City of Austin

2014 Bike Plan Update

Maximizing the contribution of bicycling to Austin's quality of life…

City of Austin 2014 Bicycle Master Plan Update

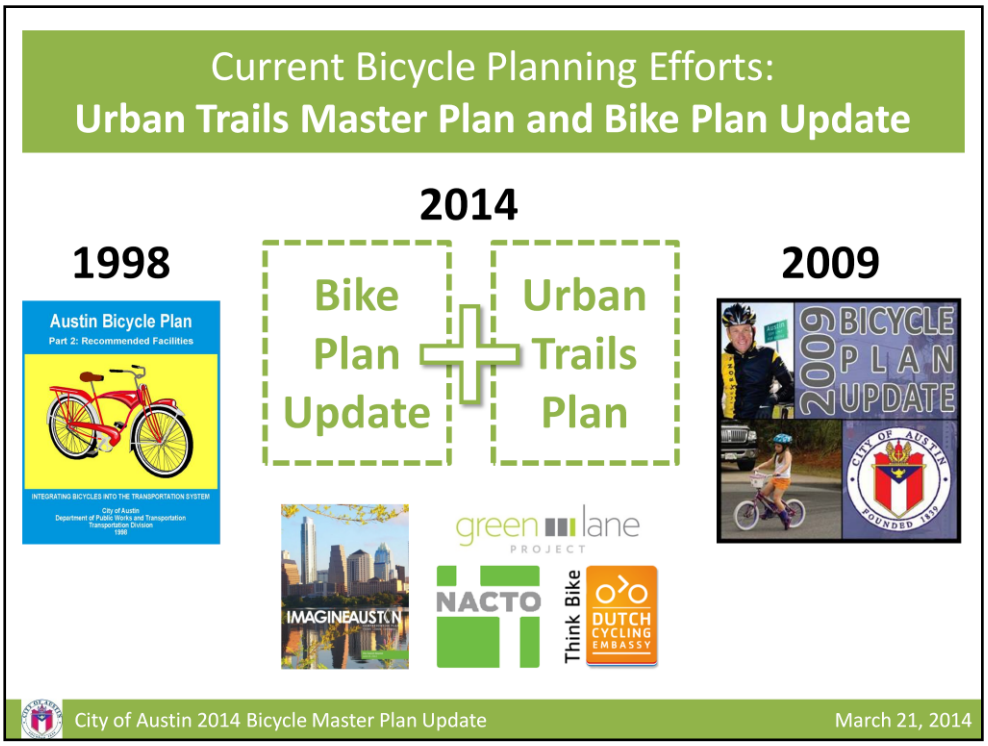
March 21, 2014

- The following is an overview of the content that is proposed to be included in the 2014 Bicycle Plan Update

WHY UPDATE THE BICYCLE PLAN?

Creating the future Austin

- A brief explanation of why this update is important



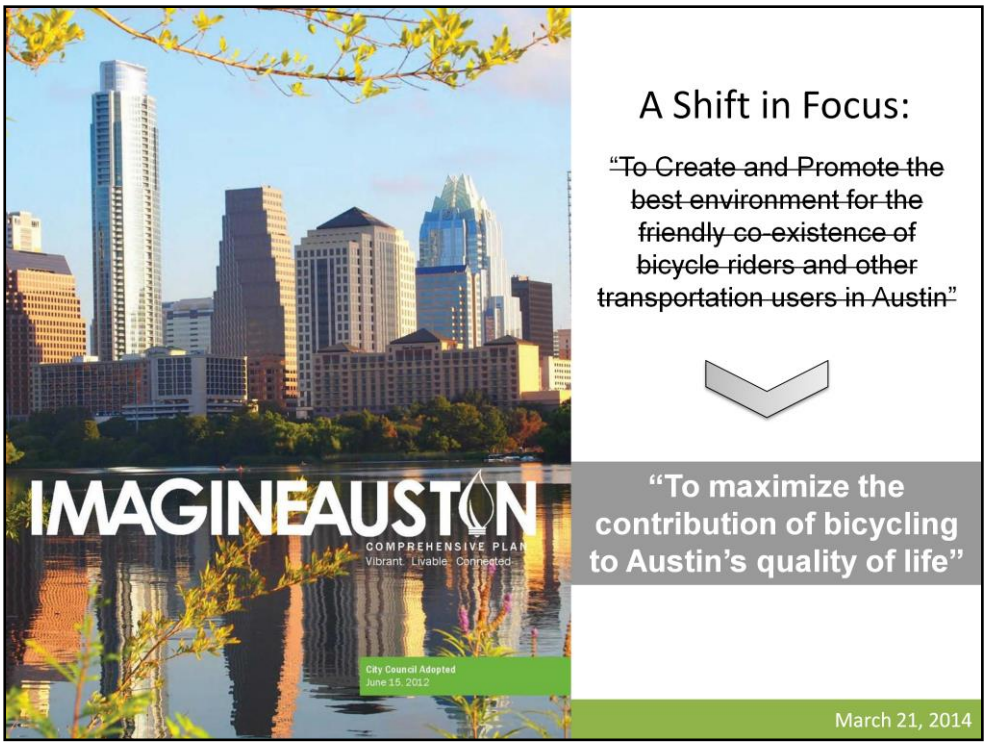
- The Bike plan builds on existing plans with latest influences from Imagine Austin, the NACTO bikeway design guide, Austin's participation in the Green Lane Project, and Austin's Think Bike event

Bicycling and Active Transportation Support Imagine Austin Plan

- Priority Program #1: Invest in Compact
- Priority Program #8: Align Code
- Priority Program #3: Workforce Development
- Priority Program #5: Creative Economy
- Priority Program #2: Sustainable Water
- Priority Program #4: Green Infrastructure
- Priority Program #6: Household Affordability
- Priority Program #7: Healthy Austin

City of Austin 2014 Bicycle Master Plan Update March 21, 2014

- Integrating Imagine Austin plan into 2014 Bicycle Plan
- Bicycling is integral in all 8 priority programs

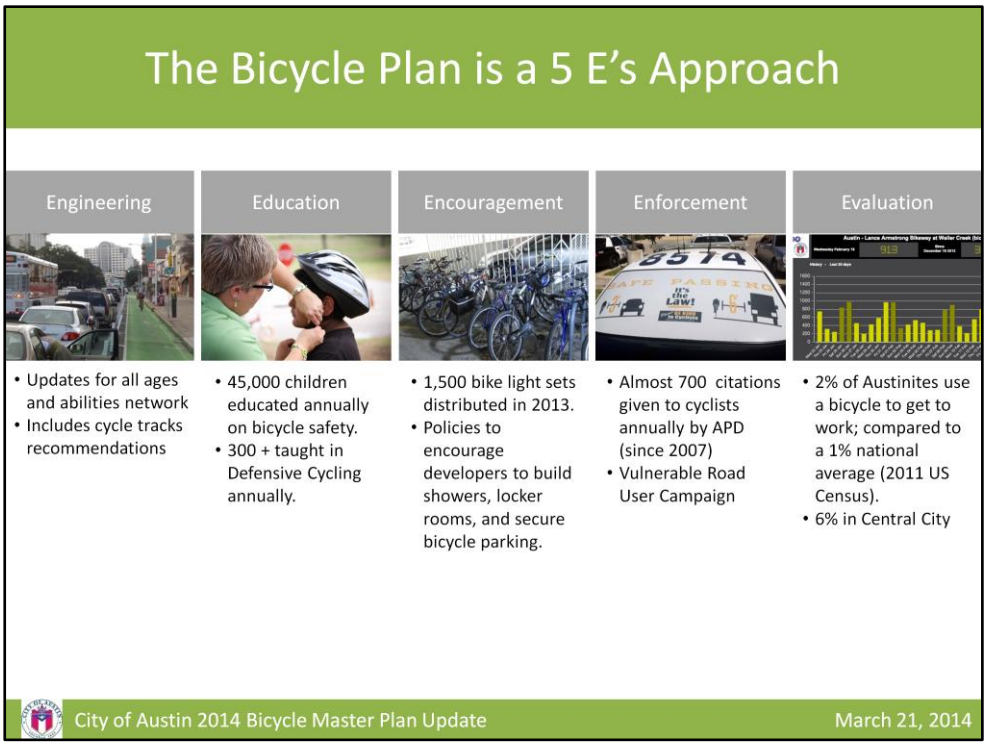


- Update the vision for the bicycle plan
- This is a very important change in focus and is the foundation for our approach to the conversation for the 2014 update

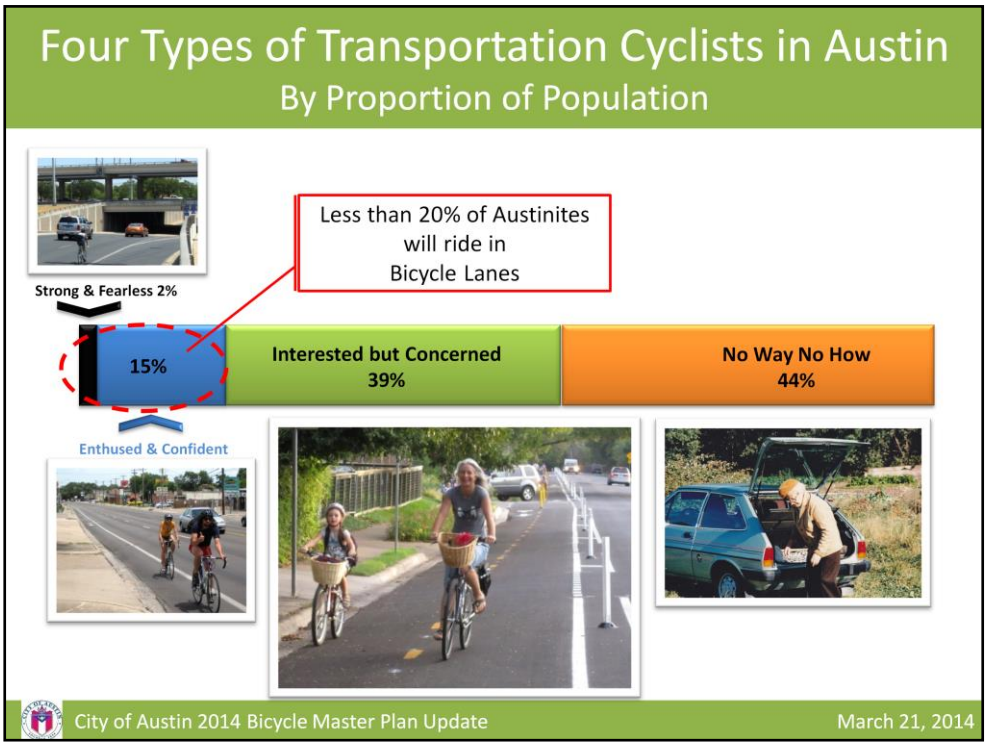
HOW ARE WE APPROACHING THE UPDATE?

Elements of the 2014 Bicycle Plan Update

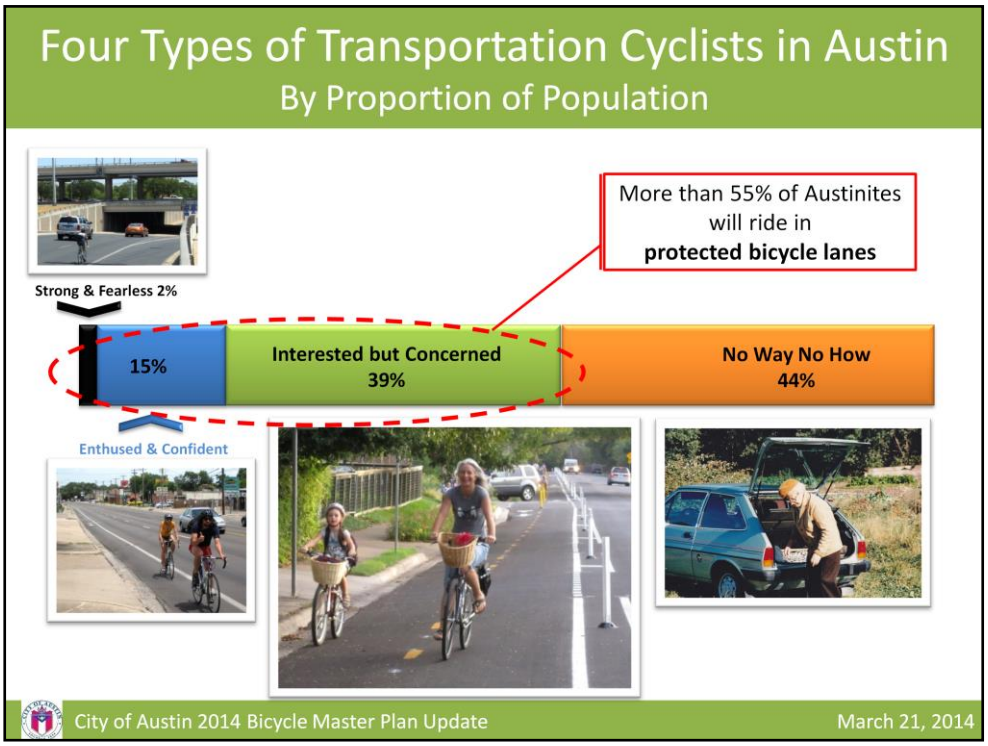
- An overview of our approach and fundamental elements that make the 2014 Bicycle Plan a significant change to the the 2009 plan



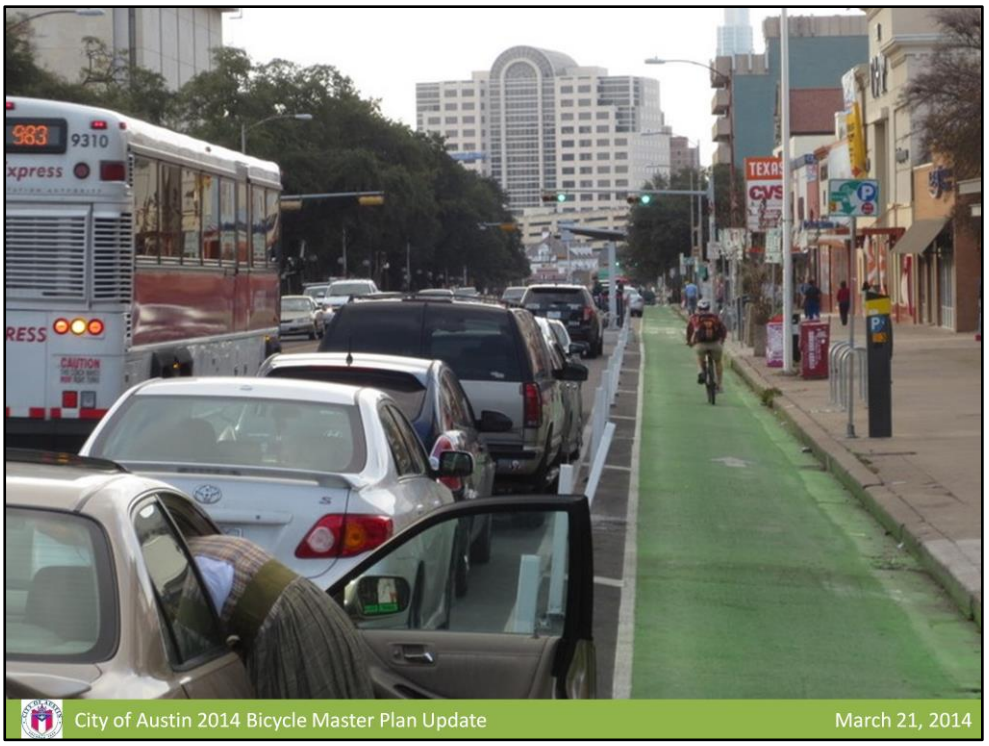
- The bicycle plan is a 5 E's plan.
- The most significant update from the 2009 Plan, and the content of this presentation, will be in the Engineering / Infrastructure recommendations and approach, the other sections will get minor updates



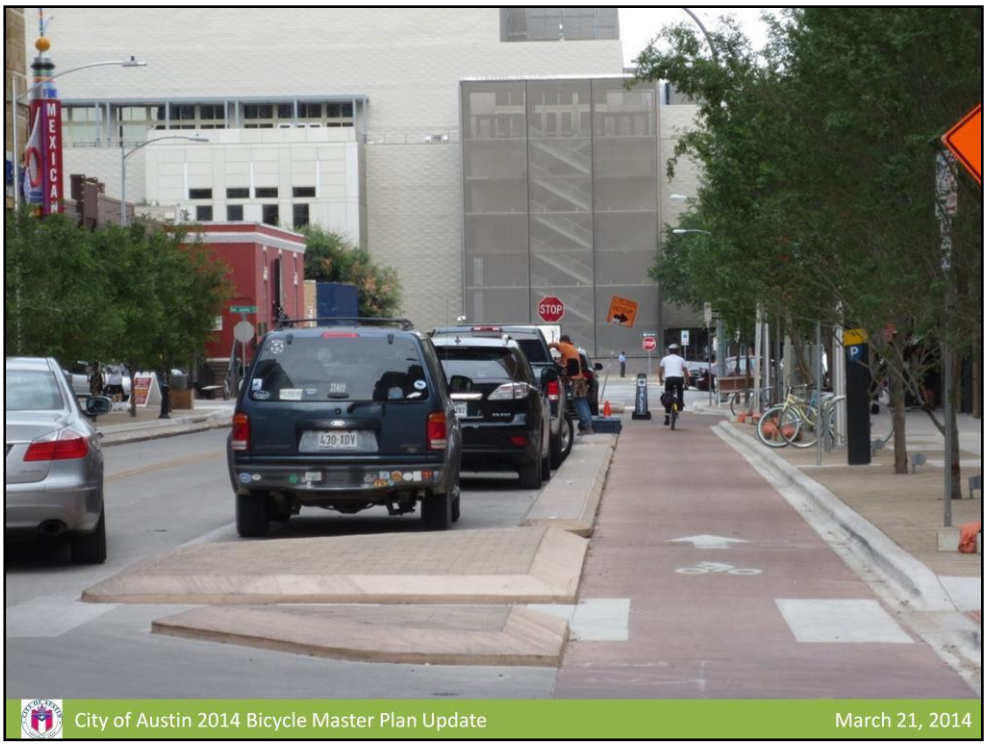
- Existing bicycle lanes based infrastructure attracts less than 20% of Austin's population



- A network of protected bicycle lanes will attract 55+% of the population. If we want a significant increase in bicycling and the benefits it brings to the City and its citizens, we will have to pursue protected networks.

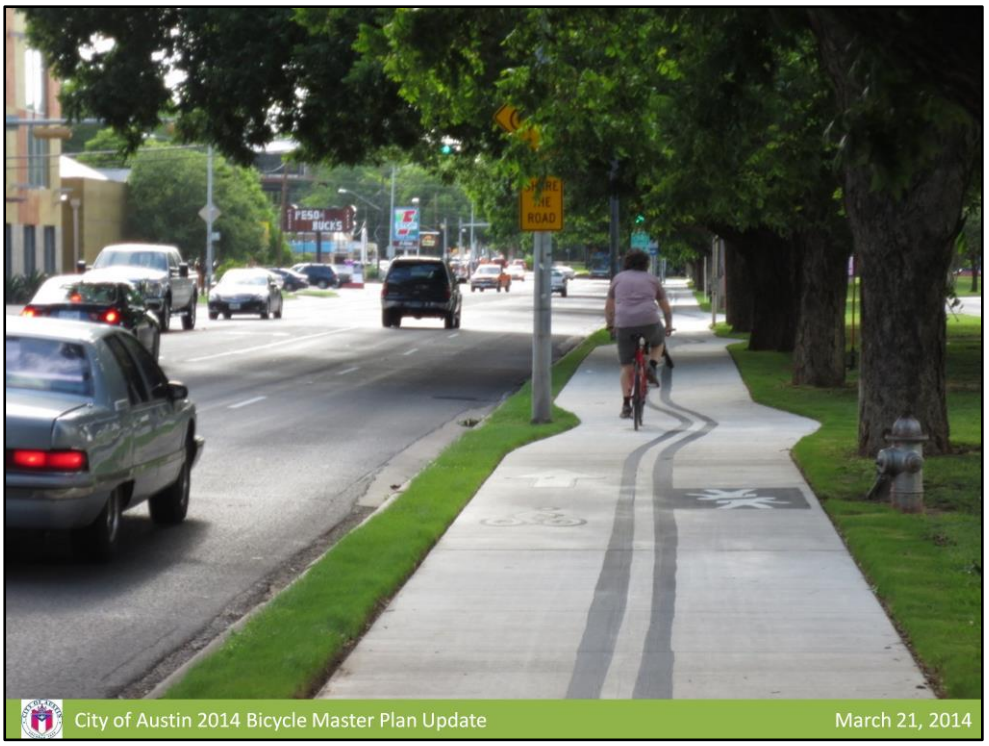


- Guadalupe next to Campus

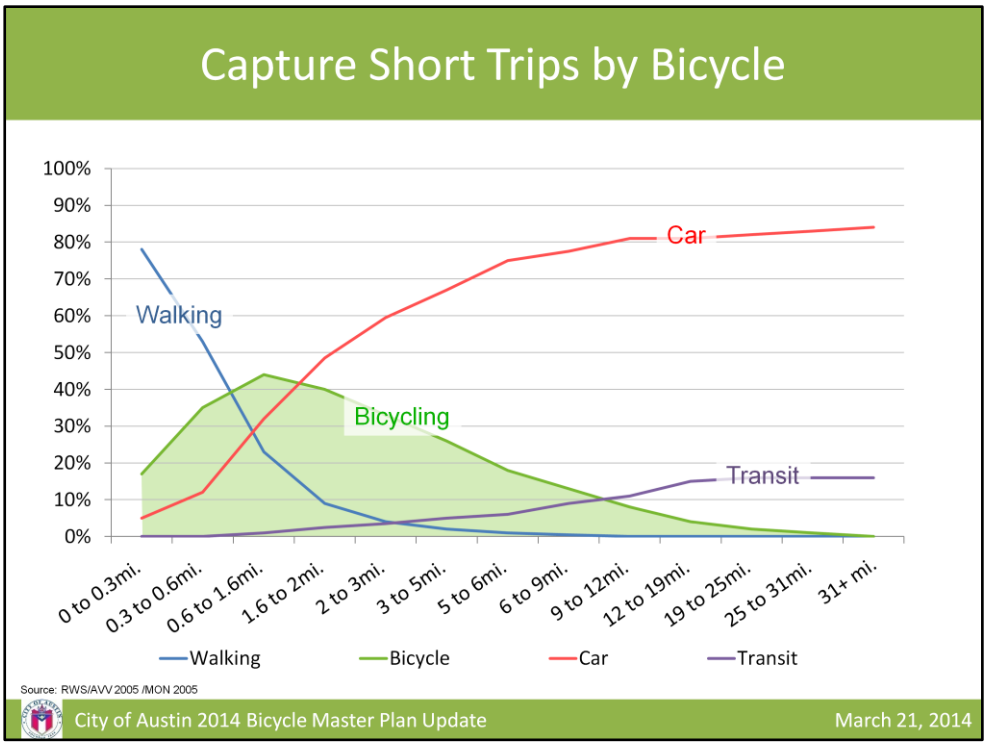


- A newly reconstructed block of 3rd Street downtown

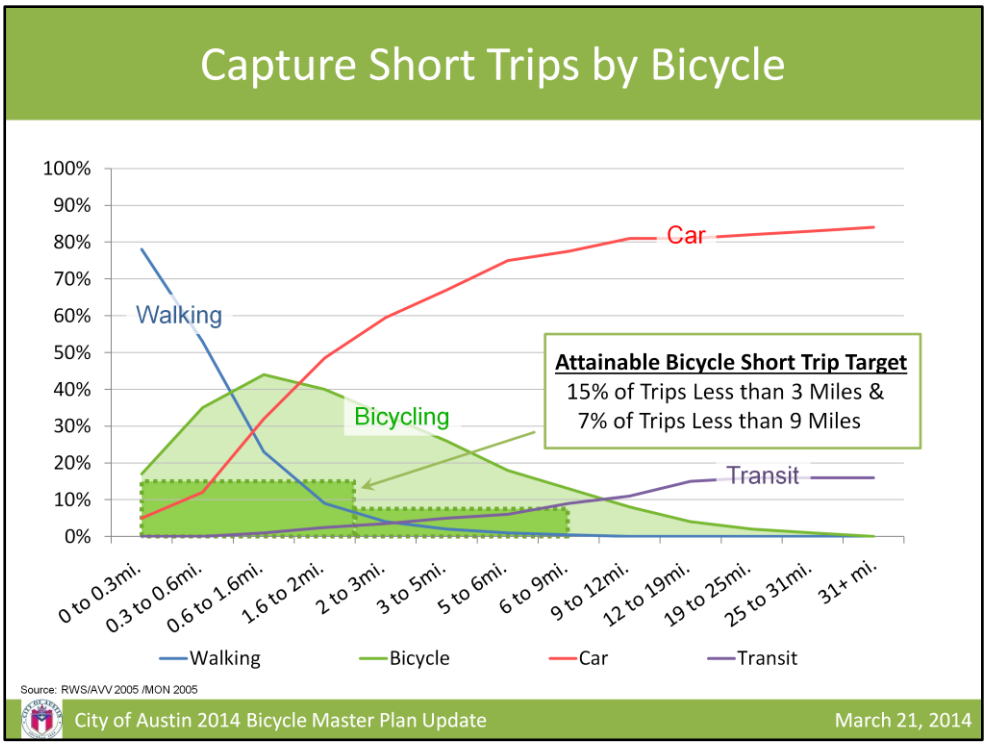
- Bluebonnet Lane Cycle Track in south Austin adjacent to Zilker Elementary



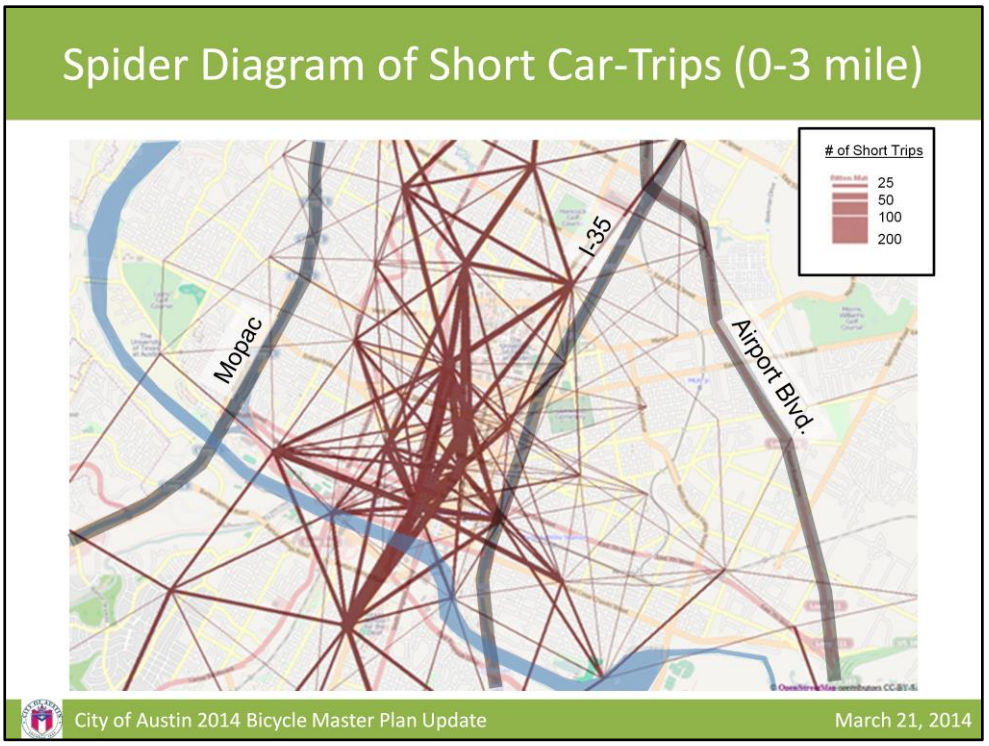
- Barton Springs Road



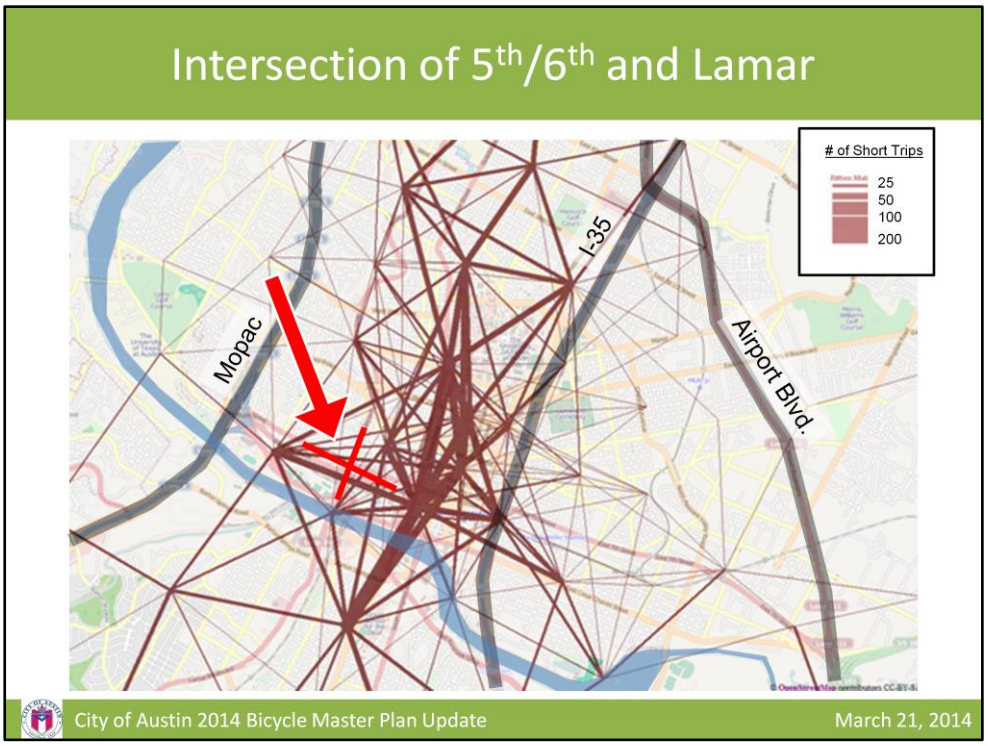
- Each mode is more and less useful at different trip lengths. For short distances walking and bicycling are best, for longer distances cars and transit are better
- Given a safe bicycle network, trips in the 1-3 mile range can be the mode with the largest mode share.
- Targeting infrastructure investments to capture short trips is critical



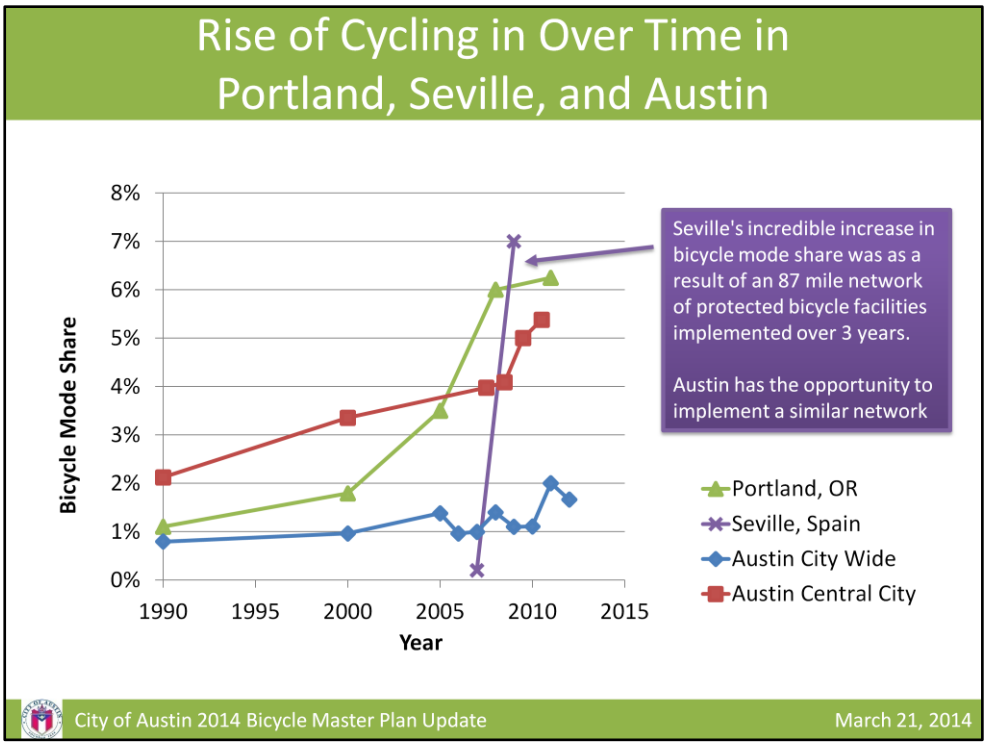
- The green shaded boxes show the Bicycle Plan updates trip capture targets. The plan will capture the impact of achieving these targets.



- You can see most of the short trips occur in the central city.
- They occur in every direction but you can see a north-south patterns as you would expect in our city.



- This notoriously congested intersection has 50% of short trips going through it, a portion of which are perfect candidates to be converted to bicycle trips.

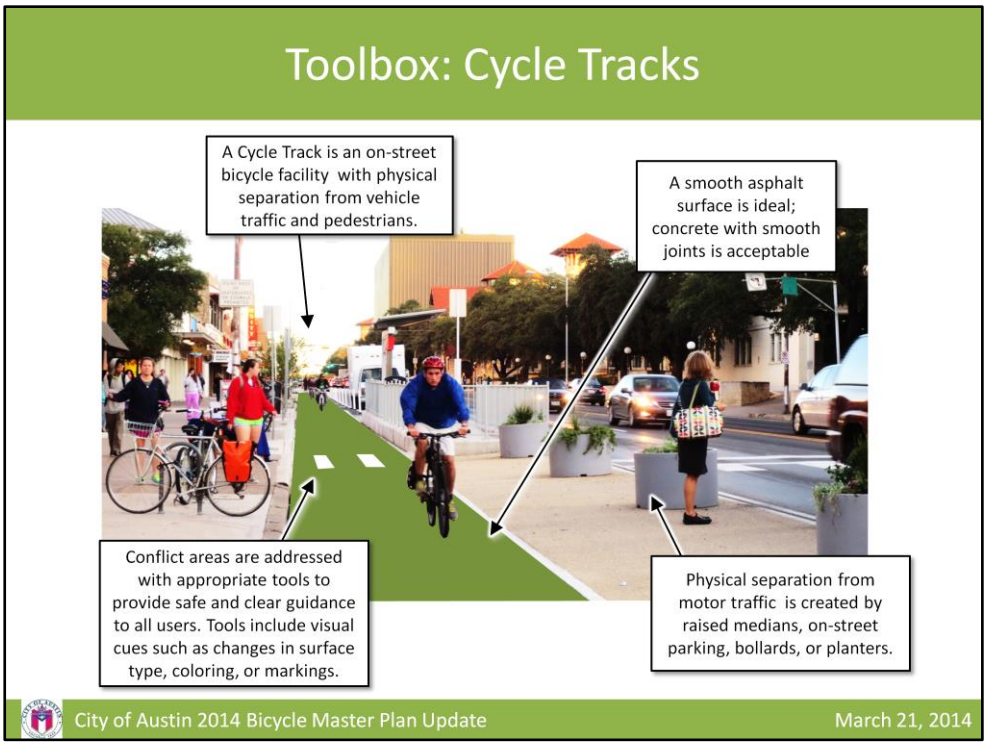


- Seville was able to achieve a higher bicycle mode share than Portland, OR in only 3 years due to the implementation of an 87 mile Dutch inspired protected facility network for $43 million.

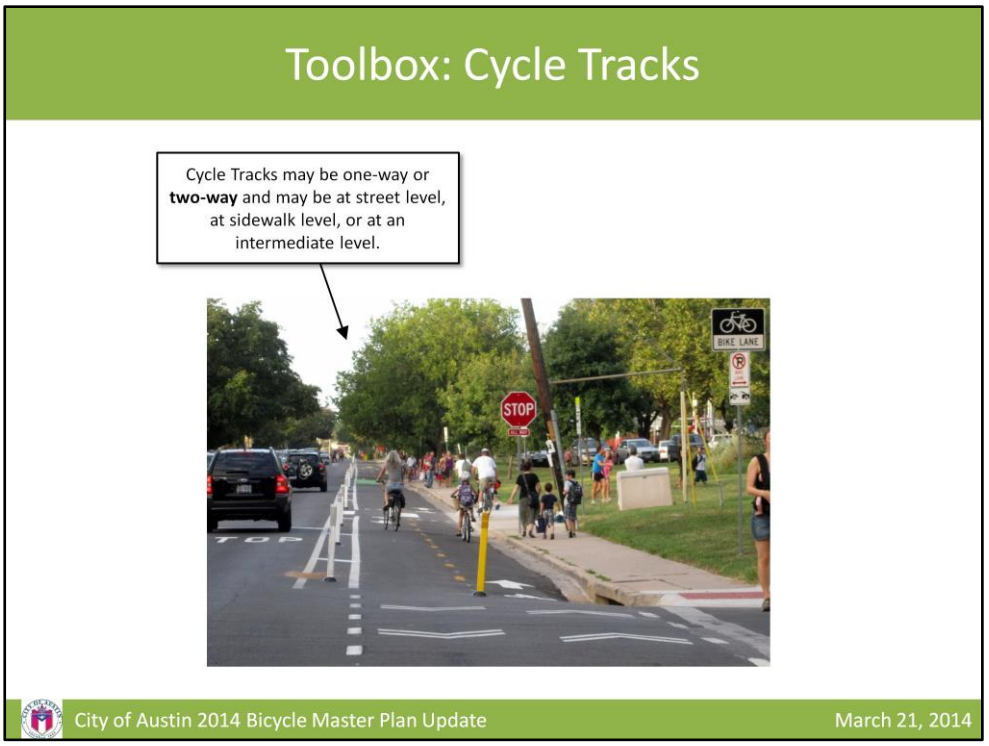
WHAT IS THE PLAN MADE OF?

Our strategic focus

- An overview of the detailed recommendations of the 2014 Plan Update



- Visual guide of the principal tools used in the plan



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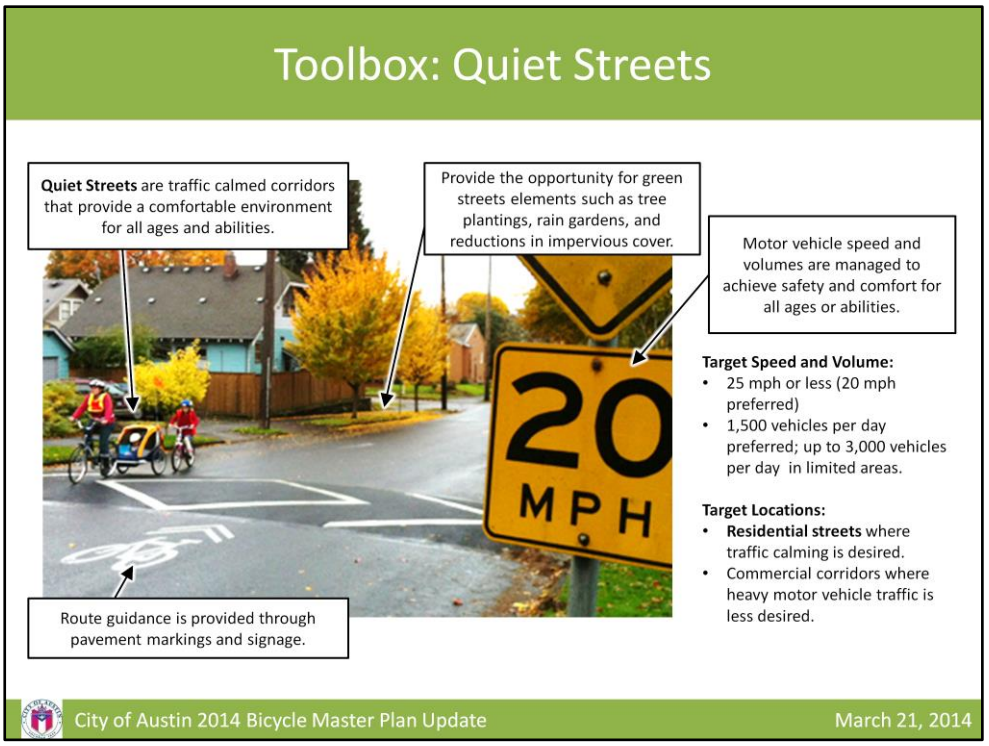

- Visual guide of the principal tools used in the plan

Toolbox: Intersection Treatments

INTERSECTION TREATMENTS help users comfortably cross major streets on key routes.

Intersection Treatments Include:

- Crossing signs and markings
- Median refuge islands and curb extensions.
- Crossing devices including actuated warning beacons and signals.

Crossing times should account for all ages.

Actuated warning beacons and signals make the toughest crossings safe and comfortable

Median refuges make tricky crossings a simple two step process

Widths accommodate trailers and cargo bikes

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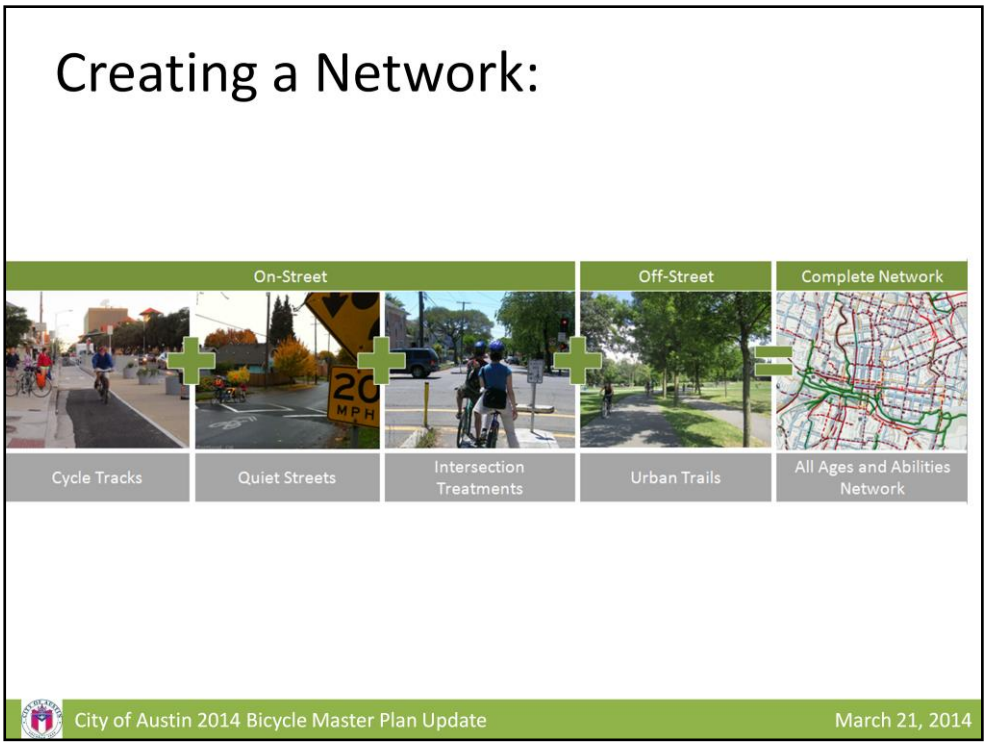
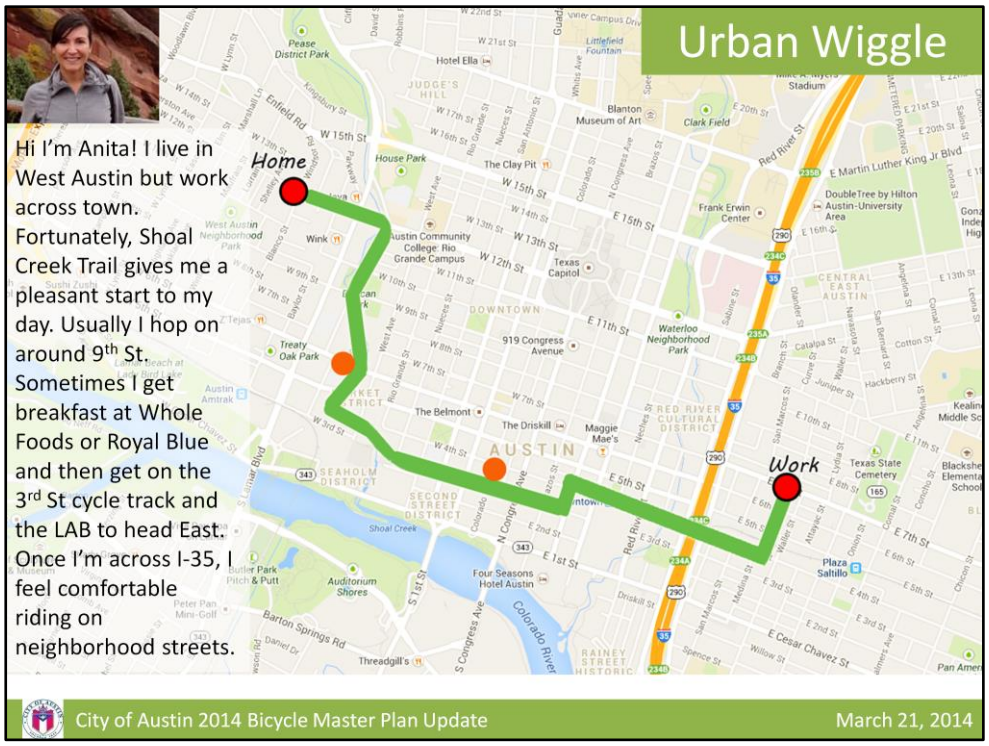
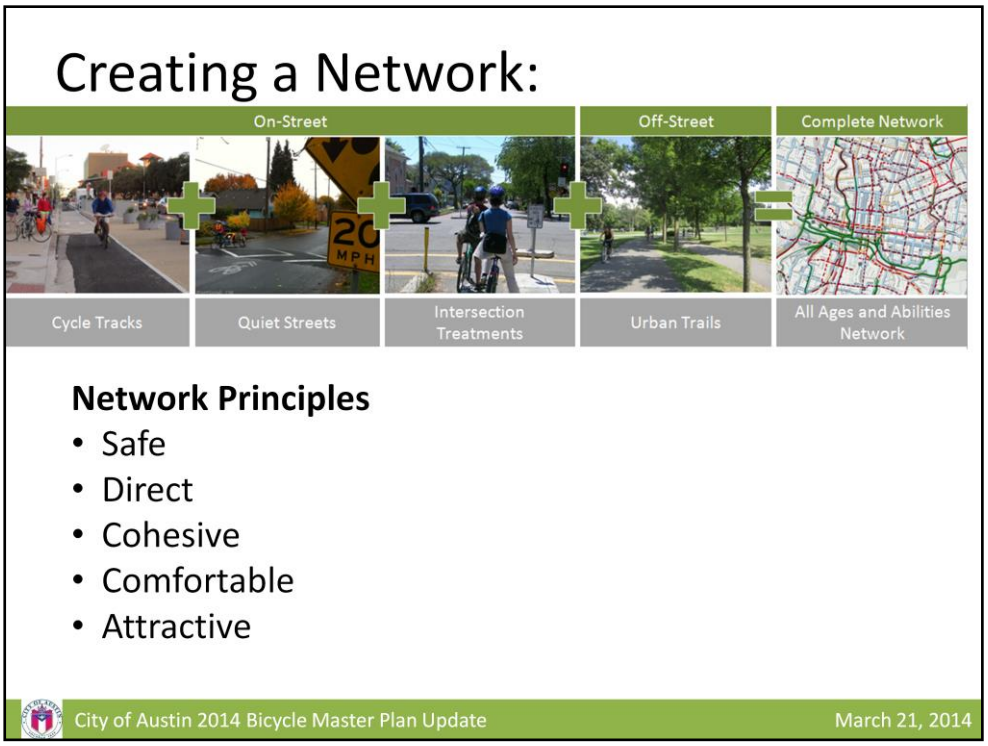
- Visual guide of the principal tools used in the plan



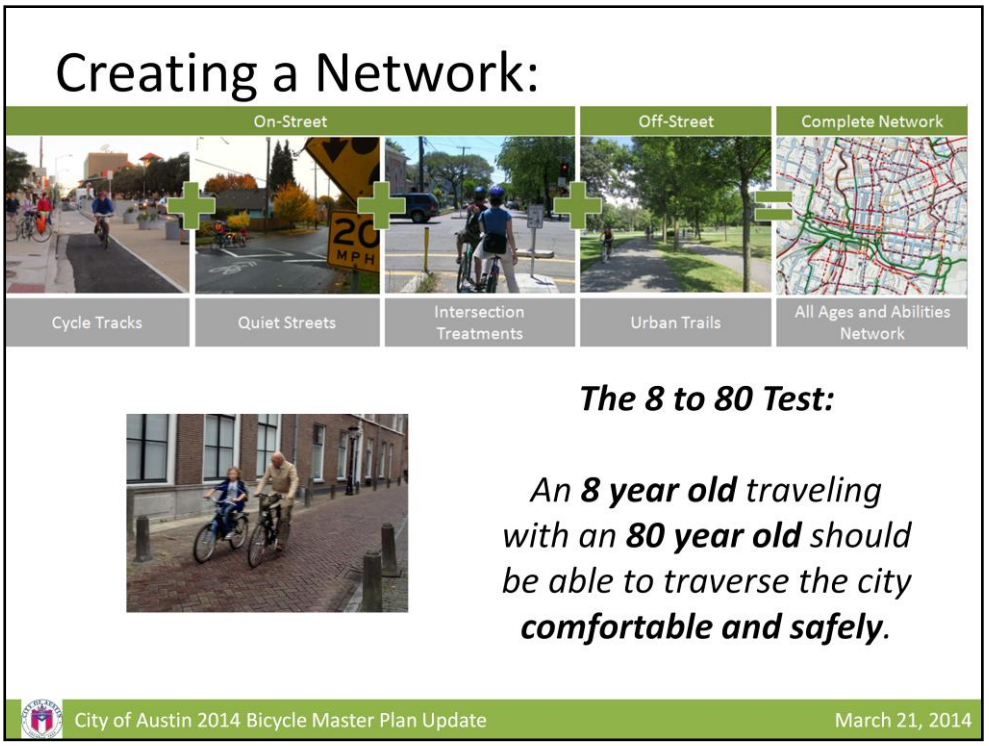
- Austin's approach will involve all of these facility types to form one all ages and abilities network
- Our street network does not support reliance on only one of these facility types



- Example of how Anita's route is made up of many elements.



- The guiding principles of a quality bicycle network



- The plan proposes to hold our network to the 8 to 80 test

Network Design Parameters

Bicycle design should take into account the cyclist's point of view

Design Speed

- The network design speed will be accommodate commuter cyclists.
- Typical speeds will be 10-15 MPH

Design Bicycle

- Designs will accommodate tandems, trail-a-bikes, trailers and cargo bikes.

Network Density

- Space routes every ½ - ¾ mile where short trips are most common (in the central city and near transit stations) with increased spacing further away from these areas.
- Ensure access to residences, businesses, and employment while providing the largest return on infrastructure investment.

- Our network design parameters

On-Street Bicycle Facility Guidance

Speed and Volume Criteria

		Average Annual Daily Traffic (vehicle per day)		
		Less than 3,000	3,000-9,999	10,000+
85th Percentile Speed (MPH) Meaured or Projected	< or =30	Shared*	Bike Lane	Buffered
	31-40	Bike Lane	Buffered	Protected
	41-50	Buffered	Protected	Protected
	> 50	Protected	Protected	Protected

*Local streets that are important for the all ages and abilities network with less than 3,000 vpd and 30 MPH should be treated as necessary to meet the performance guidelines for Quiet Streets.

Special Consideration Will be Given To

- On-street parking pressures
- Delivery activity
- Network context

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- One of the biggest changes from the 2009 Bicycle Plan was to use the speed and volume criteria shown above instead of basing the recommendations from a 20 year old 1992 FHWA report on recommended bicycle facilities.
- The criteria above acknowledges, per current research and best practice, that on higher speed and volume roadways that protected bicycle facilities are necessary to attract the largest portion of the population that is **interested** in riding a bicycle for transportation but **concerned** about safety due to motor vehicle traffic.

Bicycle Network Priorities

Long-Term Recommendations

- Based on Speed and Volume Criteria
- Decades Long Build-out

Recommended Short-Term Network

- Highest Return on Investment
- Target Short Trips

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- In addition to long term recommendations based on speed and volumes of motor vehicle traffic, a feasible short term all ages and abilities network is recommended

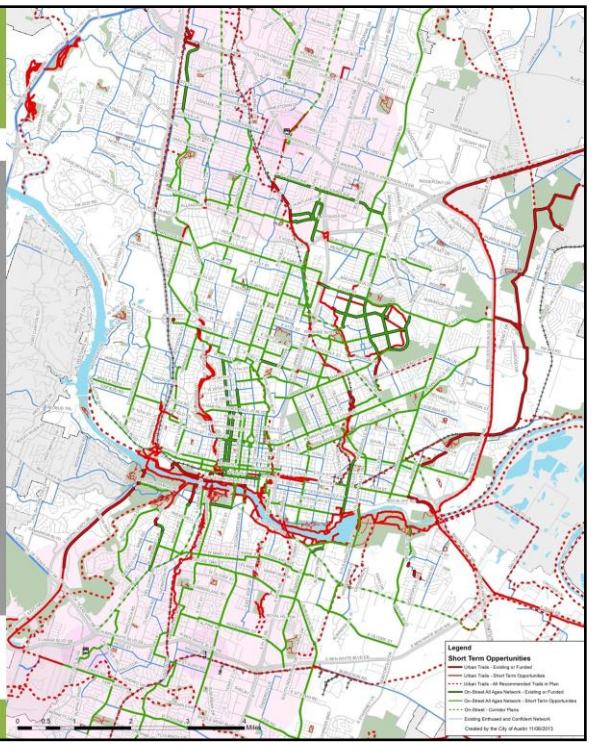
Draft Short-term
All Ages and Abilities Bicycle Network

Central Austin

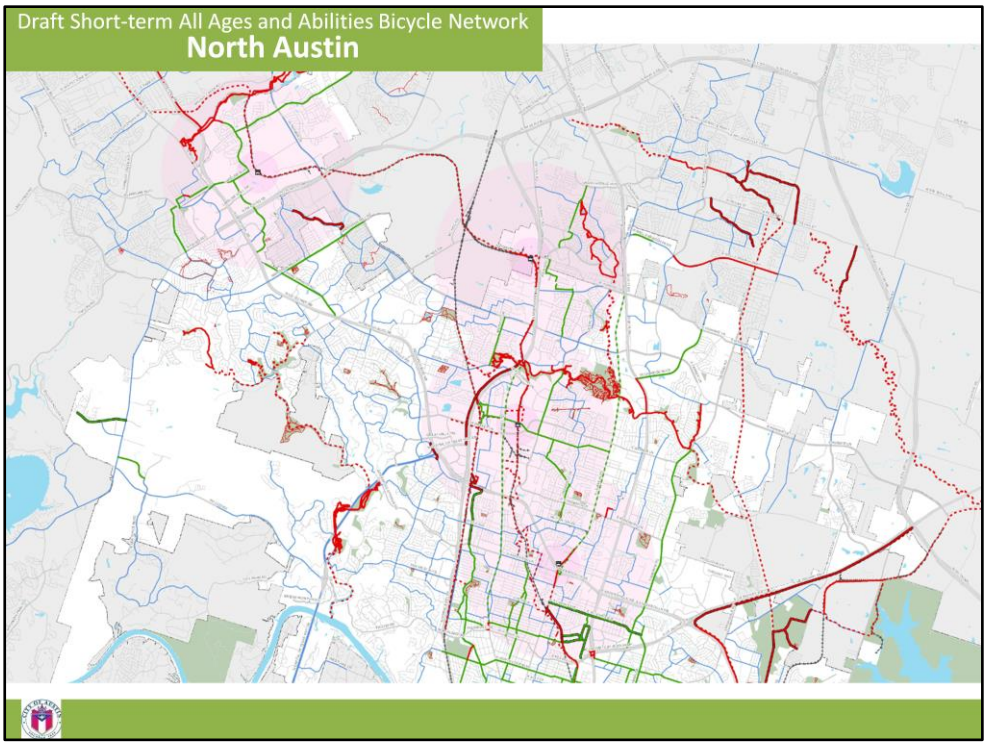
Focus on where short trips exist

- The central city
- To major transit stations
- Key feeder routes to the central city
- To schools and to and along parks
- Supporting Imagine Austin Centers

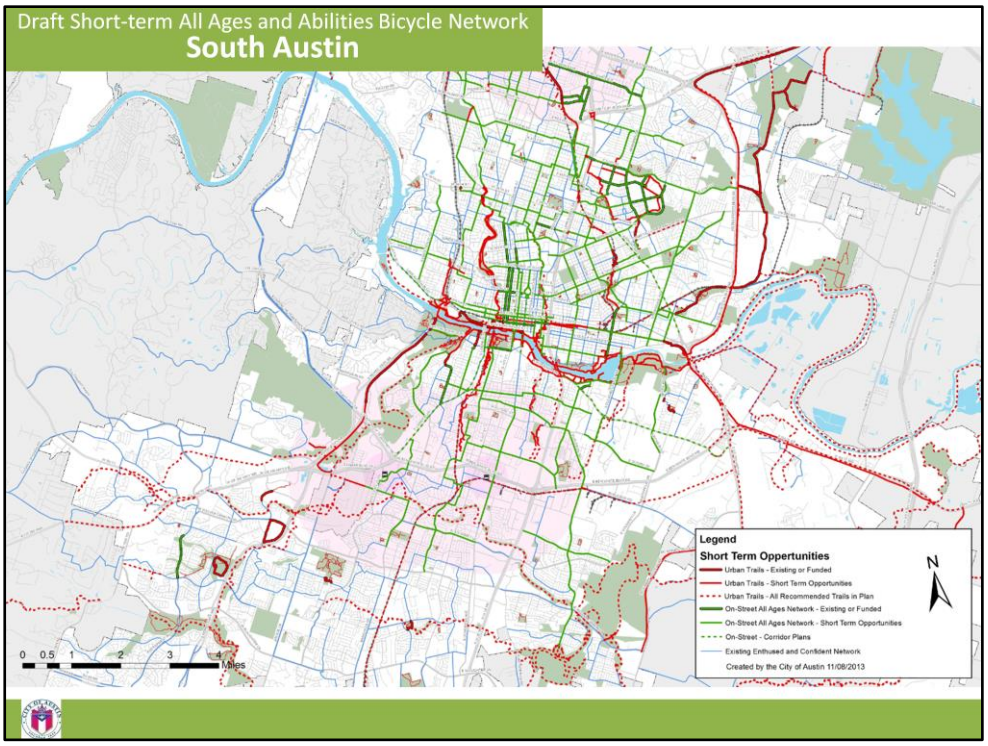
***Short Term defined as potential implementation within 5 years**



- This is a view of the short term network in the central city composed of on-street facilities and Urban Trails



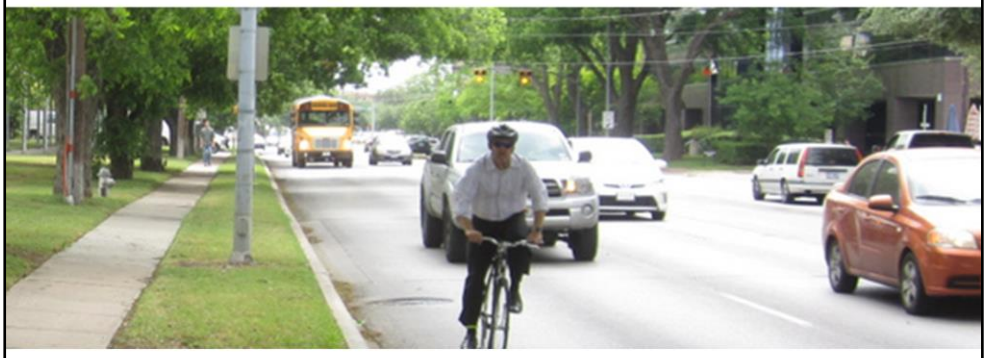
- Zoomed in view of recommended short term all ages and abilities network in north Austin



Zoomed in view of recommended short term all ages and abilities network in south Austin

Bicycle Lane Network Barriers

- Updated top 100 barriers
- Removal of barriers prioritized in plan



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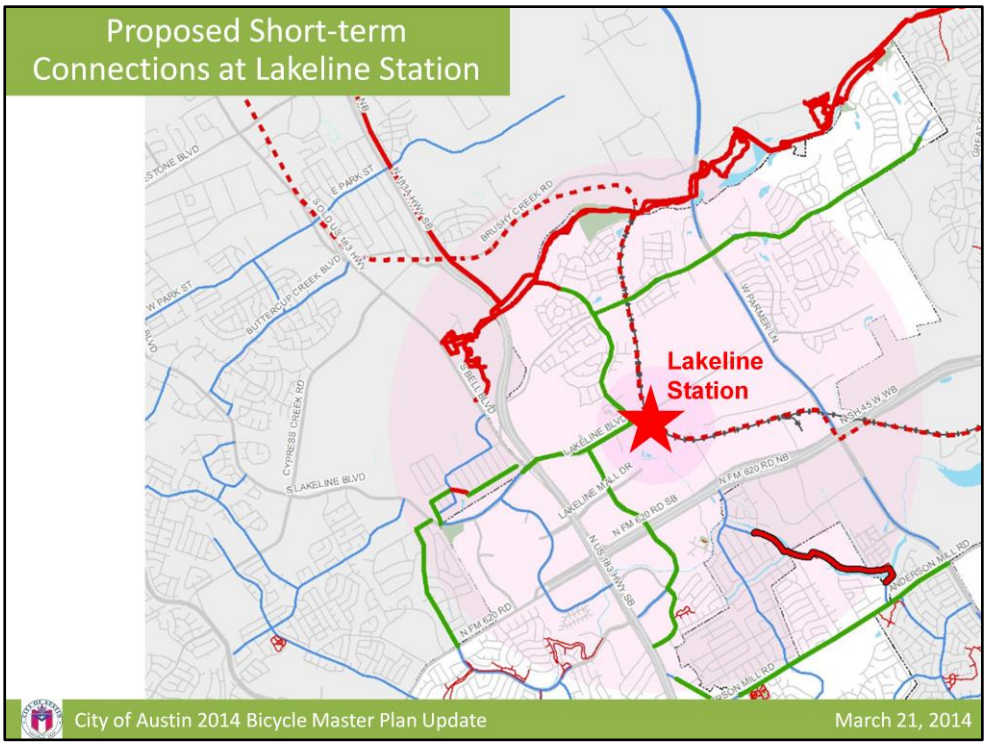
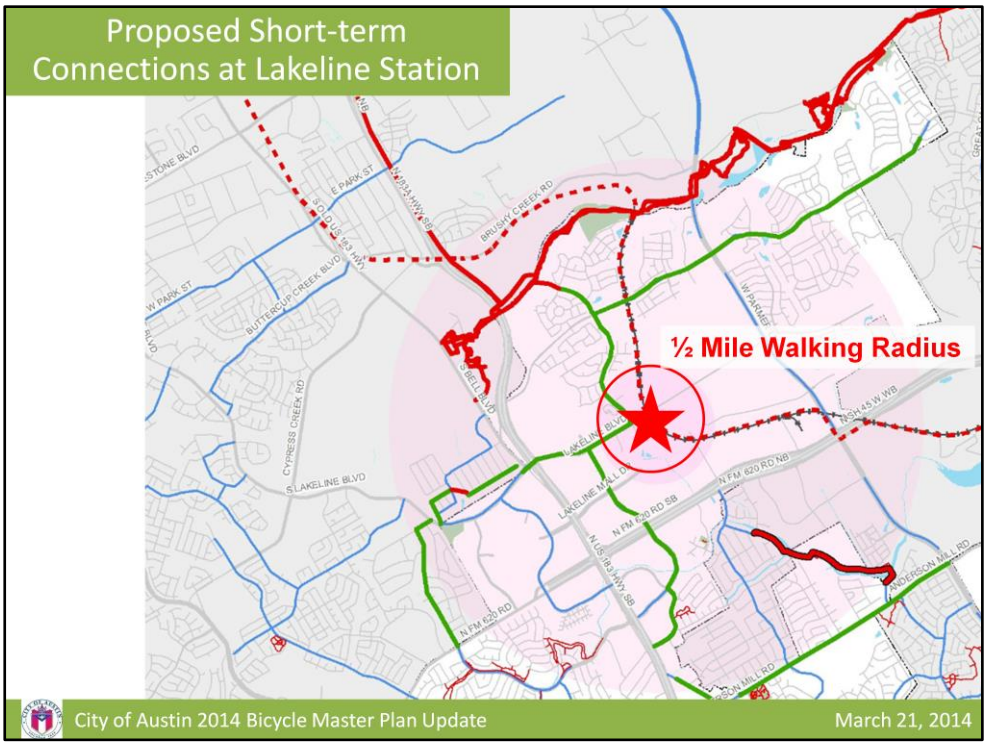
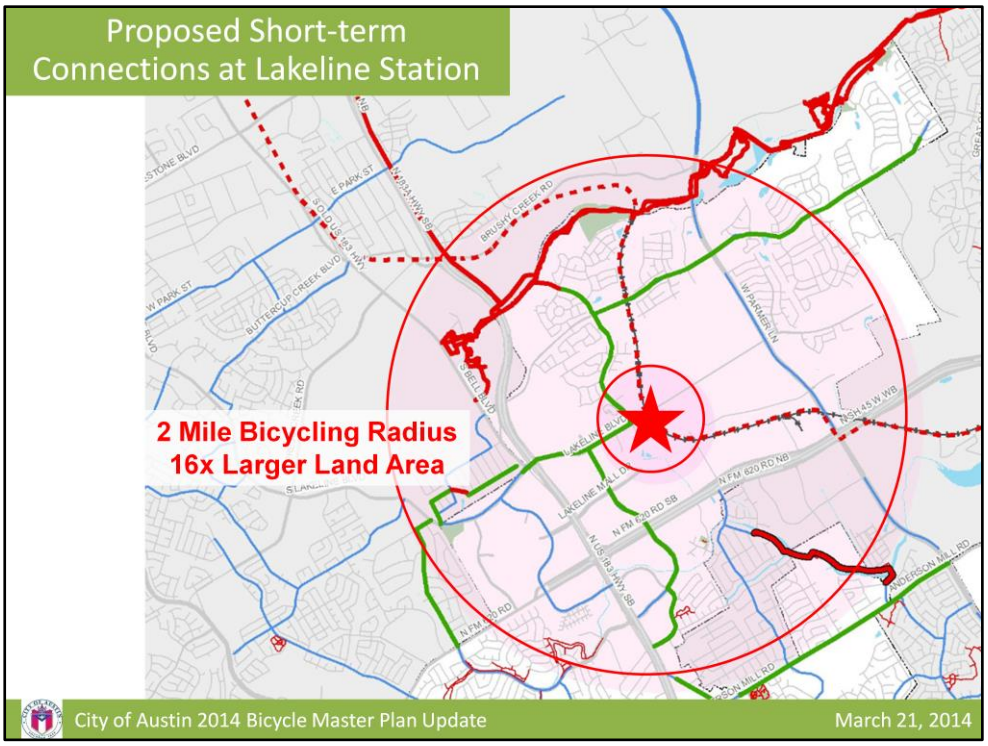
- Removing barriers even with the installation of bicycle lanes will continue to be a central element of the plan
- Past barrier along Barton Spring Road shown
- Barrier Resolved with animation



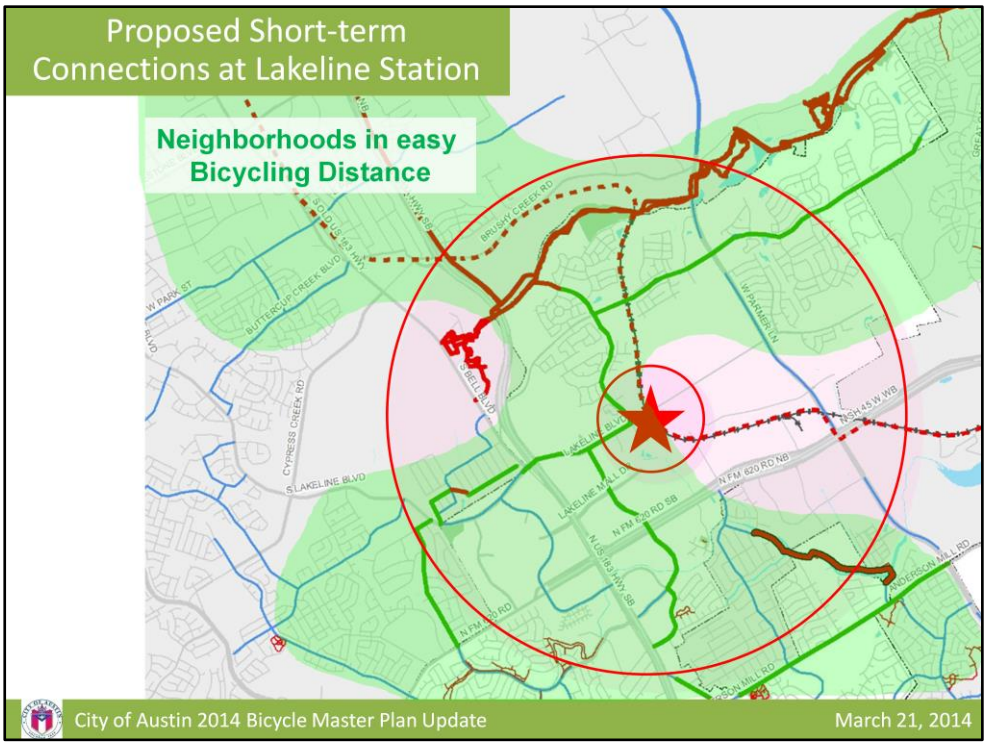
- An example showing the proposed network around the Cap Metro Lakeline station



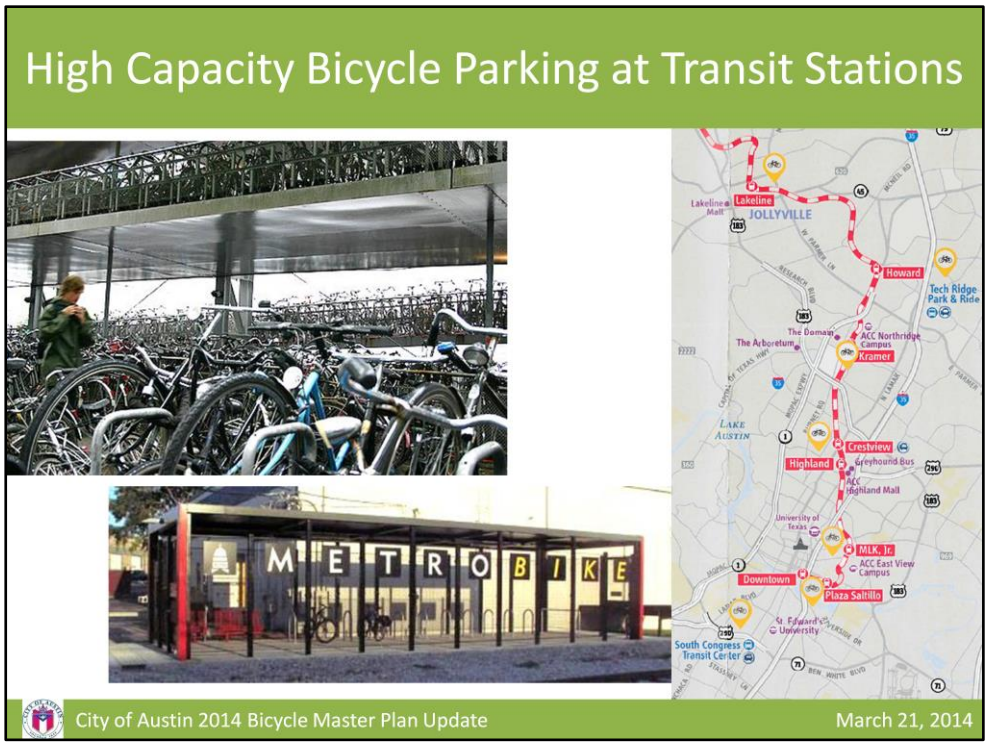
- A ½ mile radius around the stations does not reach many destinations



- A 2 mile bicycle radius has a far greater reach to surrounding destinations

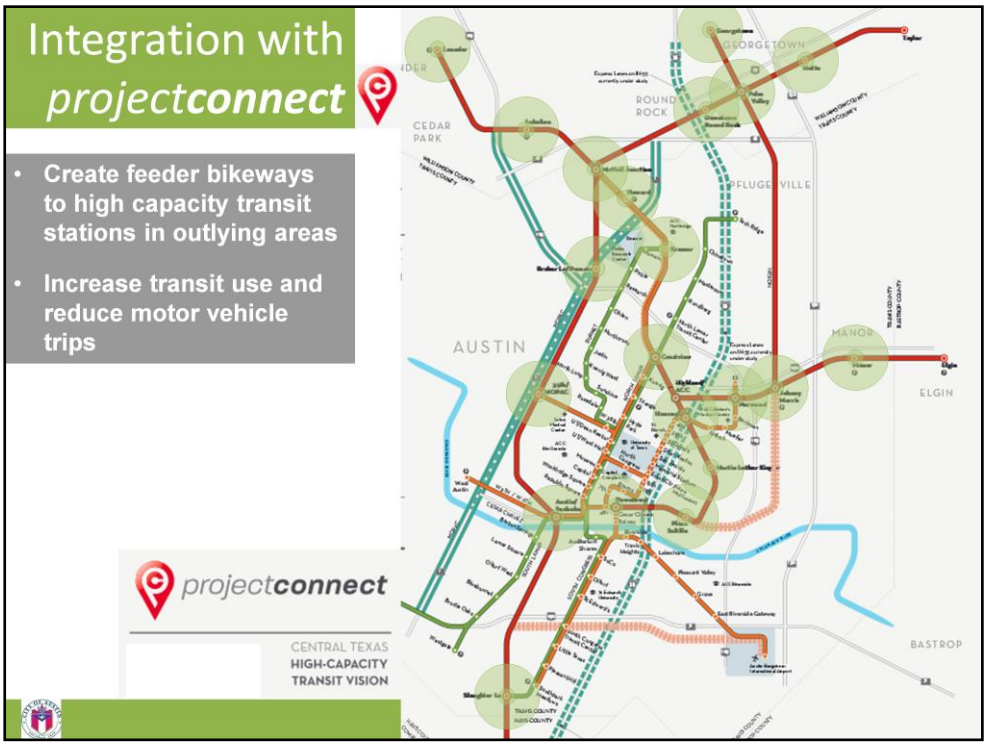


- The shaded areas show the destinations that would have safe bicycle access to the Lakeline station by a reasonable bicycle trip length. This presents an incredible opportunity to increase transit use, support transit oriented development, increase active transportation, and reduce drive alone trips.



- Bicycles should not take limited space on transit vehicles.
- Best practice is high capacity, secure bicycle storage at major transit stations.
- If protected bicycle networks better connect transit stations expanded bicycle parking will be necessary

- Bicycle Share systems have significant potential to increase a transit rider's level of service and access to last mile (or two) destinations.
- Plan update will support Bicycle Share network expansion



- Protected bicycle infrastructure will be prioritized to support *project**connect's*** transit vision.
- Safe bicycle access to stations will significant expand the transit system catchment and increase ridership

Implementation and Cost Considerations

	Urban Trails	On-Street Facilities
	The ultimate protected environment	Providing safe access to local destinations
Cost	$1.5 - $2 million per mile*	$50k - $500k per mile*
	*For comparison: 6- lane freeway approximately $51 million per mile 4-lane arterial roadway approximately $22 million per mile **(Source: CAMPO 2035 Plan)**	
Timeline	3-8 years per project	6 months - 2 years per project

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- On-street facilities are much less expensive and can be implement much faster than urban trails.

Benefits of Short Term Network
Significant Mobility Improvements

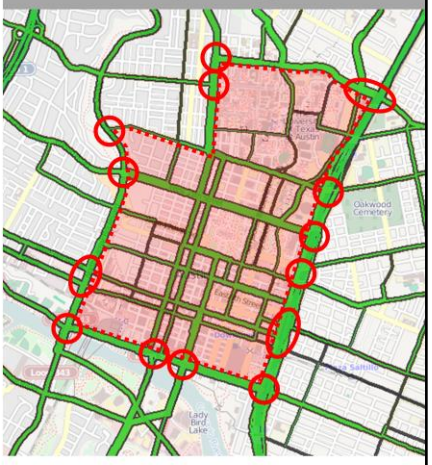
Our DRAFT Analysis Shows
Of the 160k passenger vehicle trips that enter the "Ring of Congestion" Daily

36% are less than 3 miles

*If **only 15%** of these trips 0-3 miles*
*and **7%** of trips 3-9 miles*
are converted to bicycle trips

There would be a total reduction of
7% all motor vehicle trips
to the Ring of Congestion

The "Ring of Congestion"



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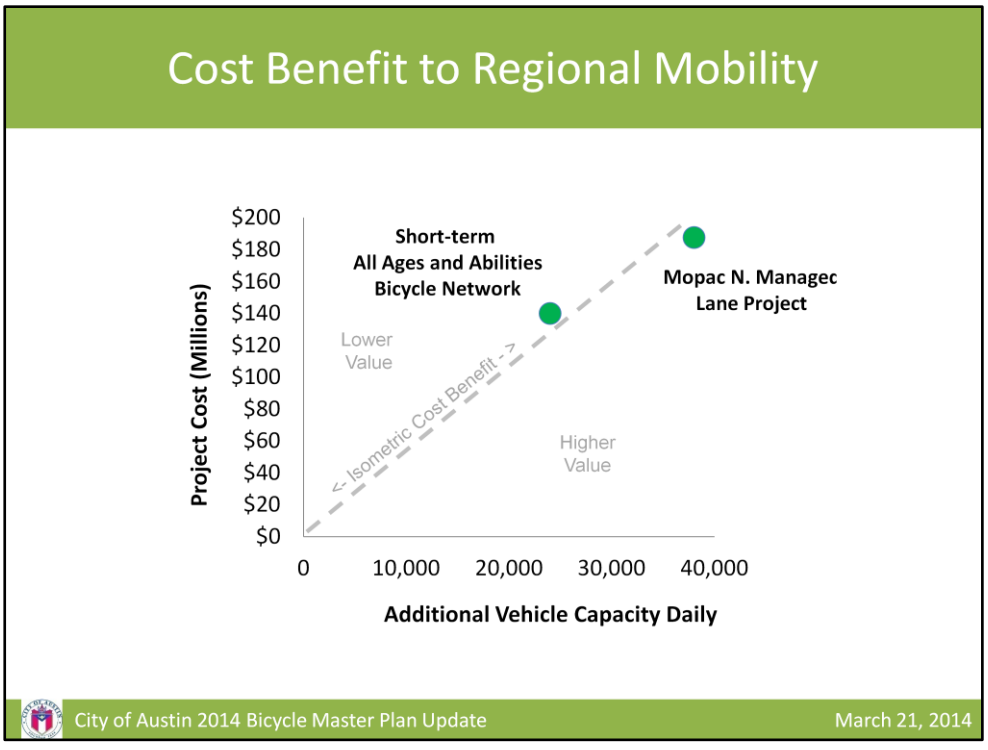
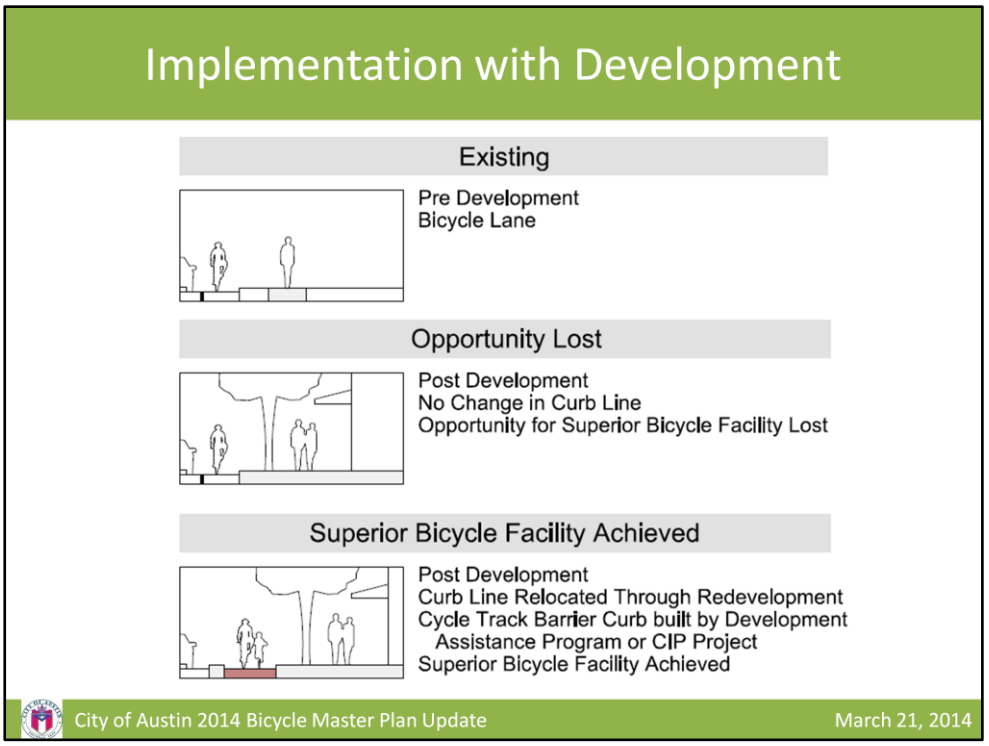
- Meeting our trip capture targets will the proposed short term all ages and abilities network will result in significant mobility improvements



- The cost benefit of the short-term all ages and abilities bicycle network is on par with other regional mobility investments.
- The benefits of the All Ages and Abilities Bicycle Network are not limited to mobility benefits. Other benefits include health, quality of life, economic development and workforce development, and household affordability.

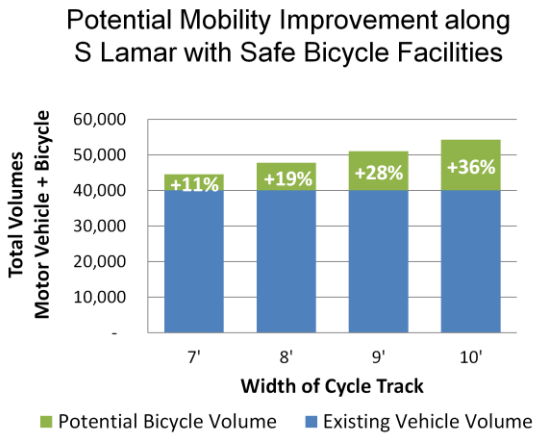


- It is important to ensure that corridors are shaped at time of development to provide safe bicycle facilities.
- This opportunity will not come again for many decades or more.

Implementation with Development

Shaping streets at the time of development:

- Significantly improves mobility along corridors.
- Provides a complete street for all users



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- Bicycle facilities represent a significant opportunity to accommodate additional travel demand due to infill development.
- Infill development short trips that are perfect by bicycle

Other Considerations for Protected Bicycle Lanes

Plan will Address the following:

- Austin Resource Recovery Services
  - Street Sweeping
  - Trash Pickup
  - Bulk Collection
  - Lawn Waste
  - Large Brush Collection
- Design Storm Water Quality and Quantity
- Utility Compatibility and Conflicts

References to be included

- Barrier curb selection matrix
- Example solutions for any of the above special considerations

- Protected bicycle facilities affect many other city operations. The plan will address best practices and toolbox.

PUBLIC INPUT SUMMARY

For the 2014 Bicycle Plan Update

City of Austin 2014 Bicycle Master Plan Update March 21, 2014

- This is a summary of public input pertaining to on-street facilities gathered in this planning process in addition to the general bike and trail plan public input summarized in the Urban Trail plan presentation.

Bike Plan - Public Input Summary

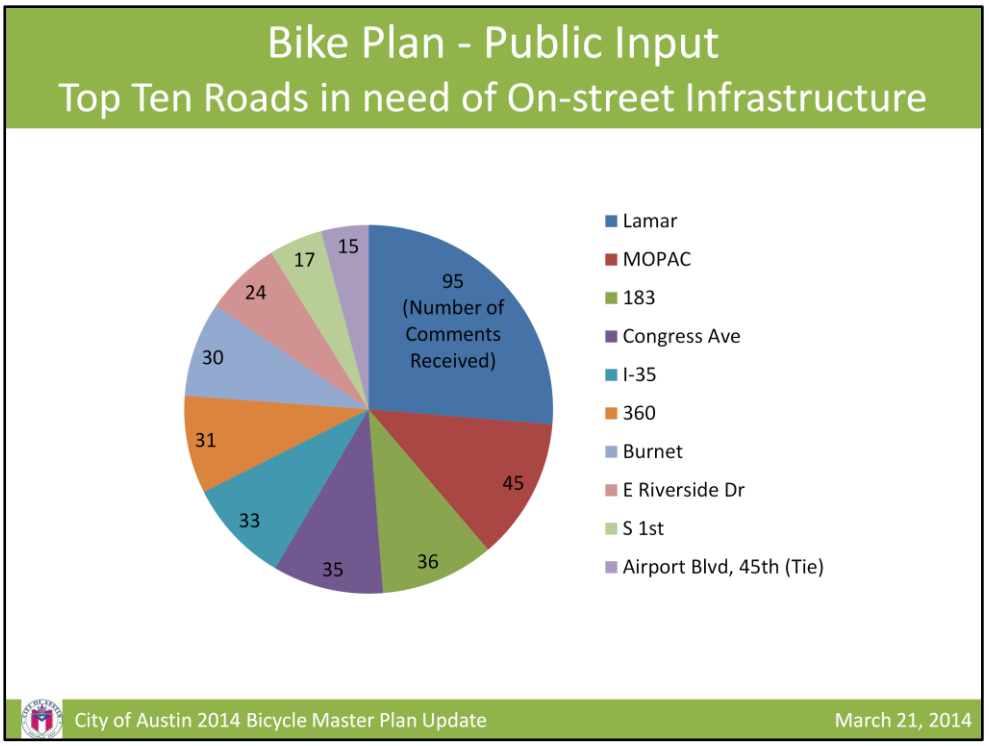
- There were 1,400 free response comments from our surveys that were summarized in the following slides
- The number of comments supporting the following points are shown in parentheses (##) or on charts.

- Overview of how to interpret the free response comments

Bike Plan - Public Input
Infrastructure

- There are gaps in the network that need to be connected.
- Desire for protected cycle-tracks throughout the city.
- Desire for connections to the central city, trails, schools, work, and across major highways
- Cycle tracks are seen as a way to allow families to bike together

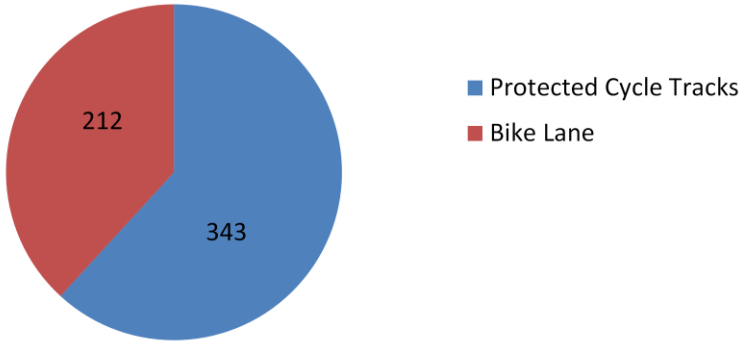
- This is the public input in addition to the general information presented in the Urban Trail plan material
- Plan Response: The plan recommends each of these areas to be addressed



- This is the public input in addition to the general information presented in the Urban Trail plan material
- Plan Response: The plan recommends improvements on all of these corridors, some in the short term.

Bike Plan - Public Input
Requests for Improved On-Street Bicycle Facilities

- There is a strong desire for more on-street infrastructure throughout the city including more cycle tracks and bicycle lanes



- Plan Response: The plan offers strong support for protected infrastructure

Bike Plan - Public Input
Other Input

Education

- Request for educational campaigns on how Cycle-Tracks function
- More education will lead to better behavior and improved safety.

Policy

- Creating incentive programs
- Desire for rules that keep pedestrians out of Protected Cycle-Tracks

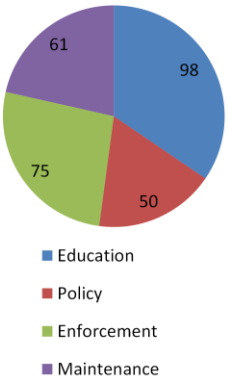
Enforcement

- Call for increased enforcement of the rules of the road for all users
- Call for enforcement of no parking in bike lanes

Maintenance

- Call for improved maintenance of debris in bicycle facilities.

Number of Comments



- The plan continues to call for best practice education, policy, enforcement, and maintenance measures

Timeline to Adoption – Public Meetings

- April 2 – Your Path to Austin Public Meeting Part II
- April 7 – Pedestrian Advisory Committee
- April 8 – East ANC and Urban Transportation Commission
- April 14 – Land, Facilities, and Programs Committee (Parks and Recreation Board)
- April 15 –Bicycle Advisory Council
- April 16 – Environmental Board
- April 22 – Parks and Recreation Board
- May 1 – City Council (set public hearing)
- May 13 – Planning Commission
- **May 22 – City Council (conduct public hearing)**

CITY OF AUSTIN 2014 BIKE PLAN UPDATE

For more information: http://austintexas.gov/yourpath

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City of Austin Bicycle Program

- And thus concludes an overview of the content that is proposed to be included in the 2014 Bicycle Plan Update