

The Sonoran Corridor

An Auxiliary Interstate Highway connecting I-19 and I-10

In 2013, Pima County Administration proposed the Sonoran Corridor, or Auxiliary Interstate Highway, as high-speed, limited-access corridor between Interstate 19 and Interstate 10. A freeway connection between I-19 and I-10 has been studied for nearly thirty years but development of the previously recommended Sahuarita Road alignment never occurred, in part due to the incorporation and development of the Town of Sahuarita. This new corridor provides access to the proposed Aerospace Business Park, Raytheon and Tucson International Airport. This report summarizes the proposed Sonoran Corridor alignment and provides initial GIS data and analysis of potential impacts. Much further analysis will be required to develop a preferred alignment based on a full evaluation of environmental impacts.

Development of Alternative Alignments

One of the objectives of the Sonoran Corridor is to provide high-speed access between I-19 and I-10. The Old Vail Connection Road exists as a dirt road from Old Nogales Highway to Wilmot Road and this corridor has been planned for many years as an arterial roadway, so it is logical to consider at least part of this alignment for future development and widening. Another objective of the Sonoran Corridor is to provide access to the proposed Aerospace Business Park which will be located along the relocated Hughes Access Road.

With these general objectives in mind, the shortest and most efficient route extends Old Vail Connection Road west through the Tohono O'odham Nation, San Xavier District (SXD) and connects to I-19 at the existing Papago Road interchange. However, it was determined that this route impacts archaeological resources and is not supported by SXD leadership, so it was rejected.

Given that the San Xavier District extends all the way south to Pima Mine Road, several alternative routes were developed that connect to Pima Mine Road. One of the advantages of extending the Sonoran Corridor this far south is that it can also serve the Town of Sahuarita. Three alternative routes were developed that used part of the Old Nogales Highway, but these routes were ultimately rejected because of anticipated impacts to businesses and private property and the costs associated with these impacts. A fifth alternative was developed that extends Pima Mine Road east to the future extension of Alvernon Way. This route was chosen for further study and analysis. A map of all five alternative routes is shown in Figure 1.

GIS Analysis of Alternative Alignments

Five alternative alignments were mapped and analyzed with GIS. This analysis included mapping Land Ownership, Land Use, Conservation Land Systems, FEMA Hazard Zones, and Archeological Sensitivity and Survey Sites. The preferred alignment, shown as Alternative 4, primarily crosses undeveloped State Lands and impacts the fewest homes, businesses and private property. A summary of the GIS analysis is shown in Table 1 and subject maps are included at the end of this report.

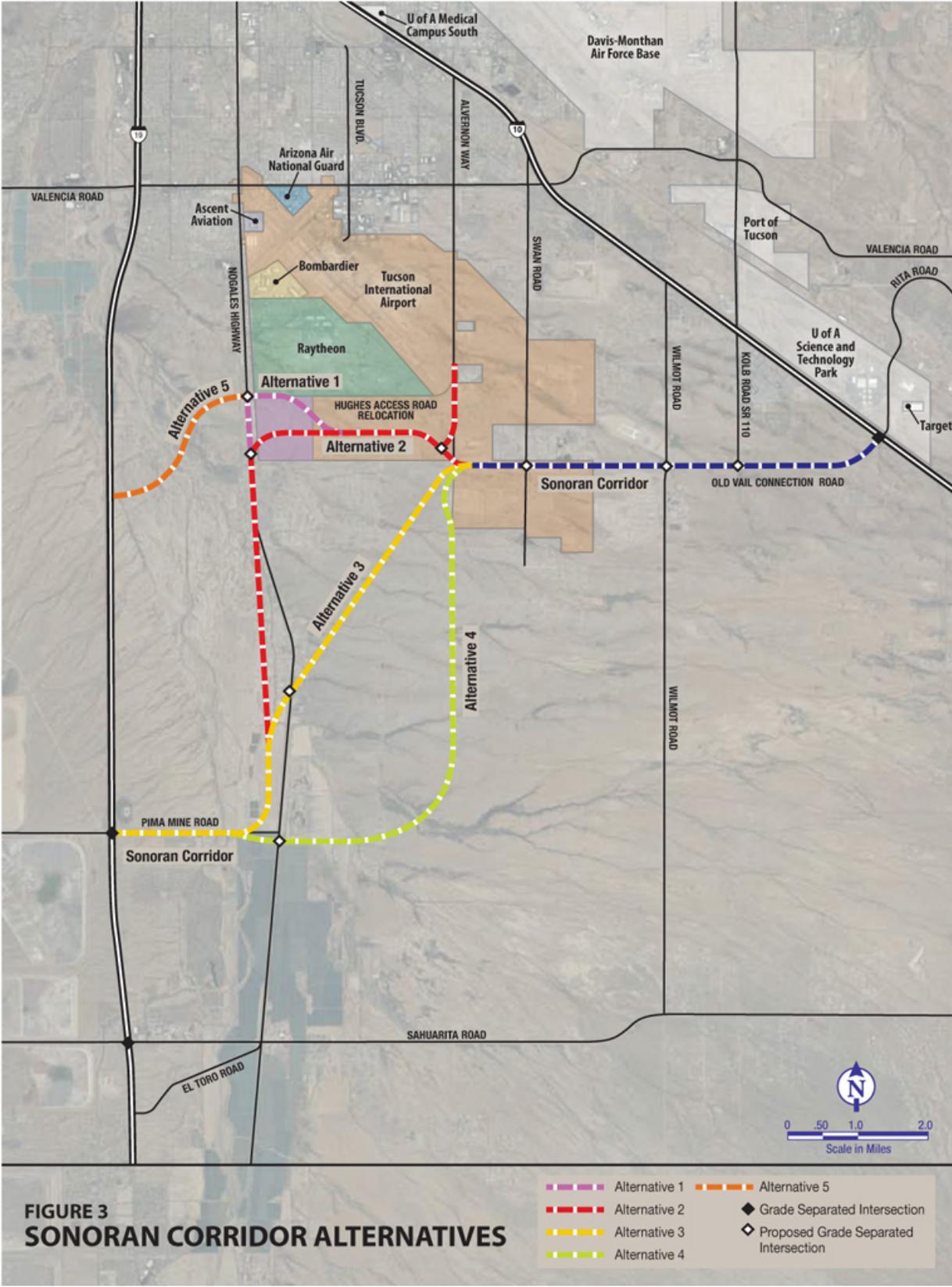


Figure 1: Sonoran Corridor Alignment Alternatives

Table1: Sonoran Corridor GIS Analysis Summary Table

	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	
Length (miles)	17.6	16.8	14.1	15.5	12.0	
	Acres	%	Acres	%	Acres	%
Right of Way	638		607		512	
Ownership						
Private	236	37%	235	39%	133	26%
Public Roadways	157	25%	127	21%	109	21%
Tucson Airport Authority	109	17%	106	17%	37	7%
State of Arizona	69	11%	70	12%	187	37%
Federal, Native American	22	3%	22	4%	22	4%
Federal	20	3%	15	2%	15	3%
Pima County	17	3%	25	4%		
City of Tucson	9	1%	9	1%	9	2%
Land Use						
Vacant	334	52%	345	57%	260	51%
Roadway	157	25%	127	21%	109	21%
Agricultural	0.4	0.1%	0.4	0.1%	81	16%
Residential	26	4%	23	4%	11	2%
Commercial	14	2%	10	2%	17	3%
Mining	65	10%	65	11%	20	4%
Utility	15	4%	10	2%	1	0.2%
Misc Municipal	0	0%			13	2%
Police/Fire	27	4%	27	4%		
CLS						
Important Riparian Areas	11		11		13	
Agricultural Inholdings	7		7		7	
Multi-Use Mgt Areas	39		39		39	
Non-CLS	582		552		453	

Further Refinement of the Pima Mine Road Alignment

Once a preferred alignment along Pima Mine Road was identified, further analysis revealed constraints including utilities and local roadway access which suggested the need to create a separate interstate facility parallel to but separate from Pima Mine Road. This routing would not impact Pima Mine Road access and utility lines, nor would it impact the Central Arizona Project Pima Mine Road Recharge Facility. It would avoid identified archaeological sites on the San Xavier District lands as well. Further, it would connect to I-19 in a new interchange, which ADOT had recommended in a study from 2009. A map showing the current alignment of the Sonoran Corridor is shown in Figure 2. Further analysis of the entire corridor is ongoing.

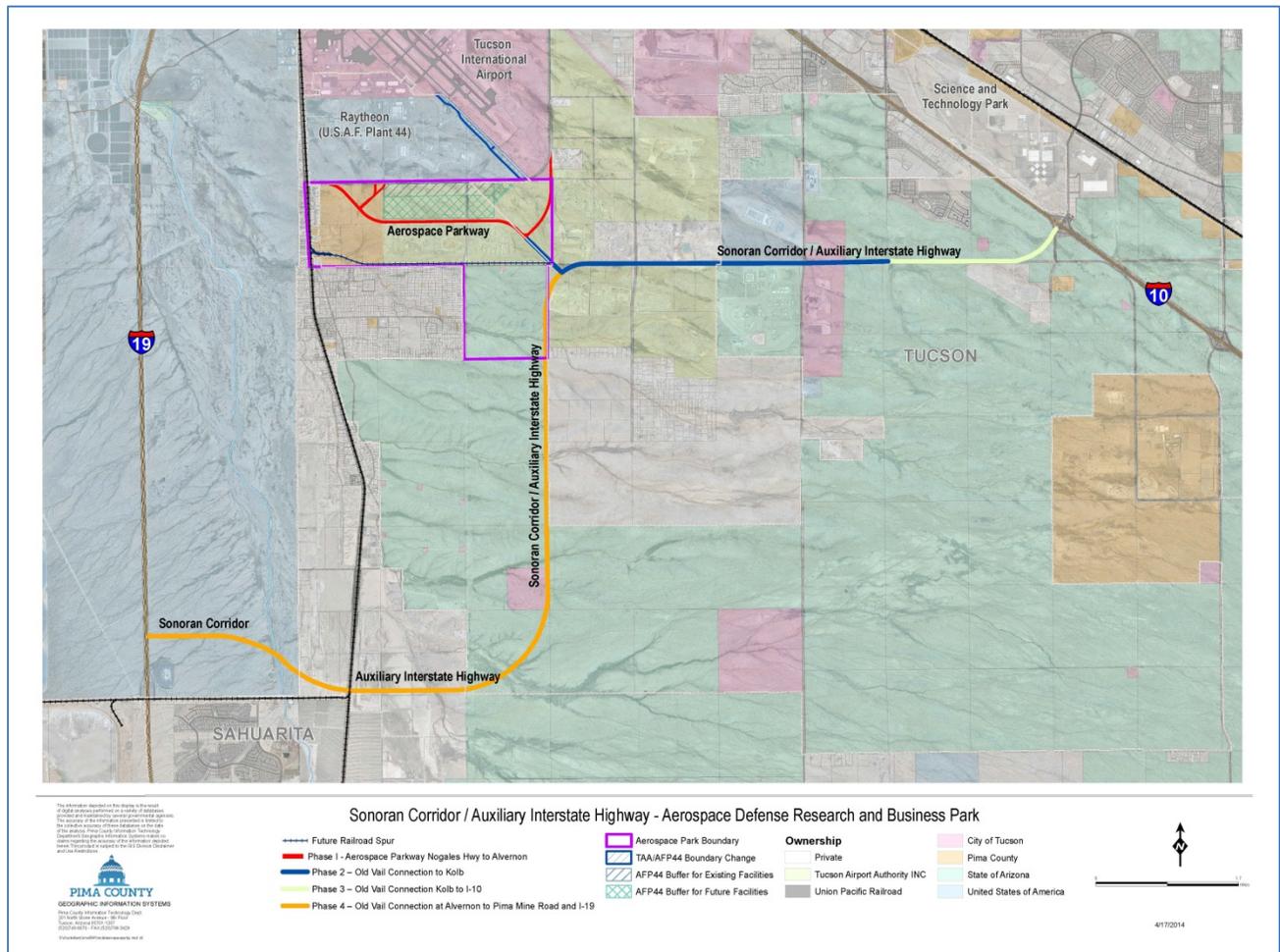


Figure 2: Sonoran Corridor Preferred Alignment

Description of Preferred Alignment

The proposed Auxiliary Interstate connects to I-19 to I-10 on the south and southeast side of Tucson. The route begins just north of the existing Pima Mine Road interchange on I-19 and ends at the Rita Road interchange on I-10 as shown in Figure 2. The route is approximately 15.5 miles long and travels through mostly undeveloped State Land and traverses land and portions of the Tohono O'odham Nation San Xavier District, City of Tucson, and unincorporated Pima County. The route generally parallels Pima Mine Road, then turns north along the Alvernon Road section line, then turns east along Old Vail Connection Road until it intersects I-10 at Rita Road. The following paragraphs describe the three main sections of the route in more detail.

Southern Section: Interstate 19 to Alvernon Way - length approximately 5 miles

The proposed Auxiliary Interstate intersects I-19 north of Pima Mine Road at what would become a new interchange north of the Desert Diamond Casino. The current Pima Mine Road interchange does not meet current ADOT standards and would be relocated and/or modified with this project. From there, the route travels east through Tohono O'odham San Xavier District lands and curves south toward Pima Mine Road where it runs parallel to and north of Pima Mine Road, crossing Asarco Inc. property until Nogales Highway. This alignment minimized impacts to the Santa Cruz River, known cultural resources, and the CAP Pima Mine Road Recharge basins. The route then crosses over Nogales Highway, Union Pacific railroad line, and Asarco and Cyprus mining properties. The route continues east through undeveloped State Land and then gradually curves north to follow the section line that is aligned with Alvernon Way to the north.

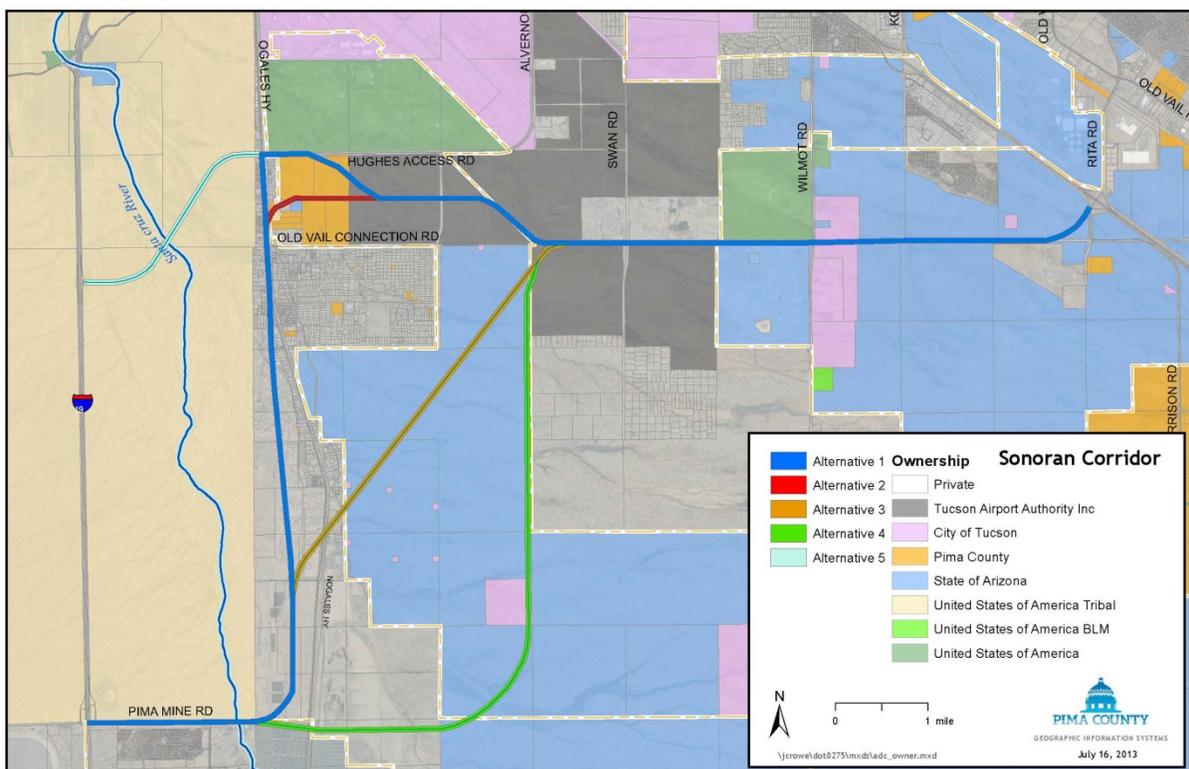
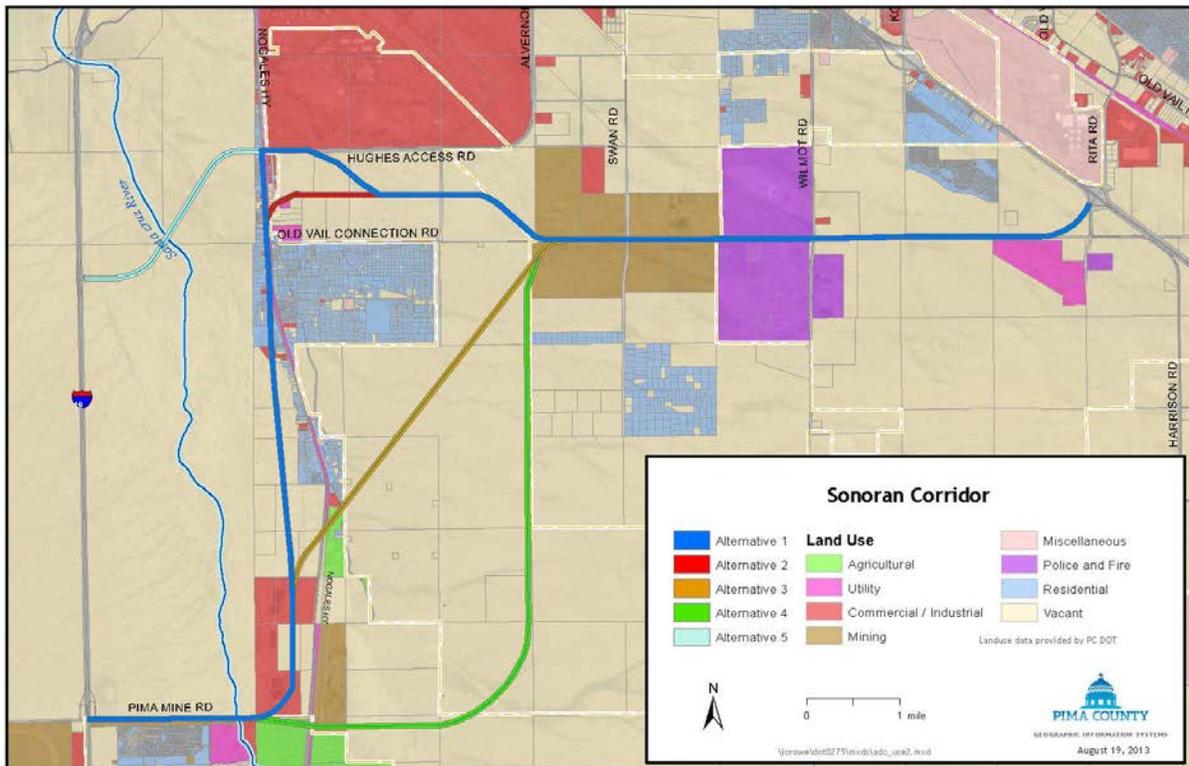
Middle Section: Alvernon Way to Old Vail Connection Road - length approximately 5 miles

From Pima Mine Road to Old Vail Connection Road, the route runs north through primarily undeveloped State Land along section lines that are aligned with Alvernon Way. The route generally follows the boundary of the City of Tucson and unincorporated limits and also passes along the western boundary of the Swan Southlands (Verano) planned development. As the route nears Old Vail Connection Road, it passes through undeveloped Tucson Airport Authority land, including surface mining sites. The route gradually curves east to follow the Old Vail Road alignment. At this point, the route would connect to the Aerospace Parkway.

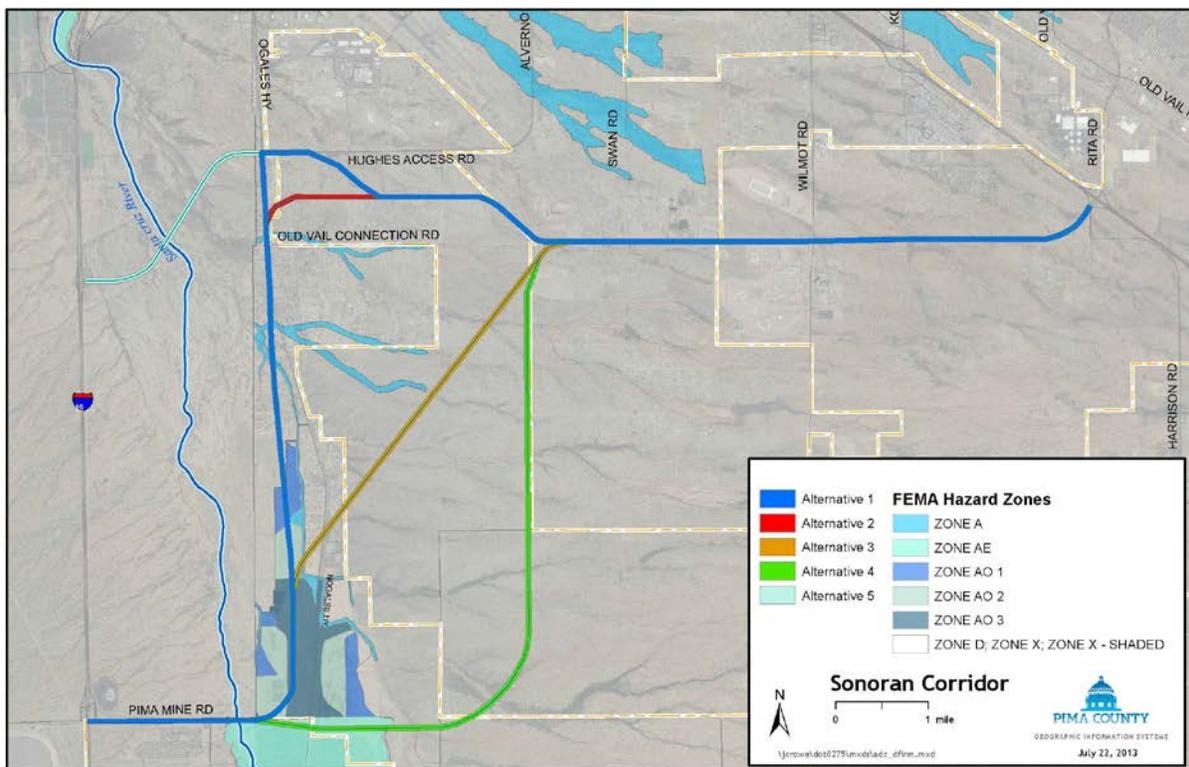
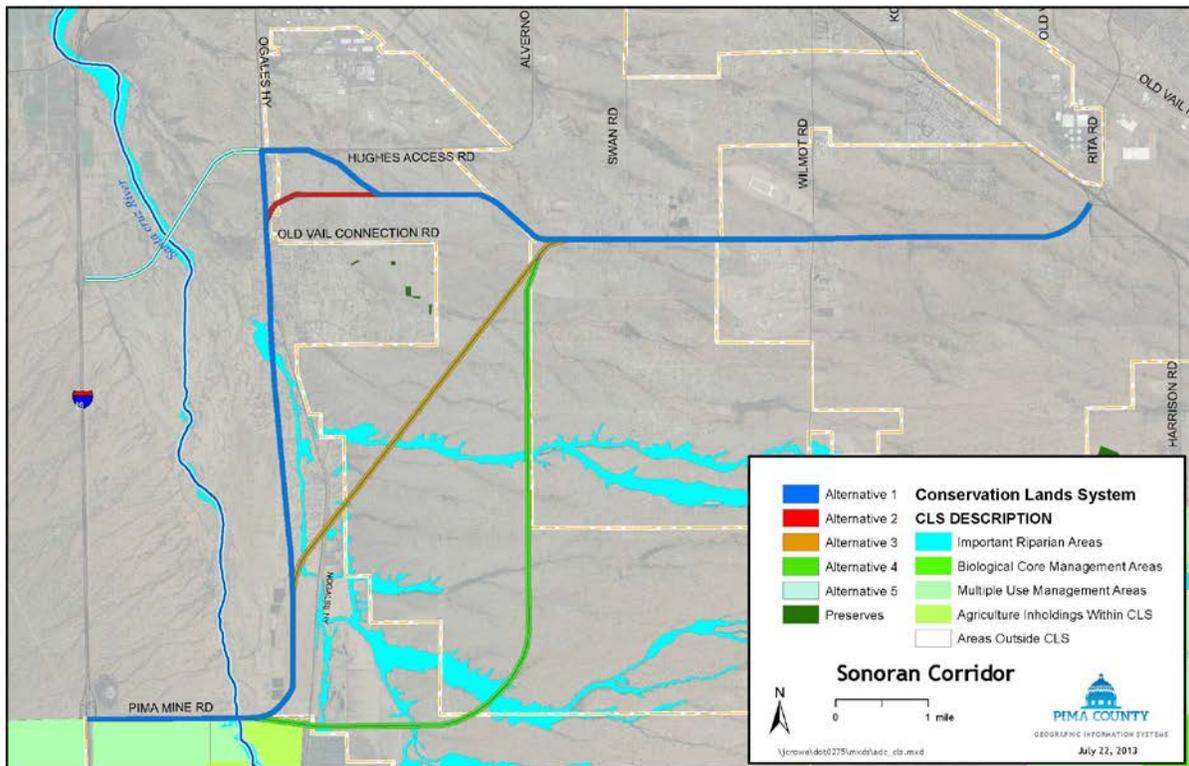
Northern Section: Old Vail Connection Road to Rita Road Interchange- length approximately 6.3 miles

From Alvernon Way, the route runs east along the current Old Vail Connection Road and eventually connects to the Rita Road interchange at I-10. The route passes through most undeveloped parcels owned by Tucson Airport Authority and also mining property owned by Cemex and Granite. Beyond the Craycroft Road alignment, the route passes in between the federal prison to the north and the state prison to the south. East of Wilmot Road, the route traverses mostly undeveloped State Land and then curves north to intersect I-10 at Rita Road.

Alternatives Analysis GIS Maps



Alternatives Analysis GIS Maps



Alternatives Analysis GIS Maps

