

# 2013 Regional Transportation Authority Plan Report

## RTA Ballot No. 37 ELDERLY & PEDESTRIAN SAFETY IMPROVEMENTS

## RTA Ballot No. 41 GREENWAYS, PATHWAYS, BIKEWAYS & SIDEWALKS

June 24, 2013



**RTA**  
Regional Transportation Authority



## Overview

The Regional Transportation Authority plan funds infrastructure improvements to support non-motorized forms of transportation, such as bicycling and walking. These alternative modes of transportation support the goal of the RTA plan to enhance our regional mobility options.

The RTA plan funds pedestrian safety improvements that allow pedestrians to easily access and safely cross busy arterial roadways. To further ensure safety, the RTA funds pedestrian crossings at key locations along major roadways near activity centers, such as shopping malls and medical centers. Other improvements funded by the RTA comply with the Americans with Disabilities Act, such as installing handicap ramps at intersections or improving corridor access for the elderly and people with disabilities.

Under the Safety Element, the RTA Plan provides \$20 million to fund Elderly and Pedestrian Safety Improvements. (RTA No. 37) to address public safety concerns of pedestrians by targeting mobility impediments. Projects include making improvements to substandard handicap ramps at intersections, filling sidewalk gaps, adding safe landing areas to bus stops, installing crosswalks with high pedestrian volumes, and developing safe routes to schools.

Under the Environmental and Economic Vitality Element, the RTA plan includes \$60 million to fund Bikeway, Greenway, Pathway and Sidewalk improvements (RTA No. 41). Many of the existing roadways throughout the Tucson region do not have continuous sidewalks and bikeways. This RTA program funds projects that fill gaps in the sidewalk and provide shared-use and bike lane networks to create a bicycle and pedestrian-friendly transportation system for all users. Sidewalks are needed for a variety of groups, especially young children and people with disabilities who walk or use public transit for school and work. A well-connected shared-use path network along the river park system is important to fully realize the benefit of this recreational and mobility resource in our community. On-street bike lane facilities provide cyclists a safer environment for commuting on major roadways. Together, these improvements create an interconnected bicycle and pedestrian infrastructure network.

Projects are evaluated and prioritized annually. This program will construct approximately 250 miles of sidewalks and 550 miles of bikeways over the life of the RTA plan.

---

### 2013 RTA PLAN REPORT

## RTA No. 37 Elderly & Pedestrian Safety Improvements

### Progress to date

Through March 2013, 48 pedestrian crossing signals have been completed and represent the dominant project type constructed with Elderly & Pedestrian Safety funds. Progress in delivering pedestrian crossing signal improvements compares favorably to the RTA's commitment pre-election to improve 80 pedestrian crossing signals over the life of the RTA plan. [See Fig. 1, *Map of Signalized Pedestrian Signals with RTA funds (No. 37)*]

Pedestrian signals have been installed throughout unincorporated Pima County, in the Cities of Tucson and South Tucson, the Town of Sahuarita and on Pascua Yaqui Tribal Land.

Many of the new pedestrian signals have been installed

in coordination with other improvements for pedestrian safety, often at the request of parents and administrators from nearby schools. Safe Routes to Schools' projects are a regional priority, and completed projects serving schools include:

- Fruchthendler School Walking Paths
- Picture Rocks / Desert Winds Safe Routes to School
- La Cholla School Walking Path
- Agua Caliente Safe Routes to School
- Bear Canyon Shared Use Path
- Sam Hughes Safe Routes to School

Another investment priority of the RTA included in this category is the elimination of movement barriers. At the time the RTA was formed, the U.S. Department of Justice had identified a substantial numbers of barriers to movement by persons with disabilities within the City of Tucson. These barriers included inaccessible bus stops with no landings, and gaps and hazards in critical sidewalks. [See Fig. 2, *Map of RTA Sidewalk Gap & Barrier Elimination Projects sidewalks.*] The deficiencies identified in this report



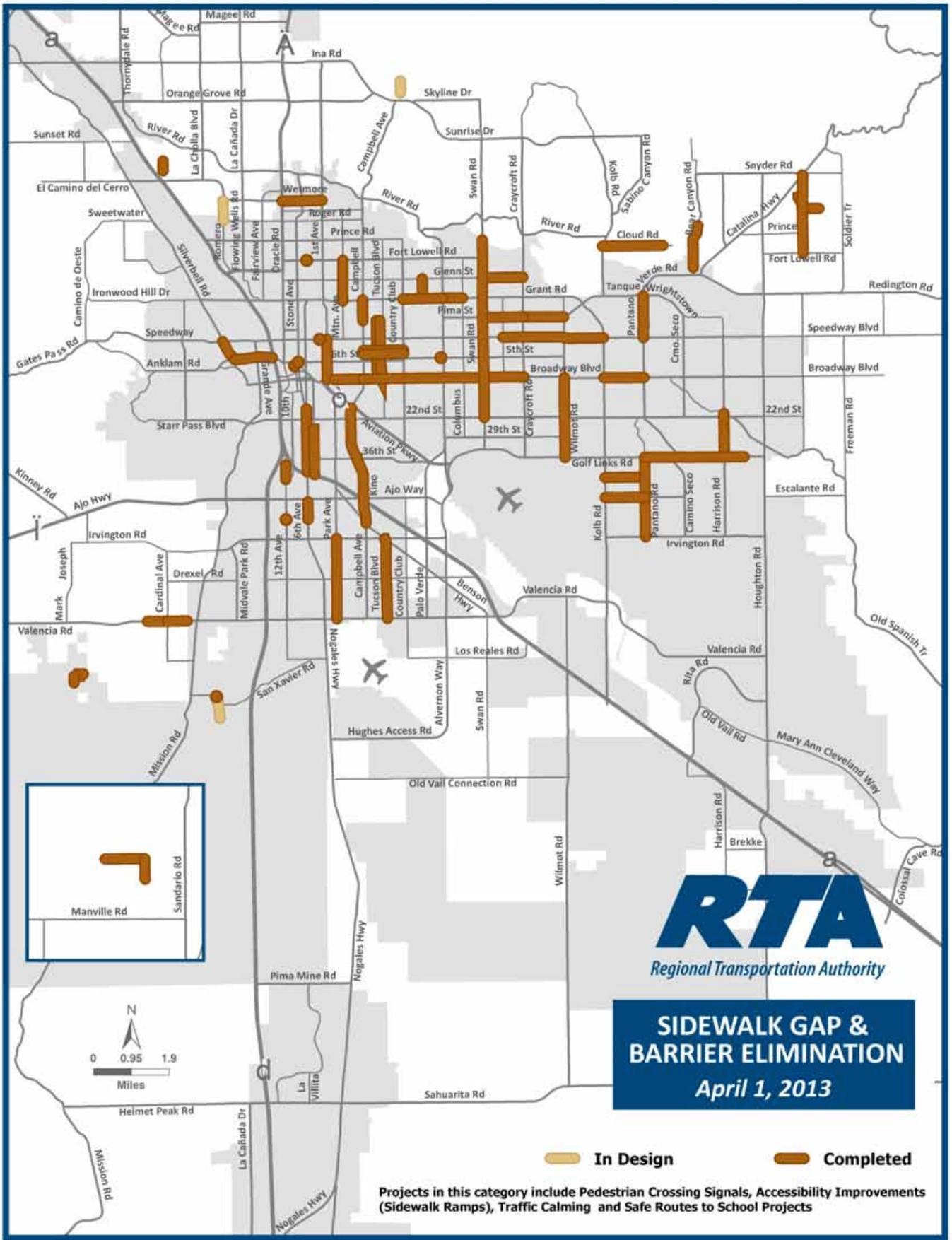


Fig. 2 – Map of RTA Sidewalk Gap & Barrier Elimination Projects

have been addressed with the help of \$1.5 million in RTA No. 37 funding. Other areas receiving funding to improve accessibility include the San Xavier District of the Tohono O'odham Nation for the San Xavier Mission Plaza and the Pascua Yaqui community for sidewalk improvements between its Health Center and Senior Center.

The distribution of funds for Elderly and Pedestrian Safety improvements made to-date is shown on the following graphs.



Fig. 3 – Programmed funding for RTA No. 37, Elderly and Pedestrian Safety Improvements

Of the \$20 million for Elderly and Pedestrian Safety Improvements, \$13,423,000 has been programmed (67.12%) and \$9,051,000 (45.26%) has been spent on improvements through March 2013. Projects completed to date represent \$6,815,000 of the total expended. The total cost of the projects completed is 21 percent under the programmed amount. As a result of the savings, the RTA programmed \$1,102,000 to do seven additional projects

RTA No. 37 Elderly & Pedestrian Safety Improvements Funds in (000s)

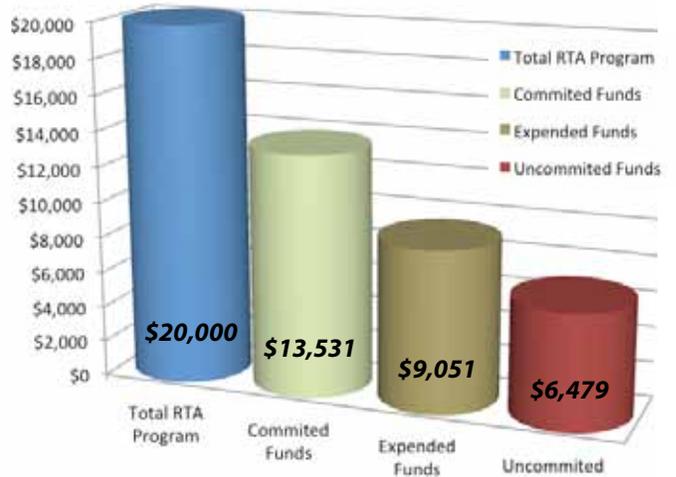


Fig. 4 – RTA No. 37, Funding commitments and Available Future Funding

## RTA No. 41

# Greenways, Pathways, Bikeways and Sidewalks

### Progress To Date

A total of 82 Greenways, Pathways, Bikeways and Sidewalks projects have been completed through March 2013. These projects have added 180 lane miles of new bicycle facilities and over 105 miles of new sidewalks. Projects initially constructed by the jurisdictions include the re-striping of existing arterial roadways to narrow the travel lanes, adding bike lanes and constructing sidewalks along arterial roadways that lacked them. Over time, projects have grown more ambitious: widening the striping on paved roads, adding new bike lanes, constructing a linear park improvement and adding bike boulevards.

Another major consideration in project development has been the availability of Federal Transportation Enhancement Funds. In recent years, funding has been available for alternative modes projects such as bike paths and pedestrian trails. These projects have been competitively selected on a statewide basis and require a local funds match. The RTA commits the local funds match for projects that are selected for these federal dollars and that are consistent with the scope of the RTA Greenways, Pathways, Bikeways and Sidewalks program.

Title II of the Americans with Disabilities Act (ADA) requires state and local governments to make pedestrian crossings accessible to people with disabilities by providing curb ramps. The ADA created new design standards requiring the retrofit or replacement of most existing ramps. So far, the RTA has produced over 105 miles of new sidewalks that include ADA improvements, as well as retrofit projects.

A substantial number of cyclists use low volume arterial roadways along the urban fringe for training and recreation in addition to commuting. These roadways, while low in volume are also typically narrow, with high speeds of travel. Adding to the safety concerns is poor drainage, infrequent turn lanes and unimproved road shoulders.

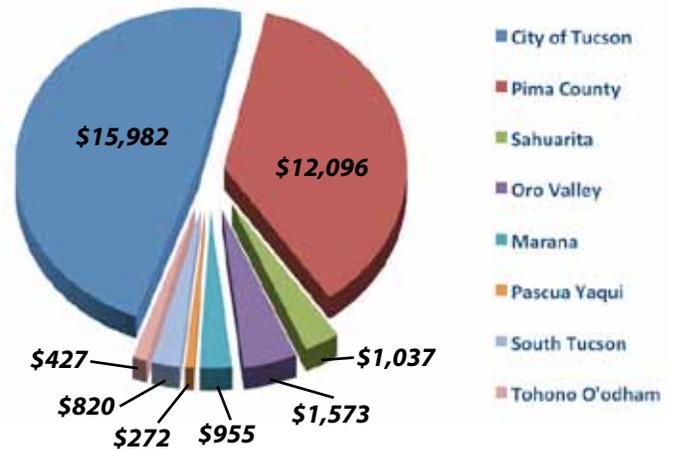
Widening the roadway to add paved shoulders not only has safety benefits for bicyclists, but is more comfortable for motorists and allows for reduced pavement maintenance costs.

Projects being developed with RTA funds matched to federal funding include:

- Armory Park/Santa Rita Park Transportation Enhancements of 4th Avenue, 14th St. to 19th St.
- Glenn Street Sidewalk Improvements, Country Club Rd. to Columbus Blvd.
- 5-Points Transportation Enhancements
- Treat Avenue Pedestrian Bridge
- Columbus Corridor Transportation Enhancements
- Park Avenue Transportation Enhancements

The RTA plan provides \$60 million over the life of the plan to address safety improvements in greenways, pathways, bikeways and sidewalks. Of this funding, \$33,162,000 has been programmed (55.27%), with \$16,156,000 (26.93%) spent on improvements through March 2013.

**RTA Committed Greenways, Pathways, Bikeways and Sidewalks – Funds in (000s)**



**Fig. 5 – Programmed funding for RTA No. 41, Greenways, Pathways, Bikeways and Sidewalks**

In September 2012, a review was performed of the cost of the recently completed Greenways, Pathways, Bikeways and Sidewalks projects for cost/scope adherence. One of the focus areas of the review was the determination of whether excess funds programmed on completed projects could be released for reprogramming. Of the amount programmed, over \$2.7 million was identified as available for reprogramming. As a result, the RTA was able to program the savings for an additional 12 projects in October 2012.

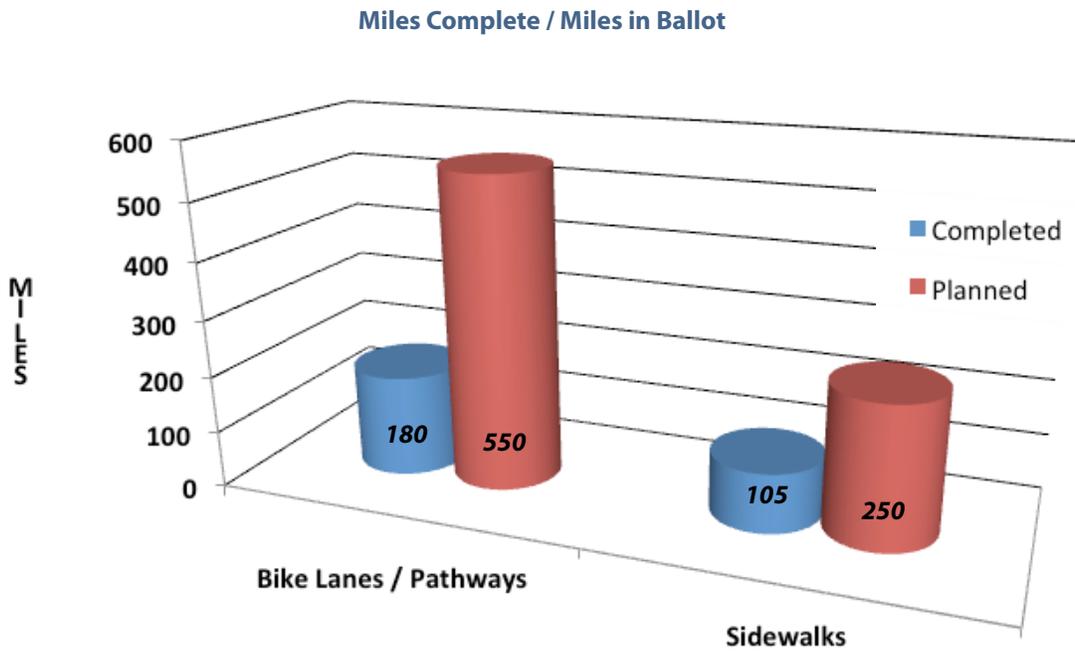


Fig. 6 – Comparison of Planned vs. Completed Sidewalk and Bike lane Improvements

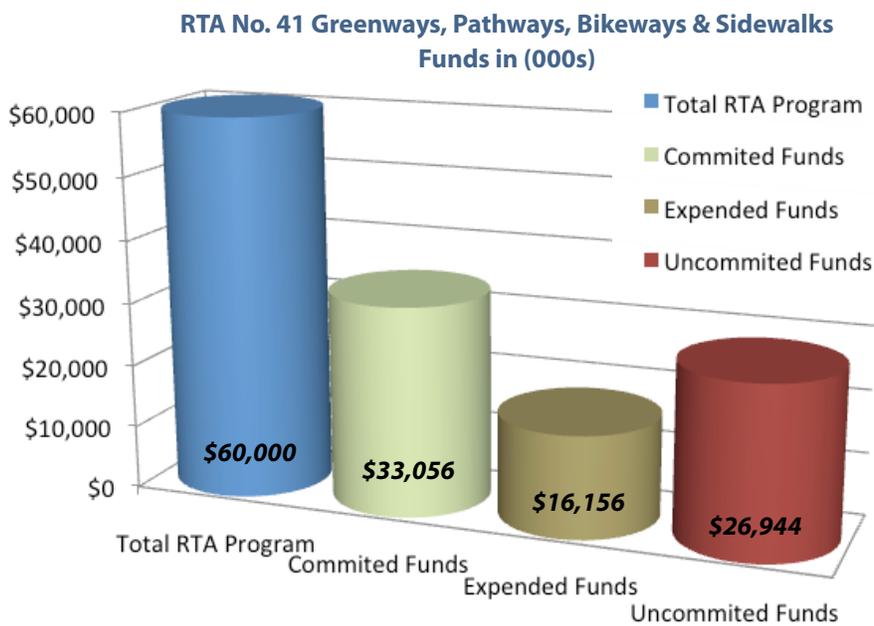


Fig. 7 – RTA No. 41, Funding Commitments and Available Future Funding

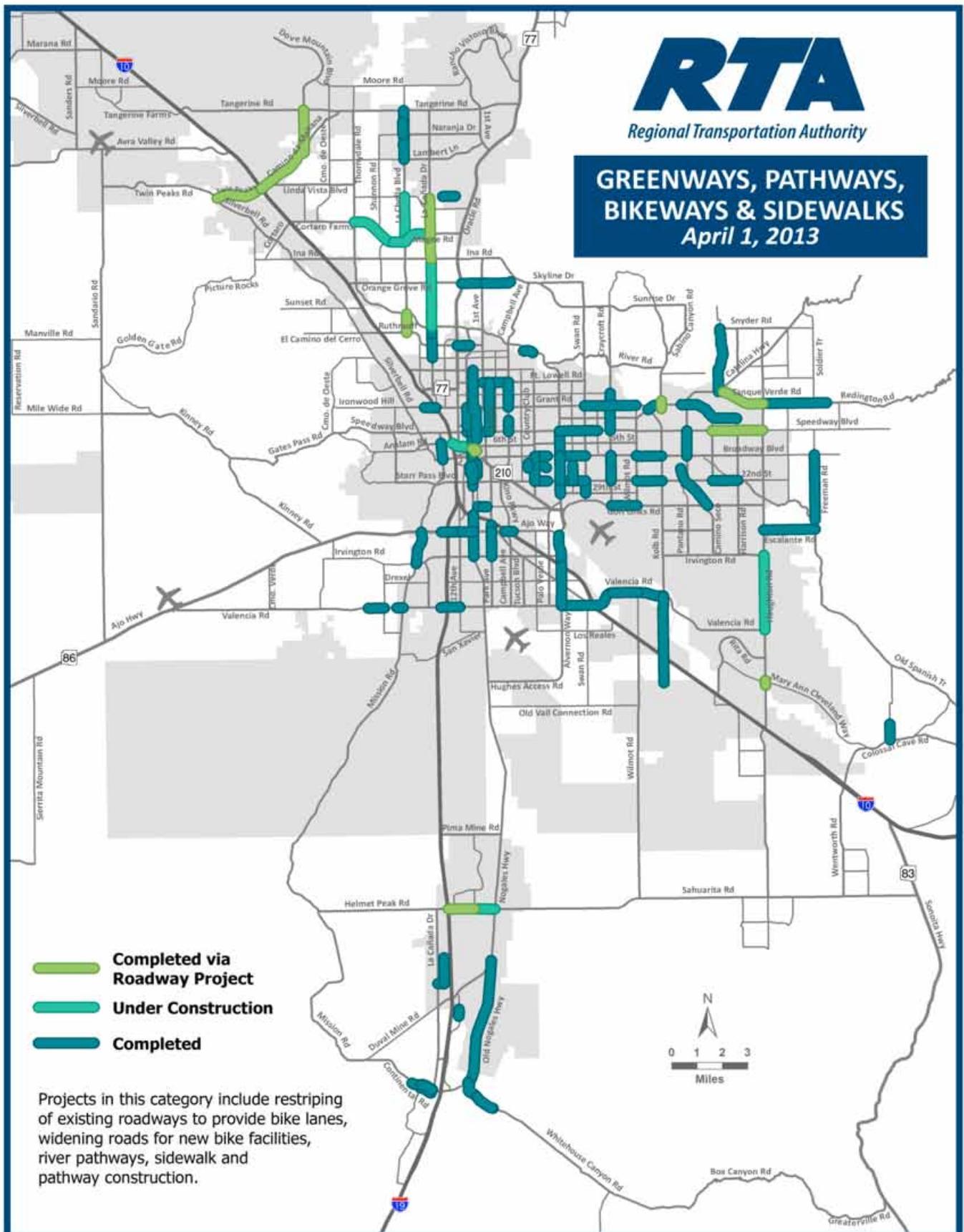


Fig. 8 – Map of RTA No. 41, Greenways, Pathways, Bikeways and Sidewalks Projects

## Detailed Project Review

The following projects are examples of project details and benefits in the subelements of RTA No. 37 and RTA No. 41.

### Elderly & Pedestrian Safety Improvements (RTA No. 37): San Xavier Mission Plaza



**Total project cost:**

\$511,000; \$511,000 programmed

**Scope of work:**

- 2,500 feet of new sidewalk
- Six new crosswalks
- Traffic control barriers
- Designated bus drop-off area
- Five new handicapped spaces
- Shade trees

**Completed:**

FY 2010

## 19 City of Tucson HAWKs:



The HAWK acronym for **H**igh visibility **A**ctuated cross**W**alk is a pedestrian-activated beacon located at a roadside and on mast arms over the major approaches to an intersection. It was created in Tucson, Ariz.

The HAWK head consists of two red lenses over a single yellow lens. When activated, it cycles from an amber warning flash, to a solid amber aspect, then to a solid red stop condition to create a gap in traffic flow during which pedestrians can cross the major street. It then transitions to a flashing red phase to allow vehicles to proceed as soon as the pedestrians have passed. Previous research found driver yielding percentages above 95 percent for the HAWK treatment even on major streets with multiple lanes or higher speeds.

The HAWK pictured is at the intersection of Pima Street and Sahuara Avenue and is a part of a City of Tucson package of 19 HAWKs that was programmed in FY 2008 for \$3,450,000. The package came in at a total of \$1,200,000 under budget allowing those funds to be allocated to new projects.

The Federal Highways Administration sponsored a study, published in 2010, to determine the safety benefits of the HAWK and found:

- A 29 percent reduction in total crashes.
- A 69 percent reduction in pedestrian crashes.
- A 15 percent reduction in severe crashes.

This study can be viewed at <http://www.fhwa.dot.gov/publications/research/safety/10042/10042.pdf>

## Camino de Oeste & Calle Tetakusim School Crossing (Safe Routes to Schools Project)



**Total project cost:**  
\$372,000; \$275,000 originally programmed

**Scope of work:**  
New HAWK signal, drainage repairs (damaged during construction by monsoon storm), drainage improvements, pedestrian handrails

**Completed:**  
FY 2009

## Greenways, Pathways, Bikeways and Sidewalks (RTA No. 41):

### Camino de las Quintas Sidewalks



**Total project cost:**  
\$420,000; \$420,000 programmed

**Scope of work:**  
Connect existing sidewalk from Santo Tomas to the Anamax Park with 3,200 feet of new sidewalk, handicap ramps, curbing

**Completed:**  
FY 2009

## City of Tucson Sidewalks Package 2



**Total project cost:**  
\$1.3 million; \$2.8 million originally programmed

**Scope of work:**

- Mission Rd., Ajo Way to Irvington Rd.
- 22nd St. Alvernon to Swan Rd.
- Broadway Blvd., Alvernon Way to Swan Rd.
- Tanque Verde Rd. Grant/Kolb Rd. to Sabino Canyon
- Craycroft Rd., Broadway Blvd. to 22nd St.

**Completed:**  
FY 2010

## Arroyo Chico Greenway improvements (Reid Park, Si Schorr Trail)



**Total project cost:**

\$1.1 million RTA; \$0.58 million City of Tucson

**Scope of work:**

Multi-use path extending around Reid Park, with landscaping, irrigation, lighting, water harvesting, picnic tables, benches, drinking fountains and drainage improvements. The path connects to the David Bell Trail around Randolph Park and to the Arroyo Chico.

**Completed:**

FY 2012

## Pima County Bike Package 1



**Total project cost:**

\$2.49 million expended; \$2.85 million programmed

**Scope of work:**

Package included six-foot paved shoulder bike lanes with new striping on the following roads:

- Continental Rd., Camino Del Sol to La Cañada
- Tanque Verde, Houghton Rd. to Fennimore
- Escalante Rd., Houghton Rd. to Old Spanish Trail
- Mission Rd., San Xavier to Drexel
- Orange Grove, Skyline to Oracle Rd.
- Frenum, Broadway to Old Spanish Trail,
- Valencia Rd., Alvernon to Kolb Rd.
- Kolb Rd., Valencia Rd. to Voyager

Picture features Tanque Verde Road Bike Lanes, Houghton to Fennimore

**Completed:**

FY 2013