environmental justice guidance defines a minority or low-income population as occurring when either (1) the low-income or minority population of the affected area exceeds 50 percent, or (2) the lowincome or minority population percentage of the affected area is meaningfully greater than the low-income or minority population percentage in the general population or other appropriate unit of geographic analysis (CEQ 1997). If the population is dispersed and not an identifiable minority or low-income community (50 percent of the population), then it is not considered a "distinct" group, and there would be no effect on minority or low-income populations.

In addressing environmental justice, it is important to understand whether the proposed action would have disproportionately high and adverse impacts on the sensitive population. This section includes a review of demographics within the study area to determine whether disproportionate impacts on protected populations would occur. To establish whether or not environmental impacts would disproportionately affect minority or low-income populations, it is necessary first to establish a basis of comparison. The study area's percentages of minority and low-income populations were compared to those of the Town of Maricopa and Pima County.

## 1. Existing Conditions

As a source of current demographic information, the US Census Bureau's 2000 and 2010 decennial surveys and the 5 -year American Community Survey (2007-2011) were used. Where available, block group (BG) level data were analyzed. For poverty data, census tracts (CT) are the smallest geographic unit available. (Figures 5 and 6).

During the scoping process, specific concerns were raised regarding the potential for environmental justice impacts in the community of Rillito. While this is not an incorporated area, it is a census designated place (CDP) ${ }^{1}$ in the 2010 census, so demographic information was also collected for this community.

As shown on Tables 2 through 4, four locations, including Rillito, contain protected populations in the study area. CT 44.20, BG 1 which wholly encompasses Rillito, has a relatively higher disabled population ( 33 percent); however, this BG is large (approximately 14 square miles), with the majority of the area outside the study vicinity (Figure 6). CT 46.38, BG 2 and CT 44.27, BG 1 both have relatively higher elderly populations - 38 and 32 percent, respectively.

The Rillito CDP contains four additional protected populations - minority, poverty, elderly, and female head-of-household - all with substantially higher percentages than the Pima County and Town of Marana

A CDP is a concentration of population identified by the US Census Bureau for statistical purposes. CDPs are delineated for each decennial census as the statistical counterparts of incorporated places suct


Figure 6. 2010 Census
populations. Specifically, the low-income population has a much higher percentage ( 95 percent) than in all the other geographic areas evaluated.

## 1. Potential Impacts of the Recommended Alternative

The presence of the UPRR tracks and ROW to the north of I-10 act as a barrier to any ROW acquisitions along the northern I-10 ROW line, thus limiting ROW takes to areas south of the mainline. Therefore, no direct impacts are anticipated to the elderly population in CT 46.38, BG 1 located north of the project corridor. CT 44.27, BG 1 also contains an elderly population, but lies south of the Santa Cruz River and outside the study area. No impacts are anticipated in this area.

I-10 frontage roads are currently one-way, except for those in Rillito. Under the Recommended Alternative the existing two-way frontage road in Rillito will be converted to a one-way eastbound corridor. No residential ROW takes will occur in Rillito, but the access and circulation pattern will be altered. To maintain local circulation lost by conversion of the frontage roads, improvements to Benta Vista Street and David Avenue are included in the Recommended Alternative. With the incorporation of the local road improvements into the Recommended Alternative, it is not anticipated that the adverse impacts on the minority, low-income, elderly, and female head-of-household populations within the community of Rillito would be disproportionately higher than impacts experienced by other impacted communities within the study area. It is recommended these improvements be completed before conversion of the frontage road to one-way operation in Rillito to ensure continued local access throughout construction. Continue consideration for the protected populations within Rillito would be required as the project progresses including providing further opportunity for the residents/business owners in Rillito to review and submit input on the local road improvements in the Recommended Alternative.

All residents of the project vicinity are expected to experience temporary impacts such as noise, vibration All residents and street restrictions and closures during construction. However, these impacts would be no greater than those experienced by non-environmental justice populations who also reside in the project area.

Table 2. 2010 Racial and Ethnic Demographics

| Census Area | Total Population | Total Minority | White | African American | $\begin{gathered} \hline \text { Native } \\ \text { American } \\ \hline \end{gathered}$ | Asian | Pacific Islander | Other Race | $\begin{gathered} \hline \text { Two or } \\ \text { More Races } \\ \hline \end{gathered}$ | Hispanic |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (\%) | (\%) | (\%) | (\%) | (\%) | (\%) | (\%) | (\%) | (\%) |
| CT 44.26 BG 1 | 2,726 | 39\% | 79\% | 3\% | 1\% | 7\% | 0\% | 6\% | 4\% | 27\% |
| CT 44.27 BG 1 | 6,052 | 25\% | 86\% | 2\% | 1\% | 3\% | 0\% | 5\% | 3\% | 17\% |
| CT 44.27 BG 2 | 2,086 | 29\% | 84\% | 3\% | 1\% | 3\% | 0\% | 5\% | 4\% | 20\% |
| CT 44.31 BG 2 | 3,547 | 37\% | 78\% | 4\% | 1\% | 2\% | 0\% | 10\% | 5\% | 29\% |
| CT 46.38 BG 1 | 7,416 | 19\% | 89\% | 2\% | 1\% | 2\% | 0\% | 4\% | 3\% | 13\% |
| CT 46.39 BG 1 | 3,389 | 31\% | 82\% | 3\% | 1\% | 3\% | 0\% | 7\% | 4\% | 23\% |
| CT 46.45 BG 3 | 1,630 | 29\% | 82\% | 4\% | 1\% | 2\% | 0\% | 8\% | 3\% | 21\% |
| CT 46.46 BG 1 | 1,492 | 29\% | 83\% | 3\% | 2\% | 2\% | 1\% | 6\% | 3\% | 21\% |
| Rillito | 97 | 86\% | 28\% | 38\% | 2\% | 0\% | 0\% | 27\% | 5\% | 44\% |
| $\begin{array}{\|l\|l} \hline \begin{array}{l} \text { Town } \\ \text { Marana } \end{array} & \text { of } \\ \hline \end{array}$ | 34,961 | 31\% | 82\% | 2\% | 1\% | 4\% | 0\% | 7\% | 4\% | 22\% |
| Pima County | 980,263 | 45\% | 74\% | 4\% | 3\% | 3\% | 0\% | 12\% | 4\% | 35\% |

Table 3. 2010 Elderly, Female Head-of-Household, and Poverty Populations

| Census Area | Total Population | Age 60 Years and Over | Female Head-ofHousehold |  | Census Area | Total Population for Whom Poverty is Determined | Below Poverty <br> (\%) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (\%) | Total Households | (\%) |  |  |  |
| CT 44.26 BG 1 | 2,726 | 14\% | 1,054 | 11\% | CT 44.26 | 2,389 | 7\% |
| CT 44.27 BG 1 | 6,052 | 32\% | 2,494 | 8\% | CT 44.27 | 7,537 | 4\% |
| CT 44.27 BG 2 | 2,086 | 13\% | 701 | 9\% | CT 44.27 |  |  |
| CT 44.31 BG 2 | 3,547 | 10\% | 1,133 | 13\% | CT 44.31 | 2,857 | 17\% |
| CT 46.38 BG 1 | 7,416 | 38\% | 3,176 | 5\% | CT 46.38 | 7,253 | 4\% |
| CT 46.39 BG 1 | 3,389 | 12\% | 1,139 | 9\% | CT 46.39 | 3,482 | 2\% |
| CT 46.45 BG 3 | 1,630 | 12\% | 521 | 12\% | CT 46.45 | 5,189 | 4\% |
| CT 46.46 BG 1 | 1,492 | 16\% | 571 | 13\% | CT 46.46 | 3,885 | 11\% |
| Rillito* | 97 | 32\% | 37 | 35\% | Rillito* | 290 | 95\% |
| Town of Marana | 34,961 | 22\% | 13,073 | 8\% | Town of Marana | 31,877 | 5\% |
| Pima County | 980,263 | 21\% | 388,660 | 13\% | Pima County | 948,746 | 17\% |
| Source: US Census Bureau 2010 Census, P12, P18; US Census Bureau 2007-2011 American Community Survey 5-Year Estimates, Tables S1701 and B01003 <br> *Data analyzed for the Rillito CDP to obtain more detailed information than is available at the census tract level. <br> NOTE: Shaded boxes represent environmental justice populations. |  |  |  |  |  |  |  |


| Census Area | Total Population for Whom Disabled is Determined | Disabled |
| :---: | :---: | :---: |
|  |  | (\%) |
| CT 44.16 BG 1 | 7,938 | 11\% |
| CT 44.20 BG 1 | 1,342 | 33\% |
| CT 46.12 BG 1 | 4,299 | 17\% |
| CT 46.29 BG 1 | 6,935 | 12\% |
| CT 46.38 BG 1 | 2,048 | 14\% |
| CT 46.39 BG 1 | 810 | 19\% |
| Rillito* | N/A | N/A |
| Town of Marana | 11,793 | 13\% |
| Pima County | 774,006 | 20\% |

Source. US Census Bureau, 2000 Census, Summary File 3, Table P042
Rillito not designated as a CDP in the 2000 Census.

## 2. Conclusions and Potential Mitigation

Current demographic data indicates there are protected populations within the community of Rillito. The nclusion of local road improvements in the Recommended Alternative replace local access routes that would be otherwise lost by the conversion to one-way frontage roads. Further opportunity for the residents/business owners in Rillito to review and provide input on the local road improvements in the Recommended Alternative would be required.

The following mitigation measures are proposed to address the potential impacts described above. Final mitigation measures would be determined based upon further study and during NEPA document approval.

## Arizona Department of Transportation Design Responsibilities

- During final design, the Arizona Department of Transportation would coordinate with the Town of Marana, residents, and business owners in Rillito to provide an opportunity for input on the local road improvements in Rillito.


## E. Cultural Resources

Cultural resources include archaeological sites; historic districts, buildings, and structures; artifacts and objects; and places of traditional, religious, and cultural significance. A "historic property" refers to cultura resources that are included in or eligible for inclusion in the National Register of Historic Places (NRHP) The National Historic Preservation Act of 1966, as amended (16 United States Code [USC] 470), require federal agencies to take into account the effects of their undertakings on historic properties and to affor the State Historic Preservation Officer (SHPO) and other parties with a demonstrated interest a reasonable opportunity to comment on such undertakings. Regulations for Protection of Historic Properties (36 CFR Part 800) implement Section 106 of the National Historic Preservation Act. These regulations define process for responsible federal agencies to consult with the SHPO or Tribal Historic Preservation Office Native American groups, other interested parties, and, when necessary, the Advisory Council on Historic Preservation, to ensure that historic properties are duly considered as federal projects are planned and implemented.

To be determined eligible for inclusion in the NRHP, cultural resources must be important in American history, architecture, archaeology, engineering, or culture. In addition, properties must possess integrity o location, design, setting, materials, workmanship, feeling, and association, and meet at least one of four criteria regarding historical significance:

- Criterion A: be associated with events that have made a significant contribution to the broad patterns of our history
- Criterion B: be associated with the lives of persons significant in our past
- Criterion C: embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant distinguishable entity whose components may lack individual distinction
- Criterion D: have yielded, or may be likely to yield, information important in prehistory or history

Properties may be of local, state, or national importance. Typically, historic properties are at least 50 years old, but younger properties may be considered for inclusion if they are of exceptional significance. Cultural resources dating to 1962 or earlier were evaluated for their eligibility for inclusion in the NRHP in this analysis.

## 1. Existing Conditions

## Archaeological Resources

Research consisting of a site file and records search of the Area of Potential Effects (APE) and a surrounding one-half mile radius was conducted at ADOT and the SHPO, and through the Arizona State Museum's AZSITE database (the state's electronic cultural resources inventory) to identify previous surveys and recorded sites. The National Register Information System, a database of historic propertie listed in the NRHP, and Bureau of Land Management General Land Office maps were also accessed electronically to identify NRHP-listed properties and potential historic cultural features. The study area
contains more than 65 prehistoric and historic cultural resource sites and structures. As listed in Table 5, the direct APE contains 23 cultural resources sites that include large prehistoric habitations, historic roads, railroads, canals, historic homesteads, and smaller prehistoric artifact scatters. Many of the large prehistoric habitations in the direct APE have been subjected to data recovery within the ADOT ROW.

A Class III pedestrian survey of previously unsurveyed areas would be required during final design. Prior archaeological investigations in and adjacent to the APE have demonstrated that numerous subsurface archaeological resources are present, but, due to modern disturbances and thick deposits from the Santa Cruz River, often have no surface expressions. Further study and coordination would be required to determine whether standard archaeological pedestrian survey would be an effective means of predicting the extent and distribution of subsurface archaeological deposits. Archaeological testing in areas that have not been recorded at sites may be required to determine the location and condition of subsurface cultural resources in the project area

## Architectural Resources

A reconnaissance survey was conducted to identify NRHP-eligible buildings and structures within a one-half-mile-wide corridor centered on I-10. The results are reported in A Reconnaissance Level Architectural Survey along Interstate-10 Between Milepost 240.0 and Milepost 248.2, Marana, Pima County Arizona (Ruter 2013). Eight historic-age properties, including one district, were identified in the indirect APE. Of these, two historic-age properties are recommended eligible for inclusion in the Arizona Register of Historic Places (ARHP) and NRHP under Criterion A for association with industrial development (the Arizona Portland Cement Company) and ranching (the Proctor Ranch) in Arizona. Of the six remaining properties, four are recommended not eligible for inclusion in the ARHP and NRHP; one property, the Choate Ranch, could not be assessed as it was not accessible from the APE; and one building, the Rillito Railroad Station, would require additional research in order to make an eligibility recommendation.

## Table 5. Cultural Resources Sites within the Direct APE

| Site No | NRHP <br> Eligibility | Site Type* | Project Effect |
| :---: | :---: | :---: | :---: |
| AA:2:118(ASM) | Eligible, Criterion D | H-State Route 84 | None; previously recorded <br> per interim agreement |
| AA:12:870(ASM) | Eligible, Criterion D | H-canal | Unknown |
| AA:12:258(ASM) | Eligible, Criterion D | H-Rillito train station <br> and ticketing depot | Unknown |
| AA:12:54(ASM) | Eligible, Criterion D | H-stage and <br> freighting station | Unknown |
| AA:12:904(ASM) | Eligible, Criterion D | H-road | Unknown |
| AA:12:871(ASM) | Eligible, Criteria A \& D | H-railroad spur | Unknown |
| AA:12:256(ASM) | Eligible, Criterion D | P-habitation <br> H-trash scatter | Unknown |
| AA:12:901(ASM) | Eligible, Criteria A \& D | H-canal | Unknown |
| AA:12:252(ASM) | Eligible, Criteria A and |  |  |
| D | P-habitation/ <br> H--cemetery | P-Unknown; H-none, |  |
| outside of APE |  |  |  |

## 2. Potential Impacts of the Recommended Alternative

Several historic properties are located in or immediately adjacent to the ADOT ROW; avoidance of all NRHP-eligible historic properties is not likely. Therefore, the FHWA has determined that this project would result in a finding of "adverse effect" and recommended that a Programmatic Agreement (PA) be prepared and implemented to mitigate the adverse effects of this project on NRHP-eligible cultural resources and cultural resources that cannot be avoided and therefore require testing. The buildings and structures in the indirect APE would not be affected by the proposed project
In a letter dated August 22, 2012, the FHWA consulted with the Arizona State Land Department, the City of Tucson, the Hopi Tribe, the Tohono O'odham Nation, the Town of Marana, the Pascua Yaqui Tribe, Pima County, the SHPO, the Yavapai-Apache Nation, and the White Mountain Apache Tribe on a determination of "adverse effect" and recommended that a PA be prepared and implemented. Concurrences on the initial "adverse effect" finding and need for a PA were received from the SHPO (August 29, 2012); Arizona State and Department (September 10, 2012), the Town of Marana (August 28, 2012), and Pima County (August 29, 2012). Copies of the initial concurrence letters are provided in Appendix F of the DCR. A PA would need to be prepared and executed to guide a program of phased historic property identification and evaluation, as well as the treatment of historic properties that may be adversely affected by this undertaking.

## 3. Conclusions and Potential Mitigation

Due to the presence of cultural resources in or immediately adjacent to the ADOT ROW, it is anticipated the project would not be able to avoid all known cultural resources and would result in an adverse effect on NRHP-eligible cultural resources. Further study and cultural resources survey would be required to completely inventory and identify site locations within the APE, as well as determine project effect on individual sites. A PA would be required to guide this process.

The following mitigation measures are proposed to address the potential impacts described above. Final mitigation measures would be determined based upon further study and during NEPA document approval.

## Arizona Department of Transportation Design Responsibilities

- During final design, appropriate mitigation measures, including testing and data recovery plans, would be developed and implemented by the Arizona Department of Transportation Environmental Planning Group Historic Preservation Team, in consultation with the State Historic Preservation Officer and other consulting parties, for those National Register of Historic Places-eligible properties and cultural resources that require testing to determine eligibility that cannot be avoided. A programmatic agreement would be executed for this project that stipulates a process for review of all cultural resources documentation generated from any future archeological investigations. Construction activities would not occur in areas requiring testing and data recovery until cultural resources investigations are complete.


## Arizona Department of Transportation Tucson District Responsibilities

- Construction activities would not occur in areas requiring testing and data recovery until cultural resources investigations are complete.


## Contractor Responsibilities

- Construction activities would not occur in areas requiring testing and data recovery until cultura resources investigations are complete.
- The contractor would contact the Arizona Department of Transportation Historic Preservation Team (602.712.8636 or 602.712 .7767 ) at least 10 business days prior to the start of ground-disturbing activities to arrange for a qualified archeologist to flag avoidance areas.
- The contractor would avoid all flagged and/or otherwise designated sensitive resource areas within or adjacent to the project area


## Standard Specifications Included as Mitigation Measures

- According to the Arizona Department of Transportation (ADOT) Standard Specifications for Road and Bridge Construction (2008), Section 107 Legal Relations and Responsibility to Public, Subsection 05 Archaeological Features, "When archaeological, historical, or paleontological features are encountered or discovered during any activity related to the construction of the project, the contractor shall stop work immediately at that location and shall take all reasonable steps to secure the preservation o those resources and notify the Engineer. The Engineer would direct how to protect ADOT features The contractor shall not resume work until it is so directed by the Engineer." The ADOT Engineer will contact the Arizona Department of Transportation Environmental Planning Group, Historic Preservation Team (602.712.8636 or 602.712.7767) immediately, and make arrangements for prope treatment of those resources


## F. Section 4(f) Resources

Section 4(f) of the US Department of Transportation Act of 1966 prevents the US Department of Transportation, including FHWA, from approving a project that requires "the use of any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance ... or any land from an historic site ... unless (1) there is no feasible and prudent alternative to the use of such land, and (2) such program includes all possible planning to minimize harm ... resulting from the use" (49 USC §303).

A "use" of a Section 4(f) resource, as defined in 23 Code of Federal Regulations (CFR) §774.17, occurs: 1) when land is permanently incorporated into a transportation facility; 2) when there is a temporary occupancy of land that is adverse in terms of the statute's preservation purpose; or 3) when there is constructive use of a Section $4(f)$ property. A constructive use occurs when the transportation project doe not incorporate land from a Section 4(f) resource, but the project's proximity substantially impairs protected activities, features, or attributes that qualify the resource for protection under Section 4(f)

Congress amended Section $4(\mathrm{f})$ in 2005 when it enacted the Safe, Accountable, Flexible, Efficien Transportation Equity Act: A Legacy for Users (Public Law 109-59, enacted August 10, 2005) (SAFETEA LU). Section 6009 of SAFETEA-LU added a new subsection to Section 4(f), which authorizes FHWA to approve a project that results in a de minimis impact to a Section 4(f) resource without the evaluation of avoidance alternatives typically required in a Section 4(f) Evaluation

## 1. Existing Conditions and Potential Impacts of the Recommended Alternative

## Historic Properties

Nine historic cultural resource properties that may be eligible for protection under Section $4(\mathrm{f})$ were identified by conducting an inventory of known historic properties that have been previously determined eligible or could be eligible for listing in the NRHP (Figure 7).

Below is a list of the historic resources identified within the project area:

- Rillito Railroad Station building - Unevaluated but treated as eligible for listing in the NRHP under Criterion A.
- Arizona Portland Cement Company - Eligible under Criterion A.
- UPRR (AZ EE:5:53([ASM]) - Eligible under Criterion A and D
- Active Railroad Spur (AZ EE:5:53[ASM]) - Eligible under Criteria A and D
- Abandoned Railroad Spur (AZ AA:12:871[ASM]) - Eligible under Criteria A and D
- Proctor Ranch - Eligible under Criterion A
- Choate Ranch - Unevaluated but treated as eligible under Criterion A.
- Irrigation Canal (AZ AA:12:901[ASM]) - Eligible Under Criteria A and D
- Irrigation Canal (AZ AA:12:902[ASM]) - Eligible under Criteria A and D

The Rillito Railroad Station building site is located approximately 200 feet south of the eastbound frontage road in Rillito. The building was one of three buildings that comprised the Rillito Railroad Station constructed by the Southern Pacific Railroad and was acquired and moved to its present location by a previous owner. While the building is of a potentially eligible (historic) age, further archival research would be required to substantiate NRHP eligibility. Because of the building site's distance from the eastbound frontage road, the Recommended Alternative is not anticipated to result in an adverse effect or direct or constructive "Use" of this historic resource.

The Arizona Portland Cement Company is a roughly 200-acre plant site that is immediately south of Rillito along the eastbound frontage road. The historic site boundaries are limited to the areas surrounding the existing building and structures and do not immediately abut the eastbound frontage road. It is not anticipated that the Recommended Alternative would have a direct or constructive use of the historic site, or that any character-defining features of its eligibility would be adversely affected.

The UPRR railroad tracks (AZ EE:5:53([ASM]) are parallel to $\mathrm{I}-10$ to the north throughout the project corridor, with the southern UPRR ROW boundary coinciding with the northern ADOT ROW boundary. The UPRR has been determined eligible for listing in the NRHP under Criteria A and D. The primary factor in its NRHP eligibility under Criterion A is its association with the development of transportation, commerce, and settlement in the region. The location of the railroad and tracks within the project vicinity are important in its eligibility. Because the reconstruction of the Cortaro Road TI would require construction of new structure support piers within the railroad ROW, Section 4(f) will apply to this site.

An active railroad spur (AZ EE:5:53[ASM]) that runs from the UPRR tracks to the Arizona Portland Cement Company, crossing under I-10 at approximate MP 242.2 is considered eligible for listing in the NRHP under Criteria A and D because of its association with the development of transportation, commerce, and settlement within the region. The active railroad spur is identified under the same site number as the UPRR and is therefore considered part of the same historic resource. Because the widening of l-10 would
require reconstruction of the highway structure over the active railroad spur, including additional suppor piers within the historic site boundaries, Section 4(f) would apply to this historic resource.

Section 6009(a) of SAFETEA-LU simplifies compliance with Section 4(f) by allowing a determination of a de minimis impact in cases where certain transportation uses of $4(f)$ properties have no adverse effect on historic properties. The Recommended Alternative is not anticipated to result in an adverse effect on the UPRR railroad tracks or active railroad spur, and would have a de minimis impact. Further consultation pursuant to the Section 106 process would be required to consider the view of consulting parties in the determination of "no adverse effect" on the UPRR railroad tracks and active railroad spur, and to inform consulting parties of the intent to make a de minimis impact finding.

An abandoned railroad spur (AZ AA:12:871[ASM]) crosses under I-10 near MP 243.4. The original owner of the spur (American Smelting and Refining Company) no longer owns the property which it serviced or has a right to pass under the highway. ADOT is the fee owner of the land on which the railroad spur is located The railroad spur was previously recommended eligible for listing in the NRHP under Criteria A and $D$ because of its association with the development of transportation, commerce, and settlement in the region. However, further research has determined the original spur was relocated in 1964 during the construction of $\mathrm{I}-10$. Additionally, the spur no longer services the American Smelting and Refining Company; the land on which the operation's facility was previously located is currently vacant. An informa site reconnaissance conducted for this study indicates most of the relocated tracks may have been removed. Based upon this information, further research would be required to re-evaluate NRHP eligibility to determine whether Section 4(f) would apply to this resource

Proctor Ranch is an historic ranch dating from approximately 1910 and is located north of I-10 near MP 242.5. The ranch is north of the UPRR tracks, and is separated from I-10 by the approximately 300 -foot wide UPRR ROW. The property is considered eligible for listing in the NRHP under Criterion A. The Recommended Alternative does not require any improvements north of the UPRR tracks in this vicinity and is not anticipated to result in an adverse effect to this historic resource. It is anticipated that the context the ranch site would remain essentially unchanged and that there would be no direct or constructive "Use of the historic 4(f) resource

The Choate Ranch property is located approximately 1,000 feet north of the UPRR tracks. The site contains five buildings that of historic age, one dating to 1912, two dating to 1938, and two dating to 1948 Further archival research would be required to substantiate NRHP eligibility. Because of the ranch's distance from I-10 and separation from the interstate highway by the UPRR tracks, the Recommende Alternative is not anticipated to result in an adverse effect or direct or constructive "Use" of this histori resource

The segment of the historic Cortaro-Marana Irrigation District (CMID) Canal (AZ AA:12:901[ASM]) crossing I-10 near MP 243.5 and located parallel to I-10 east of Avra Valley Road between the westbound frontage road and the I-10 mainline travel lanes is considered eligible for listing in the NRHP under Criteria A and D. The canal was constructed in the 1920s and is associated with events important to local and state wate resource use and development. The Recommended Alternative would require the canal and siphon be removed and relocated to south of I-10. As a result, it is anticipated the Recommended Alternative would have a direct "Use" of this historic resource. A Section $4(\mathrm{f})$ evaluation would be required to determine i there are prudent and feasible alternatives to avoid or minimize impacts to the Section $4(\mathrm{f})$ historic resource


Figure 7. Location of 4(f) Eligible Properties within the Immediate Project Vicinity

The segment of the historic CMID Canal (AZ AA:12:902[ASM]) crossing the UPRR and westbound frontage road near MP 247.3 is considered eligible for listing in the NRHP under Criteria A and D. This segment of the canal follows an east-west alignment and is parallel to Pima Farms Road (approximately one-half mile south of Cortaro Road). After crossing the UPRR and westbound frontage road near MP 247.3, the northwest flowing canal converges with a roadside ditch/canal parallel to the westbound frontage road and goes underground near MP 247 . The canal was constructed in the 1920s and is considered important for its impact on the economic, agricultural, and settlement patterns of the greater Tucson area. The only segment of the canal that was recommended as eligible for the NRHP is an approximately 148 foot-long segment between the UPRR and westbound frontage road before it goes underground near MP 243.7 The Recommended Alternative would require reconstruction of the culvert under the westbound frontage road and the remaining intact segment of the canal that was determined eligible. As a result it is anticipated that the Recommended Alernative would have a direct "Use" of this historic canal A Section anticipated that the Recommended Alternative would have a direct Use of this historic canal. A Section $4(f)$ evaluation would be required to determine if there are prudent and feasible alternatives to avoid or minimize impacts to the Section 4(f) historic resource.

## Parks and Recreational Facilities

One publicly-owned park was identified in the study area: Rillito Vista Park. The park is a triangularshaped property located approximately 500 feet south of the eastbound I-10 frontage road. Residential properties abut the park to the west. The widening of $1-10$ and eastbound frontage road improvements would not directly affect the park. Conversion of the frontage road from two-way to one-way would potentially affect the vehicular access route used to get to the park, but the proposed local road improvements in Rillito would provide an alternate access route. With the circulation reconfiguration for Rillito, it is anticipated that the Recommended Alternative would have no direct or constructive "Use" of the park.

Section 4(f) protects publicly owned parks and recreational facilities. Privately-owned parks and recreational facilities are not protected under Section 4(f). The Quarry Pines Golf Course is a privately owned golf courses open to the public, and is not protected under Section 4(f)

## 2. Conclusions and Potential Mitigation

Further documentation of any Section 4(f) determinations, consultations, coordination, and approvals would be needed to establish compliance with the Section 4(f) process. Further archival research would be required to substantiate NRHP eligibility of the Rillito Railroad Station building and the abandoned railroad spur crossing l -10 near MP 243.4. Further research could be needed to substantiate NRHP eligibility of the Proctor Ranch and Choate Ranch. Further consultation pursuant to the Section 106 process would be required to consider the view of consuling partes in the determation ono adverse effen the historic UPRR railroad tracks and active railroad spur, and to inform consulting parties of the intent to make a de minimis impact finding. A Section $4(\mathrm{f})$ evaluation would be required to determine if there are prudent and feasible alternatives to avoid or minimize impacts to the historic CMID Canal (AZ AA:12:901 [ASM] and AZ AA:12:902[ASM]). No potential mitigation for impacts to Section 4(f) sites has been identified at this time however, mitigation could be identified during the full Section $4(f)$ analysis process.

## G. Section 6(f) Resources

Section $6(f)$ of the Land and Water Conservation Fund Act (LWCFA), administered by the Interagency Committee (IAC) for Outdoor Recreation and the US Department of the Interior's National Park Service (NPS), pertains to projects that may affect or permanently convert outdoor recreational property acquired
with LWCFA assistance. The LWCFA established the Land and Water Conservation Fund (LWCF), a und-matching assistance program providing grants paying half the acquisition and development cost of outdoor recreational sites and facilities. Section 6(f) of the act prohibits the conversion of property acquired or developed with these grants to a non-recreational purpose without approval from IAC and NPS. The or developed with these grants to a non-recreational purpose without approval from IAC and NPS. The of approval for land conversions ( 16 USC. $\S \S 4601-4$ through 460l-11)

## 1. Existing Conditions

A listing of LWCF grants was reviewed regarding the use of Section 6(f) (http://wasolwcf.ncrc.nps.gov/public/index.cfm). Records indicated that Rillito Town Park received an LWCF grant in 1981

## 2. Potential Impacts of the Recommended Alternative

The Recommended Alternative would not convert any portion of the Rillito Vista Park property or any of its facilities, including those which may have been developed using Section 6(f) LWCFA funding
3. Conclusions and Potential Mitigation

The Rillito Vista Park was developed using Section 6(f) funds; however, it is not anticipated that the Recommended Alternative would impact the park property or any of its facilities. Future coordination with he appropriate agencies and departments is recommended if any impact to the park is identified during final design. No potential mitigation for Section 6(f) resources has been identified at this time.

## H. Air Quality Analysis

The National Ambient Air Quality Standards (NAAQS) were first established in 1970 under the Clean Air Act (CAA). Six pollutants, referred to as the "Criteria Pollutants," were placed under regulation and limits placed on acceptable ambient concentrations. As shown in Table 6, the Criteria Pollutants are carbon monoxide (CO), nitrogen dioxide $\left(\mathrm{NO}_{2}\right)$, ozone $\left(\mathrm{O}_{3}\right)$, particulate matter less than 10 micron in diameter $\left(\mathrm{PM}_{10}\right)$, particulate matter less than 2.5 micron in diameter $\left(\mathrm{PM}_{2.5}\right)$, sulfur dioxide $\left(\mathrm{SO}_{2}\right)$, and lead ( Pb ).
Carbon monoxide is a colorless, odorless gas that primarily affects the cardiovascular system; Vehicular emissions are a major source. Nitrogen dioxide is a gas with a yellowish-orange to reddish-brown appearance, depending upon its concentration, which impairs the respiratory system. Major sources are power plants and vehicular emissions. Ozone, created through a complex reaction of hydrocarbons and oxides of nitrogen with sunlight as the primary catalyst, affects the respiratory system. Sources of the ozone precursors include vehicle emissions, power plants, and service stations. Particulate matter refers o small aerosols that are suspended in the atmosphere and may cause irritation and damage to the espiratory system; vehicular emissions and the resuspension of road dust by vehicular activity are sources. $\mathrm{PM}_{10}$ refers to particulate matter with aerodynamic diameters less than or equal to 10 micrometers; $\mathrm{PM}_{2.5}$ refers to particles with diameters less than or equal to 2.5 micrometers. Sulfur dioxide is a colorless gas generated by the combustion of sulfur-containing fuels, primarily affecting the respiratory system; major sources are power plants. Lead and its compounds damage the cardiovascular, renal, and nervous systems; the primary source is industrial sources, especially metal processing.

Table 6. National Ambient Air Quality Standards

| Pollutant |  | Primaryl Secondary | Averaging Time | Level | Form |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Carbon Monoxide (CO) |  | primary | 8-hour | $9 \mathrm{ppm}{ }^{\text {(a) }}$ | Not to be exceeded more than once per year |
|  |  | 1-hour | 35 ppm |  |
| Lead (Pb) |  |  | primary and secondary | Rolling three month average | $0.15 \mu \mathrm{~g} / \mathrm{m}^{3(b, c)}$ | Not to be exceeded |
| Nitrogen Dioxide ( $\mathrm{NO}_{2}$ ) |  | primary | 1-hour | $100 \mathrm{ppb}^{(\mathrm{d})}$ | 98th percentile, averaged over three years |
|  |  | primary and secondary | Annual | $53 \mathrm{ppb}^{(\mathrm{e})}$ | Annual Mean |
| Ozone ( $\mathrm{O}_{3}$ ) |  | primary and secondary | 8-hour | $0.075 \mathrm{ppm}^{(f)}$ | Annual fourth-highest daily maximum concentration, averaged over three years |
| Particle Pollution | $\mathrm{PM}_{2.5}$ | primary | Annual | $12 \mu \mathrm{~g} / \mathrm{m}^{3}$ | annual mean, averaged over three years |
|  |  | secondary | Annual | $15 \mu \mathrm{~g} / \mathrm{m}^{3}$ | annual mean, averaged over three years |
|  |  | primary and secondary | 24-hour | $35 \mu \mathrm{~g} / \mathrm{m}^{3}$ | 98th percentile, averaged over three years |
|  | $\mathrm{PM}_{10}$ | primary and secondary | 24-hour | $150 \mu \mathrm{~g} / \mathrm{m}^{3}$ | Not to be exceeded more than once per year on average over three years |
| Sulfur Dioxide ( $\mathrm{SO}_{2}$ ) |  | primary | 1-hour | $75 \mathrm{ppb}{ }^{(9)}$ | 99th percentile of 1 -hour <br> daily  <br> concentrations, maximum <br> coneraged  <br> over three years  |
|  |  | secondary | 3-hour | 0.5 ppm | Not to be exceeded more than once per year |

Source: 40 CFR 50
(a) parts per milion
(b) parts per billion
(c) Final rule signed October 15, 2008. The 1978 lead standard ( $1.5 \mu \mathrm{~g} / \mathrm{m}^{3}$ as a quarterly average) remains in effect until one year remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
(d) micrograms per cubic meter
(e) The official level of the annual $\mathrm{NO}_{2}$ standard is 0.053 ppm , equal to 53 ppb , which is shown here for the purpose of cleare
(f) Final rule signed March 12, 20008. The 1997 ozone standard ( 0.08 ppm, annual fourth-highest daily maximum 8 -hour
concentration averaged over three years) and related implementation concentration, averaged over three years) and related implementation rules remain in place. In 1997, EPA revoked the 1 -hour ozon standard (1.12 pon, "tot to be exceeded) The 1 -horcer per that standard ("ant-backsliding") with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1 . (g) Final rule signed June 2, 2010. The 1971 annual and 24 -hour SO2 standards were revoked in that same rulemaking. Howe nonattainment for the 1971 standards, where the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standard are approved.

The 1990 Clean Air Act Amendments (CAAA) and NEPA spell out requirements for addressing air quality mpacts of proposed projects. The level of effort utilized to evaluate these impacts may vary from a simplified description to a detailed microscale analysis depending on factors such as the type of document to be prepared, the project location and size, the meteorology of the project area, and the air quality attainment status of the area

The CAAA of 1990 authorized the EPA to designate those areas that have not met the NAAQS as nonattainment and to classify them according to their degree of severity. States that fail to attain the NAAOS for any of the criteria pollutants are required to submit State Implementation Plans that outline those actions that will be taken to attain compliance. A maintenance area is a previous nonattainment area that has met the NAAQS and continues to show attainment.

In addition to the criteria air pollutants for which there are the NAAQS, the CAAA identified 188 air toxics, known as hazardous air pollutants, which the EPA also regulates. The EPA identified a subset of 21 of the 188 air toxics as mobile source air toxics (MSATs). The MSATs are compounds that are emitted not only from stationary sources such as power plants, factories, oil refineries, dry cleaners and gas stations, but also from highway vehicles and non-road equipment. A subset of the 21 MSATs have been labeled by the FHWA as the seven priority MSATs.

## 1. Existing Conditions

This project is in an air quality nonattainment area for particulate matter $\left(\mathrm{PM}_{10}\right)$ and within an air quality maintenance area for CO . These areas have transportation control measures in the State Implementation Plan (SIP). This project is not yet included in the PAG Transportation Improvement Program: 2013-2017 (PAG, 2011b), the PAG Regional Transportation Plan: 2040 (PAG, 2011c) or the State Transportation mprovement Program: 2011-2014. Pima County is in attainment status for the pollutants $\mathrm{SO}_{2}, \mathrm{NO}_{2}, \mathrm{PM}_{25}$ $\mathrm{O}_{3}$, and Pb .

## 2. Potential Impacts of the Recommended Alternative

The air quality analysis performed to assess impacts from the Recommended Alternative quantified impacts from vehicle emissions of CO. Other Criteria Pollutants, such as particulate matter $\left(\mathrm{PM}_{2.5}\right.$ and mpacts from vehicle emissions of CO . Other Criteria Poliutants, such as particulate matter ( $\mathrm{PM}_{2} .5$ and
$\mathrm{PM}_{10}$ ) and nitrogen dioxide $\left(\mathrm{NO}_{2}\right)$ are also components of vehicular emissions; however, CO accounts for the majority of vehicle emissions and only quantification of its impact on the ambient air quality is required at the present time. Ozone $\left(\mathrm{O}_{3}\right)$ is a regional pollutant, so meaningful evaluation at the project level is not possible. Impacts associated with particulate matter, although not quantified, are addressed in the report; evaluation of impacts from oxides of nitrogen is not required.
FHWA projects must not "cause or contribute to any new localized CO or $\mathrm{PM}_{10}$ violation or increase the frequency of any existing CO or $\mathrm{PM}_{10}$ violations in CO and $\mathrm{PM}_{10}$ nonattainment and maintenance areas." The determination of the need for a quantitative (hot-spot) analysis for transportation projects in nonattainment or maintenance areas is based on criteria outlined in 40 CFR 93.123. The criteria used for this project were based on the performance characteristics of the affected TIs. The PM peak LOS and other roadway characteristics were calculated for the Avra Valley Road TI and the Cortaro Road TI with and without the proposed improvements. Both TIs satisfy the requirements of 40 CFR 93.123(ii) for a "hotspot" analysis of CO impacts.

Short-term impacts to CO may occur during construction due to the interruption of normal traffic flow. Impacts to CO associated with the proposed improvements may be considered very minor. Short-term
impacts to $\mathrm{PM}_{10}$ may occur during the construction phase, but these may be reduced through watering or other dust-control measures.

Modeling results indicate that impacts to ambient 1-hour average concentrations of CO are predicted to be less than 2 ppm . The predicted concentrations of CO associated with the proposed improvements will neither contribute to nor cause an exceedance of either the 1-hour or 8 -hour standard. The increases in vehicular traffic associated with the proposed improvements are not expected to cause or contribute to an exceedance of the $\mathrm{PM}_{10}$ Standards. The net effect of the proposed improvements is expected to reduce the regional impact on the air quality from those that would occur if improvements in the Recommended Alternative were not implemented.

The increases in vehicular traffic associated with the proposed improvements are not expected to cause or contribute to an exceedance of the NAAOS for the pollutants for which Pima County is in attainment: $\mathrm{SO}_{2}$ $\mathrm{NO}_{2}, \mathrm{PM}_{25}, \mathrm{O}_{3}$, and Pb .

A quantitative analysis of future levels of MSAT emissions associated with the improvements was performed to compare the potential differences among MSAT emissions under the various scenarios. An emission inventory was developed using the FHWA model Easy Mobile Inventory Tool (EMIT) to calculate total MSAT emissions for each alternative alignment. Results of the analysis illustrated that although the daily vehicle miles traveled in the region will increase over the existing level by approximately 120 percen by 2040, emissions of the MSATs will increase only slightly or decrease by up to approximately 80 percent, depending on the compound.

For the seven priority MSATs, the net effect of the project would be a reduction in MSAT emissions of approximately nine tons between 2011 and 2040 and a net increase of less than one ton between the Recommended Alternative and No-Build conditions during 2040.

## 3. Conclusions and Potential Mitigation

The Recommended Alternative is no expected to cause or contribute to an exceedance of NAAQS
The following mitigation measures are proposed to address the potential impacts described above. Fina mitigation measures would be determined based upon further study and during NEPA document approval.

## Standard Specifications included as Mitigation Measures

- According to the Arizona Department of Transportation Standard Specification for Road and Bridge Construction (2008), Section 107 Legal Relations and Responsibility to the Public, Section 104, Scope f work, Subsection 08 Prevention of Air and Noise Pollution, "The contractor shall control, reduce remove or prevent air pollution in all its forms, including air contaminants, in the performance of the contractor's work. The contractor shall comply with applicable requirements of Arizona Revised Statutes Section 49-401 et seq. and with the Arizona Administrative Code, Title 18, Chapter 2 (Air Pollution Control).


## I. Traffic Noise Analysis

Sound is created when an object vibrates and radiates part of its energy as acoustic pressure or waves through a medium, such as air, water, or a solid object. Sound levels are expressed in units called decibels (dB). Noise is generally defined as any loud or undesired sound. Noise levels are also expressed in dB . Because the human ear does not respond equally to all frequencies (or pitches), measured noise levels in dB at standard frequency bands are often adjusted or weighted to correspond to the frequency response of human hearing and the human perception of loudness. The weighted sound level corresponding to the human ear is designated as the A-weighted sound in decibels (dBA).

The ability of an average individual to perceive changes in noise levels is well documented. Generally, changes in noise levels of three dBA will be barely perceived by most listeners, whereas a $10-\mathrm{dBA}$ change normally is perceived as a doubling of noise levels. The general principle underlying most noise acceptability criteria are based on is that a perceptible change in noise is likely to cause annoyance wherever it intrudes upon the existing noise from all other sources (annoyance depends on the noise that exists before the introduction of a new sound). Typical sound levels experienced by people range from about 40 dBA , the daytime level in a typical quiet living room, to 85 dBA , the approximate level occurring near the sidewalk adjacent to heavy traffic.

A noise analysis was conducted in accordance with procedures outlined in FHWA's Procedures for Abatement of Highway Traffic Noise and Construction Noise (Procedures) ( 23 CFR §772) and ADOT's Noise Abatement Policy (NAP) (ADOT 2011). Potential impacts from traffic noise are assessed on the basis of predicted noise levels approaching or exceeding the FHWA Noise Abatement Criteria (NAC). The NAC is described using a one-hour equivalent steady-state sound level, Leq(h). As shown in Table 7, the NAC for residences and similar exterior receivers is $67 \mathrm{dBA} \operatorname{Leq}(\mathrm{h})$ during the peak traffic hour. These noise levels are used by FHWA and many state and local departments of transportation to evaluate the need for noise mitigation measures due to highway improvements. In addition to the NAC, a noise impact s indicated if the future noise level is predicted to "substantially increase" over existing noise levels.

The ADOT NAP has defined "approaching" as within three dBA of the FHWA NAC for Categories A, B, C, D , and E . In addition, ADOT defined a "substantial increase" as 15 dBA greater than existing noise levels. ADOT has further indicated that noise levels should be rounded to the nearest integer prior to impact determination

FHWA Procedures and the ADOT NAP indicate that abatement should be considered if the noise criteria are exceeded. However, the abatement measures must be both "feasible" and "reasonable" to be recommended for implementation. Feasibility refers to both the engineering and acoustic considerations. Engineering factors such as safety, barrier height, topography, drainage, utility, maintenance requirements, adjacent property access, and overall project purpose determine whether it is possible to design and construct the abatement measure. Acoustic feasibility considers whether the abatement measure provides minimum reduction in noise levels, requiring that a noise abatement measure must achieve at least a five dBA noise reduction at 50 percent of the impacted receivers.

## Table 7. Noise Abatement Criteria

| Activity Category | Activity Criteria $L_{\text {eq(h) }}$ | Evaluation Location | Activity Description |
| :---: | :---: | :---: | :---: |
| A | 57 | Exterior | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. |
| B* | 67 | Exterior | Residential |
| C* | 67 | Exterior | Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section $4(\mathrm{f})$ sites, schools, television studios, trails, and trail crossings |
| D | 52 | Interior | Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios |
| E* | 72 | Exterior | Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or $F$. |
| F | - | - | Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing |
| G | - | - | Undeveloped lands that are not permitted |

* Includes undeveloped lands permitted for this activity category

Source: ADOT 2011.
Reasonableness of an abatement measure is based upon the following three factors:

- Viewpoints or preferences of property owners and residents;

Noise reduction design goal - noise barriers should be designed to reduce predicted mitigated noise levels by at least seven dBA for at least half of the benefitted receivers in the first row;

- Cost effectiveness - a maximum reasonable cost of abatement is $\$ 49,000$ per benefitted receiver with barrier costs calculated at $\$ 35$ per square foot, $\$ 55$ per square foot if constructed on a structure.


## 1. Existing Conditions

Land use within the study area is dominated by residential development, agriculture, commercial retai, industrial, and large areas of undeveloped lands. Residential land use include the community of Rillito, an isolated farmhouse residence, a group of residences along Joplin Lane, two master-planned developments (Continental Ranch and Cortaro Ranch), and a neighborhood of single-family residences south of Cortaro Road. There is also an RV park, a golf course, the Rillito Vista Park, and the Tucson Quarter Midgets raceway. There are UPRR tracks parallel to I-10 throughout the project limits

Noise measurements were conducted in early October 2012. Measured ambient $\mathrm{L}_{\text {eq(h) }}$ noise levels residential receivers ranged from 57 dBA (at the residences in Continental Ranch near Cortaro Road) to 72 dBA (near a residence within the community of Rillito near Tangerine Road)

## 2. Potential Impacts of the Recommended Alternative

The FHWA Traffic Noise Model (TNM) 2.5 was used to calculate noise levels under existing conditions and the Recommended Alternative. The existing noise environment was determined using a combination of noise measurements and modeling. Noise measurements were conducted at eight sites within the project area to characterize the existing noise environment. Because the noise impact determination includes a comparison of existing and future modeled noise levels, existing noise levels were also predicted using TNM 2.5 to ensure consistency when comparing existing to future noise levels.

Predicted exterior $L_{\text {eq(h) }}$ noise levels under the Recommended Alternative are predicted to range from 66 dBA at an isolated residence north of Avra Valley Road to 79 dBA at a residence within the community of Rillito. Generally, the Recommended Alternative noise levels remain the same as or increase up to four dBA compared to the existing conditions. Predicted noise levels approach or exceed the Category B NAC of $67 \mathrm{dBA}\left(\mathrm{L}_{\text {eq(h) }}\right)$ at all residential land uses within the study area; therefore, noise impacts are predicted under the Recommended Alternative.

As a result, noise abatement measures were evaluated to determine if they are feasible and reasonable. Noise barriers were considered the only effective means to mitigate the predicted impacts, and the abatement evaluation was limited to barriers within the ADOT ROW for the proposed project. Noise barriers were evaluated to determine whether they are feasible and reasonable using the ADOT NAP. Two noise barriers were found to be reasonable and feasible and are preliminarily recommended for ncorporation into the project. Noise Barrier 2, approximately 3,603 有 mainline edge-of-pavement south of Tangerine Road, is 5,00 mended to migate noise impacts within the ommunity of Rilo. Noise Barrier 3 approximately 5,000 feet in length along the eastbound mainline edge-of-pavement between Tiffany Loop and Arizona Pavilions Drive is recommended to mitigate noise impacts within the Continental Ranch development.

## 3. Conclusion and Potential Mitigation

Based upon the modeling analysis, two noise walls are recommended for incorporation into the Recommended Alternative to mitigate predicted noise impacts. Further evaluation could be required if the currently un-permitted residential developments are constructed prior to NEPA document approval. Additionally, any changes to horizontal or vertical alignment of the Recommended Alternative could require an update to the noise analysis.
The following mitigation measures are proposed to address the potential impacts described above. Final mitigation measures would be determined based upon further study and during NEPA document approval.

## Arizona Department of Transportation Design Responsibilities

- During final design, the Project Manager will contact the Department Noise Coordinator (602.712.7767) to arrange for qualified personnel to review and update the noise analysis.


## J. Visual Resources

A visual resources analysis was conducted based upon FHWA's guidelines. The visual resources inventory and assessment of potential impacts include the evaluation of visual character, visual quality, and viewer sensitivity to proposed conditions. Data sources include aerial photography, planning documents, and field reviews.

## 1. Existing Conditions

The topography of the area is generally flat, with elevations ranging from 2,040 feet near Tangerine Road to 2,200 feet near Ina Road. The travel lanes of $\mathrm{I}-10$ are separated by a landscaped median. Existing freeway features are visually dominant from the study area and include landscaping, vegetated median and frontage roads. The adjacent UPRR and overhead transmission lines can be clearly seen from the travel lanes, along with adjacent land uses and native vegetation. The Santa Cruz River is a notable landform in the study area. At the closest point, the low flow channel of the Santa Cruz River approximately 800 feet from the $1-10$ eastbound lanes. Other visible landforms include the Tucson Mountains due west and southwest of the project corridor; the Rincon Mountains due southeast; the Santa Rita Mountains due south; and the Catalina Mountains due east.

Visual character is the physical appearance of the landscape, including the natural, physical, and architectural/cultural features that give it an identity and "sense of place." There are few highly distinctive features in the study area except the Santa Cruz River. Land use is a patchwork of undeveloped agriculture, residential, industrial, commercial and open space, with a few recreational trails,

Visual quality, or attractiveness, is determined by evaluating the overall character and diversity of landform vegetation, water, color, and cultural or man-made features in a landscape. Typically, more complex or distinct landscapes have higher visual quality
elements

- High: landscapes of outstanding or distinctive diversity or interest
- Medium: landscapes of common or average diversity or interest;
- Low: landscapes of minimal diversity or interest.

The project corridor can be divided into two distinct landscapes - east and west of the Twin Peaks Road TI . At this TI , Twin Peaks Road crosses over the I-10 mainline. The ramps and bridge structure are covered with colorful graphic art, which stands out against the desert backdrop

Between Tangerine Road and Twin Peaks Road the vegetation is typical of the Arizona Uplands subdivision of the Sonoran Desertscrub Biotic Community (Brown 1994), and exhibits hues of tans, greens, brown-reds and grays. This native vegetation is largely undisturbed, with a few exceptions. The areas nea the Tangerine Road, Avra Valley Road and Twin Peaks Road TIs, and segments of the eastbound and westbound frontage roads, are sparsely developed with commercial, industrial, and residential uses. We of Avra Valley Road, portions of the land adjacent to the frontage roads are devoted to agriculture. A prominent industrial feature is California Portland Cement plant located on the south side of the roa between Tangerine and Avra Valley roads. A large hedge along the edge of the cement company property blocks the majority of views between the plant and the Interstate. The visual quality rating in portion of the study area was determined to be low.

Most of the existing industrial and commercial development is concentrated on the south side of I-10 between Arizona Pavilions Drive and Ina Road, with the highest concentration located near Cortaro Road. between Arizona Pavilions Drive and ina Road, with the highest concentration located near Cortaro Road. Large swathes of single-family residential development are located between Twin Peaks and Cortaro
roads, south of $\mathrm{I}-10$. The prominent vegetated landcover is composed of various native and winter annuals roads, south of I-10. The prominent vegetated landcover is composed of various native and winter annuals and perennials. Native shrubs present include creosote and saltbush. Non-native winter annuals such as the project area. Perennial non-native grasses include buffelgrass and bermudagrass, Overall the area exibits hues of tans, greens, browns reds and grays. The visual quality rating in this portion of the study
 rea was determined to be low.

Viewer sensitivity considers viewer expectations based on the existing environment and the extent to which visual elements may be important to the viewer. Typically, people who live in the project area or those seeking outdoor recreation activities would have sustained views and hence higher expectations than others for the landscape. They would also have the highest sensitivity to landscape changes. Motorists traveling on I-10 and people working in adjacent industrial and commercial developments would be less sensitive to visual changes.
2. Potential Impacts of the Recommended Alternative

Visibility reflects how the Recommended Alternative would be seen and what distance it is from a particular viewer or viewing area. Three defined distance zones were used in this evaluation:

- Foreground views: 0 to 0.25 miles
- Middleground views: 0.25 to 3 miles
- Background views: beyond 3 miles

Residential and recreational viewers are primarily located within one-quarter mile east and west of Cortaro Road, on either side of the Interstate. The Continental Ranch community includes a private golf course, which is accessible to both residents and non-residents. Residents and golfers have foreground views of the Interstate features and middleground views of the Cortaro Road TI (See Figure 8). Oshrin Park, east of the Cortaro Road TI, has partially obstructed middleground views of the Cortaro Road TI. Within both of these communities, the majority of homes face away from I-10. A few homes face I-10 in Rillito, but there are no substantial profile changes proposed there, and visual impacts are anticipated to be minimal.

Throughout the project corridor, temporary impacts to visual resources would result from construction activities. These relate to the presence of construction equipment, dust and emissions from construction equipment, and construction lighting. Long-term issues consist of the presence of new roadway structures, including elevated TIs.

oreground views from I-10 would continue to be dominated by the freeway features. Both the Avra Valley Road and Cortaro Road TIs would be fully reconstructed, similar to the Twin Peaks Road TI, which would bring noticeable change to the foreground views from the travel lanes and those looking toward the project.

Sensitive viewers near the Cortaro Road TI would have foreground and middleground views of the reconstructed intersection. Because the majority of homes are facing away from I-10 and the vegetation partially obstructs the proposed project, the anticipated level of contrast would be "noticeable."

Sensitive viewers living in Rillito would have foreground views of the project, but because there are no substantial profile changes anticipated in this portion of the corridor, the visible level of contrast is anticipated to be "not noticeable."

The level of change to the visual resources resulting from the Recommended Alternative is anticipated to be low, based upon (1) low visual quality of the project corridor, (2) anticipated "not noticeable" to "noticeable" contrasting views sustained by sensitive viewers, (3) new facilities are similar to existing facilities present in the study area, and (4) project features would be designed to blend with the desert nature of their surroundings, to the extent practicable.
3. Conclusions and Potential Mitigation

The increased elevation of the reconstructed Avra Valley and Cortaro roads TIs would change foreground views both from the l-10 travel lanes and those looking towards the project. To mitigate these visual impacts, it is recommended that project features be designed to blend in with their surroundings, to the extent practicable

The following mitigation measures are proposed to address the potential impacts described above. Final mitigation measures would be determined based upon further study and during NEPA document approval.

## Arizona Department of Transportation Design Responsibilities

- Project features would be designed to blend with the desert nature of their surroundings, to the extent practicable.


## K. Section 404 and 401 of the Clean Water Act and National Pollutant Discharge Elimination System

The CWA is the primary federal statute governing discharge of pollutants into waters of the US (Waters), which, in Arizona, include perennial and ephemeral watercourses and their tributaries and adjacent wetlands. The principal goal of the CWA is to establish water quality standards to restore and maintain the chemical, physical, and biological integrity of the nation's Waters by preventing point (concentrated output) and non-point (widely scattered output) pollution sources.

Section 401 of the CWA requires any applicant requesting a federal permit or license for activities that may result in discharge into Waters to first obtain a Section 401 certification from the state in which the discharge originates. Section 402 formed the National Pollutant Discharge Elimination System (NPDES), which regulates pollutant discharges, including stormwater, into Waters. An NPDES permit sets specific discharge limits for point-source pollutants into Waters and outlines special conditions and requirements for particular project to reduce impacts to water qualty. In 2002, the EPA authorized the ADEQ to administer he NPDES program at the state level, called the Arizona Pollutant Discharge Elimination System
(AZPDES). Section 404 of the CWA regulates the discharge of earthen fill, concrete, and other construction materials into Waters, and authorizes the USACE to issue permits regulating the discharge of dredge or fill material into Waters.

## 1. Existing Conditions

The study area occurs within the Lower Santa Cruz Watershed. There is a rainy season in both summer (July through September) and winter (December through March). The summer rainy season, or monsoon storms, is commonly the wetter of the two. Average annual rainfall for the project area is approximately 11.3 inches (WRCC 2013a; 2013b)

The study area is located 0.10 to 0.75 miles northwest of the floodplain of the Santa Cruz River. Despite its proximity to the Santa Cruz River, surface hydrology in the study area is more directly influenced by the surrounding mountain ranges during storm events. The foothills of the Tortolita Mountains are located approximately five miles northeast from the center of the study area. The stormwaters from these higher elevations flow southwest towards the study area

The headwaters of ephemeral streams within the study area are in the Tortolita Mountains at an average elevation of approximately 3,800 feet above sea level. During storm events these ephemeral streams flow southwest down the mountain range at an average slope of approximately 3.5 percent, until they cross the study area approximately 8.5 miles to the southwest. They eventually flow into the Santa Cruz River.

I-10 is perpendicular to the historical ephemeral flows originating from the Tortolita Mountains. As a result, multiple roadside ditches, swales and stormwater culvert crossings have been constructed in the project corridor to accommodate surface flow events. There are no major ephemeral or intermittent streams crossing the project corridor. All ephemeral features in the project corridor are unnamed (USGS 2013).

A field investigation was conducted in February 2013 to determine the potential presence (type, area, and extent) or absence of Waters in the project corridor. There are seven watercourse features within the project corridor that would likely be considered Waters and would be subject to Corps jurisdiction under th CWA. These jurisdictional features are all unvegetated ephemeral washes that cross the project corridor a culvert under I-10 and generally flow in a northeast to southwest pattern, eventually flowing into the Sana Muz Rivr. The waters cross 1 -10 in culvers at MP 243.6, MP 244.5, MP 244.8, MP 245.2, MP 246.1, MP 247.6, and 248.0. None of the Waters in the project corridor exhibit wetland characteristics. Because it is fed by groundwater and is not connected to surface waters, the CMID irrigation canal is not considered a jurisdictional Water of the US

## 2. Potential Impacts of the Recommended Alternative

Under the Recommended Alternative, the culvert at MP 243.6 would be replaced with a 4 -cell, 10 -foot by 6 foot box culvert under the I-10 mainline and both frontage roads. The length would be approximately 450 feet. No downstream improvements are proposed. It is anticipated that this proposed activity would not result in the permanent loss of aquatic ecological functions or services

Similarly, the culvert at MP 246.1 would be replaced with a 4 cell, 10 -foot by 6 -foot box culvert under the I10 mainline and frontage roads. The length would be approximately 400 feet. No downstream improvements are proposed, and this proposed activity would not result in the permanent loss of aquatic ecological functions or services.

The culvert at MP 248.0 would be replaced with a 4 -cell, 10 -foot by 6 -foot box culvert that extends under he 10 mainline frontage roads, and existing driveway that feeds the Northwest Fire District fire station. The length would be approximately 730 linear feet A new, 2500 -foot drainage channel connecting this The length would be approximately 730 linear feet. A new, 2,500 -foot drainage channel connecting this wash to the Santa Cruz River is proposed. This proposed activity would involve a temporary disturbance of ne soil cement on the eastern bank of the Santa Cruz River. No channel bottom changes in the river are anticipated. These improvements would not result in the permanent loss of aquatic ecological functions or services.

The three other culverts were constructed recently as part of the Twin Peaks Road TI project. No improvements to these culverts are proposed under the Recommended Alternative and no loss of jurisdictional aquatic habitat will occur.

It is anticipated that the project would be constructed in stages and the improvements described above would be implemented separately, as individual projects from the Recommended Alternative are planned and programmed. Activities within Waters would be expected to require a nationwide permit from the Corps under Section 404 of the CWA and water quality certification from the ADEQ under Section 401(a). These culverted washes would be subject to limited routine maintenance, scour protection improvements, and ADOT's continued implementation of its Statewide Stormwater Management Plan.
3. Conclusion and Potential Mitigation

It is anticipated that the watercourses crossing I-10 at MP 243.6 , MP 246.1 and MP 248.1 would be considered jurisdictional and any modifications to the culverts at these locations would require Clean Water Act Section 404 permitting. A jurisdictional delineation and appropriate Clean Water Act permits would be required.

The following mitigation measures are proposed to address the potential impacts described above. Final mitigation measures would be determined based upon further study and during NEPA document approval.

## Arizona Department of Transportation Design Responsibilities

- Arizona Department of Transportation would prepare and submit an application to the United States Army Corps of Engineers for a Clean Water Act Section 404 permit for the project. No work will occur within Waters until the appropriate Clean Water Act Section 401 certification and Section 404 permit are obtained.
- Arizona Department of Transportation would design drainage so that all runoff from the completed bridges would be captured and routed to a catch basin for settling prior to discharge, in a manner consistent with Arizona Department of Transportation's Erosion and Pollution Control Manual for Highway Design and Construction and Post-Construction Best Management Practices Manual for Highway Design and Construction.


## Arizona Department of Transportation Tucson District Responsibilities

- No work would occur within Waters until the appropriate Clean Water Act Section 401 certification and Section 404 permit are obtained
- Arizona Department of Transportation would ensure that a Stormwater Pollution Prevention Plan meeting the requirements of the current Arizona Pollutant Discharge Elimination System General Permit for Discharge from Construction Activities to Waters of the United States issued by the Arizona Department of Environmental Quality is prepared and approved for the project
- The Engineer would submit the contractor's Arizona Pollutant Discharge Elimination System Notice of Intent and Notice of Termination to the Environmental Coordinator.
- The District would review and approve the Section 404 permit and Section 401 certification applications prior to submittal


## Contractor Responsibilities

- No work would occur within Waters until the appropriate Clean Water Act Section 401 certification and Section 404 permit are obtained.
- The contractor would comply with all terms and conditions of the Clean Water Act Section 401(a) Water Quality Certification certified by the Arizona Department of Environmental Quality.
- The contractor would comply with all terms, general conditions, and special conditions of the Clean Water Act Section 404 permit as established by the United States Army Corps of Engineers.
- The contractor, upon approval by the District, would submit the Arizona Pollutant Discharge Elimination System Notice of Intent and Notice of Termination to the Arizona Department of Environmental Quality only after the District has reviewed and approved the Stormwater Pollution Prevention Plan.
- The project is located within a designated municipal separate storm sewer system. Therefore, the contractor, in association with the District, would send a copy of the certificate authorizing permit coverage and a copy of the Notice of Termination acknowledgement letter to the Arizona Department of Transportation Office of Environmental Services Water Quality Group, Pima County and the Town of Marana, as appropriate, based on the location of the project activities
- The contractor would comply with all terms and conditions of the Clean Water Act Section 402
- The contractor would be responsible to maintain the approved Stormwater Pollution Prevention Plan and perform all conditions identified within, including stormwater inspection and monitoring, if required by the permit.


## L. Sole Source Aquifers

## 1. Existing Conditions

Under Section 1424(e) of the Safe Drinking Water Act, the EPA designates Sole Source Aquifers. This designation means that the area has an aquifer which is the sole or principal drinking water source for the area and which, if contaminated, would create a significant hazard to public health. The Upper Santa Cruz and Avra Valley Basin sole source aquifer underlies the study area. Groundwater data for the study area (http://gisweb.azwater.gov/gwsi/ default.aspx) indicate that groundwater depths range between 144 and 161 feet. Groundwater levels may fluctuate due to seasonal variations, irrigation, groundwater withdrawal or recharge, or other factors not apparent at the time of the most recent fieldwork.

## 2. Potential Impacts of the Recommended Alternative

It is anticipated construction of the Recommended Alternative would add approximately 136 acres of additional impervious surface area to the study area Currently the majority of the runoff from l-10 leaves the highway as sheet flow to the adjacent land. From there it is either absorbed into the ground or continues as surface flow to the Santa Cruz River, which is approximately 1,000 to 3,000 feet southwest of 10 through most of the project area. There are a limited number of small detention basins, primarily at Is, that hold the water, allowing it to disperse gradually to minimize erosion. To minimize pollutant runoff roadway surfaces along I-10 are cleaned monthly using street sweepers. Reconstruction of the new TIs would require construction of bridge piers that could extend approximately 120 feet below the native ground surface. This depth would keep the piers above the current groundwater depth.

No additional consumption of water, impact to aquifer recharge or discharge areas, new well, or discharge f pollutants around existing well sites or to the aquifer is anticipated. It is not anticipated that material used for the pier construction would not leach to the aquifer, and methods used for construction would not create a pathway for other materials to reach the aquifer.

Under the Memorandum of Understanding (MOU) between the EPA and the FHWA dated November 2002, any proposed project that is within a designated sole source aquifer and which is subject to analysis through an EA is subject to a Section 1424(e) review by the EPA. Continued coordination with the EPA would be required during the NEPA process and preparation of an EA for this project.
3. Conclusion and Potential Mitigation

The Upper Santa Cruz and Avra Valley Basin sole source aquifer underlies the study area. During the NEPA process and preparation of an EA for the project, continued coordination with the EPA pursuant to Section 1424(e) of the Safe Drinking Water Act would be required.

The following mitigation measures are proposed to address the potential impacts described above. Final mitigation measures would be determined based upon further study and during NEPA document approval.

## Arizona Department of Transportation Design Responsibilities

- During final design, the Arizona Department of Transportation would continue to coordinate with the United States Environmental Protection Agency regarding the Section 1424(e) sole source aquifer review.


## M. Biological Resources

## 1. Existing Conditions

## Vegetation and Invasive Species

The project area is located within the Basin and Range Physiographic Province, a region characterized by alternating, north-south-trending, faulted mountains and flat valley floors. Elevations in the project area range from 2,040 feet near Tangerine Road to 2,200 feet near Ina Road. Natural vegetation near the project is typical of the Arizona Uplands subdivision of the Sonoran Desertscrub Biotic Community (Brown 1994), although the character of the project area is of an urbanized transportation corridor.

Vegetation in the vicinity of the project area includes a diverse assemblage of cacti such as saguaro (Carnegiea gigantea), several species of cholla (Opuntia spp.), prickly pear (Opuntia spp.), and barrel cacti (Ferocactus wislizenii); mesquite (Prosopis velutina), ironwood (Olneya tesota), and foothill paloverde (Parkinsonia microphylla) trees; and shrubs including creosotebush (Larrea tridentata), catclaw acacia (Acacia greggii), desert hackberry (Celtis pallida), saltbush (Atriplex canescens), and triangle-leaf bursage (Ambrosia deltoidea). This native, largely undisturbed, vegetation is located between Tangerine Road and Twin Peaks Road, north of I-10. This area is co-dominated by ironwood and supports isolated saguaro The project area maintains an understory dominated by mediterranean grass (Schismus barbatus)

The eastern portion of the project area, from Cortaro Road to Ina Road, is mostly disturbed or developed lands. The predominant vegetated landcover is composed of native winter annuals such as fiddleneck (Amsinckia intermedia) and narrow-leaved cryptantha (Cryptantha angustigolia) and perennials such a globe mallow (Sphaeralcea ambigua), and brittlebush (Encelia farinosa). Native shrubs include creosotebush and saltbush. Non-native winter annuals such as filaree (Erodium cicutarium), Sahara mustard (Brassica tournefortii), red brome (Bromus rubens), and mediterranean grass are dominant in some areas of this portion of the project area. Perennial non-native grasses include buffelgrass (Pennisetum ciliare) and bermudagrass (Cynodon dactylon)

Several ephemeral washes cross the project area. In general, these washes carry rainwater runoff from the northeast to the southwest toward the Santa Cruz River. Vegetation in the ephemeral washes tends to be similar to that in the surrounding uplands, but exhibits a more robust form. Vegetation in the Santa Cruz River is classified as Sonoran Riparian and Oasis Forest, Interior Southwest Riparian Woodland, and Riparian Scrub (Brown 1994). Vegetation at any given point within the river channel can vary depending on the type and extent of flows, but generally consists of fourwing saltbush, tamarisk (Tamarix spp.), Mexican paloverde (Parkinsonia aculeata), cottonwood (Populus fremontii), burrobush (Hymenoclea monogyra) desert broom (Baccharis sarothroides), arrow weed (Tessaria sericea), and desert willow (Chilopsis linearis), among a diverse array of perennial and annual shrubs and herbaceous species

Executive Order 13112 requires that each federal agency whose actions may affect the status of invasive species shall ". subject to the availability of appropriations, and within Administration budgetary limits, use relevant programs and authorities to: (i) prevent the introduction of invasive species; (ii) detect and respond rapidly to and control populations of such species in a cost-effective and environmentally sound manner; (iii) monitor invasive species populations accurately and reliably; (iv) provide for restoration of native species and habitat conditions in ecosystems that have been invaded."

Field visits indicate that Arizona-listed invasive species occur within the project boundaries. Buffelgrass Pennisetum ciliare) is a species of concern for the project. Additional species identified during site reconnaissance are recognized on the list of Arizona Department of Agriculture list of Prohibited, Regulated and Restricted Noxious Weeds, including buffelgrass (Pennisetum ciliare) and tamarisk (Tamarix Rpp.) (ADA 2005).

The following protected native plants were found: saguaro (Carnegiea gigantea) and foothill paloverde (Parkinsonia microphylla) trees, along with cacti such as barrel (Ferocactus wislizenii)

## General Wildlife

The project limits cross an area that has been designated as an important linkage for wildlife movement between the Tortolita Mountains, the Santa Cruz River, and the northern extension of the Tucson Mountains. The "Saguaro-Tortolita Mountains" linkage zone (Linkage \#80) was described in the 2006 Arizona's Wildlife Linkages Assessment report and 2006 Arizona Missing Linkages: Tucson - Tortolita Santa Catalina Mountains Linkage Design Report to AGFD (Beier et al 2006). I-10 and the adjacent UPRR form a barrier to wildlife movement in the region. A possible crossing location of I-10 for the SaguaroTortolita Mountains Linkage is in the vicinity of Avra Valley Road, at an abandoned railroad crossing. Other overpasses and small culverts along the project corridor may serve as crossings for small animals.

In November 2011, scoping letters were distributed to various federal and state agencies, local jurisdictions, and other stakeholders to identify their issues and concerns associated with the study. Scoping meetings were held for the agencies and the public in December 2011. Throughout the scoping process, comments were received from several stakeholders that indicate the protection and enhancement of wildlife connectivity will be one of the primary concerns for this study. Entities that submitted input focused on wildlife connectivity are as follows: the AGFD, the Pima County Department of Transportation, he Town of Marana, the Tucson Audubon Society, and the Coalition for Sonoran Desert Protection (CSDP).

Most of the responses regarding wildlife connectivity identified a potential wildlife crossing location in the vicinity of the abandoned railroad spur underpass structure located about 1,800 feet (MP 243.35) east of Avra Valley Road. Cumulatively, the scoping responses also highlighted the amount of previous study and work associated with the Tucson-Tortolita-Santa Catalina Mountains wildlife linkage zone. In addition to he 2006 AGFD report noted above, the wildlife linkage zone within the study area was identified as a Critical Landscape Connection in the Pima County Sonoran Desert Conservation Plan. The Town of Marana has included a $1.0-\mathrm{km}$ wide corridor for the wildlife linkage in the vicinity of the railroad spur underpass near Avra Valley Road in its Draft Habitat Conservation Plan

Much of the land in the vicinity of the existing Avra Valley Road TI and the abandoned railroad spur is vacant or undeveloped. In support of enhancing the wildlife linkage at the abandoned railroad grade separation, open space acquisition and protection efforts have set aside much of the land north and south of $\mathrm{I}-10$ in this area.

## Threatened/Endangered Species, Designated Critical Habitat, and Sensitive Species

Species potentially occurring in Pima County that are listed under the Endangered Species Act by the US Fish and Wildlife Service (USFWS) as threatened, endangered, or proposed as a candidate for listing or as a species managed under a conservation agreement were reviewed for potential effects associated with the proposed project. The AGFD and the USFWS were contacted. The AGFD response indicate concerns regarding wildlife corridors and the existing crossing at the abandoned railroad crossing nea Avra Valley Road. The USFWS did not respond with specific concerns about the proposed project. Three species were analyzed in detail in a Biological Evaluation: Sonoran desert tortoise (Gopherus agassizi) federal candidate species), lesser long-nosed bat (Leptonycteris curasoae yerbabuenae; federally-listed endangered species) and Northern Mexican Gartersnake (Thamnophis eques megalops; federal candidat species). A summary of the analysis is provided below.

The Pima County Conservation Lands Systems has modeled suitable Sonoran desert tortoise habitat in the project vicinity, primarily in association with the northern extension of the Tucson Mountains (Pima County Mapguide 2012). During the site reconnaissance, marginally suitable habitat for the Sonoran desert tortoise was observed in the study area, primarily adjacent to the northern extension of the Tucson Mountain immediately west of the Santa Cruz River and south of Avra Valley Road. This area is immediately adjacent to the one-mile study area. In the Rillito Hills west of the Santa Cruz River near Avra Valley Road desert tortoises could occur near the study area.

Marginally suitable habitat for the northern Mexican gartersnakes occurs in the project area along the Santa Cruz River and its floodplain, although the presence of non-native aquatic species may preclude establishment. Recent AGFD surveys of the Lower Santa Cruz River did not locate northern Mexican gartersnakes.

Suitable foraging habitat for the lesser long-nosed bat exists in the study area, since it contains saguaro cacti within foraging range of potential day roost sites in the adjacent mountain ranges. Whether saguaro are present in adequate concentrations in the study area is unknown, as quantitative data for such an analysis is not yet available (USFWS 1995). The full extent of saguaro disturbance has not yet bee quantified, as the project footprint has not been finalized; however, saguaro and agave do not occur in high density in the project area.
2. Potential Impacts of the Recommended Alternative

## Vegetation and Invasive Species

Approximately 300 acres of ground disturbance would be required for the construction of the Recommended Alternative. Because a large portion of the project area is located in a developed corridor, minor amount of vegetation would be impacted. Due to the presence of invasive species within the projec area, there is a potential that construction activities could result in the introduction or spread of invasive species. Further study, including contacting the ADOT Natural Resources Management Section, would be required to characterize invasive species concerns for this project

## Wildlife and Wildlife Crossings

The Recommended Alternative would include demolition of the existing structure over the abandoned railroad spur near MP 243.35 . A new box culvert would be constructed in its place that would accommodate the lower profile of I-10 in this area. Input from the stakeholders did not indicate there is data to support the existing abandoned railroad spur structure is used as a crossing point by wildlife or that its
removal would adversely impact the movement of wildlife in the area. As coordination with the stakeholders and design of the project continue, further study may be necessary to assess the impact of eliminating the existing abandoned railroad spur structure.

While initial input from stakeholders suggested redesigning and reconstructing the existing abandoned railroad spur structure to promote wildlife movement through the underpass structure, further study and coordination has determined that an underpass structure would not be practical at this location. The proposed improvements in the Recommended Alternative would widen the highway and close the existing open median, creating a longer, more enclosed path crossing underneath I-10. With these constraints, an nderpass structure would not be able to achieve the visual openness required for wildlife to use it. Additionally, the UPRR tracks parallel to I-10 represent a second barrier that wildlife would need to cross. Therefore, the most appropriate type of wildlife crossing in this location would be an elevated structure that crosses over I-10, both frontage roads, and the UPRR tracks.

At a coordination meeting held on November 26, 2012 and attended by representatives from ADOT, Pima County, the Town of Marana, Tucson Audubon Society, the AGFD, and the CSDP, stakeholders came to the consensus that future efforts to implement a wildlife crossing will focus on an overpass structure in the vicinity of the existing abandoned railroad spur. Locating the overpass near the existing abandoned ailroad spur would build on previous efforts that acquired and protected large tracts of open space in the vicinity of the existing abandoned railroad spur and ensure these investments are not lost.

Based upon input from the stakeholders, a future wildlife structure would likely be a multi-span bridge that would include bridge piers within the median of I-10, and between the mainline and frontage roads. It is envisioned that this structure would span from the southern ADOT ROW to the northern UPRR ROW, and the planning, design and construction of a future wildlife overpass structure would be undertaken by others. If the new overpass structure were constructed and in place to accommodate wildlife movement, it would epresent an enhanced linkage for wildlife movement within the study area. Near MP 243.35, the frontage road and mainline cross section and profile in the Recommended Alternative were designed to accommodate the construction of a wildlife overpass by others

## Threatened/Endangered Species, Designated Critical Habitat, and Sensitive Species

Widening along I-10 associated with the Recommended Alternative is not likely to impact suitable habitat or Sonoran desert tortoise. Realignment of the approach ramps associated with reconstruction of the new Avra Valley Road TI could impact habitat for Sonoran desert tortoise. If individual tortoises are present in the area during construction activities, construction of the Recommended Alternative could, but are not likely to, result in a trend toward federal listing or loss of viability.
The Recommended Alternative is not anticipated to result in disturbance to the Santa Cruz River riparian corridor; therefore no impact to the northern Mexican gartersnake is anticipated. The Recommended Alternative is not anticipated to directly impact lesser long-nosed bat as there are no suitable day roosts within the one-mile study area. Disturbance to a high density of food plants is not likely as saguaro and agave do not occur in high density within the study area. Indirect effects are negligible as there is not a high density of food plants within the project area. Therefore, it is anticipated that the Recommended Alternative would have no impact on the lesser long-nosed bat

## 3. Conclusion and Potential Mitigation

Recommended mitigation to address vegetation removal and to prevent the spread and/or introduction of invasive species include standard procedures developed by ADOT to address these issues, including reseeding all areas of disturbance with native plant species.

Further coordination with AGFD and other stakeholders would be required to provide them an opportunity to review and comment on the design plans and ensure compatibility with a future wildlife overpass, should others move forward with its design and construction. It is anticipated that the coordination process would include input regarding design of fencing for the corridor.

The following mitigation measures are proposed to address the potential impacts described above. Fina mitigation measures would be determined based upon further study and during NEPA document approval.

## Arizona Department of Transportation Design Responsibilities

- All disturbed soils that will not be landscaped or otherwise permanently stabilized by construction will be seeded using species native to the project vicinity.
- The Arizona Department of Transportation will include the Arizona Game and Fish Department in the design partnering process to address wildlife movement issues. During design, the Arizona Game and Fish Department representatives will be requested to provide input in discussions about widife opporturies and the development of appropriate willie-sensitive design measures at locations identified as important for wildife connectivity and movement. In conjunction with the wildlife-sensitive design area will be conducted
- During final design, wildlife crossings would be evaluated by the Arizona Department of Transportation in association with the Wildlife Technical Advisory Committee.
- During final design, Arizona Department of Transportation would coordinate with the Wildlife Technical Advisory Committee to identify the funding sources that could design and construct the overpass structure at approximately milepost 243.4. Input from the Arizona Game and Fish Department and the Wildlife Linkages Committee would be considered to help ensure the crossing is adequately positioned and sized and that no additional barriers to wildlife movement ar introduced into project design


## ADOT Roadside Development Responsibilities

- Protected native plants within the project limits will be impacted by this project; therefore, the ADO Roadside Development Section will determine if Arizona Department of Agriculture notification is needed. If notification is needed, the ADOT Roadside Development Section will send the notification at least 60 calendar days prior to the start of construction.


## Contractor Responsibilities

- To prevent the introduction of invasive species seeds, all earth moving and hauling equipment shal be washed at the contractor's storage facility prior to entering the construction site.
- All disturbed soils that will not be landscaped or otherwise permanently stabilized by construction will be seeded using species native to the project vicinity.
- To prevent invasive species seeds from leaving the site, the contractor shall inspect all construction equipment and remove all attached plant/vegetation and soil/mud debris prior to leaving the construction site.
- If any Sonoran desert tortoises are encountered during construction, the contractor shall adhere to the AGFD's Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects (Revised October 23, 2007).


## N. Prime and Unique Farmlands

This section identifies prime or unique farmland that may be affected by the proposed project. An analysis of prime and unique farmland is being conducted because federal funds would be used to construct this project. This section addresses compliance with the Farmland Protection Policy Act (FPPA) regulations (7 CFR 658). The FPPA requires identification of proposed actions that would affect land classified as prime or unique farmland before federal agency approval of any activity that would convert such farmland to other uses, including converting farmland to ROW for transportation improvements. Prime and unique farmland are defined as follows:

The NRCS, which is part of the US Department of Agriculture, administers the FPPA as it relates to protection of farmland. Congress passed the FPPA because of a substantial decrease in the amount of open farmland. Under the FPPA, the Secretary of Agriculture is required to set criteria to identify and take into account the potential effects of federal agency activities on the preservation of farmland. FPPA regulations (7 CFR 658.5) establish the criteria for such evaluation, with an emphasis on urban aspects of proposed programs. In Title 7 CFR 658.3, it is stated that the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to non-agricultural uses would be minimized. In Title 7 CFR 658.4, it is stated that federal programs shall be administered in a manner that, as practicable, would be compatible with state, local government, and private programs and policies to protect farmland. It requires identification of proposed federal actions that would affect any land classified as prime or unique farmland and the consideration of alternative actions. Pursuant to the FPPA, farmland includes:

- Prime Farmland - Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion, as determined by the Secretary of Agriculture. Prime farmland includes land that possesses the above characteristics but is being used currently to produce livestock and timber [7 United States Code (USC) 4201(c)(1)(A)]
- Unique Farmland - Land other than prime farmland that is used for the production of specific highvalue food and fiber crops, such as citrus, tree nuts, olives, cranberries, fruits, and vegetables. It has the special combination of soil quality, location, growing season, and moisture supply needed to economically produce sustained high quality or high yields of specific crops when treated and managed according to acceptable farming methods. [7 USC 4201(c)(1)(B)]
- Other - This encompasses farmland, other than prime or unique farmland, that is of statewide or local importance for the production of food, feed, fiber, forage, or oilseed crops, as determined by the appropriate state or unit of local government agency or agencies, and that the Secretary of Agriculture determines should be considered as farmland for the purposes of this chapter. [7 USC 4201(c)(1)(C)].
In the FPPA regulations (7 CFR 658.2-658.3), a description of land not subject to (i.e., it is not protected by) provisions of the FPPA is provided and includes land that: (1) receives a combined score of less than 160 points from the land evaluation and site assessment criteria, (2) is identified as an urbanized area on US Census Bureau maps, (3) is designated as an urban area and shown as a tint overprint on US

Geological Survey topographical maps, (4) is shown as white (not farmland) on US Department of Agriculture Important Farmland Maps, (5) is shown as urban-built-up on US Department of Agriculture Important Farmland Maps (according to guidance of the National Resources Inventory, areas 10 acres or larger without structures are not considered urban-built-up and are subject to the FPPA), (6) is used for national defense purposes, or (7) is privately owned and no federal funds or technical assistance are used.

## 1. Existing Conditions

Most land adjacent to the project corridor is vacant. Soils within the project corridor include those classified as prime farmland if irrigated and protected from flooding and farmland of unique importance. While soils in some areas have the potential to be prime or unique farmland if irrigated, no irrigation is present within these areas. Areas with the potential to be farmland of unique importance are concentrated along the Santa Cruz River and not in close proximity to the project corridor.
2. Potential Impacts of the Recommended Alternative

The Recommended Alternative is not anticipated to result in any impacts to prime or unique farmland. In cooperation with the US, Department of Agriculture, Natural Resources Conservation Service, a Farmland Conversion Impact Rating Form for Corridor Type Projects (NRCS-CPA-106) was completed to assess the suitability of the project corridor for protection as farmland (attached in Appendix F of the DCR). The Recommended Alternative received a score of 100 on the NRCS-CPA-106 form, which is based on the relative value of the farmland, the limited amount of the corridor that is actually farmed, and the absence of any indirect effects on remaining farms and farm support services.

Sites receiving a total score on the NRCS-CPA-106 form of less than 160 are not subject to the farmland protection provisions of the FPPA. As the Recommended Alternative scored 100, the farmland protection provisions of the FPPA do not apply to this project. No other alternatives need to be considered and ther is no need to protect farmlands in the project study area from conversion to non-agricultural uses No additional evaluation is required, and the project is in compliance with the requirements of the FPPA
3. Conclusion and Potential Mitigation

No potential mitigation for conversion of prime and unique farmland has been identified at this time

## O. Hazardous Materials

Hazardous materials and hazardous waste sites pose a threat to any infrastructure project, beginning with ownership liability concerns and ending with construction safety concerns. The EPA's 2002 Brownfields Act identified the appropriate steps of all appropriate inquiry for investigating hazardous materials sites, and the American Society for Testing and Materials (ASTM) International E1527-05 standard was written to provide a set of guidelines for the assessment of properties and the qualifications of environmental professionals engaged to perform the analysis (ASTM International 2006.

ADOT employs a preliminary initial site assessment (PISA) scope of work as an early comparative tool for projects with multiple possible alternatives. It includes a review of regulatory history of sites within the study area and a limited field review by the environmental professional. Once a corridor is selected, an initial site assessment (ISA) is performed to assess specific sites of potential concern along the corridor in more detail.

The goal of the hazardous materials Phase I equivalent ISA is to provide adequate information for the project owner to move forward with property acquisitions, and to develop management strategies for sites that have been identified with hazardous materials and/or hazardous-waste issues.

## 1. Existing Conditions

The study area for this survey includes an approximate 1,000-foot wide corridor along the centerline of I-10 from the Tangerine Road TI to the Massingale Road alignment. Because the study area consists primarily of the I-10 mainline and frontage road areas, the majority of the study area is not considered to be a property of potential environmental concern

## 2. Potential Impacts of the Recommended Alternative

Properties of environmental concern identified during the site reconnaissance and review of related records re summarized in the following paragraphs. Further action, including Phase I and/or II Environmental Site Assessments, is recommended

- The US Waste facility with outside materials storage on the property addressed as 11601 North Casa Grande Highway. In addition to current materials storage, this facility formerly generated or stored hazardous wastes
- The Tucson Trux facility located between I-10 and the UPRR, east of the Tangerine Road TI. In addition to vehicle storage and possible maintenance activities, an aboveground storage tank (AST) with unknown contents and discolored soils were noted on the property in the past. The current AST does not appear to be used for hazardous or petroleum products
- Brady's Welding Shop (11441 North Casa Grande Highway), currently vacant, was observed in the
project corridor. Chemical use and storage at this shop is unknown and it appears currently vacant.
- A Shell Express Stop gasoline station was observed at 8333 North Cortaro Road. The underground storage tanks (USTs) and fuel dispensers on this property are located within the project corridor.
- A Circle K gasoline station was observed at 5633 West Cortaro Farms Road. A propane AST on this property is located in the project corridor and the dispenser islands are located next to the corridor. The USTs on this facility were located approximately 100 feet south of the corridor.
- A spill in 1992 of 240 gallons of diesel fuel was reported on I-10 at MP 246. The spill was likely remediated at that time; however, ADEQ files should be reviewed to confirm the status of the spill, and further assessment may be required
- The portion of the project corridor along the Massingale Channel traverse materials storage areas for Superstition Trailers, Staker Parson Ina Plant and BDR Transport (addressed as 5400 West Massingale Road). Vehicle and equipment staging was observed in this area. This property was identified with ASTs, USTs and a leaking UST (LUST), as a generator of hazardous waste and as a construction sand and gravel mine. The locations of the UST/LUST, ASTs and hazardous waste use and storage on these facilities were not apparent during the site reconnaissance. In addition, a mine pit was located on the western portion of the project corridor on this property in the past.
- Numerous buildings and other structures exist in the project corridor. Asbestos-containing materials and lead-based paint may be present in these structures and in painted features such as road striping.
Groundwater well compounds were observed during highway construction and maintenance. These groundwater wells would need to be protected from development activities or abandoned in accordance with Arizona Department of Water Resources (ADWR) requirements, depending on accordance with Arizo
development activities.

3. Conclusions and Potential Mitigation

Testing for asbestos and lead-based paint in buildings would be required as part of the ROW acquisition process. Testing for asbestos and lead-based paint in transportation infrastructure would be completed within six months of the start of construction.

The following mitigation measures are proposed to address the potential impacts described above. Final mitigation measures would be determined based upon further study and during NEPA document approval.

Arizona Department of Transportation Design Responsibilities

- During final design, the Arizona Department of Transportation Project Manager would coordinate with the Arizona Department of Transportation Environmental Planning Group Hazardous Materials Coordinator (602-712-7767) to complete testing for asbestos and lead-based paint within the project limits and, if necessary, recommend remediation measures.
- The Arizona Department of Transportation Project Manager would contact the Arizona Department of Transportation Hazardous Materials Coordinator (602-712-7767) 30 days prior to bid advertisement to determine the need for additional site assessment.


## Standard Specification Included as Mitigation Measures

- According to Arizona Department of Transportation's Standard Specifications for Road and Bridge Construction (2008), Section 107.07, Sanitary Health, and Safety Provisions, "During construction operations, should materials be encountered which the contractor believes to be hazardous or contaminated, the contractor shall immediately do the following: (1) stop work and remove workers within the contaminated areas, (2) barricade the area and provide traffic controls and (3) notify the Arizona Department of Transportation Engineer." The Arizona Department of Transportation Enginee would arrange for proper assessment, treatment, or disposal of those materials. Such locations would be investigated and proper action would be implemented prior to the continuation of work in tha ocation.


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## Appendix F Agency Coordination Letters



RECEIVED/SENT
NOV 282011
Control \#
Description:

TOWN OF MARANA
DEVELOPMENT SERVICES

Arizona Department of Transportation
c/o Jessica Popp, AECOM
2325 E. Camelback Road, Suite 200
Phoenix, AZ 85016

Re: Federal Aid Number 010-D(209)A
ADOT Project Number: 10 PM 240 H7960 01L I-10: Tangerine to Ina Rd

Dear Ms. Popp,
The Town has received ADOT's request for input on the above referenced project and appreciates the opportunity to provide input on this important project in our jurisdiction. Our primary and general concerns for this important stretch of Interstate 10 are as follows.

1. The community of Rillito, while geographically located within a Pima County jurisdictional island, is important to Marana and the needs of its citizens must be accommodated. Through presidential order, Rillito has been designated an environmental justice community. As such, special attention must be paid to impacts on their community by federal projects. Without specific mitigation, the conversion of the Interstate 10 frontage road from two-way to one-way operation will have dramatic impacts on this community. Currently, the business uses of this colonia community are located on the frontage road and west of the entrances/exits to the subdivision. The conversion of the frontage road to one-way would require residents to drive east to the Avra Valley Interchange, then west on I-10 or the westbound frontage road to Tangerine Road, then east again on the eastbound frontage road to access their local businesses. A Town-proposed mitigation for this issue is to extend an existing internal street within Rillito westwards across a Cortaro Marana Irrigation District canal and then along the CEMEX sand and gravel pit to connect to W. Rillito Village Trail, a Marana local public street which is two-way and would allow residents to connect into the Marana local street
network, the Tangerine Interchange and the eastbound frontage road near their business uses. This concept was presented by ADOT and the Town of Marana at a Rillito neighborhood meeting in the spring of 2009 and was also discussed extensively at a meeting attended by the Town of Marana, Pima County and ADOT Tucson district staff at Pima County offices in December of 2009. It is critical that the mitigation concept described above be implemented before the frontage road is converted to one-way operation at Rillito.
2. The Tangerine Interchange was shown in a previous DCR for I-10 from Tangerine to I-8 as being relocated approximately one-half mile west on I-10 to more easily accommodate a grade-separated interchange. Also, as part of the $95 \%$ design plans for the relocated Tangerine interchange designed by Ty-Lin and reviewed by ADOT, the existing Tangerine interchange would remain in place, although the ramps would be removed to essentially convert it into an underpass to serve the significant commercial development expected to take place on all quadrants of this interchange. The remaining existing expected to arase inder in expected to take a proportion of the internal commercial traffic,
inters interchange underpass is expected to take a proportion of the interna
thereby lessening the burden of such traffic on the new interchange.
3. Currently, the Avra Valley interchange only serves Avra Valley Road to the west. The Town's major routes plan shows the extension of Lambert Lane, currently east of I-10, westward to the Avra Valley interchange. As ADOT, FHWA, the UPRR, the ACC and the Town all either desire or require that new crossings of railroads be grade-separated the design of the future Avra Valley interchange should include a grade-separated crossing of future Lambert Lane.
4. South of the Avra Valley interchange is the beginning of the Lower Santa Cruz Levee. There is a significant culvert located immediately south of the beginning of the levee that also lines up with a bridge under the Union Pacific Railroad (UPRR station 969.24). During the UPRR double tracking project, this bridge is to be replaced and expanded to provide additional capacity. The culvert under Interstate 10 at this location could and should also be expanded to allow increased flows to directly drain into the Santa Cruz River.
5. At the Cortaro interchange, the intersections of Arizona Pavilions and Cerius Stravenue are currently signalized and each is approximately one-quarter of a mile from the nearest Cortaro interchange ramp. These intersections should remain as the first full median openings for the Cortaro Interchange.
6. Although a consultant was selected to design the reconstruction of the Cortaro interchange with an at-grade crossing with the railroad, the contract was never awarded. Cortaro Road should be designed as a grade-separated interchange with the railroad. The change in vertical grade for Cortaro may cause some driveway modifications in order to "chase out" the vertical change. The double slip-left intersection of the Wal-Mart and the Shoppes at Arizona Pavilions is an example of an important intersection that the Town desires to retain but which will likely require vertical grade modifications. While the Wal-Mart entrance is likely correctable, the Shoppes driveway may not be. The driveways to the Wendy's and the Chevron on the east side of I-10 are likely able to be accommodated as these businesses are already constructed several feet above current road elevation.
7. In the southwest quadrant of the Cortaro interchange there is a nuisance drainage problem due to the construction of the Wal-Mart and Kohl's years ago. This nuisance drainage can likely be brought to the north to the major drain intake near the Burger King, which is the beginning of a Con-Arch structure that runs to the Santa Cruz River.

Again, thank you for the opportunity to participate as a stakeholder in this project. We look forward to continuing our relationship with ADOT in our mutual goal of serving our community.

Sincerely,


Keith Brann, P.E., CFM
Town Engineer D20

## United States Department of the Interior

 NATIONAL PARK SERVICE Saguaro National Park3693 South Old Spanish Trail Tucson AZ 85730

RECEIVED/SENT
DEC 012011
Control \# $\qquad$
November 28, 2011

Arizona Department of Transportation
coo Jessica Pop
AECOM
2325 East Camelback Road, Suite 200
Phoenix, AZ 85016
Dear Ms. Pops:
Thank you for sending the memorandum describing the upcoming project on Interstate 10, between Tangerine and Ina Roads. Saguaro National Park is very interested in this project as two interstate access roads to the park's west district are included within the project's boundaries (Aura Valley and Ina Roads). We anticipate sending National Park Service representation to the December $7^{\text {th }}$ agency scoping meeting, but wish to be kept informed throughout the project. Please use the address at the top of this memorandum for future correspondences.

Sincerely,


[^15]Superintendent

## CORTARO WATER USERS' ASSOCIATION Agent for

 CORTARO-MARANA IRRIGATION DISTRICT12253 West Grier Road

## Marana Arizona 85653

Office: 520-682-3233 Fax: 520-682-3456
Email: CMID12253@comcast.net

Arizona Department of Transportation
c/o AECOM Transportation
Attention: Ms Jessica Popp, Environmental Planner
2325 East Camelback Road, Suite 200
Phoenix, AZ 85016
RE: Federal Aid Number: 010-D(290)A
ADOT Project Number: 10 PM 240 H7960 01L
I-10: Tangerine Road to Ina Road

## December 21, 2011

## Dear Ms Pops,

The following is the Cortaro-Marana Irrigation District's (District) response to your request for Scoping Comments per your letter dated December 15, 2011.

In the Project area between Tangerine Road and Ina Road the District has the following major facilities:
-3 active wells
-3 active wells
-32 miles of main canal
-1.62 miles of main canal pipeline
-9 lateral feeds from multiple active wells
The District has facilities, protected rights-of-way and deeded property within your projected disturbance area. The District appreciates the opportunity to comment on this and ALL future planning for the Project. We do have easements and property ownership within your project, and will provide that information upon your request. In addition, we require the following:

1. Relocation of open irrigation ditches/canals within the project boundaries require relocation in a gravity flow underground pipeline system, with the project professional engineering signing confirmation as to design, required capacity flow and material use and sizing. Al existing laterals shall be reconnected to the replacement pipeline system.
2. Any and all District Facilities that will be impacted and be required to move within the project boundaries will be required to be replaced in kind
3. A Use License and construction permit must be obtained and approved by the board of directors prior to the commencement of construction.
4. All flood water/drainage within the project area must be retained on site. The District canal/pipeline system shall not become a component of any drainage solution and must maintain current elevations unless otherwise approved or desired by the District.
5. Please show all District facilities/infrastructure on all future planning documents and drawings. Submit copies to the District for our review at the earliest possible point in the design process.
6. Relocation and protection of the District's properties shall be at no expense to the District. Additional land must be dedicated by final plat or separate instrument where necessary to allow for a minimum of a $25^{\prime}$ ' easement over all District infrastructure. All prior easement rights will be retained and granted in the replacement easements.
7. Construction of this project must be scheduled to avoid any interruptions in the District's irrigation water service. All interruptions shall be coordinated with the District and approved by the District Manager prior to any construction.
8. Engineering and construction of this project shall ensure future access is maintained to all District property, easements, and infrastructure.
9. The District does not allow any utilities to cross over District facilities. Please put all crossings a minimum of 2-feet below the invert of District facilities.
10. Plan specifications will reference ADOT specifications for pipe leak testing and the District's for our replacement features. In addition, if diversion boxes must be replaced, the District will provide typical designs for the boxes and leak testing requirements for the concrete structures.
This represents our requirements based on the information provided at this time. Review of actual plans and specifications may reveal additional requirements not presented in this letter. Please do not hesitate to contact me if you have questions regarding these comments.

Respectfully,


David Bateman
Assistant Manager
Cortaro Water Users' Association

ADOT c/o Ms. Jessica Popp
AECOM
2325 East Camelback Road, Suite 200
Phoenix, AZ 85016
Re: Environmental Review: Federal Aid Number: 010-D(209)A
ADOT Project Number: 10 PM 240 H7960 01L
I-10 Tangerine Rd to Ina Rd
Dear Ms. Popp:
The Arizona Game and Fish Department (Department) has reviewed your request, dated November 15, 2011. The Department understands that the Arizona Department of November 15, 2015. , in conjunction with the Federal Highway Administration (FHWA), is developing design concepts and conducting environmental studies for possible long-term improvements to Interstate 10 (1-10) between Tangerine Road at milepost (MP) 240.0 and Ina Road at MP 247.5. It is understood that the approximately eight-mile corridor is located entirely within Pima County, within the town of Marana, and near the city of Tucson.

We have reviewed the information packet provided to us in your letter. The attached receipt from the On-Line Environmental Review Tool indicates that a significant portion of the project area lies within the "Tucson-Tortolita-Santa Catalina Mountains Link" Wildlife Corridor.

This wildlife corridor has been identified as a key linkage area by stakeholders in 2006 in the Arizona Wildlife Linkages Assessment and 2011 at the Pima County Wildlife Linkages Workshop. The existing abandoned railroad underpass on I-10 was specifically highlighted as an important crossing structure in this area that would benefit from being improved. Pima County has acquired numerous parcels in the area that join this underpass. The town of Marana has has acquired numerous parcels in the area that join this underpass. The town of Marana has included this crossing in its Habitat Conservation Plan for wildife corridors (attached is a section of the Pima County report on this). The Department funded Dr, Paul Beier (Northern Arizona University) to provide more detailed recommendations for preserving or restoring wildlife connectivity in several high priority areas around the state after the 2006 report was released. One of those areas was the connection between the Tucson Mountains, Tortolita Mountains, and Santa Catalina Mountains. The report (also attached) identified many current barriers to wildlife movement within the study area, with one of the most significant being I-10. Pages 17-22 of the attached report specifically identify crossing structures that exist on I-10 and would need to be modified to allow for increased wildlife and habitat permeability. Also identified in the report are areas where future crossing structures should be built to improve connectivity.

Habitat connectivity is very important to this area and 1-10 represents a large barrier to it. This long-term improvement project offers a great opportunity to construct new wildlife crossing structures, and/or upgrade existing crossing structures both to prevent bisecting this important wildlife corridor and rendering it impermeable to wildlife, as well as to reduce wildlife-vehicle collisions on I-10.

The Department appreciates the opportunity to provide an evaluation of impacts to wildlife or wildlife habitats associated with the project activities, and requests continued involvement throughout the planning of this project. If you have any questions regarding this letter, please contact me at (623) 236-7486.

Sincerely,


Chip Young
Project Evaluation Specialist
cc: Laura Canaca, Project Evaluation Program Supervisor John Windes, Habitat Program Manager, Region V

Attachments: Beier, P., E. Garding, and D. Majka. 2006, Arizona Missing Linkages: Tucson Tortolita - Santa Catalina Mountains Linkage Design. Report to Arizona Game and Fish Department. School of Forestry, Northern Arizona University.

Two Wildlife Corridors: Tucson Mountains to Tortolita Mountains to Catalina Mountains. (Pima County, AZ)

## AGFD \#M11-1118055

December 22, 2011
AZ Department of Transportation
Jessica Popp, AECOM
2325 E. Camelback Rd. Suite 200
Phoenix, AZ 85016

Re: Comments on Proposed Interstate 10 Improvements, Tangerine Rd. to Ina Rd.
Dear Ms. Popp:
The Town of Marana has been developing a Draft Habitat Conservation Plan, which includes a 1.0 km wide wildlife linkage between the Tortolita and the Tucson Mountains and the Santa Cruz River (refer to the attached map). Dr. Paul Beier, Northern Arizona University, has mapped this area as an important wildlife connection.

The Town and other entities have been working to ensure that land is available for a wildlife crossing at I-10 near Avra Valley Rd. Open space has been preserved in this wildlife crossing at I-1 near Avra Valley Rd. Open space has been preserved in this
area, through acquisition of land by Pima County, a conservation easement placed on Tucson Electric Power property, and the Town of Marana's commitment to preserve open space for connectivity on the west side of the river in the El Rio Open Space area. and on the east side of I-10 by coordinating with the Coalition for Sonoran Desert Protection and Cascada Developers.

We encourage ADOT to incorporate a substantial wildlife crossing structure near the Avra Valley Road exit at I-10 in your design alternatives.

Sincerely,
Ianine A. Opencer
FOR
Jennifer Christelman
Manager, Environmental Engineering Division


Figure 4.1 HCP Conservation Zones and Wildlife Linkages

| $\square$ | Zone 1 |
| :---: | :---: |
|  | Zone 2 |
|  | Zone 3 |
| - | Proposed Corridors |
| ........... | Existing Corridors |
|  | Washes |
| ${ }^{2}$ | Marana Town Limits HCP Planning Area |
|  | County Line |



August 22, 2012
In Reply Refer To:
010-D(209)A
HOP-AZ

010-D(209)A
TRACS No. 10 PM 240 H7960 01 L I-10, Tangerine to Ina Road Initial Section 106 Consultation "adverse effect"

Ms. Linda Mayro, Cultural Resources Manage
Pima County Public Works
201 North Stone Avenue
Tucson, Arizona 85701-1207
Dear Ms. Mayro:
The Federal Highway Administration (FHWA) is proposing to widen Interstate 10 (I-10) between Tangerine and Ina Roads near the Town of Marana and the City of Tucson, Pima County, Arizona. As this project would employ federal funds, it is considered an undertaking subject to Section 106 review. Consulting parties consist of FHWA, the Arizona Department of Transportation (ADOT), the State Historic Preservation Office (SHPO), Arizona State Land Department (ASLD), the Town of Marana, the City of Tucson, Pima County, the Hopi Tribe, the Pascua Yaqui Tribe, the Tohono O'odham Nation, the Tonto Apache Tribe, the White Mountain Apache Tribe, and the Yavapai-Apache Nation.

In part, this project would occur within existing ADOT right-of-way (ROW) and easement across State Trust land administered by the ASLD. The need for new ROW and easement has not yet been determined, however, it is anticipated that the widened I-10 footprint and reconstructed traffic interchanges (Is) would require new ROW and temporary construction easements.

The proposed project is in the initial stages of design and the full scope of improvements is yet to be defined. The ultimate concept for these improvements may include widening I-10 to a total of en highway travel lanes, installation of continuous one-way frontage roads, and reconstruction of two TIs that include grade separations over the Union Pacific Railroad. The location and alignment of the Avra Valley Road TI and the alignment and the configuration of the Cortaro Farms Road TI are under consideration.

The area of potential effects (APE) is not yet defined; FHWA is currently reviewing a 1 -milewide study corridor centered on I-10 between milepost (MP) 240.0 and MP 248.2 to evaluate alternatives The study limits are within portions of Sections $6,8,9,15,16,22,23,26,27,35$, and 36 of Township 12 South, Range 12 East (Gila and Salt River Baseline and Meridian). Project location maps are enclosed to assist with your review

Preliminary information indicates that more than 55 prehistoric and historic cultural resource sites are located within the study area. Many are historic properties that are located within o immediately adjacent to the ADOT ROW, and avoidance of all National Register of Historic Places (NRHP)- eligible historic properties is not likely. Therefore, FHWA has determined that this project would result in a finding of "adverse effect." As the project footprint and sites that would be impacted have not yet been fully identified, FHWA recommends the development of a programmatic agreement (PA) to guide a program of phased historic property identification and evaluation, as well as the treatment of historic properties that may be adversely affected by this undertaking. This PA will supersede the general PA that was executed in 1993 for I-10 road widening projects between Tangerine Road and the I-10/I-19 junction.

Please review the enclosed maps and the information provided in this letter. If you agree with FHWA's determination of project effect, and agree that a PA is necessary to mitigate potential adverse effects, please indicate your concurrence by signing below. FHWA will continue Section 106 consultation and submit a PA for your review; as project plans develop, FHWA will continue consultation to identify the APE and identify and seek determinations of eligibility for cultural resources that may be affected by this undertaking. If you have any questions or concerns, please feel free to contact ADOT Historic Preservation Specialist David Zimmerman at (928) 779-7577 or DZimmerman@azdot.gov.

Sincerely,

## Pele oui

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Karla S. Petty
Division Administrator


010-D(209)A

Enclosures Suite 1500
Phoenix, Arizona 85012-3500
(602) 379-364

August 22, 2012

010-D(209)A TRACS No. 10 PM 240 H7960 01 L
I-10, Tangerine to Ina Road
Initial Section 106 Consultation
"adverse effect" "adverse effect"

Dr. David Jacobs, Compliance Specialist
tate Historic Preservation Office
Recteves
AUG 242012

1300 West Washington
Phoenix, Arizona 85007
Dear Dr. Jacobs:
\& how momplonss)

The Federal Highway Administration (FHWA) is proposing to widen Interstate 10 (I-10) between Tangerine and Ina Roads near the Town of Marana and the City of Tucson, Pima County, Arizona. As this project would employ federal funds, it is considered an undertaking subject to Section 106 review. Consulting parties consist of FHWA, the Arizona Department of Transportation (ADOT), the State Historic Preservation Office (SHPO), Arizona State Land Department (ASLD), the Town of Marana, the City of Tucson, Pima County, the Hopi Tribe, the Pascua Yaqui Tribe the Tohono O'odham Nation, the Tonto Apache Tribe, the White Mountain Apache Tribe, and the Yavapai-Apache Nation

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Sincerely,
Rele BM
SEP 4-2012

Karla S. Petty
Division Administrator


010-D(209)A

## 29 AUG12

Date

Enclosures
CC: Ravid zimmermen, tidot

## Coalition for

## Sonoran Desert Protection

300 E. University Blva., Suite 120

## ADOT

c/o Jessica Popp, AECOM
2325 E. Camelback Rd. Suite 200
Phoenix, AZ 85016

## RE: Interstate 10 (Tangerine Road to Ina Road) Study Scoping Comments

Dear Ms. Popp:
I am writing on behalf of the Coalition for Sonoran Desert Protection, founded in 1998 and comprised of 40 environmental and community organizations working primarily in Pima County, Arizona. Our mission is to achieve the long-term conservation of biological diversity and ecological function of the Sonoran Desert through comprehensive land-use planning, with an emphasis on Pima County's Sonoran Desert Conservation Plan.

We appreciate the opportunity to provide scoping comments on the Interstate 10 (Tangerine Road to Ina Road) Study.

In general, the Coalition strongly believes that a future expansion of Interstate 10 presents a singular opportunity to expand and strengthen the ability of wildlife to cross nterstate 10 and roam freely between the Tucson and Tortolita Mountains. As the Design Concept Report and Environmental Assessment are developed, we encourage the ADOT Project Team to make the protection and enhancement of this wildlife linkage a top priority.

Considerable public and private resources have already been directed towards this task, with a primary focus on the area in the vicinity of an abandoned railroad underpass adjacent to the Avra Valley Road exit. This includes much progress toward preserving adequate open space to both the east and west of this crossing point. Below we provide a more detailed discussion of the community focus on this wildlife linkage and the resources that have been dedicated to upgrading this crossing point.

## Sonoran Desert Conservation Plan

For more than a decade, Pima County, Arizona has established itself as a leader in regional conservation planning. In 1998, the Pima County Board of Supervisors adopted the Sonoran Desert Conservation Plan (SDCP), a visionary plan seeking to "ensure the long-term survival of the full spectrum of plants and animals that are indigenous to Pima County through maintaining or improving the habitat conditions and ecosystem functions necessary for their survival." Since then, Pima County has implemented the SDCP through a variety of measures, including revised policies in
their comprehensive land use plan, open space purchases, and development of a habitat conservation plan to address endangered species issues. Another important component of the conservation plan was the identification of "critical landscape connections," or wildlife linkages, in Pima County. These linkages are broadly defined areas that connect preserve areas (such as National Forest lands, National Park lands, or Pima County-owned open space) but also contain existing or potential barriers to wildlife movement (such as railroads, agricultural fields, irrigation canals, and most importantly, a network of highways and other roads).

Although Pima County contains a significant amount of public lands and open space, largely characterized by mountain ranges separated by broad valley floors, there are also major roads and highways that fragment these large preserve areas. Fortunately, Pima County has benefited from the overwhelming support of its citizens for initiatives to address the issue of wildlife linkages and roadways.

In May 2004, Pima County voters supported a $\$ 174.3$ million habitat-based Open Space Bond that included critical wildlife linkage lands. Since then, Pima County has purchased over 201,000 acres of important open space, including both outright acquisitions and purchase of state grazing leases.

Two years later, in May 2006, voters adopted a 20 -year transportation plan and financing tax that included $\$ 45$ million to fund wildlife crossing infrastructure and related research and monitoring. This money is being allocated to local jurisdictions and state agencies for research and the construction of additional wildlife crossing structures on specific roadway projects, including $\$ 8.2$ million for three wildlife crossings (one overpass and two underpasses) along State Route 77 within the Tortolita-Santa Catalina Mountains wildlife linkage. The State Route 77 crossings are currently in the design phase with construction planned for 2013.

## Tucson-Tortolita Mountains wildlife linkage

One of the Critical Landscape Connections identified in the SDCP is the wildlife linkage between the Tucson Mountains and the Tortolita Mountains. In fact, the Tucson-Tortolita Mountains Connection at Avra Valley Road is ranked as the second most constrained in Pima County, after the Tortolita-Santa Catalina Mountains linkage. This wildlife linkage, while still viable, is threatened by encroaching development, roadway building, and the presence of Interstate 10.

Interstate 10, a six-lane divided and elevated federal highway, is the most significant barrier to wildlife movement within the Tucson-Tortolita Mountains wildlife linkage, bisecting the linkage to the northwest-southeast. An abandoned railroad underpass adjacent to the Avra Valley Road exit is the only viable crossing point for wildlife across Interstate 10 within the wildlife linkage.

Vacant land on both sides of the interstate provides a crucial connection to the Tortolita Fan and Tortolita Mountains to the northeast and to the Santa Cruz River and the Tucson Mountains to the southwest. This area has also been identified in the 2006 Arizona's Wildlife Linkages Assessment report and 2007-2008 Arizona's Missing Linkages project.

The Arizona Wildlife Linkage Workgroup was a two-year collaborative effort that culminated in 2006 with the release of the Arizona's Wildlife Linkages Assessment report. This report identified 150 "linkage zones" important to

The Town of Marana has also been developing a Habitat Conservation Plan (HCP) since 2003 as part of their application for an Incidental Take Permit from the U.S. Fish and Wildlife Service This HCP includes a 1-km wide wildlife linkage originating at the Avra Valley crossing point and extending north to the Tortolita Mountains. The HCP also includes lands identified for and extending north to the Tortolita Mountains. The HCP also includes lands identified for has worked with private developments formalizing plans in the linkage area to preserve adequate open space adjacent to the HCP's 1-km wide wildlife linkage, providing an adequate buffer for healthy wildlife movement.

## Avra Valley crossing point

In recent years, the Coalition has coordinated stakeholders in the development of a work plan for protecting this linkage and enhancing the Avra Valley crossing point. For instance, in the spring of 2009, the Coalition brought together dozens of key stakeholders to discuss ways to accomplish our vision and goals for this linkage. Participants included state and federa agencies, Pima County, Town of Marana, Tucson Electric Power, Union Pacific Railroad, private landowners, and development companies. In the spring of 2010, the Coalition held a series of meetings with small groups of stakeholders to further refine and update the work plan, including a list of tangible achievements that have occurred in recent years (draft work plan attached).

These achievements include land acquisition, protected open space set asides through zoning by Pima County (on the west side of the Avra Valley Road exit area) and the Town of Marana (on the east side), and a piece of land being preserved through a conservation easement by Tucson Electric Power Company. Artist's renderings of both an underpass and overpass option for the site were also funded and commissioned by the Coalition in 2009 (attached). Elements of the work plan that still need implementation include evaluating a preferred alternative for enhancing the Avra Valley crossing point, finalizing a conservation easement on the east side of the highway, and the completion of Marana's Habitat Conservation Plan.

## Open space acquisition

Pima County has taken steps to acquire and preserve parcels of land near the Avra Valley wildlife crossing point. Pima County acquired a 19-acre property adjacent to the west side of the railroad underpass in 2007. Also, in 2009, Pima County acquired the I-10 Avra Valley Mining and Development LLC property; 66 acres of the 95 -acre parcel is dedicated to the County as
wildlife movement and migration throughout Arizona. Further refinement of the Arizona's Wildlife Linkage Assessment was carried out by a team of conservation biologists and GIS analysts at Northern Arizona University. The team created linkage designs for 16 statewide priority areas, called Arizona Missing Linkages, highlighted in the Arizona's Wildife Linkage Assessment. The designs identify and nap corridors to faciilitate the movement of ld corridor designs was developed between the Tucson, Tortolita, and Santa Catalina Mountain Ranges.

Additional information on the individual corridor designs can be found at: http://corridordesign.org/. More information on the Arizona Wildlife Linkages Workgroup and the Arizona's Wildlife Linkages Assessment report can be found at http://www.azdot.gov/inside_adot/OES/AZ_WildLife_Linkages/workgroup.asp.
natural open space. In addition, a development agreement was negotiated between Pima County and the owner of a commercial development site that includes provisions for revegetation of the site and the dedication of $2 \%$ of tax revenue for the improvement and management of the wildlife crossing area. The development agreement also calls for the developer to undertake drainage and riparian mitigation improvements on portions of the property that will be deeded to the County for inclusion in the greater wildlife linkage. All improvements will be designed to benefit wildlife movement and must be reviewed and approved by the County.

Given the wealth of resources already expended to preserve the Tucson-Tortolita Mountains wildlife linkage, a future expansion of Interstate 10 between Tangerine Road and Ina Road provides an incomparable opportunity to upgrade and enhance the wildlife crossing point near the Avra Valley Road exit. This is an opportunity that cannot be overlooked or missed.

As the ADOT Project Team prepares the Design Concept Report, we encourage you to include an alternative that includes an enhanced and functional wildlife crossing structure near the Avra Valley Road exit, taking into consideration the considerable efforts of local stakeholders to preserve open space in the nearby area. Furthermore, as the Environmental Assessment is developed, we encourage you to thoroughly analyze the impacts of an expanded Interstate 10 to the Tucson-Tortolita Mountains wildlife linkage and the ability of wildlife to freely roam between these two mountain ranges. In conjunction with the Research/Contract group at AZGFD and the Pima Association of Governments Wildlife Linkages Workgroup, please consider and evaluate both raised, bridge type wildlife crossing structures as well as underpass type wildlife crossing structures alone and in combination for this area in order to effectively complete the Tucson-Tortolita-Santa Catalina Linkage.

Thank you for considering these scoping comments on the Interstate 10 (Tangerine Road to In Road) Study. If you have any questions or would like further clarification of our comments, please do not hesitate to contact me.

## Sincerely,

## Cantyp cempall

Carolyn Campbell
Executive Director

Attachments:
Artistic renderings of two alternative wildlife crossings near the Avra Valley road exit Draft Work Plan for the Tucson-Tortolita Mountains Wildlife Linkage Working Group

# Tucson-Tortolita Mountains Wildlife Linkage Working Group Work Plan 

## Working Group Members:

Pima County
Regional Flood Control District Coalition for Sonoran Desert Protection Saguaro National Park
Tucson Electric Power Company
Federal Highways Administration
U.S. Fish and Wildlife Service

Arizona Department of Transportation Town of Marana
Arizona Land and Water Trust
Union Pacific Railroad
Private Landowners
Arizona Game and Fish Department

## VISION

To establish a viable, permanently protected, and robust wildlife linkage between the Tucson and Tortolita Mountains that is based on the best available science, sustains the full range of biodiversity present in the area and is supported by an engaged group of stakeholders.

## GOALS

1. Establish a permeable landscape via environmentally-sensitive development and significant amounts of natural open space in the Tortolita Fan to allow wildlife movement between the Tortolita and Tucson Mountains and the Avra Valley/Interstate 10 crossing.
2. Provide an opportunity for a safe transition point for east-west/west-east wildlife movement across various transportation infrastructure features including roads, Interstate 10 and adjacent frontage roads, and railroad tracks in the approximate location of th current underpass south of the Avra Valley Road and Interstate 10.
3. Obtain funding stream(s) for acquisition, management, and monitoring of conservation lands.
4. Secure a property right (e.g., fee simple or partial ownership right) on parcels immediately adjacent to the current Avra Valley/Interstate 10 crossing and within the larger Tucson-Tortolita wildlife linkage (property rights to be held by local jurisdictions and/or environmental organizations).
5. Avoid the construction of new roads within the Tucson-Tortolita Mountains Linkage Area and apply Environmentally Sensitive Roadway Design Guidelines to improvements to existing roads within the linkage area.
6. Modify the bank protection structures currently present on the Santa Cruz River in the vicinity of the current Avra Valley/Interstate 10 underpass, along with irrigation canals and small culverts. These modifications will better accommodate the movement of wildlife into and out of the river corridor and across these canals and culverts.
7. Solicit public input and participation when appropriate throughout the planning and implementation process.
8. Use the best available science during all phases of implementation in order to create a viable wildlife linkage for as many species as possible.

## ACCOMPLISHMENTS

1. 2001 - Critical Landscape Linkages are adopted into the Pima County Comprehensive $\mathbf{2 0 0 1}$ - Critical Landscape Linkages are adopted into the Pima County Compreh
Plan as part of the Maeveen Marie Behan Conservation Lands System. Critical Landscape Linkages are broadly defined areas that provide connectivity for movement of native biological resources but which also contain potential or existing barriers that tend to isolate major conservation areas. One of the six identified Critical Landscape Linkages is between the Tucson and Tortolita Mountains.
2. 2006 - Dr. Paul Beier and colleagues at Northern Arizona University publish the report titled Arizona Missing Linkages: Tucson-Tortolita-Santa Catalina Mountains Linkage. This report provides a scientific model for a linkage area and is used in part as ustification for expanding the wildlife corridor in the Marana HCP from 300 feet to $1-\mathrm{km}$ wide.
3. $\mathbf{2 0 0 9}$ - Stakeholders identify key private and state parcels for permanent conservation throughout the linkage area between mountain ranges. Some of these parcels were included in the 2004 Open Space Bond while some will be included in the 2011 as Habitat Protection Priorities - Associated Lands (Wildlife Linkages) component.
4. 2009 - Stakeholders convene for first large meeting to discuss the future of the TucsonTortolita Mountains Wildlife Linkage. Participants included representatives from state and federal agencies, non-profit organizations, Pima County, Town of Marana, Tucson Electric Power, Union Pacific Railroad, private landowners, and development companies.
5. 2007/2009- Pima County acquired the I-10 Avra Valley Mining and Development LLC property ( $\sim 95$ ac site, $\sim 66$ ac Natural Open Space under County ownership) in 2009 and the Wexler property ( 18.77 ac ) immediately west of the Avra Valley/I-10 crossing point in 2007
6. 2008 - With the Board of Supervisors' approval of the Avra Valley Gateway Specific 2008 - With the Board of Supervisors approval of the Avra Valley Gateway Specific
Plan on $8 / 5 / 2008$, $\sim 66$ acres of the 95 -acre site is dedicated to the County for the wildlife corridor. 9.9 of these acres are immediately adjacent to the entrance to the railroad underpass. The property owner also committed to make another 3.3 acres available to the County for purchase. Assuming the County successfully acquires the additional 3.3 acres, the western entrance will total 13 acres. A Transition Area is required to buffer the corridor from the development area wherein uses are limited to low occupancy, and day uses and lighting cannot project into the corridor. The corridor is to be physically separated from the Transition and Development areas by a wall or wall/fill combination.

## IMPLEMENTATION STEPS

## ADMINISTRATION AND PLANNING

1. Identify alternatives and evaluate feasibility (including cost-benefits) of various structural alternatives that provide safe crossing opportunities (e.g., modification/re-design of underpass and frontage roads, land bridge)

Responsible party: Marana, CSDP, Pima County
Timeline:
Status: In progress

## Funding required? Yes

2. Select preferred alternative for enhancing crossing point and draft implementation plan. Draft and submit funding proposals.

Responsible party: ADOT, RTA Wildlife Linkages Working Group
Timeline:
Status: In progress
Funding required? No
3. Evaluate feasibility (including cost-benefits) of various alternatives that provide safe crossing opportunities across and through the Santa Cruz River channel.

Responsible party: Pima County, future Advisory Committee
Timeline:
Status:
Funding required? Yes
4. Remove the proposed Lambert Lane extension from all relevant Town of Marana planning documents and regional transportation planning documents. This includes the Marana HCP, General Plan, and PAG’s Long Range 2040 Regional Transportation Plan, along with any additional planning documents that are identified by stakeholders.

## Responsible party: Marana

Timeline: ASAP
Status: The Marana Technical Biology Team (TBT) sent a memo to Town Manager Gilbert Davidson opposing the Lambert Lane extension in October 2009. In August 2010, Mr. Davidson sent a response to the TBT stating that the Town will not remove Lambert Lane from its planning documents. If the 6-lane divided road is constructed in the future, a grade-separated wildlife crossing will be constructed to funnel wildlife over the road.
Funding required? No
5. Obtain a formal commitment from ADOT and the Federal Highway Administration to integrate wildlife crossing enhancements into future design modifications to Interstate 10 and the frontage roadways in the vicinity of the Avra Valley Road crossing point.

Responsible party: Pima County, Marana, CSDP
Timeline: Ongoing
Status: In progress
Funding required? No
6. Ensure that Pima County implements its adopted Environmentally Sensitive Roadway Design (ESRD) Guidelines, and the Town of Marana adopts ESRD Guidelines that are consistent with those adopted by Pima County.

Responsible party: Pima County, Marana, CSDP
Timeline: Ongoing
Status: As part of their 2010 revision to the Marana General Plan, the Town of
Marana will be including ESRD Guidelines into the Transportation section of their General Plan.

## Funding required? No

7. On any parcels that contribute to the linkage (both acquisitions and private parcels that are developed and have to comply with the NPPO, Riparian Protection Ordinance, etc.) create a vegetative rehabilitation plan to enhance the native plant cover, density and species composition to make the area more wildlife friendly and improve attractiveness as a movement corridor to wildlife.
Responsible party: Pima County, Marana
Timeline: In progress
Status: Will need input from advisory group, when established
Funding required? Yes

## ACQUISITION

1. Protect in perpetuity private and state parcels adjacent to the I-10 crossing point and within the larger Tucson-Tortolita wildlife linkage, as identified in the table below and on the attached map.

Responsible party: Pima County, Marana, Saguaro National Park
Timeline: In progres
Status: See below
Funding required? Yes

| Property Name | Acreage | Status/Notes |
| :---: | :---: | :--- |
| I-10 Avra Valley <br> Mining and <br> Development LLC | $\sim 3$ | Status of final three acres to be bought? |
| Cascada Open Space | 197.7 | Dedicated as wildlife corridor open space in the <br> Cascada Specific Plan. Specific Plan Amendment <br> was approved Nov. 15, 2011). |
| White Stallion Ranch | $\sim 1,900$ | Identified as HPP-Wildlife Linkage parcels for <br> next bond; Marana is currently pursuing <br> annexation of the White Stallion Ranch. |
| Marana Borrow <br> Pit/Disc Golf Course | 106.09 | Identified as part of a wildlife linkage in the Town <br> of Marana HCP, recently developed as a disc golf <br> course by the Marana Parks and Recreation <br> Department. |
| Kai parcels north of | 111.8 | Identified as HPP parcels in 2004 bond program <br> TEP |


| space |  | but due to steep slopes on this finger of the Tucson <br> Mountains, this area should remain undeveloped |
| :---: | :---: | :--- |
| Los Morteros | 16.85 | Identified as HPP-Wildlife Linkage parcels for <br> next bond; Marana putting in wildlife crossing and <br> slow speed signs |
| TEP Conservation <br> Easement | 21.85 | Pima County is waiting for TEP to finalize and <br> submit the conservation easement |
| Miscellaneous private <br> parcels on the west <br> side of I-10, west of <br> the Santa Cruz River | 345.45 | Identified as HPP-Wildlife Linkage parcels for <br> next bond |
| Lazy K Bar <br> Ranch/Hotel | 138.18 | Identified as HPP-Wildlife Linkage parcels for <br> next bond |
| California Portland <br> Cement Co. south of <br> Avra Valley Road on <br> west side of I-10 | 70.66 | Identified as HPP parcels in 2004 bond program |
| Marana Unified <br> School District just <br> west of I-10 | 14.73 | Identified as HPP parcels in 2004 bond program |
| State Trust Land <br> (within Beier Wildlife <br> Linkage and south of <br> Tortolita Preserve and <br> including piece that <br> straddles I-10 south of <br> underpass) | 5277.11 | Identified as HPP-State parcels in 2004 bond <br> program. See below for a more detailed list of <br> parcels |


\left.| State Trust Land Parcels within the Tucson-Tortolita Mountains Wildlife Linkage, |  |  |
| :---: | :---: | :---: |
| as mapped by Beier et al. (2006) |  |  |$\right]$

## RESEARCH AND MONITORING

1. Complete a baseline study to document current usage of the existing underpass. This study, at a minimum, should identify species and frequency of use.

Responsible party:
Timeline: ASAP
Status:
Funding required? Yes
2. Complete a landscape/ecological level baseline study for the Tucson-Tortolita Mountains Linkage Area to assess the existing level of wildlife movement across the entire linkage area.

## Responsib

Status:
Funding required? Yes
3. Evaluate fencing options once lands are protected to guide wildlife towards the crossing area or to protect them from negative impacts associated with human activity (e.g. wildcat dumping, off road activities)

Responsible party: AGFD, RTA Wildlife Linkages Working Group, ADOT, Pima County, Marana
Timeline: Complete
Status: Arizona Game and Fish Department completed a study on fencing options with RTA funds.
Funding required? No additional funds, RTA Wildlife Linkages funding was given to AGFD to complete this research
4. Evaluate existing residential and commercial lighting standards applicable to the area and revise as necessary to reduce light pollution near the linkage.

Responsible party: Marana, Pima County
Timeline:
Status:
Funding required? No
5. Initiate a comprehensive monitoring program for the Tucson-Tortolita Mountains

Linkage Area to assess the level of wildlife movement into the future.
Responsible party:
Timeline:
Status:
Funding required? Yes

## FUNDING

1. Obtain assured funding for management and monitoring of conservation lands Responsible party: Pima County, Marana
Timeline: On-going

Status: Approval expected soon of Development Agreement with I-10 Avra Valley Mining and Development Company, LLC for commercial enhancement contribution Funding required: No
2. Identify a permanent funding source to continue paying for the 99-year lease held by the Town of Marana for the 2400-acre Tortolita Preserve or determine a mechanism to
permanently set the Preserve land aside.
Responsible party: Town of Marana
Timeline: On-going
Status: Town is currently paying for the lease, but is looking for funding or a mechanism to permanently set aside the land.
Funding required: Yes
3. Identify a mechanism for preserving the larger Tortolita Reserve. The Reserve includes approximately 18,000 acres from the southern boundary of the existing 2400 -acre preserve to the northern Town boundary on the Tortolita fan.

Responsible party: Pima County, Town of Marana
Timeline: On-going
Status: This has been previously submitted under the Arizona Preserve Initiative
(may become available in the future, but may not be a secure alternative based on history). The Town has been evaluating alternatives including a state or federal park or reserve.
Funding required: Yes

## STAKEHOLDER AND PUBLIC PARTICIPATION

1. Include a diverse cross-section of stakeholders, including local jurisdictions, private property owners, state agencies, federal agencies, non-governmental organizations, academic institutions, utilities, and the Union Pacific Railroad Company, with meetings scheduled as appropriate.
Responsible party: All
Timeline: Ongoing
Status: Ongoing
Funding required? No
2. Inform and educate the public about the importance of preserving the Tucson-Tortolita wildlife linkage and solicit their feedback and input on phases of the project as the project is implemented.

Responsible party: All
Timeline: Ongoing
Status: Ongoing, CSDP has new brochure on wildlife linkages that will assist with public outreach and education
Funding required? No
3. Establish an Advisory Group for prioritizing parcels and the allocation of monies generated by any enhancement contributions for linkage preservation; the development of
re-vegetation plans; and any other tasks necessary
Responsible party: CSDP, Pima County, Marana
Timeline: Ongoing
Status:
Funding required? No


ADOT
c/o Jessica Popp, AECOM
2325 E. Camelback Rd. Suite 200
Phoenix, AZ 85016
RE: Interstate 10 (Tangerine Road to Ina Road) Study Scoping Comments

Dear Ms. Popp:
The Tucson Audubon Society (TAS), is a non-profit 501(c)(3) organization, located in Tucson, Arizona
(www.tucsonaudubon.org) and established in 1949. Our focus is on the preservation and restoration of wildlife habitats in Arizona using the tools of education, conservation, and recreation. We partner with private and governmental bodies to identify and take action to counter threats to wildlife and the places they live. We promote and educate the public and governments about the public welfare, environmental and economic benefits of preserving restoring and connecting wildlife habitats. TAS serves on numerous committees including both Science and Stakeholder committees for the federal Section 10 Incidental Take/Habitat Conservation Plan (HCP) Permits of the City of Tucson, the Town of Marana, and Pima County.
On behalf of the Society's more than 4000 member households in southern Arizona, we appreciate the opportunity to communicate with you regarding the potential expansion of the segment of Interstate 10 between Tangerine Road and Ina Road.
In general, Tucson Audubon strongly believes that a future expansion of Interstate 10 between Tangerine and Ina Roads presents a singular opportunity to expand and strengthen the ability of wildlife to cross Interstate 10 and roam freely between the Tucson and Tortolita Mountains while improving and ensuring public health and safety. As the Design Concept Report and Environmental Assessment are developed, we encourage he ADOT Project Team to make the protection an enhancement of this state identified priority wildlife linkage a op priority.

Considerable public and private resources have already been directed towards this task, with a primary focus on the area in the vicinity of an abandoned railroad underpass adjacent to the southern aspect of the Avra Valley Road exit. This includes much

Main Offices and Nature Shop ain Offices and Nature Shop Tucson, AZ 85705 TEL 520-629-051 FAX 520-623-3476 Toll Free 1-866-459-946

Nature Shop at Agua Caliente 12325 E. Roger Road

TEL 520-760-788
progress toward preserving adequate open space to both the east and west of this crossing point.
TAS is a member of the Pima Association of Governments' (PAGs) Environmental Planning Advisory Committee (EPAC) and Regional Transportation Authority (RTA) Wildlife Linkages Working Group
(http://www.rtamobility.com/MeetingsEvents/WildlifeLinkages.aspx). TAS is also a founding member of the Coalition for Sonoran Desert Protection
(http://www.sonorandesert.org/) and we would refer you to the Coalition’s letter on this particular subject for more detailed background information.

Since the identification of Pima County's "critical landscape linkages," or wildlife linkages, in 1998 as a part of Pima County's Sonoran Desert Conservation Plan (SDCP) (http://www.pima.gov/cmo/sdcp/), TAS has worked in cooperation with the Arizona Game \& Fish Department (AzGFD) and other scientists and governments to identify and study potential road kill "hot spots" and implement measures to improve wildlife permeability and ensure genetic exchange for the health of all Arizona's wildlife. These linkages are broadly defined areas that connect preserve areas (such as National Forest lands, National Park lands, National Conservation Areas, National Monuments or Pima County-owned open space) but also contain existing or potential barriers to wildlife movement (such as railroads, agricultural fields, irrigation canals, and most importantly, a network of roads).

One of the most imperiled Critical Landscape Connections identified in the SDCP is the wildlife linkage between the Tucson Mountains and the Tortolita Mountains. In fact, the Tucson-Tortolita Mountains Connection at Avra Valley Road is identified as the Tucson-Tortolita Mountains Connection at Avra Valley Road is it
Critical Landscape Linkage \#1 by Pima County - see Appendix A at
http://www.pimaxpress.com/Documents/planning/Rezoning/BIR\ Guidelines\ FI NAL\%20\%20March\%202010.pdf and is included in a general map of Pima County's biological resources and six critical landscape linkages at
http://www.pima.gov/cmo/sdcp/PDF/BiologicalMap.pdf. This particular critical wildlife linkage, while still viable, is threatened by encroaching development, roadway building, and especially the presence of Interstate 10.

Vacant lands on both sides of the Interstate, secured by development agreements, conservation easements, restoration activities and open space purchases, provide the only viable crucial connection to the Tortolita Fan and Tortolita Mountains to the northeast and to the Santa Cruz River and the Tucson Mountains to the southwest. This area has also been identified in the $\mathbf{2 0 0 6}$ Arizona's Wildlife Linkages Assessment report
(http://www azdot.gov/inside adot/OES/AZ WildLife Linkages/assessment.asp) and 2007-2008 Arizona's Missing Linkages project
(http://corridordesign.org/linkages/arizona), where it is identified as one of only 16 top priority wildlife linkages statewide.

The Town of Marana passed Resolution No. 2011-32: Relating to the Environment; approving and authorizing the Mayor to execute an agreement with the Tucson
Audubon Society for borrow pit restoration to restore and enhance the native vegetative component of a portion of this critical wildlife linkage on the west side of the freeway ee http://www.sonorandesert.org/uploads/files/FOD_41_250.pdf\#page=8
http://www.tucsonaudubon.org/volunteer.html, and
http://www.volunteermatch.org/search/opp992884.jsp,
Given the wealth of resources already expended to preserve the Tucson-Tortolita Mountains wildlife linkage, a future expansion of Interstate 10 between Tangerine Road and Ina Road provides an incomparable opportunity to upgrade and enhance the wildlife crossing point near the Avra Valley Road exit. This is an opportunity that cannot be overlooked or missed.

As the ADOT Project Team prepares the Design Concept Report, we encourage you to include an enhanced and functional wildlife crossing structure(s) near the Avra Valley Road exit, taking into consideration the considerable efforts of local stakeholders to preserve open space in the nearby area. Furthermore, as the Environmental Assessment is developed, we encourage you to thoroughly analyze, in cooperation with AzGFD and he United States Fish \& Wildlife Service (USFWS) the impacts of an expanded Interstate 10 to the Tucson-Tortolita Mountains wildlife linkage and the ability of wildlife to freely roam between these two mountain ranges. In conjunction with the Research/Contract group at AzGFD and the Pima Association of Governments' Wildlife Linkages Working Group, please consider and evaluate both raised, bridge ype wildlife crossing structures as well as underpass type wildlife crossing structures, lone and in combination, for this area in order to effectively complete the Tucson-Tortolita-Santa Catalina Linkage.

Thank you for considering these scoping comments on the Interstate 10 (Tangerine Road to Ina Road) Study. If you have any questions or would like further clarification of our comments, please do not hesitate to contact me.

Sincerely,
Chvistixar MClis
Christina McVie
Conservation Chai
Tucson Audubon Society
300 East University Blvd
Suite \# 120
Tucson, AZ 85705

## Tucson Electric Pourer Company

4350 East Irvington Road, Mailstop DB101 Tucson, Arizona 85714

Debra Sykes
Resource Management Team

Ofc: (520) 917-8766
Fax: (520) 917-8790

## November 21, 2011

## Ms. Jessica Popp <br> Ms. Jessic

2325 E. Camelback Road, Suite 200
Phoenix, Arizona 85016
SUBJECT: I-10: Tangerine Road to Ina Road
ADOT Project Number 10 PM 240 H7960 01 L
Preliminary Design Notification
Dear Ms. Popp:
At your request, enclosed is an electronic file of TEP facility maps for the subject project.
Please maintain drivable access to TEP poles, equipment and facilities throughout the design and during construction. The relocation of TEP facilities such as underground feeder and 46 kV and higher voltages i limited to TEP's off-peak season, October through April. TEP poles will remain in place until all othe int-use participants have transferred facilities from TEP poles. For the latest TEP Electric Service equirements and Construction Standards, please visit our web site at
http://www.tep.com/business/construction/ServReqBook.asp.
Please notify your contractor to contact Blue Stake for the location of existing electric facilities and to comply with Arizona Blue Stake law regarding safe approach distances and the protection of electrical acilities. Please contact TEP directly at 520-917-2617 a minimum of 10 working days in advance to equest overhead or excavation protection. Overhead excavation or protection is billable to the contractor It is the contractor's responsibility to protect TEP facilities. If damage occurs, the total cost to repair those acilities will be billable to the contractor. For more information, Please have your contractor visit the whsite at htp//www ten com/business/construction/facilities asp

Should you require additional information, please contact me at 917-8766.


DS: If
Enclosure(s)

## Rietz, Jessica

| From: | Lucy Amparano [lucy@gordleygroup.com](mailto:lucy@gordleygroup.com) |
| :--- | :--- |
| Sent: | Tuesday, December 27, 2011 11:35 AM |
| To: | Bragg, Rodney; Nasreen Hasan; Ladron de Guevara, Felipe; Popp, Jessica; Schlesinger, |
| Cc: | William; Robin Raine; Linda Ritter; Paki Rico |
| Subject: | Jan Gordle; Adriana Marinez |
|  | Fwd: I-10: Tangerine Road to Ina Road |

Forwarding to you comments received via email at tangerine2ina@azdot.gov from Pima County Department of Transportation.

## Lucy Amparano

ar
GORDLEY GROUP
540 N. Tucson Blvd
Tucson, AZ 85716
Cell: 520.444.4216
www.gordleygroup.con

Northern Arizona University.) This juncture is also designated as a Critical Landscape Connection according to Pima County's Conservation Lands System. Largely through the expenditure of 2004 voter-approved Open Space Bo
dollars, the County, on-behalf of the community,
has acquired just over 280 acres, mostly on the west side of Interstate 10 , that contribute to the western approach to the overpass/wildlife crossing, Roughly 200 west space associated with Tucson Electric Power's North Loop Substation and the Cascada Specific Plan development contribute to maintaining the eastern approach. As this project continues through the planning and ultimately
the implementation stages, ADOT and FHWA should incorporate the necessary considerations/design features/cost in order to preserve and enhance where possible the community's investment in maintainin connectivity and wildlife movement opportunities at the Avra Valley - Interstate 10 wildlife crossing.

Thank you for your consideration of our comments and concerns.
Robert Young, P.E
Transportation Systems Division Manager
ima County Dept of Transportation
01 N Stone Ave, $5^{\text {th }}$ Floor
Uucson, AZ 8570

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contain contidential/privileged information. Any unauthorized use, discl

Begin forwarded message:

From: Robert Young [Robert.Young@dot.pima.gov](mailto:Robert.Young@dot.pima.gov)
Date: December 27, 2011 11:16:08 AM MST
To: [tangerine2ina@azdot.gov](mailto:tangerine2ina@azdot.gov)
Cc: Sherry Ruther [Sherry.Ruther@dsd.pima.gov](mailto:Sherry.Ruther@dsd.pima.gov)

## Subject: I-10: Tangerine Road to Ina Road

attended the agency scoping meeting for this project on December 72011 and provided comments but this is to follow p with written comments as follows.

1. There is an existing small community known as Rillito on the west side of $l-10$ north of Avra Valley Road. Their only access is the two-way frontage road on the west side of $I-10$. When the frontage road is converted to one way east-bound, it will make access to this area difficult if alternative access is not provided. We request that alternative access to Rillito be investigated as part of this project.
2. A rezoning for a large commercial development has been approved just south of the Avra Valley Interchange. A development plan has not been approved, but a development agreement between Pima County and the property owner is in place and I provided a copy to you at the scoping meeting. This agreement outlines proposed developer improvements to Avra Valley Road, the Avra Valley/l-10 intersection, and the requirement to maintain a wildlife corridor, among other things.
. One of a critical crossing opportunity for wildlife moving between the Tucson Mountains and the
ortolita Mountains. This location is an essential point within the Tucson-Tortolita segment of the Tucson-Tortolita-Santa Catalina Linkage (see Arizona Missing Linkages: Tucson-Tortolita-Santa Catalina Mountains Linkage Design. Report to Arizona Game and Fish Department. Beier,P., Garding, E., and D. Majka. 2006. School of Forestry,

## SOUTHWEST GR5 [ORPORATION

## December 22, 2011

## AECOM

Attn: Jessica Popp
2325 East Camelback Road, Suite 200
Phoenix, AZ 85016

RE: Federal Aid Number: 010-D(209)A
ADOT Project Number: 10 PM 240 H7960 011
I-10: Tangerine Rd to Ina Rd

Dear Ms. Popp:
The request for comments for I-10 from Tangerine Road to Ina Road has been reviewed by Southwest Gas Corporation (SWG). SWG has distribution pipe, transmission pipe, high pressure steel pipe, distribution and high pressure valves and regulator stations within the project limits.

SWG anticipates extensive relocation efforts near Avra Valley Road and Ina Road. Due to seasonal demand, the relocation of transmission and high pressure pipe, valves and regulato stations is limited to April through September. Lead times for high pressure steel pipe, fittings, valves and regulator station components are in the order of 4 to 6 months.

All information is provided for reference use only. Potholing and Blue Stake are suggested for best accuracy when locating SWG facilities. Please be aware that SWG requires a minimum onefoot separation from distribution facilities and any proposed structures and two-foot separation from high pressure facilities.
SWG requests to be included on the distribution of future submittals and final plans in order to verify further if SWG facilities will be in conflict with proposed improvements. If you have any verify further if SWG facilities will be in conflict with proposed improvements. If you have any

Sincerely,
Kelley Jeena
Kelly Fleenor
Southern Arizona Division
kelly.fleenor@swgas.com

| U.S. DEPARTMENT OF ACRICULTURE <br> Natural Resources Conservation Service FARMLAND CONVERSION IMPACT RATING <br> (Rev. 1-9-91) <br>  FOR CORRIDOR TYPE PROJECTS |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PART I (To be completed by Federal Agency) |  |  | $\begin{aligned} & \text { 3. Date of Land Evaluation Request } \\ & \hline \text { 2/26/13 } \end{aligned}$ |  |  |  | $\text { Sheet of } \frac{1}{1}$ |  |
| 1. Name of Project I-10 Tangerine Rd to Ina Rd |  |  |  |  |  |  |  |  |
| 2. Type of Project Roadway Improvements (widening) |  |  | 6. County and State Pima, Arizona |  |  |  |  |  |
| PART II (To be completed by NRCS) |  |  | 1. Date Request Received by NRCS$2 / 27 / 13$ |  |  | 2. Person Completing FormLeslie Glover II |  |  |
| 3. Does the corridor contain prime, unique statewide or local important farmland (If no, the FPPA does not apply - Do not complete additional parts of this form) |  |  | $\begin{array}{lll} \text { 1? } \\ \mathrm{m}) . & \text { Yes } \square & \text { no } \square \\ \hline \end{array}$ |  |  | $\left.{ }^{\text {4. Acres lrigated }}\right\|_{\text {A }}{ }^{\text {Average Farm Size }}$ |  |  |
| 5. Major Crop(s)alfalfa, cotton, grains |  | 6. Farmable Land in Government JurisdictionAcres: 49641 |  |  |  | 7. Amount of Farmand As Defined in FPPAAcres: $32378 \% 0.01$ |  |  |
| 8. Name Of Land Evaluation System UsedN/A |  | 9. Name of Local Site Assessment System |  |  |  | 10. Date Land Evaluation Returned by NRCS$3 / 5 / 13$ |  |  |
| PART III (To be completed by Federal Agency) |  |  |  | Alternative Corridor For Segment |  |  |  |  |
|  |  |  |  | Corridor A |  | idor B | Corridor C | Corridor D |
| A. Total Acres To Be Converted Directly |  |  |  | 28.6 |  |  |  |  |
| B. Total Acres To Be Converted Indirectly, Or To Receive Services |  |  |  | 0 |  |  |  |  |
| C. Total A Ares In Corridor |  |  |  | 28.6 |  |  |  |  |
| PART IV (To be completed by NRCS) Land Evaluation Information |  |  |  |  |  |  |  |  |
| A. Total Acres Prime And Unique Farmland |  |  |  | 0 |  |  |  |  |
| B. Total Acres Statewide And Local Important Farmland |  |  |  | 0 |  |  |  |  |
| C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted |  |  |  | 0 |  |  |  |  |
| D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value |  |  |  | 90 |  |  |  |  |
| PART V (To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0-100 Points) |  |  |  | 50 |  |  |  |  |
| PART VI (To be completed by Federal Agency) CorridorAssessment Criteria (These criteria are explained in 7 CFR 658.5(c)) |  |  | $\begin{array}{\|c\|} \hline \text { Maximum } \\ \text { Points } \\ \hline \end{array}$ |  |  |  |  |  |
| 1. Area in Nonurban Use |  |  | 15 | 7 |  |  |  |  |
| 2. Perimeter in Nonurban Use |  |  | 10 | 7 |  |  |  |  |
| 3. Percent Of Corridor Being Farmed |  |  | 20 | 3 |  |  |  |  |
| 4. Protection Provided By State And Local Government |  |  | 20 | 0 |  |  |  |  |
| 5. Size of Present Farm Unit Compared To Average |  |  | 10 | 8 |  |  |  |  |
| 6. Creation Of Nonfarmable Farmland |  |  | 25 | 0 |  |  |  |  |
| 7. Availablility Of Farm Support Services |  |  | 5 | 5 |  |  |  |  |
| 8. On-Farm Investments |  |  | 20 | 5 |  |  |  |  |
| 9. Effects Of Conversion On Farm Support Services |  |  | 25 | 5 |  |  |  |  |
| 10. Compatibility With Existing Agricultural Use |  |  | 10 | 10 |  |  |  |  |
| TOTAL CORRIDOR ASSESSMENT POINTS |  |  | 160 | 50 | 0 |  | 0 | 0 |
| PART VII (To be completed by Federal Agency) |  |  |  |  |  |  |  |  |
| Relative Value Of Farmland (From Part V) |  |  | 100 | 50 | 0 |  | 0 | 0 |
| Total Corridor Assessment (From Part VI above or a local siteassessment) |  |  | 160 | 50 | 0 |  | 0 | 0 |
| TOTAL POINTS (Total of above 2 lines) |  |  | 260 | 100 | 0 |  | 0 | 0 |
| 1. Corridor Selected: $\quad$2. Total Acres of Farmlands to be <br> Converted by Project: |  |  | 3. Date Of Selection: |  | 4. Was A Local Site Assessment Used? |  |  |  |

Signature of Person Completing this Part:
DATE

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood along with the land evaluation information.
(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended More than 90 percent - 15 points
90 to 20 percert 1401 point(s)
(2) How much of the perimeter of the site borders on land in nonurban use?

More than 90 percent - 10 points
00 to 20 percent- 101 point
(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the las 10 years?
More than 90 percent - 20 points
Less than 20 percent -0 points
(4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs o protect farmland?
site is spotected -20 points $n$ protected -0 points
sit
(5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with $\$ 1,000$ or more in sales.)
Below average- deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average -9 to 0 points
(6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project -0 points
(7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available -5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points
(8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures? High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points
(9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support
ervices so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area? Substantial reduction in demand for support services if the site is converted -25 points No significant reduction in demand for support services if the site is converted -0 points
(10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use? Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s) Proposed project is fully compatible with existing agricultural use of surrounding farmland -0 points


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[^14]:    able 7. Noise Abatement Criteria ............................................................................................ 21

[^15]:    Darla Sidles

