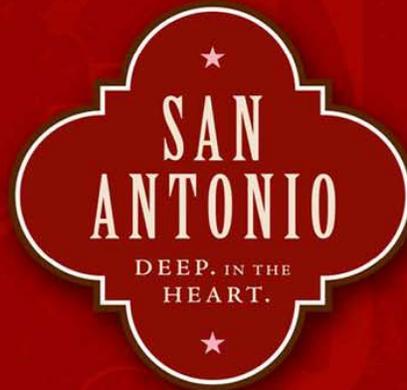


## City Council B Session



# San Antonio Bike Plan 2011 + Implementation Strategy *2013 Implementation Update*

**Julia Murphy, AICP, Office of Sustainability**  
**Anthony Chukwudolue, PE, Department of Public Works**

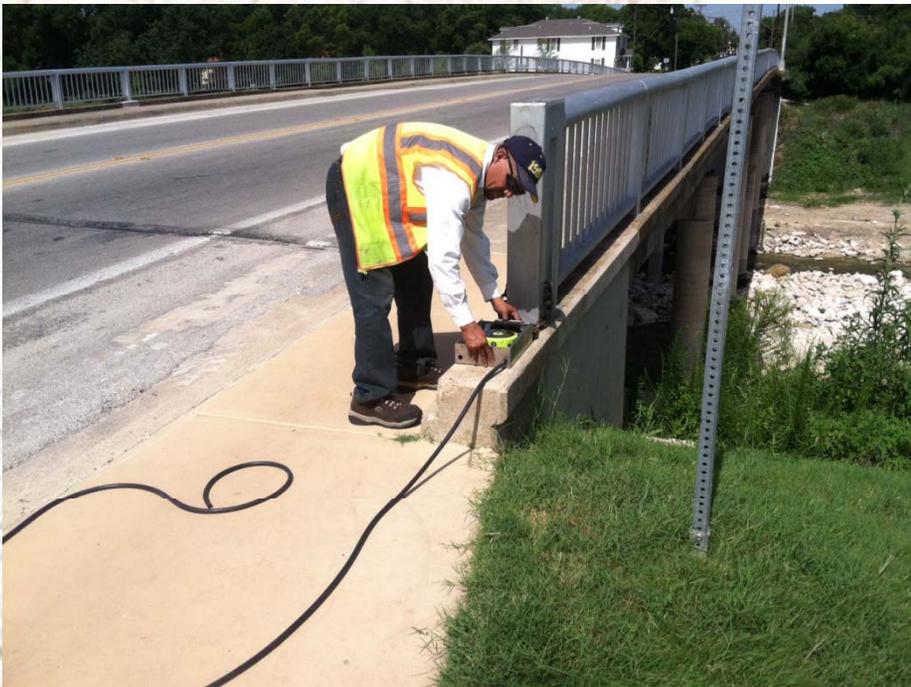
**December 4, 2013**

# “San Antonio Bikes” Program

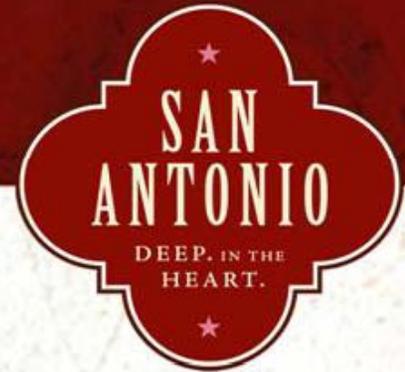


Partnerships with Public Works, CIMS, Parks, SAPD and others are helping us work toward common goals:

*Our goals are to increase bike ridership for daily travel and improve cycling safety by making our bike network accessible, direct, and continuous.*



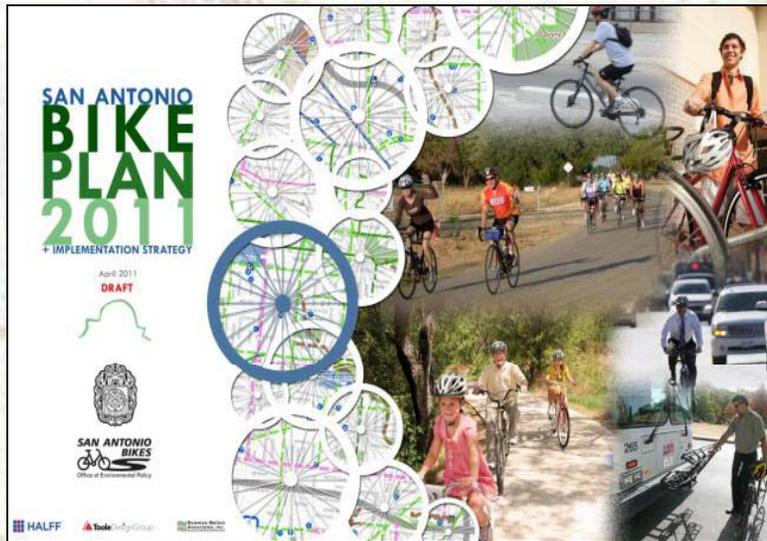
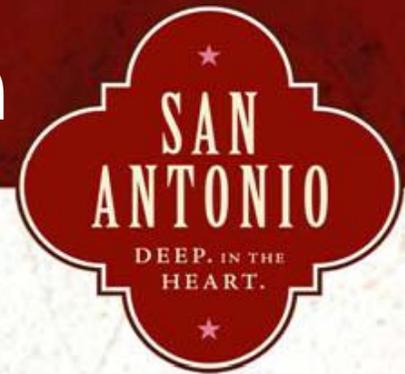
# *San Antonio Bike Plan 2011 + Implementation Strategy*



This plan:

1. Incorporates extensive public and technical input
2. Builds upon previous plans and links together other ongoing efforts related to bicycling
3. Guides City Council, other citizen boards, the development community and city staff in collectively moving forward in a prioritized and cost-effective way
4. Presents a unified vision for where we as a region want to be with cycling in the next 10 to 20 years
5. Identifies where bicycle facilities are needed to create a system that is accessible, direct and continuous.
6. Speaks to the importance of encouragement, education, and enforcement to help all users of our roadways travel safely.

# Goals of the Bike Master Plan



*An element of a multi-modal transportation system for our city*

- Focusing on connectivity and gap reductions
  - Reducing traffic congestion
  - Providing healthy choices for personal and environmental health
    - Contributing to economic development
- Supporting community priorities



# Existing Conditions in 2010

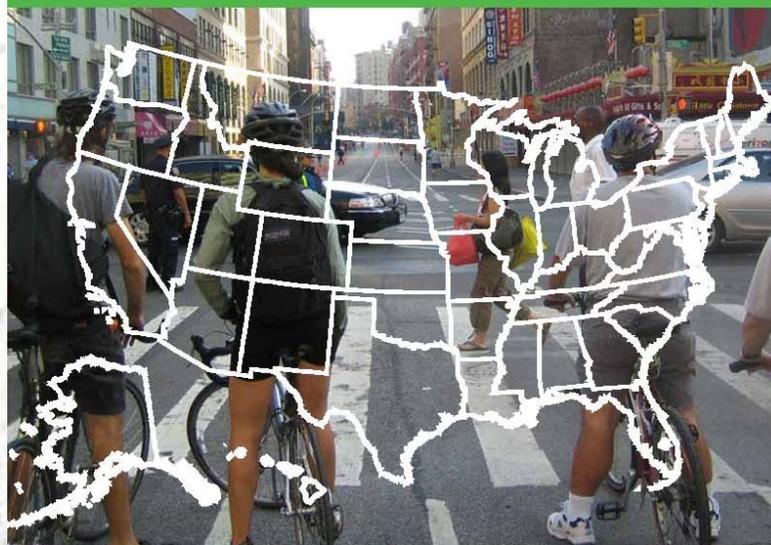


- 36 miles of bicycle infrastructure in 2000 to 210 miles in 2010
- Large physical size of jurisdiction a challenge
- San Antonio ranked in bottom third of the 50 largest US cities

## *But at the same time...*

- Approximately 325,000 area residents claimed to ride a bike at least once a month
- 84% cyclists prefer bike lanes for safety reasons
- Over 1,000 people were loading bikes on buses on a typical day

BICYCLING AND WALKING  
IN THE UNITED STATES  
**2010**  
BENCHMARKING REPORT

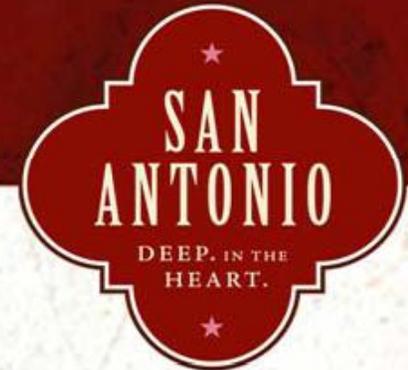


prepared by



Alliance for Biking & Walking

# Bike Master Plan Development



- Surveys
- Interactive website
- Feedback at major area events
- 4 City sector meetings
- Interdepartmental and inter-agency stakeholder meetings
- Bicycle Mobility Advisory Committee (BMAC)
- Approved and recommended by Planning Commission and Infrastructure & Growth Committee
- Individual Council briefings

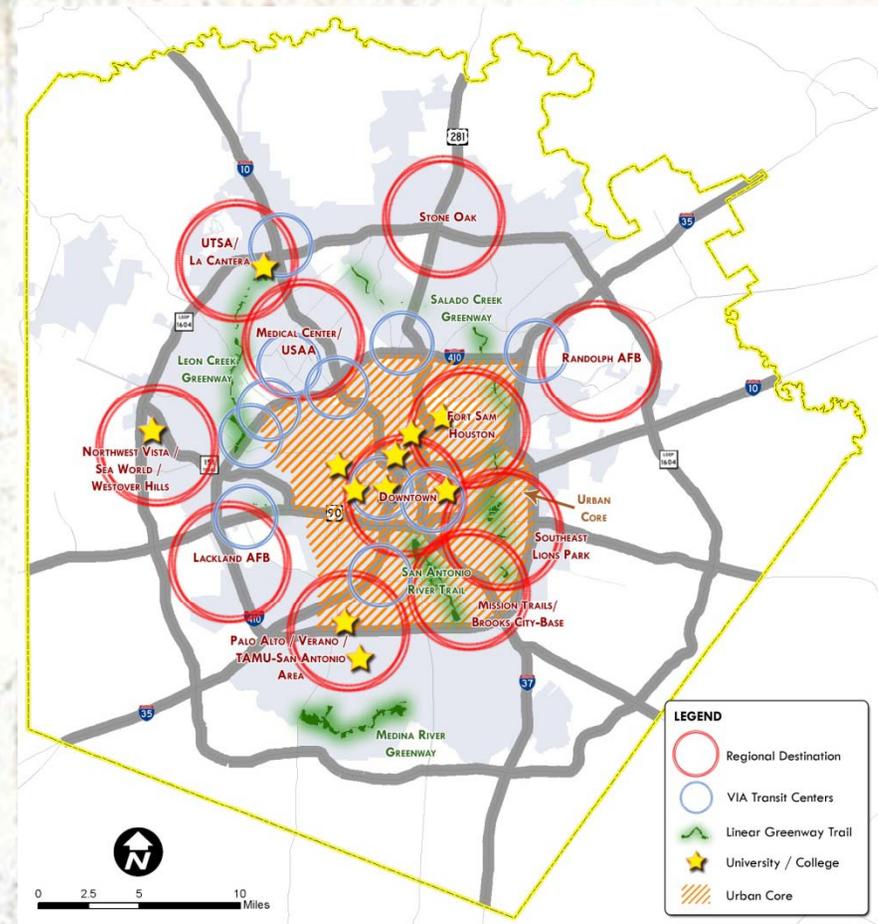


*Adopted by City Council  
September 29, 2011*

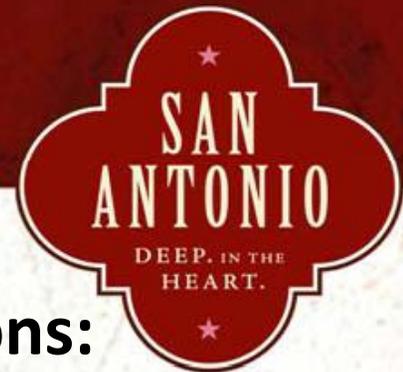
# Evaluating Key Areas and Corridors



- Development of the bicycle network took a “node and corridor” approach.
- The nodal approach to the network looked specifically at circulation and mobility within an area.
- Corridors were also evaluated to connect origins and destinations.



# Infrastructure / Network Recommendations



## A variety of facilities depending on conditions:

### Bicycle Lane

Bicycle lanes are portions of the roadway that have been designated for the preferential or exclusive use of bicyclists through striping, signage and other pavement markings.



### Buffered Bicycle Lane

In some locations, buffers may be added to bicycle lanes to provide horizontal separation from either moving or parked cars. Ideal candidates for buffered bicycle lanes are roadways with high vehicle speeds, excess capacity, and few curb cuts or turning movements.



### Wide Shoulders

Wide, striped, and bikable shoulders provide greater lateral separation between automobiles and bicycles, provide additional clear zone and recovery areas for vehicles, and provide an additional buffer or space for pedestrians in rural areas where sidewalks may not exist.



### Bicycle Boulevard

Bicycle boulevards are local street routes that have been enhanced to favor through bicycle movements while also restricting through motorized vehicle movements.



### Signed Route

Signed routes are identified as streets and roads where bicyclists can be served by sharing the travel lanes with motor vehicles. Usually, these are local streets with relatively low traffic volumes and/or low speeds, which do not need special bicycle accommodations in order to be bicycle-friendly.



### Shared Lane Markings (Sharrow)

Shared lane markings ("sharrows") placed on the pavement provide guidance to bicyclists on the safest location to ride. Sharrows alert automobile drivers to the presence of bicyclists and encourage bicyclists to ride outside of the "door zone" of parked cars. Sharrows are generally used where there is not enough space for separate bicycle lanes and cyclists should be encouraged to use the full traffic lane.



### Multi Use Path

Multi-use paths provide a high-quality walking and bicycling experience that is separated from vehicle traffic. These paths should be a minimum of 10 feet wide for bi-directional traffic and should be paved. Multi-use paths can be constructed along a roadway corridor, in their own corridor (such as a greenway trail or rail-trail), or a combination of both.

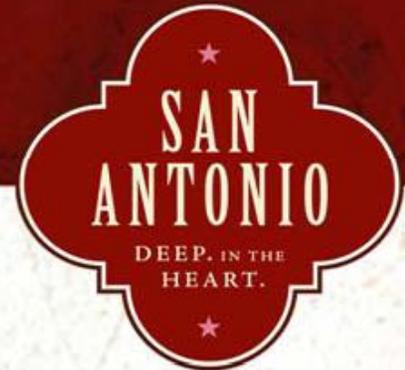


### Cycle Track

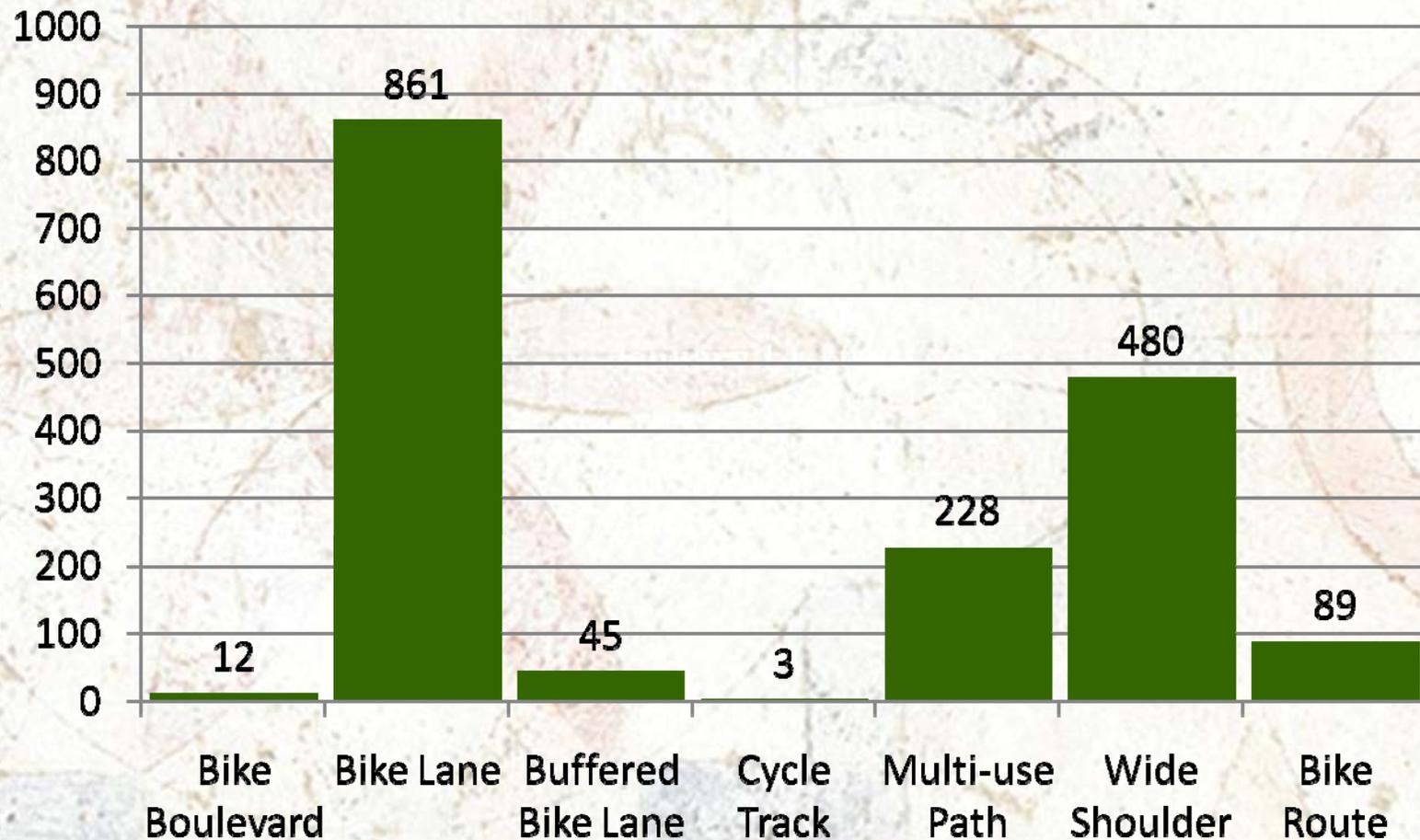
Cycle tracks create a physically separated and buffered space for directional bicycle travel. They are distinct from multi-use paths in that they are for the exclusive use of bicyclists and are operationally related to the overall roadway. The physical separation from other vehicles on the roadway can consist of curbs, striping, bollards, flexible posts, landscaping strips, or parked vehicles.



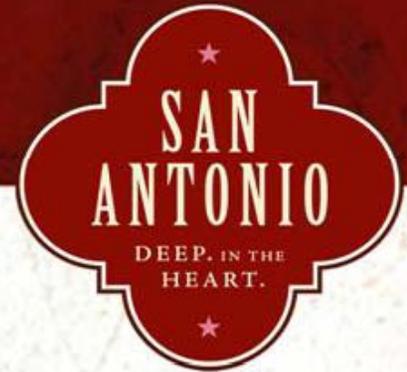
# Infrastructure / Network Recommendations



**Total miles = 1,718**



# Bike Plan Elements and Complementary Programming



Building a program through 6 Es:

Engineering, Education, Encouragement, Enforcement, Evaluation and Equity...



# Planning and Programming for all ages and abilities



And design considerations for our most “vulnerable road users” ...

**ESTAMOS CYCHED**

**SAN ANTONIO ES MÁS BICI-AMISTOSO QUE NUNCA.**  
Mientras San Antonio agrega más carriles para bicis junto con senderos de excursión a pie y en bicicleta, los ciclistas de San Antonio se están preparando. Y eso incluye usar el equipo apropiado de seguridad como un casco que quede correctamente y ropa reflectora. Además, se aseguran de que sus bicis tengan faros y reflectores en la parte posterior. Para obtener más consejos de seguridad o mapas de los senderos y carriles, visite [sanantonio.gov/oeep/HikeBike.asp](http://sanantonio.gov/oeep/HikeBike.asp)

**S.A. LISTO PARA ANDAR EN BICI.**

**SAN ANTONIO BIKES**  
Office of Environmental Policy

**WE'RE CYCHED**

**S.A. IS READY TO RIDE.**

**SAN ANTONIO BIKES**  
Office of Environmental Policy

**WE'RE CYCHED**

**S.A. IS READY TO RIDE.**

**SAN ANTONIO BIKES**  
Office of Environmental Policy

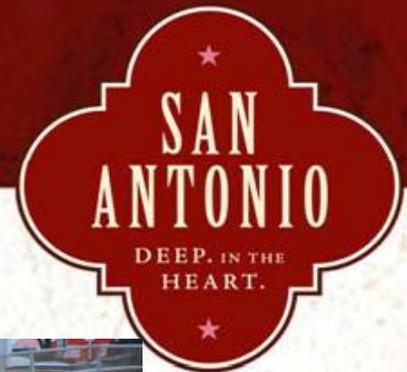
**WE'RE CYCHED**

**SAN ANTONIO IS MORE BIKE-FRIENDLY THAN EVER.**  
As San Antonio adds more bike lanes along with hike and bike trails, S.A. cyclists are getting geared up to ride. And that includes wearing the appropriate safety equipment like a properly fitting helmet and reflective clothing. In addition, they're making sure their bikes have headlights and rear reflectors. For more safe biking tips or maps of riding trails and bike lanes, go to [sanantonio.gov/sabikes](http://sanantonio.gov/sabikes)

**S.A. IS READY TO RIDE.**

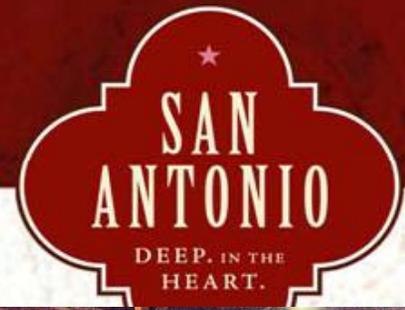
**SAN ANTONIO BIKES**  
Office of Environmental Policy

# Encouragement & Education



Rock &  
Roll  
Marathon  
Bike Tour  
2012

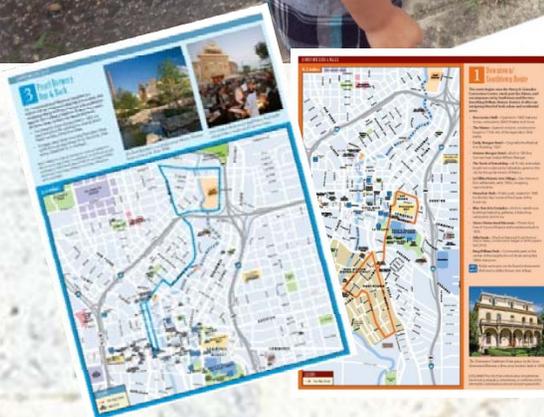
# Encouragement & Education



Siclovía



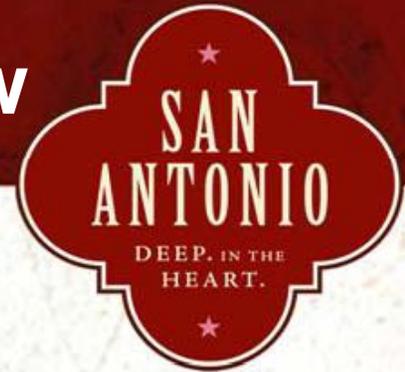
First Friday



- Dedicated website and Facebook Fan Page
- Bike lights
- Helmets for adults and children
- Maps



# Enforcement: Bicycles and the Law

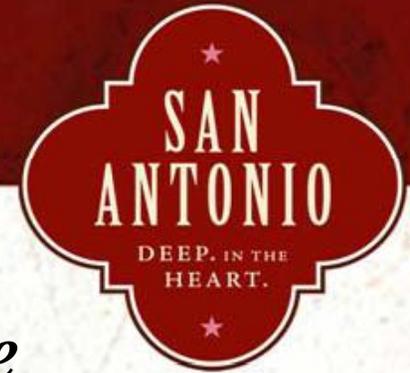


- Safe Passing Ordinance

- Bike Light Ordinance



# One Program's Impact on the Community



*Since inception in March 2011, B-Cycle users have:*

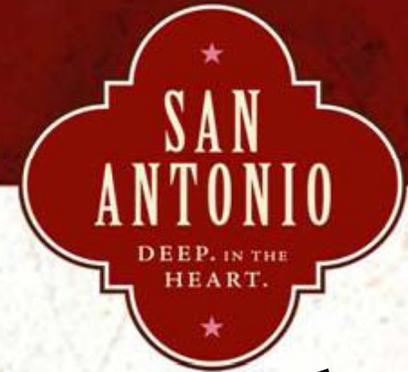
- Taken over 135,000 trips
- Ridden 480,000 miles
- Burned 20 million calories
- Offset 472,483 lbs. carbon



# Award Winning Programs

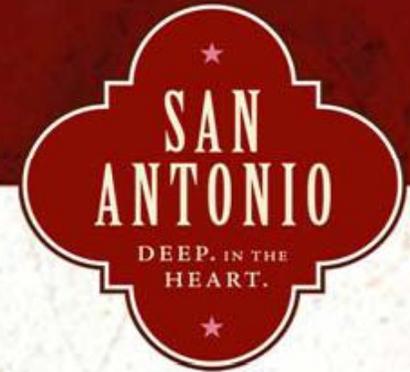


Photo by Matthew Rottman



- “Bicycle Friendly Community” from League of American Bicyclists
- “Best Public Work in Progress” from San Antonio Downtown Alliance
  - “Going Green Award” from San Antonio Business Journal
- “Merit Award in Transportation” from International Downtown Alliance
- “Great Texas Trail Head Award – Public Entity” from Texas Trails Network
- “Innovative Transportation Solutions Award” from Women in Transportation Seminar
  - “Best Public Private Partnership” from Downtown Alliance
- “Merit Award” from American Society of Landscape Architects, Texas Chapter
- Sister Cities International 2012 Innovation Award: Energy/Sustainable Development

# Why Bikes?



Even if you don't ride a bike, or ever plan to....

- All great cities provide **transportation choices**
  - It's about **economic development** and attracting the best and the brightest
- It's good for the **environment**
- It's good for **public health**



Bike Master Plan

# Bike Plan Implementation

**Anthony Chukwudolue, PE**  
**Interim Director of Public Works**

# Plan Implementation



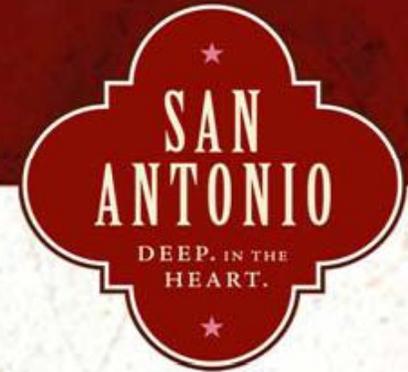
- New bicycle facilities installed citywide via:
  - Infrastructure Management Program (IMP) funded with Advanced Transportation District (ATD) and General Funds
    - Bike IMP
    - Street Maintenance IMP and Pavement Marking IMP (incorporation of new facilities and remarking of existing facilities on streets included in Bicycle Master Plan)
  - Bond Programs
  - MPO funded projects
- Bicycle projects are reviewed with City Council during the annual IMP development process

# Project Selection



- On average, \$1M is allocated for bicycle facilities annually through the IMP
- Projects are selected for inclusion in the IMP and other programs using the following criteria:
  - Corridors identified in the Bike Master Plan
    - Connections to regional destinations, greenway trails, universities and transit centers, and other high need areas
    - Overall importance to the existing bicycle network
    - Gap reduction (direct, accessible, connected bicycle network)
  - Resident input
  - Ease of implementation
  - Other considerations such as impact on signal system, VIA bus routes, school zones

# Project Priority



Projects are then ranked by priority

**Priority 1:** Bike facilities installation without reducing the number of vehicular traffic lanes (i.e. extra wide lane)

**Priority 2:** If pavement section is not wide enough, then reduction in the number of vehicular traffic lanes is required

- Traffic analysis is performed to determine the impact of traffic lane reductions, construction plans are prepared if no significant impact

**Priority 3:** If analysis shows substantial impact to traffic, project will require additional funding for pavement widening, utility relocation, right-of-way

IMP

BOND

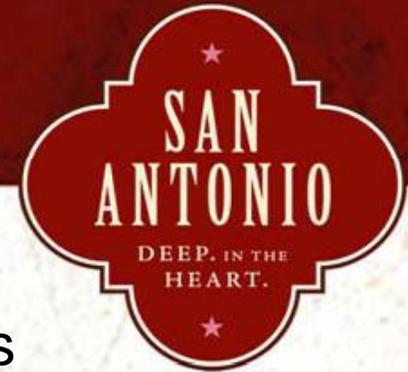
# Priority 1



Existing street was wide enough to install new bicycle lanes without reducing the number of vehicular traffic lanes...



# Priority 2



Existing street was not wide enough; therefore, a reduction in the number of vehicular traffic lanes was required to install bicycle lanes...

- Traffic analysis conducted prior to implementation, four lane roadway reduced to two lanes with center turn lane
- Asphalt overlay, ADA curb ramps, manhole and utility adjustments also required as part of the project

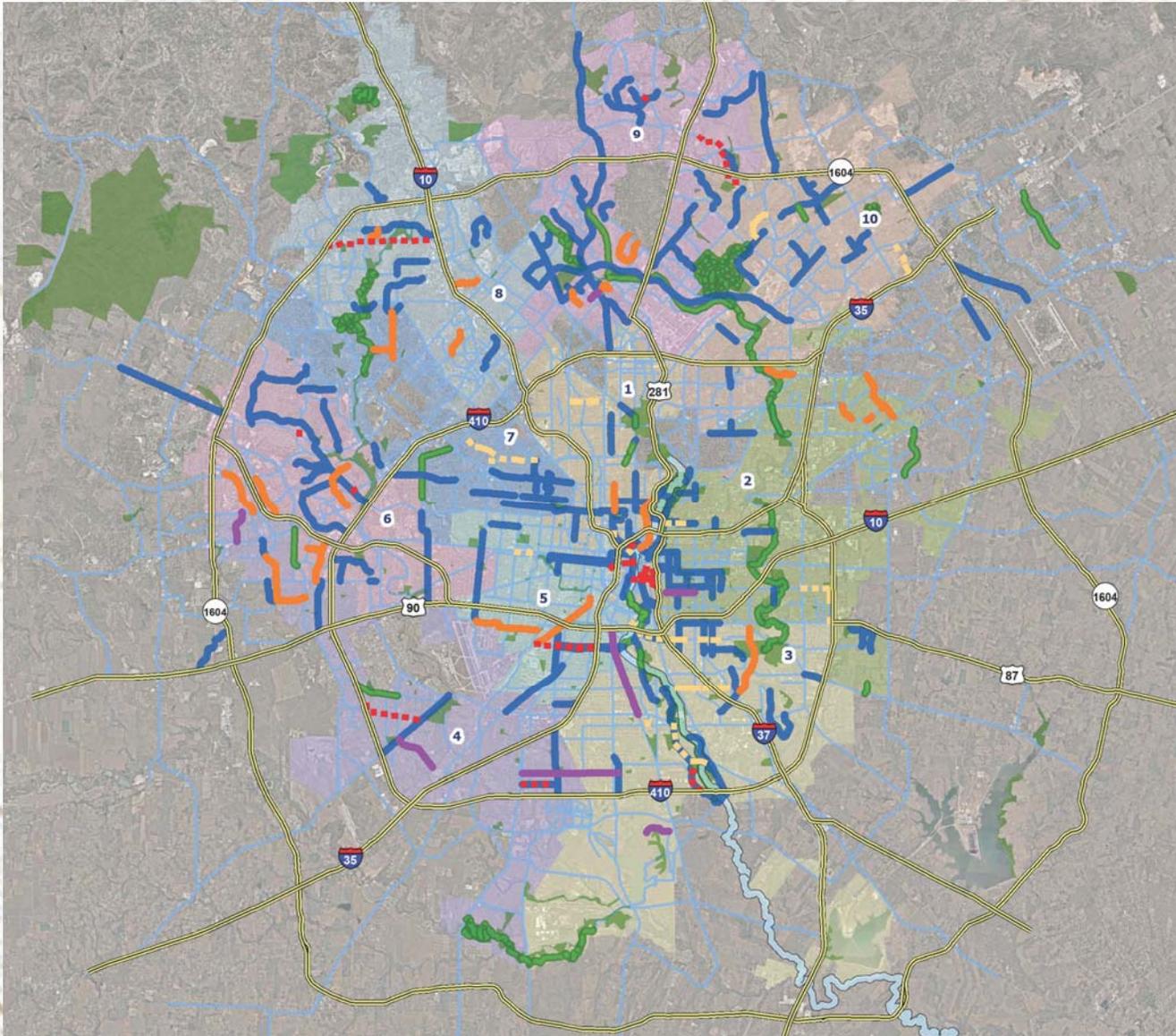
Before



After



# Growing Network (~75 mi Added)



## Completed:

2012 IMP - **30** miles

2013 IMP- **10.5** miles

## Programmed:

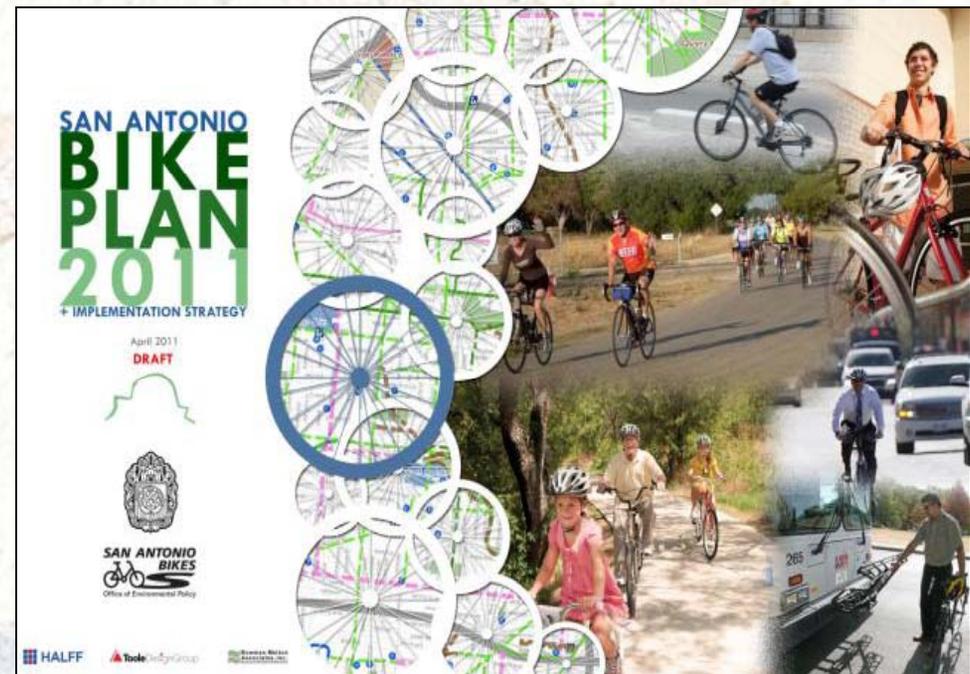
2014 IMP - **20** miles

2012 Bond - **13+** miles

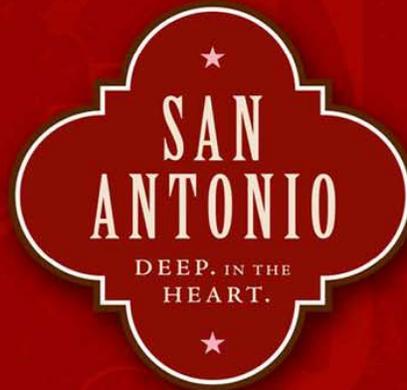
# Business Process Improvements



- Improve project prioritization, scope, and selection during the annual IMP development process
- Improve community outreach during project development, prior to implementation
- Continued dialog with bicycle community during implementation phase



## City Council B Session



# San Antonio Bike Plan 2011 + Implementation Strategy *2013 Implementation Update*

**Julia Murphy, AICP, Office of Sustainability**  
**Anthony Chukwudolue, PE, Department of Public Works**

**December 4, 2013**