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# MEMORANDUM

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Date: June 17, 2014

To: The Honorable Chair and Members  
Pima County Board of Supervisors

From: C.H. Huckelberry  
County Administrator 

Re: **Proposed Snyder Road Bridge over Sabino Creek**

Two recent, controversial zoning cases at Sabino Canyon and River Roads cited traffic congestion as a major issue and sought alternatives to reducing traffic on both Sabino Canyon Road south of River Road and Tanque Verde Road.

Attached is a report from the Department of Transportation (DOT) regarding the history of considering a bridge crossing and highway linkage across Sabino Creek. A number of alternatives have been studied. The only remaining viable alternative is to construct the Snyder Road Bridge, linking the urban area east of Sabino Canyon Wash and north of Tanque Verde Wash with the balance of the metropolitan area.

DOT modeling indicates substantial reduction in vehicle trips on Sabino Canyon Road south of Snyder Road, as well as on Tanque Verde Road, if such were to occur. There are also very positive environmental benefits from reduced air pollution and reduced energy consumption from providing such a linkage.

It is estimated the cost to construct Snyder Road, including the bridge across Sabino Creek, would be in the range of \$15 million, but no funds have been identified. However, in any future transportation funding initiative, it is likely this vital transportation link that has congestion reduction benefits and environmental benefits will be a high priority.

## Attachment

c: John Bernal, Deputy County Administrator for Public Works  
Priscilla Cornelio, Director, Department of Transportation



## MEMORANDUM

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**DATE:** June 3, 2014  
**TO:** C.H. Huckelberry, County Administrator  
**FROM:** Priscilla S. Cornelio, P.E., Director 

**SUBJECT:** Proposed Snyder Road Bridge at Sabino Creek

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### Background

There has been much discussion regarding the construction of an east-west transportation link across Sabino Creek since at least the early 1960s. A new bridge in this area would benefit area residents by providing improved access and mobility to jobs, schools, housing, goods and services. A new bridge would also increase access and mobility for travelers to Mt. Lemmon, Sabino Canyon and other northeast Tucson destinations. The route most often discussed has been the Snyder Road alignment which has been on the County Major Streets and Routes Plan since at least 1961; however, there have been others.

### 1981 Study

In 1981, a study by the Department of Transportation evaluated four crossing locations of Sabino Creek at Sunrise Drive, Ocotillo Drive, Snyder Road and Cloud Road. Ocotillo Drive and Cloud Road were eliminated from further consideration because there is no good connection point east of Sabino Creek. The extension of Sunrise Drive with a connection to Houghton Road was possible, and was even included as a major route on the PAG 1986 Regional Transportation Plan, however, no commitment was ever made to reserve right-of-way for this route. Intervening development over the years, most notably the Sabino Springs subdivision, has now closed off that possibility. The only alternative currently available for crossing Sabino Creek is the Snyder Road alignment.

### 1998 Study

In 1997-98, a detailed study of the Snyder Road alignment was conducted and four separate build alternatives and a no-build alternative were investigated. The study was conducted by a group of four consultants with different specialties and included a design concept report, environmental assessment, traffic study and public opinion survey. A number of public meetings with area residents were also conducted. The alternatives studied ranged from an at-grade crossing to a bridge spanning the floodplain and utilized design speeds ranging from 30-45 mph. All the build alternatives provided a two lane road with paved shoulders and included a vertical profile correction at the hill west of Sabino Creek. Following is a summary of the major findings of that study.

- The study recommended construction of a 1200 foot long bridge to span the entire floodplain and therefore minimize impacts to the floodplain. The selected alternative also recommended a design speed of 40 mph as this would be adequate for a major new corridor such as this but would also minimize the impacts west of Sabino Creek where a hill must be cut down for sight distance.
- The Snyder Road bridge was projected to carry approximately 16,000 vehicles per day. As a result of the new bridge, traffic on Sabino Canyon Road, Tanque Verde Road and Catalina Highway was projected to decrease by up to 10,000 vehicles per day.
- Construction of this major new transportation link was expected to result in a reduction of vehicle miles travelled on the order of 7 million miles per year. There would also be a concomitant reduction in vehicle emissions and improvement in air quality and a reduction in vehicle operating costs in the range of \$3 million per year.
- Because of shorter trip lengths, and improved circulation and access, there would be significant operational benefits for Tucson Unified School District and emergency services such as the Sheriff's Department and Rural Metro.
- The project would impact 2-5 acres of mesoriparian habitat that would require mitigation. It was found that the project was unlikely to adversely impact any special status species or their habitat. A 404 permit would also be required.
- There would be no impact to cultural resources.
- The transportation survey found that opinion among area residents was evenly split between those in favor of the project and those opposed, with perhaps a slight advantage to those in favor. Most of the opposition was from people living adjacent to Snyder Road in the neighborhoods west of Sabino Creek.

### **Current Conditions**

Since completion of the study in 1998 no action has been taken to advance the project. Following is a summary of current issues and updated information related to the Snyder Road bridge at Sabino Creek.

- Snyder Road between Sabino Canyon Road and Bear Canyon Road is on the Major Streets and Scenic Routes Plan and has been since the early 1960s.
- Snyder Road between Sabino Canyon Road and Bear Canyon Road is listed in the PAG 2040 Regional Transportation Plan as an unfunded reserve project.
- Construction of this project would provide a benefit to area residents in the form of reduced trip lengths, reduced vehicle operating costs and improved circulation and access.
- The original traffic analysis has been updated using the PAG regional traffic demand model. The results of this model analysis indicate that 5,000 to 7,000 vehicles per day (vpd) would cross the new Snyder Road bridge itself and traffic on Snyder Road would increase to 15,000 vpd just east of Sabino Canyon Road. Over the long term, as more drivers became aware of and used the Snyder Road bridge, the model predicts that traffic over the bridge would increase to 11,000 vpd and Snyder Road traffic would increase to 18,000 vpd just east of Sabino Canyon

Road. East of Bear Canyon Road, the model indicates that Snyder Road traffic would increase from the current 2,000 to 3,000 vpd to about 6,000 to 7,000 vpd.

- The updated traffic analysis also indicated that with a new bridge, traffic volumes on Sabino Canyon Road would increase north of Snyder Road and decrease south of Snyder Road approaching Tanque Verde Road. Modeled traffic on Sabino Canyon Road north of Snyder Road would increase by 3,000 vpd (33%) from 9,000 vpd to 12,000 vpd. Traffic on Sabino Canyon Road to the south as it approaches Tanque Verde Road would decrease by 5,000 vpd from 45,000 vpd to 40,000 vpd. Traffic on Tanque Verde Road just east of Sabino Canyon Road also decreases by 6,000 vpd from 51,000 vpd to 45,000 vpd. Traffic decreases on Sabino Canyon Road and Tanque Verde Road would be in the range of 11-12%.
- Approximately one to three acres of new right-of-way would need to be acquired to construct the project.
- The 1998 proposed design for the recommended alternative does not meet current standards and would need to be updated to provide additional safety features such as wider shoulders and pedestrian facilities. With these revisions, and adjusting the unit costs to reflect current pricing, the cost to implement this project, including design, construction and environmental mitigation is estimated to be \$11.2 million.

### **Summary**

As a result of development over the last few years, the only alternative currently available for crossing Sabino Creek is on the Snyder Road alignment. There are potential traffic and circulation related benefits with a crossing of Sabino Creek such as reduced trip lengths and lower traffic volumes on Sabino Canyon Road and Tanque Verde Road. There would also be adverse impacts associated with a substantial increase in traffic on Snyder Road and it should be anticipated that considerable objections to any plans for a crossing of the Sabino Creek would be raised by the existing residents along Snyder Road. In addition, the current funding stream for the Department of Transportation does not support construction of this project. If there is a desire to move forward with implementation of this project, a source of funding must be identified. The attached aerial photo shows the Snyder Road alignment at Sabino Creek and the proposed bridge location.

### **Bibliography**

Long Range Transportation Plan for Unincorporated Pima County, Pima County Department of Transportation and Flood Control District; June 25, 1986  
Regional Transportation Plan, Pima Association of Governments; August 20, 1986  
Design Concept Report for Snyder Road Over Sabino Creek, dja Engineering Corp.; January 1998  
Environmental Analysis of the Proposed Snyder Road Extension Over Sabino Creek, SWCA, Inc. Environmental Consultants; January 1998  
Sub-Regional Travel Demand Model and Traffic Analysis for Snyder Road, Curtis Lueck & Associates; January 1998  
Executive Summary for Snyder Road Over Sabino Creek, dja Engineering Corp.; January 1998

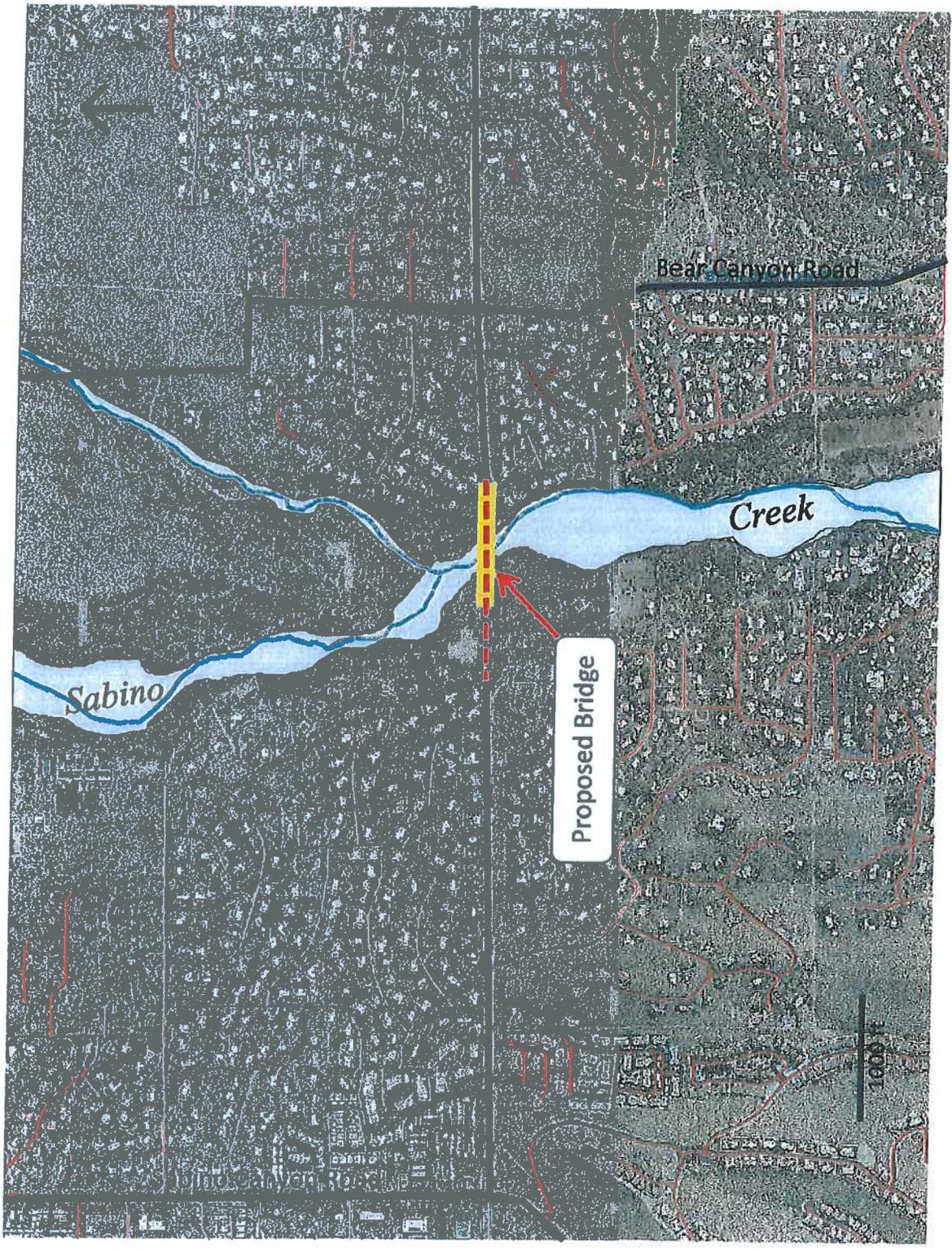
C.H. Huckelberry, County Administrator  
**RE: Proposed Snyder Road Bridge at Sabino Creek**  
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Please let me know if you have any questions.

PSC:RY:dg

Attachment

c: John M. Bernal, Deputy County Administrator for Public Works  
Ben Goff, Deputy Director



Bear Canyon Road

Creek

Sabino

Proposed Bridge

1000 ft