

# BENTON 2016 BICYCLE & PEDESTRIAN MASTER PLAN



Benton Bicycle & Pedestrian Master Plan  
December 3, 2015 Kickoff Meeting

# Welcome & Introductions

- Project Team
  - City of Benton
  - Steering Committee
  - McClelland Consulting Engineers and
  - Alta Planning + Design



Benton Bicycle & Pedestrian Master Plan  
December 3, 2015 Kickoff Meeting

# Meeting Agenda

1. Introductions
2. Presentation
3. Next Steps



# Presentation Outline

- Benefits Walking and Biking
- Guiding Concepts
- Project Approach



# Benefits of Walking & Biking

**THINK BIKE**

## THE ECONOMIC BENEFITS OF BICYCLING

By Darren Flusche

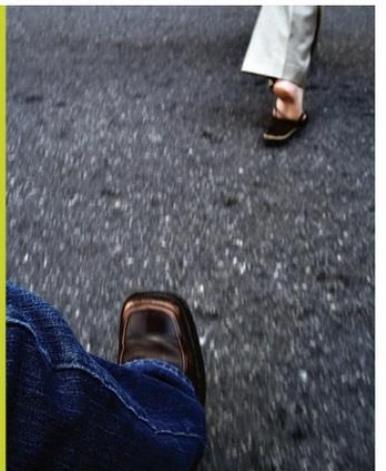
All eyes were on the economy in 2009 when we released our report, *The Economic Benefits of Bicycle Infrastructure Investments*. In the three years since, the struggling economy has continued to dominate national and local agendas. During that same period, we have seen a steady stream of research confirming the positive impact bicycling has on business districts, jobs, and household savings. As you can see in the map, the benefits touch every corner of the country, boosting the economic vitality of states and communities. To capture this growing body of evidence, we've updated the report with a wealth of new data and information: visit [www.bikeleague.org/reports](http://www.bikeleague.org/reports).

- STATE IOWA**: Commuter and recreational bicycling generates more than \$400 million in economic activity and health savings of \$87 million each year (2011).
- STATE WISCONSIN**: Bike recreation and tourism contribute \$924 million annually to the economy. Annual health benefits total \$409 million (2010).
- STATE VERMONT**: \$400 million. In 2009, biking and walking generated 1,400 jobs, \$41 million in wages, and \$83 million in revenue. Including health and property value benefits brought the total to \$400 million in economic impact.
- NEIGHBORHOOD/DISTRICT TORONTO, ONTARIO (Bloor Street)**: People who bike spend more money per month than those who drive (2009).
- BIKE TRAIL SCHUYLKILL RIVER TRAIL** [Follows the Schuylkill River from Pottsville to Philadelphia, PA]: 78% of trail users purchase hard.
- NEIGHBORHOOD/DISTRICT SAN FRANCISCO, CA (Valencia Street)**: 2/3 of merchants say new bike lanes have improved business and supported more traffic calming measures on the street (2004).
- REGIONAL CITY BOULDER, CO**: In 2011, Boulder's bicycle industry exceeded \$52 million in economic activity, supporting 330 jobs.
- STATE COLORADO**: Bicycle manufacturing, retail, tourism and bike races contributed \$1 billion to the economy in 2000.
- STATE MINNESOTA**: In 2009, people on bikes spent \$261 million on bicycling goods and services, supporting more than 5,000 jobs and generating \$35 million in taxes.
- BIKE TRAIL MONON TRAIL (Indianapolis, IN)**: 11% A home's value increases 11% just for being a half mile closer to the trail.

# Walking the Walk

CEOs FOR CITIES

INSPIRE · CONNECT · SUCCEED



## How Walkability Raises Home Values in U.S. Cities

Joe Cortright, Impresa, Inc.



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# Safety

DESIGN TREATMENT	CRASH REDUCTION RATE
Provide minimum 4' paved shoulder to avoid walking along roadway	71% (pedestrian crashes)
Increase enforcement to reduce speed	70% (pedestrian crashes)
Install sidewalk to avoid walking along roadway	65-89% (pedestrian crashes)
Install pedestrian refuge islands	56% (pedestrian crashes)
Install raised median + crosswalk	46% (pedestrian crashes)
Improve lighting at intersections	42% (pedestrian injury crashes)
Provide bike lanes	36% (bicycle crashes)
Provide a bicycle box (advance stop bar to leave space for cyclists)	35% (bicycle crashes)

*Federal Highway Administration. (2008). "Desktop Reference for crash reduction factors."*

# Safety

## The effect of speed

	Average for all ages	Over 60 year olds
At <b>40</b> mph	• 31% are killed	• 98% are killed
At <b>30</b> mph	• 7% are killed	• 50% are killed
At <b>20</b> mph	• 1% are killed	• 5% are killed

Data from Road Safety Web Publication No. 16 *Relationship between Speed and Risk of Fatal Injury: Pedestrians and Car Occupants* - Department for Transport (September 2010)

# Health

## Active Transportation: Pathway to Health



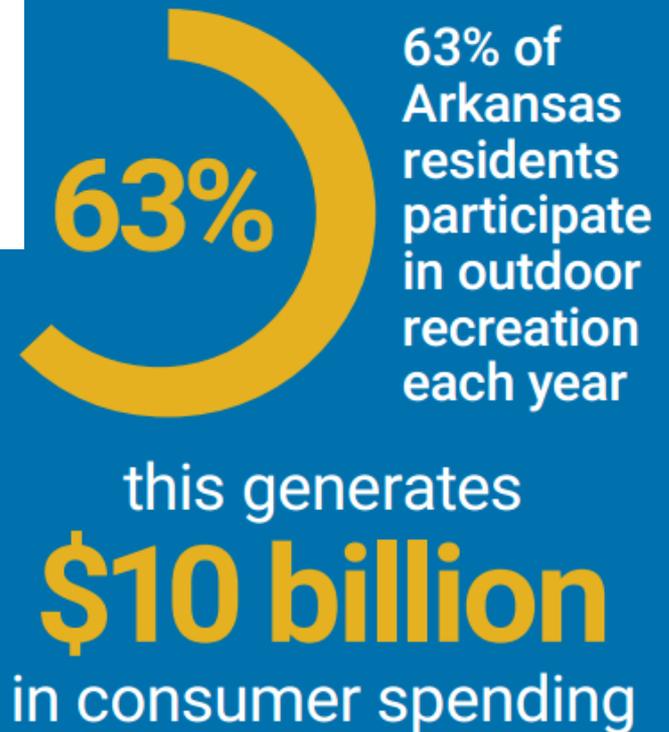
# Economy

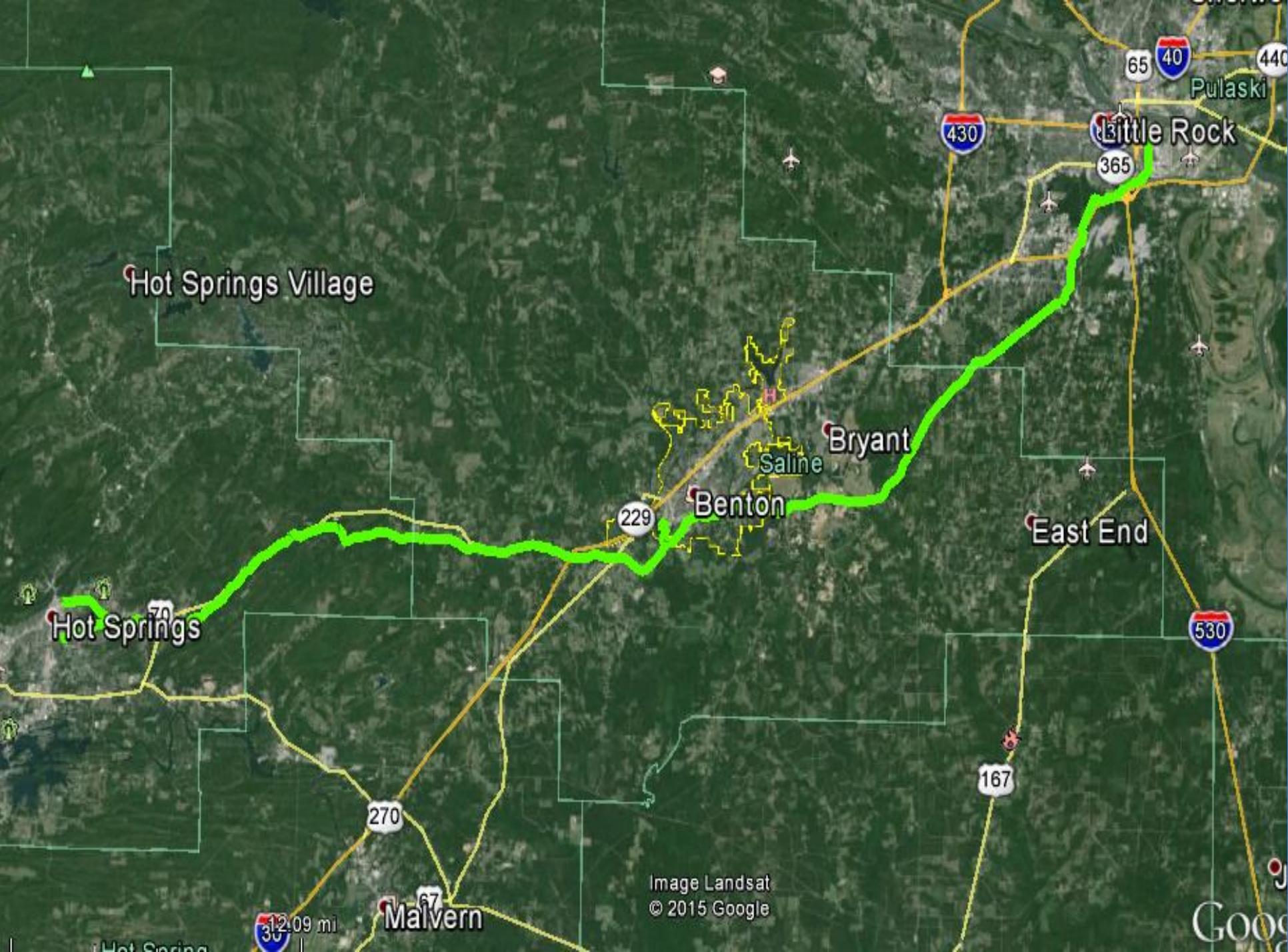
- The 400,000 annual visitors to Missouri's Katy Trail State Park, a 240-mile long rail-trail, has a total annual economic impact of \$18.5 million, supporting 367 jobs. One in four trail users were overnight visitors, who spent an average of \$700 per trip for motel/B&B guests or \$231 per trip for people camping.<sup>20</sup>

Information detailed in the Arkansas State Bicycle & Pedestrian Plan

## Higher Revenues and Property Values

- *Home values within a half-mile of the Monon Trail in Indianapolis were 11% higher homes further away*





Hot Springs Village

Hot Springs

12.09 mi

270

Malvern

229

Benton

Saline

Bryant

167

430

365

65

40

440

Pulaski

Little Rock

530

East End

Image Landsat  
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Google

# Transportation Efficiency

TRIP DISTANCE	% OF TRIPS	CUMULATIVE % OF TRIPS	MINUTES TO WALK	MINUTES TO BIKE
1 mile or less	28	28	15	5
1.1 - 2 miles	13	41	30	10
2.1 - 3 miles	9	50	45	15

*US Department of Transportation and Federal Highway Administration. (2009). National Household Travel Survey*



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## HIGHLY EXPERIENCED (~ 1% OF POPULATION)

Characterized by bicyclists that will typically ride anywhere regardless of roadway conditions or weather. These bicyclists can ride faster than other user types, prefer direct routes and will typically choose roadway connections -- even if shared with vehicles -- over separate bicycle facilities such as shared use paths.



## ENTHUSED AND CONFIDENT (~ 5-10% OF POPULATION)

This user group encompasses bicyclists who are fairly comfortable riding on all types of bikeways but usually choose low traffic streets or multi-use paths when available. These bicyclists may deviate from a more direct route in favor of a preferred facility type. This group includes all kinds of bicyclists such as commuters, recreationalists, racers and utilitarian bicyclists.



## INTERESTED BUT CONCERNED (~ 60% OF POPULATION)

This user type comprises the bulk of the cycling population and represents bicyclists who typically only ride a bicycle on low traffic streets or multi-use trails under favorable weather conditions. These bicyclists perceive significant barriers to their increased use of cycling, specifically traffic and other safety issues. These people may become "Enthusied & Confident" with encouragement, education and experience.



## NO WAY, NOW HOW (~ 30% OF POPULATION)

Persons in this category are not bicyclists, and perceive severe safety issues with riding in traffic. Some people in this group may eventually become more regular cyclists with time and education. A significant portion of these people will not ride a bicycle under any circumstances.



# Task 1 – Project Meetings

1. Today: Kick-Off
  - Monthly project team meetings
2. February: Existing Conditions
3. April: Preliminary Recommendations
4. June: Draft Plan Review
  - Board/Commission Meeting
5. August: Final Plan
  - City Council Presentation



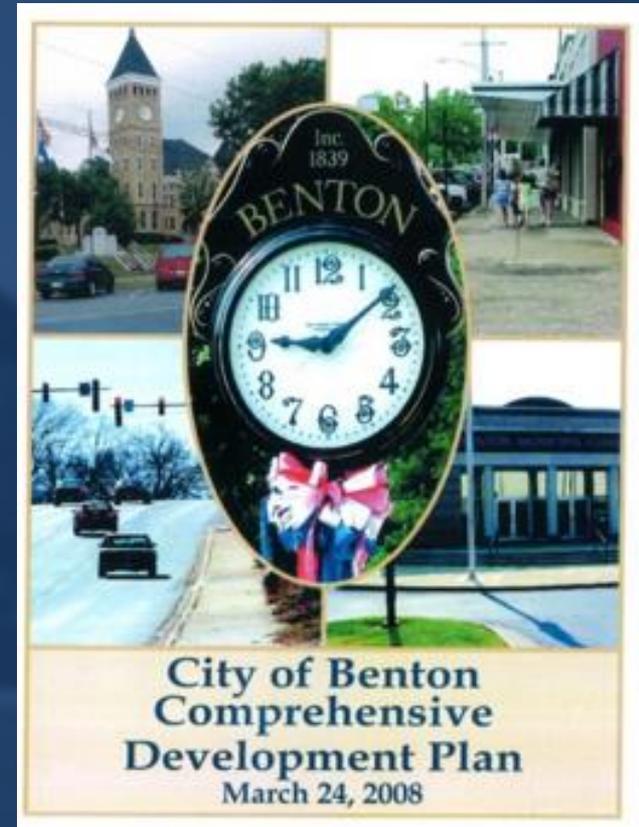
# Task 2 – Existing Conditions & Field Analysis

- Fieldwork
  - Physical inventory/assessment of study area
  - Roadway analysis for existing conditions
  - Intersections & crossing analysis



# Task 2 – Existing Conditions & Field Analysis

- Existing Plans
  - City Plans & Policies
  - Saline County Plans
  - Arkansas Bike/Ped Plan
  - Current Initiatives
  - Others?
  - Specific Projects?



# Task 3 – Public Engagement

- Online Survey
- Stakeholder Interviews
  - Local insight
  - Community Support



# Task 3 – Public Engagement

## Public Workshops:

- February: Existing Conditions and Open Input
- June: Input on Draft Plan

## Format:

- Open House Meeting and/or Tabling at a Public Event
- Public Input Maps
- Educational Boards & Information
- Open Dialogue



# Task 4 – Vision & Goals

- Benton Comprehensive Plan Goals as a starting point
- Safety
- Health
- Economy
- Transportation Efficiency

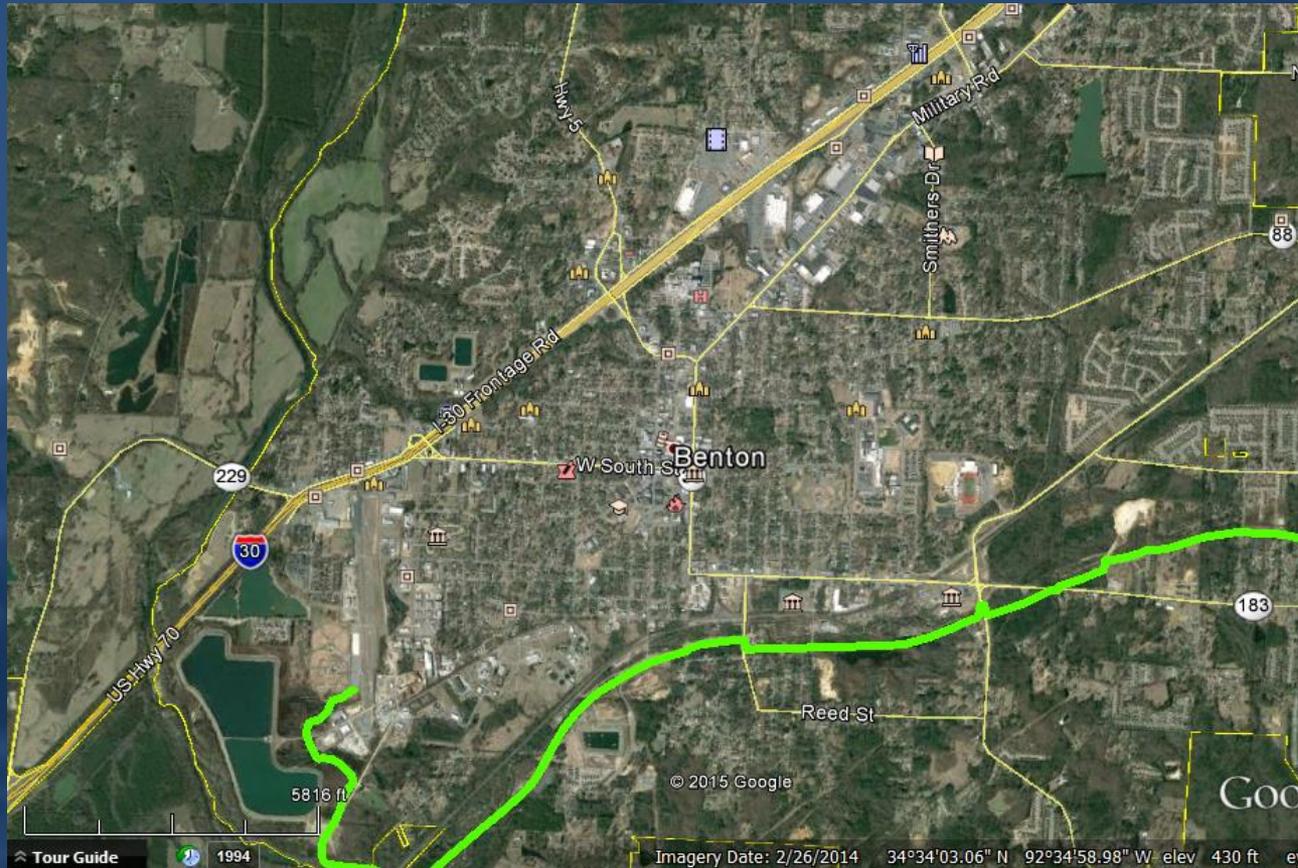


# Task 5 - Opportunities & Constraints



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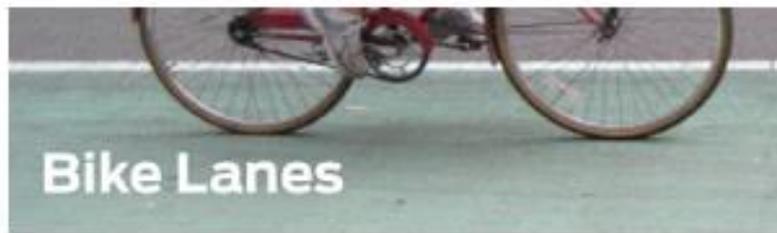


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# Task 6 - Recommendations



# Task 6 - Recommendations



# Task 6 - Recommendations



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# Task 7 - Implementation

**#17: DOW RD TRAIL**  
This 4.4-mile trail connects Wilmington and New Hanover County to the south end of Pleasure Island.

**WHY IT'S IMPORTANT:**

- Direct Access to/from
  1. Local Beach Community
  2. An Existing or Funded Trail
  3. Higher Density Residential Areas
  4. A Park or Recreation Center
- Recommended in a previously adopted plan
- Relates to the top 10 recommended trail locations from the Public Comments Form
- Relates to the top 10 recommended trail locations from Stakeholder Interviews
- Significant portion of proposed trail lies within existing public property or easement

Northern end would connect to the existing trail along Dow Rd, Carolina Beach State Park and to the shopping areas grocery store near the park.

Most of this trail is located in public property (military still requiring easements) and is already recommended in the Dow Road C Plan.

Trail would follow the main road along the Dow Rd.

**WHAT WILL IT COST?**  
A corridor-specific study is needed for accurate costs. Planning-level costs at \$600/mile come to **\$2.6M**. Additional costs may apply due to the constraints noted at right.

**3-32 | CHAPTER 3: RECOMMENDATIONS**

MOVE. PLAY. CONNECT.

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**#19: CAROLINA BEACH RD TRAIL**  
This 5.6-mile trail connects Wilmington Memorial Park to downtown Wilmington and to shopping areas.

**CUTSHEET #1: DOWNTOWN TRAIL**  
This 5.9-mile trail connects Downtown Wilmington to parks and neighborhoods east of Downtown.

**WHY IT'S IMPORTANT:**

1. Direct Access to/from Downtown Wilmington Center
2. Proposed Multi-Modal Center
3. College/University
4. An Existing or Funded Trail
5. An Elem., Middle, High School or Library
6. Major Transit Routes
7. Higher Density Residential Areas
8. Higher Density Employment Areas or Major Employer Centers
9. A Park or Recreation Center
10. Major Shopping Area

- Fills gap (connects to existing or funded trail or bikeway on both sides)
- Serves Lower Income Areas with Lower Car-Ownership Rates
- Corridor contains High Number of Bike/Ped Accidents
- Recommended in a previously adopted plan
- Relates to the top 10 recommended trail locations from Stakeholder Interviews
- Less than 10% of the proposed trail corridor lies within a wetland area
- Significant portion of proposed trail lies within existing public property or easement

Riverfront portion to be identified and built as part of riverfront development.

Proposed trail in RR corridor is dependent upon compatibility with future passenger rail service.

Consistent Special design needed to attach trail to existing concrete system under highway.

Proposed bike/ped bridge over Burnt Mill Creek near Market St.

Trail would pass under RR tracks on east side of Burnt Mill Creek.

Bridge required across Burnt Mill Creek to continue trail.

Connection to the River to the Sea Bikeway (on Park Ave) would be provided along Colonial with shared-lane markings, sidewalks and bike/ped intersection improvements.

**WHAT WILL IT COST?**  
A corridor-specific study is needed for accurate costs. Planning-level estimates at \$600/mile come to **\$3.5M**. Additional costs may apply due to the constraints noted at right.

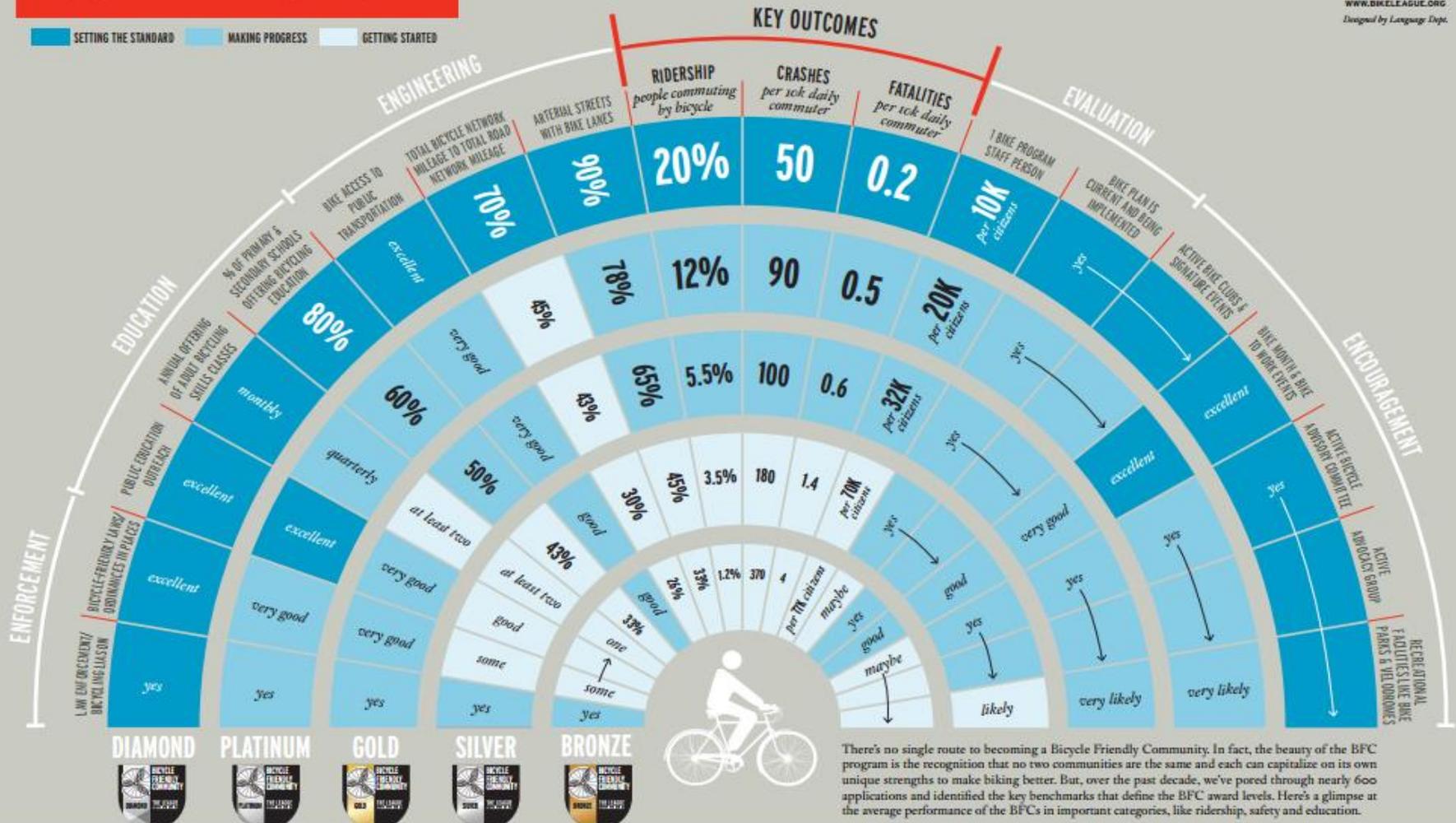
**CHAPTER 3: RECOMMENDATIONS | 3-21**

MOVE. PLAY. CONNECT.

# Task 7 - Implementation

## THE BUILDING BLOCKS OF A BICYCLE FRIENDLY COMMUNITY

produced by  
**THE LEAGUE**  
 OF AMERICAN BICYCLISTS  
 WWW.BIKELIAGUE.ORG  
 Designed by Language Dept.



# Task 8 – Draft & Final Master Plan Report

- Draft Plan
  - 4 week review period
- Final Plan
  - Presented to City Council



## Action Steps Table

TABLE 4.1 POLICY, PROGRAM, AND ADMINISTRATIVE ACTION STEPS TABLE

Task	Lead Agency	Support	Details	Phase
Present Plan to Town Council	Project Consultants	Public Works	Presentation to Town Council in Summer 2011	Summer 2011
Approve this Plan	NCDOT Bike/Ped Division	Project Consultants	Official letter of approval in Summer 2011	Summer 2011
Adopt this plan	Town Council	Public Works, Project Consultants	Through adoption, the Plan becomes an official planning document of the Town. Adoption shows that the Town of Boone has undergone a successful, supported planning process.	Summer 2011
Designate Staff	Town Council	Leadership of Town Departments	Designate staff to oversee the implementation of this plan and the proper maintenance of the facilities that are developed. It is recommended that a combination of existing staff from Public Works and Planning & Inspections oversee the day-to-day implementation of this plan.	Summer 2011
Reconfirm goals of the Alternative Transportation Subcommittee (ATS)	Town Council	ATS	Reconfirm goals of the ATS to include assistance in the implementation of this Pedestrian Plan.	Summer 2011
Begin Annual Meeting With Key Project Partners	Public Works	Planning & Inspections, NCDOT, ATS, and local & regional stakeholders	Key project partners (see org. chart on page 4-2) should meet on an annual basis to evaluate the implementation of this Plan. Meetings could also occasionally include on-site tours of locations where facilities are recommended.	Ongoing/ Beginning Fall 2011
Seek Multiple Funding Sources and Facility Development Options	Public Works	Planning & Inspections, ATS	Chapter 3 contains project cost estimates and Appendix D contains potential funding opportunities.	Ongoing/ Beginning Fall 2011



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# Questions & Comments

Task	Timeframe
Task 1: Committee Meetings	December – August 2016
<i>Kickoff Meeting</i>	<i>December 2015</i>
<i>2<sup>nd</sup> Committee Meeting</i>	<i>February 2016</i>
<i>3<sup>rd</sup> Committee Meeting</i>	<i>April 2016</i>
<i>4<sup>th</sup> Committee Meeting</i>	<i>June 2016</i>
<i>5<sup>th</sup> Committee Meeting</i>	<i>August 2016</i>
Task 2: Existing Conditions/Analysis	December – April 2016
Task 3: Public Engagement	Ongoing
<i>1<sup>st</sup> Public Workshop</i>	<i>March 2016</i>
Task 4: Vision & Goals	March 2016
Task 5: Opportunities & Constraints	March 2016
Task 6: Recommendations	June 2016
<i>2<sup>nd</sup> Public Workshop</i>	<i>June 2016</i>
Task 7: Implementation	June 2016
Task 8: Final Plan and Presentations	August 2016



# Next Steps

- Existing facilities, data, and plans
- Vision & Goals
- Schedule public workshops
- Schedule next steering committee meeting
- Online Survey



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