







Pioneering HAWK Crossings

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Thanks to: City of Tucson PAG ADOT, and **FHWA** for which the HAWK pedestrian crossing beacon could have not been developed









Special Thanks to: Diahn Swartz, Ann Chanecka City of Tucson & Gabe Thum, PAG for their extra efforts -- the HAWK is truly a team effort











Tucson, Home of the HAWK crossing





Laurel and Hardy Comedian's 1920's Film -- Painters











Painting Crosswalks











Driver's Still Behaving Badly Today













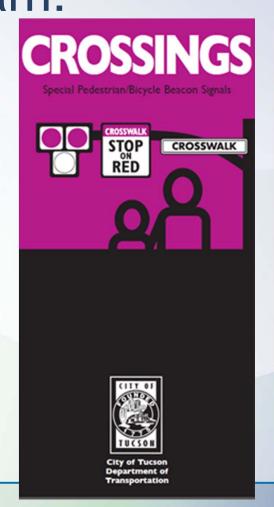


HAWK began under the City of Tucson program:

"WATCHING OVER THE PEDESTRIAN LIKE A HAWK"

The goal was:

EVERYONE GETS
HOME SAFE AND
SOUND!











ADOT Agencies Working Together

Process of Innovation was as important as the end product. Tucson could not have done it alone without the support of PAG, ADOT and FHWA (TTI Research and Permission to Experiment)



















One of the first HAWK installations in Tucson and the U.S., was on Ajo Way (SR 89) at the school crossing for Hollinger Elementary School.









...a child was brushed against and knocked down by a car passing stopped cars in a school crossing.

Fortunately, the child was not injured









However, the parents and a State Senator wanted an

OVERPASS

built by ADOT immediately, to protect the children crossing the State Highway.









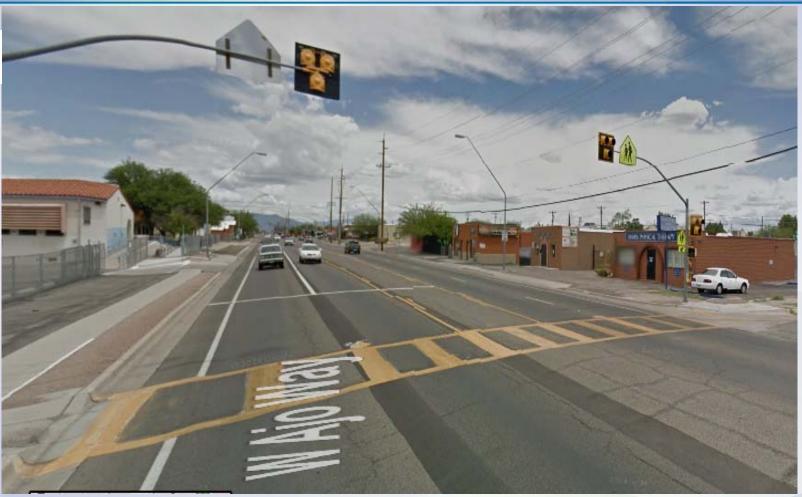
The City of Tucson and **ADOT - Tucson District** worked together and the HAWK was installed shortly thereafter to help protect the children











Remember our MAIN GOAL: Everyone Gets Home Safe & Sound ADOT & City of Tucson providing for the children's crossing safety ever since the early 2000's, build by joint maintenance forces, City & ADOT District









HAWK Safety FHWA & University Research

Federal Highway Administration, Texas Transportation Institute Study released in 2010 on the Tucson HAWKs found:

- 69% reduction in pedestrian crashes
- 29 % reduction in total crashes
- 21% reduction in severe crashes

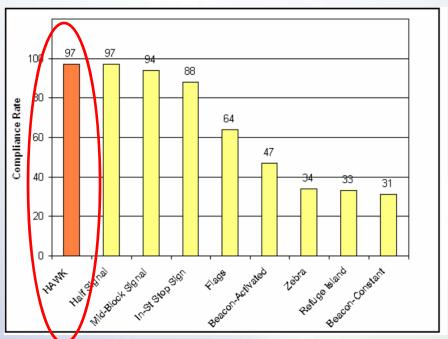








ADOT High Driver and Pedestrian Compliance 97% by Drivers TTI 2010 95% by Pedestrians PAG 2013



Driver Compliance Rates for Different Crossing Treatments from Fitzpatrick et al. 2006

Source: RANJIT PRASAD GODAVARTHY Masters Thesis, KANSAS STATE UNIVERSITY Manhattan, Kansas 2010









HAWKs are now nationally recommended FHWA best practice and "Proven Safety Countermeasure"

Safe Roads for a Safer Future
Investment in roadway safety saves lives









ADOT knows their value and prepared a policy based upon the Tucson regional experience and is already in substantial conformance with the next edition of the MUTCD









PAG saw their value and included a special section in their Regional **Transportation Authority** sales tax that was passed by the voters in 2006



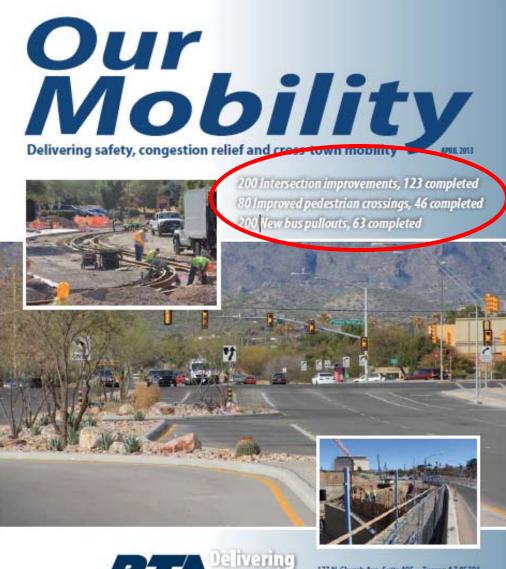






Pedestrian crossing safety became a specific part of the funding program for the region.

Many of the HAWK projects are being completed in the early part of the program to improve pedestrian safety





177 N. Church Ave. Suite 405 - Tucson AZ 85701 (\$20) 770-9410 [tel] - (\$20) 620-6981 [fax] www.RTAmobility.com

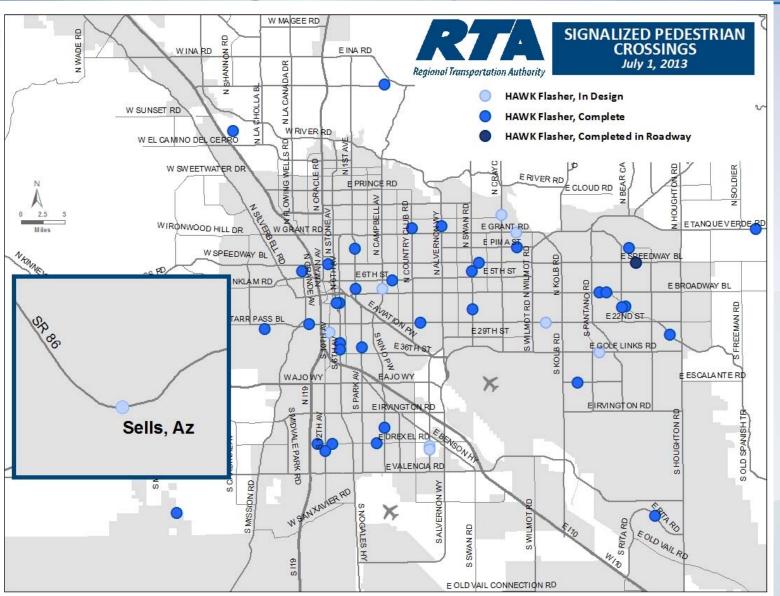




Integration System-wide















PAG & City of Tucson Innovation is not stopping here ...



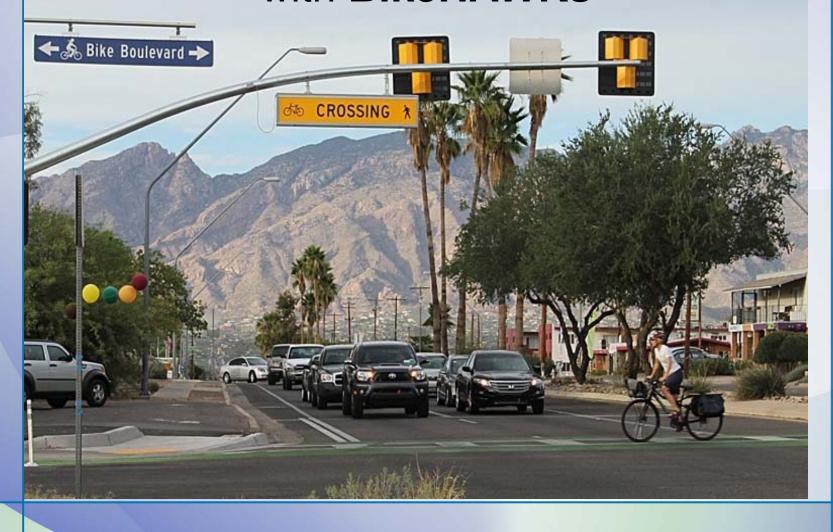




ADOT



Facilitating Cyclists Crossings at HAWKs with **BikeHAWKs**







BikeHAWK





- MUTCD TCDs already approved/I.A.
- Being included in FHWA's BIKESAFE as optional countermeasure
- Does not attract neighborhood cut-thru traffic like a traffic signal
- Cyclists already using the HAWKs (design matches cyclists behavior)





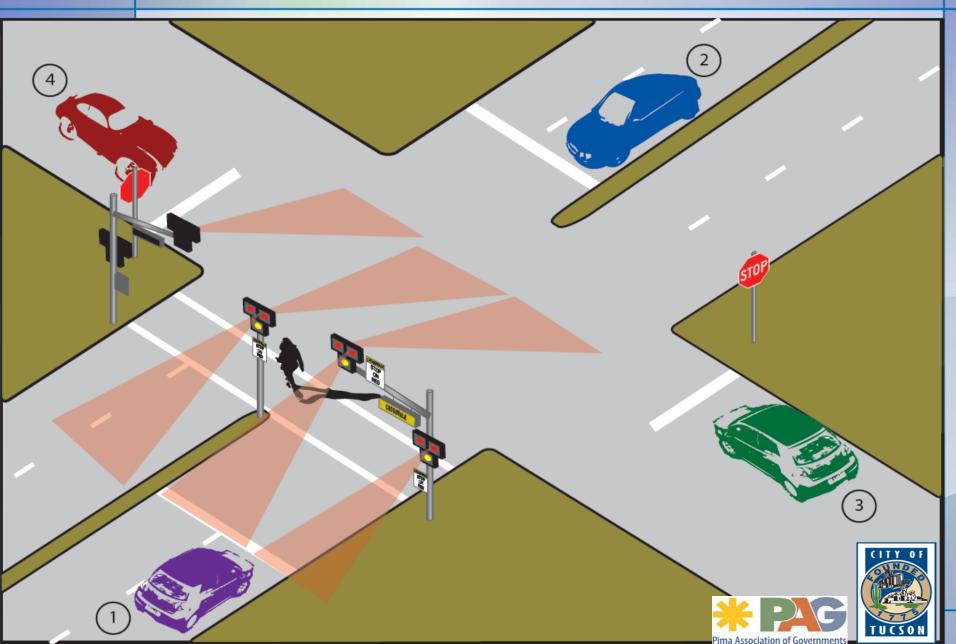








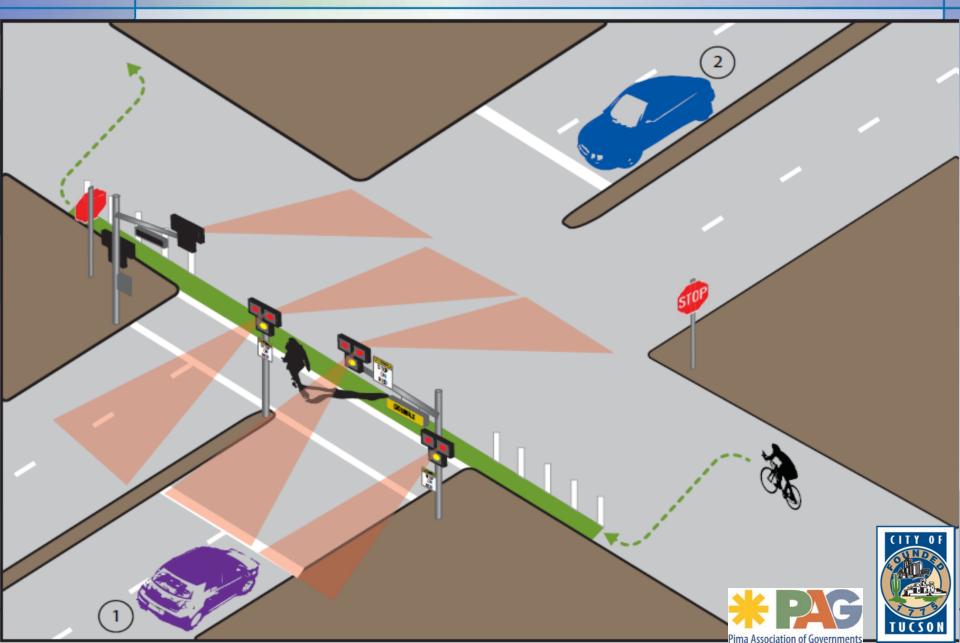
HAWK







BikeHAWK







BikeHAWK















"The BikeHAWK helps unite neighborhoods and connect destinations for all modes of safe travel. Already, we've seen families and younger riders, both escorted and unescorted, using the BikeHAWK. This use emphasizes the safe connectivity of all levels of bicyclists across multi-lane, high speed roadways."



Emily Yetman,

Executive Director, Living Streets Alliance









"We have monitored the **BikeHAWK** and observed that the pedestrians, cyclists and drivers know what to do naturally and the crossing movements are very safe, legal and predictable."

-Sergeant Jerry Skeenes, Tucson Police Department, Traffic Enforcement Division







ADOT



Positive coverage by media



"I feel safer now that they have put these lights in."

Jocellyn Mora told KGUN 9 -- On Your Side







BikeHAWK Safety and Usage



- 96% riders use the BikeHAWKs
- 100 % young riders/families use the BikeHAWKs
- 48% of the crossing riders are female (which are 28% of the riding population)
- 97% Driver Compliance
- Easy adaption to the existing HAWK









Everyone
Gets
Home
Safe and
Sound

