



SHERWOOD

BICYCLE & PEDESTRIAN MASTER PLAN

Steering Committee Workshop

April 26, 2021

Sherwood
Parks System
Master Plan



Sherwood
Bicycle & Pedestrian
Master Plan



Central Arkansas
Regional Trails
Master Plan



Task 1: Project Kickoff, Existing Facilities, and Visioning

Public Meeting 1

Task 2: Preliminary Network, Assessment, Recommendations

Public Meeting 2

Task 3: Prioritization & Implementation

Public Meeting 3

Task 4: Master Plan Documentation

Plan Adoption

BACKGROUND DATA & STATISTICS

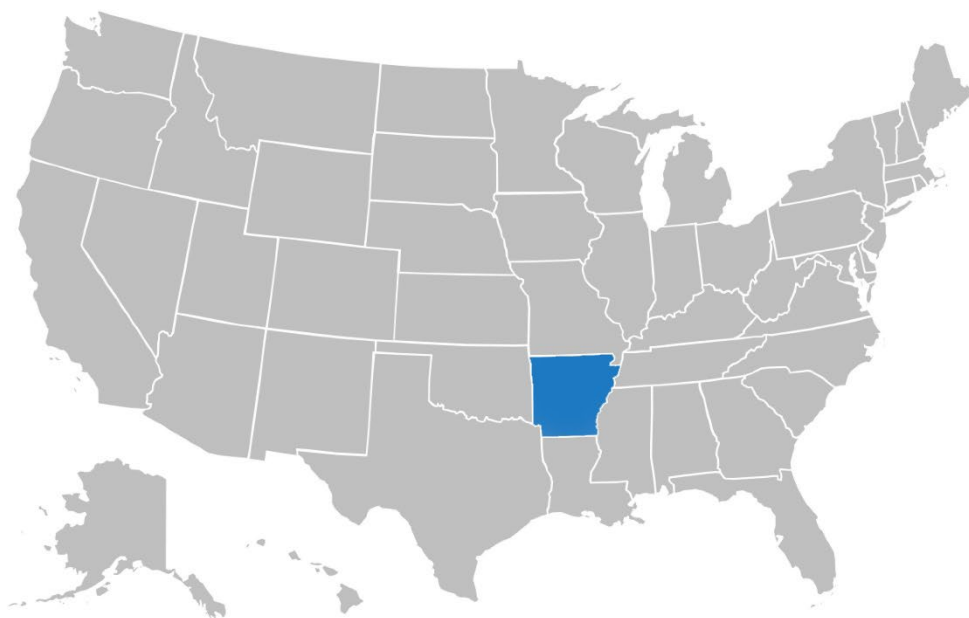


County Health Rankings & Roadmaps

Building a Culture of Health, County by County

A Robert Wood Johnson Foundation program

Arkansas



2020 County Health Rankings Report

A collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

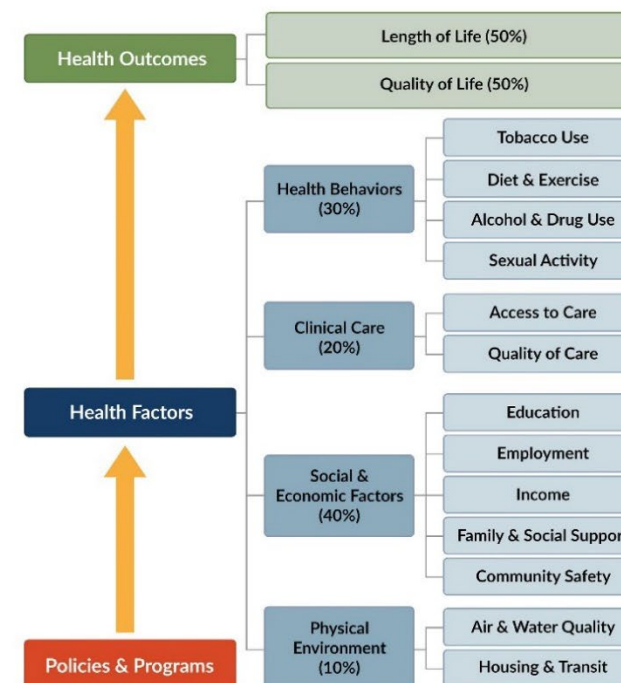


Support provided by
Robert Wood Johnson Foundation

What are the County Health Rankings?

Published online at www.countyhealthrankings.org, the Rankings help us understand what influences our health and how long and well we live. The Rankings are unique in their ability to provide measures of the current overall health of each county in all 50 states. They also look at a variety of measures that affect the future health of communities, such as high school graduation rates, access to healthy foods, rates of smoking, children in poverty, and teen births.

For the past 10 years, communities have used the Rankings to garner support for local health improvement initiatives by engaging government agencies, health care providers, community organizations, business leaders, policymakers, and the public.



County Health Rankings

Two Categories:

1. Health Outcomes

Length of Life

Premature death
*(years of potential life lost
before age 75)*

Quality of Life

Self-reported health status

Percent of low birthweight newborns

2. Health Factors

Health Behaviors

Tobacco use

Diet & exercise

Alcohol & drug use

Sexual activity

Clinical Care

Access to care

Quality of care

Social and Economic Factors

Education

Employment & income

Family & social support

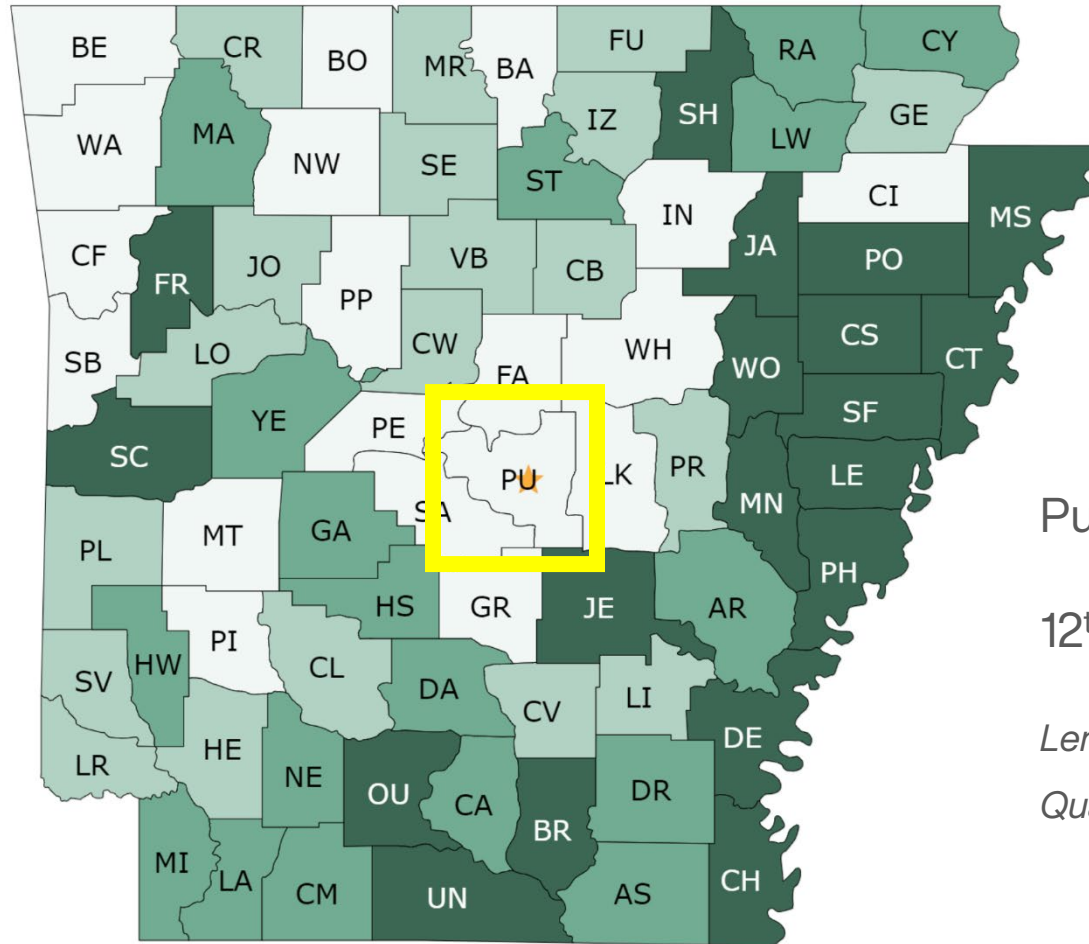
Community safety

Physical Environment

Air & water quality

Housing & transit

2020 Health Outcomes



Pulaski County:

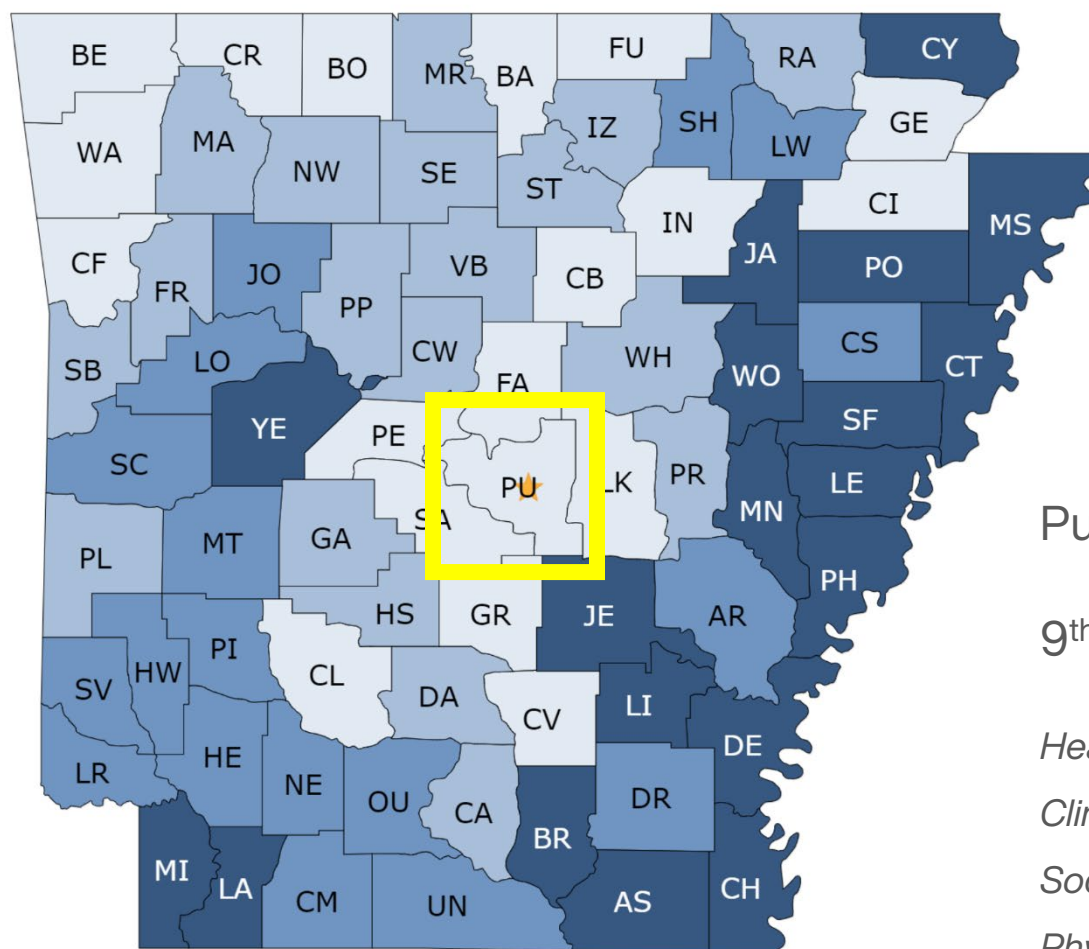
12th of 75 counties

Length of Life: 22nd

Quality of Life: 6th

Health Outcome Ranks	1 to 19	20 to 38	39 to 56	57 to 75
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2020 Health Factors



Pulaski County:

9th of 75 counties

Health Behaviors: 17th

Clinical Care: 1st

Social & Economic: 30th

Physical Environment: 59th

Health Factor Ranks

Rank Range	Color
1 to 19	Light Blue
20 to 38	Medium Blue
39 to 56	Dark Blue
57 to 75	Darkest Blue

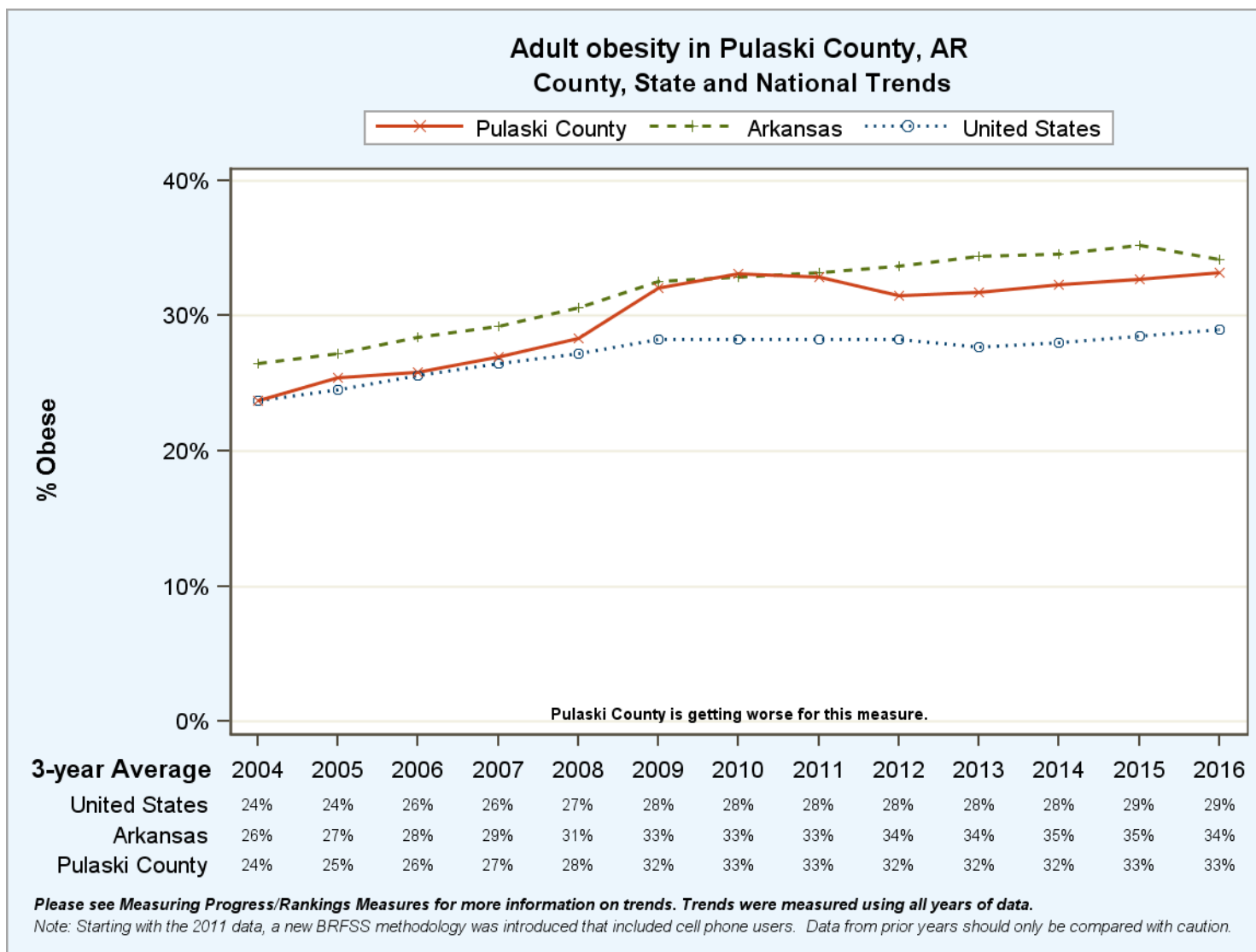
Heath Factors

	2020	2019	2018	2017	2016
Overall Rank	9	7	11	13	10
Health Behaviors	17	12	15	7	13
Clinical Care	1	1	2	1	1
Social & Economic Factors *	30	19	28	30	20
Physical Environment *	59	57	73	75	69

- * *Low Physical Environment rankings due to % of people driving alone to work, long commutes, and “severe housing problems”*
- * *Physical Environment rank in 2017 and 2016 includes drinking water violations*
- * *Low Social & Economic Factors rank due to high violent crime*

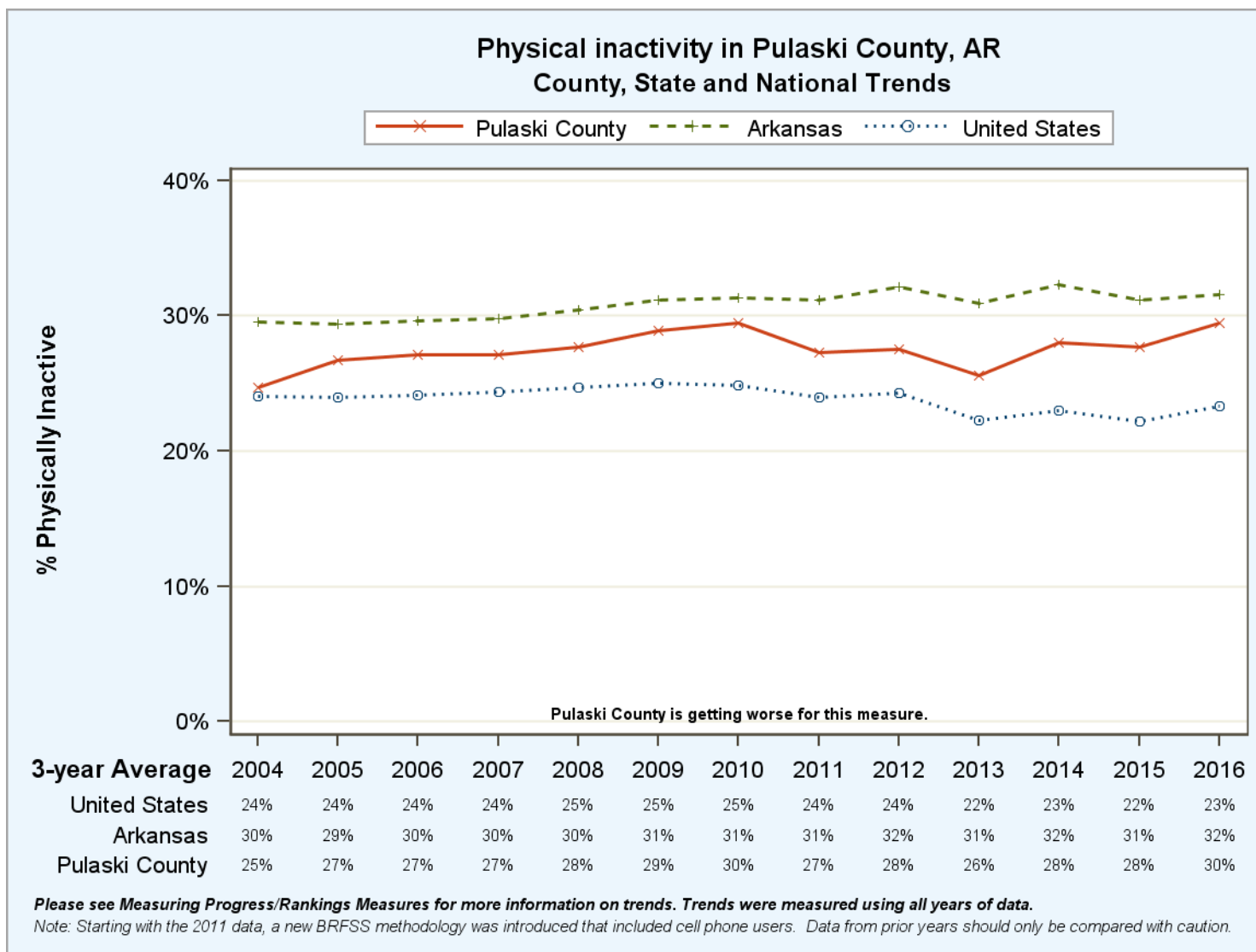
Heath Factors: Health Behaviors

County trend tends to be worse than the US; better than the state



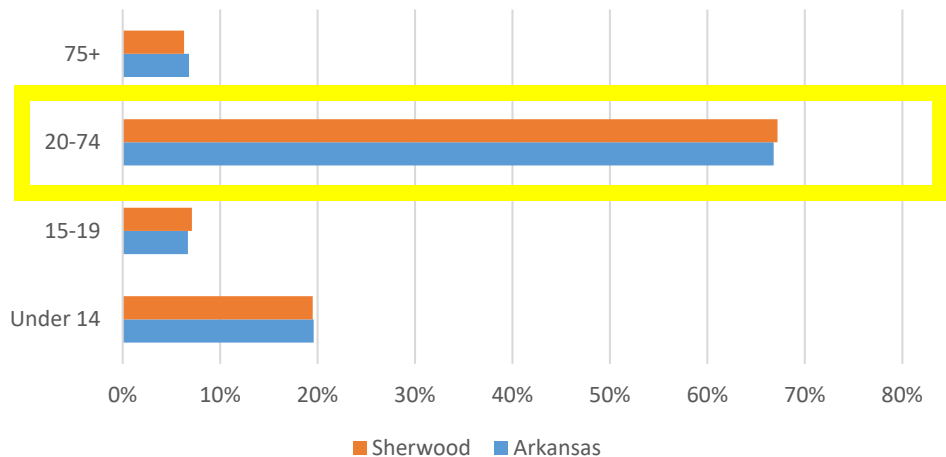
Heath Factors: Health Behaviors

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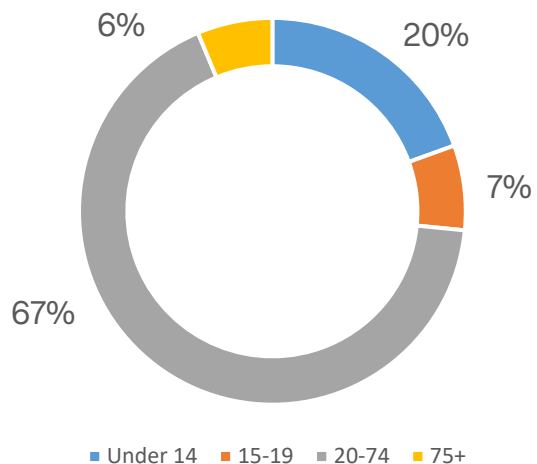


Population Profile

Population by Age

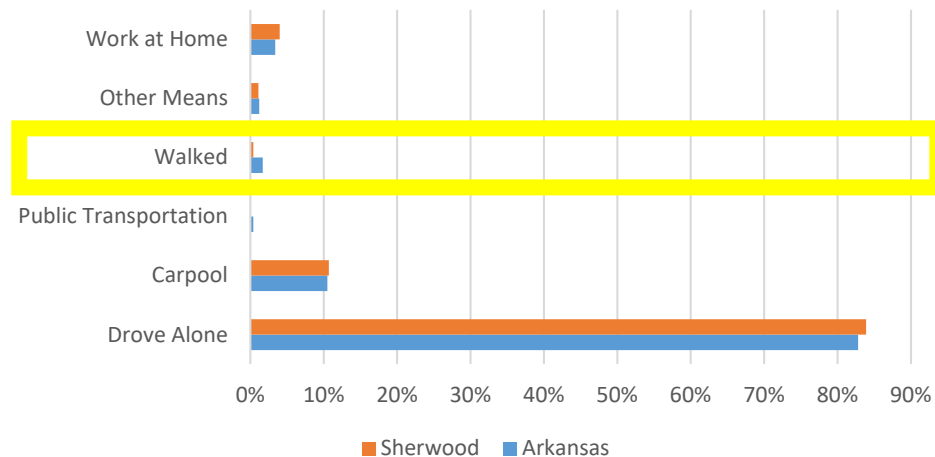


Population by Driving Age

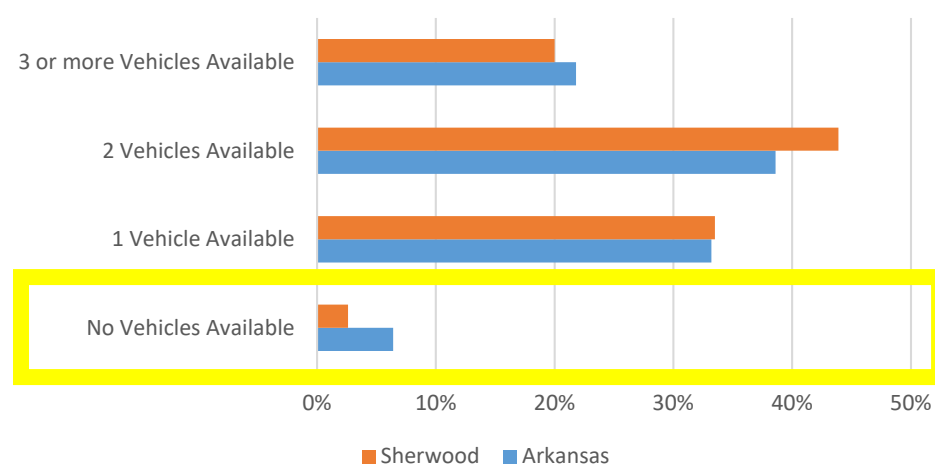


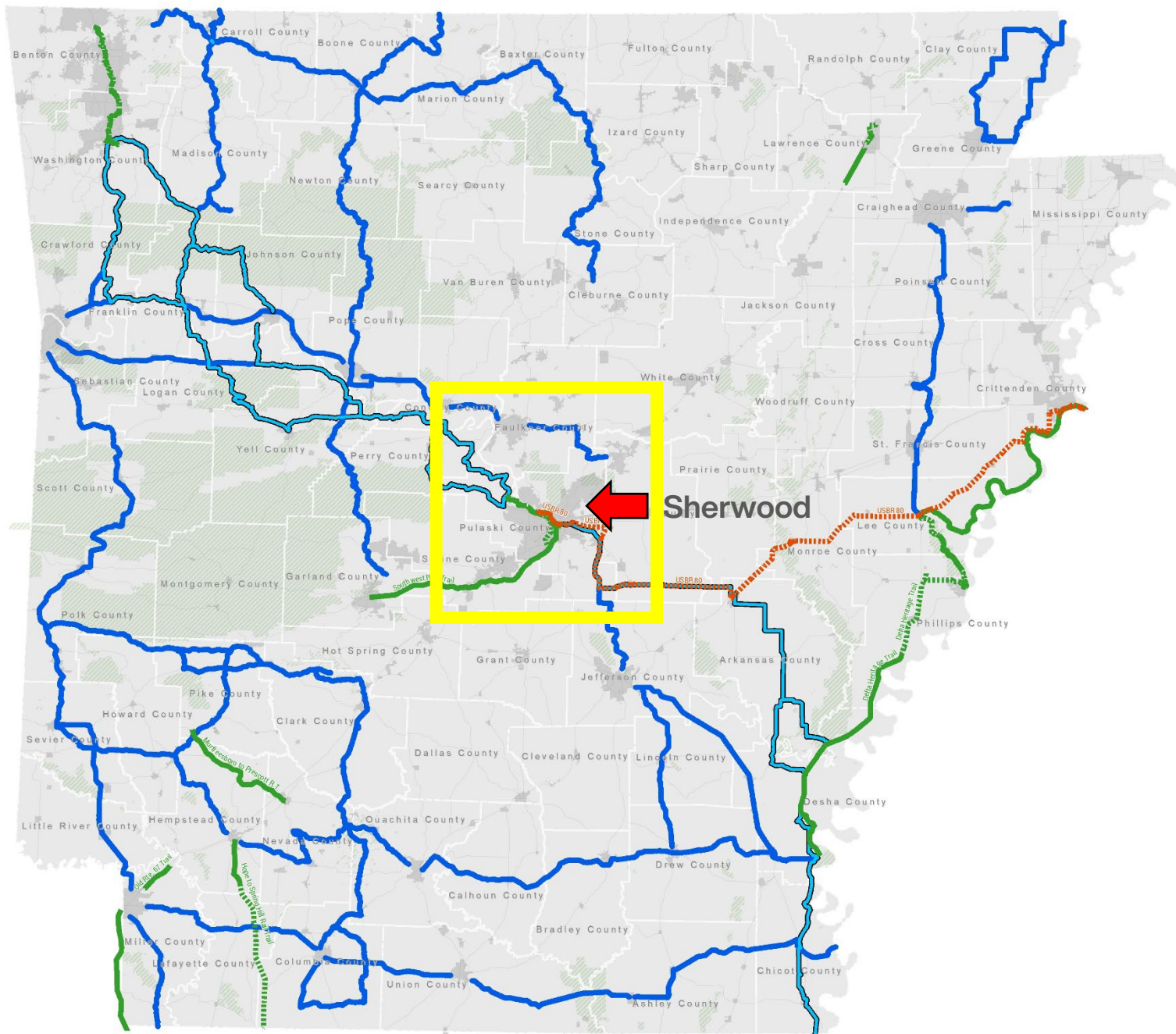
Transportation Indicators

Commuting to Work



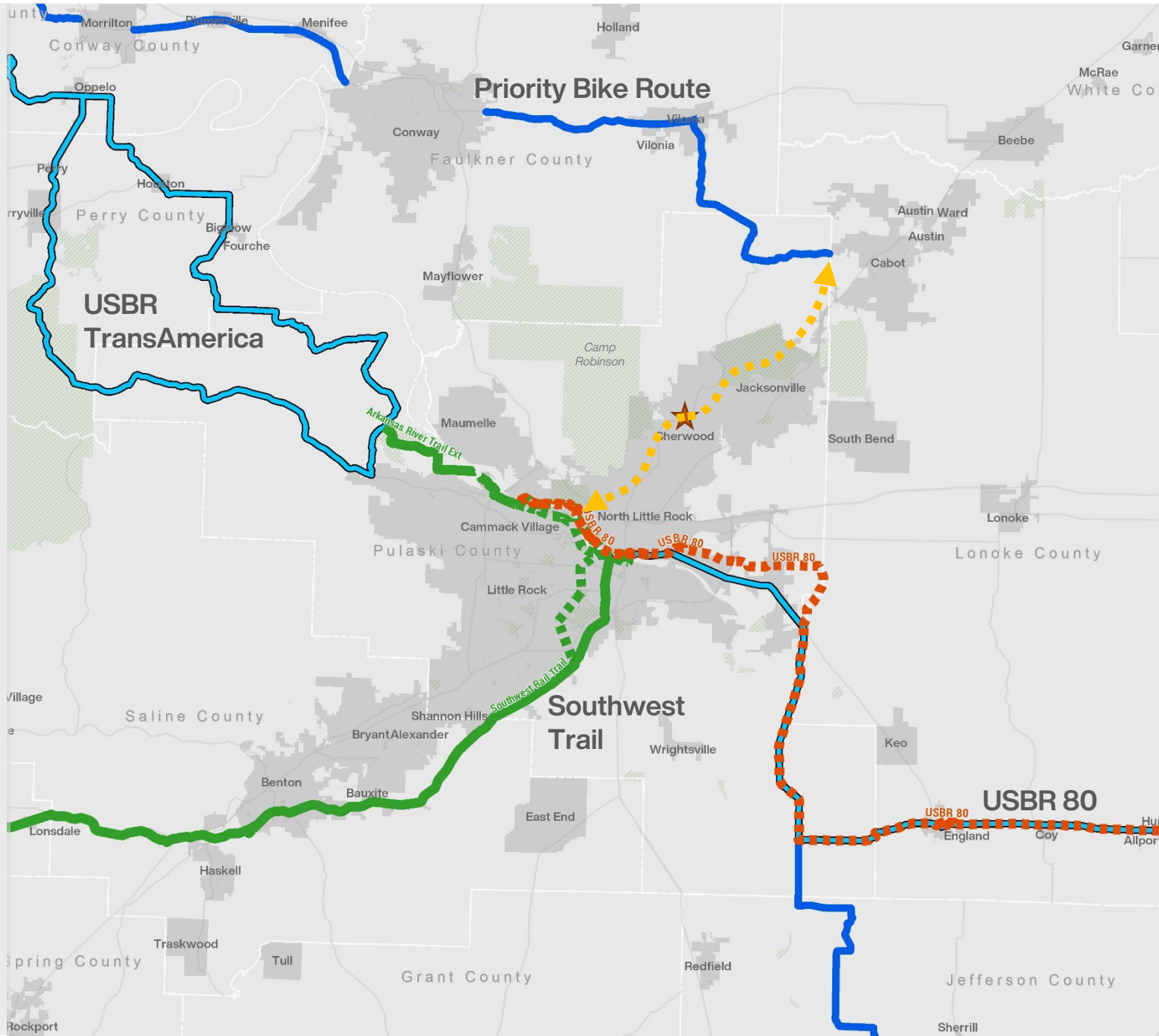
Vehicles Available





Statewide Routes

- Existing Regional Shared Use Path
- Planned Regional Shared Use Path
- Planned USBR TransAmerica Link
- Statewide Priority Bike Route
- USBR 80



Statewide Routes

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SHERWOOD VISION 2040

Comprehensive Plan



Adopted: December 16, 2019
Resolution: 2019-26

SHERWOOD VISION 2040
Comprehensive Plan Map

Master Street Plan

- Freeway
- Principal Arterial
- Proposed Principal Arterial
- Minor Arterial
- Proposed Minor Arterial
- Collector
- Proposed Collector
- Local
- Proposed Local
- Bolton Trail
- Proposed Trail

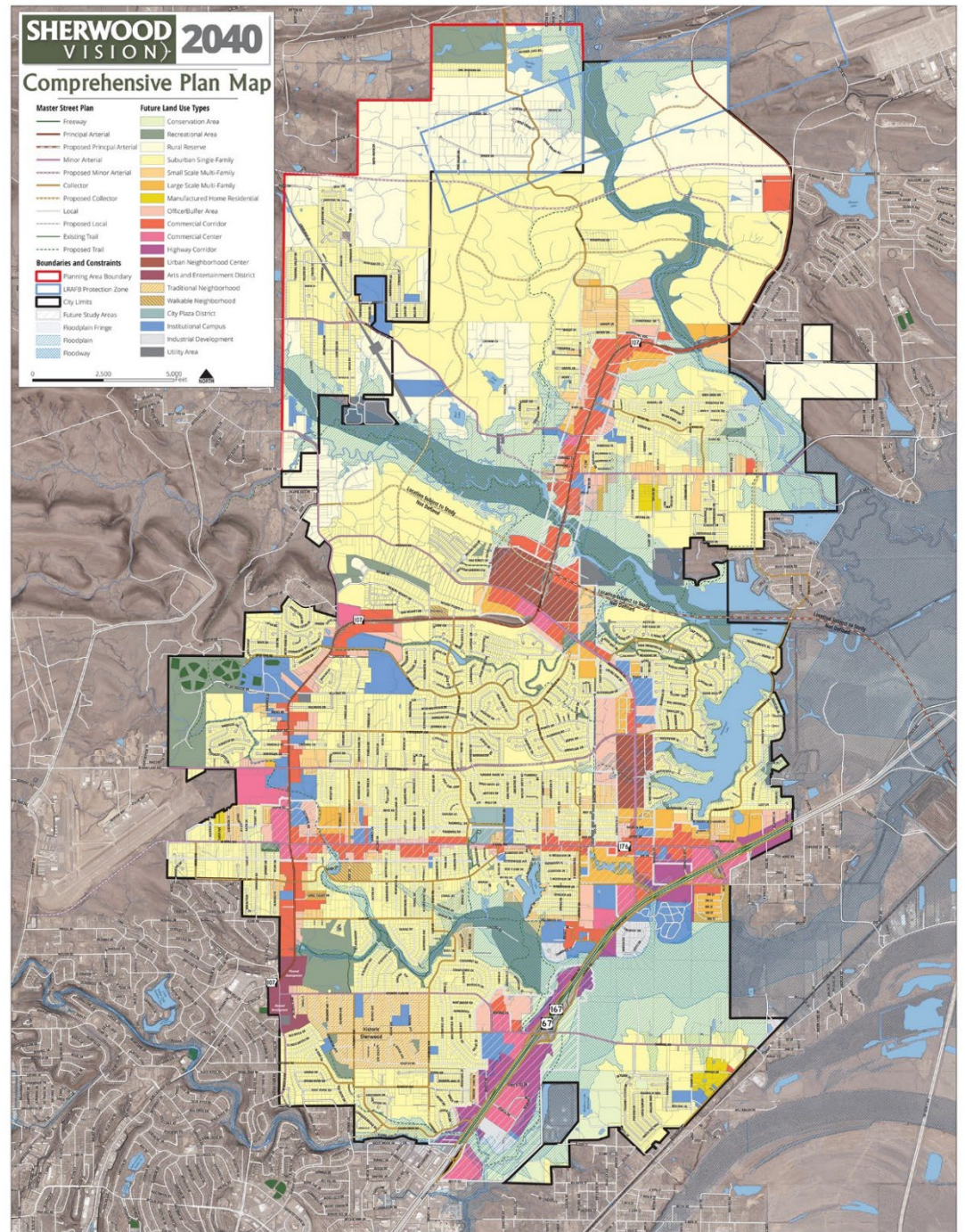
Boundaries and Constraints

- Planning Area Boundary
- URBIS Protection Zone
- City Limits
- Future Study Areas
- Floodplain Fringe
- Floodplain
- Footway

Future Land Use Types

- Conservation Area
- Recreational Area
- Rural Reserve
- Suburban Single-Family
- Small Scale Multi-Family
- Large Scale Multi-Family
- Manufactured Home Residential
- Office/Business Area
- Commercial Corridor
- Commercial Center
- Highway Corridor
- Urban Neighborhood Center
- Arts and Entertainment District
- Traditional Neighborhood
- Walkable Neighborhood
- City Plaza District
- Institutional Campus
- Industrial Development
- Utility Area

0 2,500 5,000 Feet



Bicycle and Pedestrian Policies

Quality of Life / Recreation

Policy 1.1.1 – **Connect all parks, schools, and large commercial areas** through bike and pedestrian infrastructure to improve accessibility of amenities.

Policy 1.1.4 – Ensure future street improvements adequately provide for pedestrians, cyclists, and drivers **by including sidewalks and trails where appropriate.**

Community Identity & Image

Policy 2.2.1 – Promote and encourage the construction of a **Town Center style development** near the intersection of Brockington Road and Highway 107.

Policy 2.2.2 – Explore ways to enhance the **existing city civic complex** to create a central **community-gathering place** and focal point.

Bicycle and Pedestrian Policies

Growth Management & Fiscal Health

Policy 3.1.6 – Create thriving, vibrant neighborhoods, districts, and corridors that are **distinct places**.

Policy 3.5.2 – Promote the use of **green infrastructure** as a way to work with the environment to prevent localized flooding risks and drainage problems.

Transportation & Infrastructure

Policy 4.1.1 – Focus transportation infrastructure investments on corridors that will relieve traffic and **improve connectivity**.

Bicycle and Pedestrian Policies

Transportation & Infrastructure

Goal 4.2: Provide a transportation system that is equitable and benefits all residents.

Policy 4.2.1 – Bike and pedestrian facilities will be constructed as part of **all new development** and transportation facilities according to the provisions of this Plan.

Policy 4.2.2 – Bike and pedestrian users will be given consideration in the planning and design of **all transportation facilities** in the planning area.

Policy 4.2.3 – The city will carefully monitor **mobility and access options** for citizens with disabilities when reviewing development proposals.

Policy 4.2.4 – The city will develop a bike and pedestrian transportation system that will consider the **mobility and safety needs** of a variety of uses including children, seniors, active adults, and the physically challenged.

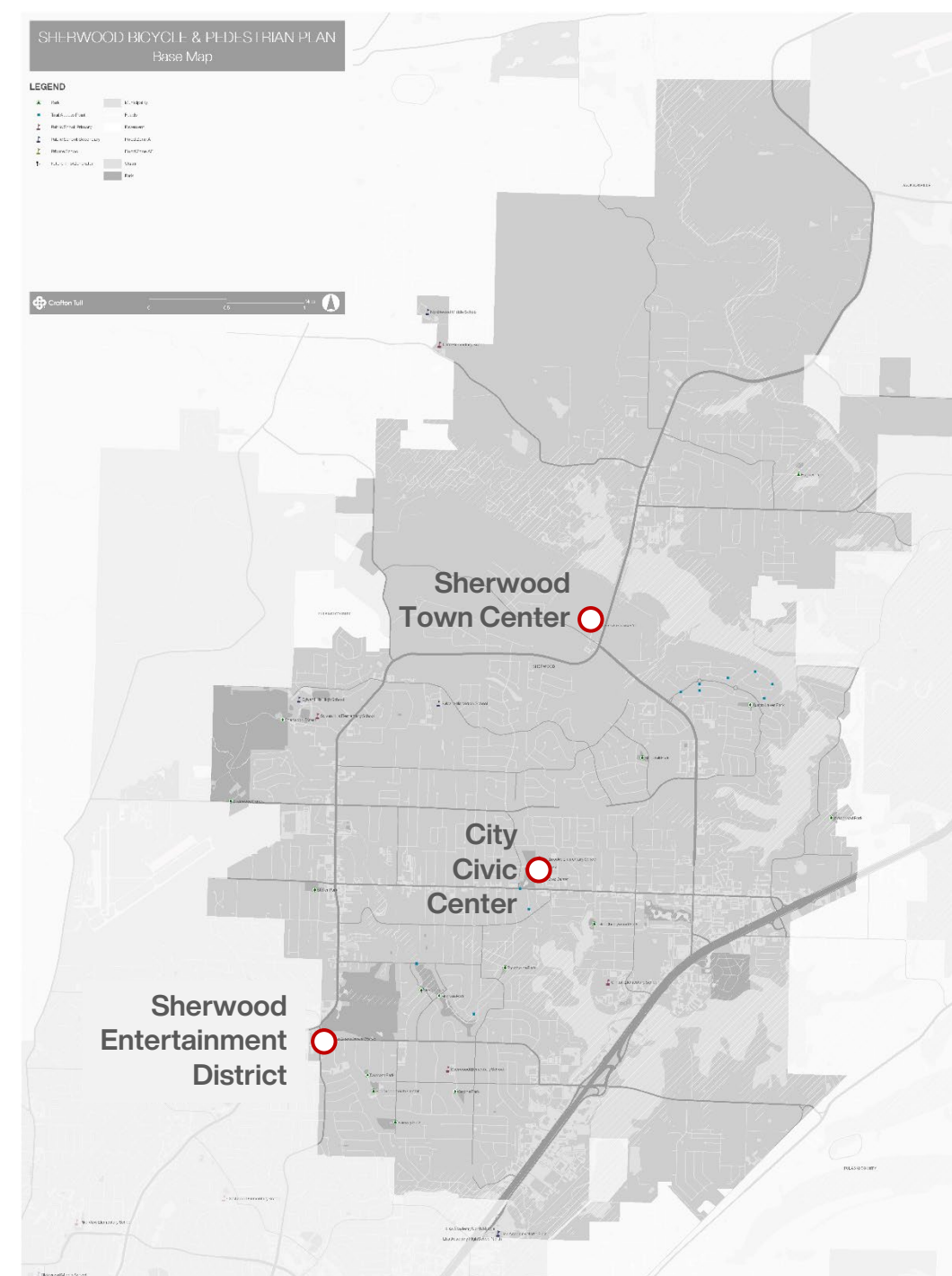
Policy 4.2.5 – Utilize **context sensitive roadway design** approaches to ensure roadways are appropriate for the function of the supporting land use.

Focused Development Considerations

Connecting Existing and Future Trip Generators

“Creating Places, Not Developments”

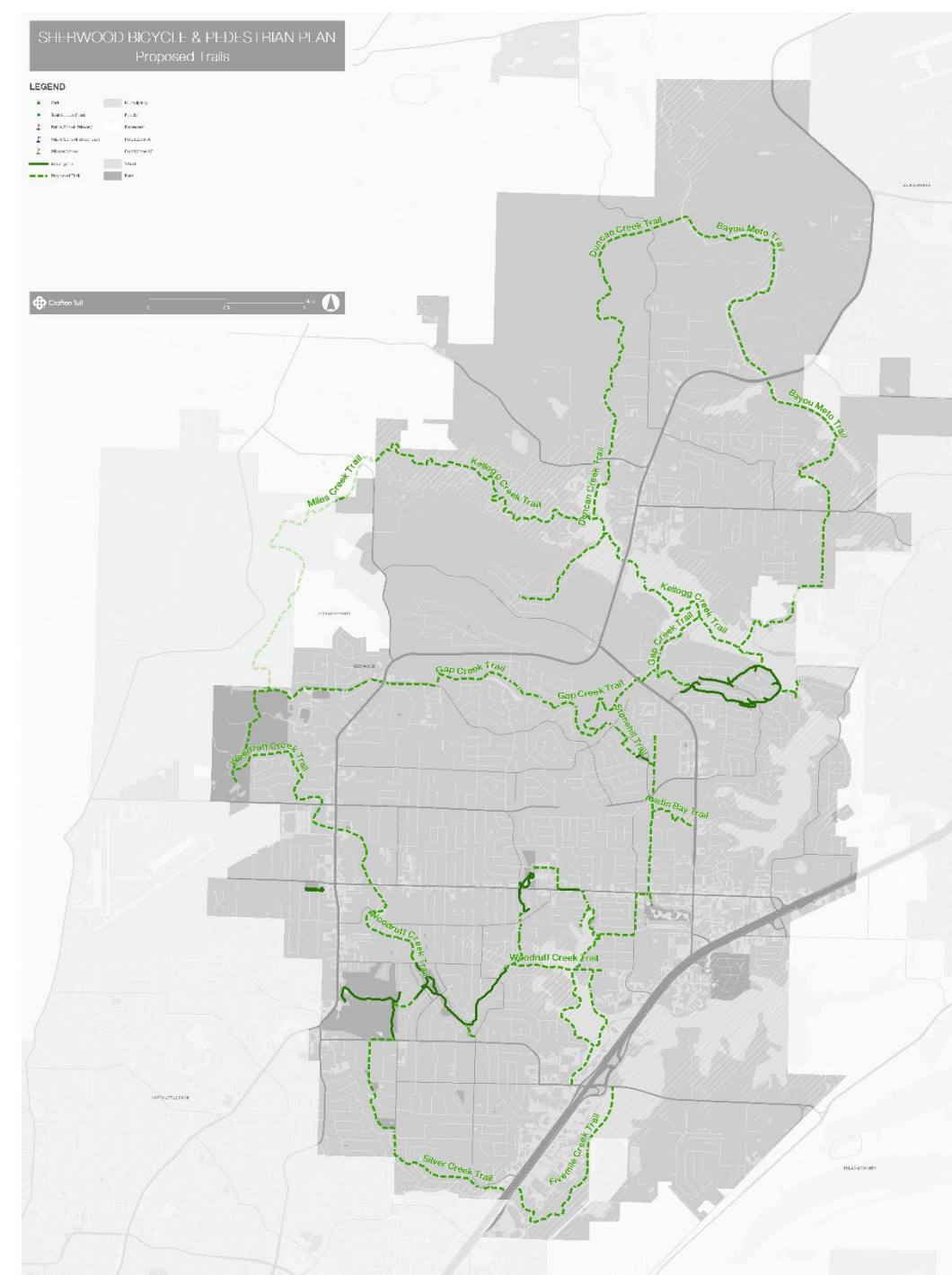
- Sherwood Town Center
- City Civic Center
- Sherwood Entertainment District



Proposed Trail System

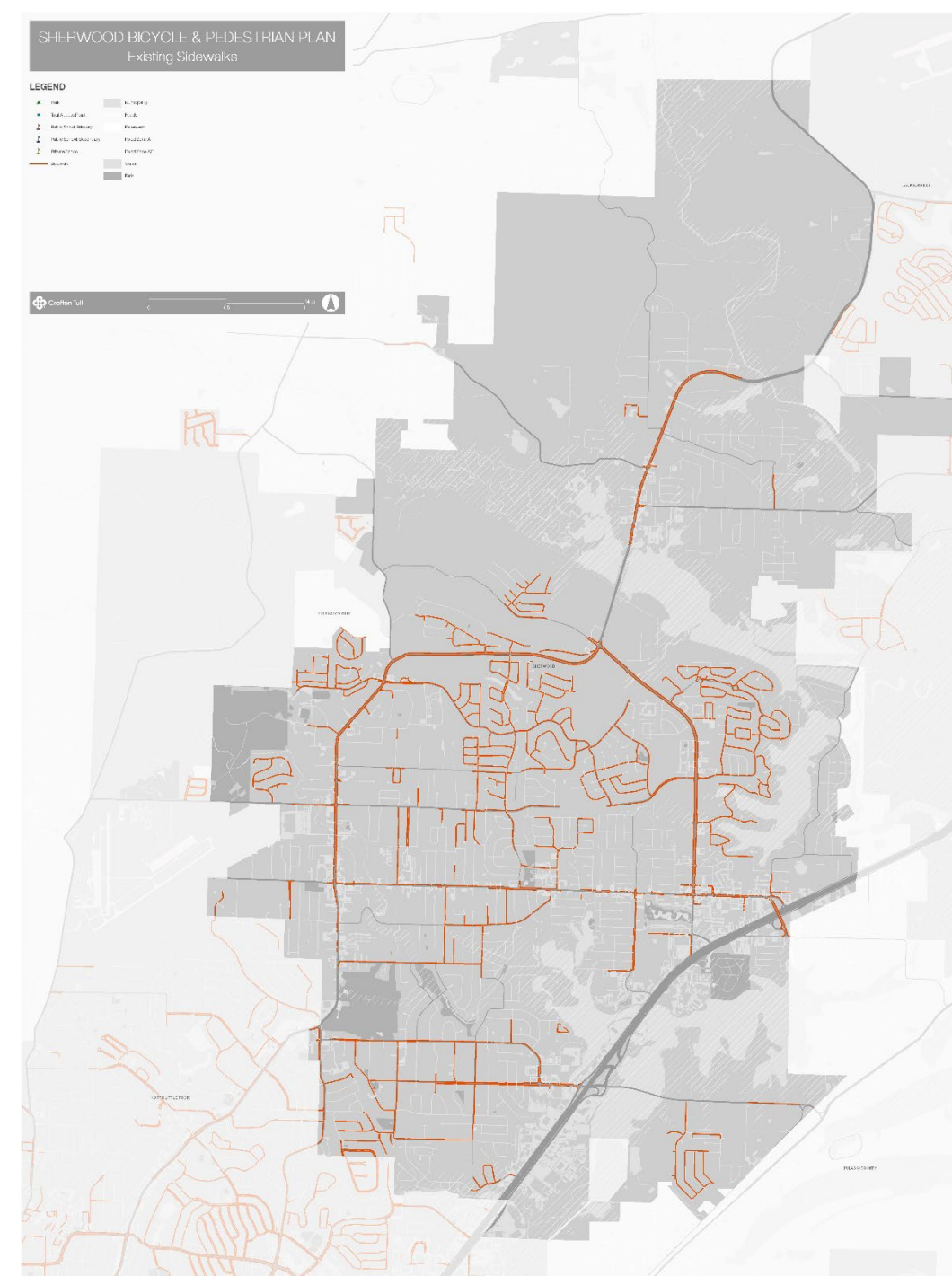
Connecting Existing and Future Trip Generators

“Trail System – Trails are a community amenity that are increasingly being expected in successful cities. Northwest Arkansas has demonstrated the tangible economic, health, recreation, and tourism benefits of having a robust trails system. Sherwood is ideally laid out in a way to develop an interconnected system of greenway trails. The city should consider committing resources to greater development of its trails system.”



Existing Sidewalk System

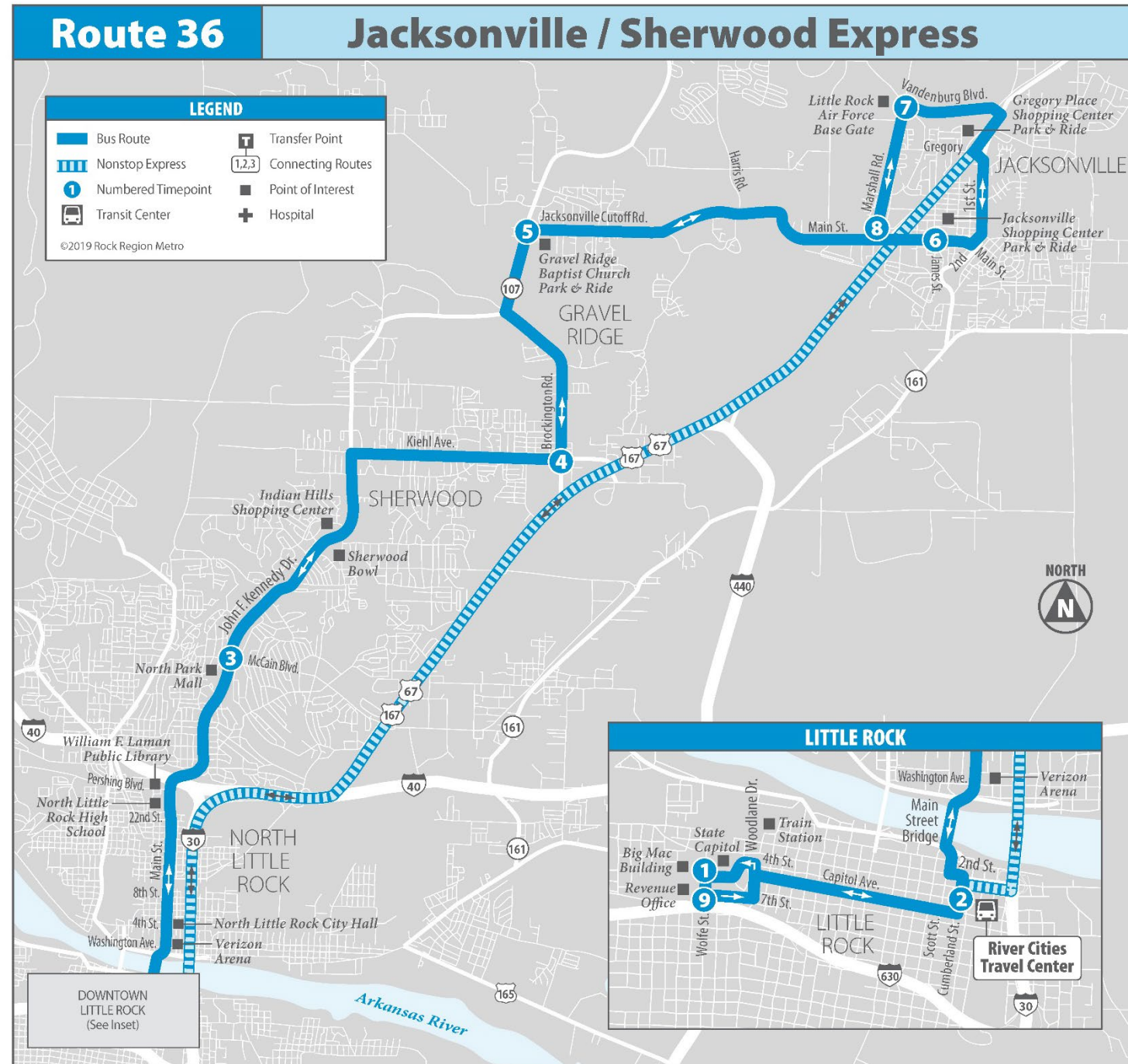
Connecting Existing and Future Trip Generators



Transit

Rock Region Metro Routes

- Express Route 36 through Sherwood
- Stops along Route 36:
 - JFK @ McCain (North Little Rock)
 - Kiehl @ Brockington
 - 107 @ Jacksonville Cutoff
 - Main Street @ Marshall (Jacksonville)



Household Trips Statistics

75%

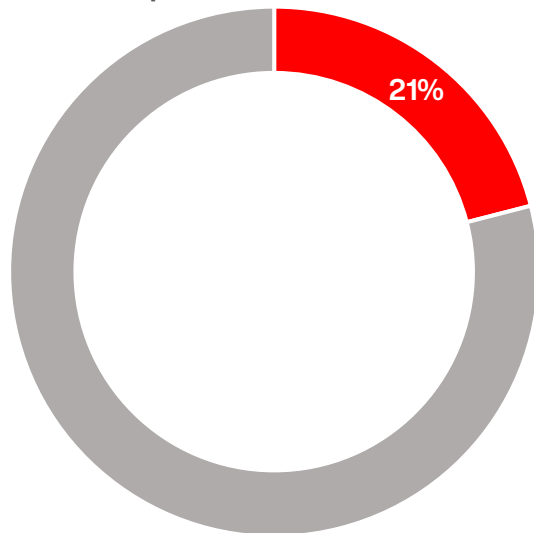
“of residential land in the U.S. is zoned exclusively for single-family detached dwellings. Yet, if retrofitted with sidewalks and bike lanes, nearly half the trips generated would not need to be made by car.” - Ellen Dunham-Jones, author of *Retrofitting Suburbia*



- The average person travels 30 miles/day
- 19,642 annual vehicle miles traveled per household (up 12,000 miles from the 1970s)
- Each commute averages 28 minutes
- **The typical suburban house generates 9.4 trips/day**
- **69% of vehicle trips are non-work related**

Household Trips Statistics: Sherwood

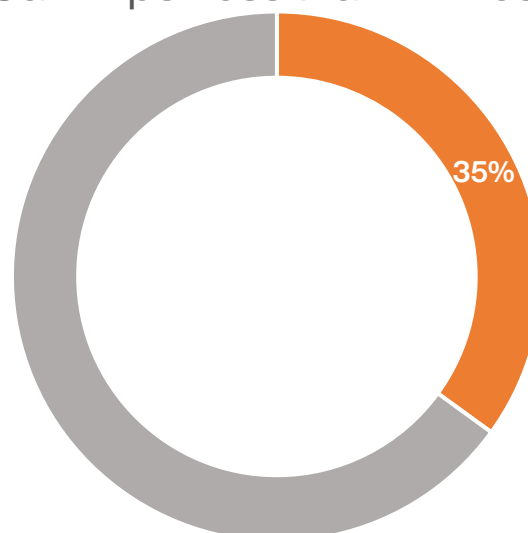
Car Trips Less than 1 Mile



1.9 Daily Car Trips *per Household*

≈ 23,440 Trips in Sherwood

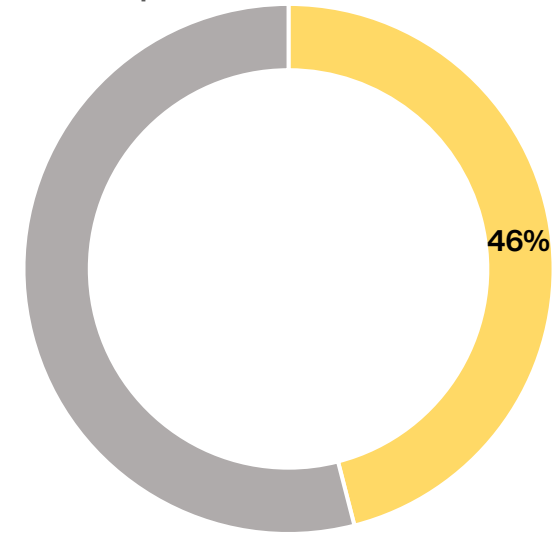
Car Trips Less than 2 Miles



3.3 Daily Car Trips *per Household*

≈ 40,712 Trips in Sherwood

Car Trips Less than 3 Miles



4.3 Daily Car Trips *per Household*

≈ 53,049 Trips in Sherwood



20-Minute Walk

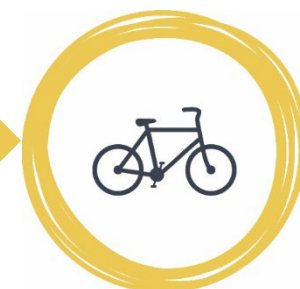
5-Minute Bike Ride

40-Minute Walk

10-Minute Bike Ride

60-Minute Walk

15-Minute Bike Ride

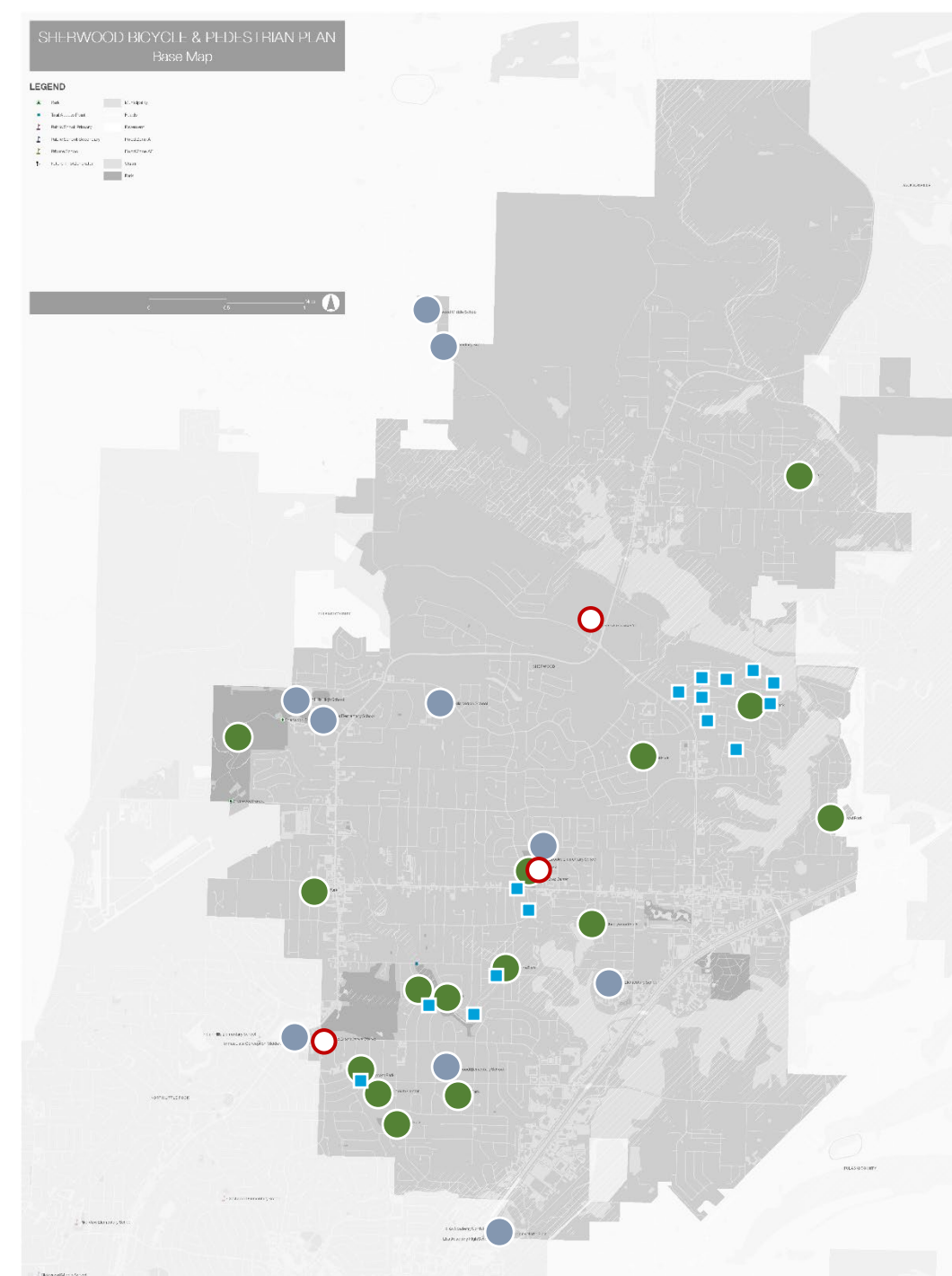


TRIP GENERATORS & SERVICE AREAS



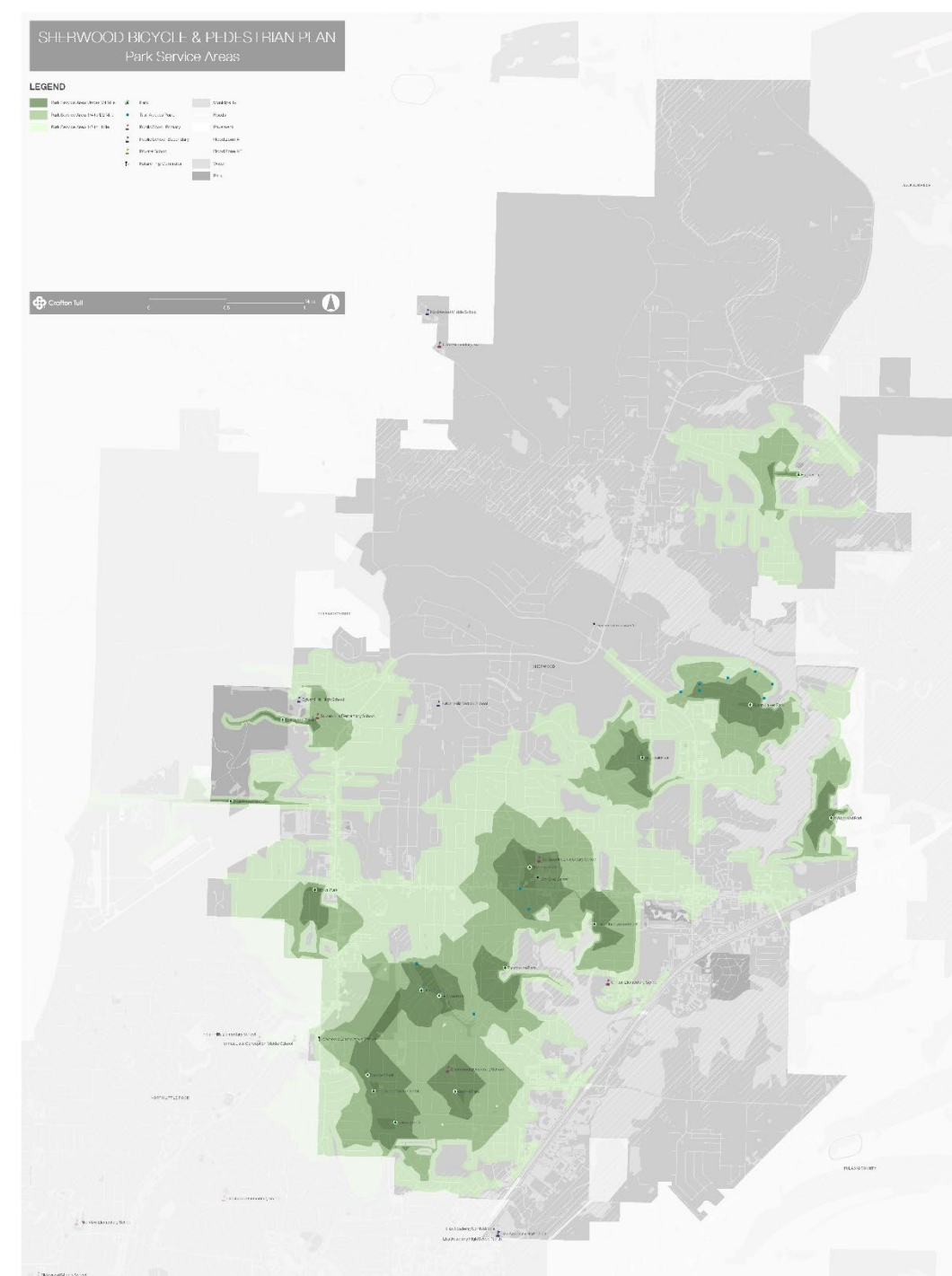
Trip Generators

- What destinations are probable for bicycling and walking?
 - Parks
 - Trail access points
 - Schools
 - Centers / nodes / specialty destinations / downtowns / business centers
- What factors will influence people's travel mode choice?
 - Safety
 - Comfort
 - Experience
 - Points of interest / multiple destinations
 - Distance



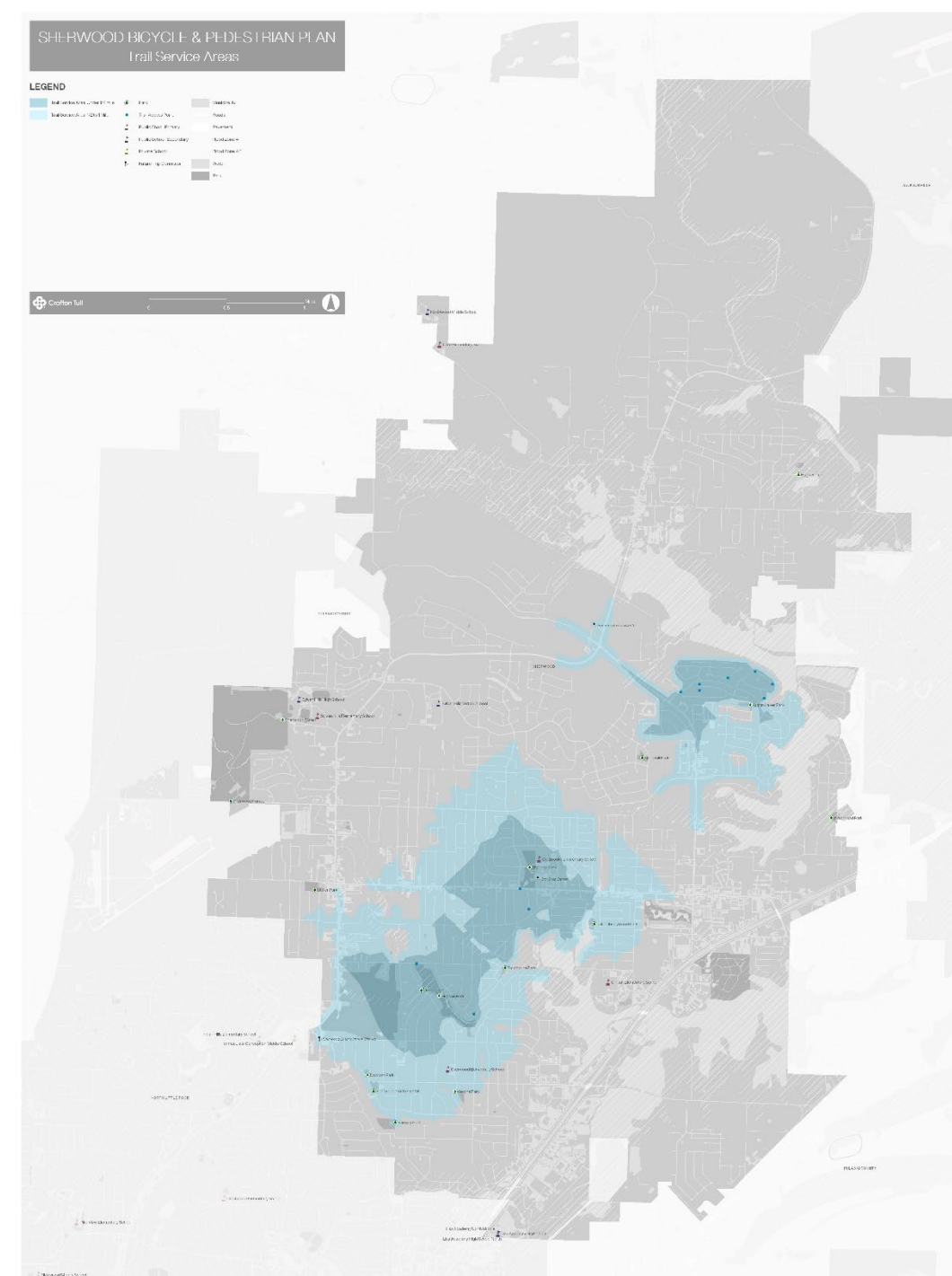
Park Service Areas

- Purpose: Demonstrate distribution of existing parks (independently) and their service areas
- Service Areas
 - Within ¼ mile: 5-minute walk
 - ¼ to ½ mile: 5 to 10- minute walk
 - ½ to 1 mile: 10 to 20-minute walk



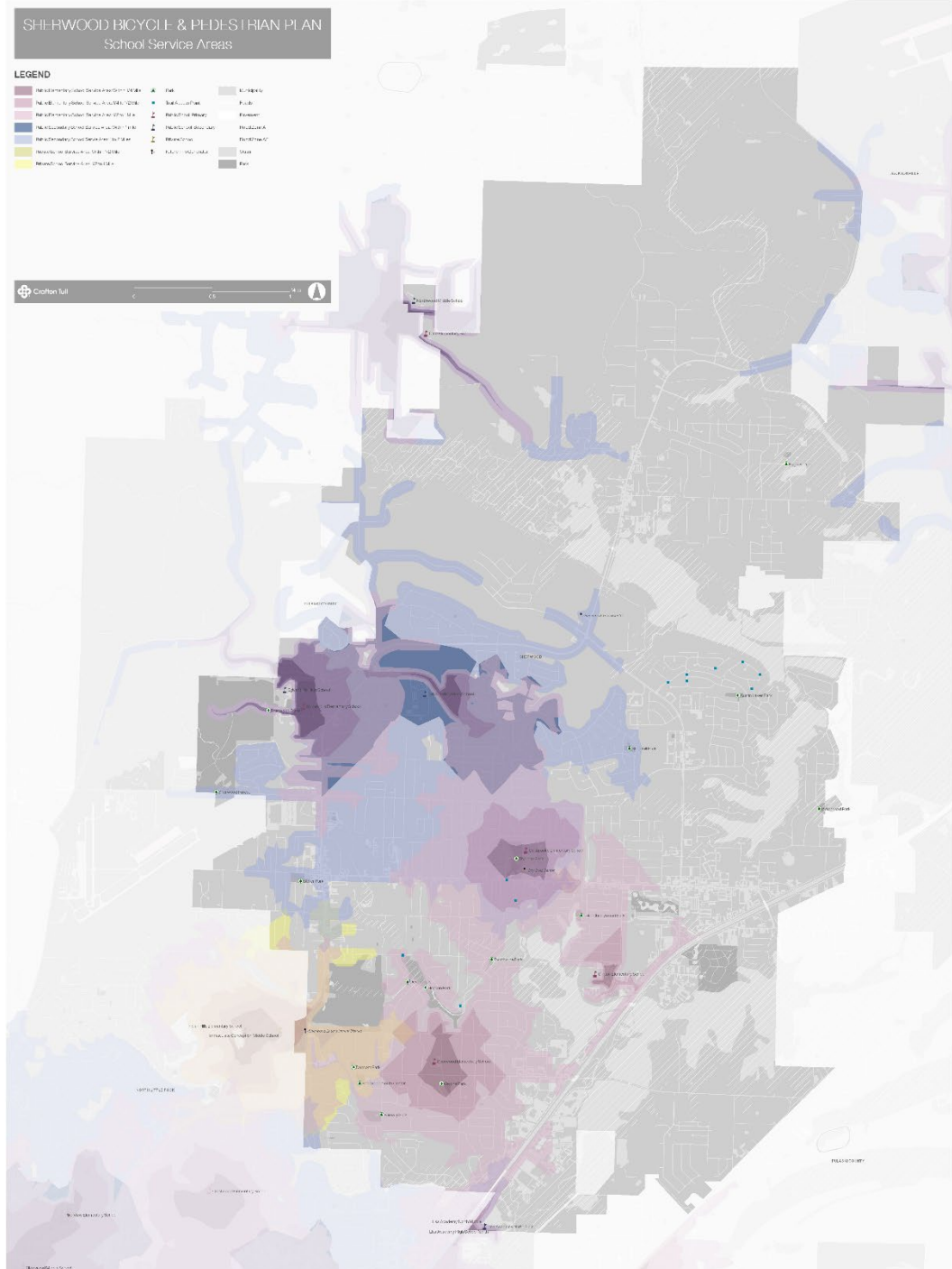
Trail Access Service Areas

- Purpose: Demonstrate distribution of existing trail access points (independently) and their service areas
- Service Areas
 - Within ½ mile
 - ½ to 1 mile



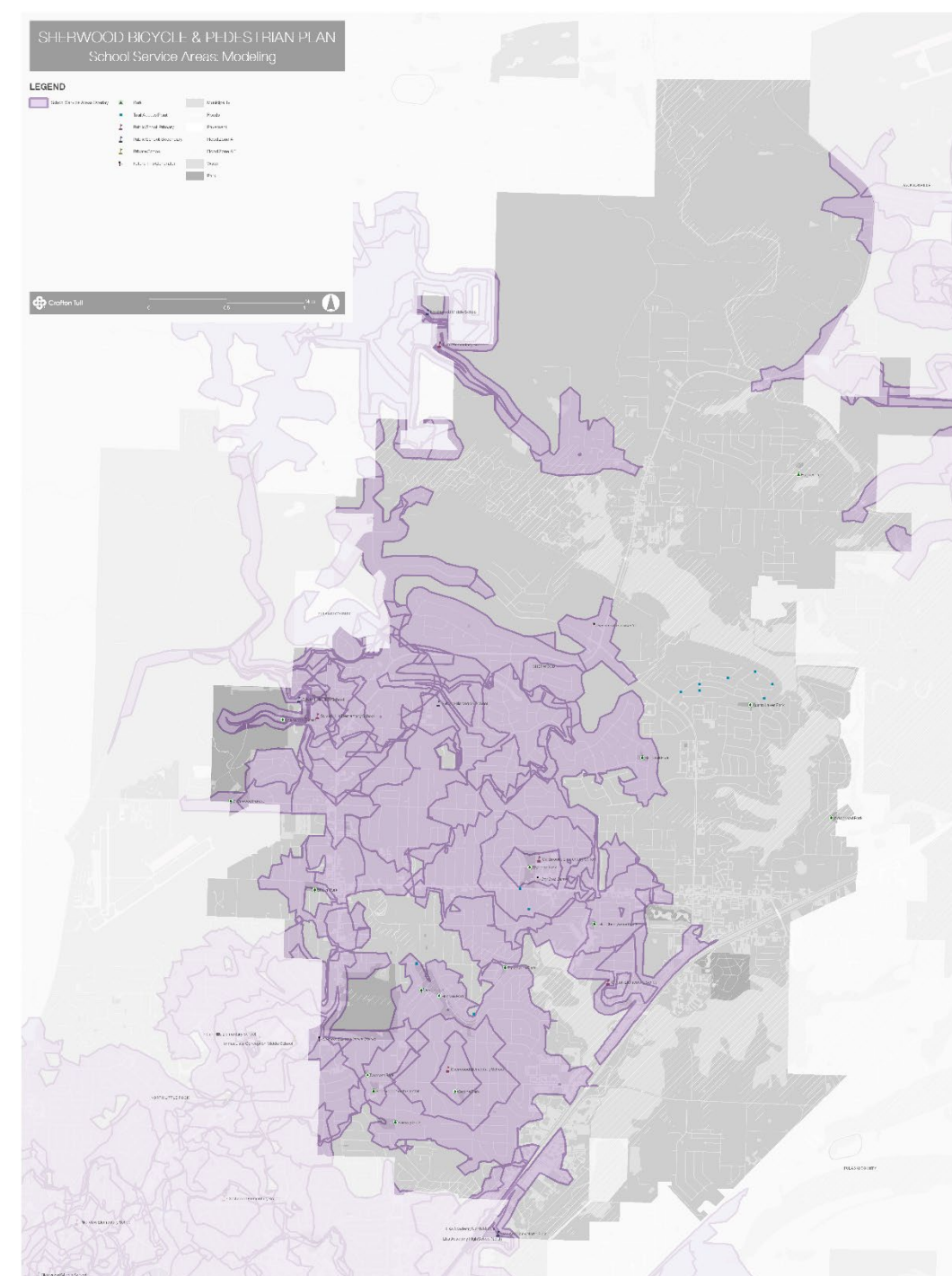
School Service Areas

- Purpose: Demonstrate distribution of existing schools (independently) and their service areas
- School Types & Service Areas
 - Public Primary School – *no bus service within 1 mile of a primary school (PCSSD)*
 - Within ¼ mile
 - ½ to ½ mile
 - ½ to 1 mile
 - Public Secondary School – *no bus service within 2 miles of a secondary school (PCSSD)*
 - Within 1 mile
 - 1 to 2 miles
 - Private School – *bus service varies by school*
 - Within ½ mile
 - ½ to 1 mile



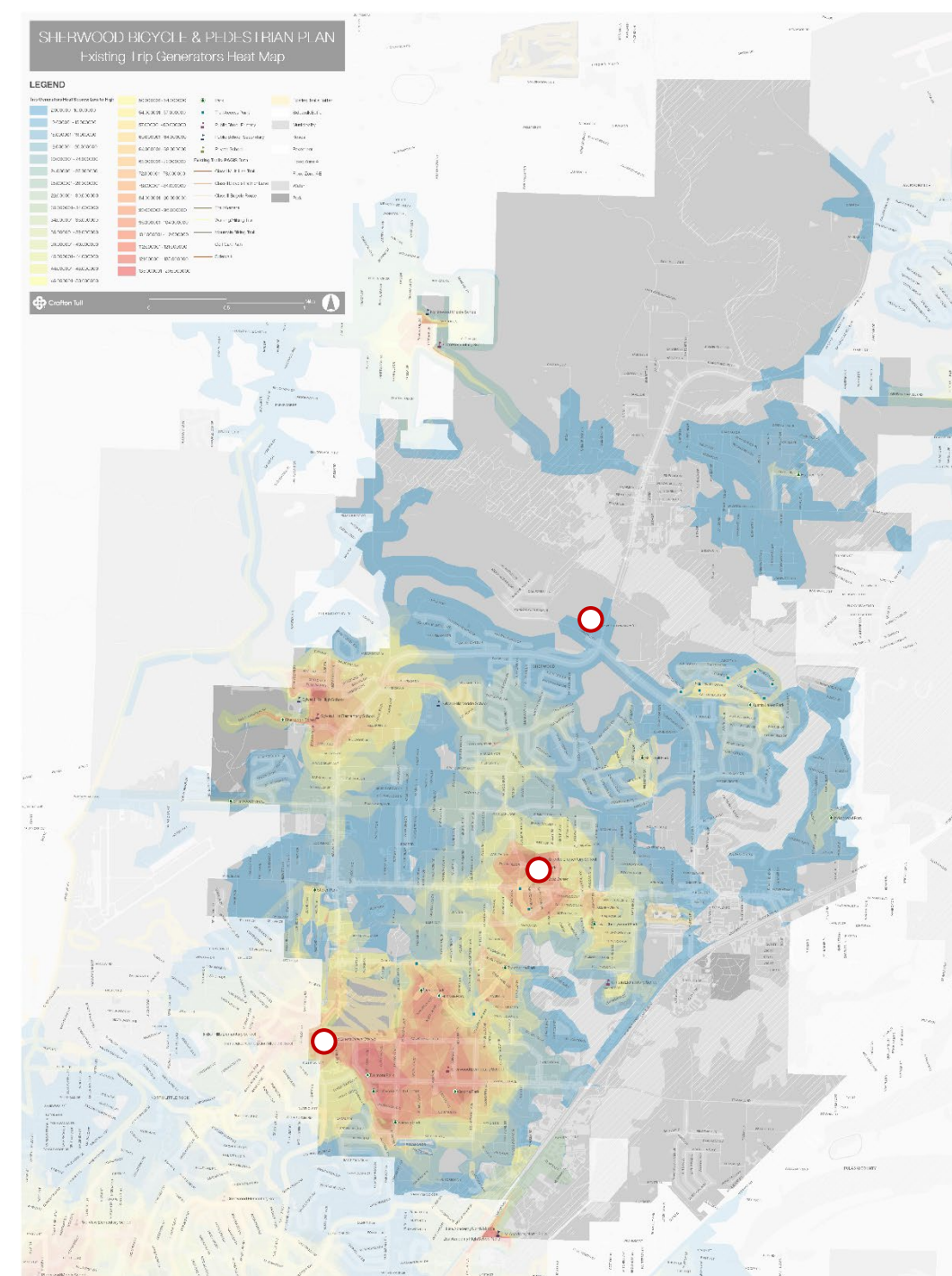
Generating Heat Areas

- Purpose: Demonstrate areas that fall within multiple service areas
- Many neighborhoods fall within the service area of multiple schools, multiple parks, and/or multiple trail access areas.



Heat Map: Schools & Parks

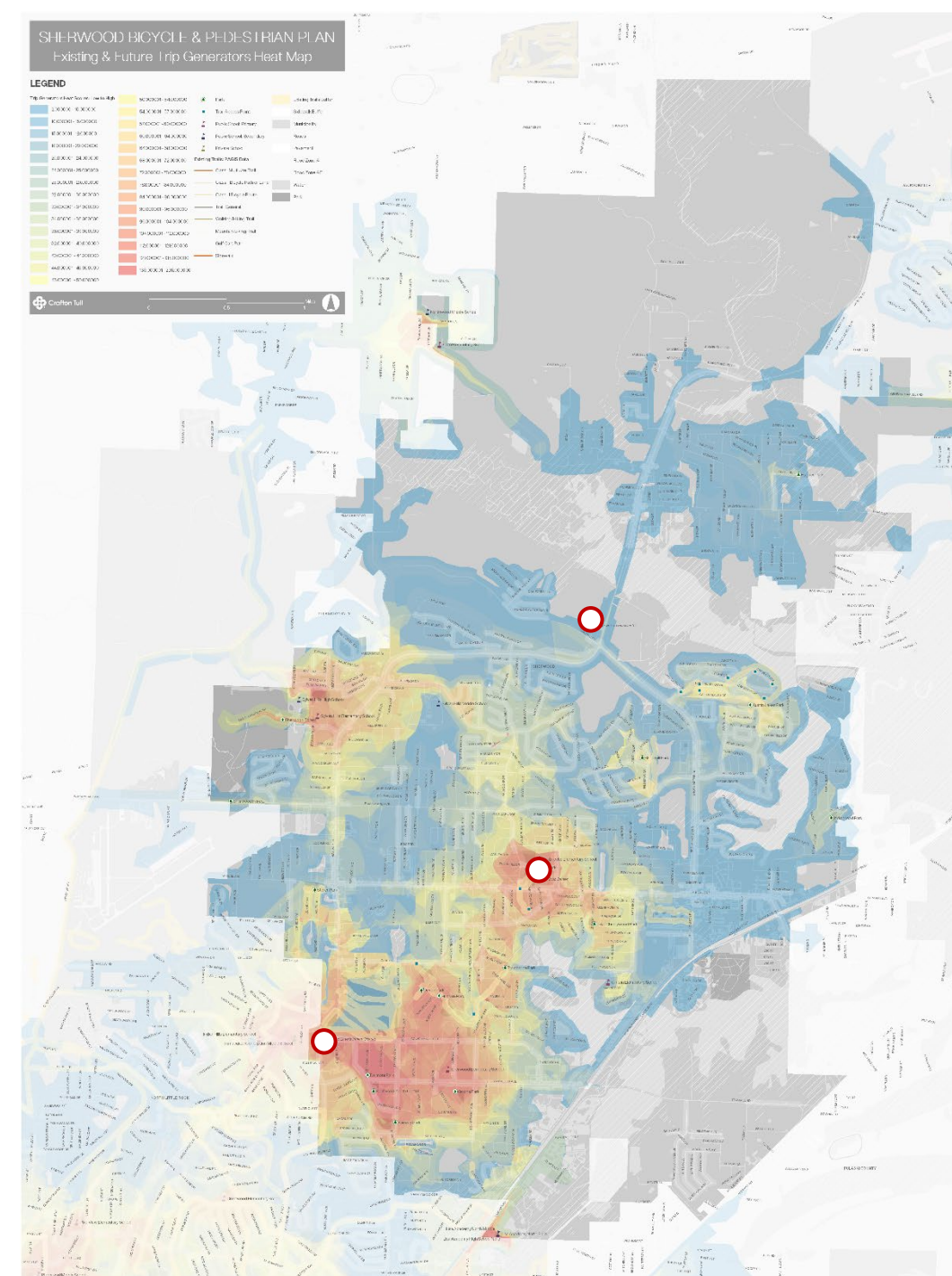
- Schools
 - Primary
 - Secondary
 - Private
- Parks
 - Neighborhood Parks
 - Community Parks
 - Regional Parks
 - Community Centers



Heat Map: Existing & Future Facilities

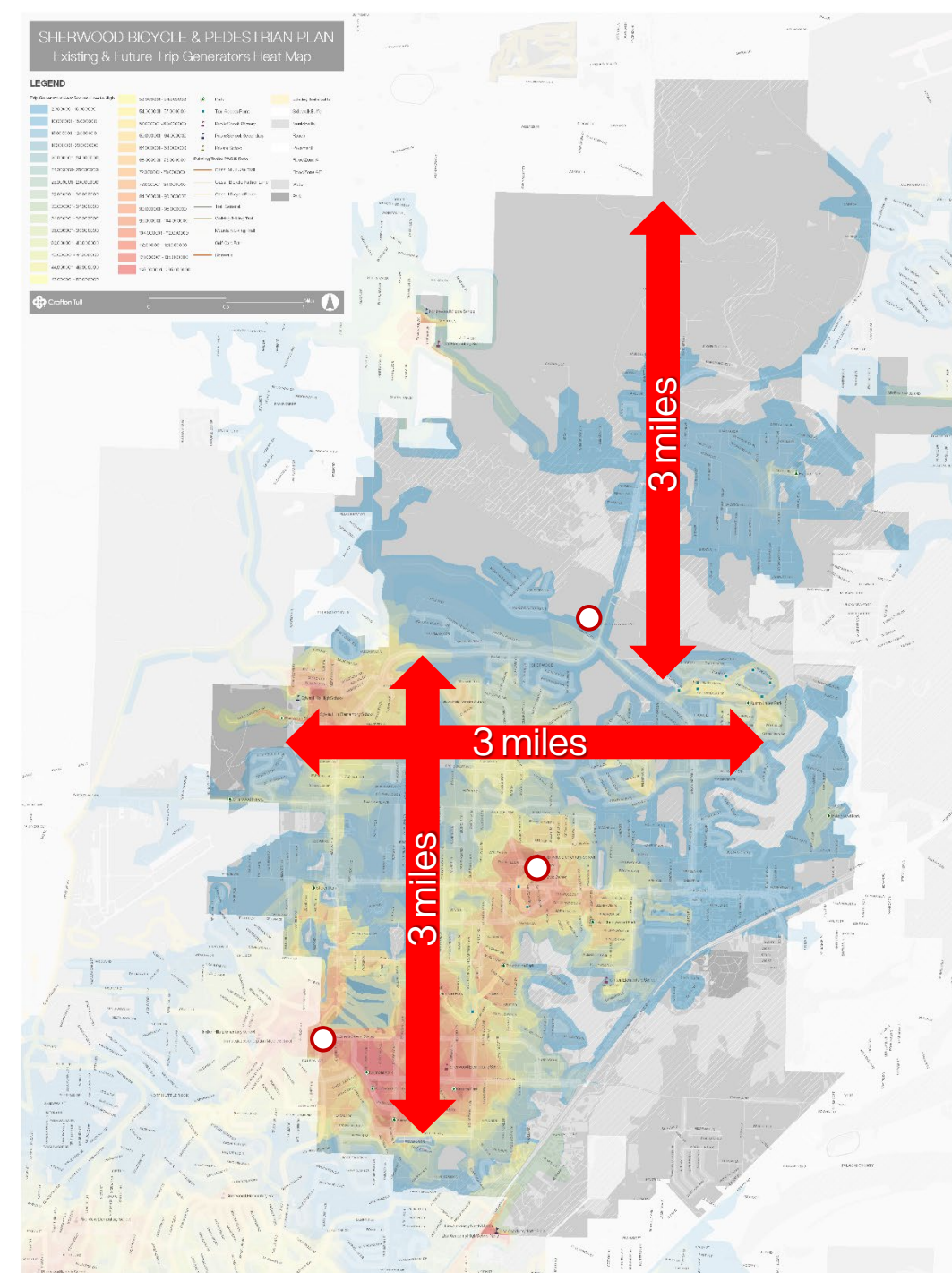
- Existing Destinations
 - Schools
 - Parks & Community Centers

- Future Destinations
 - Sherwood Town Center
 - City Civic Center
 - Sherwood Entertainment District



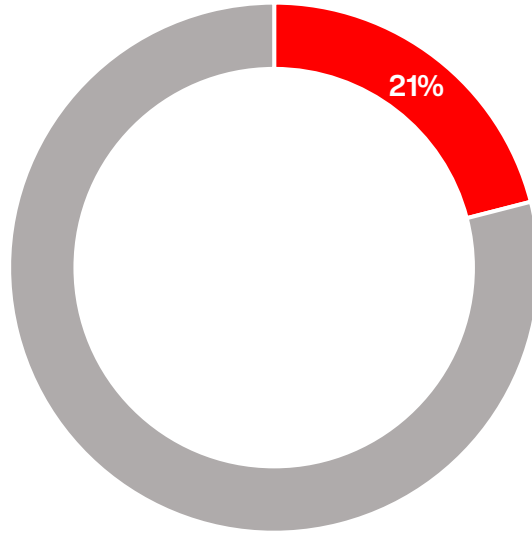
Heat Map: Existing & Future Facilities

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Household Trips Statistics: Sherwood

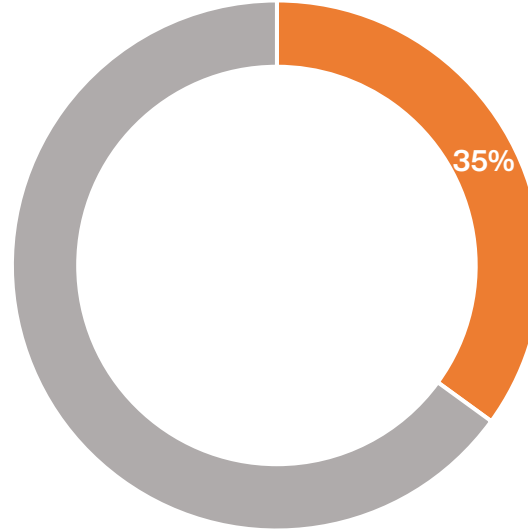
Car Trips Less than 1 Mile



2 Daily Car Trips *per Household*

≈ 24,353 Trips in Sherwood

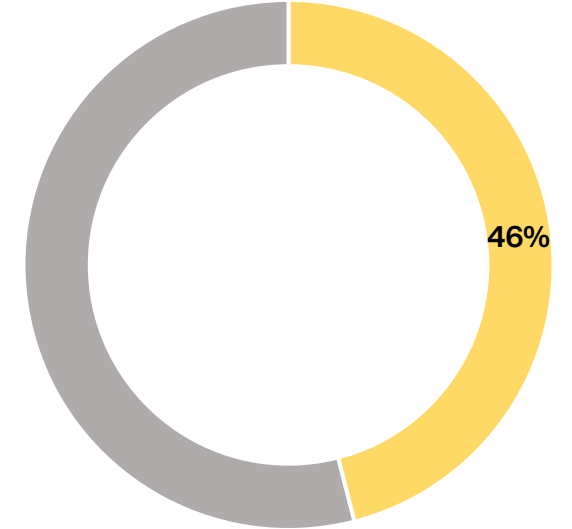
Car Trips Less than 2 Miles



3.3 Daily Car Trips *per Household*

≈ 40,589 Trips in Sherwood

Car Trips Less than 3 Miles



4.3 Daily Car Trips *per Household*

≈ 53,345 Trips in Sherwood



20-Minute Walk

5-Minute Bike Ride

40-Minute Walk

10-Minute Bike Ride

60-Minute Walk

15-Minute Bike Ride



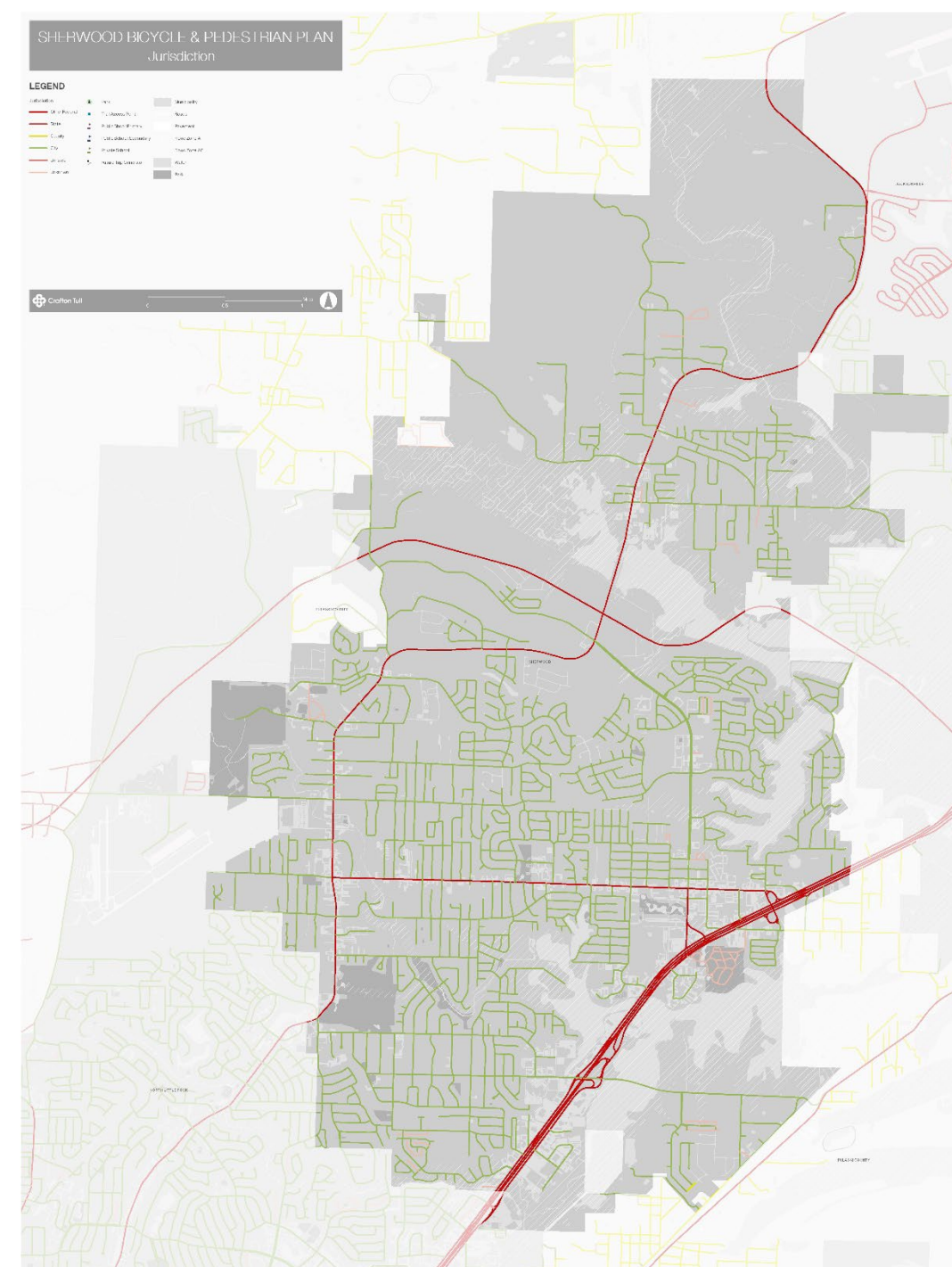
ROADWAY CHARACTERISTICS



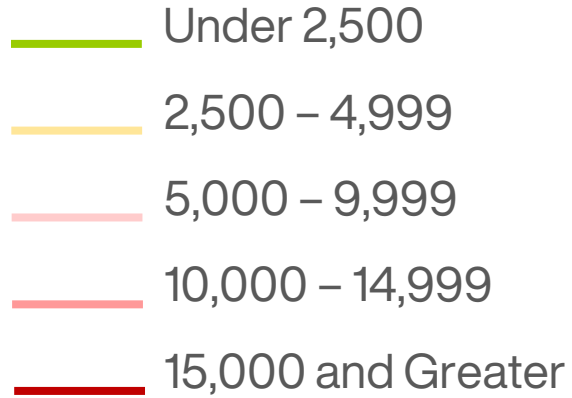
Roadway Assessment: Jurisdiction

- City
- County
- State or Federal
- Other

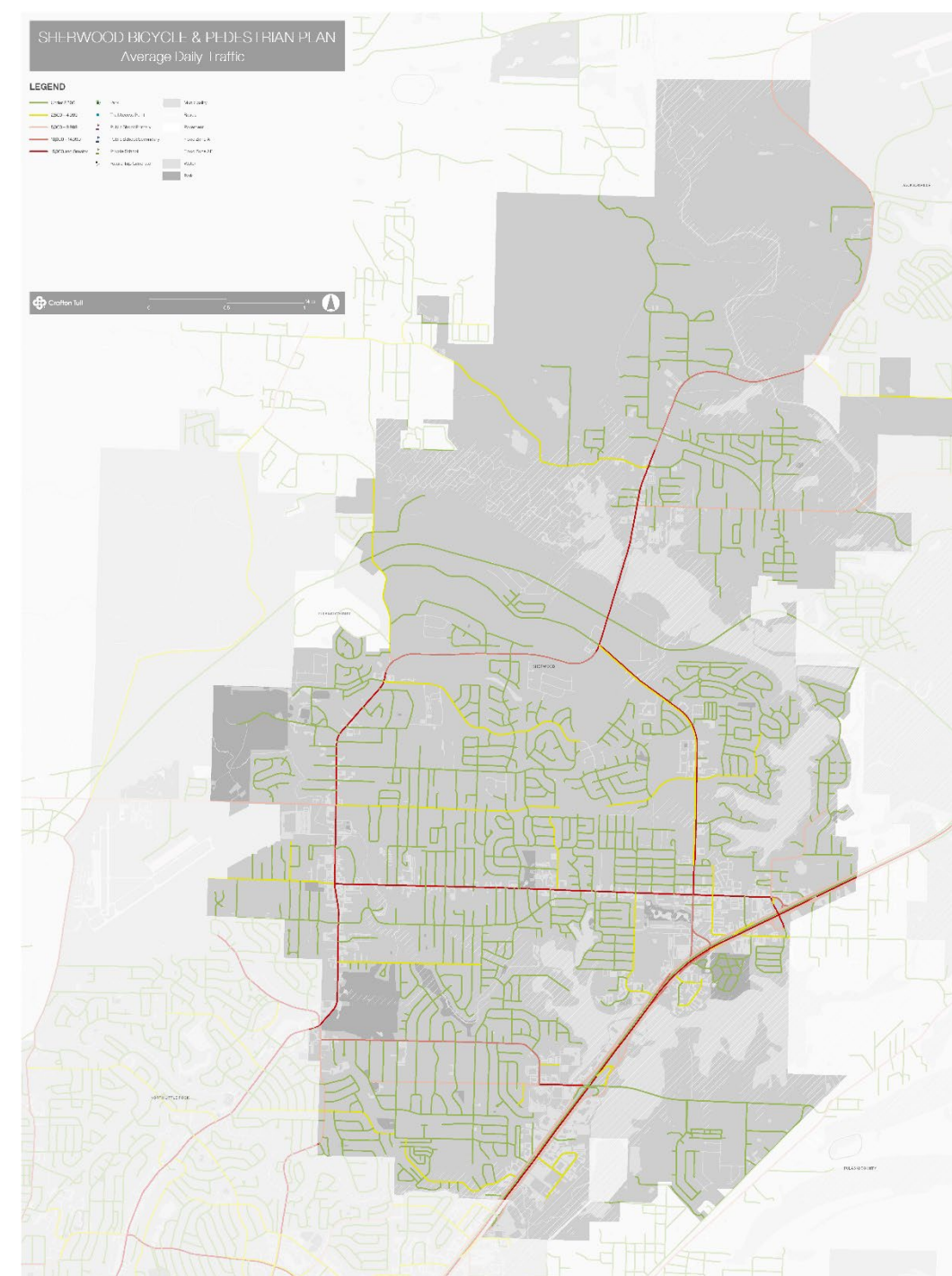
- This assessment indicates what rights-of-way may be more difficult to implement bicycle and pedestrian facilities within due to **lack of local control**



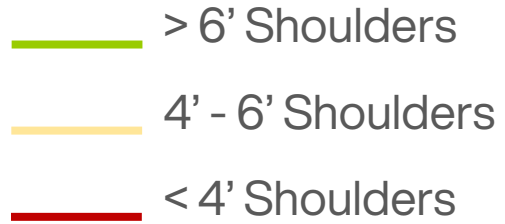
Roadway Assessment: Average Daily Traffic (ADT)



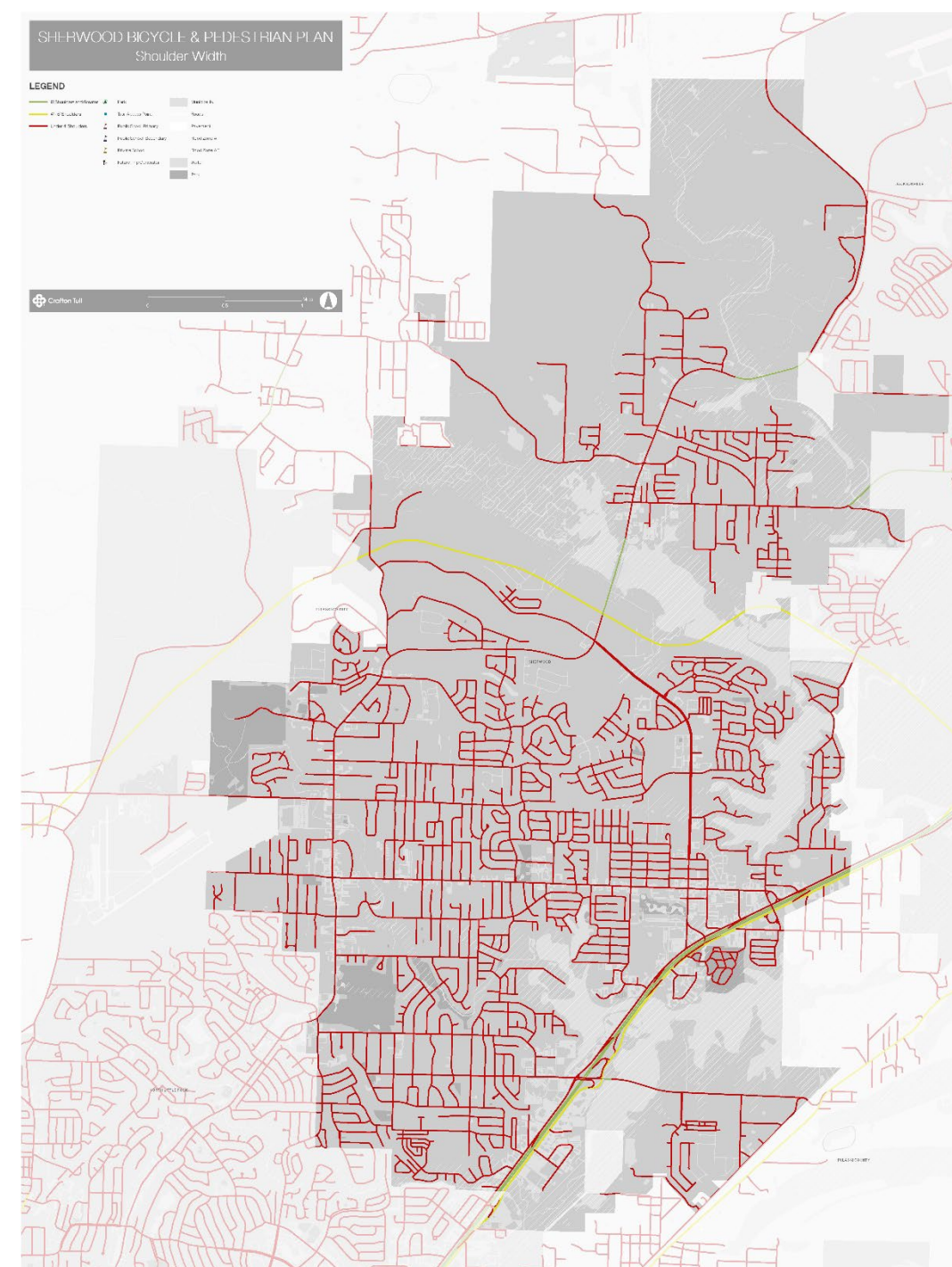
- This assessment differentiates **high- vs. low-volume roads**, and in turn, what types of bicycle and pedestrian facilities may be appropriate



Roadway Assessment: Shoulder Width



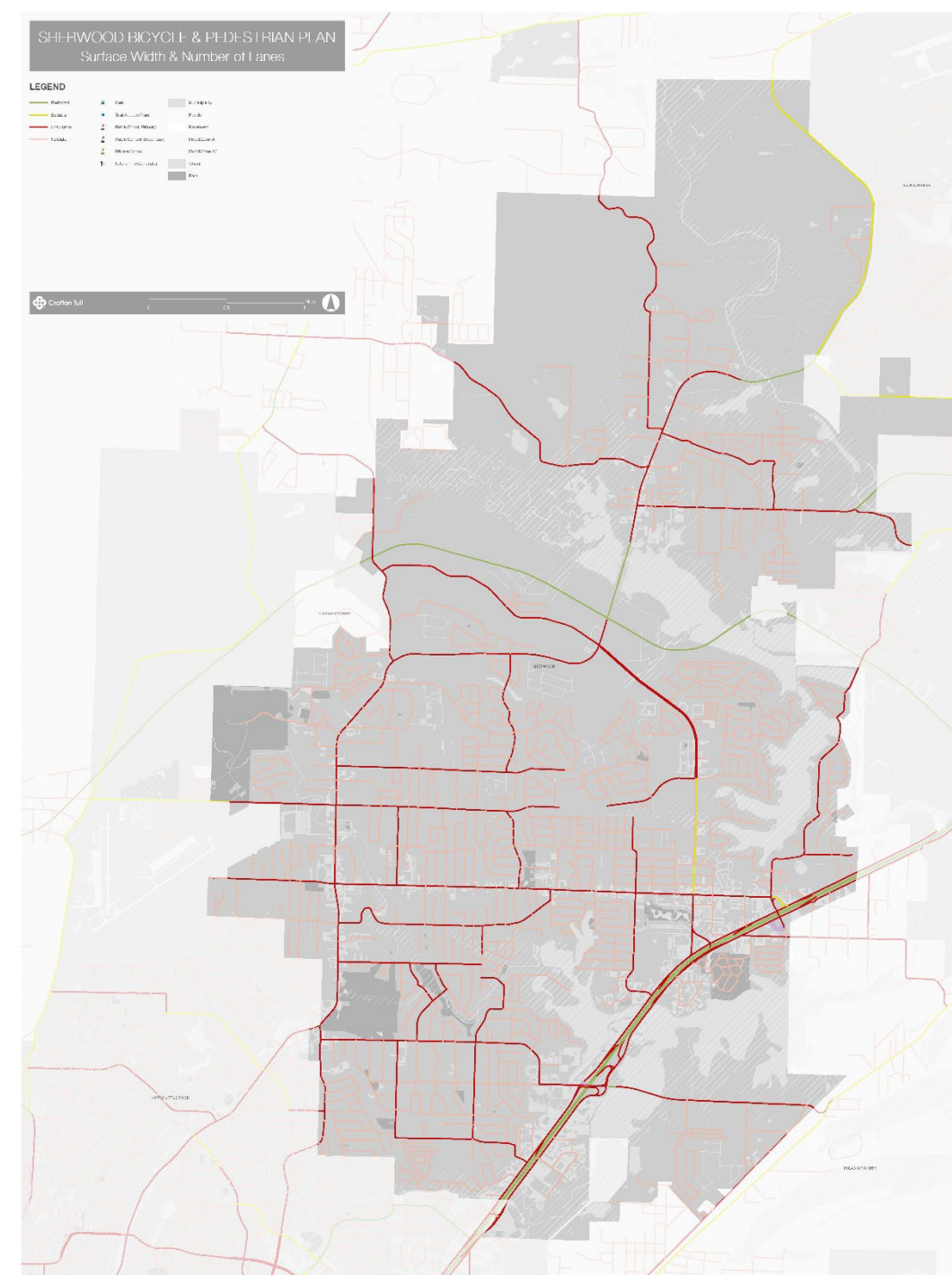
- This assessment generally indicates roads with wide shoulders that could **potentially be utilized** for bicycle facilities



Roadway Assessment: Surface Width & Number of Lanes

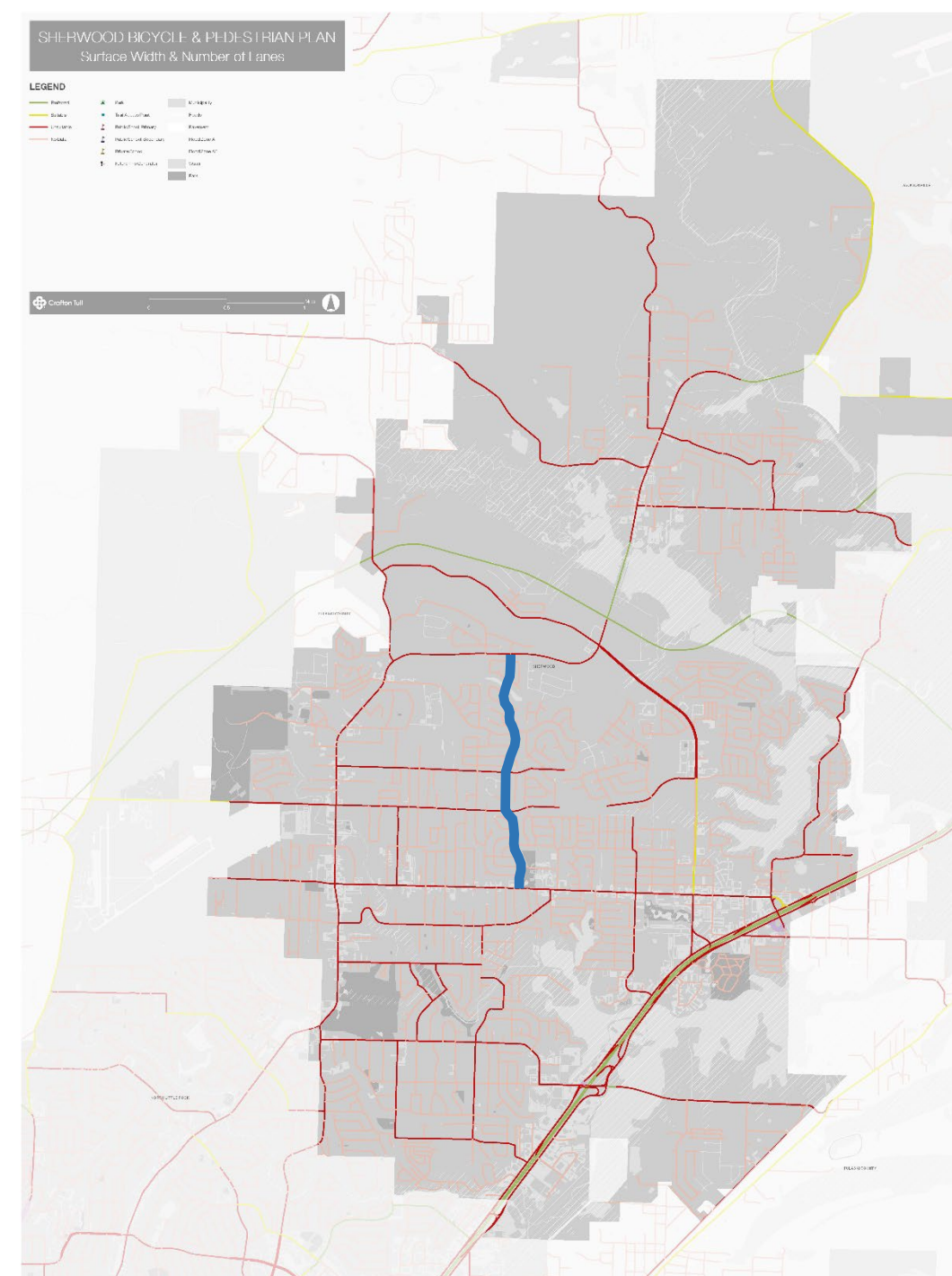


- This assessment generally indicates roads with excessively wide lanes that may be **restriped to accommodate bicycle facilities**. This assessment does not consider restriping as part of a road diet.
- This assessment is based on a potential 11' lane width. A 10' assumption may yield more street restriping candidates.

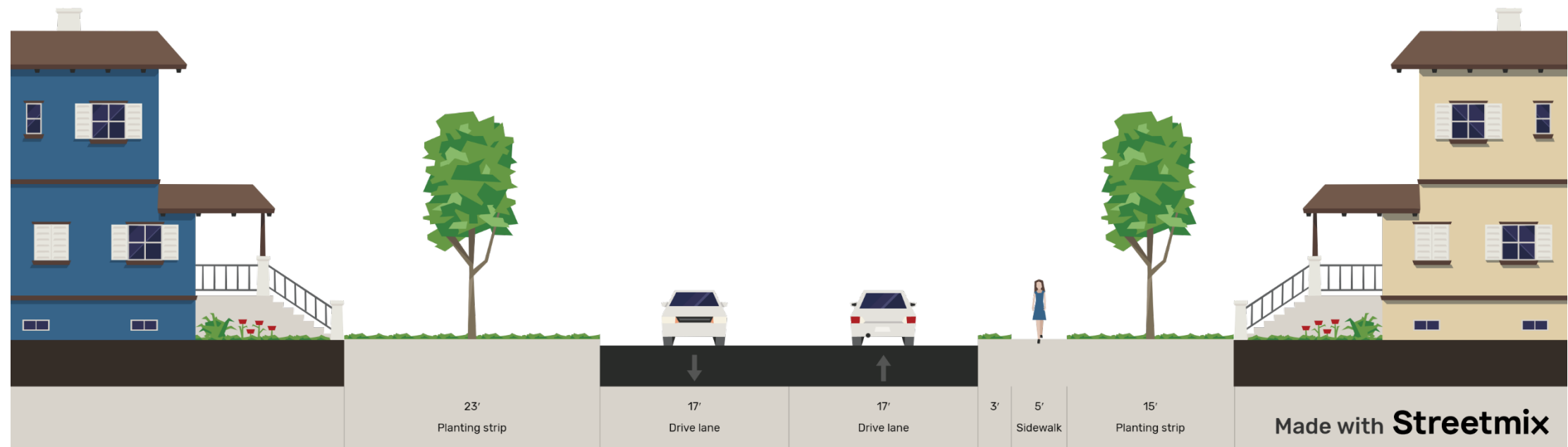


Case Study: Oakbrooke

- Centrally-located north-south residential connector
- Consistently wide road (~32' inside of gutter)

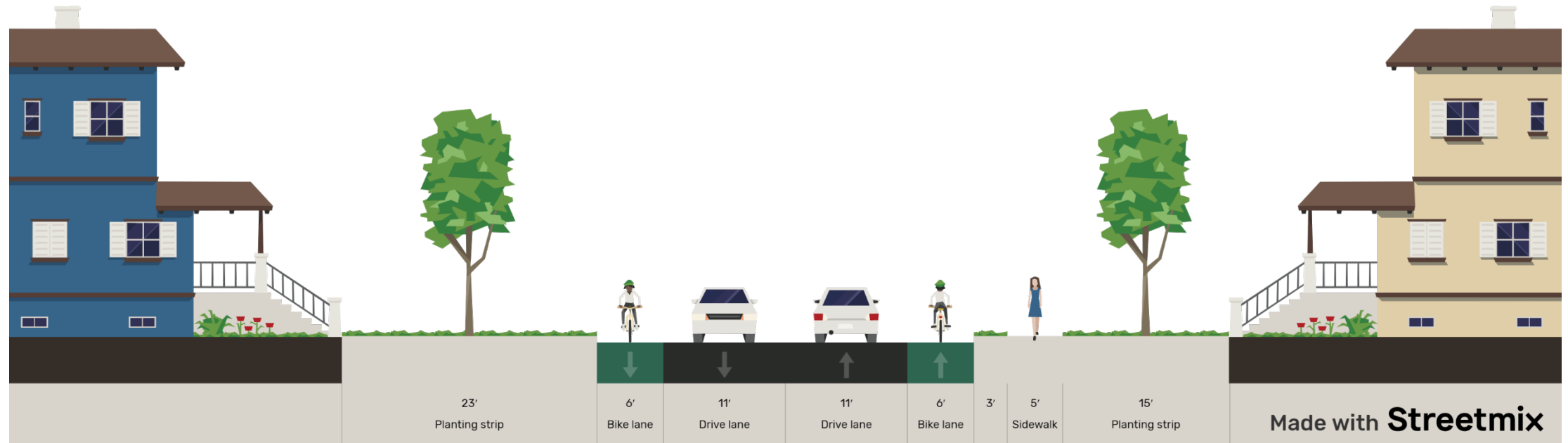


Case Study: Oakbrooke



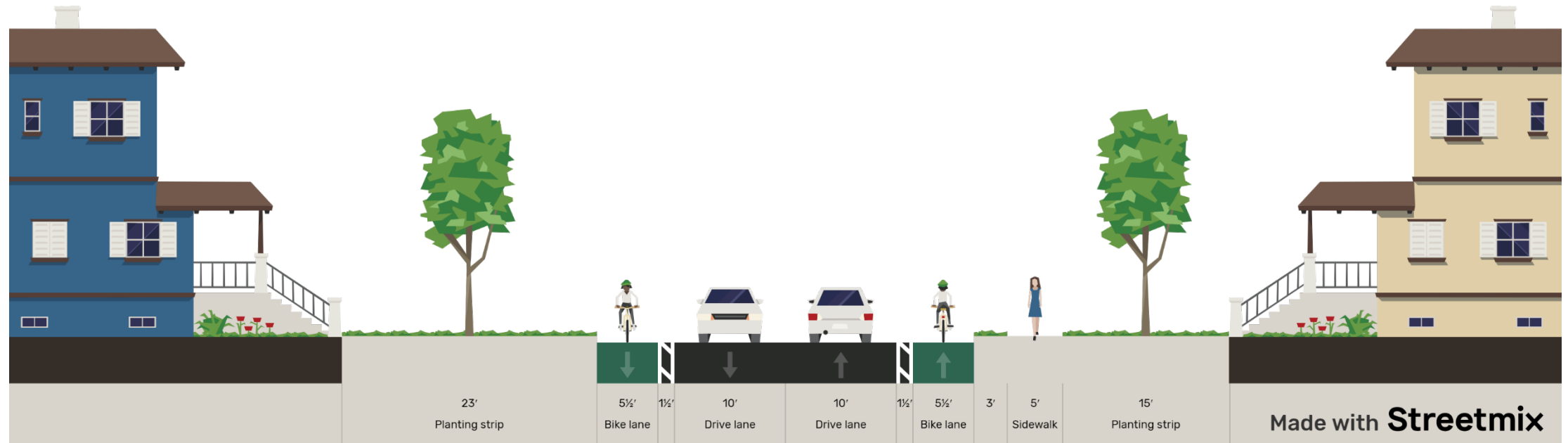
EXISTING CONDITION

Case Study: Oakbrooke



OPTION 1: BIKE LANES (11' drive lanes / 5' bike lanes outside of gutter):
COMPLETE STREET

Case Study: Oakbrooke



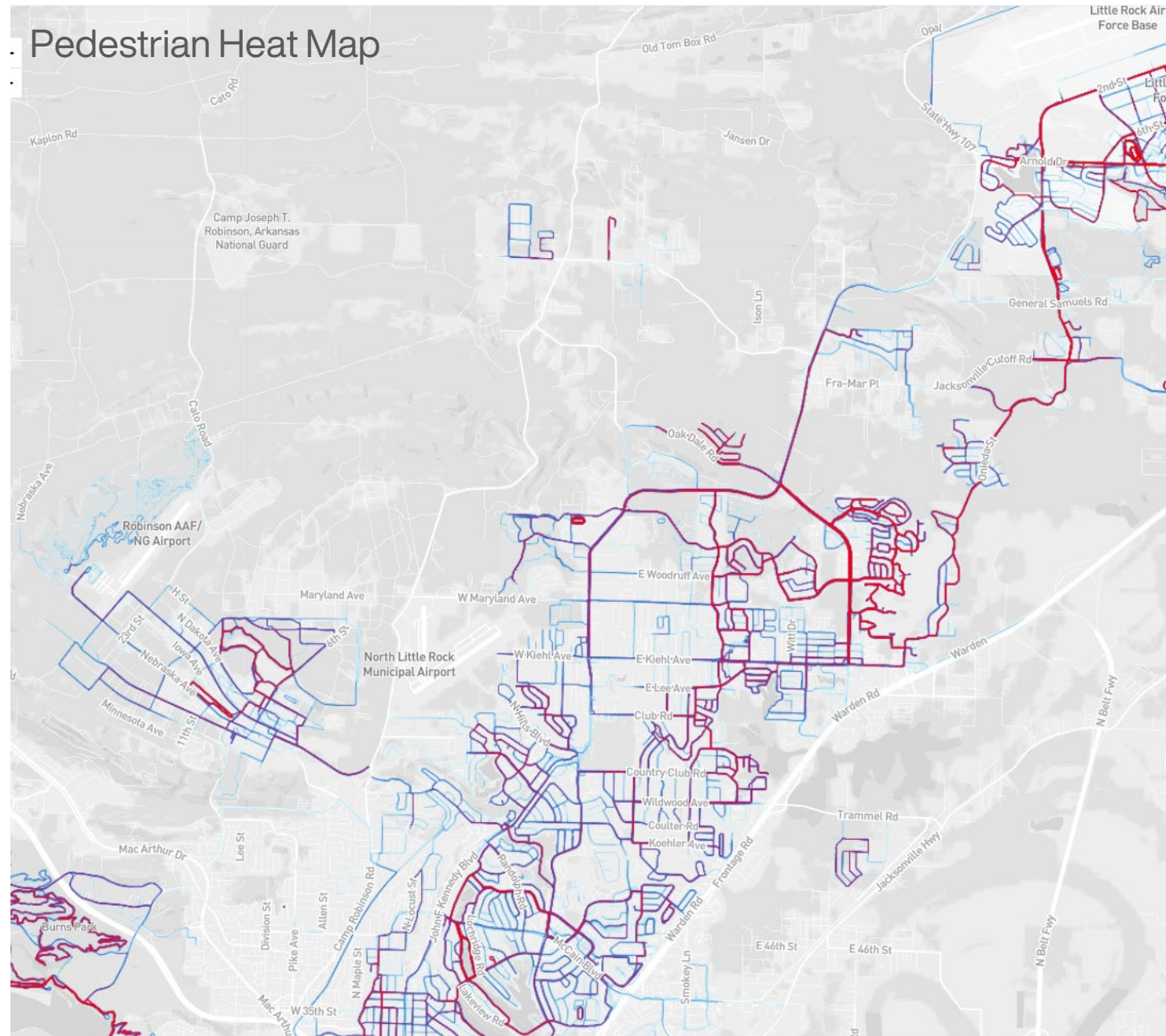
OPTION 1: PROTECTED BIKE LANES (10' drive lanes / 4.5' bike lanes outside of gutter):
COMPLETE STREET

ADDITIONAL CONSIDERATIONS



What it Doesn't Tell Us

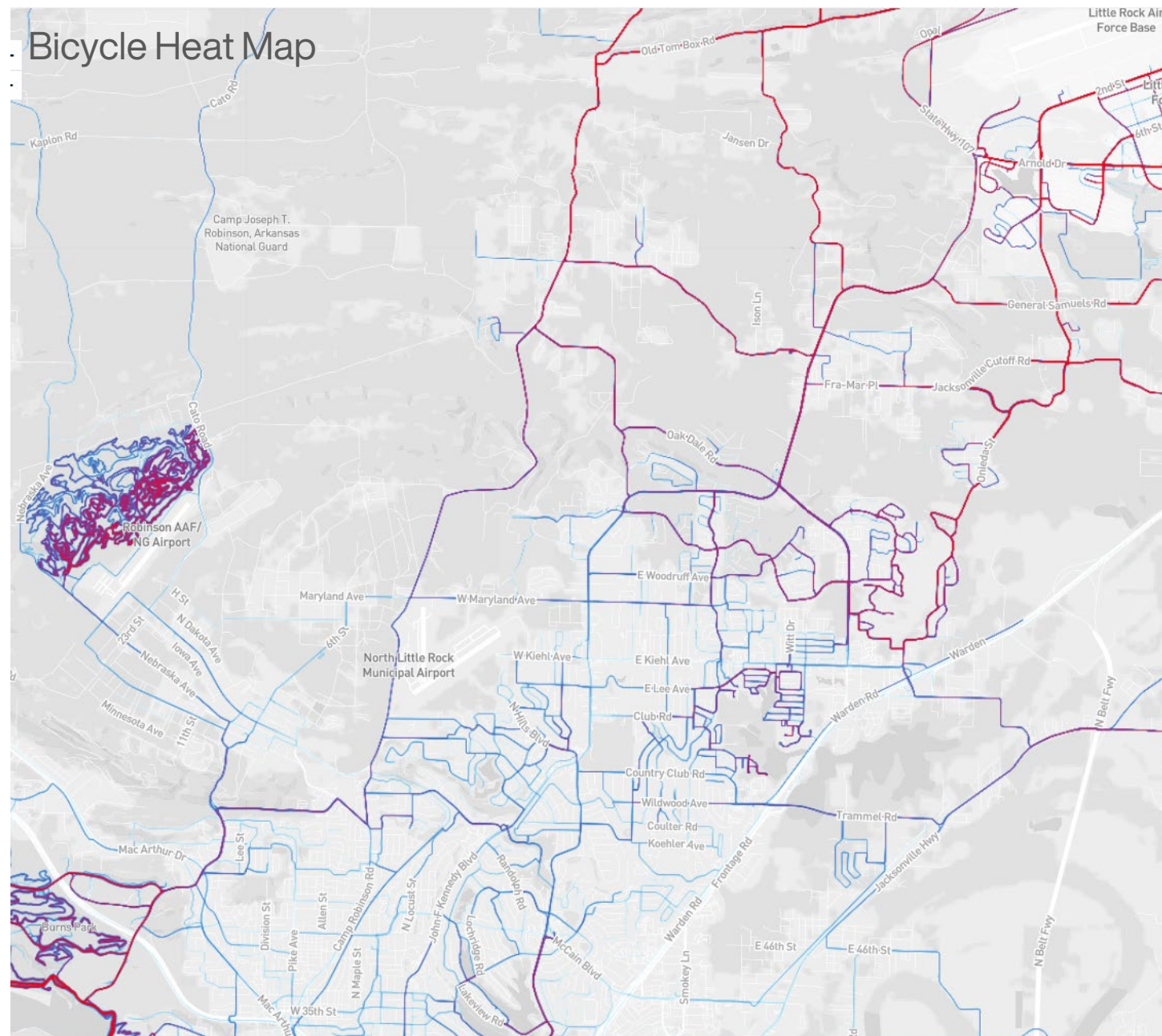
- Commonly utilized routes
- Desired routes
- User comfort levels
- Other destinations



Source: Strava Labs www.strava.com

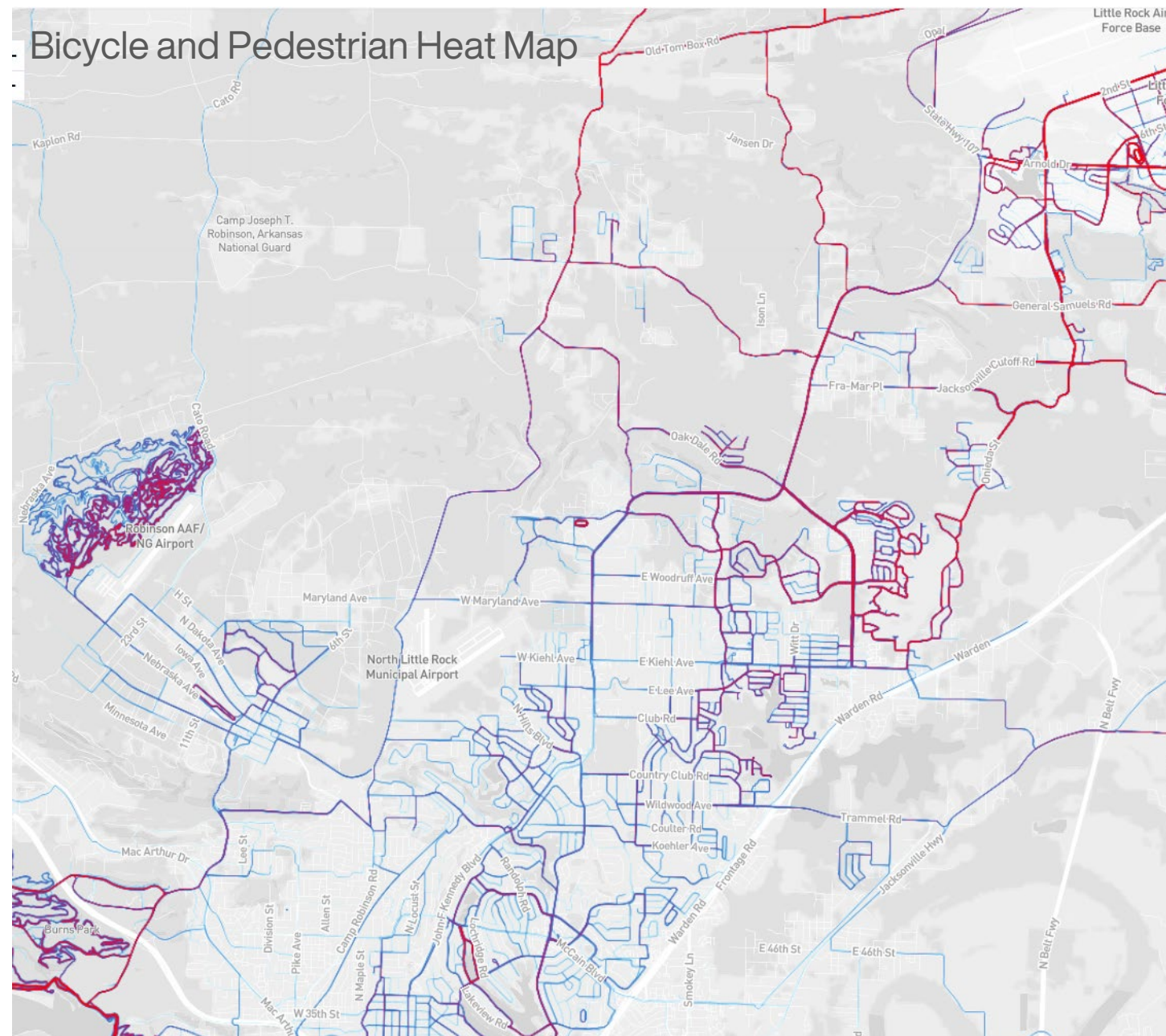
What it Doesn't Tell Us

- Commonly utilized routes
- Desired routes
- User comfort levels
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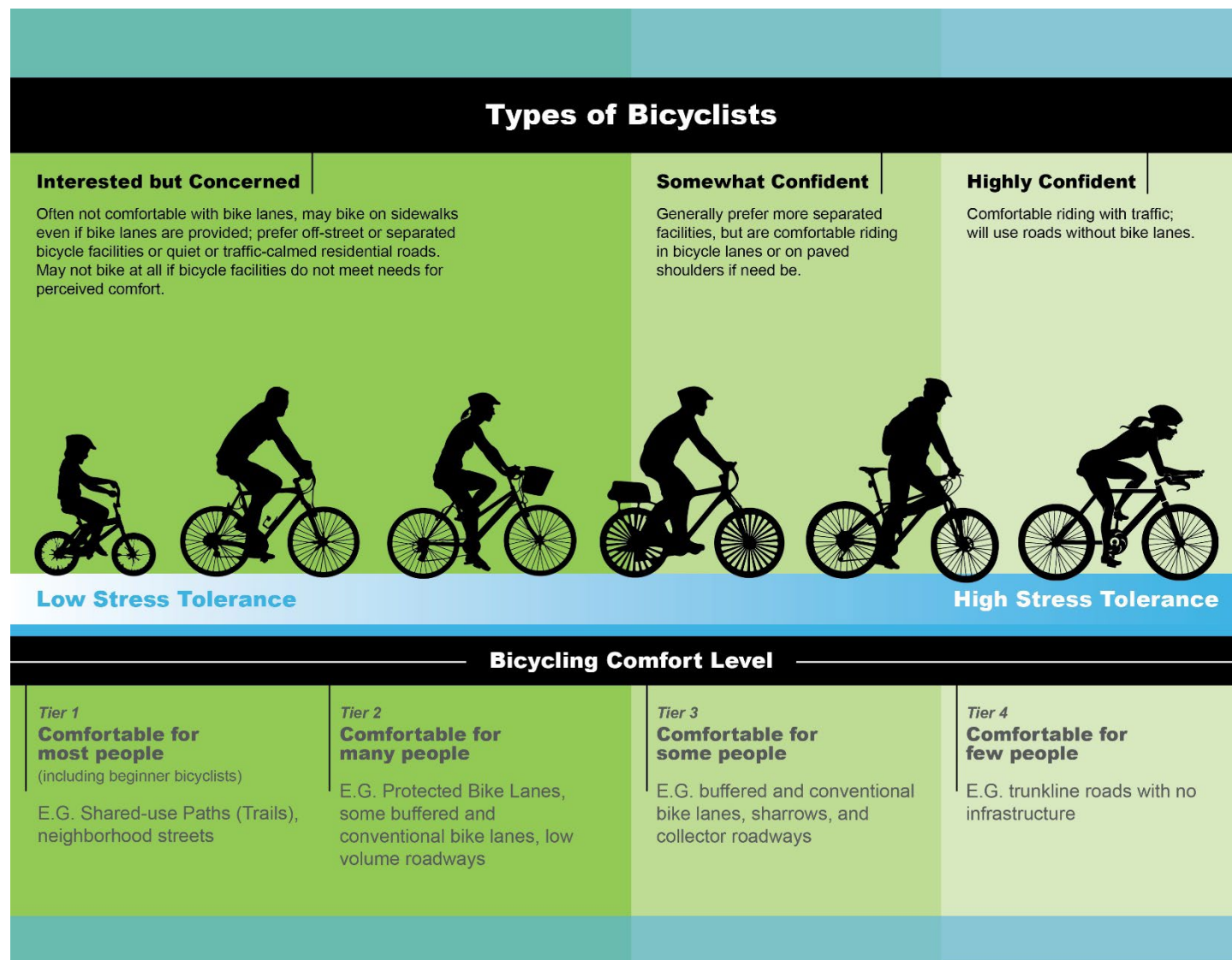
What it Doesn't Tell Us

- Commonly utilized routes
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- User comfort levels
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What it Doesn't Tell Us

- Commonly utilized routes
- Desired routes
- User comfort levels
- Other destinations



FACILITIES



MAINTENANCE



CROSSINGS



Devon

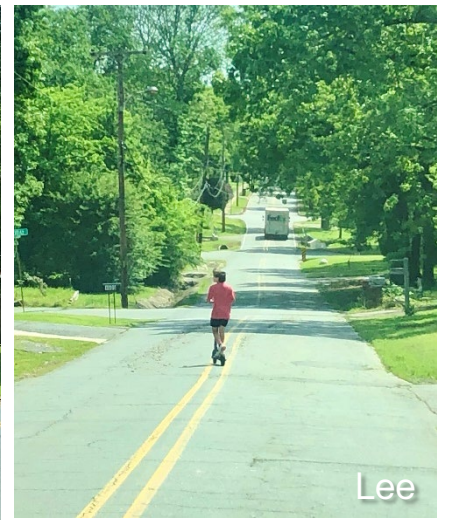


Beverly

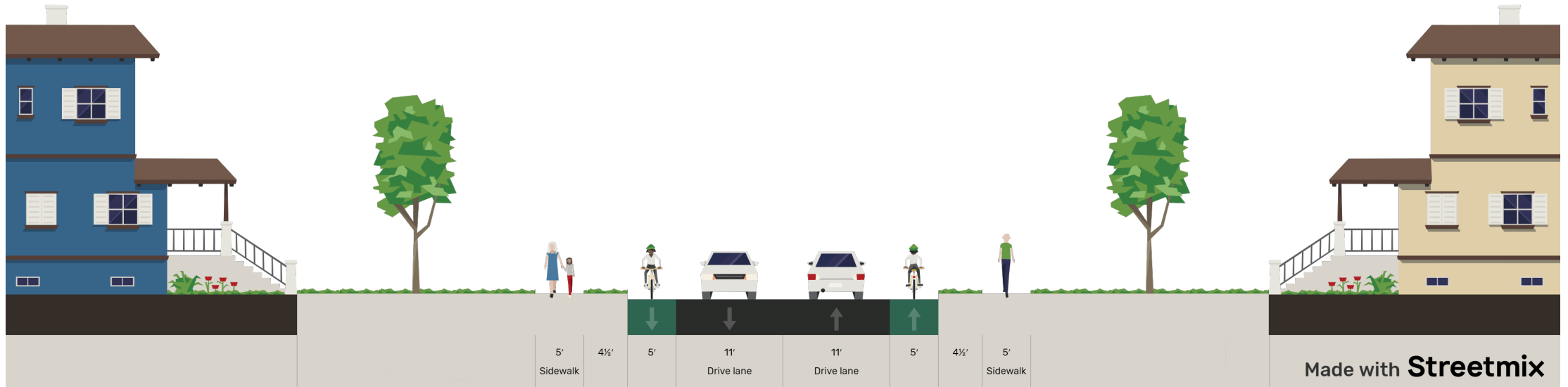


Windchime

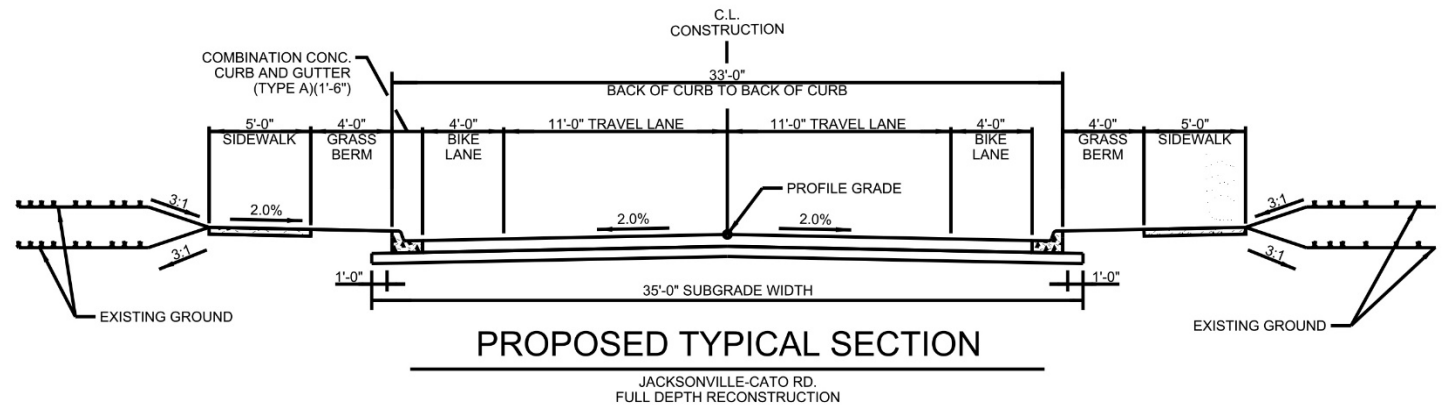
USERS



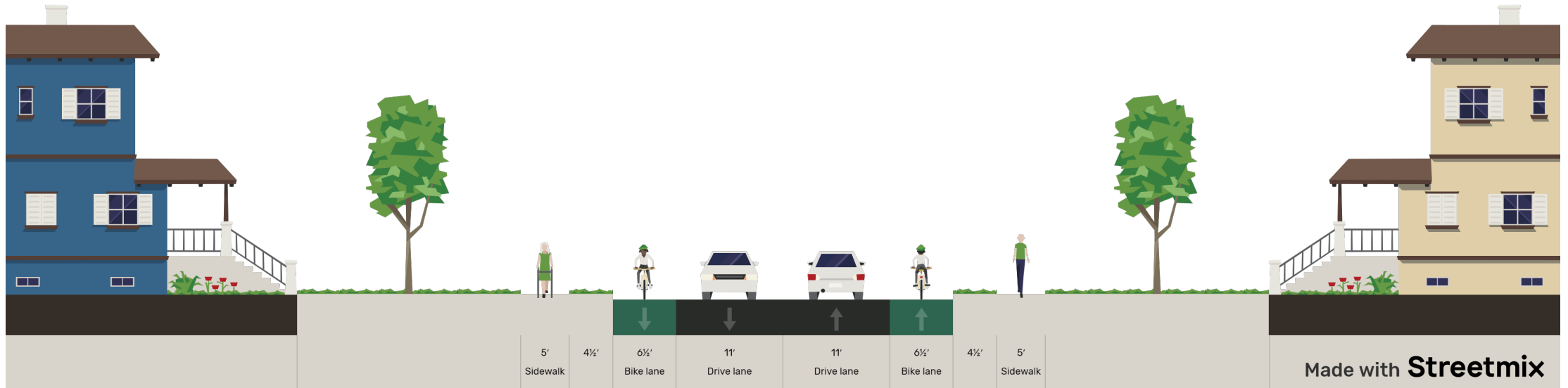
Connecting Generators and Facilities: Street Improvement Projects



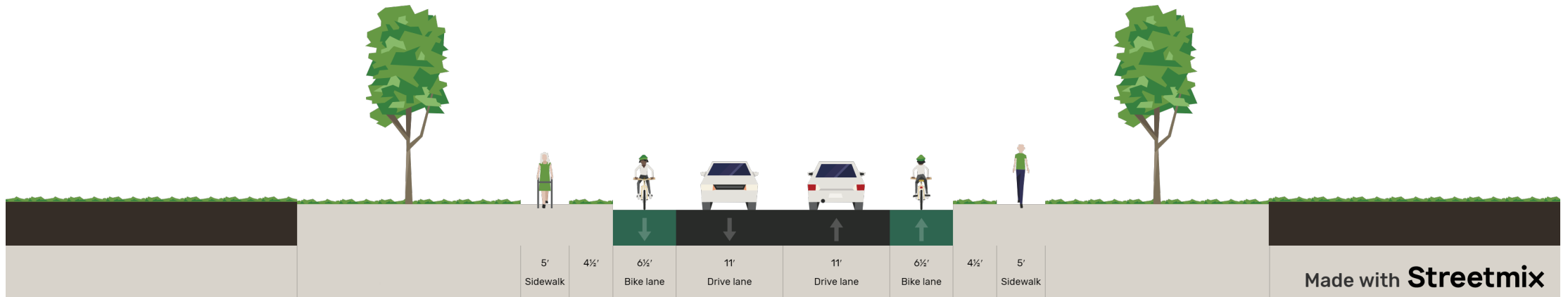
JACKSONVILLE CATO: Current Street Improvement Project (bike lane width includes 12" gutter; curb is included in buffer width)



Connecting Generators and Facilities: Street Improvement Projects



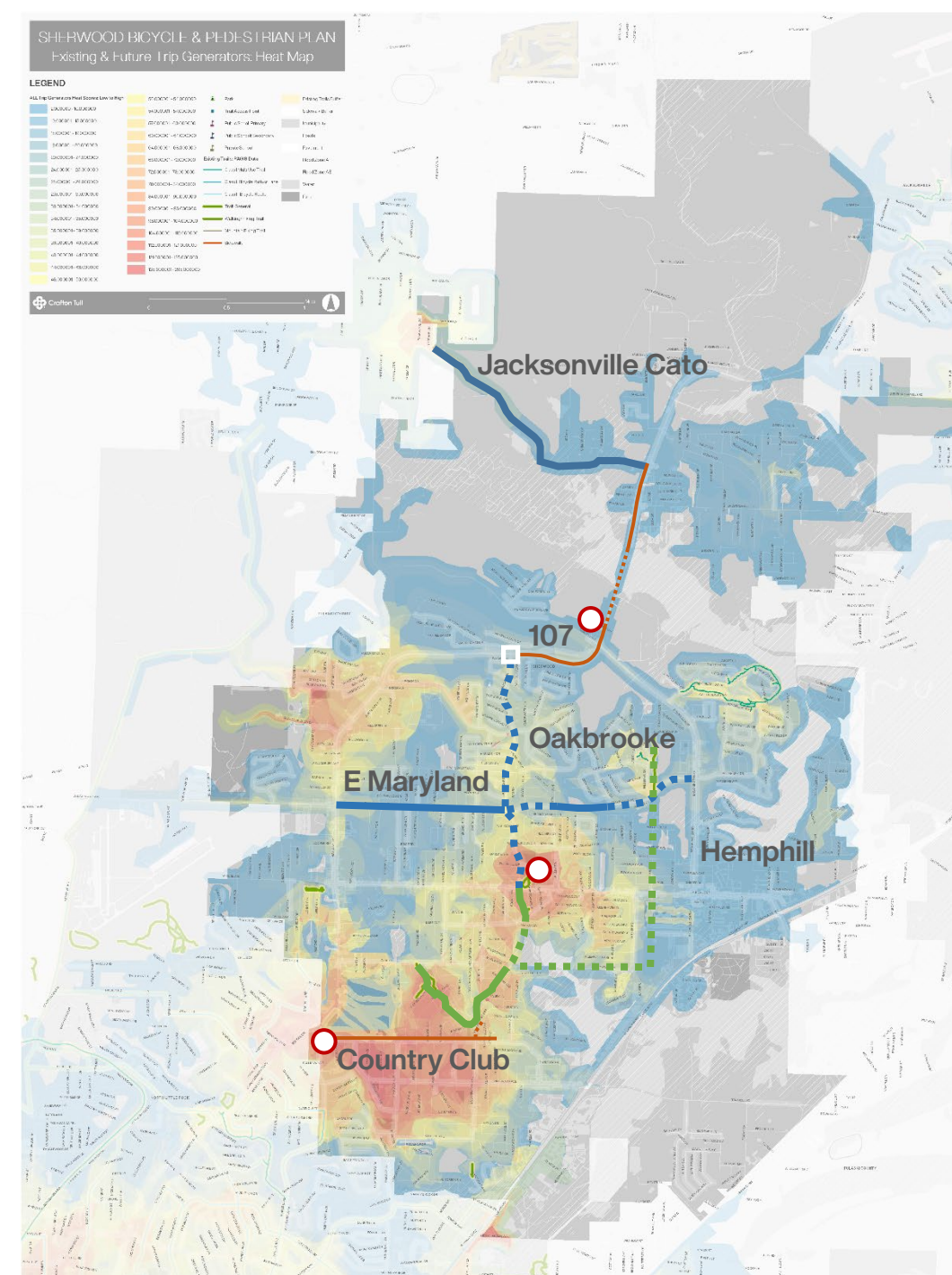
E MARYLAND WIDENING: Current Street Improvement Project (bike lane width includes 12" gutter; curb is included in buffer width)



E MARYLAND EXTENSION: Current Street Improvement Project (bike lane width includes 12" gutter; curb is included in buffer width)

Connecting Generators and Facilities

- Existing Destinations
 - Schools
 - Parks
- Future Destinations
 - Sherwood Town Center
 - City Civic Center
 - Sherwood Entertainment District
- Oakbrooke “Complete Street” Implications



Bicycle Friendly State Ranking

Criteria

- Infrastructure & Funding
- Education & Encouragement
- Legislation & Enforcement
- Policies & Programs
- Evaluation & Planning



**BICYCLE FRIENDLY
STATE**

2019 Ranking

		All 5 Actions	A	B	C	D	F
		Categories					
STATE	2019 Rank	# of Bicycle Friendly Actions*	Infrastructure & Funding	Education & Encouragement	Legislation & Enforcement	Policies & Programs	Evaluation & Planning
Washington	1	🚲🚲🚲🚲🚲					
Oregon	2	🚲🚲🚲🚲🚲					
Nevada	31	🚲🚲🚲					
Arkansas	32	🚲🚲🚲					
Idaho	33	🚲🚲					



**BICYCLE FRIENDLY
STATE**

2019 Ranking

		All 5 Actions	A	B	C	D	F
		Categories					
STATE	2019 Rank	# of Bicycle Friendly Actions*	Infrastructure & Funding	Education & Encouragement	Legislation & Enforcement	Policies & Programs	Evaluation & Planning
Washington	1	🚲🚲🚲🚲🚲					
Oregon	2	🚲🚲🚲🚲🚲					
Minnesota	3	🚲🚲🚲🚲🚲					
California	4	🚲🚲🚲🚲🚲					
Massachusetts	5	🚲🚲🚲🚲🚲					
Delaware	6	🚲🚲🚲🚲🚲					
Colorado	7	🚲🚲🚲🚲🚲					
Utah	8	🚲🚲🚲🚲🚲					
Virginia	9	🚲🚲🚲🚲🚲					
Florida	10	🚲🚲🚲🚲🚲					
Pennsylvania	11	🚲🚲🚲🚲🚲					
New Jersey	12	🚲🚲🚲🚲🚲					
New York State	13	🚲🚲🚲🚲🚲					
Maryland	14	🚲🚲🚲🚲🚲					
Michigan	15	🚲🚲🚲🚲🚲					
Illinois	16	🚲🚲🚲🚲🚲					
Vermont	17	🚲🚲🚲🚲🚲					
Ohio	18	🚲🚲🚲🚲🚲					
Georgia	19	🚲🚲🚲🚲🚲					
Maine	20	🚲🚲🚲🚲🚲					
Connecticut	21	🚲🚲🚲🚲🚲					
North Carolina	22	🚲🚲🚲🚲🚲					
Arizona	23	🚲🚲🚲🚲🚲					
Indiana	24	🚲🚲🚲🚲🚲					
Tennessee	25	🚲🚲🚲🚲🚲					
Iowa	26	🚲🚲🚲🚲🚲					
Texas	27	🚲🚲🚲🚲🚲					
Louisiana	28	🚲🚲🚲🚲🚲					
Wisconsin	29	🚲🚲🚲🚲🚲					
Rhode Island	30	🚲🚲🚲🚲🚲					
Nevada	31	🚲🚲🚲🚲🚲					
Arkansas	32	🚲🚲🚲🚲🚲					
Idaho	33	🚲🚲🚲🚲🚲					
West Virginia	34	🚲🚲🚲🚲🚲					
Missouri	35	🚲🚲🚲🚲🚲					
New Hampshire	36	🚲🚲🚲🚲🚲					
Kansas	37	🚲🚲🚲🚲🚲					
Hawaii	38	🚲🚲🚲🚲🚲					
Alaska	39	🚲🚲🚲🚲🚲					
South Dakota	40	🚲🚲🚲🚲🚲					
Oklahoma	41	🚲🚲🚲🚲🚲					
South Carolina	42	🚲🚲🚲🚲🚲					
Kentucky	43	🚲🚲🚲🚲🚲					
New Mexico	44	🚲🚲🚲🚲🚲					
Alabama	45	🚲🚲🚲🚲🚲					
North Dakota	46	🚲🚲🚲🚲🚲					
Montana	47	🚲🚲🚲🚲🚲					
Mississippi	48	🚲🚲🚲🚲🚲					
Nebraska	49	🚲🚲🚲🚲🚲					
Wyoming	50	🚲🚲🚲🚲🚲					

* Bicycle Friendly Actions include a Complete Streets policy, a safe passing law, a statewide bike plan, spending 2% or more of federal transportation money on biking and walking, and a bicycle safety emphasis area.

Learn more at bikeleague.org/states

Bicycle Friendly Businesses

- Crafton Tull is a Bronze level Bicycle Friendly Business and supports the development of Bicycle Friendly Communities



Bicycle-Friendly Communities

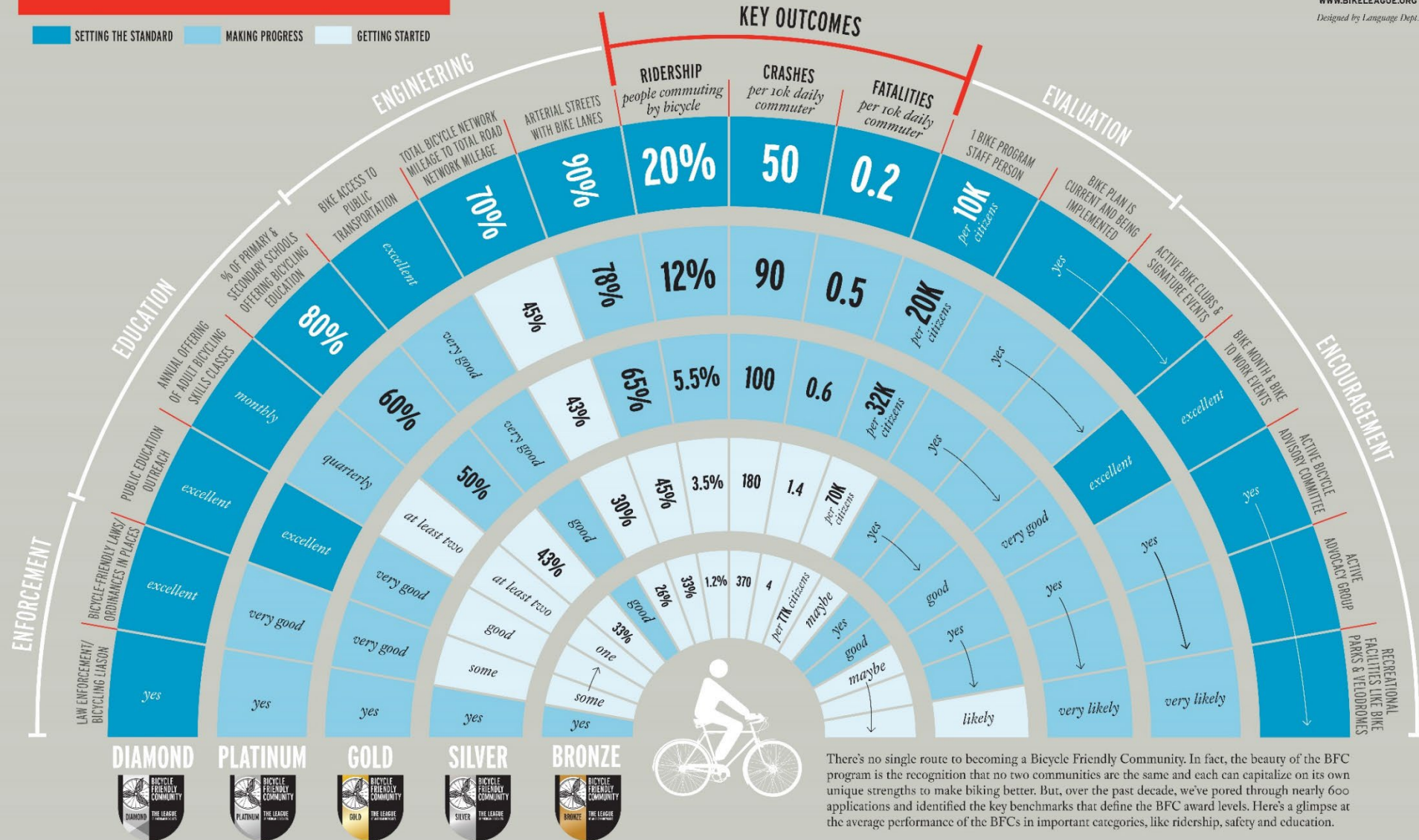
ARKANSAS

COMMUNITY	STATE	AWARD	POPULATION	JURISDICTION	LAND USE
City of Little Rock	AR	Bronze	197706	Town/City/Municipality	Urban
Northwest Arkansas - Benton and Washington Counties	AR	Silver	549128	Metropolitan Planning Organization/Council of Governments	Urban core surrounded by low density suburban areas
North Little Rock	AR	Bronze	66000	Town/City/Municipality	Urban core surrounded by low density suburban areas
Bentonville	AR	Bronze	49298	Town/City/Municipality	Small town
Conway	AR	Bronze	58908	Town/City/Municipality	Urban core surrounded by low density suburban areas
Fayetteville	AR	Silver	80621	Town/City/Municipality	Suburban
Rogers	AR	Bronze	63420	Town/City/Municipality	Rural
Springdale	AR	Bronze	81029	Town/City/Municipality	Urban core surrounded by low density suburban areas

THE BUILDING BLOCKS OF A BICYCLE FRIENDLY COMMUNITY

SETTING THE STANDARD MAKING PROGRESS GETTING STARTED

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







There's no single route to becoming a Bicycle Friendly Community. In fact, the beauty of the BFC program is the recognition that no two communities are the same and each can capitalize on its own unique strengths to make biking better. But, over the past decade, we've pored through nearly 600 applications and identified the key benchmarks that define the BFC award levels. Here's a glimpse at the average performance of the BFCs in important categories, like ridership, safety and education.

Best Cities for Bikes: City Ratings

Criteria

- Ridership
- Safety
- Network
- Reach
- Acceleration

“[PlacesForBikes](#) is a data-driven approach to identifying the best U.S. cities and towns for bicycling to help city leaders pinpoint improvements, and make riding better for everyone. Using feedback from everyday bike riders, city staffers, open-source maps and publicly available data, it scores five key factors: Ridership, Safety, Network, Acceleration and Reach. Find out how your city/town rates.”

CITY NAME	STATE	COUNTRY	POPULATION	OVERALL SCORE	RIDERSHIP	SAFETY	NETWORK	REACH	ACCELERATION
Fayetteville	AR		83,736	★★★★★ 3.1	1.7	2.6	2.4	1.8	4.6
Bentonville	AR		46,857	★★★★★ 2.8	1.6	2.2	3.1	1.3	3.2
Fort Smith	AR		87,639	★★★★★ 1.2	1.0	1.6	0.8	1.5	(*)
Little Rock	AR		198,135	★★★★★ 1.3	1.5	1.5	1.4	1.5	0.5
Springdale	AR		78,690	★★★★★ 2.3	1.3	1.4	1.5	2.2	2.9
Rogers	AR		64,947	★★★★★ 3.2	1.4	3.0	2.3	2.6	4.0
Conway	AR		65,069	★★★★★ 1.1	1.0	1.6	0.8	1.2	(*)
Jonesboro	AR		74,710	★★★★★ 1.2	1.3	1.7	1.2	1.3	0.3
Siloam Springs	AR		16,567	★★★★★ 1.8	1.2	2.2	1.4	0.6	1.0
Bella Vista	AR		28,328	★★★★★ 3.1	1.5	2.2	3.0	1.8	4.4
Pine Bluff	AR		43,840	★★★★★ 0.7	0.8	0.4	0.8	1.0	(*)
North Little Rock	AR		66,282	★★★★★ 1.2	1.5	1.1	1.4	1.5	0.5
Mountain Home	AR		12,303	★★★★★ 0.5	0.8	0.4	0.8	(*)	(*)

Goals Discussion

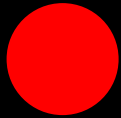
- Improve bicycle and pedestrian **connectivity**
- Encourage **physical activity** and healthy lifestyles
- Provide **active transportation** options
- Provide **recreational** amenities
- Provide access to **destinations** and reinforce **placemaking**
- Support **economic development**, events, and tourism
- Provide **equitable**, **accessible**, and **inclusive** mobility options
- Provide infrastructure to become part of a **regional network**

Opportunities & Barriers Exercise



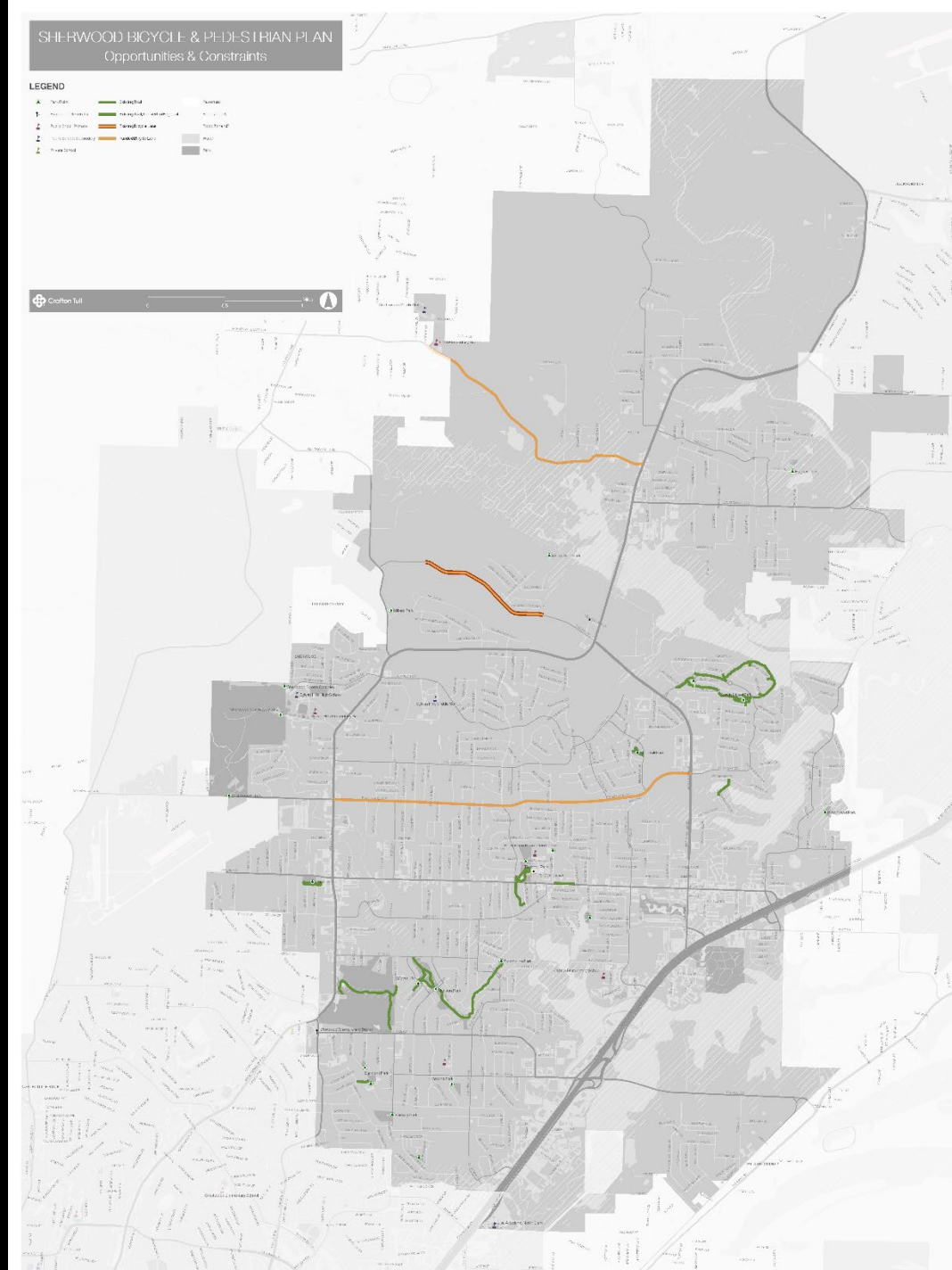
Opportunity

- Facility Needed: Increase Safety
- Connection Needed: Cannot Access Destination
- Potential or Actual Destination / Trip Generator
- Other



Barrier

- Physical
- Political
- Perceived
- NIMBY
- Other



Discussion: Opportunities for Connectivity

- Opportunities for bicycle and pedestrian facilities?
- Physical or perceived barriers?
- Potential challenges to the development of a bicycle and pedestrian network?
- Interest in working toward becoming a Bicycle-Friendly Community?

Community Survey

<https://www.surveymonkey.com/r/SherwoodBikePed1>



BREAK

<https://www.surveymonkey.com/r/SherwoodBikePed1>

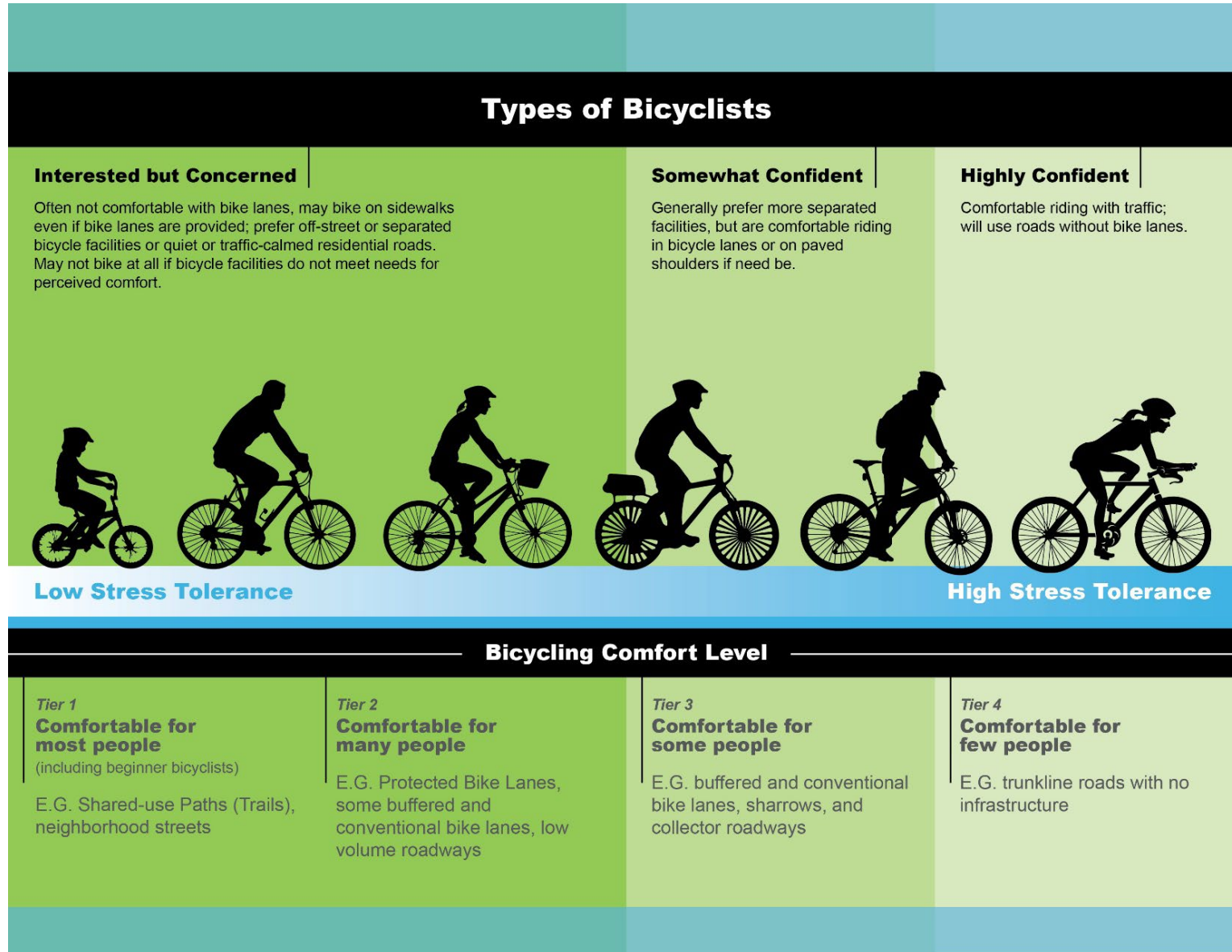


USER TYPES, FACILITY TYPES, LEVEL OF COMFORT

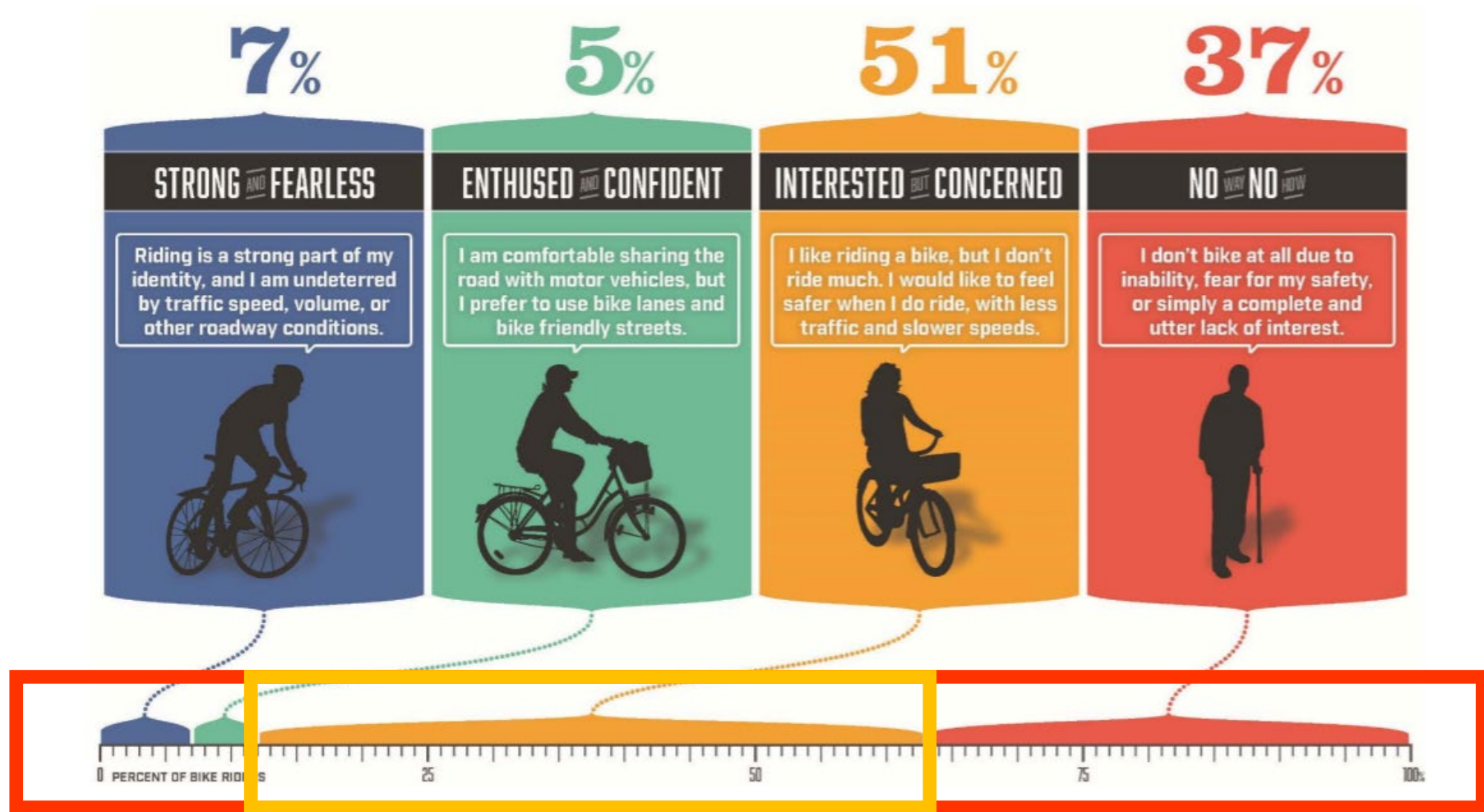


Bicycle User Types

- Age & Ability
- Stress Tolerance
- General Preferences



Bicycle User Types



**HIGH STRESS
TOLERANCE**

**LOW STRESS
TOLERANCE**

Bicycle & Pedestrian Facility Types

Standard On-Street Facilities



Bicycle Lanes



Sharrows



Signed Routes

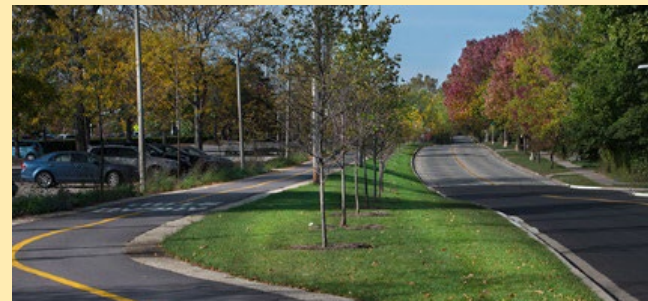
Protected On-Street Facilities



Buffered Bicycle Lanes



Cycle Tracks



Sidepaths

Trails & Greenways



6'-8' Local Walking Path



12'-14' Multi-Use Trail

Bicycle & Pedestrian Facility Types

FACILITY TYPES



No Facilities



Signed Route or Sharrows



Standard Bike Lanes



Buffered Bike Lanes/Cycle Track



Sidepath/Multi-Use Trail

Level of Stress Increases

Ease of Implementation Increases

Level of Stress Decreases

Ease of Implementation Decreases

Understanding Bicycle and Pedestrian User Groups:

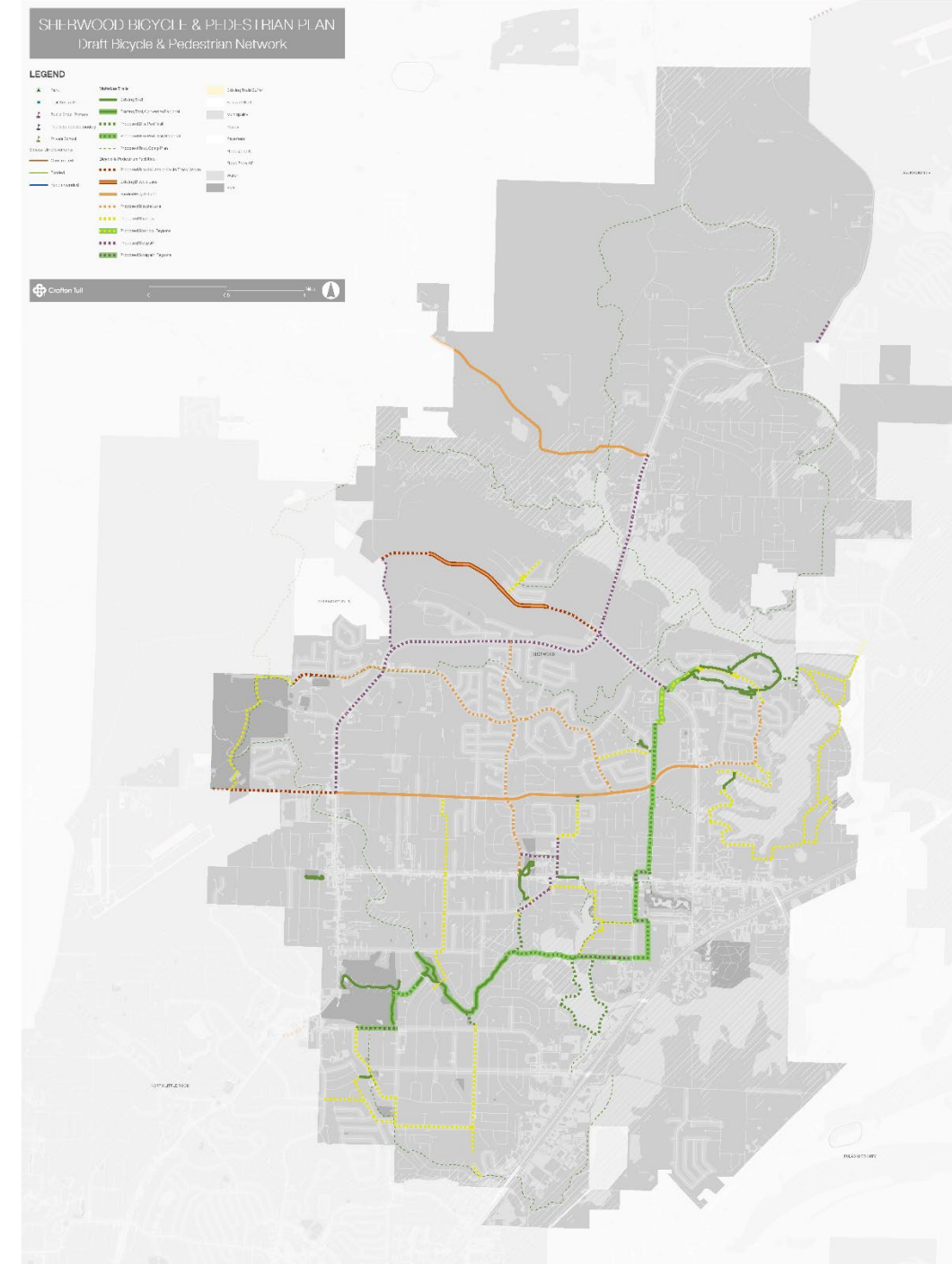
Avoiding User Conflicts

- User Type
- Travel Speed
- Intersections
- Traffic Volume
- Facility Design (width, striping, signage)



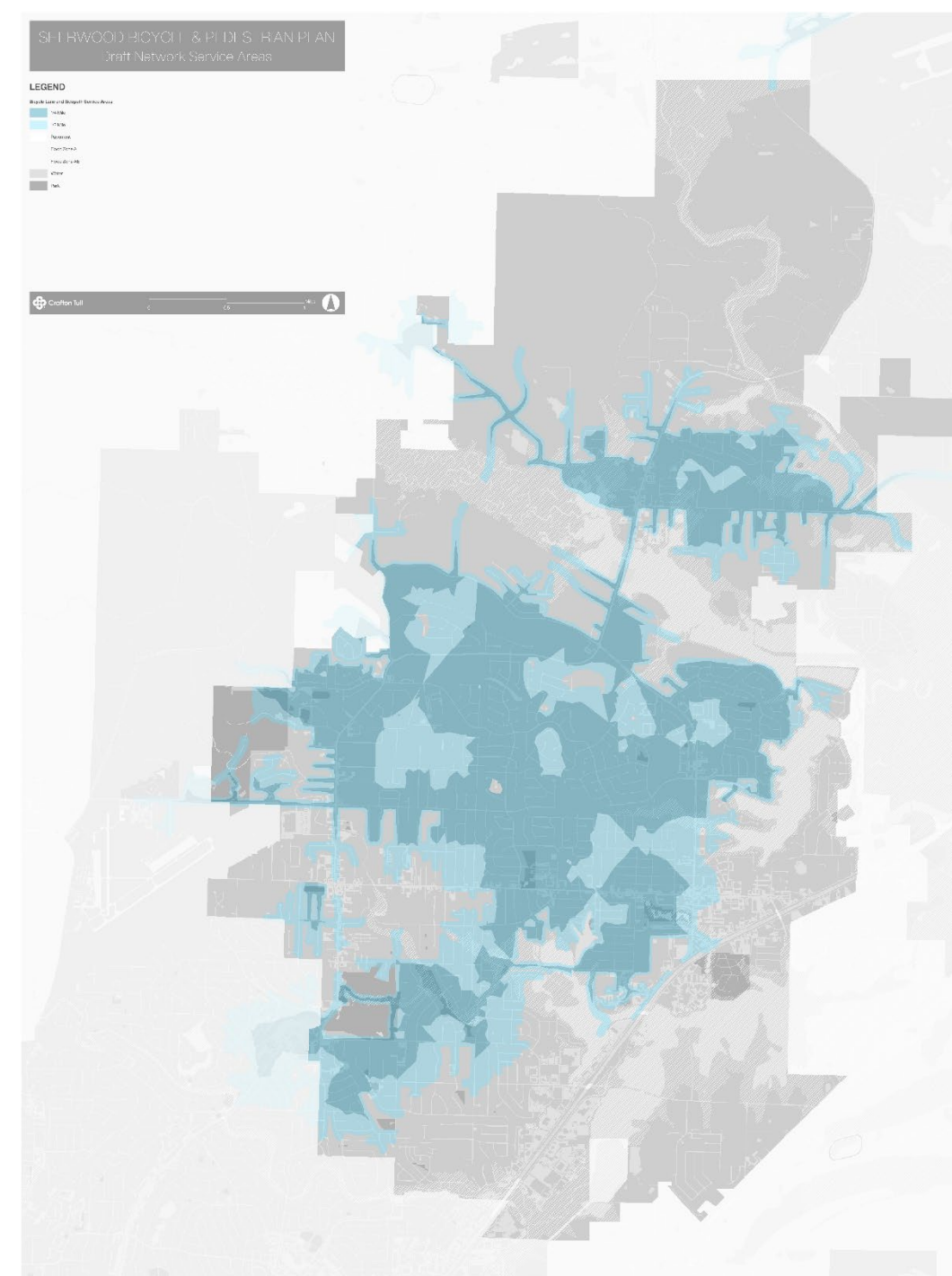
Preliminary Network

- **Approach:** Dedicated on-street facilities for higher-volume, wider roads (create an on-street framework) with supporting neighborhood connections (sharrows)
- **Bicycle Lanes:** Jacksonville Cato, Maryland
Oakbrook, Johnson, Maryland west of Brockington, Indian Bay to Gap Creek
- **Sidepaths:** 107, Kellogg Acres, Brockington (partial)
- **Multi-Use Trails:** Golf Course Connection, Powerline Trail, East-West Connector
- **Sharrows:** Local connectors to primary network



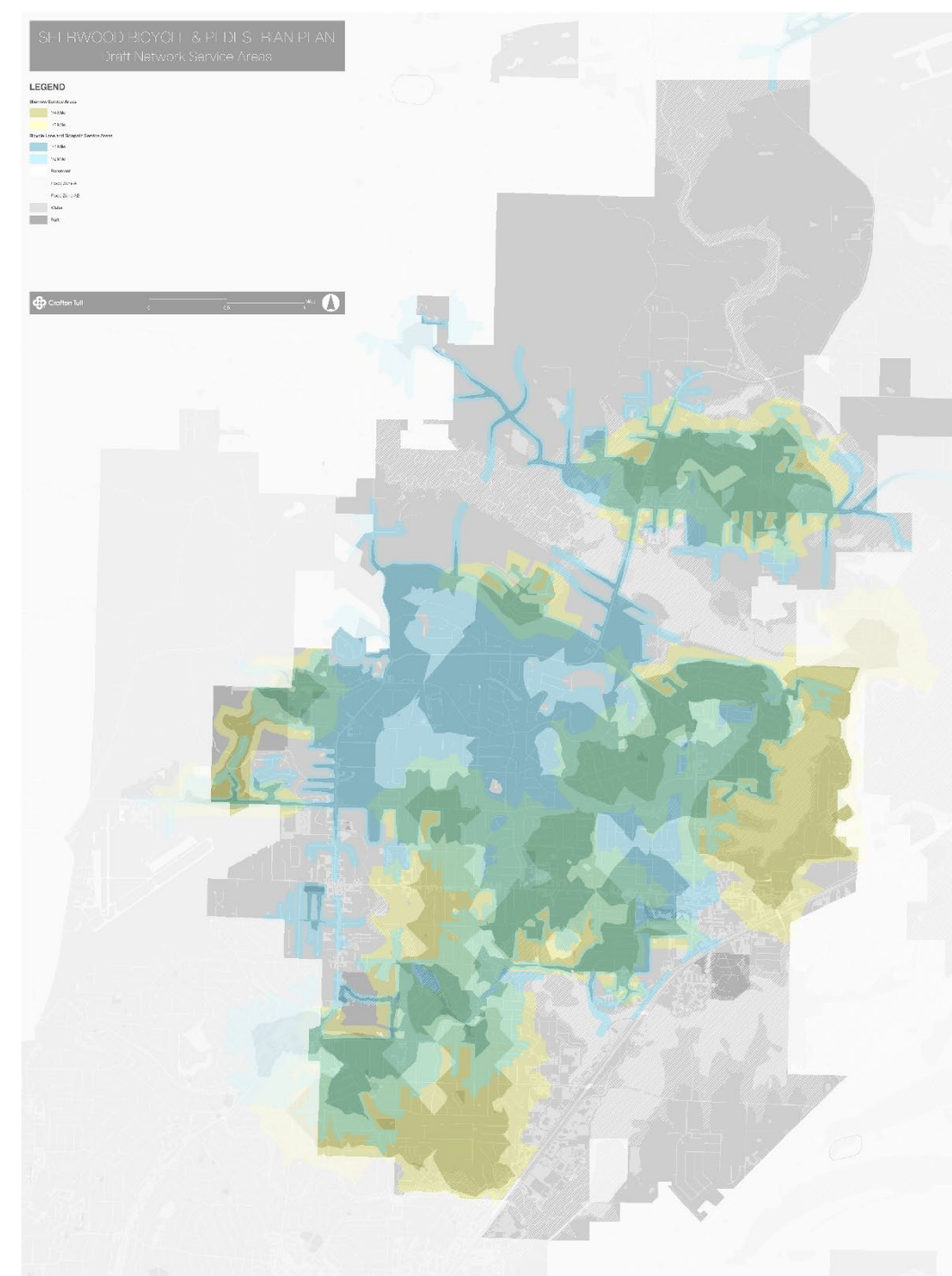
Preliminary Network Service Area

- 1/4 mile and 1/2 mile distances on-street from the proposed network
 - Separated facilities only (bike lanes, side paths, multi-use trails)



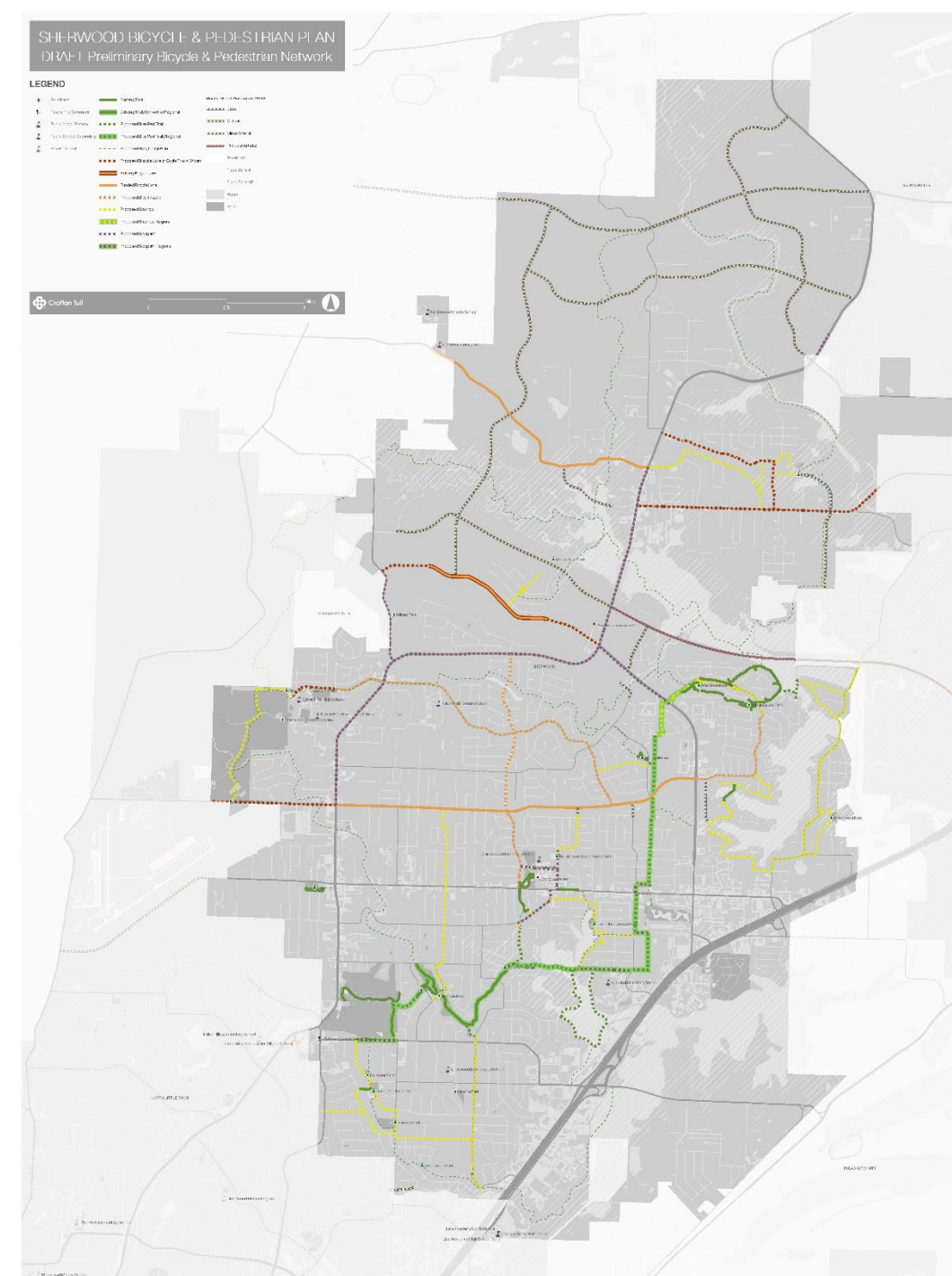
Preliminary Network Service Area

- ¼ mile and ½ mile distances on-street from the proposed network
 - Separated facilities only (bike lanes, side paths, multi-use trails)
- ¼ and ½ mile distances on-street from the proposed network
 - Sharrows
- Under-developed street network in Gravel Ridge



Preliminary Network Service Area

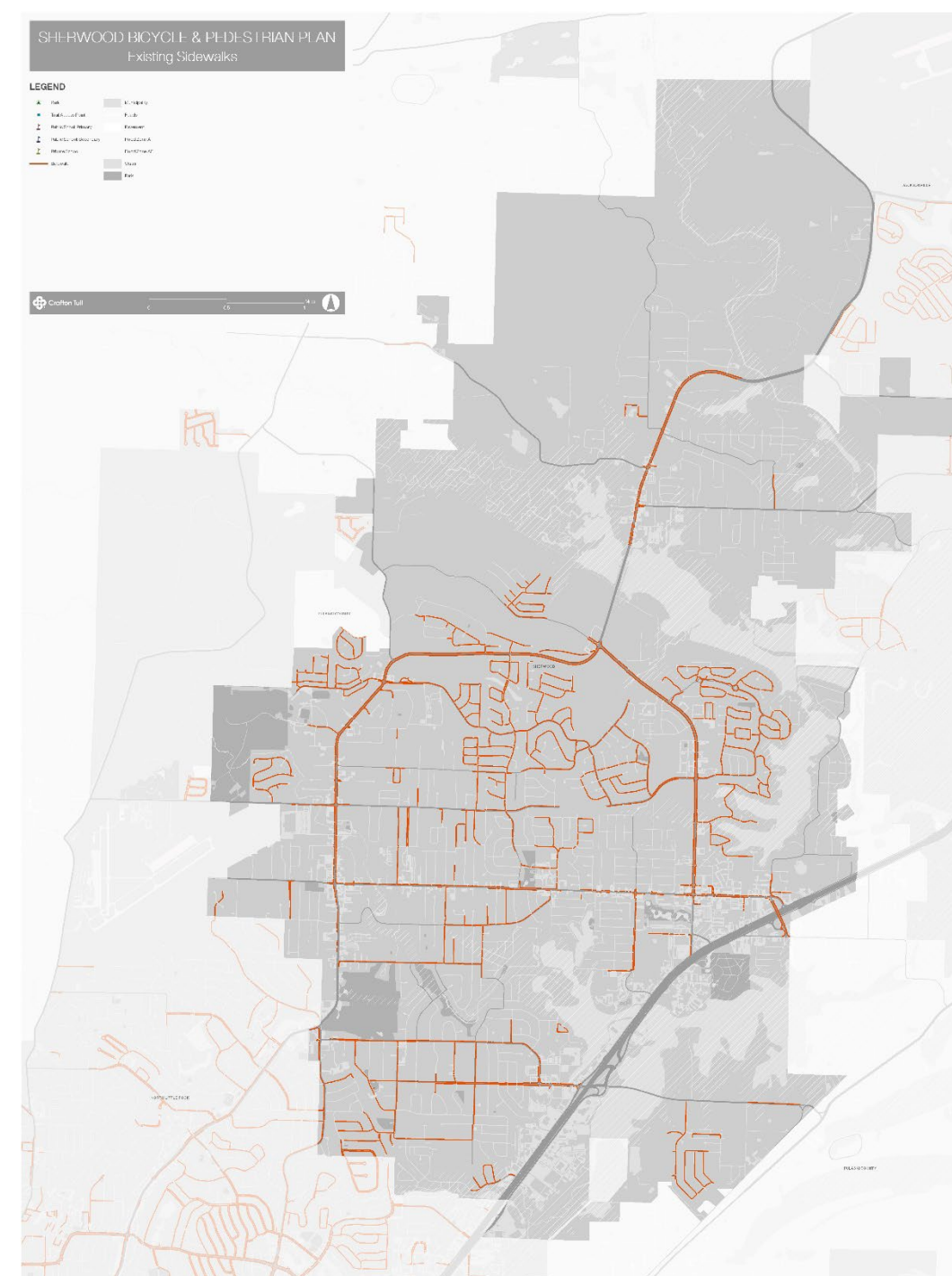
- Under-developed street network in Gravel Ridge
- Utilize Master Street Plan to facilitate connectivity as the street network is developed



Existing Sidewalk System

Connecting Existing and Future Trip Generators

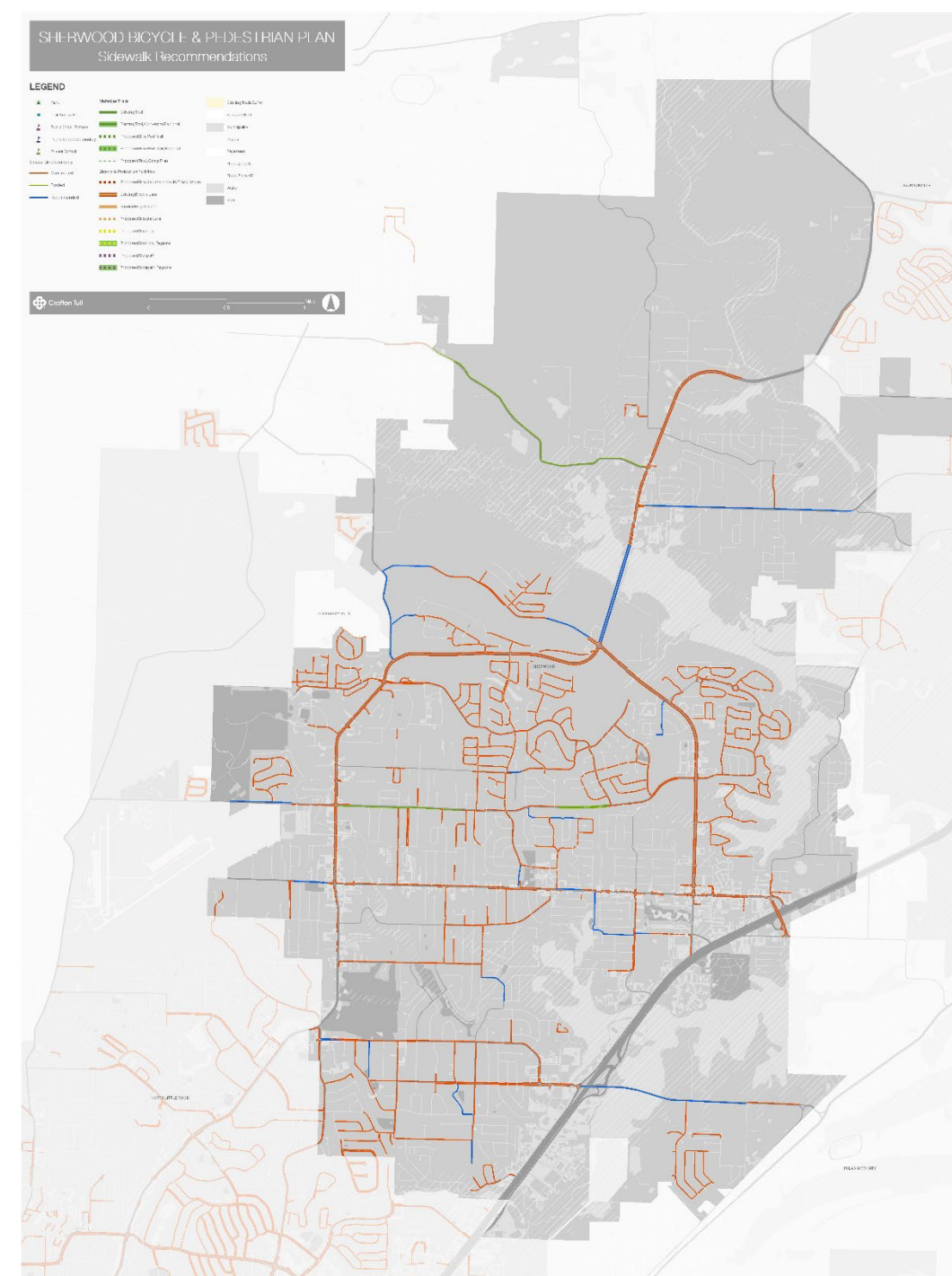
- Existing sidewalks only



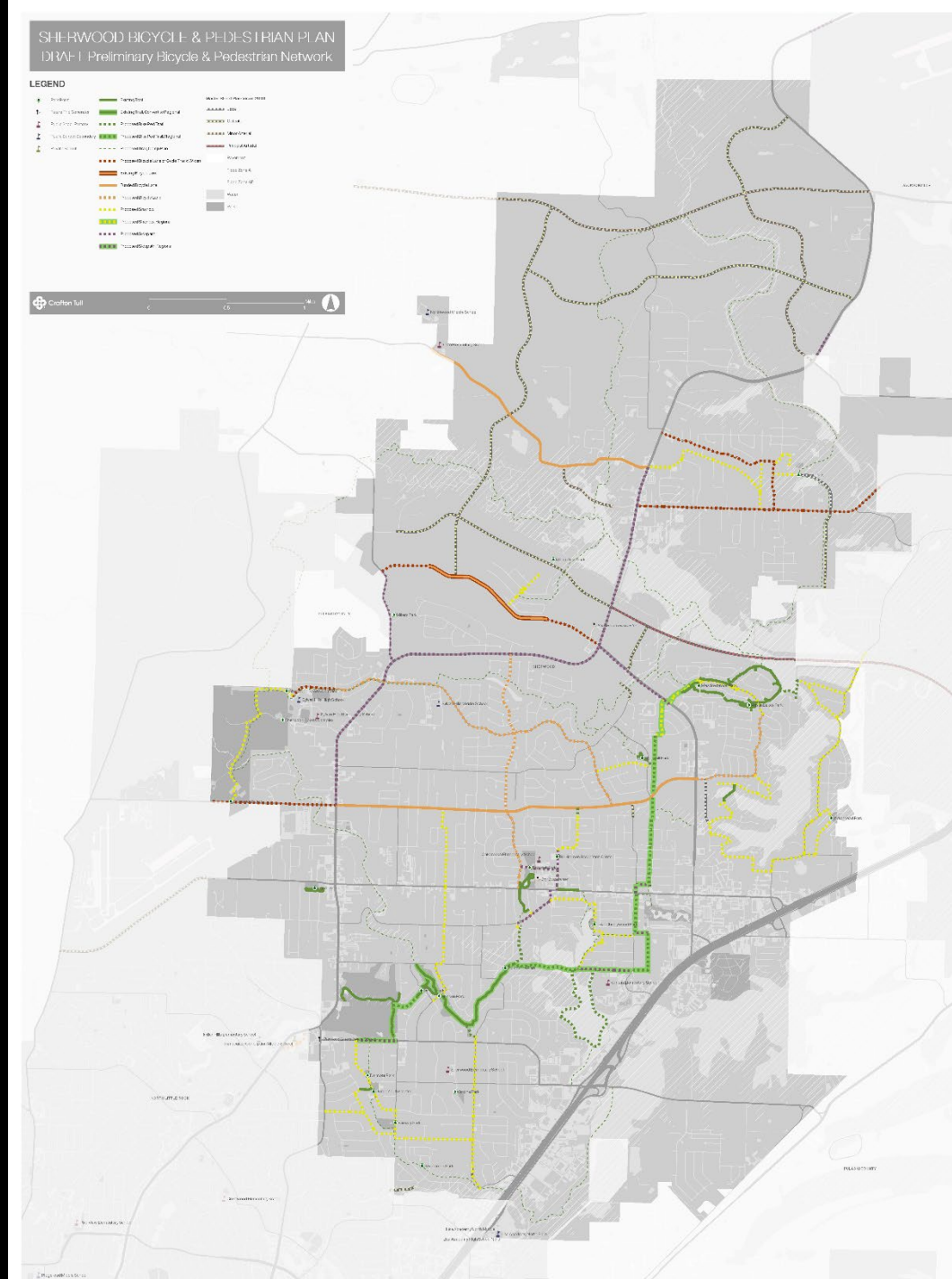
Sidewalk System Recommendations

Connecting Existing and Future Trip Generators

- Existing Sidewalks
- Funded Sidewalks
- Recommended Sidewalk Connections



- Desired Routes
- Retrofit vs. New Construction: Master Street Plan
 - *Modify MSP (and Vision 2040) to include 6' bicycle lanes outside of the gutter dimension (currently 5')*
 - *Identify future roads (proposed Minor Arterials on Vision 2040) to become Modified Class IV from the 2020 Subdivision Ordinance*



REGIONAL OPPORTUNITIES



Potential Regional Connections:

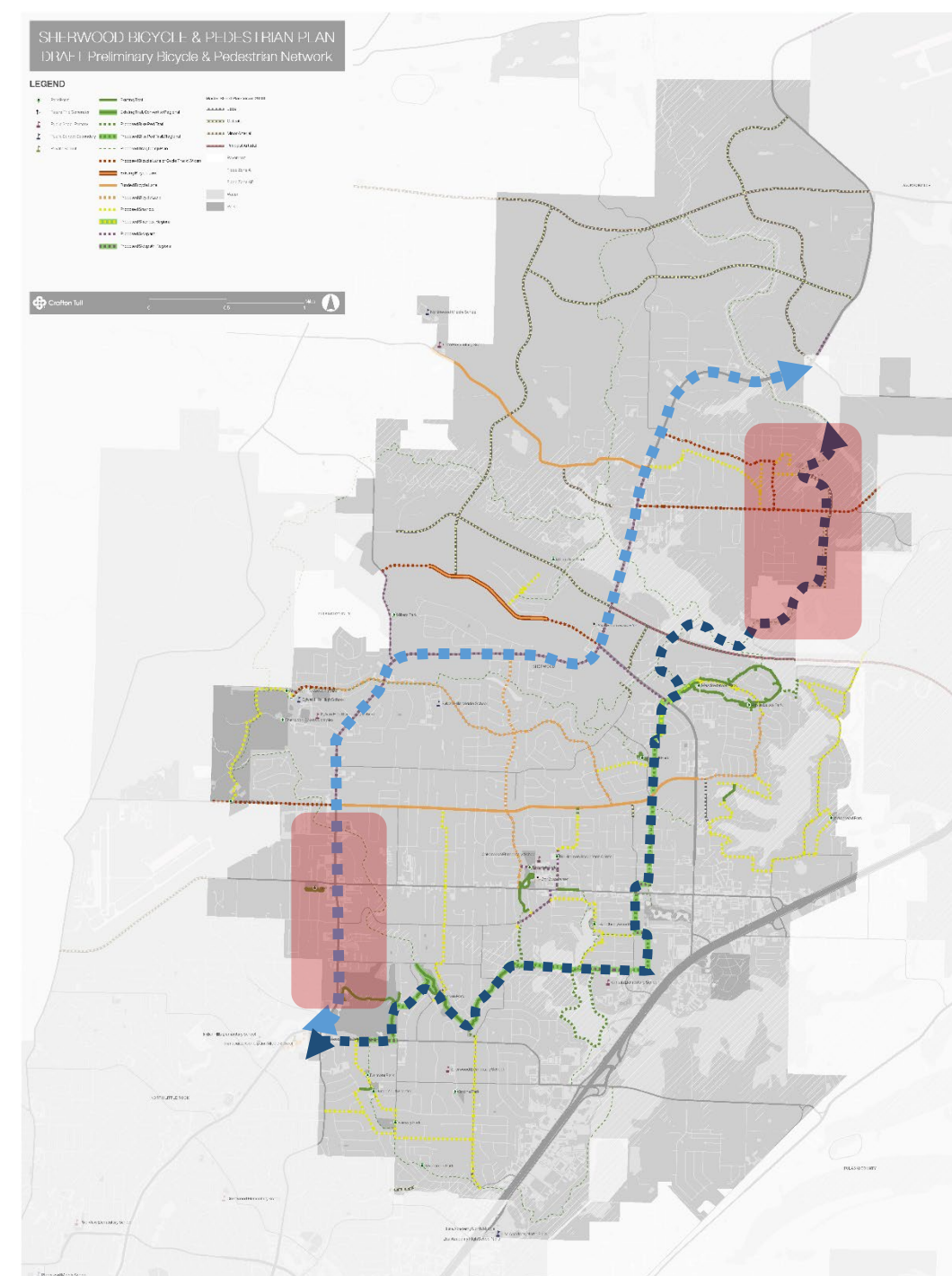
CARTS Regional Trails Master Plan

- 15-month project
- Pulaski, Saline, Faulkner, & Lonoke Counties
- City Staff participation in Focus Groups
- Virtual Open Houses
- Local Participation Online
- How will regional connections impact Sherwood?



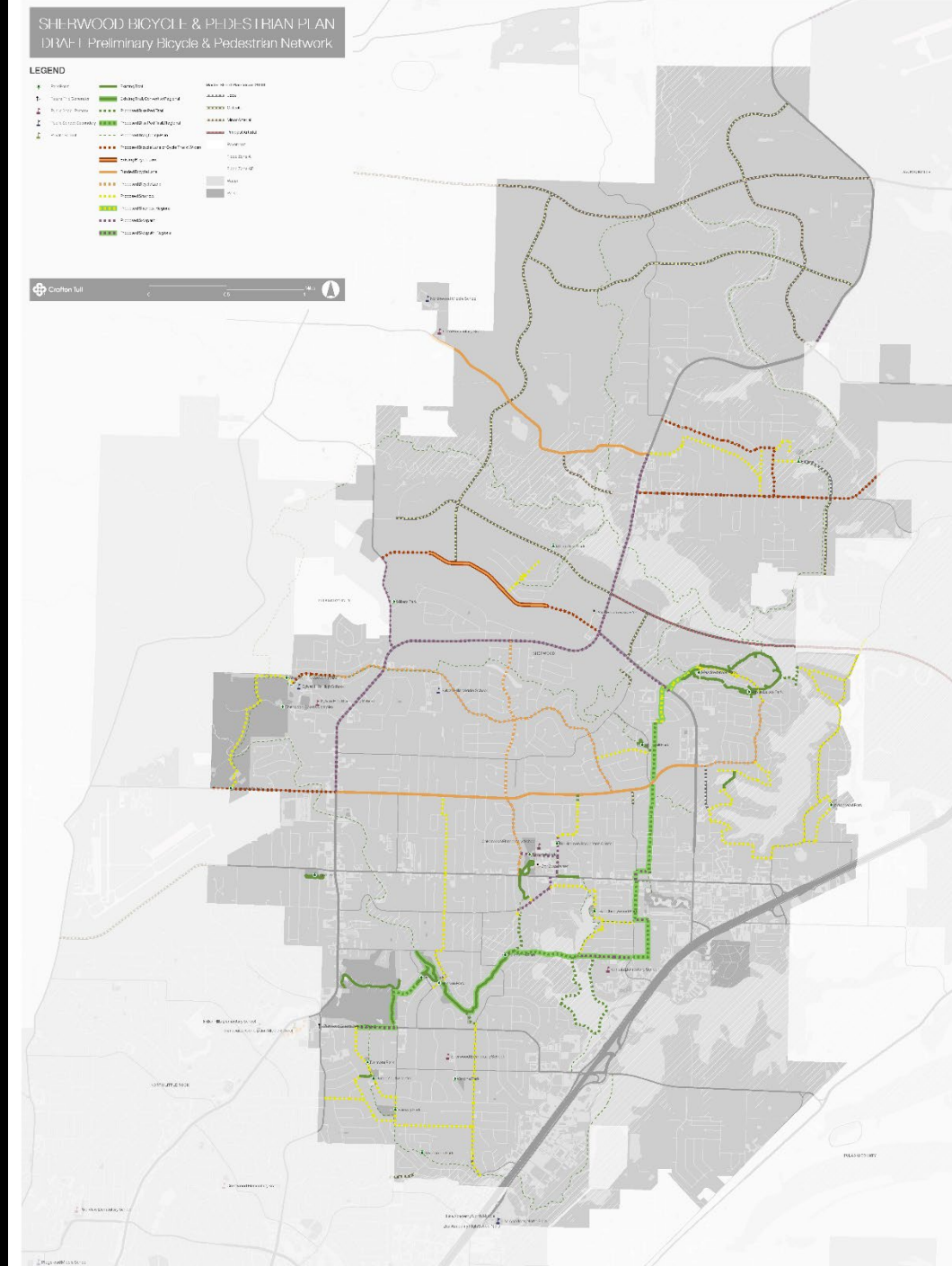
Potential Regional Connections

- Regional Trail Characteristics
 - Regional Connectivity
 - Location (service map) / Proximity to Population
 - Safety / Level of Comfort
 - Appropriate Widths
 - Access and Trailheads
 - Amenities (wayfinding, lighting, benches, restrooms, etc.)
 - Construction & Materials (performance-based criteria, traffic accommodation)
 - Character
- Route Upgrades



Preliminary Network Exercise

- Desired Routes
- Retrofit vs. New Construction: Master Street Plan
- Regional Route(s) Preferences
- Sidewalks: Desired Connections



Facility Type Preferences

- Multi-Use Trails & Sidepaths
- Buffered Bicycle Lanes & Cycle Tracks
- Standard Bicycle Lanes
- Sharrows
- Signed Bicycle Routes

MULTI-USE TRAILS & SIDEPATHS

Multi-use trails are often placed within individual park sites as loop trails. However, they present opportunities for alternate transportation corridors when designed to connect people and destinations.

Opportunities for multi-use trail corridors include:

- Along street rights-of-way where a sidewalk cannot be accommodated on both sides (also called a sidepath when wide enough to accommodate bicycles and pedestrians)
- Roadways, drainage corridors, or waterways
- Abandoned rail rights-of-way or rail corridors
- Utility easements

Multi-use trails are often quite popular in a community, and local support often grows as trail networks are developed which increase connectivity.



BUFFERED BICYCLE LANES

Buffered bicycle lanes are bicycle lanes with an added physical buffer, either vertical, horizontal, or both, that separates the bicyclist from vehicular traffic.

Appropriate roads for buffered bicycle lanes have the following characteristics:

- 40-55 mph speed limits
- Arterials and collectors
- Any street or route along which additional separation for user safety is desired

Buffered bicycle lanes provide additional protection desired by riders of all ages and abilities. Buffered bicycle lanes may occur in each direction of vehicular flow (along both sides of a street) or in two-directional flow along one side of a street (also called a cycle track).



SHARROWS

Sharrows should be utilized on urban streets that have a maximum speed of 35 mph, with low traffic volumes. Sharrows are suitable for narrow roads, since they give the cyclist use of the entire travel lane. For purposes of the National Highway Traffic Safety Administration's network, these streets are predominantly residential in nature, and are designated because of their connectivity across the community.

Appropriate roads for sharrows:

- Residential or local streets; collectors if low traffic volumes
- Lower traffic volumes (under 5,000 ADT)
- Road widths that are too narrow for bicycle lanes

Sharrows should not be utilized along streets with higher traffic volumes or speeds, since they do not offer the bicyclist protection from vehicular traffic.



BIDEWALKS; PEDESTRIAN SPINES

Pedestrian spines are applicable where heavy volumes of pedestrian traffic exist, such as commercial corridors, near recreational destinations, or along corridors where high densities of housing connect pedestrians to goods and services.

Appropriate roads for pedestrian spines:

- Urban
- Various speeds
- Various traffic volumes and land uses (see previous paragraph)

Pedestrian spines may be challenging to retrofit along existing corridors which were constructed with low design standards, unlimited curb cuts, and overhead power poles. They are most easily implemented with appropriate site design requirements as new development occurs.



STANDARD BICYCLE LANES

Bicycle lanes are most appropriate along urban roads with lower speeds, where arterials or collectors where separation is needed from vehicular traffic.

Appropriate roads for bicycle lanes:

- Urban
- Lower speeds (between 25 and 45 mph)
- Arterials and collectors

Bicycle lanes are easy to implement in the short term if pavement widths are wide enough to accommodate them, at which point they become a matter of roadway re-striping. They offer a baseline level of separation and protection from vehicular traffic, with added width offering more separation. Bicycle lanes should be 6' in width, but can be as narrow as 4' in constrained situations that provide critical connections. The south of a bicycle lane should not include the street gutter.



SIGNED BICYCLE ROUTES

Signed bicycle routes usually occur in rural areas along roads with speeds up to 55 mph, but with lower ADTs (up to 5,000 vehicles per day). Routes are typically designated along two-lane roads, as opposed to multi-lane, higher-volume roadways. These routes are not bikeways. Signed routes are relatively easy to implement with the addition of route signage.

Appropriate roads for signed bicycle routes:

- Rural
- Speeds up to 55 mph
- Lower ADT (up to 5,000)



Routes Prioritization

- Individual Responses
- Utilized for Scoring Routes
- Determines Prioritization
- Aids Phasing decisions



www.surveymonkey.com/r/SBPpriority

CRITERIA



Link Two or More Destinations



Provide Recreational Opportunities



Strengthen Public Investments



Address Specific Need from Planning Process



Enhance Safety



Provide Connections in Underserved Areas



Create Alternative Transportation Opportunity



Lower Cost



Utilize Partnerships/Ease of Implementation



SHERWOOD

BICYCLE & PEDESTRIAN MASTER PLAN

Steering Committee Workshop

April 26, 2021