



MEMORANDUM

Date: June 12, 2020

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

From: C.H. Huckelberry
County Administrator

A handwritten signature in black ink, appearing to read "C.H. Huckelberry", is written over the typed name and title.

Re: **Pima County RTAnext Project Submittal**

As you are aware, the reauthorization process for the Regional Transportation Authority (RTA), dubbed RTAnext, is underway with participating jurisdictions requested to submit proposals by end of June 2020. Please find attached the County submittal requesting \$485.5 million for major roadway improvement projects, \$447.8 million for roadway maintenance and \$283 million for modernization. This proposal, along with those submitted by other jurisdictions, will be reviewed by the RTA Citizens Advisory Committee who will also solicit public input prior to recommending a draft plan to the RTA Board.

The list of road improvement projects totaling \$485.5 appear at the end of the attached submittal. New critical links and roadway expansions were selected based on technical analyses as well as community and Pima County Transportation Advisory Committee inputs.

The \$447.8 million roadway maintenance request is for pavement repair and preservation on County arterial and collector roadways over a 20-year period. Also included is mitigation for major roadways currently subject to flooding. While the County 10-year road repair plan covers arterial and collectors, RTA funding of this element would allow the County to allocate its limited transportation state-shared revenues to other important roadway and mobility functions.

Lastly, the \$283 million modernization request includes funding for livable streets, technology and transit. The livable streets and technology elements are not present within the current RTA program. They would deliver greater multi-modal opportunities along with implementing a mobility-on-demand approach using technology to provide enhanced traveler benefits at reduced cost, as outlined in the attached submittal document.

To further clarify the role of modernization and technology, Transportation Department staff is also completing a vision paper reflecting the culmination of the restructuring effort initiated a few years ago. This document will be shared with you shortly.

Please let me know if you have any questions.

Attachment

c: Carmine DeBonis, Jr., Deputy County Administrator for Public Works
Yves Khawam, PhD, Assistant County Administrator for Public Works
Ana Olivares, Director, Transportation Department

I. Roadway Maintenance Element

Pima County residents have identified roadway maintenance as a priority for any transportation initiative. A well-maintained transportation system allows users to safely access and utilize the network regardless of transportation mode, allowing for more efficient and sustainable use of the region's roadways. This element includes two categories, pavement preservation and all-weather roadway improvements.

1. Pavement Preservation \$382,800,000

Pavement Preservation is the treatment of existing roadway surfaces to extend their useful life. Treatments range from minor sealing to prolong pavement life to major milling and asphalt resurfacing to create essentially a new roadway surface. The proposed funding amount would bring all unincorporated County arterial/collector roadways up to an average pavement condition index (PCI) of 80 by 2030 and maintain at this level through 2040.

2. All-weather Roadways \$65,000,000

There are approximately 20 major roadways throughout eastern Pima County that are closed due to flooding during summer and winter rain storms, sometimes for longer than 24 hours. Beyond the inconvenience to motorists, this poses safety and access concerns for communities cut off from supplies and emergency services. The proposed funding amount would construct bridges and drainage structures along the most critical roadways to ensure safe roadway passage during storm events.

II. Modernization Element

Modernization of the County transportation system includes not only physical infrastructure improvements but technological investments as well. On the infrastructure side, this may include reconstructing aged roadways, adding paved shoulders, guardrails, raised medians and other safety improvements. It includes re-envisioning our roadways to provide more facilities and opportunities for pedestrians and other users of the roadway system through Livable Streets improvements. Investments in technology, in combination with well-maintained, accessible roadways and traditional demand management tools, such as enhanced pedestrian and bicycle facilities and a robust transit system, can provide the region with a more efficient, sustainable, safer, and equitable transportation system at less cost to the taxpayers. This element includes three categories, Livable Streets, Technology, and Transit.

1. Livable Streets \$80,000,000

Livable streets provide safe, connected, equitable access and facilities for all transportation modes and users including pedestrians, cyclists, transit users, freight and personal vehicles for people of all ages and abilities. Pedestrians and cyclists represent a disproportionate share of roadway fatalities in the County. Livable streets that prioritize these modes is a key step to reducing roadway fatalities. Improvements to increase alternative mode use in appropriate contexts, such as improving pedestrian and bicycle facilities, road diets and lowering speed limits will also be key to improving road safety.

Multimodal options are a key element of MOD strategies. Examples of improvements include sidewalks, bicycle lanes, bus stops, signalized crossings, travel lane reductions, and shade landscaping. Not all roadways receive the same treatment depending on context and which modes are prioritized. Livable street projects are recommended where development density and mixed land uses support walking, biking, transit and alternatives to driving at least for some trips or portions of trips. These improvements can achieve the highest benefit through a MOD-managed system.

2. Technology \$50,000,000 (Pima County) - \$150,000,000 (regional)

Technology investments can improve safety, congestion, and travel times at a fraction of the cost of large roadway widening projects by making the roadways more productive. The MOD framework is a comprehensive, unified, data-driven and technology-based approach to improving mobility. MOD allows individuals to travel from origin to destination in the most efficient and cost-effective manner possible, with the ability to plan and pay for trips across modes as well as managing carpooling programs for large employers and schools.

A MOD platform could incentivize users, through development of a regional mobile app, to improve the performance and sustainability of the overall network while providing travelers benefits. For example, a MOD app may inform users that they can save money, increase productivity, and relieve stress by taking transit or other modes to work, or inform them that they can save time on their commute by leaving 20 minutes earlier or later. A MOD platform could also incentivize users by providing precise and timely information on the benefits of changing their behavior to themselves and the environment. The platform could be gamified, with individuals having the ability to earn increasingly valuable rewards based on their behavior choices.

Successful implementation of MOD will require contracting to develop a user-friendly app that is intuitive and internalizes the unique needs and issues facing the regional transportation network. Requested funds would support the technology platform, traveler incentive packages and Intelligent Transportation Systems (ITS).

ITS investments will complement and enhance MOD solutions. ITS investments may include, but not be limited to, installing new equipment such as advanced traffic controllers, cameras, and roadside equipment with radar, and/or 5G communication capabilities, along major corridors for enhanced data analytics of traffic flow patterns. Data collected from the equipment through high-speed communications networks will be analyzed to provide the MOD platform with real-time network status updates to inform both travelers and infrastructure controls, such as adaptive signaling.

ITS technologies coupled with MOD provides valuable tools for reducing serious crashes and deaths on roadways, especially at intersections where the majority of fatal crashes occur. ITS safety systems connect vehicles, infrastructure, and pedestrians to provide enhanced warnings and allow for automatic safety measures to prevent collisions. This ITS infrastructure can also use data from vehicles and roadway infrastructure that allow the operator to quickly respond to hazardous roadway conditions during severe weather events, such as summer and winter storm flooding, and route travelers accordingly.

3. Transit \$53,000,000

Transit service in and of itself provides important social benefits, but it can be leveraged to attract new ridership and provide greater economic and environmental benefits with technological improvements like a MOD smart phone app that allows individuals to combine transit trips with other modes to complete their trips and pay for trips through a single platform. Bus service improvements would include expansion into underserved areas, increased hours of operation, increased bus frequency for existing routes and on-demand transit. Infrastructure improvements would include bus shelters and sidewalk and curb improvements to ensure accessibility for all users and park-and-ride centers. Bus stop enhancements such as scooters and bike share stations with auto payment can expand travel options.

An often overlooked benefit to improved transit is improved roadway safety. Transit is ten times safer than traveling in a single occupancy vehicle on a per mile basis and it enhances safety across all travelers by reducing the number of cars on the road. Finally, many enhancements designed to increase access to transit, like better pedestrian and bicycle access to transit and encouraging compact development, also improve safety.

III. Roadway Improvement Element \$485,800,000

In our growing and expanding region, new critical links and roadway widening projects continue to be an important part of any regional transportation initiative to add capacity. New development and economic growth continue to add traffic to an aging roadway network. New strategies such as MOD will help extend the life and efficiency of our existing roadway system, and depending upon level of investment, some roadway capacity projects may not be needed. Based on current analysis and forecasting, however, the following roadways would likely remain overcapacity with application of modest MOD strategies, thereby requiring widening and reconstruction.

These projects will be built to incorporate all of the required technology and livable street elements described above. The recommended projects to address these capacity needs are listed below. However, should a significant MOD implementation indicate through modeling that one or more of these projects will no longer be needed, it is proposed that their funding be shifted over to the technology category to further support MOD incentive packages.

Pima County Proposed Roadway Improvement Element

1. Alvernon Way, Aerospace Parkway to Valencia (Excluding COT): Widen to 4 lanes - \$19.9
2. Colossal Cave Rd, I-10 to Mary Ann Cleveland Way (Excluding COT): Widen to 4 lanes - \$20.0
3. Colossal Cave Rd, Mary Ann Cleveland Way to Camino Loma Alta: Widen to 4 lanes - \$19.4
4. Drexel Road, Cardinal Ave to Mission Road: Continuous Two-way Left Turn Lane - \$2.4
5. Harrison Road, I-10 to Southeast Logistics Center (Excluding COT): Widen to 4 lanes - \$41.6
6. Houghton Road, Pantano H.S. to Camino del Toro: Widen to 4 lanes - \$57.5
7. Ina Road, Camino Del Oro Wash to Paseo del Norte: Widen to 6 lanes - \$69.2
8. Irvington Road, Ajo Hwy to Mission Rd: Connect to Ajo Way & improve intersections - \$7.8
9. Kinney Road, Ajo Way to Bopp Road: Widen to 4 lanes - \$7.7
10. Linda Vista Road, Hartman Lane to Thornydale Road: Widen to 4 lanes - \$21.2
11. Mary Ann Cleveland Way, Vista Del Lago to Colossal Cave Road: Widen to 4 lanes - \$16.3
12. Orange Grove Road, Oracle Road to Skyline Drive: Widen to 4 lanes - \$23.2
13. Orange Grove Road, La Cholla Boulevard to Oracle Road: Widen to 4 lanes - \$14.0
14. Palo Verde Road, Bilby Rd to 44th Ave: HAWK at Michigan, curb, sidewalks, overlay - \$17.1

15. Sabino Canyon Road, Tanque Verde Road to River Road: Widen to 6 lanes - \$14.4
16. Sahuarita Rd, Town limits to Sonoita Hwy: Drainage improvements - \$46.4
17. Snyder Road, at Sabino Creek: New bridge and 2-lane roadway - \$25.0
18. Thornydale Road, Cortaro Road to Camino del Norte: Widen to 4 lanes - \$36.1
19. Twin Peaks Road, Silverbell Road to Saguaro Highlands: Widen to 4 lanes - \$6.6
20. Valencia Road, Camino De La Tierra to Mission Road: Widen to 6 lanes - \$20.0
21. Sonoran Corridor – regional request, cost TBD.