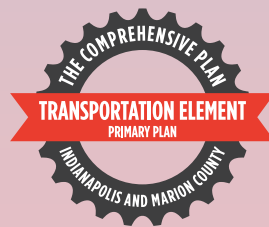




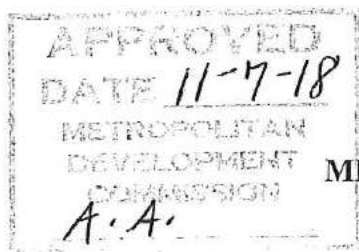
# FINAL PLAN | 2018



Adopted by the Metropolitan Development  
Commission as an element of the Comprehensive Plan  
for Indianapolis and Marion County

Resolution 2018-CPS-R-003  
November 7, 2018





**METROPOLITAN DEVELOPMENT COMMISSION  
OF MARION COUNTY, INDIANA**

**RESOLUTION NO. 2018-CPS-R-003**

RESOLUTION 2018-CPS-R-003, amending a segment of the Comprehensive or Master Plan of Marion County, Indiana, Indy Moves Transportation Integration Plan.

Be it resolved that, pursuant to I.C. 36-7-4, the Metropolitan Development Commission of Marion County, Indiana, hereby amends the Comprehensive or Master Plan for Marion County, Indiana, by the adoption of the Indy Moves Transportation Integration Plan, which is attached hereto and incorporated herein by reference as an amendment to the Comprehensive or Master Plan of Marion County, Indiana.

Be it further resolved that the Secretary of the Metropolitan Development Commission is directed to certify copies of this Resolution 2018-CPS-R-003 amending the Comprehensive or Master Plan of Marion County, Indiana, Indy Moves Transportation Integration Plan.

Be it further resolved that the Director of the Department of Metropolitan Development is directed to mail or deliver certified copies of this Resolution 2018-CPS-R-003, to the Mayor of the City of Indianapolis, the City-County Council of Indianapolis and Marion County, the Board of Commissioners of Marion County, Indiana and to the legislative authorities of the incorporated cities and towns of Marion County, Indiana that are directly affected by this plan: Beech Grove, Lawrence, Southport, Speedway, Clermont, Crows Nest, Cumberland, Highwoods, Homecroft, Meridian Hills, North Crows Nest, Rocky Ripple, Spring Hills, Warren Park, Williams Creek, and Wynnedale. The Director shall also file one (1) copy of the Resolution and one (1) summary of the plan in the office of the Recorder of Marion County.

DATE: November 7, 2018

APPROVED AS TO LEGAL FORM  
AND ADEQUACY THIS 30th DAY  
OF OCTOBER, 2018.

Christopher Steinmetz  
Christopher Steinmetz,  
Assistant Corporation Counsel

METROPOLITAN DEVELOPMENT  
COMMISSION OF MARION COUNTY,  
INDIANA

John J. Dillon III  
John J. Dillon III, President



# Acknowledgements

## City of Indianapolis

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CORE Planning Strategies

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## Transportation Task Forces

Mode Shift and Land Use

Transportation Investments and  
Economic Development

Community Health and Safety

Smart and Resilient Mobility



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Getting Around Indy Today	5
Using Our Values to Set Priorities	11
Indy's Big Moves	17
Moving Forward	37

## Appendices

- A: Existing Conditions Report
- B: Pedal Indy
- C: Project Evaluation Framework
- D: Complete Project List
- E: Funding Sources



# 1

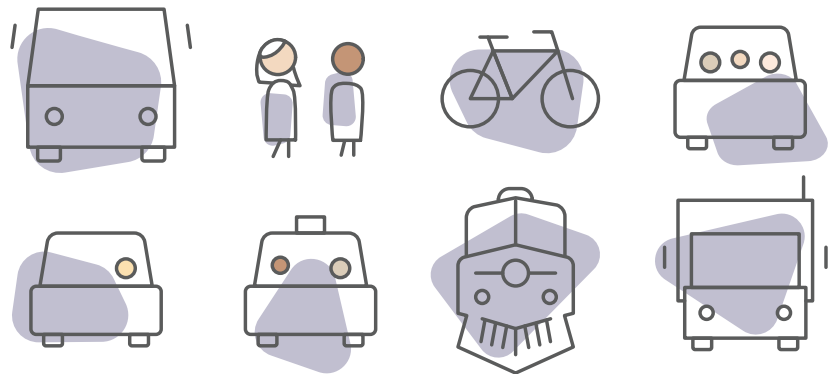
## Getting Around Indy Today

This plan is about moving Indy forward. It integrates our transportation plans and priorities to make the city—and neighborhoods—more resilient, safe, and prosperous.

Getting Around Indy Today lays the foundation for Indy Moves. It provides an overview of challenges and opportunities that Indy faces today, and sets the stage for the recommended projects and programs.

# WHERE WE STAND

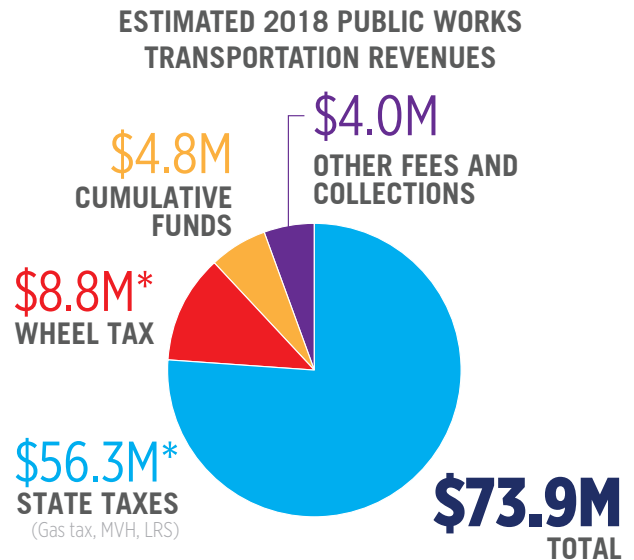
Indy Moves brings together the city's many transportation plans and projects into an integrated vision. It improves mobility choices for an increasingly interconnected future. This means implementing policies and procedures that reflect our goals, and ultimately getting projects built—greenways, sidewalks, bike lanes, and new complete streets.



## A Transportation Funding Gap

Existing transportation needs in Indianapolis have far outpaced current funding sources, and we aren't keeping up. Gas taxes provide the bulk of Indianapolis' transportation budget, but these revenues will continue to decrease as cars become more efficient and as electrification expands. The state legislature increased the gas tax in 2017, but the increase did not match the need. Other revenue sources are limited or nonexistent: property taxes can't be used for transportation, and additional income and sales taxes are not available for transportation, except for IndyGo.

As of 2016, Indianapolis needed \$732M to bring the transportation system into a state of good repair. This does not account for the hundreds of miles of planned greenways, roads, sidewalks, and other transportation infrastructure that has yet to be funded. To put this into perspective, the estimated cost to put a sidewalk on at least one side of every Indianapolis street is \$1.6B.



\*Will be modified in future years due to HEA 1002

Note: Indianapolis receives an average of \$21M in federal funding for transportation each year.

The \$56.3M per year in gas tax revenues is small relative to the **\$178M we would need annually to maintain the existing transportation network in reasonable condition.**

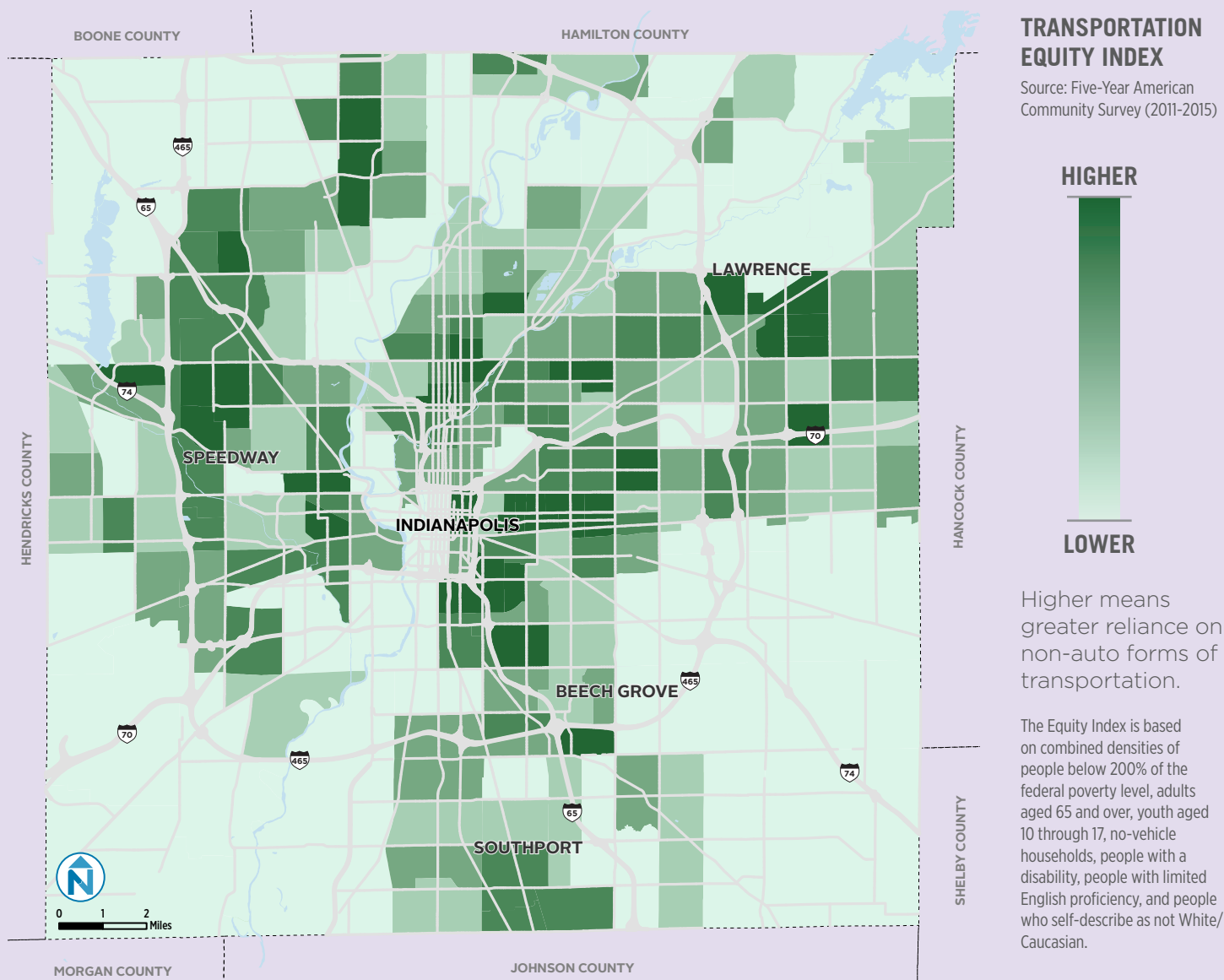
# More People and More Opportunities

Indianapolis is a growing city. This presents new opportunities and challenges for the people that live and work here. Affordable transportation choices are important for everyone, whether for school, work, visiting friends and family, or getting to an appointment.

As described in the Indy Moves Existing Conditions Report (see Appendix A), Indianapolis has the highest cost of transportation as a percent of income (23%) among peer cities. This number is as low as 16% in Minneapolis and 18% in Denver. At the same time, income inequality is rising, with wages rising 3% for the top 5% of households,

and dropping 15% for the median household. High transportation costs and declining incomes make it harder for families to access opportunities and improve their quality of life.

Higher cost of living and declining wages make equity especially important in selecting transportation investments. Providing more transportation options—like walking, biking, and transit—in areas where people are more reliant on these modes will have a greater impact on overall mobility.



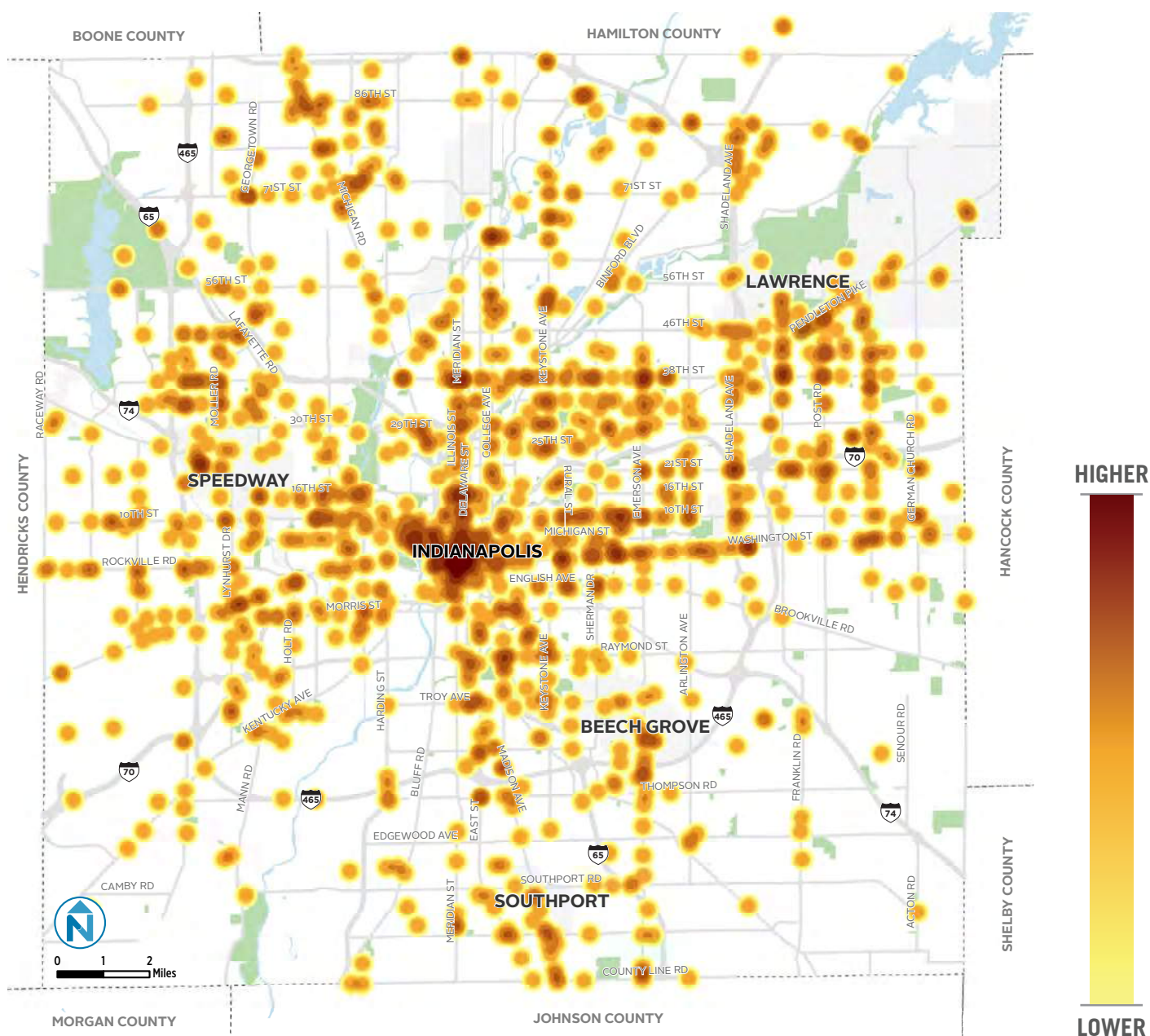
# Making Safety a Top Priority

Safe places to walk, bike, take transit, and drive are critical to Indianapolis' future. Indy is a Federal Highway Administration Focus City due to its high number of pedestrian and bicycle fatalities. Based on data from the Aries Database, motorists hit an average of one pedestrian every day in Indianapolis. In 2017 alone, 25 people were killed while walking.

The vast majority of crashes involve drivers traveling at high speeds or operating a vehicle while under the influence of alcohol or drugs. The city must focus on designing safer streets and increasing transportation choices to ensure people have safe options to move around our city.

## DENSITY OF CRASHES RESULTING IN PEDESTRIAN INJURY OR FATALITY, 2012-2016

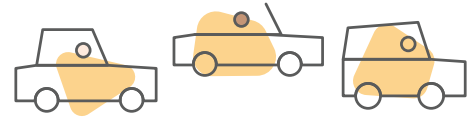
Source: Aries Crash Data 2012-2016, Indianapolis MPO, and City of Indianapolis



# How Indy Commutes

## WORK COMMUTE MODE SHARE

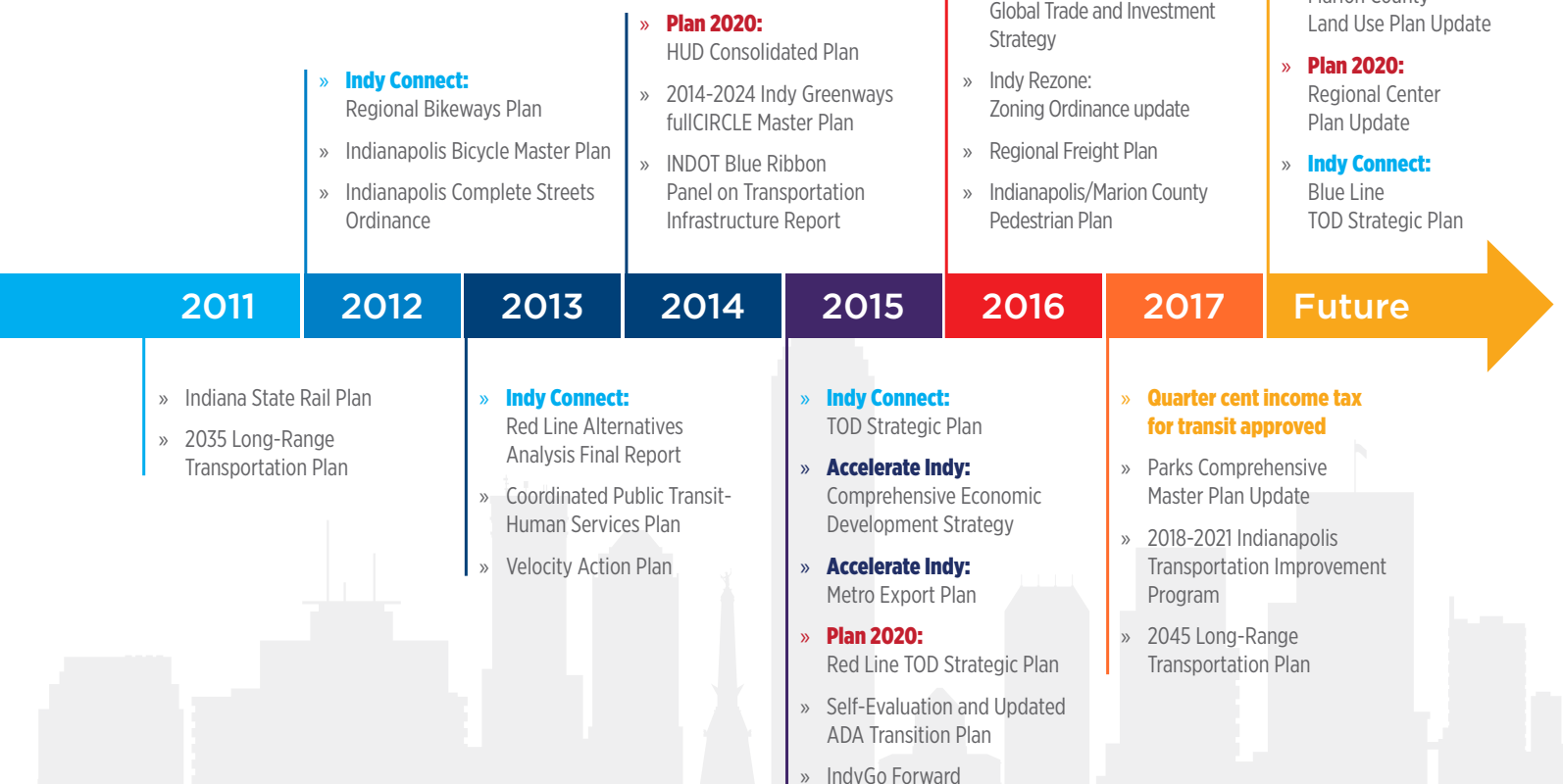
Source: Five-Year American Community Survey (2011–2015)



**Cars continue to be the way most Indy residents get to work.**  
Eighty-five percent drive alone, and a further 10 percent carpool.

## What's Been Done

Since 2011, three major city-led planning efforts have guided transportation in Indianapolis: Indy Connect, Plan 2020, and Accelerate Indy. In addition, other organizations and agencies have produced related plans, such as the Indianapolis/Marion County Pedestrian Plan and IndyGo Forward.





# WHAT WE DID

In more than a year of developing Indy Moves, we went from shared community values to a prioritized set of projects. Here are the steps we took to get there.

## Our Process





# 2

## Using Our Values to Set Priorities

Our shared community values underpin Indy Moves. This is your plan, and these are your priorities.

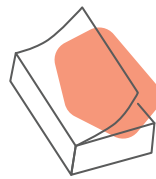
Indy Moves uses a set of shared values for transportation and mobility as a starting point to develop transportation priorities. This section explains in greater detail how we gathered input, what you had to say, and how we used your feedback to develop a framework to prioritize projects.

# HOW WE GATHERED INPUT

For Indy Moves to be meaningful, it needs to reflect the priorities of the community. Outreach was a critical part of the plans that came before Indy Moves, and that feedback has helped to shape this work. This includes interpreting the key values of Indy's Comprehensive Plan, which calls for making our city healthier, more inclusive, more resilient, and more competitive.

Indy Moves is also informed by new input, ensuring that it is current with your transportation needs. We've heard a lot from Indy residents over the last year, at public open houses, through online surveys, and in our Steering Committee and Task Force meetings.

## Sources of Input



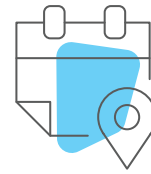
10

PRIOR  
PLANS



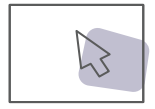
14

STEERING  
COMMITTEE &  
TASK FORCE  
MEETINGS



14

IN-PERSON  
OPEN HOUSES



2

ONLINE  
SURVEYS

## Timeline of Outreach Activities

ONGOING COMMUNITY  
ENGAGEMENT



Summer 2017

Fall 2017

Winter 2018

- » Project kickoff
- » **Steering Committee meeting**

- » **Open house** public kickoff
- » Pop-up events at neighborhood locations
- » **Online survey** about transportation strengths, opportunities, and values
- » **Steering Committee meeting**
- » **Task Force meetings**

- » **13 open houses** to gather neighborhood project ideas
- » **Online mapping tool** to gather feedback about proposed transportation projects and new project ideas
- » **Steering Committee meeting**
- » **Task Force meetings**



## PHOTOS OF OUTREACH ACTIVITIES IN INDIANAPOLIS

Source: Nelson\Nygaard,  
City of Indianapolis



Key public  
input point

Spring 2018

» **Steering Committee meeting**

Summer 2018

» **Steering Committee meeting**  
» Pedal Indy engagement

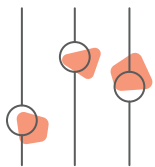
Fall 2018

» **Open house** for draft plan  
» **Online tool** for comments  
on draft plan

The Steering Committee is made up of community organizations, major institutions, the philanthropic community, city staff working on all aspects of transportation, IndyGo, and members of the private sector. **They help ensure Indy Moves reflects community priorities.**

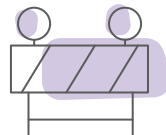
# WHAT WE HEARD

Early in the development of Indy Moves, we asked you what you like and don't like about getting around Indianapolis today. The feedback we received from more than 1,000 people helped us better understand our strengths and challenges. Here's what you had to say:



## We need more transportation options.

Although the car is the most common mode of transportation in Indy today, many people said that they also walk, bike, and take transit. There was strong support for making non-driving modes more comfortable and attractive.



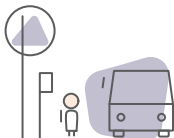
## For driving, road maintenance is the greatest concern.

Nearly three-quarters of people (73%) said driving would be better with no potholes. People also identified reducing congestion (37%) and improving lighting (35%) as ways to make it easier and safer to drive in Indy.



## Safety is paramount.

A full two-thirds (67%) of you identified safety as a key transportation issue—by far the greatest concern. Travel time was of secondary importance at 46%, followed by ease of use (32%) and affordability (30%).



## For transit, residents want more frequent service and more pleasant waiting areas.

Over two-thirds of people (69%) said taking transit would be better with more frequent service. People also asked for more comfortable stops and stations (52%) as well as better connections to transit, such as sidewalks and safe crossings.



## Basic walking infrastructure and maintenance is lacking.

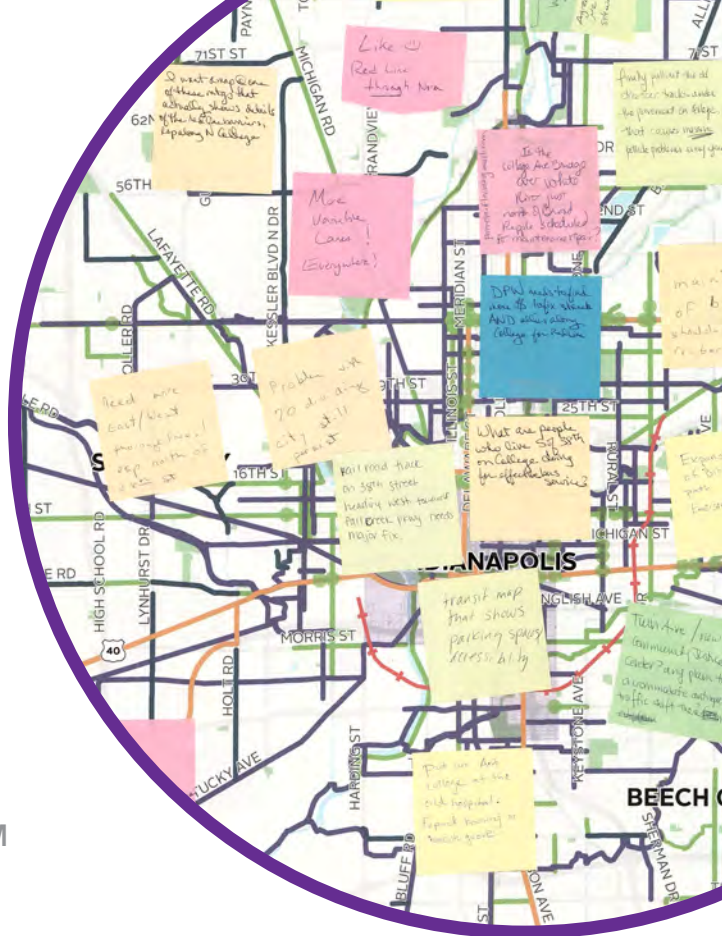
The biggest challenge identified for walking was the lack of sidewalks. People asked for more sidewalks, fewer gaps, better lighting, and better maintenance of existing infrastructure to make walking better in Indy.



## For biking, separated bike lanes, trails, and greenways are critical.

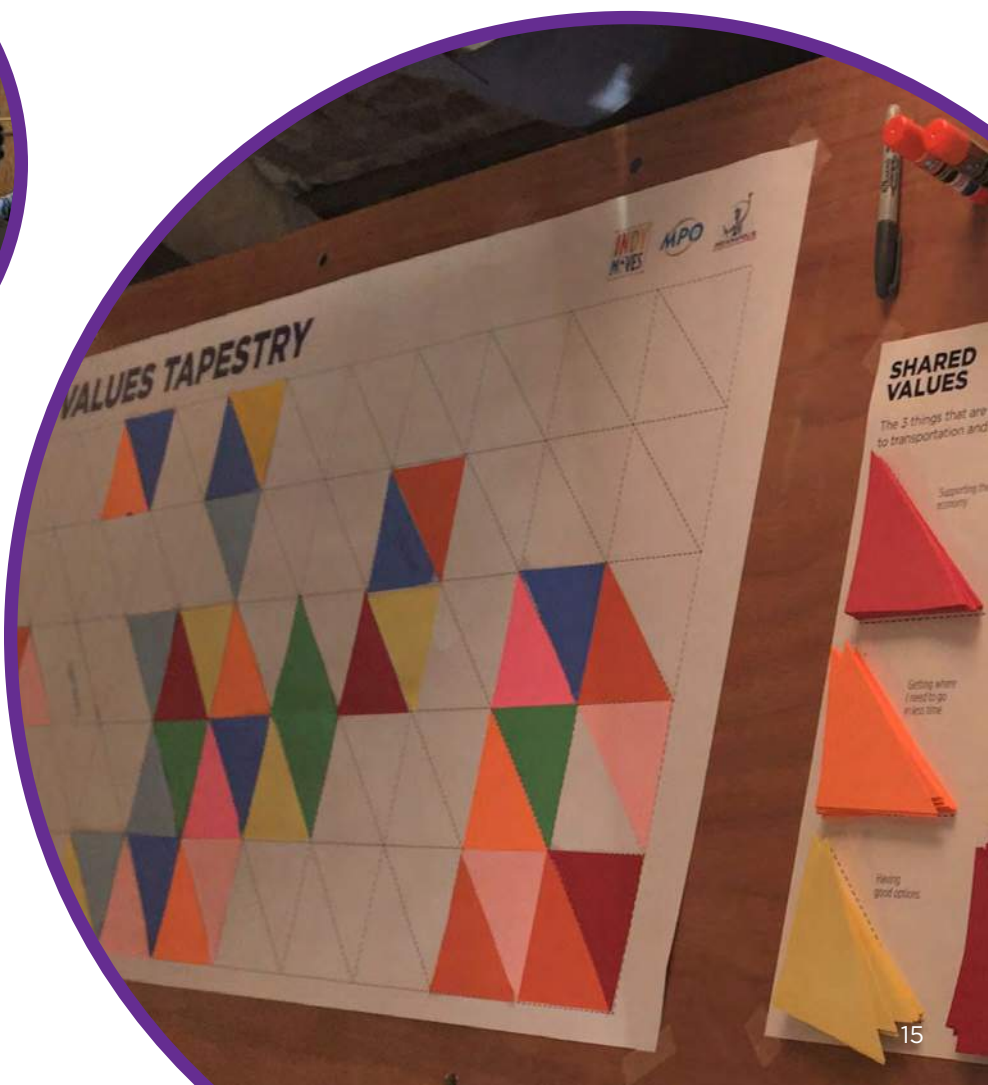
Citing safety concerns due to high traffic volumes and speeds, people identified greenways and other protected bicycle facilities as both the best part of today's bicycle network and the biggest need to improve bicycling conditions.





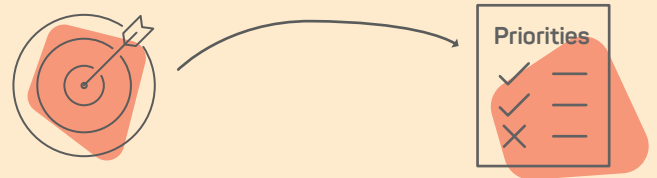
## FINDINGS FROM OUTREACH ACTIVITIES

Source: Nelson\Nygaard,  
City of Indianapolis



# Indy Moves goals help establish shared priorities

We used the values you shared to develop seven goals to guide Indy Moves. Those goals reflect our current priorities as well as where we want to go in the coming decades. They were used to shape the project evaluation framework for capital projects described in the following chapter.



## HEALTH & SAFETY

Improve safety and promote health

- » No traffic-related fatalities or serious injuries
- » More physical activity and better health outcomes



## SUSTAINABILITY & RESILIENCE

Enhance environmental sustainability and resilience

- » Climate resilient infrastructure
- » Landscaping and complete streets
- » Clean air and reduced emissions



## ECONOMIC DEVELOPMENT

Support inclusive economic development

- » Transportation network connectivity
- » Access to employment and education
- » Seamless connections



## EQUITY

Address disparities and increase access to opportunity

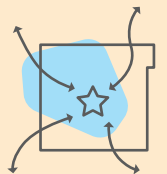
- » Access to community destinations
- » Infrastructure for communities of concern
- » Mobility options for vulnerable populations



## CHOICES

Expand mobility choices

- » Faster, more reliable transit
- » Better active transportation options
- » Accessible transportation network



## CONNECTIONS

Connect and strengthen our region, city, and existing neighborhoods

- » Transportation for all ages and abilities
- » Better access to emerging villages, neighborhood nodes, and regional destinations
- » Safe, inviting, active spaces at all times of day



## STRATEGIC INVESTMENT

Invest strategically and transparently, with a focus on enhancing existing infrastructure

- » Well-maintained infrastructure
- » Cost-benefit balance in project delivery
- » Easy to find project information for the public

# 3

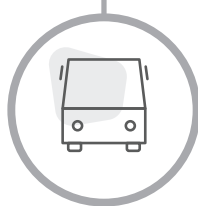
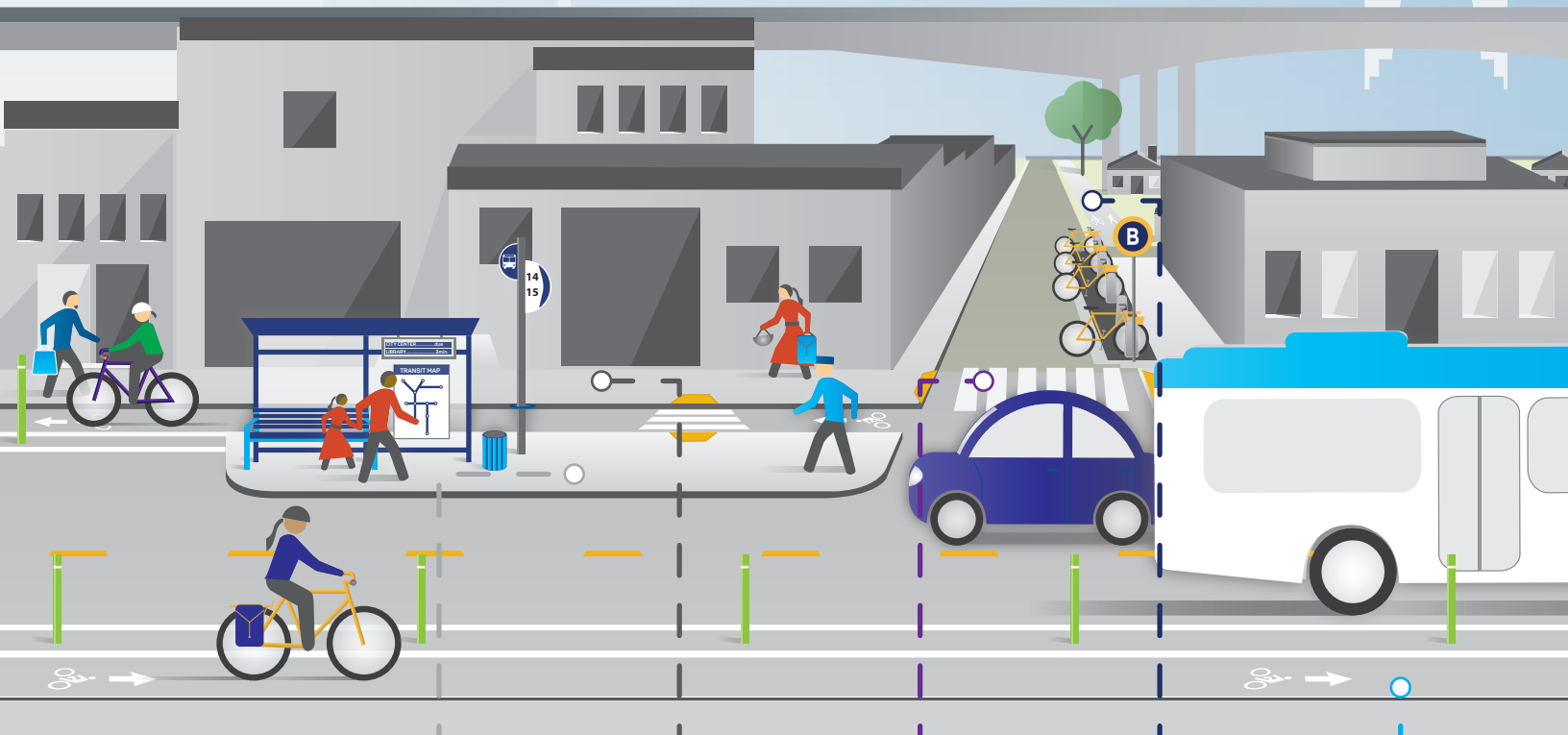
## Indy's Big Moves

This plan charts a bold course forward with long-range projects and programs to improve and integrate transportation in Indy.

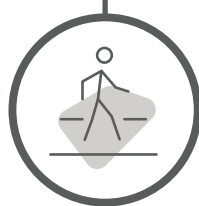
Indy's Big Moves presents our high priority projects, and showcases examples that illustrate where we're heading in terms of the transportation network. It also includes supportive programs and policies that will help us work toward our shared goals.

# WHAT MAKES A PROJECT?

The Indy Moves capital projects include many different elements that support people traveling on foot or by bike, on a bus, and in a car. These features combine to create a transportation system for Indianapolis that helps to improve safety and mobility for everyone.



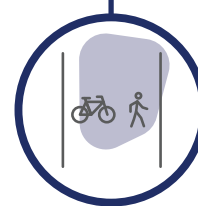
**TRANSIT  
IMPROVEMENTS**



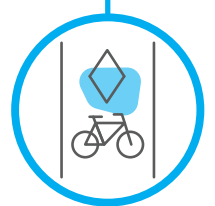
**SIDEWALKS**



**HIGH VISIBILITY  
CROSSWALKS**



**MULTI-USE  
PATHS**



**BIKE LANES**





**SMART  
TRAFFIC SIGNALS**



**TRAFFIC  
CALMING**



**NEIGHBORWAYS**



**NEW OR  
EXPANDED ROADS**



**GREENWAYS**

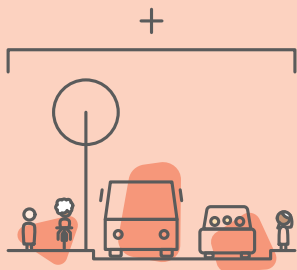
# INDY MOVES CAPITAL PROJECTS

From 22 prior plans, 14 open houses, and more than 500 individual project ideas provided by Indy residents, we developed four different types of capital projects for Indy Moves. Each of our final 461 projects uses different combinations of the elements shown on the previous pages to create new ways to move around Indianapolis. Despite all that work, these are still preliminary project ideas! Further planning and design will be closely coordinated among city departments and agencies, with the community, and in conjunction with operational improvements (like transit lanes or signal timing) as funding is available.

## Capital projects help build or improve city infrastructure.

They involve new construction, expansion, renovation, or replacement of existing facilities. Unlike operational improvements—like traffic signal timing or road restriping—capital projects include significant physical infrastructure.

## Categories of Capital Projects



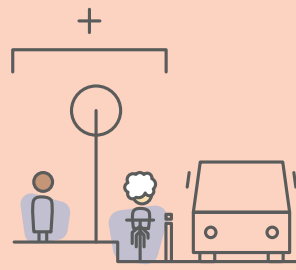
79  
PROJECTS

### Complete Streets

Complete streets allow people of all ages and abilities to use the street, regardless of how they travel. This means providing facilities to support walking, biking, other mobility devices, cars, trucks and, where available, transit.

For the purposes of Indy Moves, Complete Streets projects include roadway expansion.

Complete Streets projects may include:



123  
PROJECTS

### Complete Street Upgrades

Complete Street Upgrades involve upgrading an existing road by adding both walking and biking infrastructure (as well as transit improvements where relevant). This can take the form of a multi-use path or separate sidewalks and bike lanes.

These are different from Complete Streets projects because they do not include new road construction or expansion.

Complete Street Upgrade projects may include:





## What is a neighborway?

Neighborways are slow-speed, low-volume streets shared by people driving and bicycling. They include improvements that calm traffic and give people walking and bicycling priority: 20 MPH speed limit signs, stop signs for side streets crossing the neighborway, speed humps and traffic circles, wayfinding signs and pavement markings, and easier crossings of busy streets with crosswalks, flashing beacons, or traffic signals.

### ◀ EXAMPLES OF NEIGHBORWAYS IN PORTLAND, OR (TOP), AND ELLENSBURG, WA (BOTTOM)

Source: Nelson\Nygaard

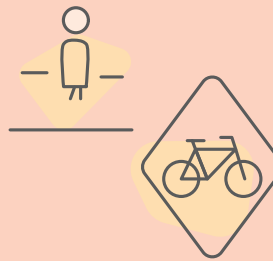


59  
PROJECTS

## Greenways

Greenways are shared, off-street paths for walking, biking, and other mobility devices like wheelchairs. Greenways are often located in a park-like environment or along a river or abandoned railway.

Complete separation from auto traffic makes greenways comfortable and accessible for all. They support all types of trips, whether commuting, recreating, shopping, or visiting friends.



199  
PROJECTS

## Active Transportation

Active Transportation projects include *either* walking or biking infrastructure. This can mean either sidewalks, neighborways, bike lanes, or protected bike lanes. Active Transportation projects can also include related traffic calming and intersection improvements.

Active Transportation projects may include:



# All Indy Moves Capital Projects



Indy Moves projects come from many sources, including the fullCIRCLE Indy Greenways Master Plan (2014), the Thoroughfare Plan (2016), Pedal Indy (2018), and the Indianapolis/Marion County Pedestrian Plan (2016). Also included are select individual projects, like the 38th Street International Marketplace multi-use path, and hundreds of ideas from Indy residents. All of these projects were grouped along corridors to form the four types of projects shown on the previous pages. More information about these projects is available in Appendix D.

## Complete Streets

Complete Street

## Complete Street Upgrades

Multi-Use Path

Walk and Bike

BRT Priority  
Complete Street Upgrade

## Greenways

Greenway

## Active Transportation

Bike

Walk

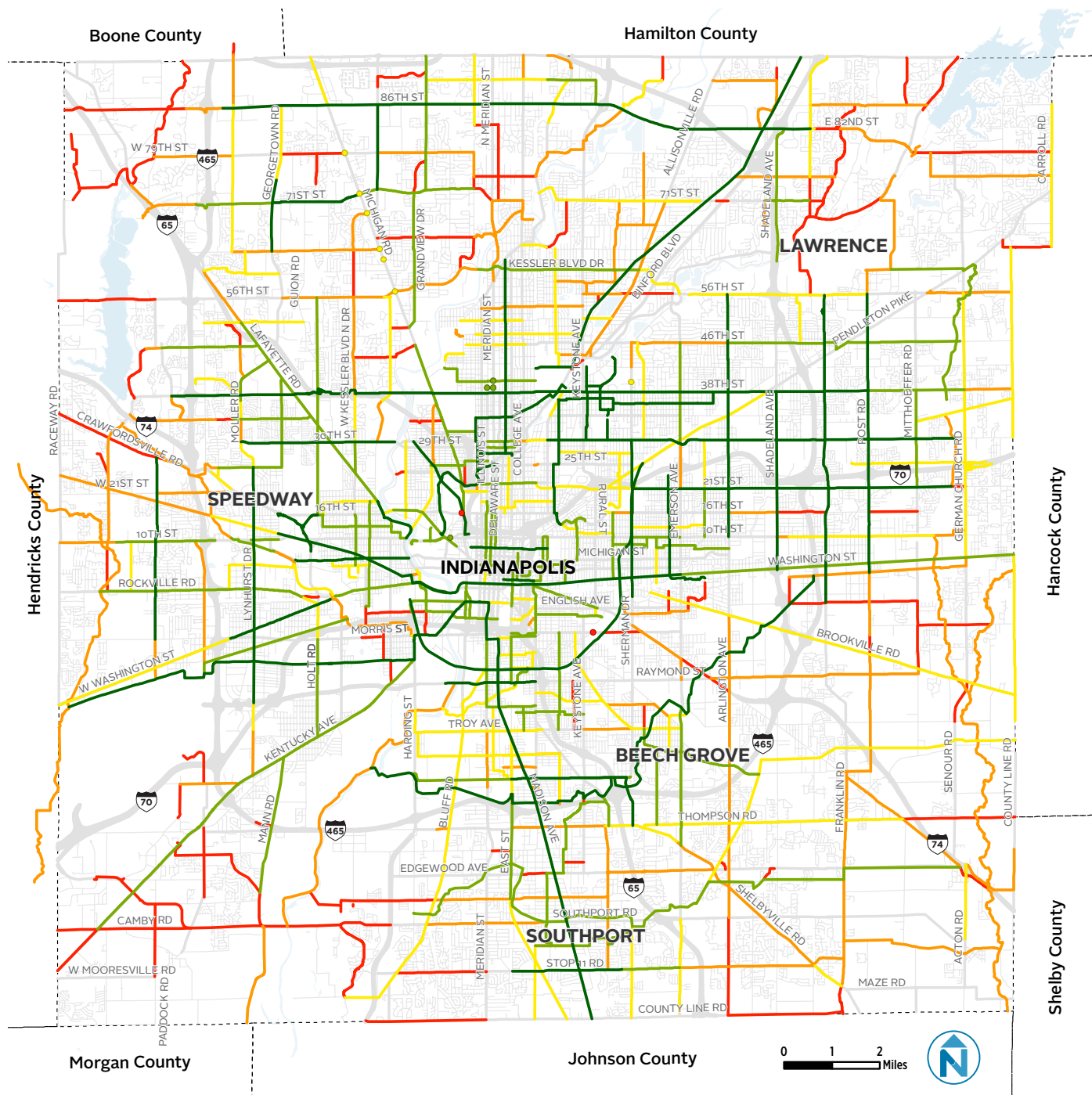
BRT Priority  
Active Transportation

## Freight Rail Relocation

Freight Rail Relocation



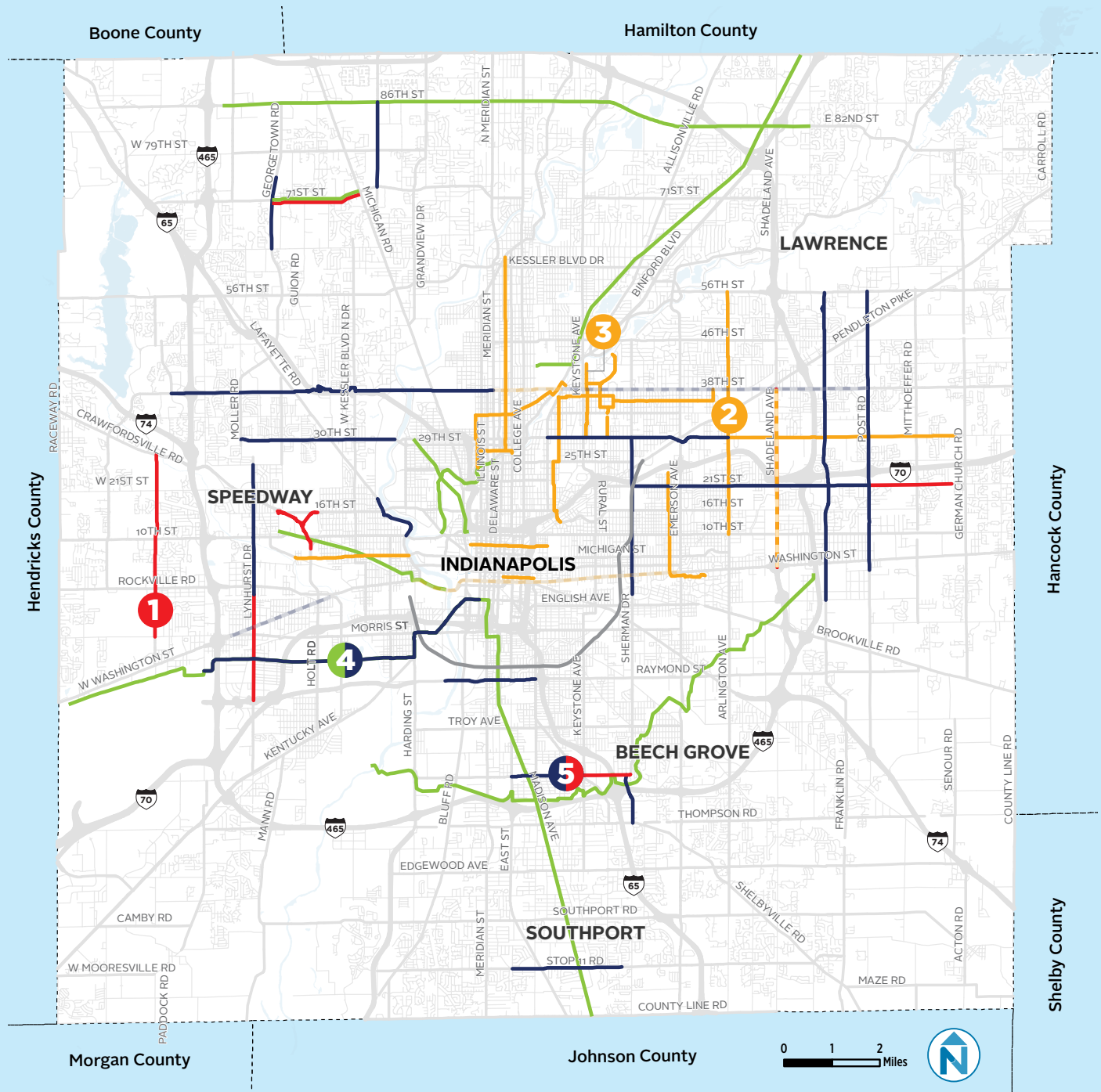
# Capital Project Scores



Using the Indy Moves goals, we developed 14 evaluation criteria to help us determine which projects best meet those goals. The map above shows how the projects scored. Higher scoring projects are found throughout the city. The projects in green represent the projects that received more points in the evaluation, which will be the first to advance into further planning and design as resources become available.

- 11-14 points
- 9-10 points
- 7-8 points
- 5-6 points
- 1-4 points

# High Priority Projects



The map above presents the highest priority projects based on our evaluation framework (see page 14 and Appendix C). These are the projects to focus on early, for a high level of impact. The numbered projects are showcased on pages 25-29 as examples of the improvements Indy Moves recommends for each project type.

Note: BRT Priority projects are those located along proposed BRT lines. These have special implementation and funding characteristics and require ongoing direct collaboration with IndyGo.

## Complete Streets

Complete Street

## Complete Street Upgrades

Multi-Use Path

Walk and Bike

BRT Priority Complete Street Upgrade

## Greenways

Greenway

## Active Transportation

Bike

Walk

BRT Priority Active Transportation

## Freight Rail Relocation

Freight Rail Relocation

## Project Spotlight 1:

# Girls School Rd Complete Street

3.8

PROJECT LENGTH (MI)

\$18.0M






COST ESTIMATE

Complete street with a sidewalk and multi-use path for people walking and bicycling along Girls School Rd between Morris St and Crawfordsville Rd

## Project Need

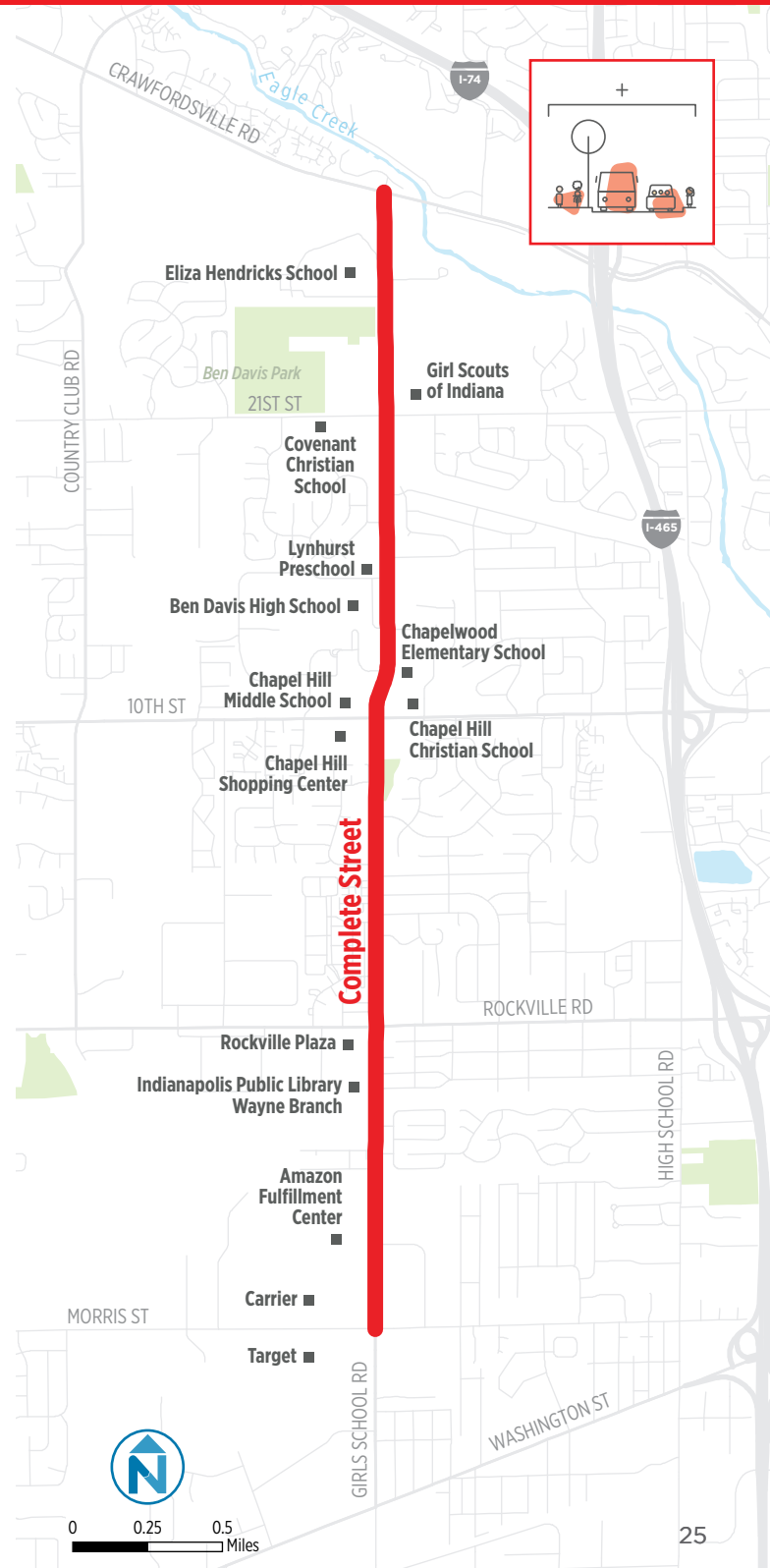
- » Improve safety for all, especially south of 10th St, which is a high bike and pedestrian crash area
- » Increase multimodal access to several schools, employment clusters including Carrier, and Indianapolis Public Library Wayne Branch

## Features

-  Thoroughfare expansion and improvements, including installation of consistent two-way center-turn lane, curb and gutter, drainage improvements, and utility relocation
-  Sidewalk (with curb, gutter, and drainage) and lighting on one side
-  Multi-use path with landscaped buffer along one side
-  Pedestrian crossing improvements at intersections (high-visibility crosswalks, ADA-compliant curb ramps, curb extensions to shorten crossing distance, pedestrian signal heads with countdowns and push buttons)
-  Traffic signal upgrades

## Key Considerations

- » Anticipate connections to future Eagle Creek Greenway and upgraded bicycle and pedestrian facilities on Crawfordsville Road
- » Key intersection improvements needed at Girls School Rd and Morris St, Rockville Rd, W 21st St, and Crawfordsville Rd



## Project Spotlight 2:

# Arlington Ave Protected Bike Lane

5.1

PROJECT LENGTH (MI)

\$5.6M





COST ESTIMATE

Protected bike lanes on Arlington Ave, from 10th St to 56th St

## Project Need

- » Provide key north-south bike connection for Warren and Lawrence Townships
- » Connect Pleasant Run and Fall Creek, via existing bike lanes south of 10th St, 46th St and Emerson Ave
- » Improve safety for all, as Arlington Ave overlaps with several high-crash zones
- » Increase connections to schools
- » Support future frequent transit service south of 42nd St

## Features

-  One-way protected bike lane on each side of the street
-  Intersection improvements, including protected intersection treatments, high-visibility crosswalks, and ADA-compliant curb ramps
-  Floating bus islands that route bikes away from traffic and behind people waiting at the bus stop
-  Traffic signal upgrades

## Key Considerations

- » Low vehicle volumes support repurposing outer travel lanes into one-way protected bike lanes
- » Focus intersection improvements at challenging locations such as the five-way intersection at E 34th and Massachusetts Ave
- » Frequent transit route should account for needs of transit and cyclists





## Project Spotlight 3:

# Tacoma Ave Neighborway

1.5

PROJECT LENGTH (MI)

\$4.5M





COST ESTIMATE

Traffic-calmed neighborway gives priority to people walking and bicycling along Tacoma Ave, from 30th St to the Fall Creek Trail

## Project Need

- » Improve safety for all in a historic high crash area by establishing a bicycle- and walking-priority route on a low-volume, slow-speed street parallel to the busy Keystone Ave
- » Provide better access to the Fall Creek Trail from the northeastern part of Center Township
- » Enhance connections with bus rapid transit at 38th St
- » Provide safe and comfortable routes to schools, including Joyce Kilmer, KIPP, Tindley, and Avondale

## Features

-  Neighborway pavement markings and wayfinding
-  Intersection improvements at busy streets: crosswalks, flashing beacons, traffic signals, or sidepaths at skewed intersections
-  Traffic calming: stop signs, speed humps, traffic circles, 20 MPH speed limit
-  Fall Creek Trail connection: landscape maintenance, pedestrian lighting, wayfinding

## Key Considerations

- » Work closely with residents to design the neighborway and support local access needs
- » Low-volume street with the ability to become an excellent low-stress connection for people walking and bicycling
- » Intersection improvements at busy street crossings (e.g., 38th St) can be a barrier and must be addressed in design
- » Evaluate potential for low-cost walking improvements (e.g., asphalt sidewalk with linear curb stops) north of E 33rd St where there are no sidewalks



## Project Spotlight 4:

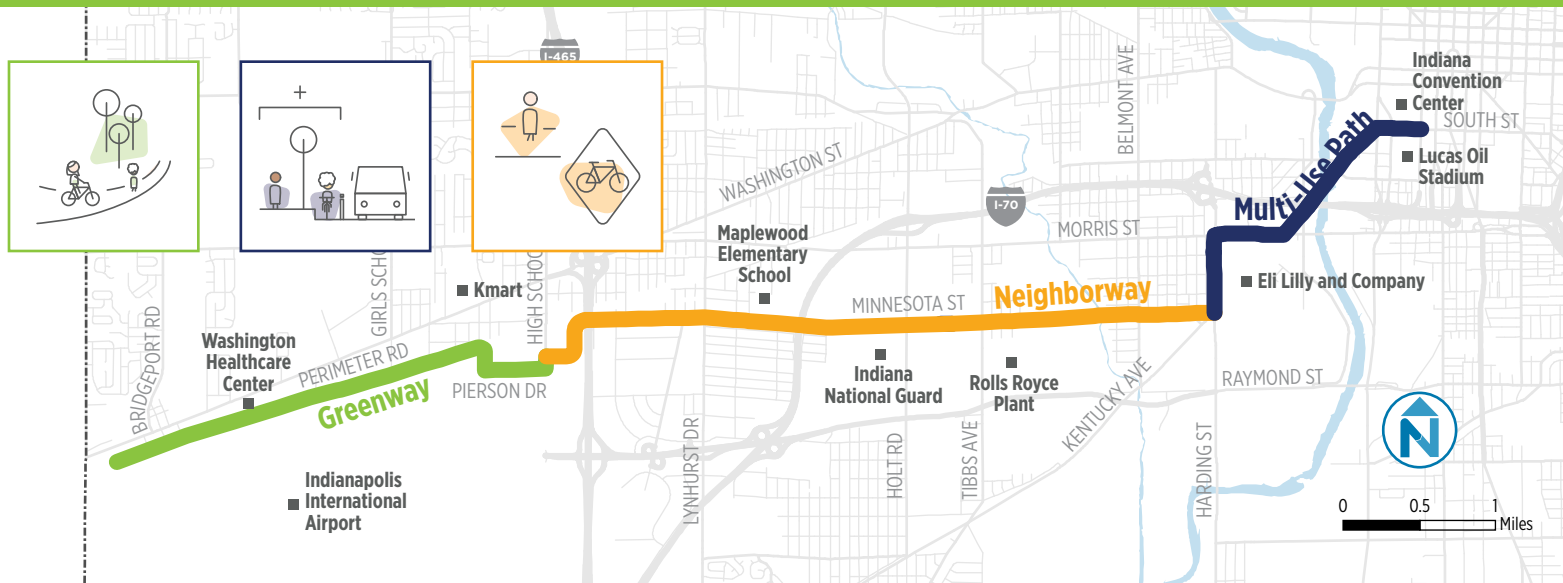
# Vandalia Trail / Minnesota St Neighborway

10

PROJECT LENGTH (MI)

\$17.4M

COST ESTIMATE







Continuous walking and bicycling connection from Bridgeport to downtown via greenway, neighborway, multi-use path, and protected bike lanes

## Project Need

- » Create a connection between proposed White Lick Creek Greenway and the Eagle Creek Greenway
- » Provide east-west link in Wayne Township from planned greenway to downtown
- » Improve walking and biking access to key employment centers (e.g., Lilly Industrial Center), several elementary schools, Lucas Oil Stadium, as well as White River, Eagle Creek, and White Lick Creek
- » Improve safety in several high-crash zones, including the intersection of Kentucky Ave and South St, and Minneapolis St between Lynhurst Dr and Holt Rd
- » Connect to future Blue Line BRT stations and S Girls School Rd proposed complete street

## Features

-  Off-street greenway in former rail corridor and along the perimeter of Indianapolis International Airport
-  Calm traffic and add sidewalks, wayfinding, sharrows, and signage along Minnesota St
-  A combination of multi-use path and protected bike lanes will complete the connection along busy streets into downtown.
-  Intersection improvements and dedicated space for people walking and riding bicycles to create continuous connection

## Key Considerations

- » Long-term project may require phasing as partnerships develop and funding becomes available
- » Several portions of the project area have constrained right-of-way, heavy freight traffic, interstate undercrossings, bridges, and busy intersections
- » Special consideration will need to be given to design of the multi-use path to safely and continuously accommodate people walking and bicycling
- » Partnership with Indy Parks and other funding partners will be integral to the success of this project
- » Coordination and partnership with large land owners along this route will be needed, including Indianapolis International Airport and Eli Lilly and Company

## Project Spotlight 5:

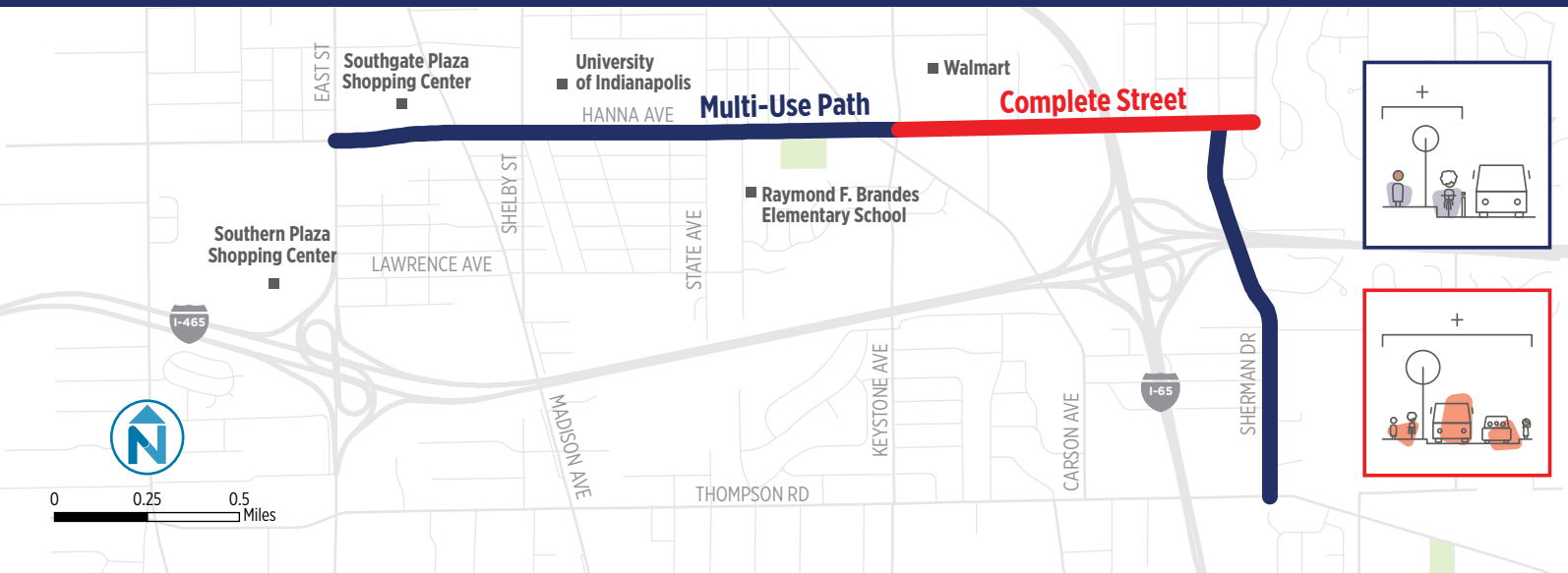
# Hanna Ave Multi-Use Path and Complete Street

3

PROJECT LENGTH (MI)

\$6M

COST ESTIMATE



Multi-use path and complete street creating continuous, dedicated space for people walking, bicycling, and driving along E Hanna Ave and S Sherman Dr

## Project Need

- » Improve walking and bicycling access between residential and commercial areas in south Indianapolis, including safe and convenient access to Red Line BRT, University of Indianapolis, and the proposed Lick Creek Greenway
- » Address high crash areas on Hanna Ave and Sherman Dr
- » Provide active transportation infrastructure over I-465 and I-65
- » Create safe connections to transit on Hanna Ave

## Features



Thoroughfare expansion and improvements, adding sidewalks and creating a consistent three-lane cross section along Hanna Ave, including curb and gutter and drainage improvements



Multi-use path along the entire length of the project including bicycle and pedestrian bridges to connect over I-65 and Carson and Lick Creeks



Intersection improvements: high-visibility crosswalks, ADA-compliant curb ramps, pedestrian-activated beacons



Transit improvements: bus bulbs, upgraded stops, lighting



Traffic signal upgrades

## Key Considerations

- » E Hanna Ave is a transit route, requiring coordination with IndyGo
- » Outer travel lane can be repurposed to support multi-use path construction in wider portions of corridor, but right-of-way (or coordination with Indy Parks) may be needed in other areas
- » Phased implementation should focus in areas (e.g., E Hanna Ave) that lack sidewalks

# MAKING INDY'S STREETS SAFER

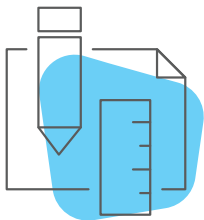
During the development of Indy Moves, we heard from thousands of people that safety is a top priority for Indy residents. To make our streets safer will take a concerted effort. We must implement both policies and programs that set safety as a clear priority for our streets.

## Vision Zero

Implement Indy Vision Zero, with the goal of eliminating fatalities and severe injuries as a result of traffic crashes.

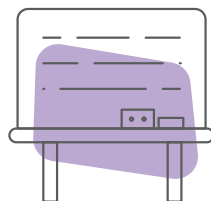
Every traffic crash in Indianapolis is a **preventable outcome of street design, behavior, and policy.**

Indy Vision Zero would identify high-risk intersections and corridors, and apply a mix of the following four strategies to improve safety:



### ENGINEERING AND DESIGN

Make design changes to streets and intersections to reduce speeding, calm traffic, and provide infrastructure for people walking, bicycling, and taking transit.



### ENFORCEMENT AND EDUCATION

Encourage safe travel behavior and support a culture of safety. This may include reduced speed limits, speed monitoring devices, educational programs, and traditional speed limit enforcement.



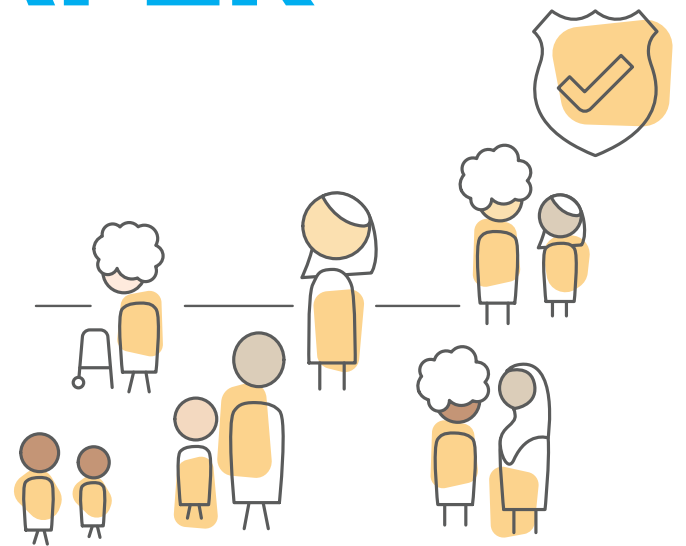
### EVALUATION AND MONITORING

Monitor safety measures and crash locations. Use these data to identify what works best, and to target resources where they will have the greatest impact.



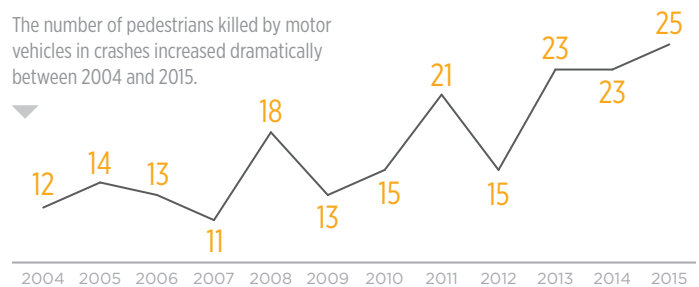
### EQUITY

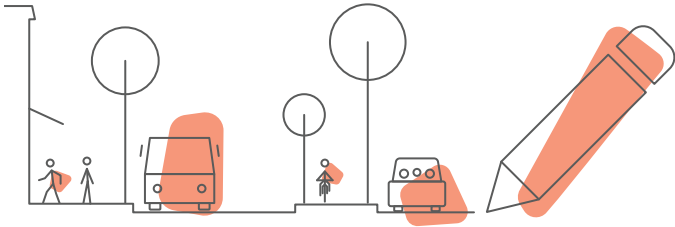
Focus efforts to improve safety in communities that are disproportionately affected by traffic crashes and unsafe street conditions.



### PEDESTRIAN FATALITIES

The number of pedestrians killed by motor vehicles in crashes increased dramatically between 2004 and 2015.





# Street Types

Define types of streets to guide right-of-way design based on land uses, safety, and priorities for different transportation modes.

Clearly defined street types help to communicate the designs that are appropriate for different kinds of streets. Street type definitions depend on relevant travel modes, adjacent land uses, safety considerations, community needs, the environmental context, and required functionality.

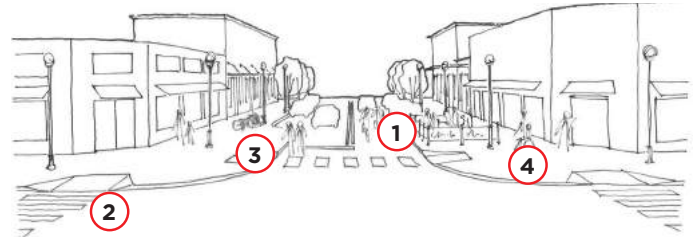
Developing street types helps to set expectations for the improvements that are appropriate in different contexts. Street design is not one-size-fits all. To support implementation of the capital projects identified in Indy Moves, Indianapolis should develop street types to clarify which streets are priorities for which modes.

Each street type should list its anticipated use, typical design features, and desired targets or metrics, such as speed limits, roadway widths, or vehicle volumes. These should be supported by basic cross-sections that demonstrate what people can expect to see.

Is this street a freight corridor, or a local neighborhood street? Is it home to shops or an elementary school?

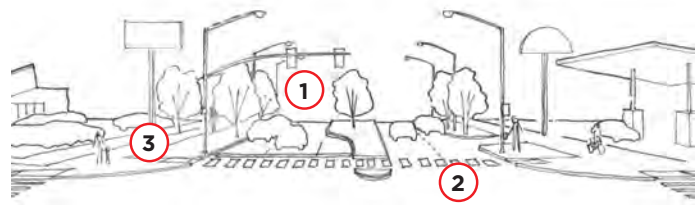
**Street types tell us how to treat these different contexts.**

## NEIGHBORHOOD BUSINESS



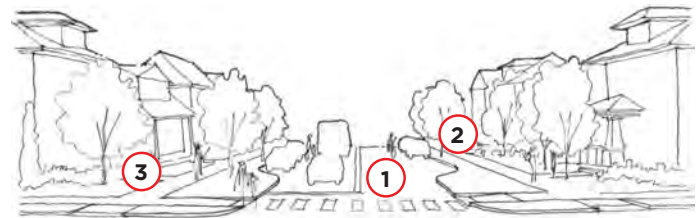
1. Narrow travel lanes
2. Frequent pedestrian crossings
3. Parking for both vehicles and bicycles
4. Generous sidewalks

## CROSSTOWN CONNECTORS



1. Greater vehicle capacity and efficiency
2. Well marked pedestrian crossings
3. Parkways buffer sidewalks from moving travel lanes

## NETWORK RESIDENTIAL



1. Marked centerline
2. Shared access points; few driveways
3. Sidewalks on both sides

## SELECTION OF STREET TYPES IN GRAND RAPIDS, MI

Source: Grand Rapids Vital Streets

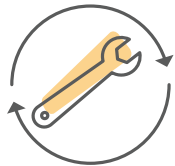
# MAKING STRATEGIC INVESTMENTS

Indianapolis is a huge city of over 400 square miles. Across that geography, transportation needs are significant, and there is not enough funding for either basic maintenance or new projects. Making strategic investments—focusing on existing resources and operational improvements to keep people moving—can help to improve the existing system as well as our future transportation network.

## Maintenance and Repair Funding Program

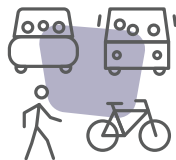
Establish a transportation maintenance funding program to support preservation of existing infrastructure.

A dedicated multimodal maintenance and repair fund would help to address the backlog of maintenance needs and help to bring Indianapolis' transportation system back into a state of good repair. This program would include:



### MAINTENANCE CYCLES

Formalize regular evaluation and maintenance cycles for different types of infrastructure.



### ALL MODES

Broaden evaluation metrics from pavement condition to include, for example, crosswalk restriping and bike lane condition.



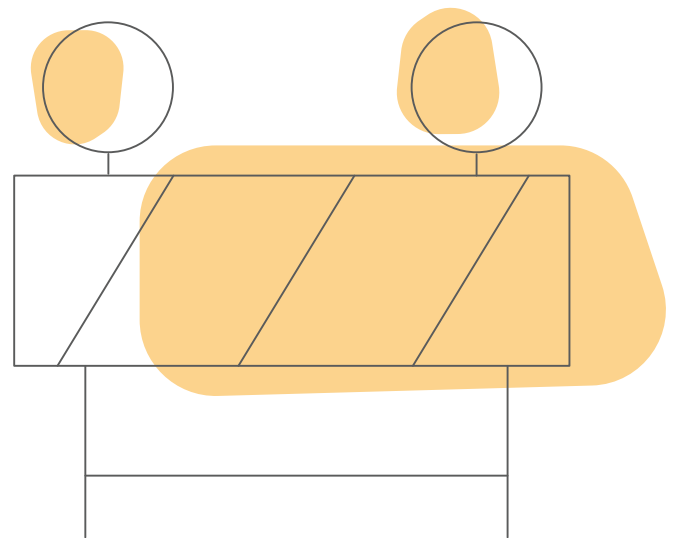
### GOAL-ORIENTED

Tie maintenance funding to a prioritization process linked to Indy Moves goals.



### TRANSPARENT

Be transparent by making condition information and maintenance plans accessible to the public.



As of 2016, the cost to bring the city's transportation system to a **state of good repair was estimated at \$732M.**

# Adaptive Signals

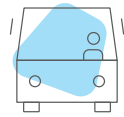
Upgrade traffic signals with adaptive technology to improve travel time reliability for all modes.

Adaptive signal control technology uses advanced traffic signals, enhanced traffic sensors that can detect cars as well as bikes, and computer algorithms to change signal timing based on real-time traffic conditions. This provides three key benefits:



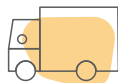
## CONGESTION

Improves travel time reliability and reduces congestion



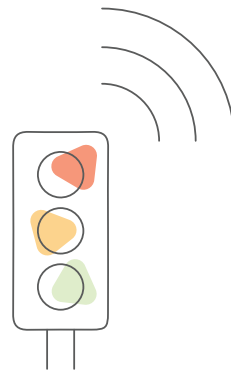
## BUS RELIABILITY

Helps keep IndyGo buses moving



## FREIGHT

Supports efficient movement and delivery of goods



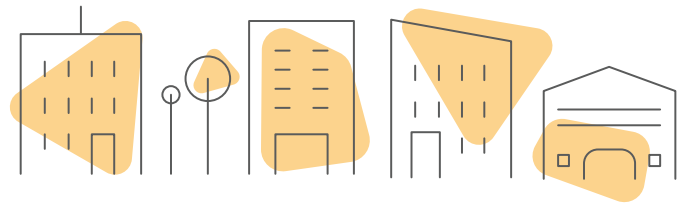
Indy should continue moving forward to implement an adaptive signal network, focused first on the city's most congested corridors.

Using adaptive signals with transit signal priority can support IndyGo's transit capital and service investments, including new bus rapid transit. And using adaptive signals on major freight corridors can make it easier and more affordable for both long-haul and local deliveries to reach their destinations.

Implementing adaptive signals can be expensive, with major capital costs for equipment and installation. Indianapolis may be able to defray some of these costs by becoming an early adopter of the technology and applying for innovation-based grants and incentives.

# Transportation Impact Fees

Explore changes to state law regarding transportation impact fees to help fund transportation improvements in areas of new development.



Transportation impact fees can be used to fund transportation improvements needed to support new development. Impact fees are an important tool to ensure that private development is contributing to the transportation system in a way that is proportional to the development's size and land use.

Indiana state law limits how cities can apply impact fees. However, **Indianapolis should explore potential changes to state law** to support development of new types of impact fee programs.

Indianapolis should work with neighboring jurisdictions and the state to explore changes to impact fee laws that broaden the definition of impacts and the ways fees can be applied. A transportation impact fee program should be paired with other strategies to ensure that transportation improvements are focused in the areas of greatest need.



# PROVIDING MOBILITY OPTIONS

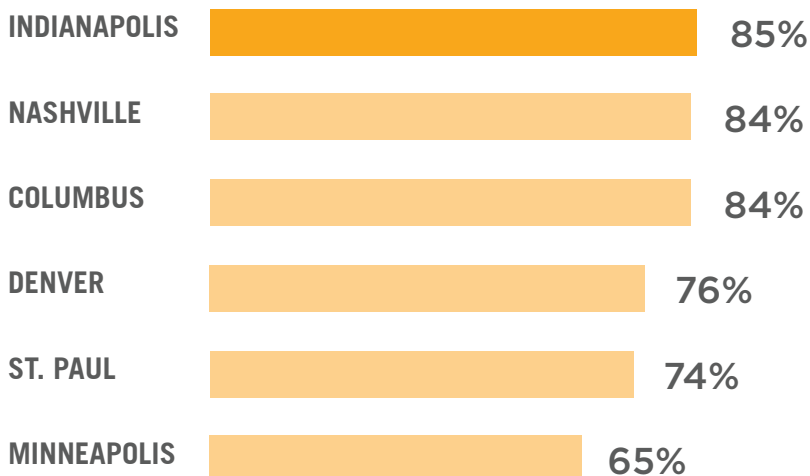
While most people in Indy still travel primarily by car, we heard a desire for new ways to travel during our outreach for Indy Moves. Establishing programs that provide incentives to walk, bike, and take transit and disincentives for driving alone

can encourage people to try a new way of getting to work, for example. And making connections between modes easy to navigate, especially at key hubs, supports transit and active transportation.

## Indy Transportation Demand Management Program

Increase walk, bike, and transit trips with a citywide Transportation Demand Management (TDM) Program.

TDM programs encourage and incentivize people to travel by walking, bicycling, taking transit, or using shared mobility services rather than by driving alone. The city should work with partners, such as employment centers, shopping districts, and stadiums or large event venues, to establish targets for mode share and new education and encouragement about alternative ways to travel. Strategies could encourage workers, for example, to avoid driving alone through the existing Commuter Connect program of the Central Indiana Regional Transportation Authority or with incentives like free or discounted transit passes.



**Most people in Indianapolis still drive alone to work,** with only 15% of people carpooling, taking the bus, walking, or biking for their commute.

◀ **PERCENT OF COMMUTERS WHO DRIVE ALONE TO WORK**

Source: Five-Year American Community Survey (2011–2015)



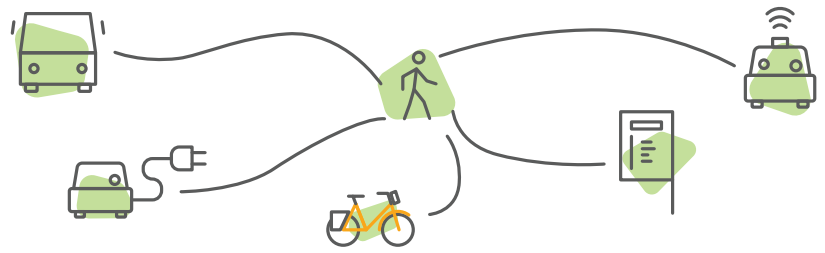
# Mobility Hubs Program

Establish a Mobility Hubs Program to make transportation connections seamless.

Mobility hubs can include transit connections, high-quality pedestrian and bicycle access, safety and comfort amenities (such as lighting, weather protection, and restrooms), wayfinding and trip planning information, ridehailing pick-up and drop-off space, dedicated car, bike, and other shared mobility parking, secure bicycle storage, real-time travel information, payment kiosks and fare vending, electric vehicle charging, commuter services (including goods delivery or retail services), and placemaking and public realm activation.

The City of Indianapolis should continue its work with IndyGo to establish a mobility hubs program that helps connect people to a variety of transportation options at key locations. Mobility hubs come in many different forms, from a regional hub with connections beyond Indianapolis to neighborhood hubs that aggregate services around a local transit stop. Establishing a hub typology based on Indianapolis' unique mix of mobility options and then identifying potential locations for mobility hubs is an important first step in creating a citywide mobility hubs program.

Major transit facilities with multiple frequent connections are **natural places to consolidate and organize mobility services.**



ASSISTANCE FROM TECHNOLOGY

REAL-TIME NAVIGATION

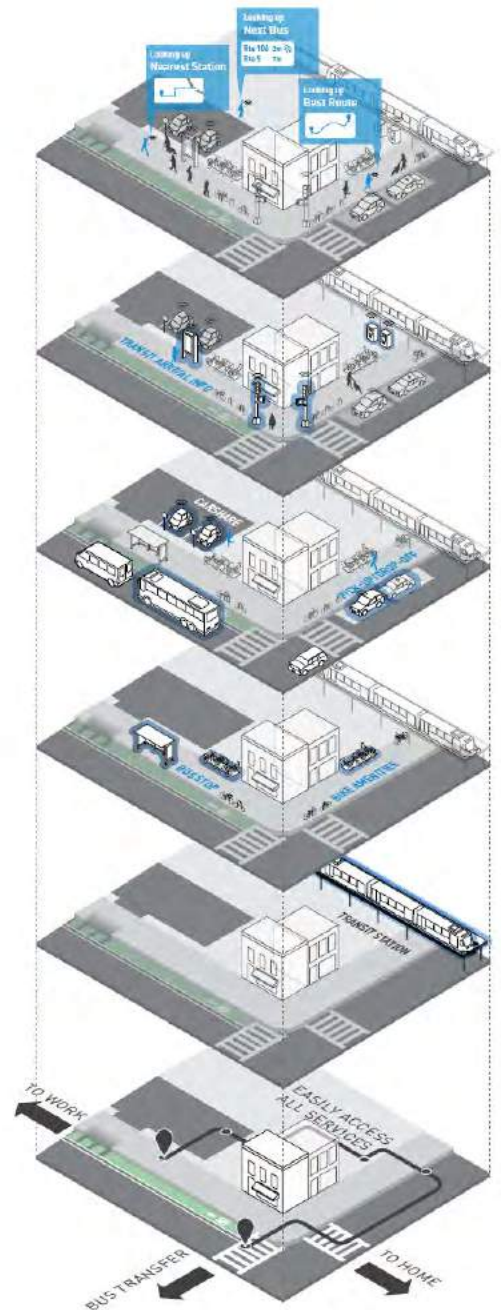
MOBILITY SERVICES

INFRASTRUCTURE SUPPORTING MOBILITY

TRANSIT STATION

CONNECTIONS

MOBILITY HUB ELEMENTS IN SEATTLE



Source: Seattle Department of Transportation

# EMBRACING NEW FORMS OF MOBILITY

Emerging technology, the sharing economy, and new mobility providers have changed the ways we travel. From ride hailing and bike sharing to connected vehicles, new technologies are providing specific mobility options to which Indianapolis must adapt. In light of this, Indy should establish a policy framework to align these emerging mobility opportunities with the city's goals.



## Connected and Autonomous Vehicles

Encourage shared use and regulate vehicle miles traveled.

The promise of connected and autonomous vehicles (AVs) for use as both personal vehicles and for freight and public transit has the potential to fundamentally reshape mobility.

The state of Indiana is developing a framework for AV regulation, and Indy can build on that starting point. Given the complexity of Indy's multimodal network and travel patterns, it will be important to test AVs in complex, real-life situations to understand their interaction with all modes, including transit.

## Equity

Ensure all people benefit from expanded mobility options.

Emerging mobility trends present Indianapolis with the opportunity to shape new technologies and mobility options to create more affordable, integrated transportation choices for those who need them the most. Indianapolis should proactively develop shared mobility equity programs, including requiring mobility providers to offer low-income fare products and provide an array of payment options, targeting historically disadvantaged communities, people with disabilities, and limited English proficiency populations. Indianapolis should adopt policies and regulations such as mandatory data sharing protocols to ensure private mobility providers offer all people and areas of the city consistent access (availability of mobility services) and equal service (reasonable wait times).

## Curbspace

Adjust approaches to street design and managing curbspace.

With more shared mobility options, Indianapolis can adapt street designs and curbspace management to more efficiently and safely accommodate changing travel behavior. As more riders are picked up or dropped off instead of needing to park a vehicle, on-street parking will become available for other mobility and public realm uses.

## Parking

Adjust parking regulations and management of vehicle storage.

The parking requirements incorporated in zoning codes are one of the most important determinants of which buildings get built, how they get built, and the transportation choices of those who inhabit them. Zoning ordinances dictate how many parking spaces a certain type of development must have, thereby inducing travel demand (by making it easier to drive) or reducing travel demand (by making it more difficult and encouraging walking, biking, and transit use as alternatives). Zoning codes can also encourage development patterns that are compact and walkable or spread out and difficult to connect without a car. Indy's recent zoning code update re-evaluated parking requirements and introduced parking maximums in some places, and the City should continue to consider further changes to avoid over parking in an era in which parking demand could drop dramatically.

**Indy's recent scooter ordinance is a shared mobility policy that aligns with our transportation goals and values.** The ordinance and permit process identify when and where scooters can be used and what shared mobility providers must do to operate in Indianapolis. It also establishes fees that will be used for enforcement and supportive infrastructure to improve safety.

# 4

## Moving Forward

Every journey begins with a single step. This section describes the most important first steps Indianapolis must take to deliver Indy's transportation vision.

Focused on funding sources, collaborative project development and delivery, and ways to track progress, Moving Forward outlines how Indy can begin funding and delivering high priority projects and monitor how those efforts move us closer to our goals.

# WORKING TOGETHER

Transportation plans, projects, and programs in Indy are planned, designed, funded, delivered, and maintained by several city departments, Indy MPO, IndyGo, INDOT, and private partners.

In order to deliver the Indy Moves projects, departments and agencies must coordinate in different ways depending on the type of project. The chart below summarizes the key roles.

A number of efforts are underway in Indy to enhance collaborative project delivery, and these are the focus of a departmental strategic planning effort. For example, the city and IndyGo have established staff and leadership coordination meetings to support Red Line BRT implementation. And city departments are moving toward more integrated systems, including more widely available and usable project information.

## City Department Roles



### PUBLIC WORKS

Plans, designs, constructs, and maintains projects within the public right-of-way.



### METROPOLITAN DEVELOPMENT

Plans all modes of transportation, including current projects and long-range planning.



### BUSINESS AND NEIGHBORHOOD SERVICES

Issues permits and inspects private development and public right-of-way uses.



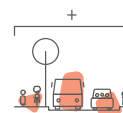
### INDYGO

Plans, designs, constructs, and operates public transit projects.

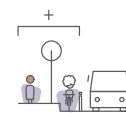


### DPW PARKS AND RECREATION

Plans and oversees parks, trails, and greenways.



Complete Streets



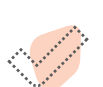
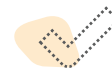
Complete Street Upgrades



Greenways



Active Transportation



Supporting Role



Primary Role

# Other Important Partners



ADA accessibility elements of projects



Project funding



Project funding and regionally significant enhancements, as well as transportation data and modeling



Projects involving active transportation and physical activity



Projects in high-crash locations or that address a public safety concern



Projects involving state roads, railbanking, as well as funding for many local transportation projects



Projects that improve health outcomes, serve underrepresented communities, or increase physical activity

## Tools for Successful Collaboration

Key to successful project development and delivery—from design and construction to maintenance and performance monitoring—is interdepartmental and interagency collaboration. To plan and build great projects, the right parties must weigh in at the right points throughout the project development process.

When departments actively coordinate to implement projects, programs, and policies, the result is a product in which partners have a sense of ownership. Creating processes to make interdepartmental and interagency collaboration “business as usual” will enable Indianapolis to deliver and maintain a world-class transportation system:



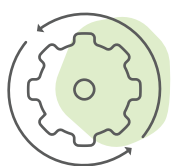
### Interdepartmental Team

Convene an interdepartmental staff team to guide a project through construction. The team will consult at key project development milestones to facilitate regular feedback and continuity. Any issues not resolved at the staff level should be elevated to a leadership team for resolution.



### Project Development Checklist

Use a project development checklist to ensure that all relevant transportation modes are considered, as well as other elements like stormwater and public realm opportunities. This helps align projects with Indy’s Complete Streets ordinance.



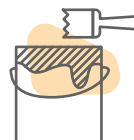
### Project Development Process

Create a consistent capital project development process with non-negotiable collaboration milestones involving all departments and agencies with a stake in the project.



### Project Charter

Establish a charter that documents a project’s intent, objectives, and design and implementation decisions. Exceptions should follow the approval process set forth in Indy’s Complete Streets policy.

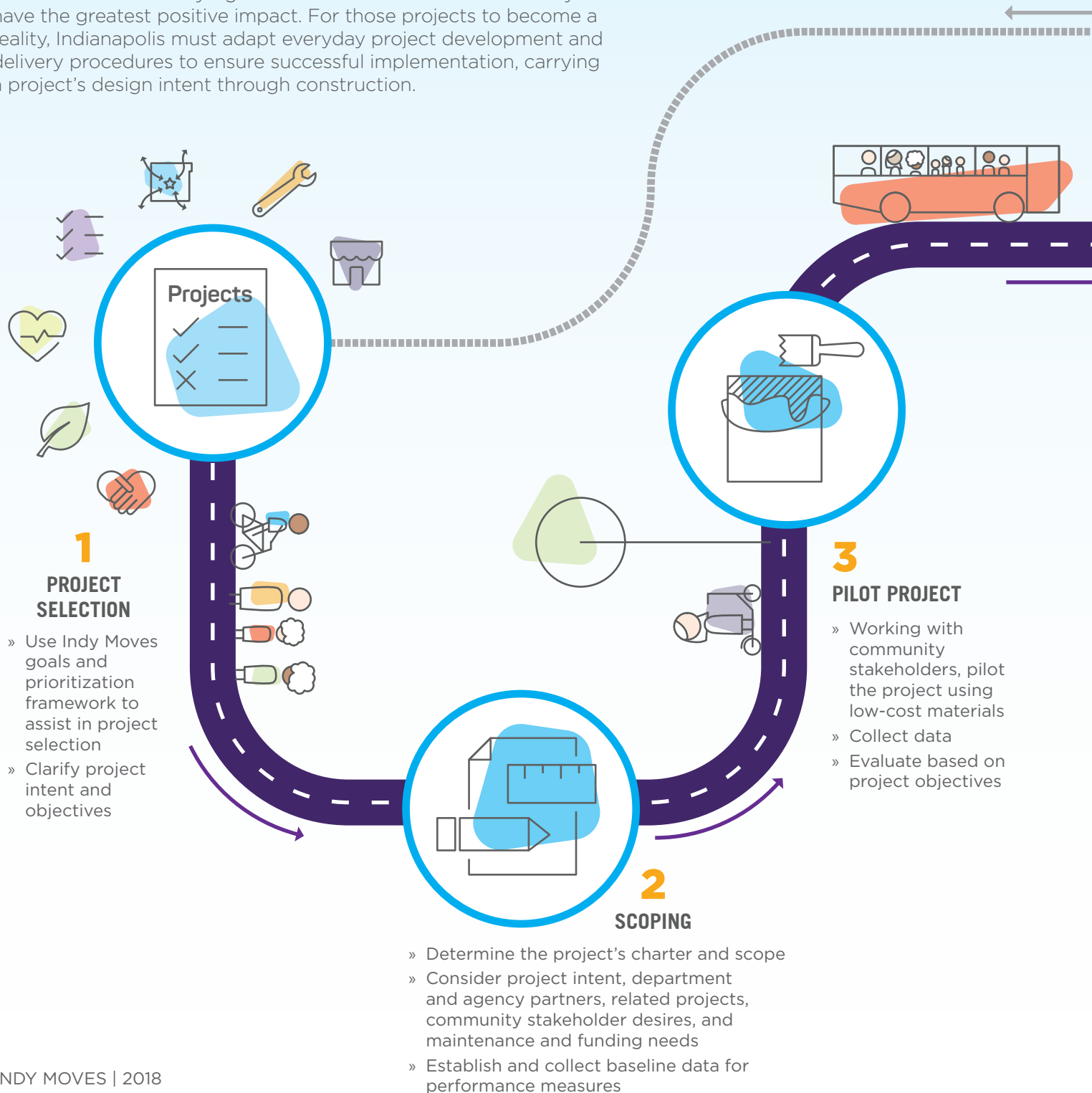


### Pilot Projects

Formalize the use of pilot projects as part of the project development and delivery process. Pilots are a low-cost way to test designs—and adjust them, if necessary—based on their performance.

# GETTING PROJECTS BUILT

The priority projects identified in Indy Moves are those that best achieve the community's goals and direct resources where they will have the greatest positive impact. For those projects to become a reality, Indianapolis must adapt everyday project development and delivery procedures to ensure successful implementation, carrying a project's design intent through construction.



## USE FINDINGS AS AN INPUT TO HELP SELECT FUTURE PROJECTS

4

### PROJECT FUNDED

- » Secure funding from sources such as local funds, Indy MPO, or state and federal grants
- » Provide regular funding updates to community stakeholders

7

### MEASURE EFFECTIVENESS

- » Revisit objectives
- » Collect data to support performance measurement
- » Count number of people using project
- » Work with community stakeholders to understand community impact

5

### CONSTRUCTION

- » Communicate project objectives to contractor
- » Ensure multimodal elements are included
- » Improve design elements
- » Reward efficiency
- » Engage community stakeholders in the design process to ensure project is responsive to community desires, and provide regular updates during the construction process

6

### MAINTENANCE

- » Ensure project functions as intended throughout lifespan
- » Engage maintenance staff to share lessons learned



# FUNDING INDY MOVES

Funding the Indy Moves capital projects will take a coordinated effort of local, state, federal, and private partners and funding sources. While many transportation funding sources are competitive, Indianapolis has historically been quite successful and can continue this trend by aligning projects with the funding sources for which they are best suited. Taking a creative approach to leveraging multiple funding sources and collaborating with partners will allow Indianapolis to build priority projects and implement new programs.

According to DPW engineers, at least \$178M is needed each year **just to keep Indy's existing transportation system in a state of good repair.**

## Local Funding



### LOCAL CITY FUNDS

This includes funding from the city's annual budget and revenue sources.

Useful for: operations and maintenance; pilot projects; high-priority projects



### INCOME TAX

One-quarter percent income tax for transit system expansion.

Useful for: projects that include transit-supportive infrastructure for planned routes and stops



### TAX INCREMENT FINANCING

Dedicated proportion of property taxes within a specific area to service debt based on an investment in that area.

Useful for: projects that anticipate an increase in property taxes in their immediate surroundings



### MUNICIPAL BONDS

Loans against future revenue streams, such as sales, property, or special assessment district taxes.

Useful for: long lifespan projects with a broad benefit to Indianapolis

## Private Funding



### PUBLIC BENEFITS AGREEMENTS

Negotiated agreements for developers to provide benefits to the public.

Useful for: localized projects in areas experiencing significant private development, e.g., sidewalks adjacent to new apartments



### CENTRAL INDIANA COMMUNITY FOUNDATION (CICF)

Grant awarding foundation aiming to supporting equity, the creation of vibrant places, and initiatives to attract visitors and businesses to Central Indiana.

Useful for: projects that align with the foundation's goals

## Indianapolis Cultural Trail

The Indianapolis Cultural trail is a prime example of a public-private partnership leveraging multiple funding sources to bring a vision for a transportation and community asset to life.

Source: [Indyculturaltrail.org](http://Indyculturaltrail.org)



# State Funding



## COMMUNITY CROSSINGS MATCHING GRANTS

INDOT matching grants (50%) for road and bridge projects that catalyze economic development, strengthen transportation networks, and create jobs.

Useful for: projects that include a roadway or bridge component for which matching funds exist



## SAFE ROUTES TO SCHOOL

Using federal funds, INDOT matching grants (80%) up to \$250K to improve walking and biking connections to schools.

Useful for: lower cost projects that include a walking or biking improvement near schools



## RECREATIONAL TRAILS PROGRAM

Using federal funds, the Indiana Department of Natural Resources matching grants (80%) for the construction of multi-use paths and greenways.

Useful for: projects that include a multi-use path or greenway



## HIGHWAY SAFETY IMPROVEMENT PROGRAM

Using federal funds, INDOT funding source for pedestrian or bike projects aimed at reducing traffic fatalities and serious injuries on public roads.

Useful for: projects that include a bike or pedestrian component, including multi-use paths, in or near high crash areas

# Federal Funding



## TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION ACT (TIFIA)

Secured loans, loan guarantees, and standby lines of credit for large surface transportation projects.

Useful for: large multimodal projects



## INFRASTRUCTURE FOR REBUILDING AMERICA (INFRA)

Dedicated, discretionary funding for projects that address critical issues facing highways and bridges (\$5M+ and \$25M+ categories).

Useful for: projects that include a highway or bridge component in a critical state of repair



## COMMUNITY DEVELOPMENT BLOCK GRANTS

Housing and Urban Development (HUD) funding source for low and moderate income communities to address a wide range of community development and public infrastructure needs.

Useful for: projects in low income areas



## BETTER UTILIZING INVESTMENTS TO LEVERAGE DEVELOPMENT GRANTS (BUILD)

United States Department of Transportation grants (up to 80% match) for repair and construction of projects that support freight and passenger transportation (formerly TIGER).

Useful for: projects that involve passenger transportation or freight corridors

With a total project cost of \$63 million (including a \$6 million maintenance endowment), the Cultural Trail leveraged \$27.5 million in private funding to secure \$35.5 million in federal grants. Project funding came from the following sources: the Central Indiana Community Foundation, private donors, a federal TIGER grant (\$20.5 million), the City of Indianapolis tax increment financing revenues (also committed for Phase 2 expansion), and several not-for-profit organizations. No local tax dollars were used.

Aligned with Indy Moves goals to leverage transportation investments as a tool for economic development, the Indiana University Public Policy Institute found that property assessments within approximately one block of the eight mile Indianapolis Cultural Trail have increased 148% since 2008, an increase of \$1 billion in assessed property value. The trail has catalyzed investment with new developments and businesses opening along the trail.

# MEASURING SUCCESS

To help Indy make progress toward a truly multimodal transportation system—and toward achieving the larger goals of Indy Moves—it is important to establish indicators that can be tracked and reported over time. The indicators on the following page link Indy Moves' goals and use data that are easy to gather, simple to analyze, and straightforward to communicate, both internally and to the community. Two types of indicators paint the picture of progress toward plan goals:

1) indicators highlighting what Indy is building and implementing, and 2) indicators that show whether or not those investments are having their intended impact. To report on progress each year, the city must continue to collect data and expand its data monitoring and management capacity. Establishing a baseline and monitoring the pace and impact of Indy Moves implementation will provide the foundation and justification for future investments.

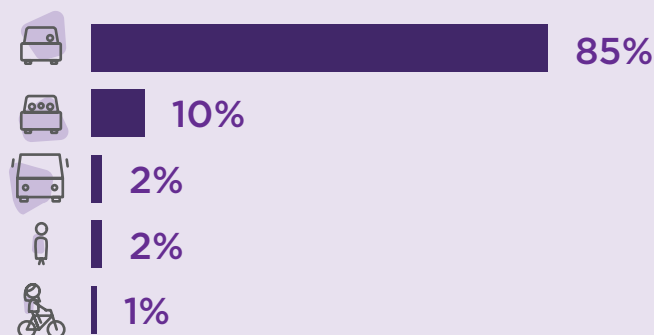
## Example Baseline Data: Mode Share and Crashes

### Commute Mode Share

The commute mode share explains how residents get to work, whether on foot, by bike, on the bus, in a carpool, driving alone, or some other way. This information is available in the American Community Survey dataset. Indy Moves strives to reduce the number of people driving alone to work through multimodal investments.

#### COMMUTE MODE SHARE

Proportion of employed people in Indianapolis who reach work by each mode (2011-2015)



### Crashes Involving Pedestrians

Crash data explain where crashes occur, and whether pedestrians were injured or killed. This helps to illustrate whether investments in pedestrian infrastructure are helping to improve safety. It also helps determine where to focus future safety investments. By using both citywide and corridor-level data, it is possible to track progress toward the Indy Moves goal of eliminating all serious and fatal crashes.

#### MOTOR VEHICLE CRASHES INVOLVING PEDESTRIANS



1,341

Injuries  
2012-2016

85

Fatalities  
2012-2016

Source: Aries Crash Data 2012-2016, Indianapolis MPO, and City of Indianapolis

# Indy Moves Goal

# Measuring Actions and Impacts

## DESIRED TREND



### HEALTH & SAFETY

Improve safety and promote health

- » Miles of bike facilities Increase
- » Blocks of sidewalks Increase
- » Number of crashes resulting in injuries and fatalities Decrease



### SUSTAINABILITY & RESILIENCE

Enhance environmental sustainability and resilience

- » Number of green infrastructure streets Increase
- » Number of intersections with operational improvements Increase
- » Total greenhouse gas emissions from transportation Decrease



### ECONOMIC DEVELOPMENT

Support inclusive economic development

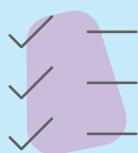
- » Number of job centers or post-secondary institutions served by projects Increase
- » Miles of projects that include two or more modes Increase
- » Percent of low-income population with transit access to living wage jobs Increase



### EQUITY

Address disparities and increase access to opportunity

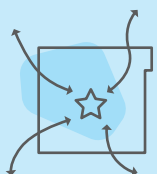
- » Number of projects in racially/ethnically-concentrated areas of poverty (R/ECAP) neighborhoods Increase
- » Number of high need equity analysis areas (see page 5) served by projects Increase



### CHOICES

Expand mobility choices

- » Number of projects within 1/2-mile of BRT or 1/4-mile of frequent transit Increase
- » Number of projects within 1/2-mile of existing or proposed greenways Increase
- » Drive alone commute mode share Decrease



### CONNECTIONS

Connect and strengthen our region, city, and existing neighborhoods

- » Number of projects within 10 minutes of a village or neighborhood node Increase
- » Percent of households with transit, walking, or biking access to job centers Increase



### STRATEGIC INVESTMENT

Invest strategically and transparently, with a focus on enhancing existing infrastructure

- » Miles of poor pavement condition addressed by projects Increase
- » Local dollars leveraged Increase
- » Positive responses to customer satisfaction survey Increase

- 
- » Indicators that measure what has been built
  - » Indicators that measure Indy Moves impacts



Indy Moves

# **Appendix A: Existing Conditions Report**

**October 2018**





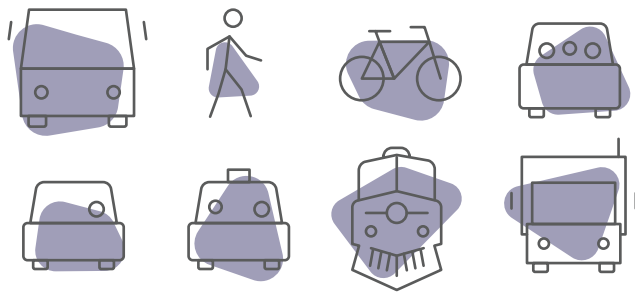




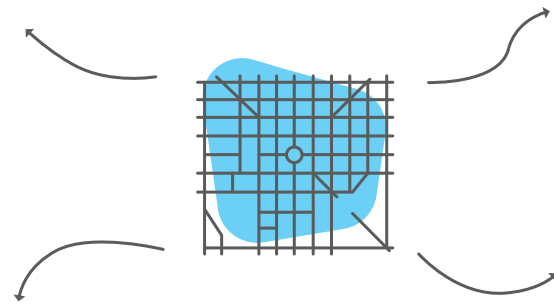
## EXISTING CONDITIONS | 2017



# WHAT IS INDY MOVES?



Indy Moves will connect Indianapolis' transportation goals, plans, and projects into an integrated mobility future. A coordinated effort of city departments and the metropolitan planning organization (MPO), this action plan is our opportunity to improve mobility and access for all residents, workers, and visitors and to establish our transportation priorities.



## A large city

Indianapolis is a huge city of more than 400 square miles. We've got a little bit of everything in our city—a dense downtown, farms at the edges of the city, walkable neighborhoods, industry both near downtown and further out—and an aging transportation system that is trying to connect all of it and all of us.

At the same time, our population is growing and changing, and people are asking for new ways to move around the city. We need a new approach to setting transportation priorities that reflects our community's values and helps build the Indianapolis of the future. Indy Moves will help us do that.

## Project timeline

ONGOING COMMUNITY ENGAGEMENT

Aug 2017

Sept

Oct

Nov

Dec

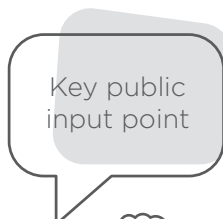
INDY MOVES LAUNCH

EXISTING CONDITIONS

COMMUNITY VALUES

VISION AND GOALS

STRATEGIC PLAN



**Just over 65% of Indy's roads don't have sidewalks.**

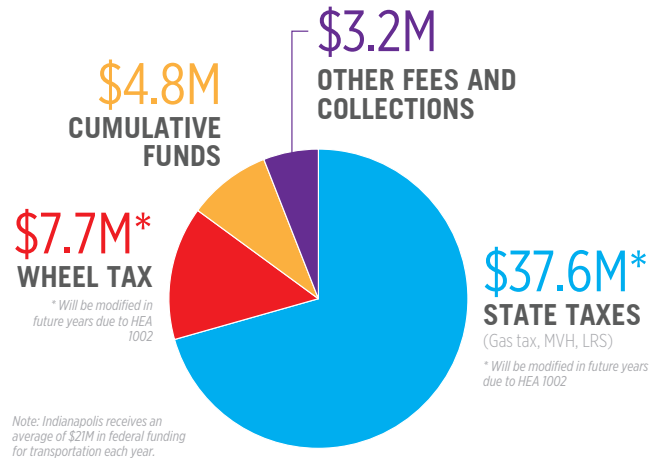
The cost to put a sidewalk on at least one side of every street is \$1.6B.

## Keeping up

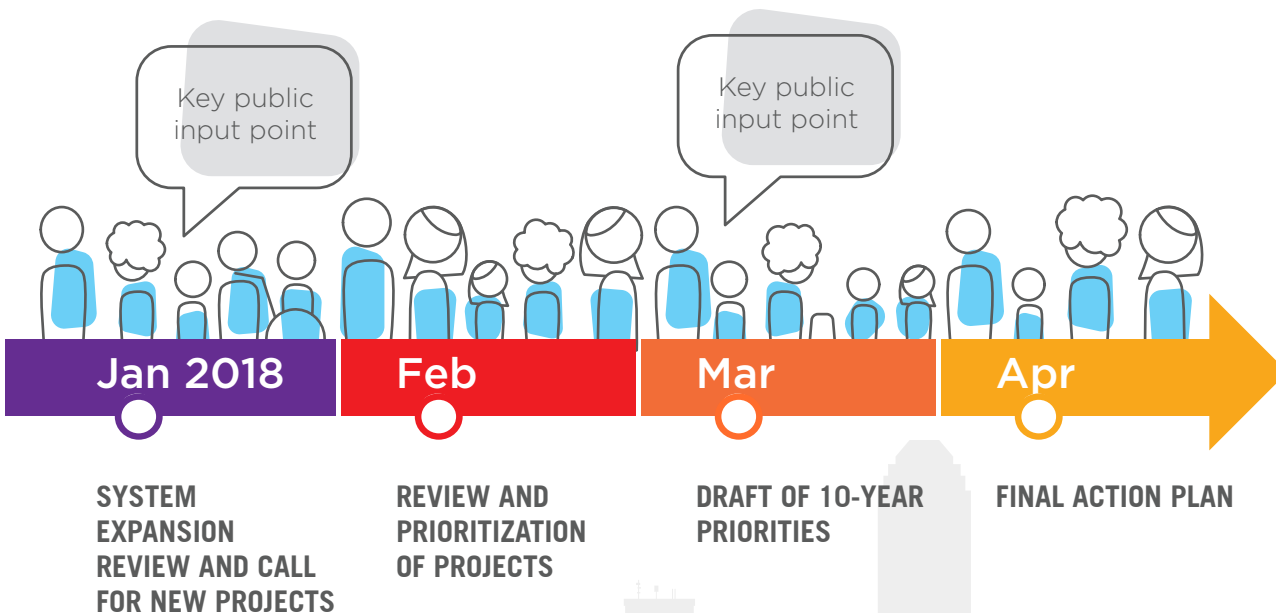
Our current transportation funding sources just can't keep up with existing needs. The property tax cap has limited growth potential, and additional income and sales taxes aren't available for transportation. Gas taxes provide most of our transportation budget in Indianapolis, but those revenues are shrinking. We receive about \$37M per year from the gas tax today, which is only a fraction of the \$178M we should spend each year to maintain the City's transportation network in a fair condition.

Our aging system needs a lot of work to bring it up to a state of good repair. As of 2016, the cost was \$732M. And that's just for maintenance—it doesn't account for the hundreds of miles of planned greenways, roadways, sidewalks, and other transportation projects that are not yet funded.

2016 PUBLIC WORKS TRANSPORTATION REVENUES



In 2016, the U.S. average fuel economy hit a record high of 24.8 mpg (nearly a 25% increase since 2000). **This is good for our environment but results in less gas tax revenue for Indy.**



# WHAT'S BEEN DONE?

Indianapolis is no stranger to great citywide planning. Over the last six years, we've focused on setting the vision for the future. What we haven't done is integrate the ideas expressed in our many plans into a single set of projects that has clear priorities attached.

With limited resources, we must focus on advancing the projects that are going to best support our community values and help keep Indy residents, businesses, and visitors moving, both today and in the future.

## Shared values



The values shared by 16 recent local and regional planning efforts help to shape Indy Moves and Indianapolis' transportation future.



# 1

Transportation is an important tool for **economic development.**

## In the last 6 years ...

2011

- » Indiana State Rail Plan
- » 2035 Long-Range Transportation Plan

2012

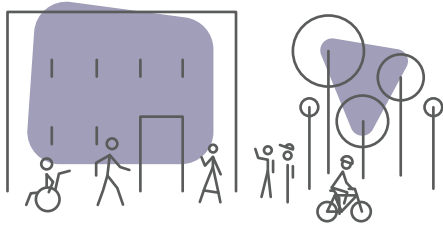
- » **Indy Connect:** Regional Bikeways Plan
- » Indianapolis Bicycle Master Plan
- » Indianapolis Complete Streets Ordinance

2013

- » **Indy Connect:** Red Line Alternatives Analysis Final Report
- » Coordinated Public Transit-Human Services Plan
- » Velocity Action Plan

2014

- » **Plan 2020:** HUD Consolidated Plan
- » 2014-2024 Indy Greenways Full Circle Master Plan
- » Blue Ribbon Panel on Transportation Infrastructure Report



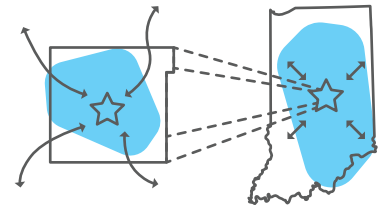
2

Transportation should be **safe for all people** and have **minimal impact on the environment.**



3

The Indianapolis region should **improve on existing assets.**



4

Transportation should be part of a **regionally integrated system.**



5

**Mobility choices and connected networks** are important to the future of Indianapolis.

2015

- » **Indy Connect:**  
TOD Strategic Plan
- » **Accelerate Indy:**  
Comprehensive Economic Development Strategy
- » **Accelerate Indy:**  
Metro Export Plan
- » **Plan 2020:**  
Red Line TOD Strategic Plan
- » Self-Evaluation and Updated ADA Transition Plan
- » IndyGo Forward

2016

- » **Plan 2020:**  
Marion County Thoroughfare Plan Update
- » **Plan 2020:**  
Bicentennial Agenda
- » **Indy Connect:**  
Central Indiana Transit Plan
- » **Accelerate Indy:**  
Global Trade and Investment Strategy
- » Regional Freight Plan
- » Indianapolis/Marion County Pedestrian Plan

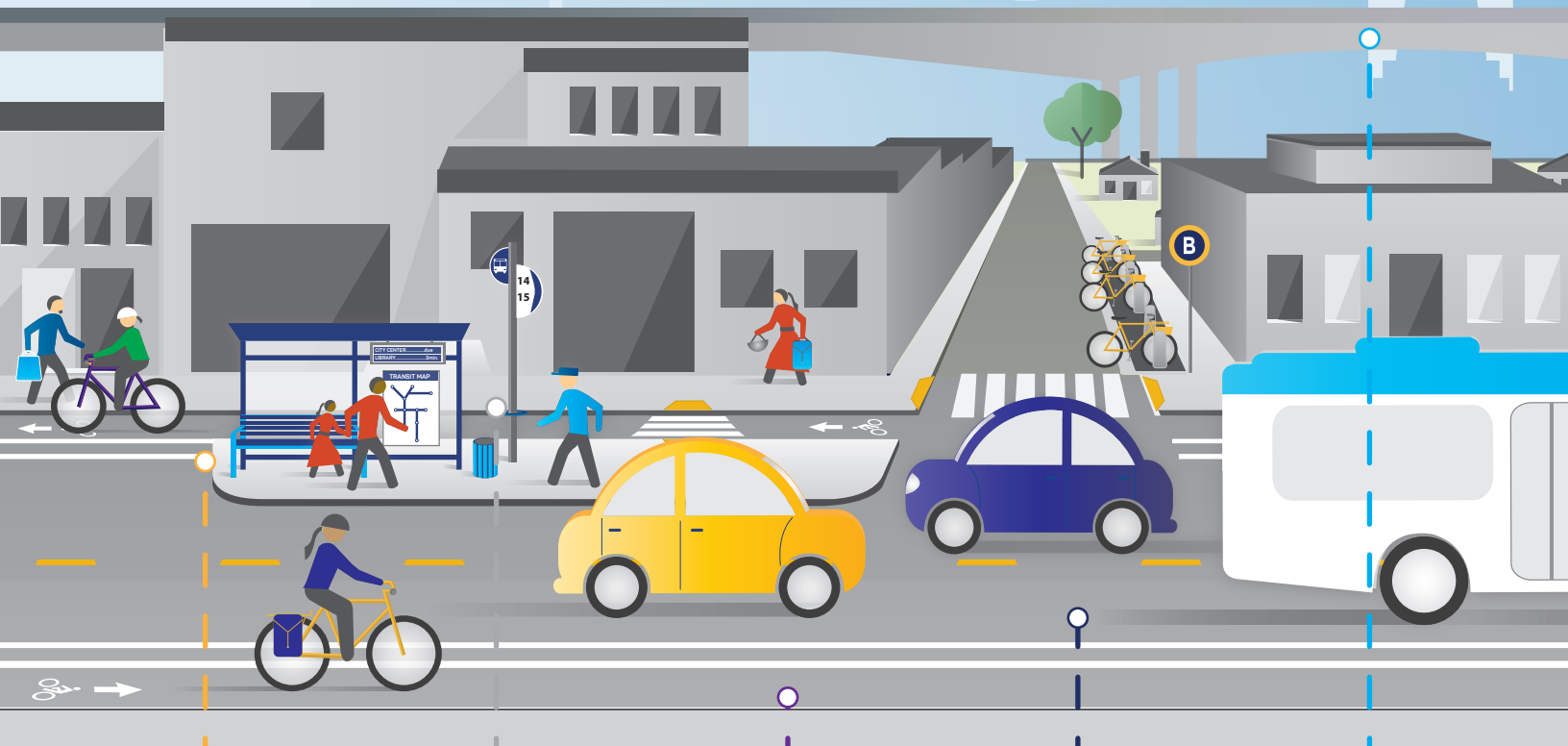
2017

- » **Quarter cent Income tax for transit approved**
- » Parks Comprehensive Master Plan Update
- » 2018-2021 Indianapolis Transportation Improvement Program
- » 2045 Long-Range Transportation Plan

Future

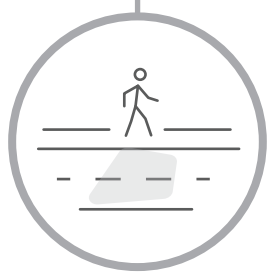
- » **Plan 2020:**  
Marion County Land Use Plan Update
- » **Plan 2020:**  
Regional Center Plan Update

# MOBILITY BY THE NUMBERS



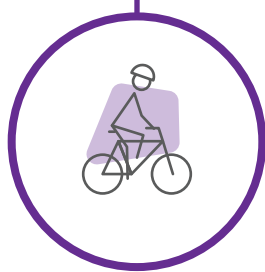
**54%**

of people live  
within 1/2 mile of  
IndyGo bus service



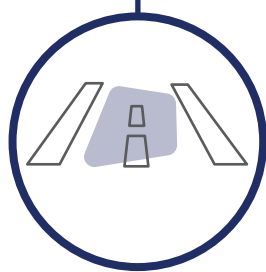
**34%**

of roads have a  
sidewalk on at  
least one side



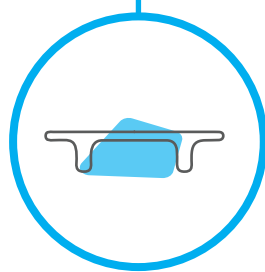
**104**

miles of  
bike lanes



**8,175**

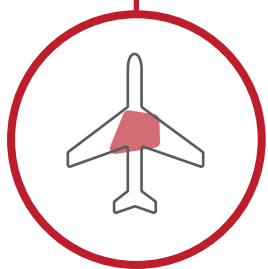
miles of  
city-maintained  
roads



**540**

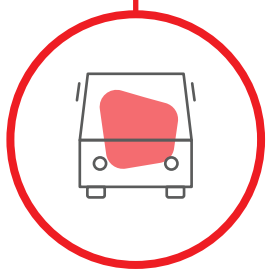
bridges





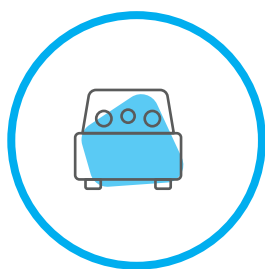
**14,000**

tons of air freight  
pass through  
Indianapolis terminals



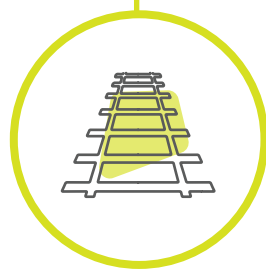
**798**

miles of  
IndyGo bus  
routes



**1.5M**

miles of carshare trips  
in BlueIndy vehicles



**282**

miles of railroad



**99**

miles of trails  
and greenways

# CARRYING PEOPLE



How are people moving to, through, and around Indianapolis today?

Driving continues to be the way most Indy residents get around, although new projects to support walking, biking, and riding transit are increasing the numbers of people who use those modes as well. However, the size of the city and the number of people who commute into and out of the county for work means that driving is often the fastest way to cover long distances, especially given the relatively low level of traffic congestion in Indy.

## Bikeshare trips

100,000+ trips

IN THE THIRD YEAR OF PACERS BIKESHARE OPERATION

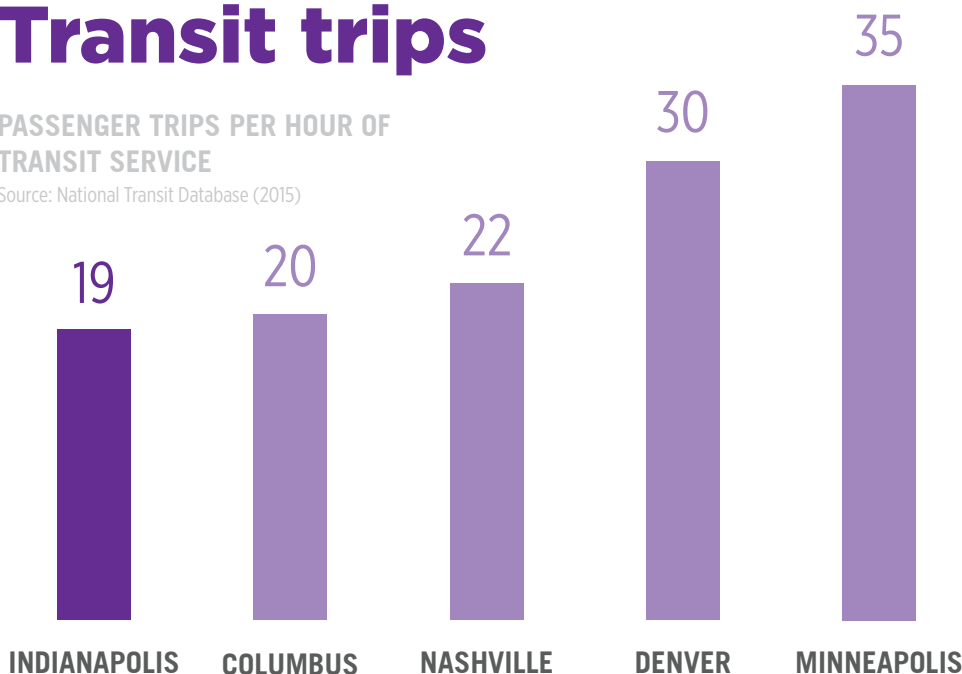
Source: Pacers Bikeshare



## Transit trips

PASSENGER TRIPS PER HOUR OF TRANSIT SERVICE

Source: National Transit Database (2015)

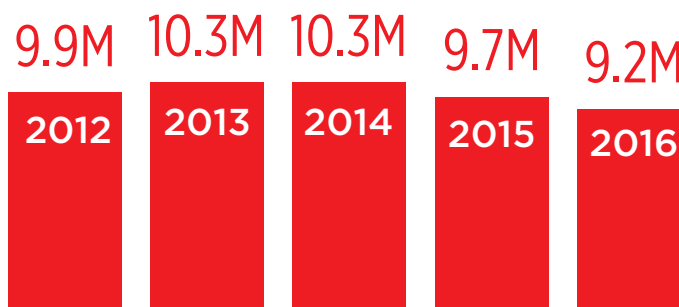


People in Indy ride transit less often than in peer cities, and **transit ridership has declined in the last two years.**

Fluctuating ridership trends show that **IndyGo has yet to reach its full potential.**

TOTAL INDYGO TRIPS, 2012–2016

Source: National Transit Database (2012–2016)



The average driving commute is 23 minutes faster than the average public transit commute. Compared to peer cities,

**Indy public transit riders have the longest commute relative to drivers.**

## Average commute travel time

COMMUTE LENGTH  
(MINUTES), FOR TRANSIT  
AND DRIVE ALONE

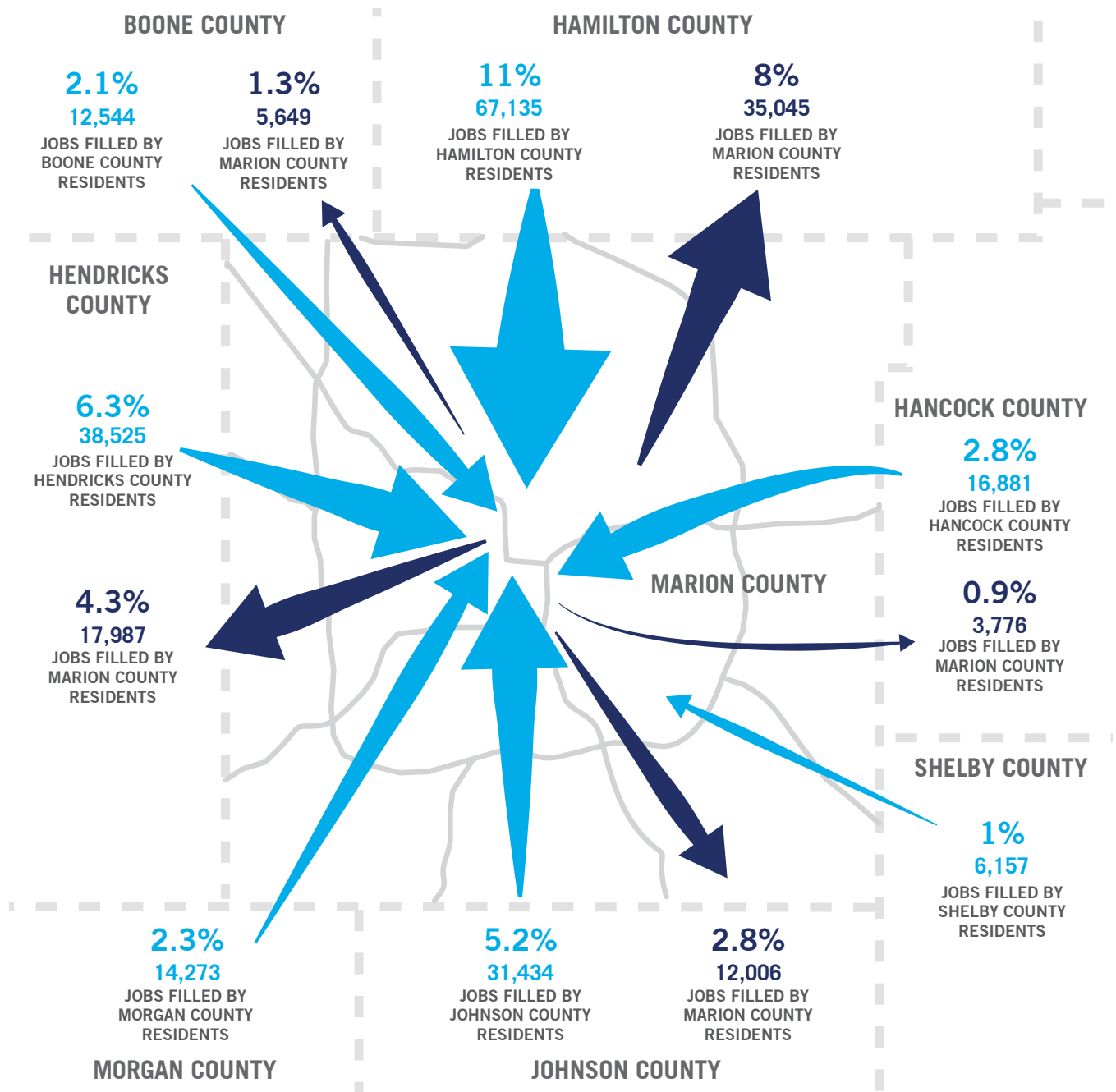
Source: Five-Year American  
Community Survey (2011–2015)



HOW MUCH LONGER IS  
A TRIP ON TRANSIT?

Indianapolis	45 mins	22 mins	23 mins
Denver	42 mins	24 mins	18 mins
Nashville	42 mins	23 mins	19 mins
St. Paul	41 mins	22 mins	19 mins
Columbus	39 mins	21 mins	18 mins
Minneapolis	35 mins	21 mins	14 mins

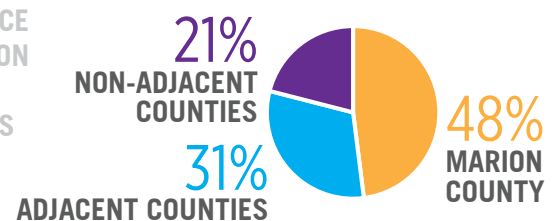
# Regional commute patterns



Note: An additional 21.1% of workers commute to Marion County from counties not shown on this map. Source: Longitudinal Employer-Household Dynamics (2014)

Over half of all workers in Marion County **commute from another county.**

RESIDENCE OF MARION COUNTY WORKERS

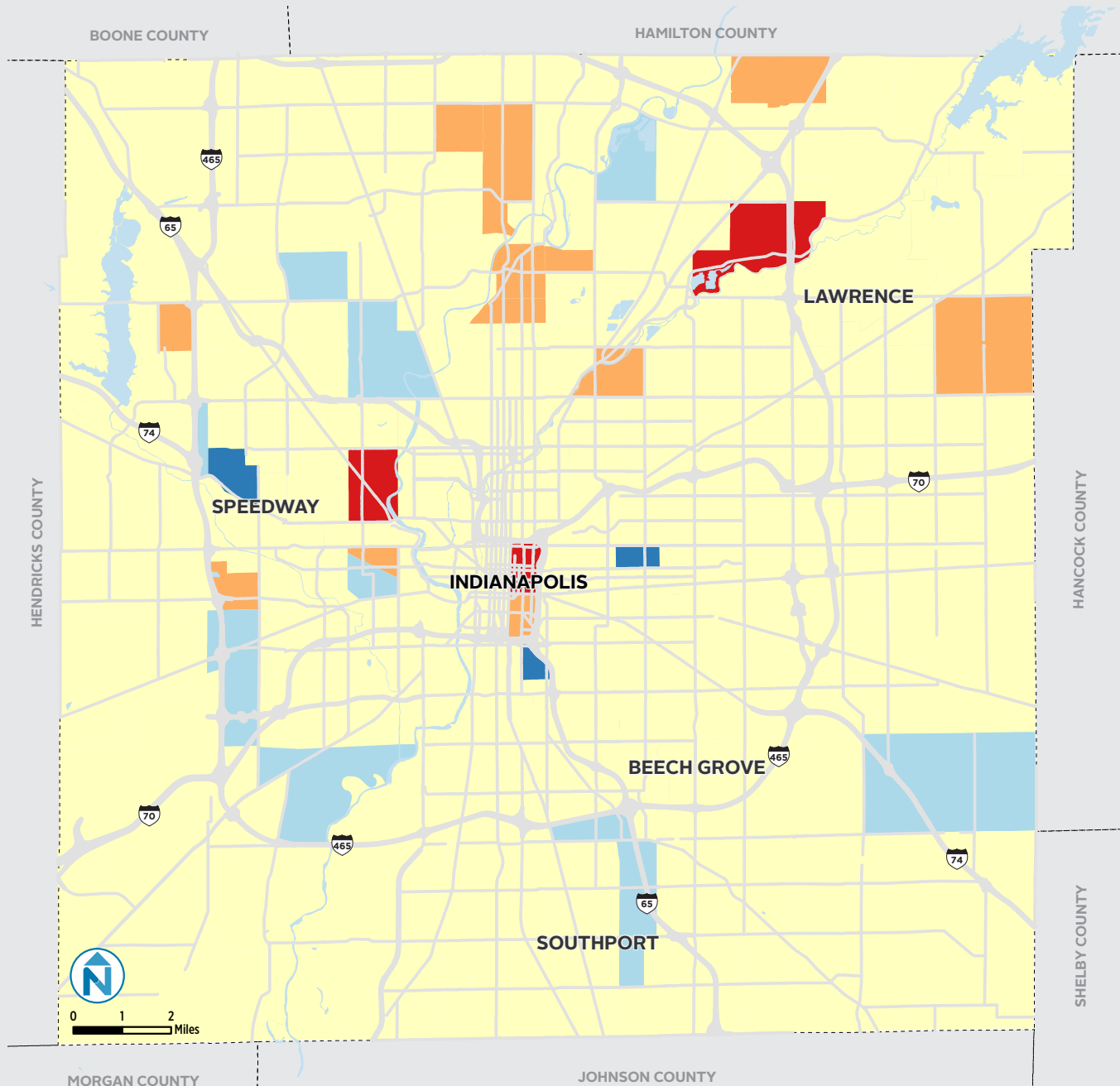


Source: Longitudinal Employer-Household Dynamics (2014)

# Changes in travel behavior

## CHANGE IN NUMBER OF PEOPLE DRIVING ALONE BETWEEN 2006–2010 AND 2011–2015, BY CENSUS TRACT

Sources: Five-Year American Community Survey (2006–2010 and 2011–2015)



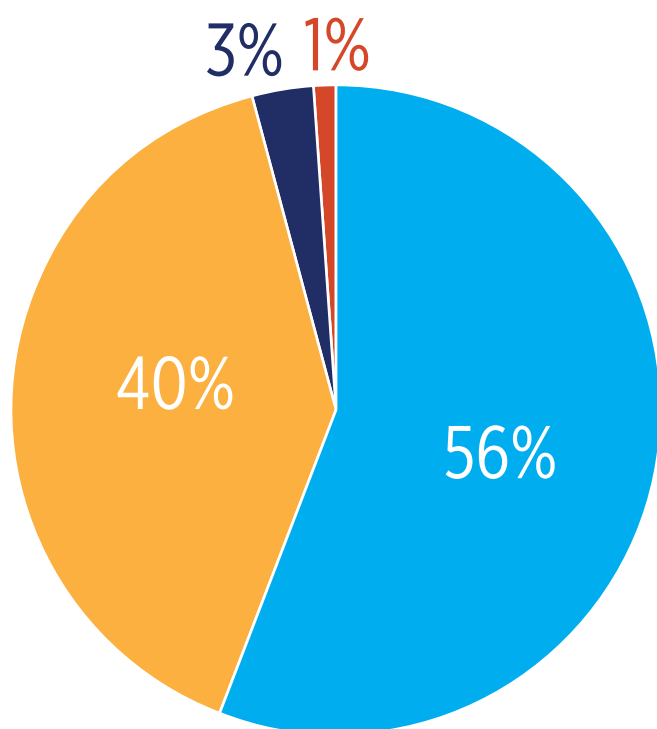
## How is travel behavior changing?

Many neighborhoods south, west, and outside the downtown core saw decreases in residents choosing to drive alone to work from 2010 to 2015. In the northern and eastern neighborhoods, the same time period showed increases in commuters driving alone to work.



# Driving in Indy

on local streets vs. highways



- CITY & COUNTY ROADS
- INTERSTATES
- STATE ROADS
- FEDERAL HIGHWAYS

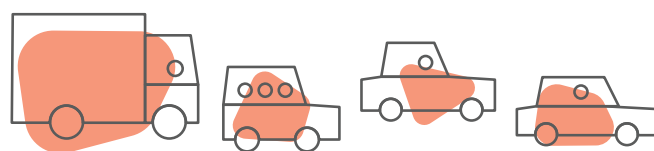
Source: Indianapolis Department of Metropolitan Development

**More than half of all vehicle miles traveled (VMT) in Marion County are on city and county roads.** This means that our city streets are carrying a heavy maintenance burden.

Drivers in Indy spend far less time in traffic than drivers in peer cities. Low levels of congestion suggest an oversupply of roadway space, presenting **opportunities to provide people with more travel choices.**

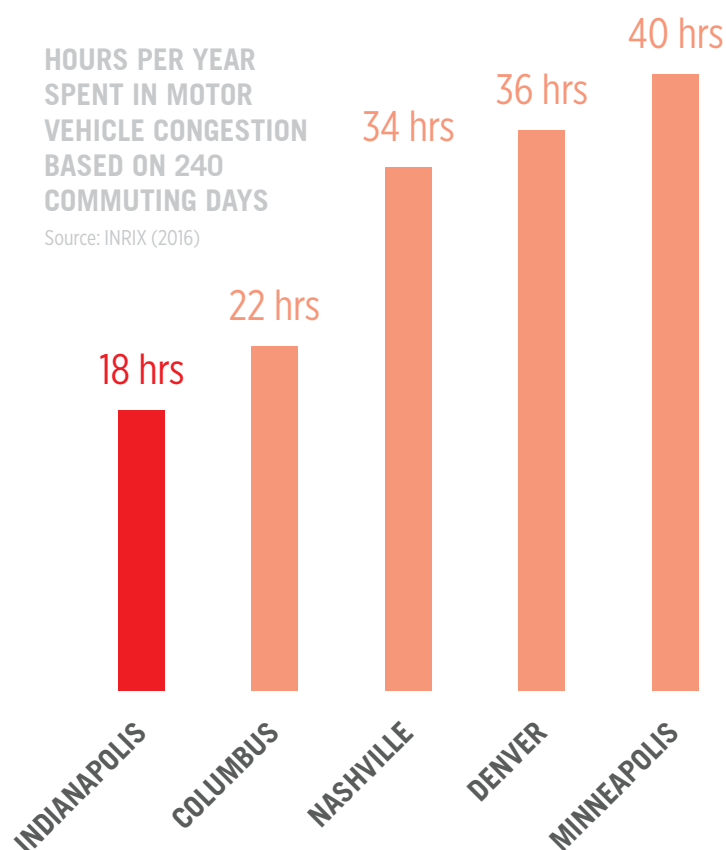
## Sitting in traffic

Yearly hours spent in congestion



HOURS PER YEAR  
SPENT IN MOTOR  
VEHICLE CONGESTION  
BASED ON 240  
COMMUTING DAYS

Source: INRIX (2016)

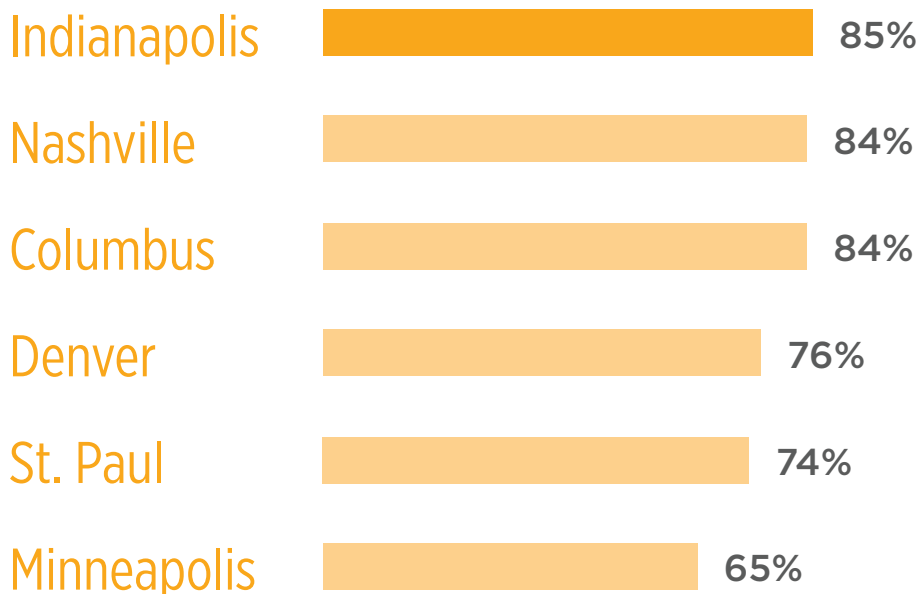
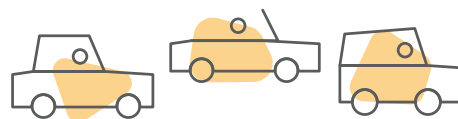




# Commute mode share

PERCENT OF COMMUTERS WHO DRIVE ALONE TO WORK

Source: Five-Year American Community Survey (2011–2015)



**Most people in Indianapolis still drive alone to work,** with only 15% of people carpooling, taking the bus, walking, or biking for their commute.

## OPPORTUNITY SPOTLIGHT



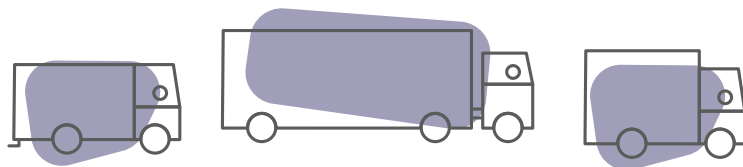
# 1

Indianapolis has a far-reaching system of streets and highways that connects the region. As a result, driving remains the most convenient way to get around. As the city continues to provide more mobility choices, through bikeshare, carshare, enhanced bus and BRT, and trails and greenways, people will have many more ways to move in Indy.

# 2

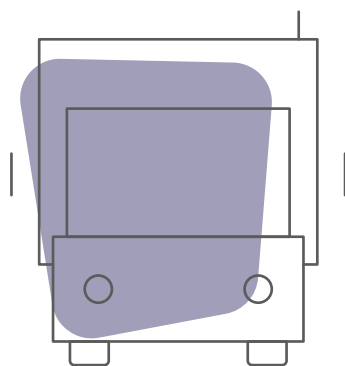
Indy will need to overcome the challenge of a still-maturing public transportation system that does not yet offer competitive commute times. Stabilizing ridership and proving IndyGo's efficiency and value to the community should be a priority. Passage of the 2016 income tax measure and upcoming BRT projects are the first steps in an improved and expanded transit system for Indianapolis.

# MOVING GOODS



For freight, Indianapolis is truly a “crossroads of America.”

Home to four interstate highways, a major railroad hub, and FedEx’s second-largest air freight facility, Indianapolis depends on the efficient transportation of goods for economic vitality.



### By weight

Total goods (in tons)

CHICAGO, IL	3.6M
FORT WAYNE, IN	1.8M
COLUMBUS, OH	1.5M
CINCINNATI, OH	1.3M
DAYTON, OH	0.9M

### By value

Total goods (in dollars)

CHICAGO, IL	\$6.5B
DETROIT, MI	\$3.4B
DALLAS-FORT WORTH, TX	\$3.2B
FORT WAYNE, IN	\$2.9B
NASHVILLE, TN	\$2.8B

## Top goods types flowing from Indy

### By weight

Total goods (in tons)



**18.0M**  
GRAVEL



**7.8M**  
GASOLINE



**7.3M**  
CEREAL GRAINS

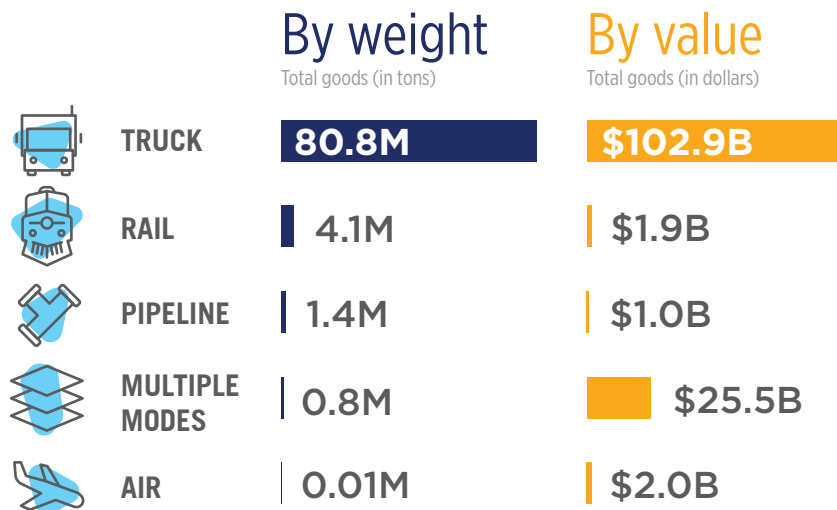


**6.5M**  
NONMETAL  
MINERAL PRODUCTS



**6.3M**  
BASE METALS

# How goods move from Indy



## Air freight as an economic linchpin

Nine freight providers move more than \$1B\* out of Indianapolis International Airport (IND) each year. One of the region's major job centers, IND is the the second-largest FedEx air freight facility in the world. Continuing to grow the airport's cargo hubs and the city's ability to move goods will create more economic growth in advanced manufacturing industries.

\*Source: 2015 Freight Analysis Framework, Bureau of Transportation Statistics

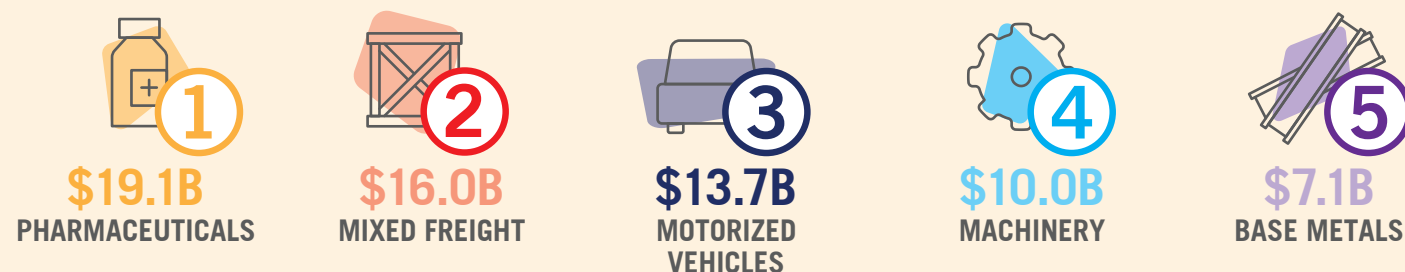
## OPPORTUNITY SPOTLIGHT

Nationally, freight volumes and their attendant impacts are expected to grow by over 60% in the next 25 years, increasing the need for projects and programs to support the movement of goods.

One of Indy's freight transport successes is its air cargo capacity, which allows for the movement of sensitive but economically vital "cold chain" goods, such as pharmaceuticals. The region is challenged, however, by truck congestion at key interchanges and a surplus of pass-through freight traffic. Indianapolis must find ways to capture the value of these pass-through shipments while managing the significant infrastructure costs.



## By value Total goods (in dollars)

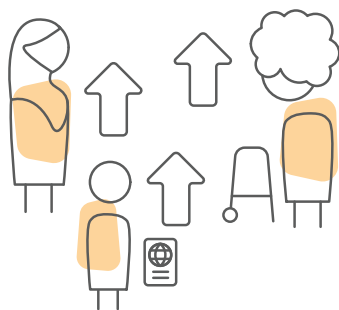


# GROWING OUR REGION

Indianapolis continues to grow and change, and with that comes new opportunities and challenges for the people that live and work in our city and the ways they get around.

All residents should have access to affordable transportation choices that connect them to home, school, work, and the other places they need to go.

## Demographic changes



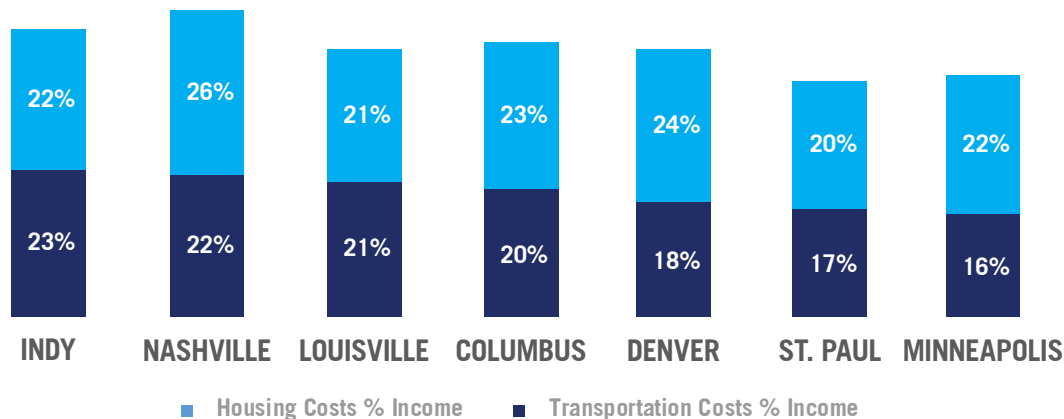
From 2010-2015, the percentage of Indy residents over the age of 65 increased by 0.5%, while the percentage of residents under the age of 19 remained constant.

At the same time, the population of foreign-born residents increased by 0.5% and the number of people of color in the city increased by over 2%.

Source: Five-Year American Community Survey (2006-2010 and 2011-2015)

## High cost of transportation

Compared to its peers, Indianapolis has the highest transportation costs as a percent of income (23%) and second highest combined average housing and transportation costs.



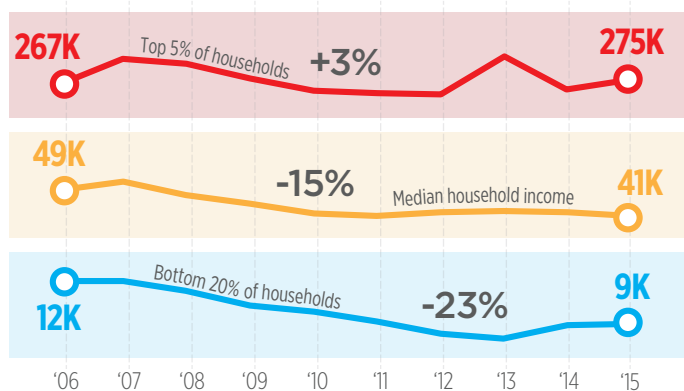
Source: H+T Index, Center for Neighborhood Technology

## Growing income inequality

Income inequality is growing in Indianapolis, reinforcing the need for affordable, efficient transportation choices.

### PERCENT CHANGE IN HOUSEHOLD INCOME, 2006-2015

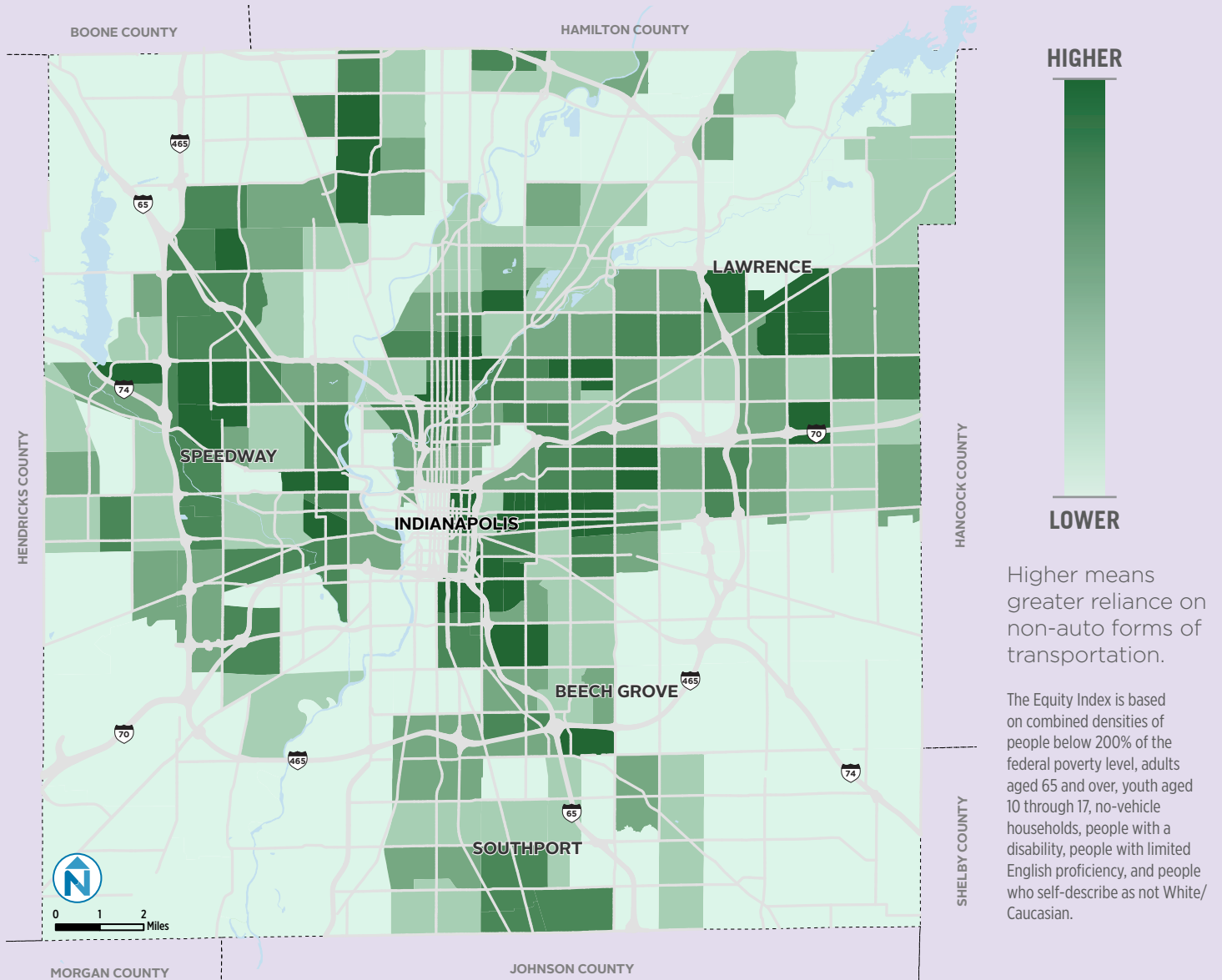
Source: One-Year American Community Survey (2006-2015)



# Communities of concern

## TRANSPORTATION EQUITY INDEX

Source: Five-Year American Community Survey (2011-2015)

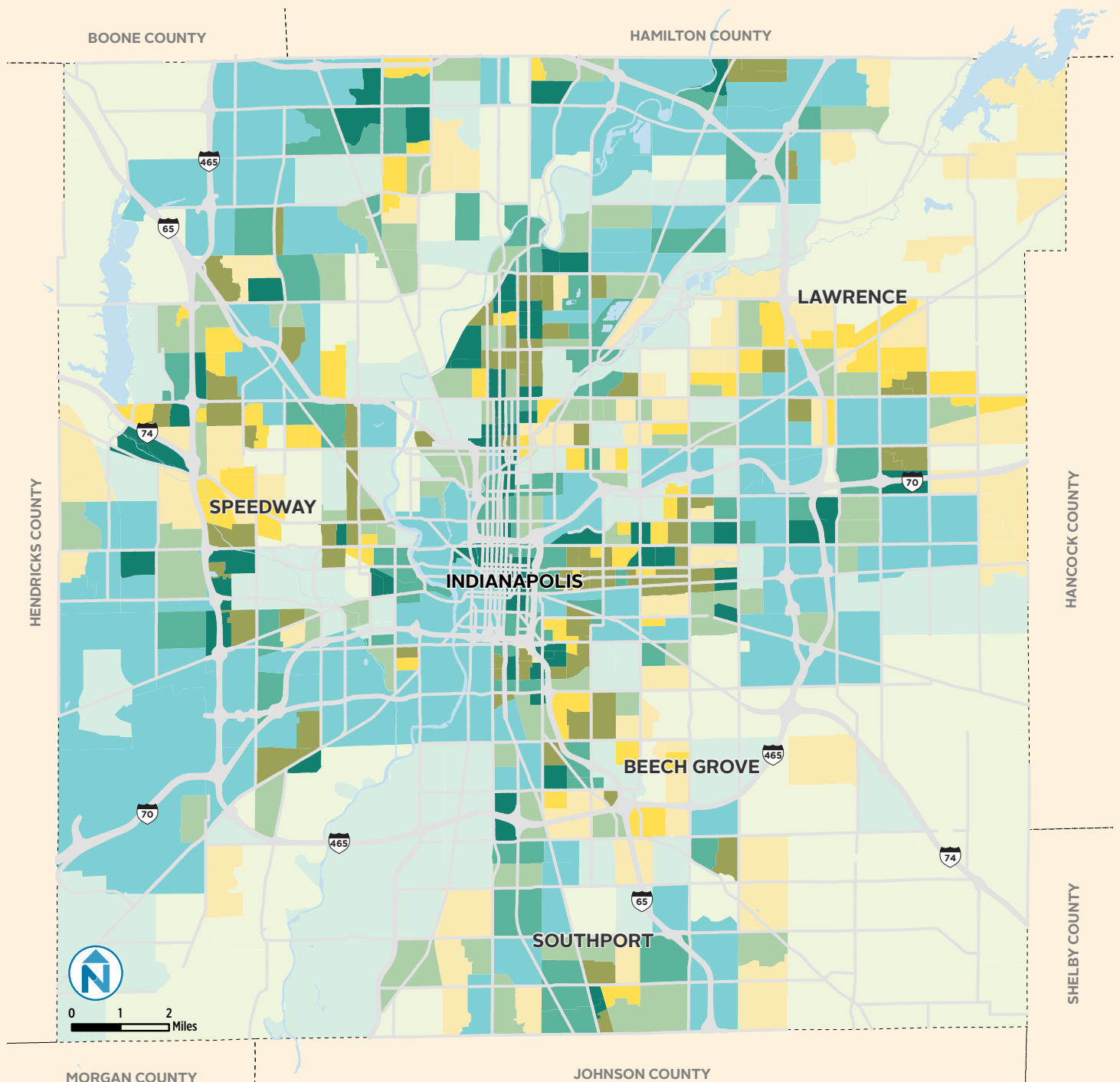


## What is Equity?

Equity is an important tool for analyzing people's access to transportation and for planning future investments. Planning within an equity framework empowers decision-makers to invest in places where transportation projects and programs can support historically underrepresented communities that may have fewer transportation options.

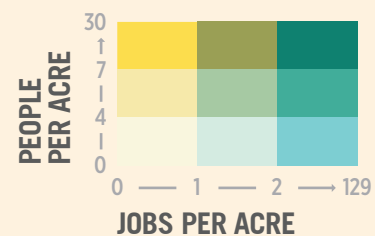
“Using an equity framework in Indy will help us **improve access to transportation options for all.**”

# Where people live and work

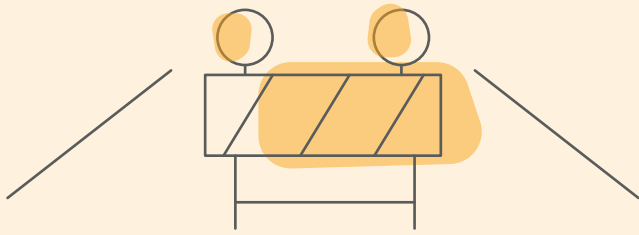


## COMBINED POPULATION AND EMPLOYMENT DENSITY

Sources: Five-Year American Community Survey (2011–2015),  
Longitudinal Employer-Household Dynamics (2014)







## Low density, high infrastructure costs

The darker areas on the map to the right show parts of the city with more housing and more jobs. The darkest teal areas are those with a mix of many homes and many jobs.

However, relatively low densities of population and employment throughout much of the city means there is a great deal of infrastructure needed to support sprawling development patterns.

Both jobs and homes are widely dispersed throughout Indy, **challenging the city to efficiently meet a diverse array of transportation needs.**

## OPPORTUNITY SPOTLIGHT

Indianapolis is moving forward on two major redevelopment projects, both of which present opportunities to expand transportation choices for current and future residents, workers, and visitors.



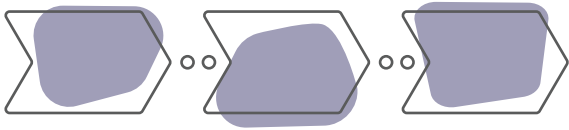
1

The GM Stamping Plant redevelopment is a RACER Trust environmental remediation project slated to become a 103-acre mixed-use district. The development is a special opportunity to establish transit-supportive land uses and attract a new workforce.

2

A planned innovation community, 16 Tech Innovation District will be a mixed-use district with a special focus on training Indy's next-generation biotech workforce. The project will integrate active transportation and could model regional transit-oriented development.

# KEY FINDINGS AND NEXT STEPS



This existing conditions report sets the stage for integrating Indianapolis' transportation plans, policies, projects, and responsibilities to help Indy move. Chief among the findings are these:



## City size

Indianapolis is a huge city of over 400 square miles.

This presents challenges for delivering transportation choices for all residents across a large geography. Many of the people who most need affordable and efficient transportation live far from the downtown core.

## Existing plans

Indy has many existing plans that set transportation priorities.

However, the city lacks a unified vision and set of projects to achieve its desired mobility future.

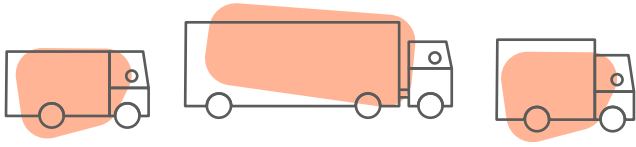


## Modes

Driving is the way that most people move around Indianapolis today.

But, the city is growing and preferences are changing. Indianapolis residents are asking for safe, efficient, and cost-effective transportation choices to support their movement around the city and the region.

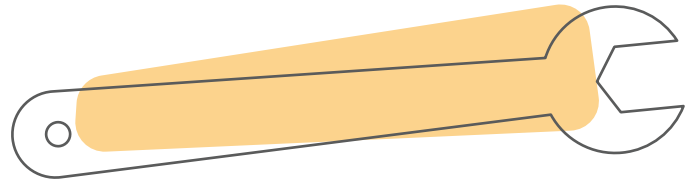




## Freight

Indianapolis is a major mover of freight and goods.

The city struggles to effectively capture the economic value of the goods it moves, even while making infrastructure investments to support freight.



## Maintenance

Maintaining the existing transportation system is expensive.

Our transportation needs are great and will continue to grow. Bringing the existing network to a state of good repair will cost more than \$730M (as of 2016).



## Investments

The city is making important investments in transportation facilities, including the Cultural Trail and upcoming BRT.

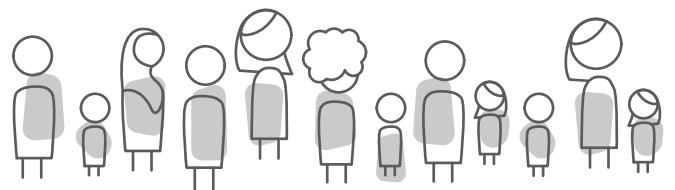
Yet there is a need to focus on maintaining and improving the existing system as new projects come online.



## Get involved

We need your input by April 2018 to make sure Indy Moves charts the mobility future you want to see!

You can learn more about the project, take a survey and share your thoughts, or sign up for regular updates at **IndyMoves.org**.





Indy Moves

## **Appendix B: Pedal Indy**

**October 2018**









## EXECUTIVE SUMMARY | 2018

PUBLIC REVIEW DRAFT



# LAYING THE FOUNDATION

Pedal Indy is part of Indy Moves, the City of Indianapolis' Transportation Integration Plan. Building on the 2012 Indianapolis Bicycle Master Plan, Pedal Indy provides a path for our residents and city and county officials to improve and further develop our bike network. By creating a safe, low-stress, well-connected network that is accessible and welcoming for people of all ages and bicycling abilities, we will make new neighborhood connections, improve access to major destinations and fill in existing bike network gaps.

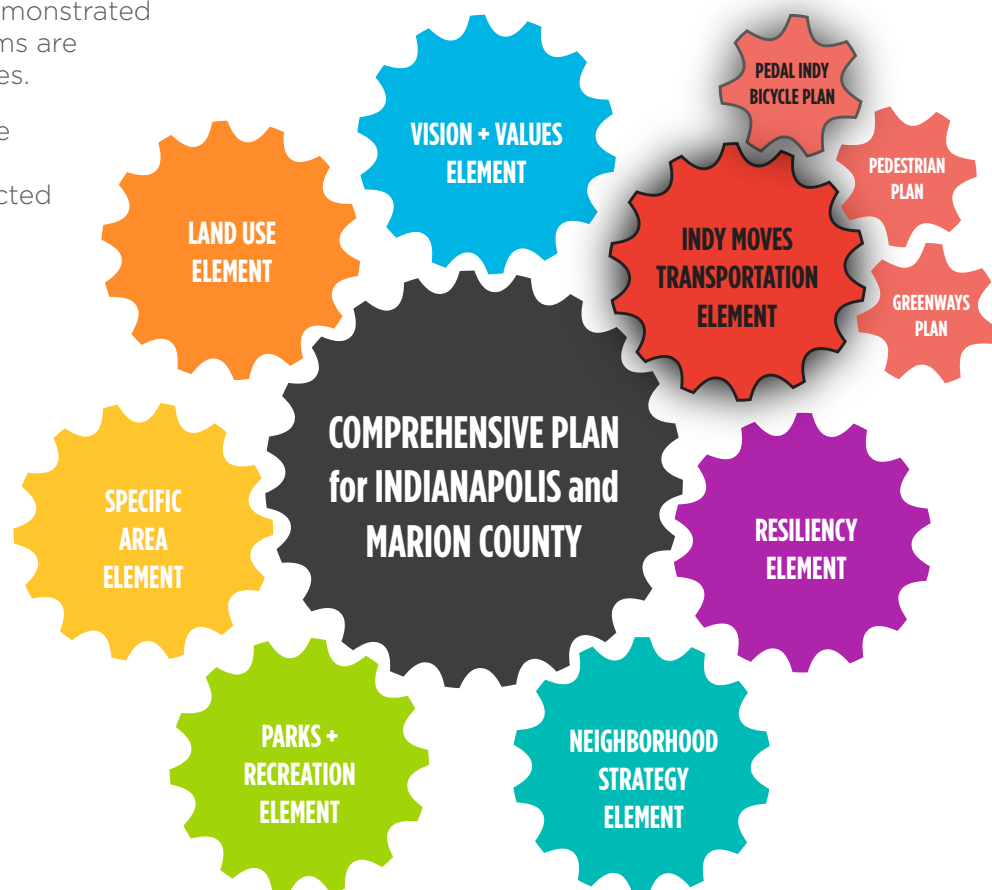
## Why Is Pedal Indy needed?

Bicycle infrastructure and the city's approach to its planning, design, and construction has evolved significantly since the 2012 Bicycle Master Plan was adopted. Best practice nationally—and locally with the Indianapolis Cultural Trail—has demonstrated that the most successful bike programs are designed around Vision Zero principles.

Pedal Indy recommends an innovative design and network approach to supplement resource-intensive protected infrastructure with a low-stress, low-traffic network called Neighborways, or Neighborhood Greenways, to maximize biking comfort and coverage for all Indy residents.

**A prosperous city requires a dense and diverse network of connective tissue** that links economically, cultural diverse neighborhoods, cultural destinations and amenities, social gathering hubs and economic opportunities.

-Plan 2020 Bicentennial Agenda





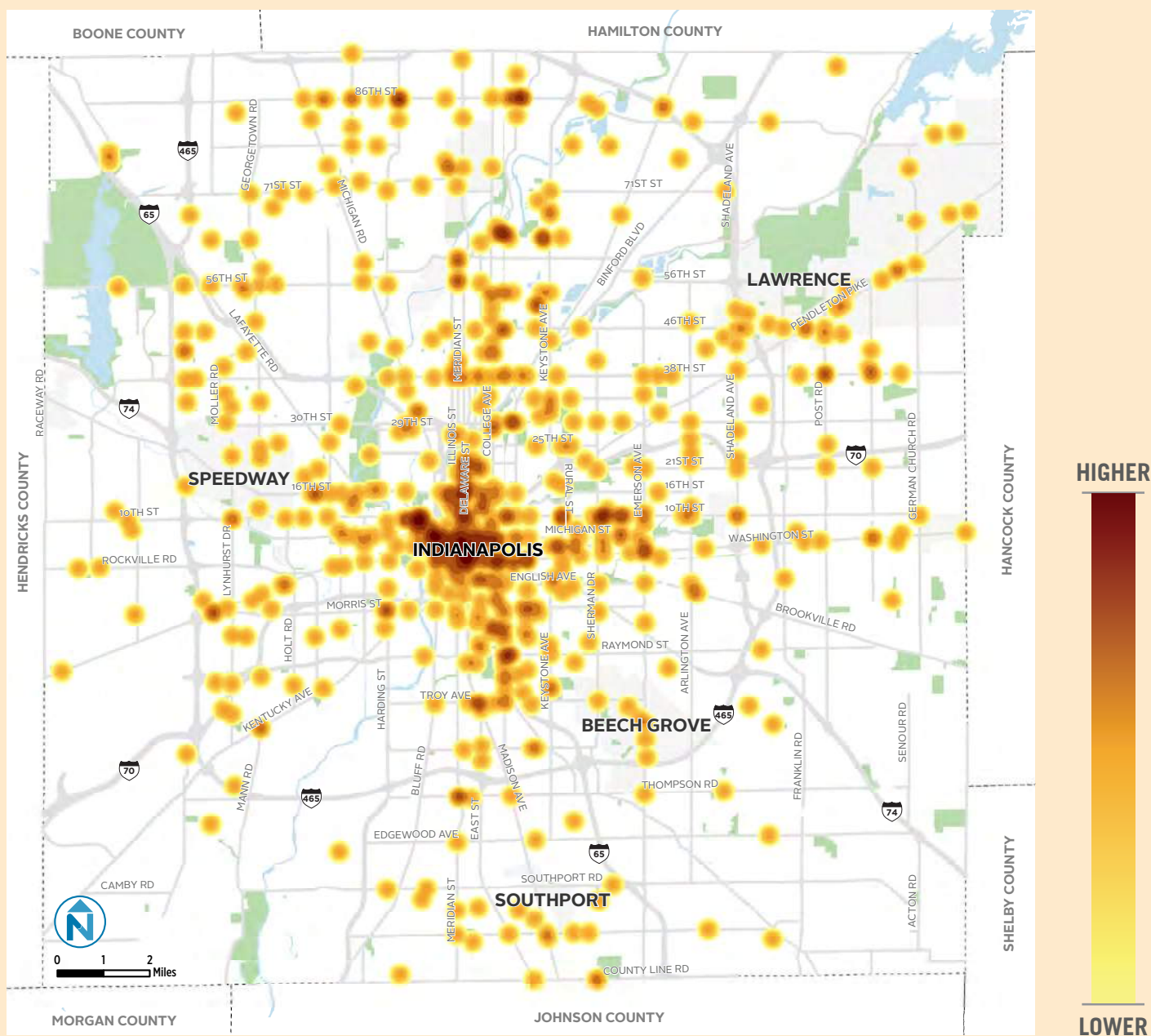
# Making Safety a Top Priority

Bicycle-involved traffic crashes in Indianapolis are most common on corridors where fast-moving vehicles and bicycles share the road. Roadways such as 10th, 16th, 38th, and 86th Streets have high densities of crashes, as do Washington Street, Raymond Street, and much of the downtown core. The city must focus on designing safer streets and increasing transportation choices to ensure people have safe options to move around our city.

Safe places to walk, bike, take transit, and drive are critical to Indy's future.

## DENSITY OF BICYCLE CRASHES RESULTING IN INJURY OR FATALITY, 2012-2016

Source: Aries Crash Data 2012-2016, Indianapolis MPO, and City of Indianapolis





# BIKING IN INDY TODAY

## Indy's Bike Facilities

Today, Indianapolis is home to world-class bike infrastructure that provides accessible, low-cost, healthy, and environmentally-friendly mobility choices for residents and visitors alike.

The city has made great strides in building bicycle projects. From the first Mayor's Bike Ride in 2009 and the city's first striped bicycle lanes on Allisonville Road, residents, city staff, and city leaders have learned a great deal and remained passionate about

building better, safer infrastructure. The game changer for supporting high-quality, protected on-street infrastructure came with the opening in 2013 of the Indianapolis Cultural Trail: A Legacy of Gene and Marilyn Glick.

In the two decades since the first stretch of the Monon Trail opened, Indianapolis has built over 200 miles of bicycle infrastructure.



**BRONZE  
AWARD**

American League  
of Bicyclists



**104**

Miles of  
bike lanes



**99**

Miles of trails  
and greenways



**INDY  
CULTURAL  
TRAIL**

8.2 mi protected  
bike path

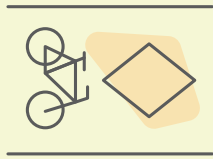


**34**

miles of  
multi-use paths

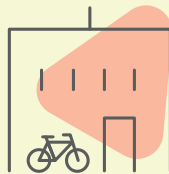
# Our Opportunities

Together with the growing Indy Greenways system, the city's investments and partnerships have built support and ridership. Projects like the Cultural Trail serve as a demonstration that low-stress bike infrastructure attracts a greater diversity of riders and increases demand. While there's a lot that's great about biking in Indy today, we still have work to do:



2%

Only 2% of existing bike facilities (by length) are rated with the lowest level of traffic stress



1%

Only 1% of Indianapolis residents bike to work

Source: ACS 2011-2015



185

On average, there are 185 bicycle crashes each year

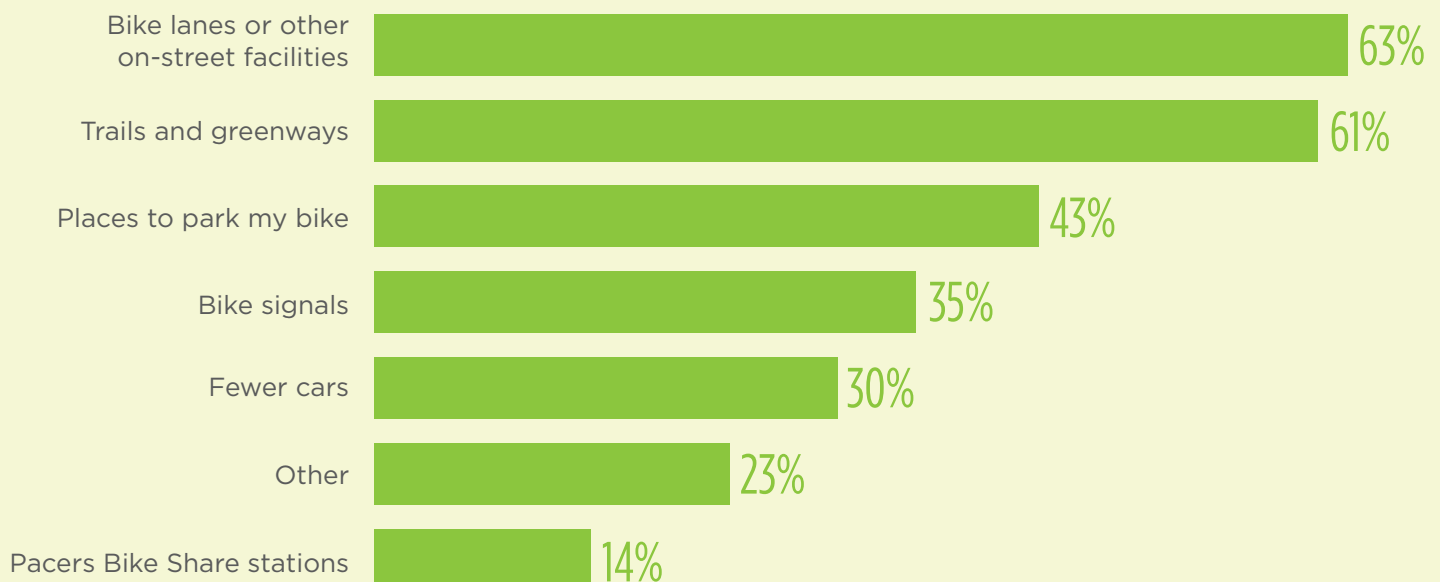
Source: ARIES, 2006-2016

## What do Indy residents say about biking today?

To develop Pedal Indy, we talked with people around the city about what works well and what needs to be improved when it comes to biking today. Through community meetings, a virtual open house, online maps and surveys, and coordination with the Indianapolis Mayor's Bicycle Advisory Council, we heard that people want lower-stress bike facilities that are safe for people of all ages and provide separation from vehicle traffic.

For biking, separated bike lanes, trails, and greenways are critical. Citing safety concerns due to high traffic volumes and speeds, people identified greenways and other protected bicycle facilities as both the best part of today's bicycle network and the biggest need to improve bicycling conditions.

## Biking in Indy would be better if there were...





# SETTING THE VISION



This plan is a blueprint for how we can expand and modernize Indy's bicycle infrastructure to improve the health and economic mobility of all residents while attracting and retaining the kind of talented workforce that drives a 21st-century economy. To keep Indy moving forward, we must invest in multimodal options, build high-quality protected infrastructure for bicycles, and reduce crash rates for the most vulnerable people on our roadways. By focusing our efforts on these transportation basics, we can increase economic opportunity, improve public health, and pave the way for innovative investments like the Indianapolis Cultural Trail.

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## PEDAL INDY VISION

**Indianapolis has a complete and equitable network of bicycle infrastructure that connects neighborhoods with opportunity and eliminates serious and fatal crashes involving bicyclists.**

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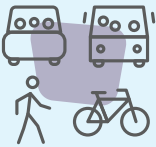
# Pedal Indy's Goals

Your feedback on community values as well as biking in Indy today helped to shape Pedal Indy's goals. The plan and the resulting network will help to achieve the following:



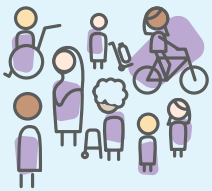
## SAFETY

Prioritize separating people riding bikes from faster-moving vehicle traffic and emphasize reduced vehicle speeds.



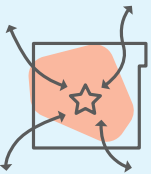
## MOBILITY

Create a network where travel by bicycle is facilitated by a safe and low-stress network.



## EQUITY

Develop an integrated multimodal transportation system that prioritizes those who have historically had limited access to such systems.



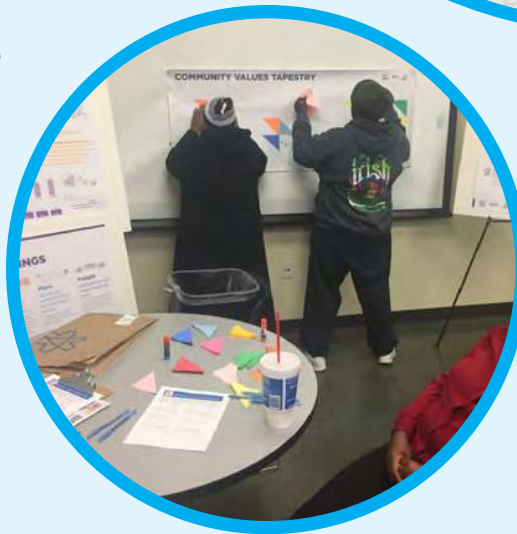
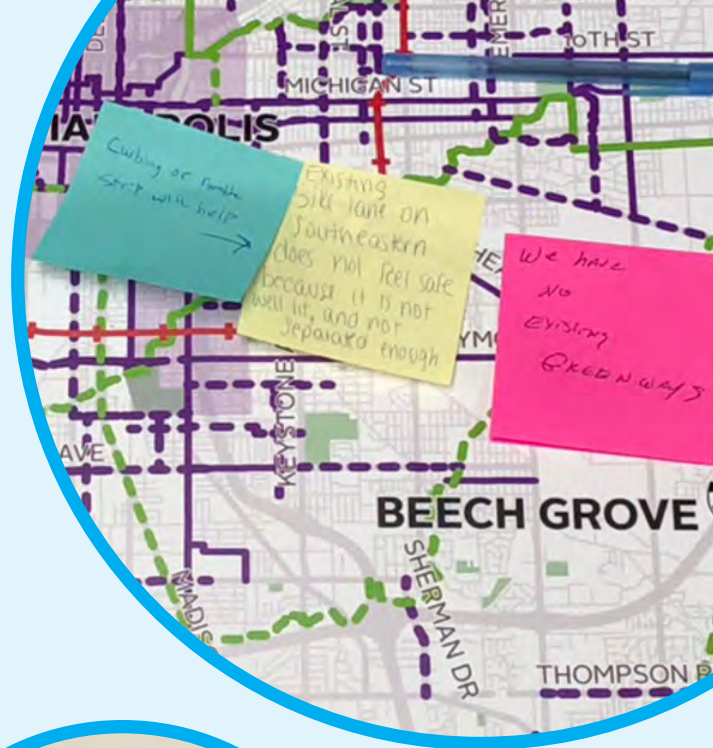
## CONNECTIVITY

Make low-stress connections to places where people live and work and to multimodal options.



## HEALTHY COMMUNITIES

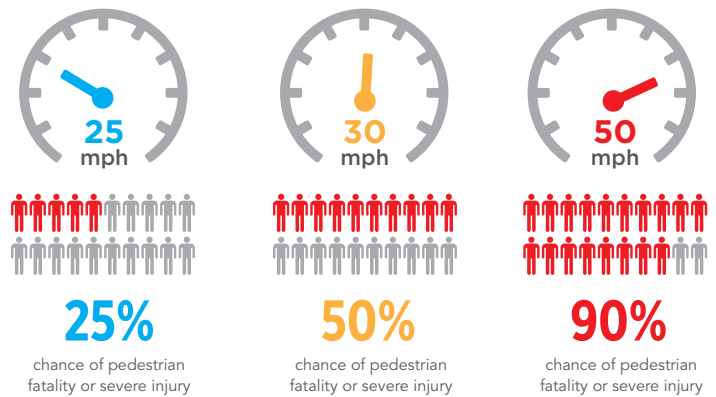
Promote physical activity as key to achieving positive mental and physical health outcomes.





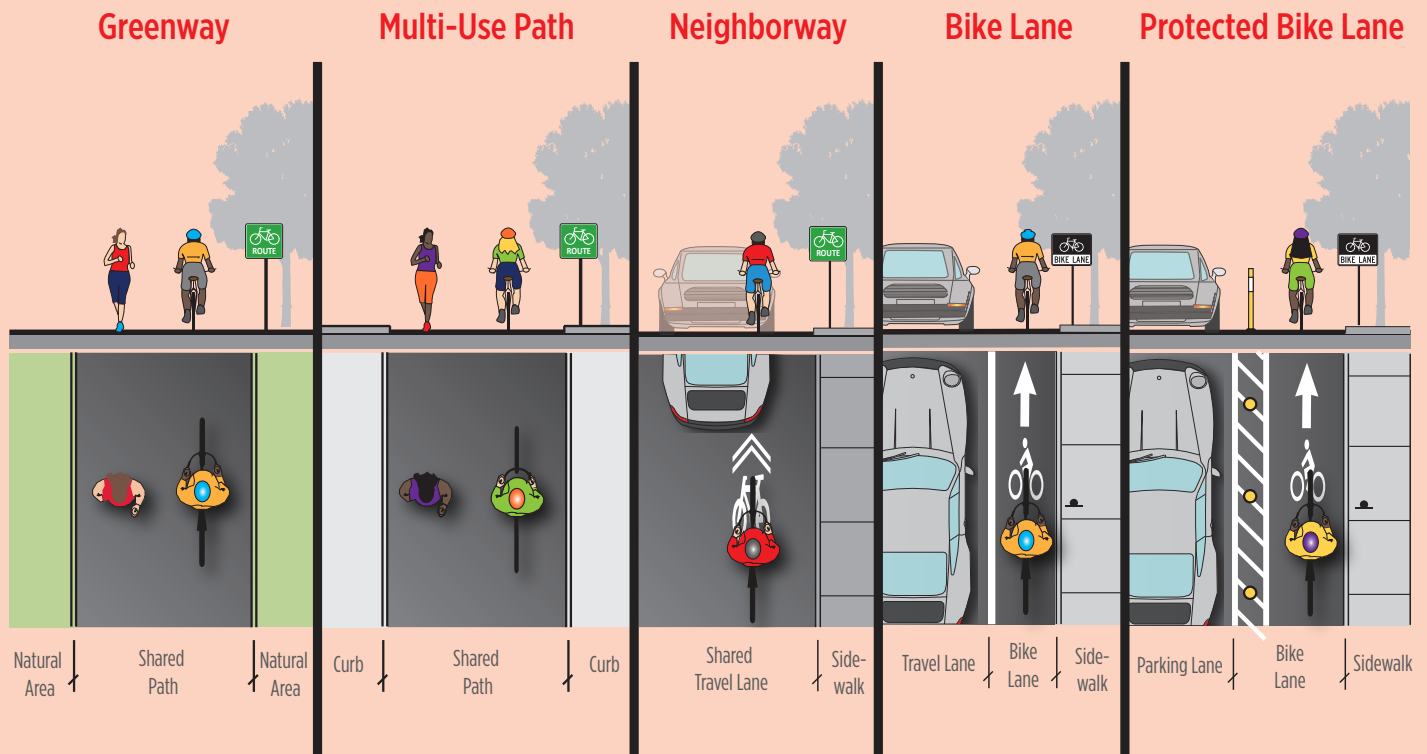
# BUILDING THE NETWORK

Indianapolis is committed to improving safety for everyone using our roads. This means we must shift to Vision Zero practices of planning and design to eliminate serious and fatal crashes. We know that a common reason people avoid biking is because they aren't comfortable mixing with vehicle traffic and worry about getting hit by a car. To overcome this concern, Pedal Indy prioritizes bicycle projects and street designs that minimize the potential for crashes. Because higher vehicle speeds impact the safety of people bicycling, it is particularly important to physically separate people driving from people biking on higher-speed, higher-traffic streets.

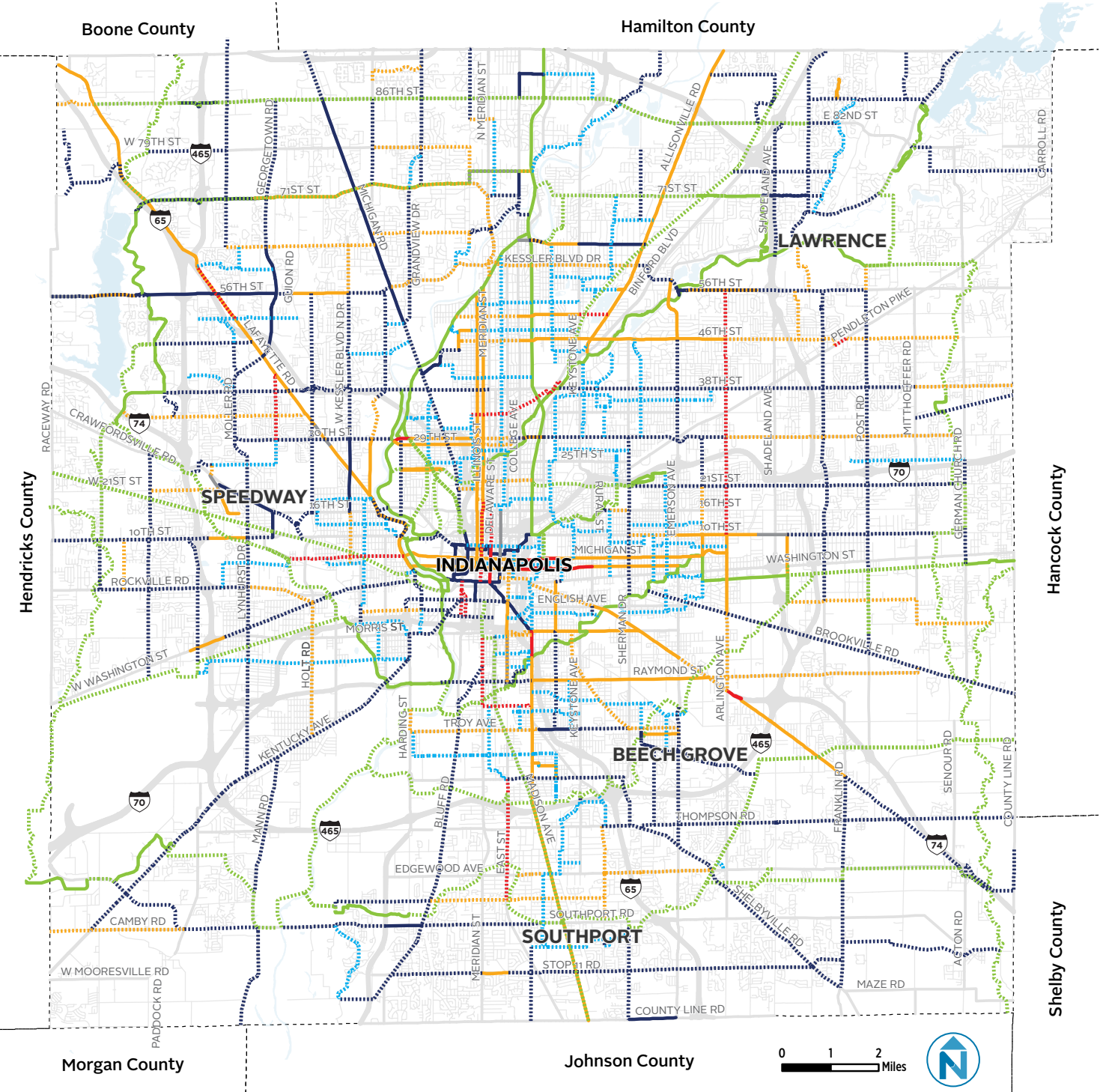


Source: Tefft, Brian, 'Impact speed and a pedestrian's risk of severe injury or death' (Accident Prevention and Analysis, 2013)

## What are the Pedal Indy bike facilities?



# The Pedal Indy Network



Facility	Existing	Proposed
Neighborway	<span style="color:blue">—</span>	<span style="color:blue">...</span>
Bike Lane	<span style="color:orange">—</span>	<span style="color:orange">...</span>
Protected Bike Lane	<span style="color:red">—</span>	<span style="color:red">...</span>
Multi-Use Path	<span style="color:darkblue">—</span>	<span style="color:darkblue">...</span>
Greenway	<span style="color:green">—</span>	<span style="color:green">...</span>

Pedal Indy proposes a safe, well-connected bicycle network that provides access for all Indianapolis residents while stewarding limited public resources. To do this, the plan proposes hundreds of miles of bicycle facilities, balancing higher-cost protected facilities where safety needs are greatest with lower-cost “Neighborways” that offer traffic calming and placemaking enhancements and reach into the heart of neighborhoods.

# CREATING A BIKE CULTURE

To support new greenways, protected bike lanes, and neighborways, Pedal Indy calls for the development and funding of programs, policies, and other actions that support a safe and comfortable bike network. Examples of the types of actions recommended by Pedal Indy are described below:

I would really like to see more education about bike safety for both drivers and cyclists. **A campaign to promote biking in Indy could be really helpful.**

- Indy Moves Outreach Participant

## Pedal Indy Actions



### VISION ZERO FRAMEWORK

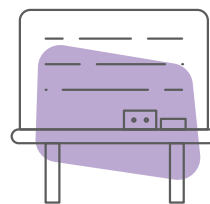
Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries, while increasing safe, healthy, equitable mobility for all. Indy should adopt a Vision Zero framework, with the goal of eliminating fatalities and severe injuries as a result of traffic collisions. A vision for zero traffic deaths results in the safest and most comfortable designs that are physically separated from car traffic. However, this type of infrastructure is expensive, and transportation funding is limited.





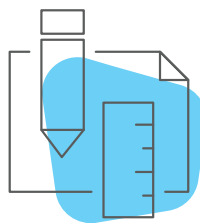
## ENCOURAGEMENT PROGRAMS

Programs that encourage bicycling, such as community rides, competitions, and other events, help to elevate biking as a comfortable and viable mode of transportation and recreation.



## EDUCATION AND AWARENESS

Educational offerings that teach safe bicycling skills, as well as trainings for bicyclists and drivers on awareness and interaction, can make more people feel comfortable riding.



## DESIGN AND MAINTENANCE

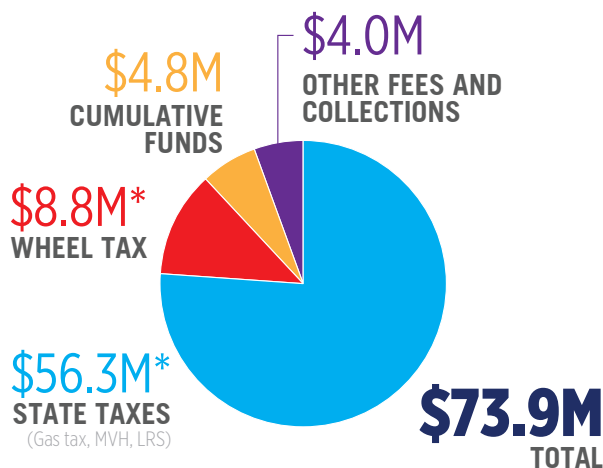
Updated infrastructure design guidelines and maintenance standards will help Indy build and maintain safer bikeways for everyone.

# MOVING FORWARD

The primary goal of Pedal Indy is to create a low-stress bicycle network that is accessible and welcoming for people of all ages and bicycling abilities. While Indianapolis has made great strides to improve conditions for bicycling in recent years, building the full Pedal Indy bicycle network will require a sustained commitment over the coming years.

The city will need new funding sources, and partnerships will be critical. To support Pedal Indy implementation, the city must leverage existing resources; local, regional, state, and federal grant funding opportunities; private funding; and partnership opportunities. While many of these funding sources are competitive—particularly the public grant sources—the City of Indianapolis has been very successful at competing for grant funds.

## ESTIMATED 2018 PUBLIC WORKS TRANSPORTATION REVENUES



\*Will be modified in future years due to HEA 1002

Note: Indianapolis receives an average of \$21M in federal funding for transportation each year.

The \$56.3M per year in gas tax revenues is small relative to the **\$178M we would need annually to maintain the existing transportation network in reasonable condition.**

## Indianapolis Cultural Trail

The Indianapolis Cultural trail is a prime example of a public-private partnership leveraging multiple funding sources to bring a vision for a transportation and community asset to life.

Source: [Indyculturaltrail.org](http://Indyculturaltrail.org)





Your input helped to shape the Pedal Indy vision, a new low-stress network, and recommendations for bicycle programs, policies, and new procedures. While more engagement and outreach will be needed as projects move forward, the routes you identified are part of Pedal Indy and will help to make it safer and more comfortable for people of all ages and abilities to bike in Indianapolis and Marion County.

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**Indy is poised to continue its work to become a world-class biking city. Pedal Indy, and the low-stress network recommended in this plan, is an important step toward that goal.**

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**FINAL PLAN | OCTOBER 2018**

**City of Indianapolis and Marion County Bicycle Plan**



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# 1 INTRODUCTION

Pedal Indy is part of Indy Moves, the City of Indianapolis' Transportation Integration Plan. Building on the 2012 Indianapolis Bicycle Master Plan, Pedal Indy provides a roadmap for our residents and City and County officials to improve and further develop our bicycle network. By creating a safe, low-stress bicycle network that is accessible and welcoming for people of all ages and bicycling abilities, we will make new neighborhood connections, improve access to major destinations, and fill gaps in the existing bike network.

Inspired by the Comprehensive Plan's vision (the Plan 2020 Bicentennial Agenda) and through robust community conversation, Pedal Indy lays out a vision for how residents want to bicycle in their neighborhoods. This vision and the Pedal Indy recommendations are based on what we heard from you: a need to address the biggest barriers to bicycling, a preferred level of design for bike facilities, and your favorite bicycle routes.

"A prosperous city requires a dense and diverse network of connective tissue that links economically, culturally diverse neighborhoods, cultural destinations and amenities, social gathering hubs and economic opportunities."  
- Plan 2020 Bicentennial Agenda

## HOW THIS PLAN IS STRUCTURED

Following this introduction (Chapter 1), Pedal Indy is composed of six chapters:

- **Chapter 2: Vision & Goals.** This chapter reviews the plan's recommendations and provides a basis for monitoring performance over time.
- **Chapter 3: Bicycling in Indy Today.** This chapter describes the existing bike network, its policy framework, and reviews community feedback on bicycling in Indianapolis.
- **Chapter 4: Bicycle Network Development.** This chapter presents a proposed bicycle network for Indianapolis. It also explains the principles that guided its creation, as well as the underlying analysis that helped shape the network.
- **Chapter 5: Designing the Pedal Indy Network.** Without design, a bicycle network is only a set of lines on a map. This chapter explains different types of bicycle infrastructure, and how they can be applied in Indianapolis.
- **Chapter 6: Supportive Programs, Policies, & Procedures.** This chapter provides a high-level overview of the types of programs, policies, and procedures that Indy could develop to further support bicycling.
- **Chapter 7: Pedal Indy Action Plan.** The action plan outlines the list of capital bike projects, key action items, and potential funding sources.



The Attachment (“Detailed Methodologies for Bicycle Network Development Analysis”) provides further information on the analyses used to develop the Pedal Indy network.

## HOW PEDAL INDY WILL BE USED

As an element of the Comprehensive Plan for Indianapolis and Marion County, Pedal Indy helps to establish both community visions for mobility as well as land use and transportation policy for the City-County (see Figure 1-1). As such, Pedal Indy is consulted during land use decision-making and in capital improvement planning by the Department of Metropolitan Development and the Department of Public Works. The plan is also used by Public Works to inform the design and location of infrastructure and resource allocation decisions. And finally, Pedal Indy can be used by community partners and stakeholders to understand how their work fits into the broader picture of bicycling in Indianapolis and how the City and County can support their efforts.

Figure 1-1 Pedal Indy’s Role in City-County Plans





## THE PEDAL INDY APPROACH

Bicycle infrastructure—and the City’s approach to its planning, design, and construction—has evolved significantly since the 2012 Bicycle Master Plan was adopted. Best practice nationally and locally (with the Indianapolis Cultural Trail: A Legacy of Gene and Marilyn Glick) has demonstrated that the most successful bike programs are designed around Vision Zero principles. Aiming to eliminate deaths from traffic collisions, the Vision Zero approach favors safe and comfortable bike facilities physically separated from car traffic. This type of infrastructure is expensive and—given transportation funding realities—cannot be applied on every street within the 403 square miles of Marion County.

Therefore, Pedal Indy recommends an innovative approach that supplements higher-cost, protected infrastructure with a low-stress, low-traffic network called “Neighborways,” or Neighborhood Greenways. Such an approach maximizes comfort for everyone who bikes and provides coverage across all parts of the city. Pedal Indy strives to:

- Improve low-stress conditions for biking
- Support active transportation options to improve health outcomes
- Build support and collaboration for multimodal transportation options
- Lay the groundwork for planning, design, implementation, and evaluation of existing and proposed bike infrastructure

## WHAT WE KNOW...AND WHAT WE NEED TO KNOW

The primary purpose of Pedal Indy is to create a safe, low-stress bicycle network that is accessible and welcoming for people of all ages and bicycling abilities. To do that, we must build from what we know about biking nationally and in Indianapolis:

- More people bike when there is a safe and comfortable bicycle network.<sup>1</sup>
- Bicycling is one of the most affordable ways for people to get around, and people riding bikes spend more money at local businesses than people driving.<sup>2,3</sup>
- Good bike infrastructure helps attract a talented, 21<sup>st</sup>-century workforce that fuels Indy’s economy, producing jobs and economic growth.
- When more people bike instead of drive, there is less motor vehicle traffic, which means a reduction in congestion and auto-related pollution.<sup>4</sup>
- Recent studies from the British Medical Journal have shown that bike commuting can lower your risk of dying from cardiovascular disease and cancer by up to 50%.<sup>5</sup>

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<sup>1</sup> 2014. Monsere, C., “Lessons from the Green Lanes: Evaluating Protected Bike Lanes in the U.S.” <[https://trec.pdx.edu/research/project/583/Lessons\\_from\\_the\\_Green\\_Lanes:Evaluating\\_Protected\\_Bike\\_Lanes\\_in\\_the\\_U.S.\\_](https://trec.pdx.edu/research/project/583/Lessons_from_the_Green_Lanes:Evaluating_Protected_Bike_Lanes_in_the_U.S._)>

<sup>2</sup> 2012. Transportation Alternatives. “East Village Shoppers Study: A Snapshot of Travel and Spending Patterns of Residents and Visitors in the East Village.” <[https://www.transalt.org/sites/default/files/news/reports/2012/EV\\_Shopper\\_Study.pdf](https://www.transalt.org/sites/default/files/news/reports/2012/EV_Shopper_Study.pdf)>.

<sup>3</sup> 2012. Clifton et al. “Consumer Behavior and Travel Choices: A Focus on Cyclists and Pedestrians.” <[https://nacto.org/wp-content/uploads/2015/04/consumer\\_behavior\\_and\\_travel\\_choices\\_clifton.pdf](https://nacto.org/wp-content/uploads/2015/04/consumer_behavior_and_travel_choices_clifton.pdf)>.

<sup>4</sup> 2010. Gardner, G. “Power to the Pedal”. World Watch Magazine. <<http://www.worldwatch.org/node/6456>>.

<sup>5</sup> 2017. Celis-Morales et al. “Association between active commuting and incident cardiovascular disease, cancer, and mortality: prospective cohort study.” <<https://www.bmj.com/content/357/bmj.j1456>>



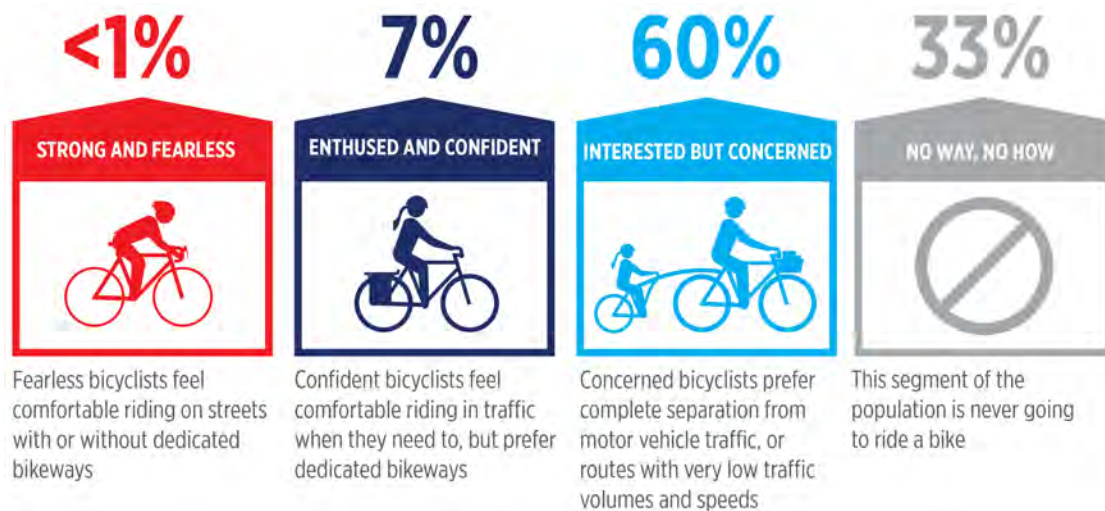
To encourage biking for all ages and abilities, we first need to identify (1) who bicycles, and under which conditions; (2) what makes bicycling safe; and (3) what makes bicycling low-stress and comfortable. Pedal Indy does that, and also reflects what we’ve heard from Indy residents about their interest in better bicycle infrastructure and facilities.

## Who Bikes in Indy Today?

Indianapolis has over 100 miles of on-street bicycle infrastructure, but most riders prefer the high-level, protected routes of the Indianapolis Cultural Trail or our Greenways system. This indicates that our infrastructure is not working for people of all ages and abilities. From national studies, we know that most people fall into one of four bicycling categories: (1) strong and fearless, (2) enthused and confident, (3) interested but concerned, or (4) no way no how.

In these studies, approximately two-thirds of people say they would use a bicycle if they felt it was a safe and easy way to get around, while one-third are uninterested in cycling.<sup>6</sup> Of those that would consider bicycling, the vast majority of people (60%) are “interested but concerned”—people who would ride if they felt safe and comfortable. A much smaller portion (7%) fall into the “enthused and confident” category—those who feel comfortable riding in traffic when necessary but prefer dedicated bikeways. Less than 1% of people are of the “strong and fearless” type that feel comfortable riding on any street, including in auto traffic.

Figure 1-2 Four Types of Cyclists



Source: ‘Four Types of Cyclists’ by Roger Geller, Bicycle Coordinator for Portland, OR. 2009.

Pedal Indy targets the 60% of the population that is interested in biking but that will not ride unless their route feels safe, comfortable, and low stress. A robust bicycle network should not be for the “strong and fearless” alone—it should be for everyone from ages eight to 80 (and beyond!). Pedal Indy focuses on safety and stress reduction to encourage those who are “interested but concerned” to start biking to work and school, to run errands, and for fitness and fun.

<sup>6</sup> Four Types of Cyclists by Roger Geller, Bicycle Coordinator for Portland, OR. 2009.



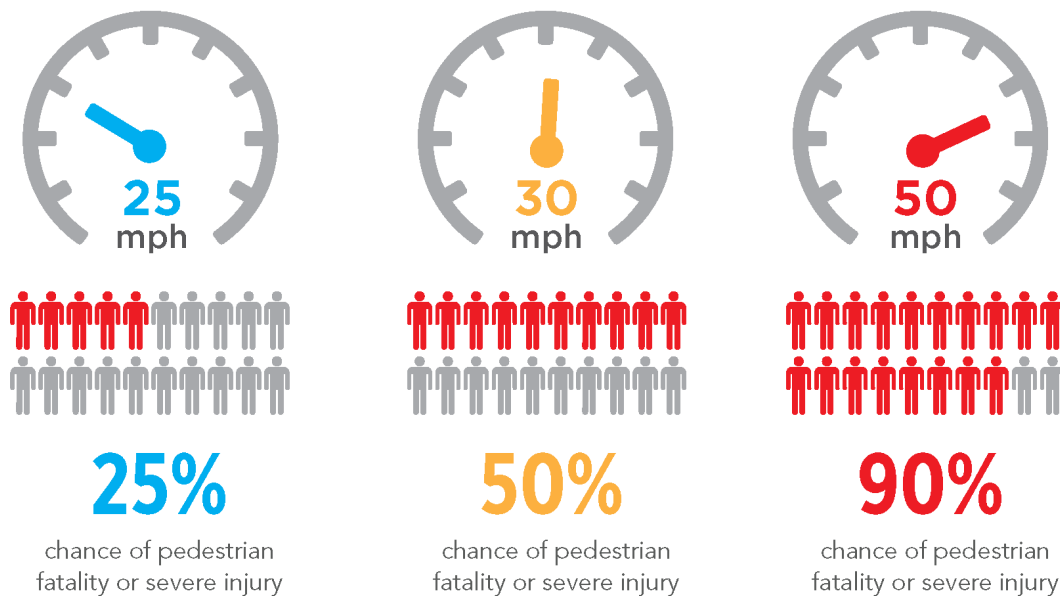
## What Makes Biking Safe?

Indianapolis is committed to taking a Vision Zero approach to safety. The basis of Vision Zero is the belief that all traffic deaths are preventable through better planning and infrastructure design. In other words, the best way to reduce traffic crashes is to design safer streets. Strategies such as street design and enhanced speed limit enforcement encourage slower driving that leads to fewer and less deadly crashes. These principles have guided the development of Pedal Indy in terms of routes and design to ensure the safety of everyone on Indianapolis streets. City-County policy must shift to Vision Zero practices of design and planning to see true reductions in crashes.

In many cities, the guiding principle of a safe, accessible bike network is Vision Zero, which holds that: "No loss of life to traffic crashes is acceptable."

Pedal Indy prioritizes bicycle projects and street designs that minimize the potential for crashes. Because higher vehicle speeds lead to more serious crashes, it is particularly important to physically separate cars from cyclists on higher-speed, higher-traffic streets. This approach reduces the safety-related apprehension that keeps so many "interested but concerned" people from getting on a bike in Indianapolis.

Figure 1-3 Effects of Speed on Pedestrians and Cyclists in Crashes



Source: Tefft, Brian, 'Impact speed and a pedestrian's risk of severe injury or death' (Accident Prevention and Analysis, 2013)

## What Makes Biking Comfortable for Most People?

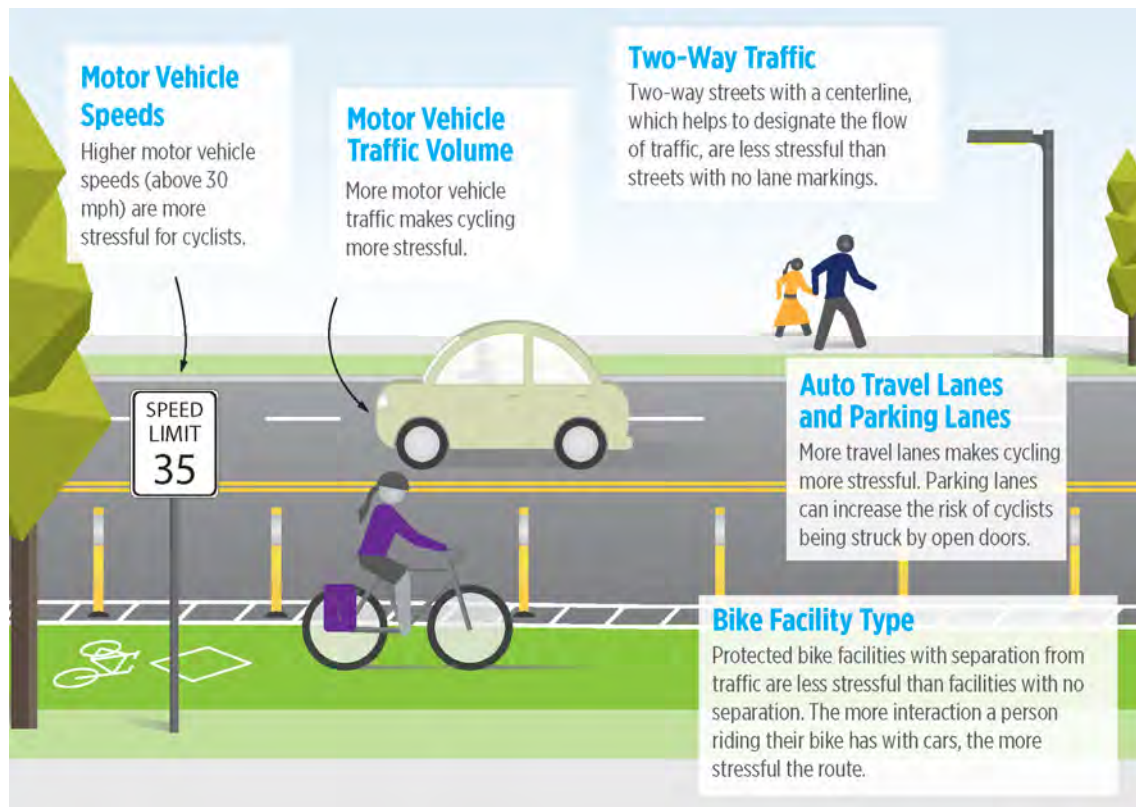
Mixing with vehicle traffic and fear of getting hit by a car are common reasons people don't ride bikes. In order to build safe and accessible bicycle infrastructure that makes people feel more



comfortable biking, Pedal Indy's approach to system design aims to reduce traffic stress—the sense of danger associated with riding a bike near motor vehicles. Streets with higher vehicle speeds and more cars feel dangerous for people bicycling. This perception of risk is an important deterrent to more bike riding.<sup>7</sup>

Low-stress streets are those where people feel more comfortable biking because there are fewer vehicles, slower vehicle speeds, or a physical barrier (such as a curb, bollards, or planters) that protects people biking from adjacent traffic. The more interaction a person riding their bike has with cars, the more stressful the route. The less interaction with cars, the less stressful the route.

Figure 1-4 Contributors to Traffic Stress



Level of traffic stress (LTS) describes how comfortable a street is for bicycling and is the primary metric used to develop the Pedal Indy low-stress bike network. An LTS analysis uses many of the considerations shown in Figure 1-4—motor vehicle speeds and traffic volumes, two-way traffic, auto travel and parking lanes, street centerlines, and bike lane width—to determine how stressful a bike network segment is to ride.<sup>8,9</sup>

<sup>7</sup> 2012. Mekuria, Furth, and Nixon. "Low-Stress Bicycling and Network Connectivity."  
<<http://transweb.sjsu.edu/PDFs/research/1005-low-stress-bicycling-network-connectivity.pdf>>

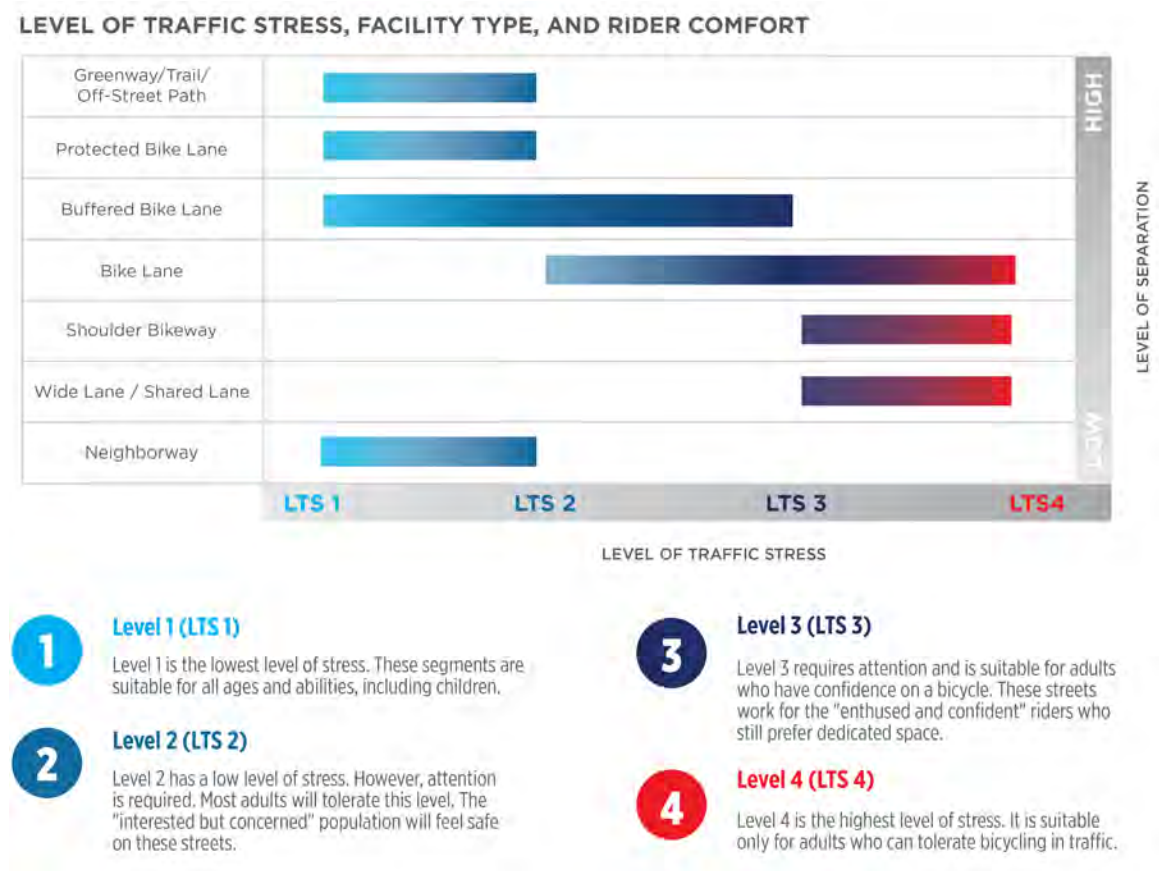
<sup>8</sup> Mekuria, Furth, and Nixon. 2012. "Low-Stress Bicycling and Network Connectivity."  
<<http://transweb.sjsu.edu/PDFs/research/1005-low-stress-bicycling-network-connectivity.pdf>>

<sup>9</sup> Furth, Peter. 2017. "Level of Traffic Stress Criteria for Road Segments, version 2.0, June, 2017."  
<<http://www.northeastern.edu/peter.furth/wp-content/uploads/2014/05/LTS-Tables-v2-June-1.pdf>>



The output of an LTS analysis assigns one of four levels of traffic stress to each bike facility segment in a network. Figure 1-5 explains each level of stress, and the types of cyclists (see Figure 1-2) who are typically willing to ride under the resulting biking conditions.

Figure 1-5 Levels of Traffic Stress and Types of Cyclists



## WHAT THIS MEANS

Indianapolis has dramatically improved its bike infrastructure in recent years, but much work remains. We know that a large part of our community is interested in bicycling but doesn't feel comfortable on many of our roadways. Pedal Indy aims to transform those potential riders into actual riders by developing a safe, low-stress network that is comfortable for people of all ages and abilities and that eliminates deaths from traffic collisions.

## 2 BICYCLING IN INDY TODAY

Over the past ten years, Indianapolis has made great strides in building bicycle infrastructure. From the first Mayor's Bike Ride in 2009 and the city's first striped bicycle lanes on Allisonville Road, the community has learned many lessons and remained passionate about building better, safer infrastructure. This chapter describes the facilities and key components of bicycling in Indy today, providing a baseline for recommendations to improve the bicycle network.

Since the opening of the first stretch of the Monon Trail in 1999, Indianapolis has built over 200 miles of bicycle infrastructure:



The game changer for supporting high-level, protected, on-street infrastructure came with the opening in 2013 of the Indianapolis Cultural Trail: A Legacy of Gene and Melinda Glick (see feature on page 11). Together with the growing Indy Greenways system, these projects have built support, boosted ridership, and demonstrated that low-stress infrastructure increases demand and attracts a greater diversity of ridership.

Indy's existing bike network is most robust in the downtown core, with burgeoning "hub-and-spoke" connections radiating from the Mile Square. Bicycle facilities are more heavily concentrated on the city's north side, but a growing network also connects neighborhoods southeast of downtown. Many of the bike facilities located in outlying areas are not yet connected to the larger network but can serve local trips.

The City of Indianapolis realizes that there is room to improve and make our existing and future bike infrastructure safer and more accessible for all. In 2016, there were 185 reported crashes involving people riding a bicycle; we strive for that number to be zero. And while many residents may ride occasionally, overall only 1% of Indy residents report that they regularly commute to work by bicycle, according to American Community Survey data (Figure 2-1).





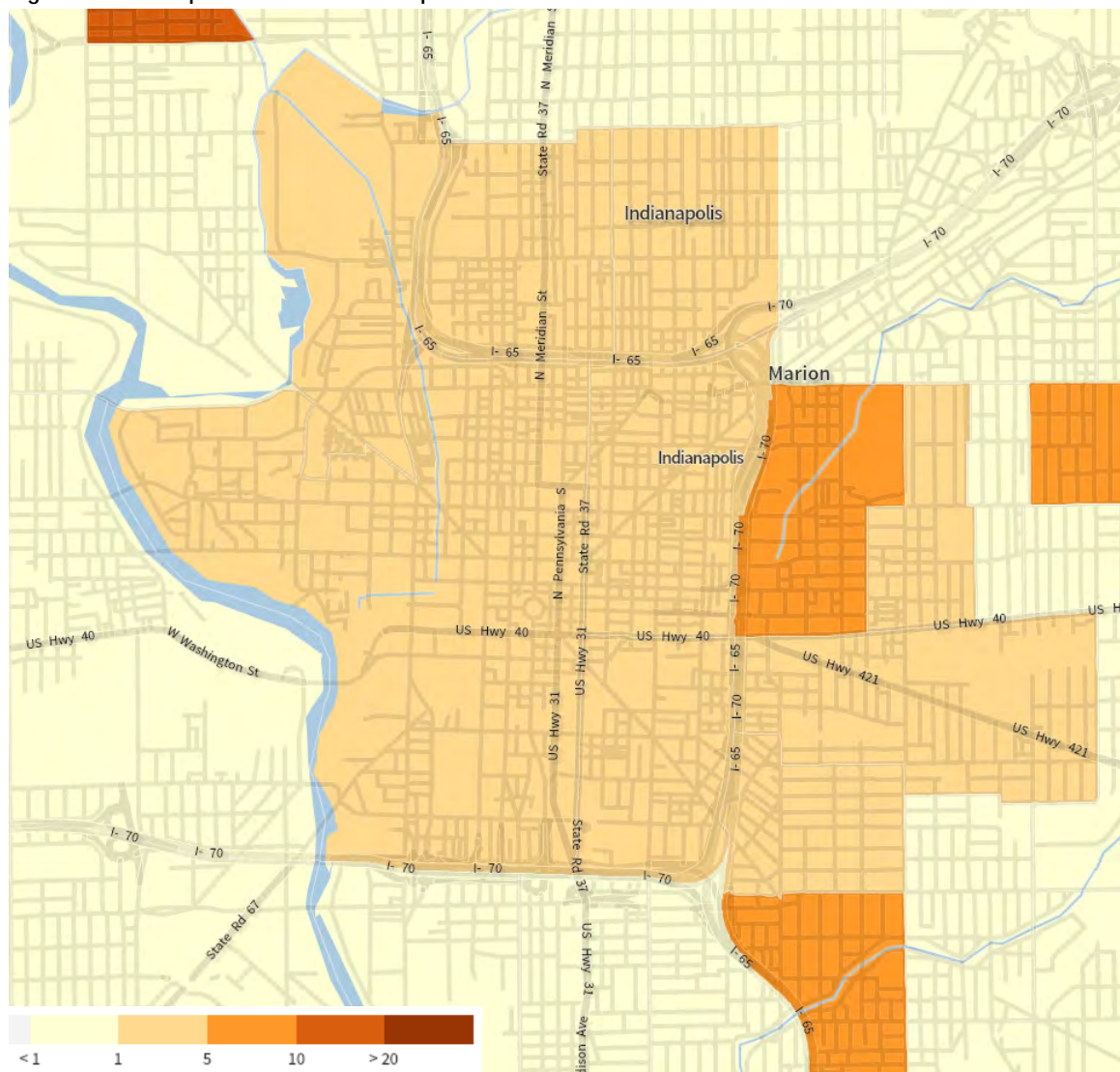
Figure 2-1 Mode Share of Indianapolis Commuters



Source: 2015 Five-Year American Community Survey

**Downtown and the surrounding census blocks, which have a concentration of low-stress infrastructure, have bike-to-work mode share as high as 3% (Figure 2-2).**

Figure 2-2 Map of Downtown Indianapolis Bike Mode Share



## EXISTING CONDITIONS: BIKE FACILITIES

Today, Indianapolis has 104 miles of bike lanes, 99 miles of trails and greenways (including multi-use paths), the eight-mile Cultural Trail, and 251 Indiana Pacers Bikeshare bikes distributed across 29 docking stations.

There is considerable variety in facility type across the county. Of the 104 miles of bike lanes, 97 miles are basic on-street lanes or sharrows, which is infrastructure that works for only some types of cyclists. The highest-quality, safest facilities make up only 7 miles of Indy's on-street bike network, including 3.78 miles of painted, buffered bike lanes; 0.89 miles of cycle track; and 2.68 miles of two-way cycle track.

While many of the earliest projects were striped on-street bike lanes and sharrows, the City now regularly builds the highest level of bicycle facilities, such as cycle tracks and buffered lanes. The City continues to be opportunistic in striping bicycle lanes and sharrows as low-cost add-ons to resurfacing or other regular maintenance projects.

Figure 2-3 is a map of the existing bicycle network, and Figure 2-4 shows the level of stress of the network (see Chapter 1 for a description of LTS analysis).

### Pacers Bikeshare

Pacers Bikeshare, which opened in 2014, is a critical piece of the bicycling network in Indianapolis. With 29 stations distributed throughout downtown and along the Cultural Trail, it remains one of the best used systems in the country and will be expanding in 2019 to meet resident demand.



Source: Plan2020



Figure 2-3 Existing Bike Infrastructure

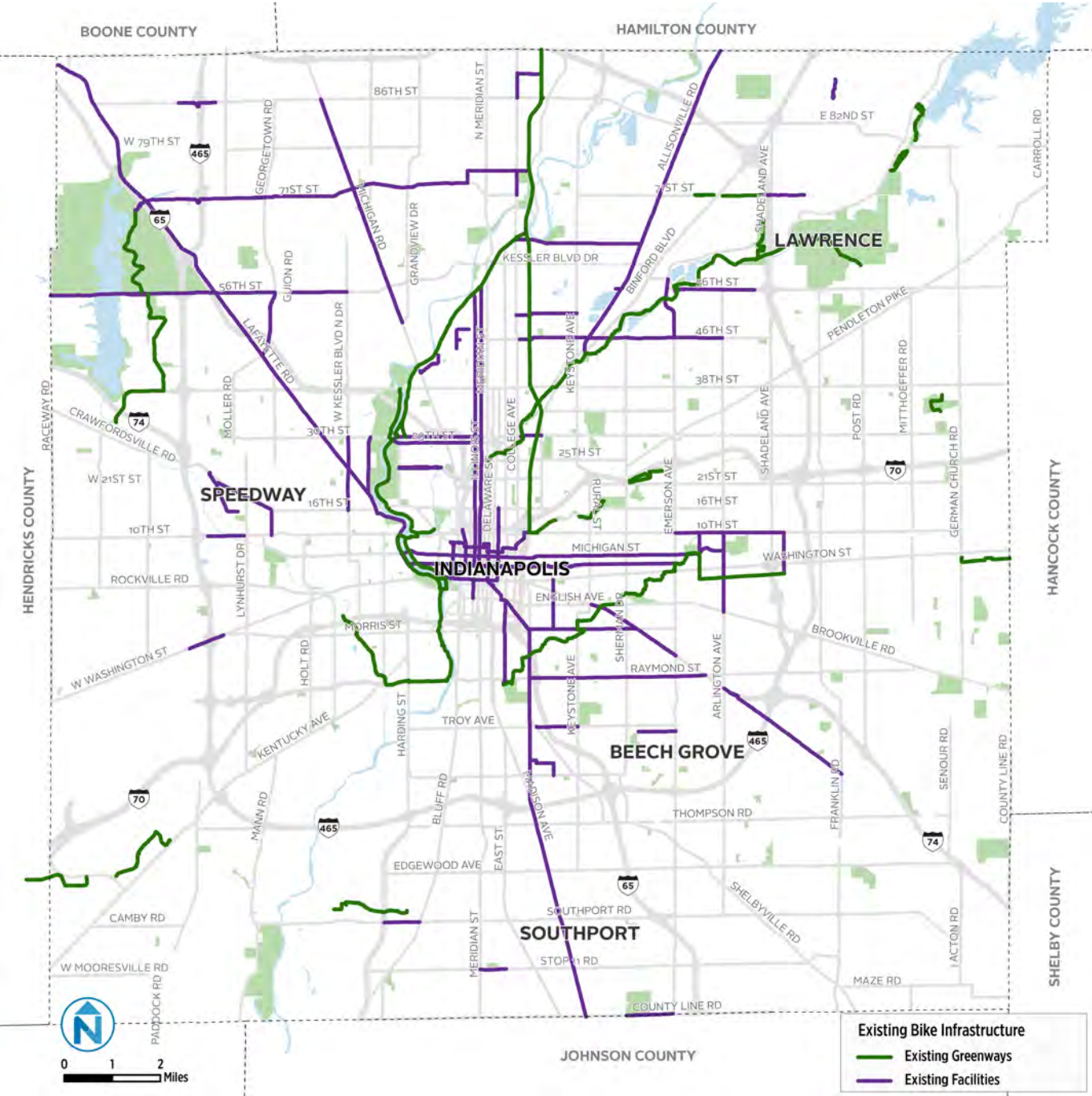
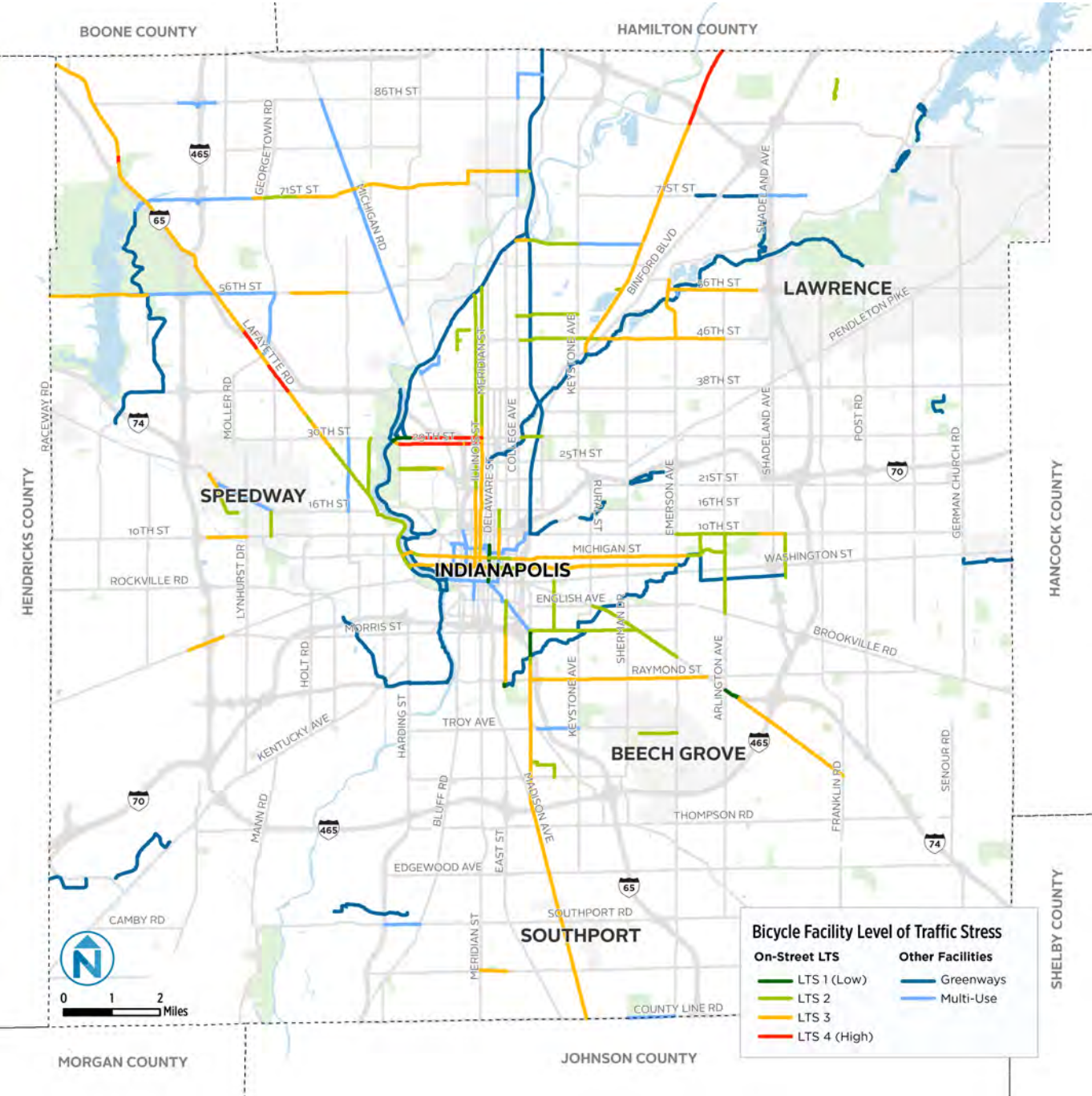


Figure 2-4 Level of Traffic Stress of Existing Infrastructure







## Low-Stress Facilities Highlights

While many of Indy's existing facilities are higher-stress infrastructure, the City's focus is now on building the network of low-stress facilities. This section highlights a handful of recent projects that are contributing to a safer, more comfortable biking experience in Indianapolis.

### The Indianapolis Cultural Trail

The Indianapolis Cultural Trail is an eight-mile shared-use path linking public spaces, employment centers, and major downtown destinations. Continued maintenance and improvement of the trail is crucial to the implementation of Pedal Indy. The success of the trail is an example of the benefits accrued from investment in comfortable, low-stress, and accessible bike infrastructure.

Figure 2-5 Indianapolis Cultural Trail



Source: Indianapolis Cultural Trail

### On-Street, Protected Bike Lanes

#### New York and Michigan Streets, East of College

As part of Indianapolis' Green Lane Project (an initiative by the advocacy group People for Bikes to accelerate the construction of protected bike lanes across the country), the City worked with neighborhoods along the corridors between College Avenue and Rural Street to make existing bike lanes safer and more comfortable, and to address community concerns that were not bike-related. The result was a protected on-street bike lane with planted concrete medians. This project



narrowed and helped define the streets, resulting in lower vehicle speeds. The corridors are now safer for everyone and provide a critical connection into downtown Indianapolis.

Figure 2-6 On-Street, Protected Bike Lanes on New York and Michigan Streets



### Off-Street, Separated Bike Facility

#### New York and Michigan Streets, West Street to White River

Two corridors running through the IUPUI campus provide good local examples of high-level separated bike facilities. In partnership with IUPUI, the City converted New York and Michigan Streets from West Street to the White River into two-way streets with improved bike facilities. The goal in both corridors was to create a more campus-like feel while providing safer, lower-stress bike connectivity. On New York Street, the result was a two-way, separated bikeway buffered from the road by a number of University-planted oak trees. The Michigan Street conversion required widening the street to accommodate the two-way traffic. This allowed the design to be more creative: taking inspiration from cycle tracks (protected bike lanes) found in Copenhagen, the facility is a three-tiered design that has distinct space for cars, bikes, and pedestrians. Both upgraded facilities blend seamlessly with the Indianapolis Cultural Trail, which runs north-south through the IUPUI campus along Blackford Street.

Figure 2-7 Off-Street, Separated Bike Facilities on New York and Michigan Streets







## Bicycle Parking and Commuter Resources

### Indy Bike HUB YMCA at City Market

The Bike Hub provides joggers and cyclists with showers, lockers, secure bicycle parking and more in the heart of downtown Indianapolis. Prior to the Bike Hub, the east wing of the City Market was underused, housing a food stand and a few offices. In an effort to revitalize the Market, the City moved all food stands into the main hall and transformed the east wing into a bicycle commuter hub. The goal was to provide a facility for people who want to bike or run to work, but lack showers and lockers at their offices. The Hub also features 150 indoor, secure bike parking spots to keep bikes out of the elements and safe during the day.

The newly-renovated building was leased by the YMCA, which runs the shower, locker, and workout facilities. A local bike shop (Bicycle Garage Indy) subleased space to provide maintenance, commuter services, and a limited retail operation. Since opening, the Bike Hub has not only served as a facility for bike commuters, but has also been a “hub” for the bicycle community—a meeting place for countless bike rides and bike-related events.

Figure 2-8 Indy Bike Hub and Bike Parking



## National Ratings

Indianapolis has a bronze rating from the League of American Bicyclists, a national organization that certifies communities as providing safe accommodations for bicycling and encouraging people to bike for transportation and recreation. Indianapolis was recognized for adopting a local complete streets policy, for its bicycle advisory committee, and for constructing bicycle facilities.

In 2018, Places for Bikes released their City Ratings, which rank U.S. cities based on the following five categories:

- Ridership
- Safety
- Network quality
- Reach, or how well the network serves everyone in the community
- Acceleration, or how quickly bike infrastructure is expanding and generating ridership





Indianapolis scored a 2.3 (out of a possible five points) overall, faring best in the ridership and speed of development categories. Reducing crash rates and increasing the number of bicyclists is key to improving Indy's ranking.

These ratings provide an important starting point from which Indianapolis can measure its progress toward achieving the goals of Pedal Indy. While geography and budget constraints create significant hurdles, the City is committed to increasing multimodal transportation options for the betterment of public health, the environment, and our community.

## **EXISTING CONDITIONS: COLLISION ANALYSIS**

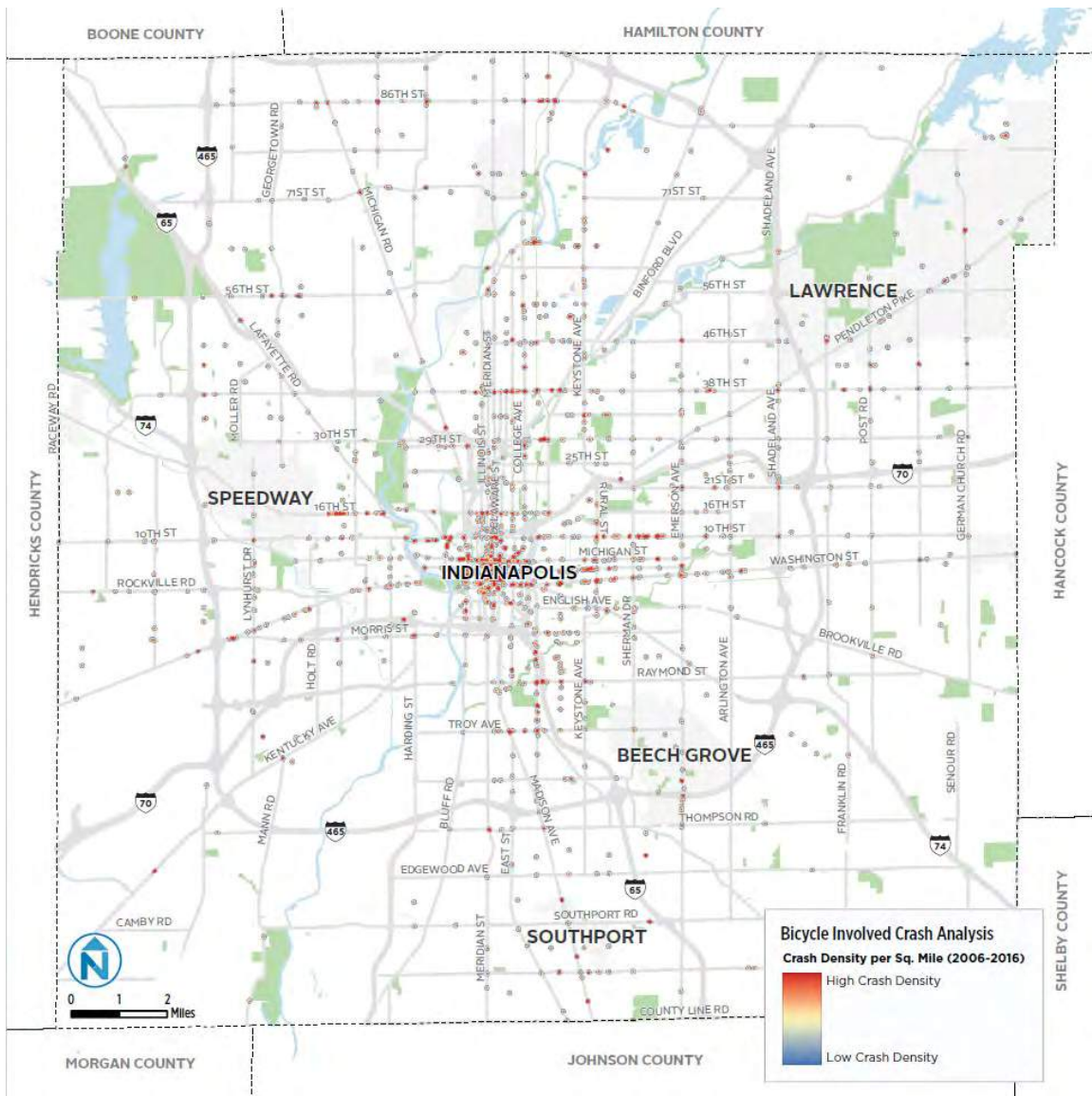
Understanding where and why bicycle crashes are happening is the first step toward achieving a goal of zero fatalities. Using collision data from the police database, the City conducted an analysis of reported crashes over the ten-year period from 2006 to 2016.

Analyzing bicycle-involved traffic crashes in Indianapolis revealed that corridors where fast-moving vehicles and bicycles share the road tend to be hot spots for bicycle crashes (see Figure 2-9). Roadways such as 10<sup>th</sup>, 16<sup>th</sup>, 38<sup>th</sup>, and 86<sup>th</sup> Streets stand out with high densities of crashes, as do Washington Street, Raymond Street, and much of the downtown core.

This information was used to inform improvements to existing facilities, the design of new facilities, and development of the bicycle network. It will also be used in the future to identify corridors for operational improvements like road diets. A more in-depth analysis of bike crashes is found in Chapter 4.



Figure 2-9 Crash Locations Involving Bicyclists, 2006-2016



## EXISTING CONDITIONS: PLANS, PROGRAMS, AND POLICIES

Pedal Indy is not starting from scratch in creating a vision for a bicycle-friendly Indianapolis. Decades of planning work, community building, advocacy, and fundraising from countless organizations and individuals are to thank for the existing network and successes on which Pedal Indy is building. While not a complete inventory, this section highlights some of these policies, efforts, and organizations and the role they've played in where we are today. Additional spotlights on Indy's bicycling community can be found in Chapter 6: Supportive Programs, Policies, and Procedures.



## Bikes in City Plans

Indy has made great strides in bicycle planning and design. The region has developed a number of plans for walking and bicycling and adopted the bicycle-friendly policies and programs needed to implement them. A great deal of planning has been done in recent years to improve the bicycle network in Indianapolis. Pedal Indy builds upon plans created by a wide range of local and regional stakeholders:



The 2014 **Indy Greenways Full Circle Master Plan** is the third major visioning effort for a world-class greenway system in Indianapolis. Its goals are to use greenways to connect neighborhoods, commercial centers, parks, public transportation facilities, and active transportation facilities in a manner that is both economically beneficial and environmentally responsible.



Pedal Indy builds on the greenway system as the backbone of a safe and attractive low-stress bike network.



The 2015 **Regional Bikeways Plan**, a component of the Indianapolis MPO 2035 Long-Range Transportation Plan, seeks to increase bike mode share in the region, improve safety for people who bike, and provide bike-friendly access to residences, workplaces, educational centers, and commercial districts.



Pedal Indy echoes the implementation focus of the Regional Bikeways Plan, including its central goals and objectives.



The 2015 **Regional Comprehensive Economic Development Strategy** prioritizes attracting and retaining a young, high-tech workforce to maintain Indianapolis' competitiveness. As generational preferences continue to shift toward urban, car-lite lifestyles, Indy's business community has committed to improving the city's active transportation infrastructure.



Pedal Indy builds upon the economic development strategy by prioritizing safe, low-stress bike connections between educational, commercial, and workforce destinations.



The 2016 **Indianapolis/Marion County Pedestrian Plan** includes projects, programs, and policies that support people walking and bicycling. The plan's approach to project prioritization focuses on key destinations as well as safety, equity, and health.



Pedal Indy complements the pedestrian plan by recognizing that every bike trip starts and ends as a pedestrian experience and by promoting shared infrastructure such as greenways and multi-use paths and streets that are lower stress for people walking and bicycling.



The 2016 **Plan 2020 Bicentennial Agenda** serves as the vision and values component of the Comprehensive Plan for Indianapolis and Marion County. It defines four key goals of building a healthier, more inclusive, more resilient, and more competitive city, and specifically calls for greater connectivity among neighborhoods and greater transportation options for all residents.



Pedal Indy is a direct implementation step of the Bicentennial Agenda, defining how and where bicycle infrastructure improves connectivity, provides transportation options, and addresses the four key goals.





## **Bikes in Policies**

City policies that support bicycling provide the backbone for continued improvements to Indy's bike network as well as expanded multimodal options. Three key policies that support biking in Indy are described below.

### **3-Foot Passing Ordinance**

Adopted in 2009, Indy's 3-foot passing ordinance works to ensure the safety of all and protect the most vulnerable people on our roadways. The ordinance requires drivers to provide at least three feet of space when passing cyclists, and to yield the right-of-way to cyclists on designated bike paths or lanes. The ordinance is being implemented in partnership with the Indianapolis Metropolitan Police Department.

### **Complete Streets Ordinance**

Passed by Council in 2012, the Indianapolis ordinance was the strongest in the nation, viewing Complete Streets as "integral to everyday transportation decision making." It requires "all city-owned transportation facilities in the public right-of-way" and "privately constructed streets and parking lots" to adhere to the policy. The City has implemented the policy in numerous ways, including co-hosting the Complete Streets Advisory Group with Health by Design, a local advocacy group focused on active living.

### **Indy ReZone Bicycle Parking Requirements**

The Indy Rezone Consolidated Zoning/Subdivision Ordinance was passed by City-County Council in 2015 (G.O. 72, 2015) and updated Indianapolis' zoning code and subdivision ordinances. This ordinance made significant changes to the underlying zoning ordinance, including consolidating 14 separate ordinances into one, accommodating mixed-use districts more easily, and modernizing standards relating to sustainability, parking, and subdivision connectivity.

Indy ReZone encourages better walking and biking infrastructure in a variety of ways. For example, it allows developers to reduce traditional parking requirements by swapping one car parking stall for five bicycle parking spots.

## **Bike-related Organizations, Networks, and Businesses**

Indy boasts a robust and active bicycling culture. Numerous organizations both locally and statewide support programs, events, and policies that get more Hoosiers riding bikes. This section discusses just some of the many organizations that have been—and will continue to be—critical to building and advancing bicycling culture and infrastructure in Indianapolis.

### **The Indianapolis Mayor's Bicycle Advisory Council (IMBAC)**

The council serves as a sounding board and advisory group for all things bike-related. Composed of community members, City and County officials, and representatives from the business community, IMBAC comprises three committees that focus on (1) bicycle education, encouragement, and enforcement; (2) evaluation and equity; and (3) engineering. These committees help guide local government and advocacy groups on policy implementation, programs, and bike infrastructure projects.



## **Bike Indianapolis**

Formed in 2009, Bike Indianapolis (formerly INDYCOG) is an education and advocacy group seeking to create more bike riders in Indianapolis through education, advocacy, and activation. The organization runs numerous destination events, educates the public about bicycle facilities, policies, and laws, and advocates for better infrastructure and policies like Vision Zero.

## **Health by Design (HbD)**

Health by Design is a coalition of diverse partners working in Indianapolis and communities throughout Indiana to ensure neighborhoods, public spaces, and transportation infrastructure promote physical activity and healthy living. The coalition has been instrumental in organizing partners in the governmental, nonprofit, and private sectors to work on policy-level issues. It is responsible for the Indiana Bike Walk Summit, the 2016 Indianapolis/Marion County Pedestrian Plan, management of Indy's Safe Routes to School program, and active transportation advocacy and planning work throughout the state.

## **Bicycle Garage Indy (BGI)**

Bicycle Garage Indy is a bicycle retailer and a "leader in the bicycling community that spearheads many initiatives to further bicycling in the community locally and statewide." As sponsors, event hosts, educators, and advocates, BGI is a critical organization working to improve and support bicycling in the Indianapolis region.

## **Bicycle Indiana**

Bicycle Indiana is a statewide advocacy and education organization that promotes safe bicycling, educates people on Indiana bicycling law, and advocates for the rights of all bicyclists in Indiana. They promote bicycle use for health, recreation, competition, sport, travel, and commuting; offer a variety of safety education programs, services, and literature; and advocate for the rights of bicyclists at all levels of government.

## **Central Indiana Bicycling Association (CIBA)**

Central Indiana Bicycling Association (CIBA) is one of the largest volunteer-led bicycling clubs in the country for riders of all ages, shapes, and sizes. Since 1971, CIBA has been extremely important to the Central Indiana bicycle community in the education and encouragement of cyclists. Their mission is to provide opportunities for bicyclists of all ages and abilities to ride on safe, friendly, and well-organized rides; to be informed of bicycle events and related activities; to volunteer in support of CIBA and other bicycle-related organizations; and to socialize with other bicyclists. CIBA also organizes two annual rides (the NITE Ride and the Hilly Hundred) that attract thousands of riders every year.

## **Freewheelin' Community Bikes**

Freewheelin' Community Bikes is a non-profit earn-a-bike program focusing on education and empowerment through bicycling. Freewheelin' teaches at-risk youth valuable bike repair and maintenance skills. Their mission is to "provide accessible bicycles and teach youth life and leadership skills that improve their physical and mental wellbeing." Donated gently-used bicycles are repaired by volunteer mechanics and then sold at reasonable prices to the public.



### **Hoosier Mountain Bike Association (HMBA)**

A statewide group formed in 2000, The Hoosier Mountain Bike Association's mission is to "promote responsible mountain biking and work towards the goals of common land access and natural resource protection through local (Central Indiana) and statewide relationships and initiatives." Through advocacy, education, trail building, and outreach, HMBA advances mountain biking throughout central Indiana.

### **Hoosier Rails to Trails Council (HRTC)**

Hoosier Rails to Trails Council (HRTC) is an advocate for trails and greenways, specifically rail-trails, in Indiana. They also promote and encourage walking, bicycling, other non-motorized transportation, as well as supporting environmentally thoughtful land use as a means to healthy living and lifestyles. Since 1987, HRTC has tracked legislation, promoted bills, defeated bills, helped organize statewide and Midwest trail conferences, and maintained the largest, most complete rail-trail library in the State of Indiana. They also publish the Hoosier Pathways newsletter several times a year.

### **Indy Cycloplex**

An IndyParks facility managed by Marian University, the Indy Cycloplex is a collection of first-class facilities including the historic Major Taylor Velodrome, a newly-renovated BMX track, and a dynamic cyclocross course.

### **Nine13sports**

Nine13sports is a non-profit organization that promotes health, wellness, and exercise for Central Indiana youth through several programs. Kids Riding Bikes provides stationary bicycle simulators as part of physical education courses. Kids Building Bikes provides a four week, after-school training program on bicycle maintenance, rider safety skills, and rules of the road and provides them a new bicycle, helmet, and lock. Finally, a bicycle-related STEM education program is selectively offered to teach the engineering, math, science, health, and transportation benefits of bicycles.

### **The Headquarters: Mountain Bike Skills Park**

A partnership of Indy Parks and the Indianapolis Metropolitan Police Department, the park, located near IMPD North Headquarters at Washington Park provides a variety of features to help riders learn mountain biking skills.

### **Greenways Foundation**

A statewide charitable trust, the Greenways Foundation works to promote the growth, enhancement and use of Indiana greenways. The foundation provides grants in support of greenway development, enhancement and operation, as well as efforts to build community support for trails and promoting best practices in the planning, marketing, design, development, and management of greenways.



## **Bike-Related Programs**

Many of the organizations above are directly involved in developing and supporting bike-related programs that encourage more people to bike in Indianapolis. Beyond the work of those organizations, there are efforts targeted to specific groups, including those described below.

### **Indianapolis Safe Routes to School Program**

The Safe Routes to School Program is a partnership between the City of Indianapolis and Health by Design. The program is designed to make walking and bicycling to school safe, convenient, and routine for students and families. Efforts include education, encouragement, engineering, enforcement, and evaluation activities that inform a Marion County Safe Routes to School plan.

### **Commuter Connect**

Commuter Connect, a service of CIRT, offers alternative transportation to area employers and commuters in Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, and Shelby counties. With a mission to reduce air pollution and traffic congestion in Central Indiana, Commuter Connect promotes the benefits of carpooling, vanpooling, public transit, biking, and walking to work. It also organizes ride-sharing opportunities for commuters in Central Indiana. For people that commute to a participating employer via bicycle an average of three days a week, Commuter Connect offers a free taxi ride home in the event of an emergency or unexpected overtime. Commuter Connect's services are free to commuters.

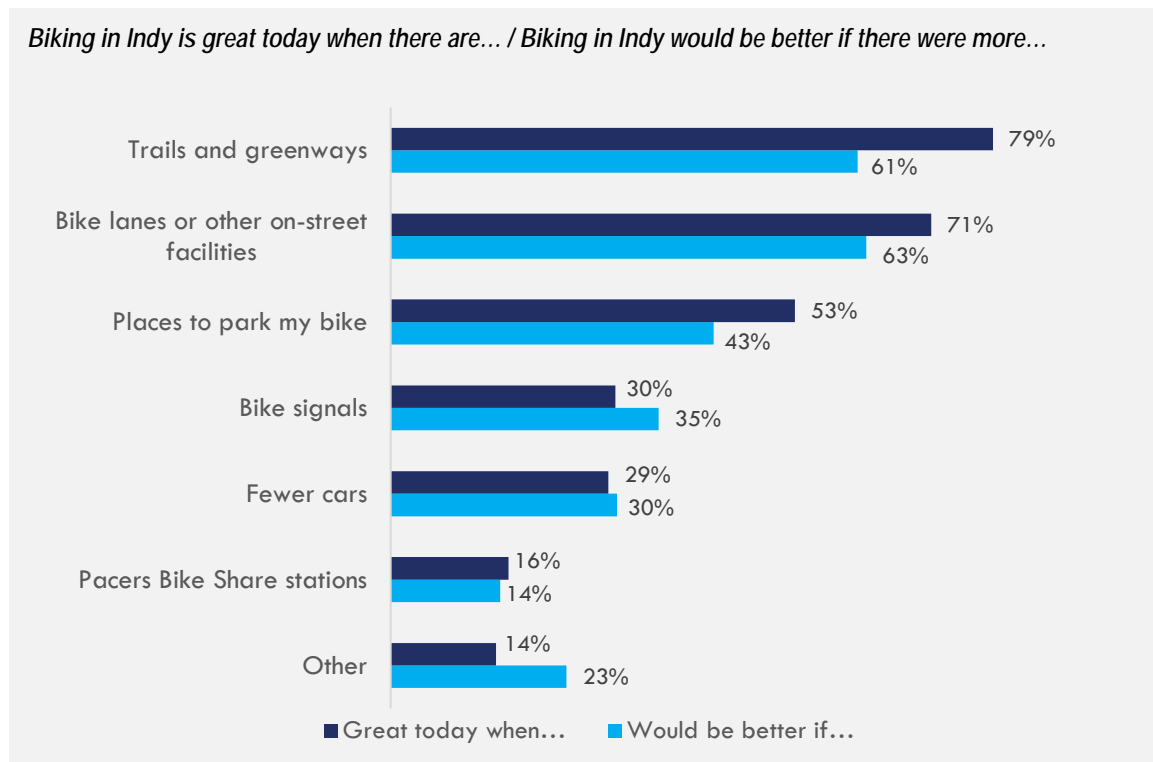


## COMMUNITY FEEDBACK

The analysis and inventory discussed above was supplemented with feedback received from the public throughout the Indy Moves and Pedal Indy planning processes. Community members were engaged through public meetings, surveys, online mapping tools, and special targeted meetings, like the Indianapolis Mayor's Bicycle Advisory Council (IMBAC).

In late 2017, over 1,000 Indianapolis residents responded to an Indy Moves survey about where the current transportation system works, where it falls short, and what they value in a bicycle network. Overwhelmingly, residents wanted lower-stress facilities with greater separation and more bicycle parking (See Figure 2-10).

Figure 2-10 Responses to Fall 2017 Indy Moves Survey



Key feedback about the bicycle network included the following findings and comments:

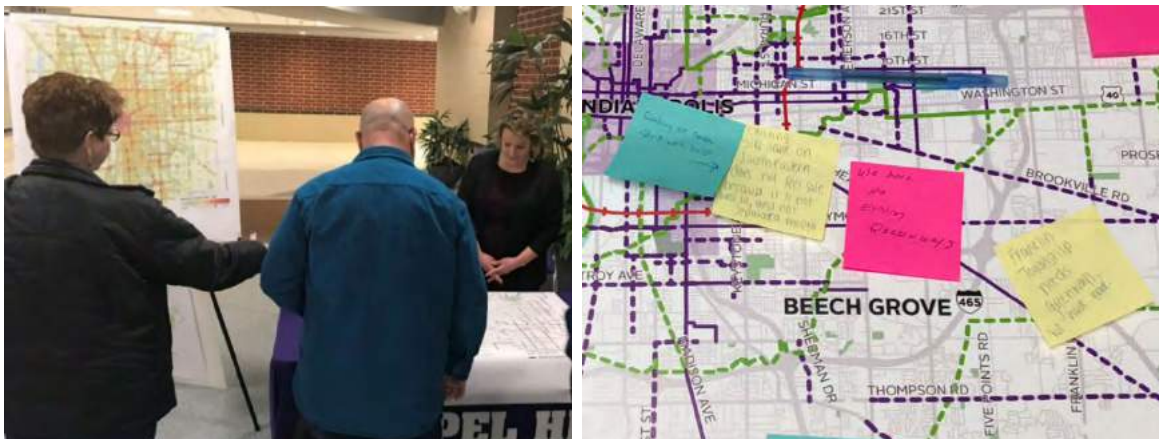
- Both off- and on-street facilities were identified as the best part of the Indy bicycle network, as well as a top area for improvement. A majority of respondents also cited the need for more bicycle parking to make biking great in Indy.
- Somewhat less frequent responses identified bicycle signals and traffic as areas for improvement, suggesting that some people don't feel safe biking next to cars and trucks without protection or separation.
- Respondents provided nearly 200 open-ended answers that give insight to the types of biking improvements people want to see in their community:
  - The most frequent comments (38%) related to upgrading existing infrastructure to be more comfortable. Most of these stated a desire for protected bicycle facilities or fully separated bicycle paths.



- An additional 7% of comments noted that network connectivity is critical, and called out specific bicycle facilities that are disconnected from the larger network.
- About 22% of comments expressed a need for education to ensure everyone is aware of the rights of people traveling by different modes. More than half of these comments were directed at drivers: commenters perceived a lack of respect, awareness, and caution for bicyclists. Comments calling for enforcement (6%) were split between bicyclists asking drivers to respect speed limits and drivers noting that bicyclists do not follow the rules of the road.
- Some commenters (8%) do not support bicycle facilities in the roadway, stating that bike facilities are not used, increase congestion, and create dangerous situations.
- Of the 5% of safety-related comments, all came from bicyclists concerned with fast-moving traffic adjacent to existing bike lanes.

In addition to the survey, the City of Indianapolis and Marion County held 13 in-person public meetings and hosted online ‘virtual workshops’ in January, February, and March 2018. Participants were able to learn more about Indy Moves and the proposed Pedal Indy bicycle network through a short presentation, activities, and maps of potential road, bicycle, and pedestrian projects. The majority of comments addressed bicycle and pedestrian infrastructure, with 224 unique comments on bicycles. Participants could also review materials online and provide feedback on the potential projects, including the bicycle network, and comment or add additional projects.

Figure 2-11 Photos of Indy Moves and Pedal Indy Outreach



Comments from the community throughout the process were critical to the design of the network and informed recommendations for bicycle programs, policies, and procedures. Locally preferred routes and projects were frequently incorporated into the final network and residents provided important feedback on the existing conditions for bicycling throughout the county.





## 3 VISION & GOALS

Every successful plan needs a clear vision and goals. The *vision* paints a picture of where Indianapolis wants to be in the future, and the *goals* bring us toward that vision. Goals are critical for three additional reasons:

- (1) they help guide strategies,
- (2) they provide a basis for monitoring progress over time, and
- (3) they align Pedal Indy with broader planning efforts.

This chapter outlines the vision, shared values, and goals associated with Pedal Indy.

### OUR VISION

The Pedal Indy vision statement is a declaration of values, a statement about where—and who—we want to be in the future. This vision guides implementation of the plan and ensures we are making progress toward our goals. The vision statement is:



**Indianapolis has a complete and equitable network of bicycle infrastructure that connects neighborhoods with opportunity and eliminates serious crashes involving bicyclists.**

### VALUES

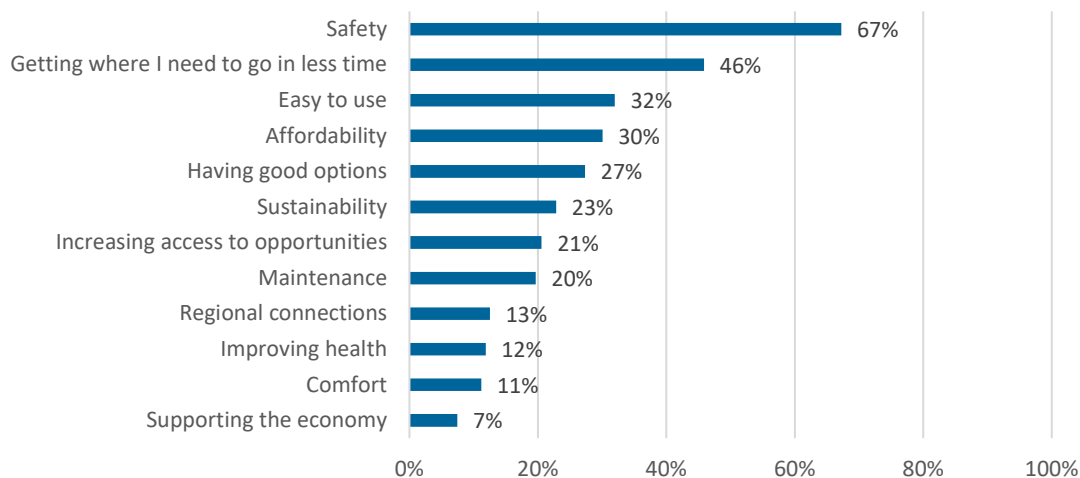
The broader Indy Moves shared values come from over 16 local and regional planning documents and were validated through community surveys and meetings. Bicycling and multimodal travel options are important elements of these shared values.





When asked what they value most in our transportation system, Indy residents overwhelmingly responded that safety and time (getting places faster) were their top concerns.

Figure 3-1 Values Shared by Community Members in Indy Moves Survey



## GOALS

Pedal Indy translates these values into specific goals and action areas that relate to the larger Indy Moves goals but are tailored toward bicycling:



### SAFETY

**Safety:** Speed is a leading cause of crashes and a major contributor to traffic deaths of people biking. In pursuit of the goals outlined by Vision Zero, this plan prioritizes separating people riding bikes from faster-moving vehicle traffic and emphasizes reduced vehicle speeds on streets where modes interact. Education, engineering, and enforcement are critical as well.



### MOBILITY

**Mobility:** Pedal Indy envisions a network where travel by bicycle is facilitated by a safe and low-stress network. Pedal Indy operates under the assumption that people prefer to use bikes for travel when the experience is comfortable and low risk.



### EQUITY

**Equity:** Pedal Indy imagines an integrated multimodal transportation system that prioritizes those who have historically had limited access to such systems. Pedal Indy works to promote economic mobility through improved access to employment opportunities, education, and civic life.



### CONNECTIVITY

**Connectivity:** Pedal Indy recognizes that a bike network is only as useful as the destinations it connects. This plan prioritizes low-stress connections to places where people live, work, and play and to multimodal options like transit, walking, and car-share. Major activity centers provide the greatest opportunity for improvements in access to encourage efficient bicycle trips.



### HEALTHY COMMUNITIES

**Healthy Communities:** Pedal Indy promotes physical activity as key to achieving positive mental and physical health outcomes. Promoting daily physical activity has been shown to effectively treat and prevent dozens of illnesses and conditions.



## 4 BICYCLE NETWORK DEVELOPMENT

Development of a safe and accessible bicycle network is a critical factor in achieving Indianapolis' mobility goals. This chapter details the principles and analysis used to develop the Pedal Indy bicycle network.

### BIKE NETWORK PRINCIPLES

The following principles address Pedal Indy's goals by developing a low-stress bicycle network. These principles guide decisions about bicycle facility design, prioritization of projects, network development, and desired outcomes of bicycle investments.



SAFETY

Design for zero fatalities and serious injuries by improving the safety of current and future bike infrastructure, focusing on high-stress corridors.



MOBILITY

Create a low-stress, connected bike network that is accessible to all through a combination of greenways, shared-use paths, protected bike lanes, and traffic-calmed streets or Neighborways.



EQUITY

Develop a bike network that provides a safe, affordable, convenient, and healthy form of transportation that connects neighborhoods to transit, employment, and educational opportunities.



CONNECTIVITY

Eliminate bike network gaps and barriers, increase network density, and create direct connections to major community destinations for all residents.



HEALTHY  
COMMUNITIES

Implement policies and infrastructure that encourage active transportation.

### ANALYSIS METHODS

The bike network principles emphasize development of a low-stress, well-connected network that is accessible to everyone, eliminates network gaps, and improves safety on high-stress corridors, all while supporting access to public transit. Using a data-driven approach supplemented by community outreach, Pedal Indy analyzed safety, demand, and levels of stress to establish critical routes for planned bicycle infrastructure. These analyses were then evaluated against values and



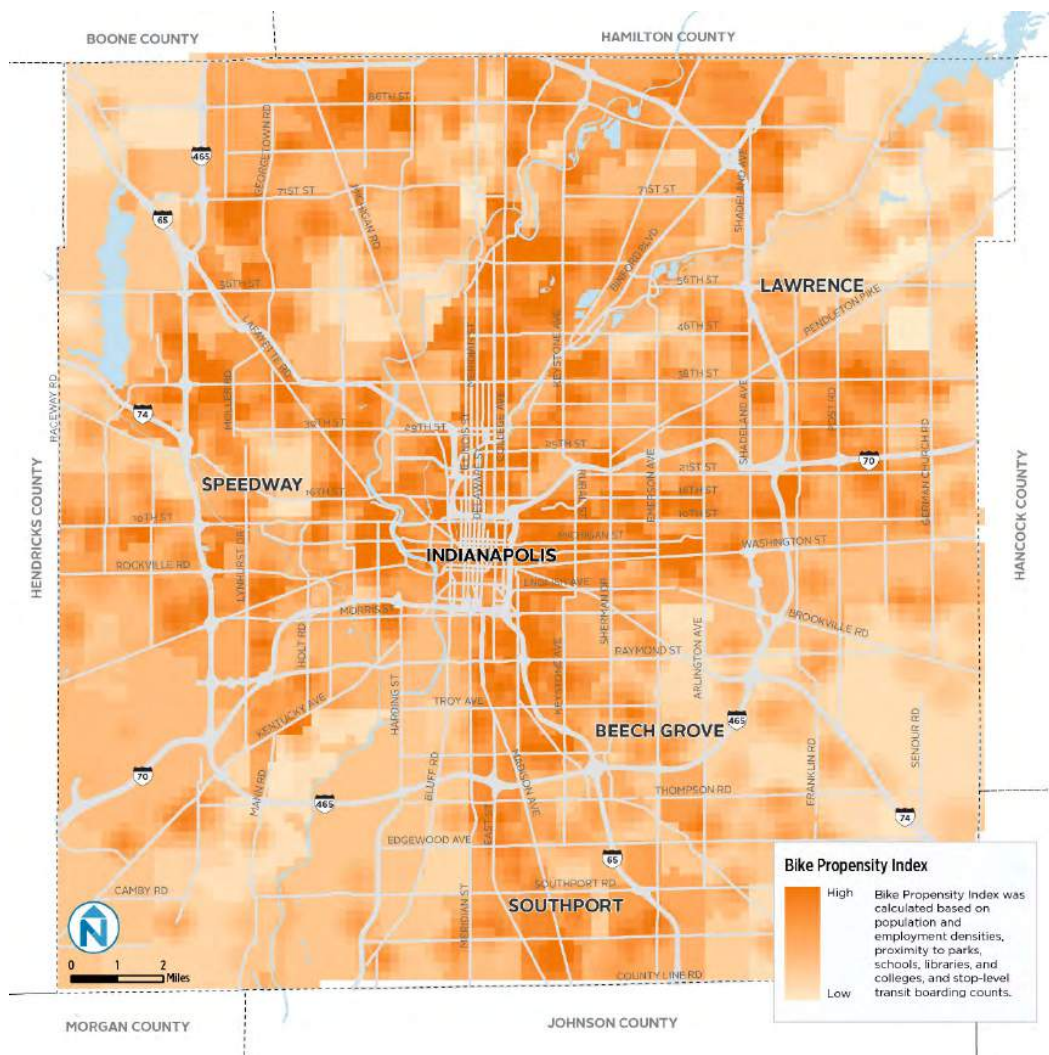
goals from community feedback to create a vision for a network that is safe and accessible for all. Detailed methodologies for the analyses described below are included in the Attachment.

## Bicycle Demand Analysis

The first step in network development is understanding current demand. Bicycle demand analysis helps to identify areas where people currently bike or would like to bike in the future, pointing to locations where bicycle facilities may be needed. The analysis uses a combination of demographic data (population and employment density) and trip generators (such as parks, libraries, and schools) to estimate where the greatest demand for bike trips exists. As informed as these models are, they still serve as a proxy for true demand and are not based on actual trip information. Rather, they are informed by existing land uses and densities and do not project future demand.

The Pedal Indy bicycle demand analysis is shown in Figure 4-1. Although there are pockets of demand spread though the county, the map shows that highest demand for bicycling is in downtown Indianapolis and downtown-adjacent neighborhoods, such as the Near Eastside and Fountain Square.

Figure 4-1 Bicycle Demand Map





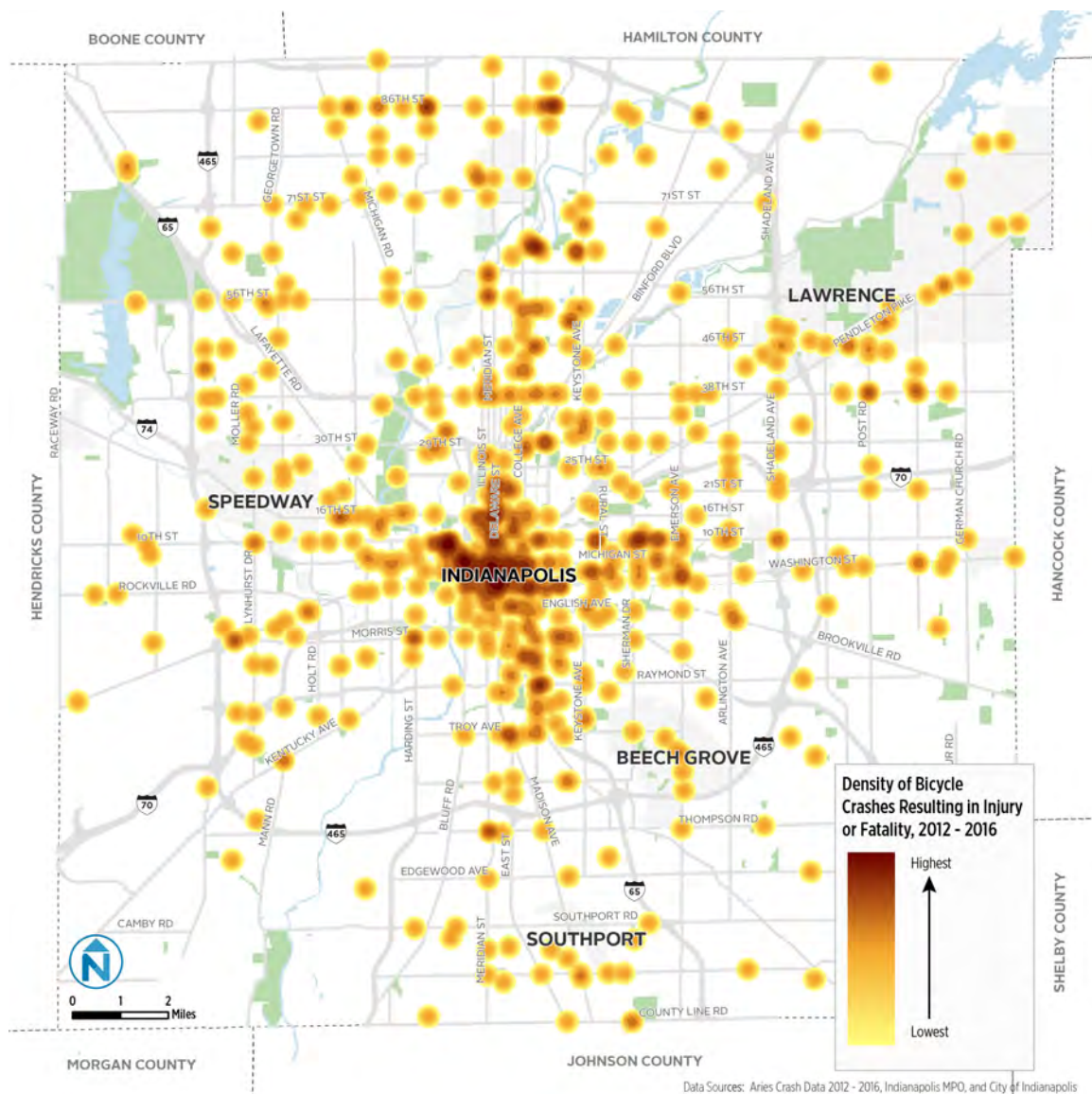


## Safety Analysis

Safety is a top priority for the City of Indianapolis. Indianapolis has some of the highest rates of severe and fatal bicycle and pedestrian crashes in the country. Identifying locations where there have been multiple bicycle crashes (sometimes called “hotspots”) helps target projects in areas where they can have the greatest impact on safety. The safety analysis examined reported crashes on arterial and collector streets from 2012 to 2016, using a weighted cluster analysis in which fatal crashes were weighted three times as high as crashes that resulted in injuries. The analysis does not capture near misses or unreported incidents, meaning that actual crashes are likely higher.

The safety analysis is shown in Figure 4-2. Corridors in Indianapolis with the highest concentration of bicycle-involved crashes are located in areas with higher levels of expected bicycle demand and also along higher-speed, higher-volume roads, such as 38<sup>th</sup> and 86<sup>th</sup> Streets. Pedal Indy recommends high-level protected infrastructure along these major corridors.

Figure 4-2 Bicycle Crash Analysis Map





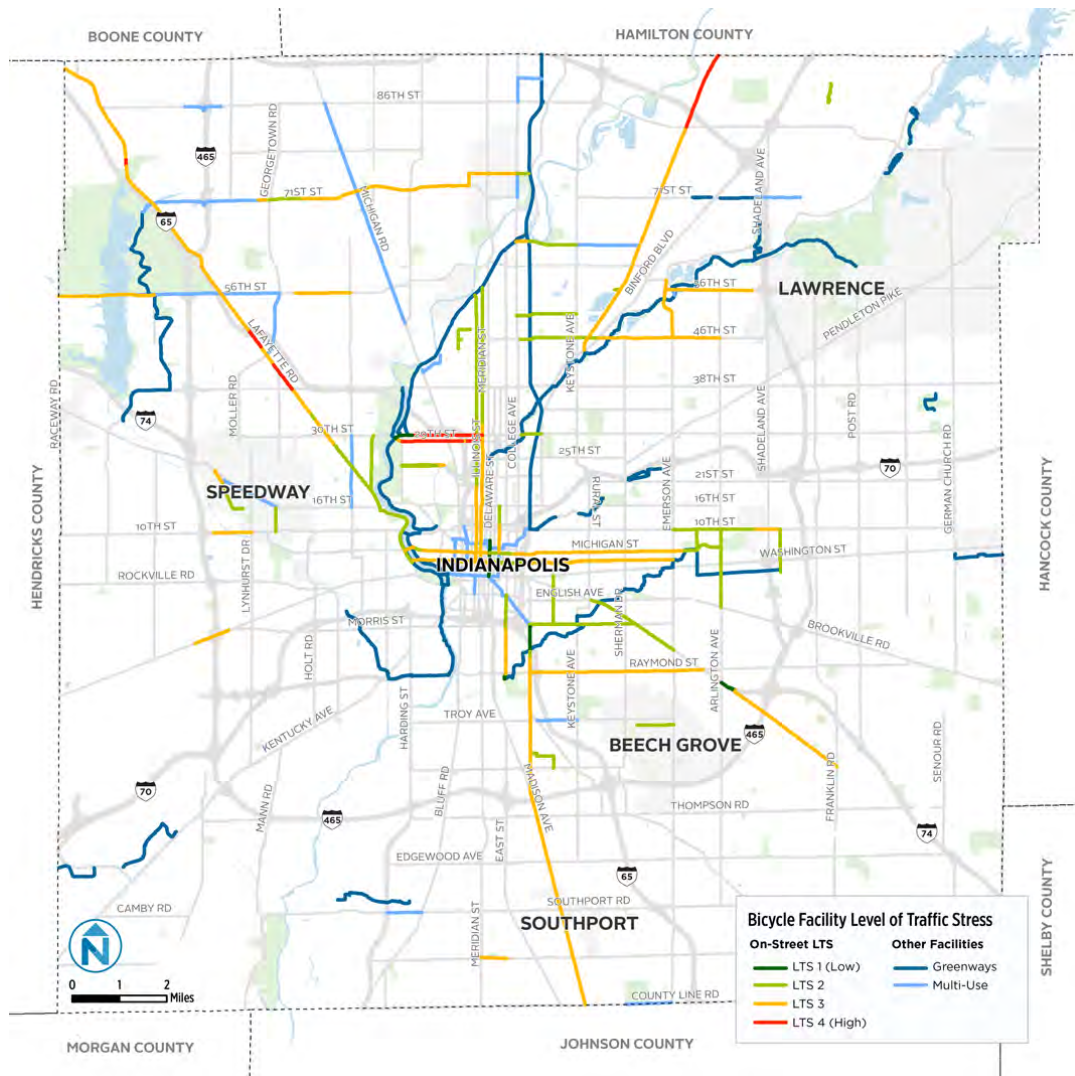


## Level of Traffic Stress Analysis

Level of traffic stress (LTS) is one of the primary tools used to develop the Pedal Indy bicycle network. The LTS analysis uses a best-practice methodology developed by the Mineta Transportation Institute that takes into account the number of auto lanes, width of a bike facility, auto speed, average daily auto trips on a road, presence of parking, and whether a street is one-way or two-way. All of these factors are combined to produce an LTS rating for each segment of the bike network, with a lower score indicating a less stressful, and therefore more accessible and comfortable, bike facility. Note this analysis is only performed for designated bicycle facilities. Many low-volume, low-speed neighborhood streets are conducive to bicycling and are very low stress, but are not depicted on this map.

This analysis demonstrates that only 2% of Indy's existing infrastructure achieves the lowest level of traffic stress. It highlights where we have excelled at certain applications and where we need to redesign our existing system to achieve our Vision Zero goals. Future analyses will look at the LTS of our entire network to inform design selections on planned bicycle routes.

Figure 4-3 Level of Traffic Stress Analysis

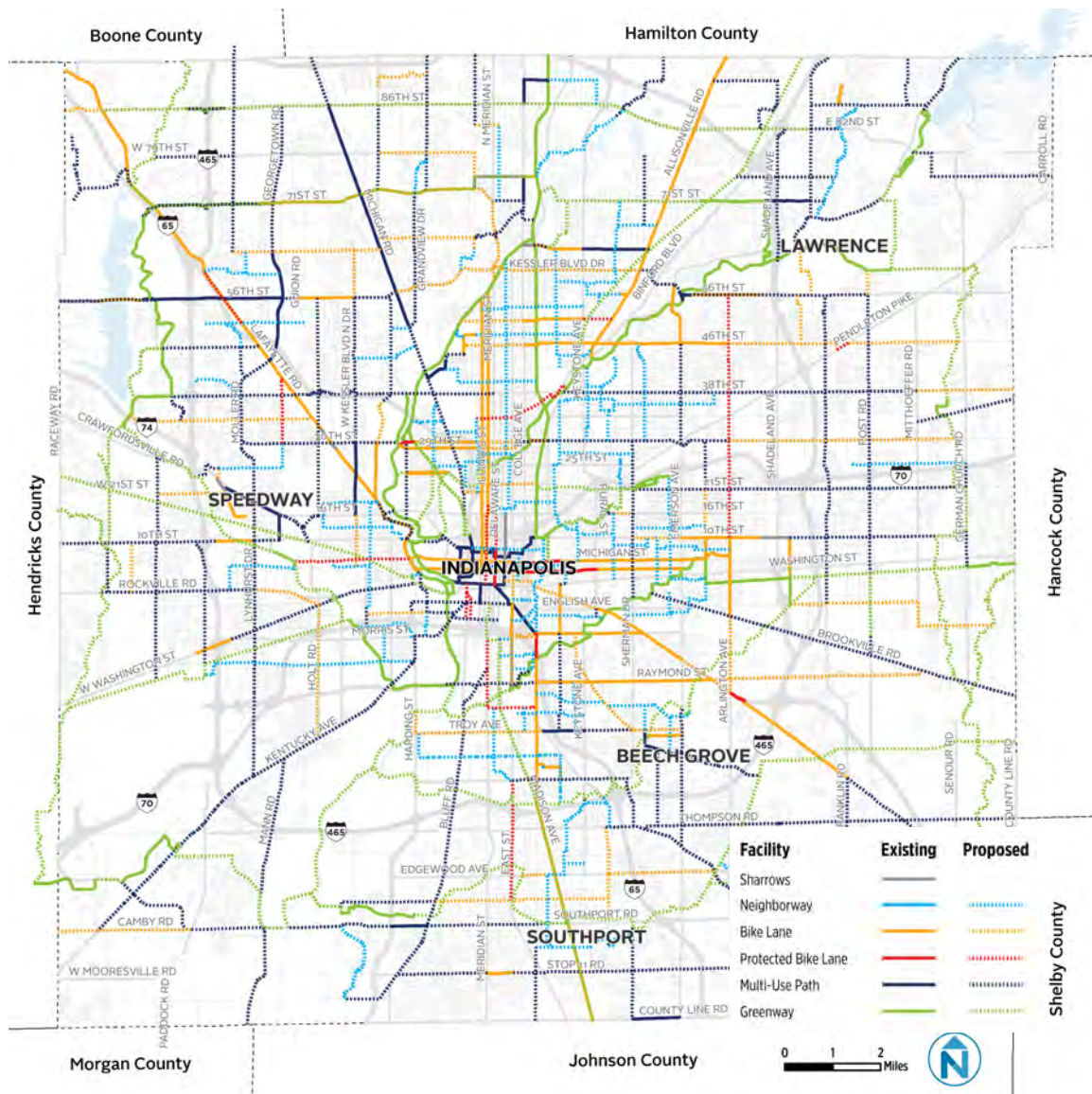




## PEDAL INDY BICYCLE NETWORK

The Pedal Indy bicycle network is a vision for the future of safe and accessible bicycling infrastructure in Indianapolis. The bicycle demand, safety, and LTS analyses informed development of a bicycle network for Indianapolis, but community input played the most vital role. The proposed network was reviewed by Indianapolis residents as part of 13 community workshops between January and March 2018 and in focused feedback sessions with representatives of the bicycle community. It was improved and revised based on public feedback as well as additional analysis and multimodal project review. The recommended network is shown in Figure 4-4.

Figure 4-4 Pedal Indy Bicycle Network





## Indianapolis Neighborways: Phase 1

Pedal Indy recommends an innovative design and network approach that maximizes comfort and coverage for all residents. The plan supplements high-level protected infrastructure with a low-stress, low-traffic network called Neighborways (or Neighborhood Greenways). Neighborway design reinforces existing, low-stress streets with traffic calming and placemaking enhancements to keep bicycling safe and comfortable (see Chapter 5 for more details on design). This flexible design will allow greater coverage and an opportunity to engage residents in community-driven neighborhood traffic calming. In future phases, residents will be empowered to designate locally-preferred bicycle routes.

As the crash analysis demonstrates, most of Indianapolis' streets were designed at a time when people walking and biking were an afterthought. The majority of Indianapolis streets, especially major thoroughfares, are designed only for cars. Therefore, Pedal Indy recommends high-level protection on these highly traveled and cross-county arterials. Best practice nationally and locally (with the Indianapolis Cultural Trail) has demonstrated that the most successful bike programs feature safe and comfortable designs that are physically separated from car traffic. This type of infrastructure is expensive and with transportation funding realities cannot be applied carte blanche across the 403 square miles of Indianapolis.

The map above details a variety of infrastructure types, destinations, and applications to build out a safe and comfortable network. The City envisions this first phase of the Neighborways program as the beginning of a discussion with communities to determine where and what type of low-stress bicycle infrastructure they want in their neighborhoods.



## 5 DESIGNING THE PEDAL INDY NETWORK

Without design, a bicycle network is little more than lines on a map. When rubber hits the road, how should bike infrastructure be *designed*? How do we fill in the gaps? This chapter provides answers to those questions.

Well-designed bike facilities are the heart of building a low-stress, safe bike network. For example, protected bike lanes and painted bike lanes provide very different levels of comfort and safety for cyclists depending on the street. A painted bike lane may encourage an “enthused and confident” person to hop on their bicycle on a busy street, but may not be sufficient for those who are “interested but concerned.” These more cautious potential bike riders would need the added safety of a protected bike lane that is physically separated from vehicle traffic. Figure 5-1 illustrates the levels of stress associated with certain facility types and the kinds of riders most likely to use them.

This chapter provides three types of bicycle-oriented design guidance, focusing on how these design concepts apply to Indy:

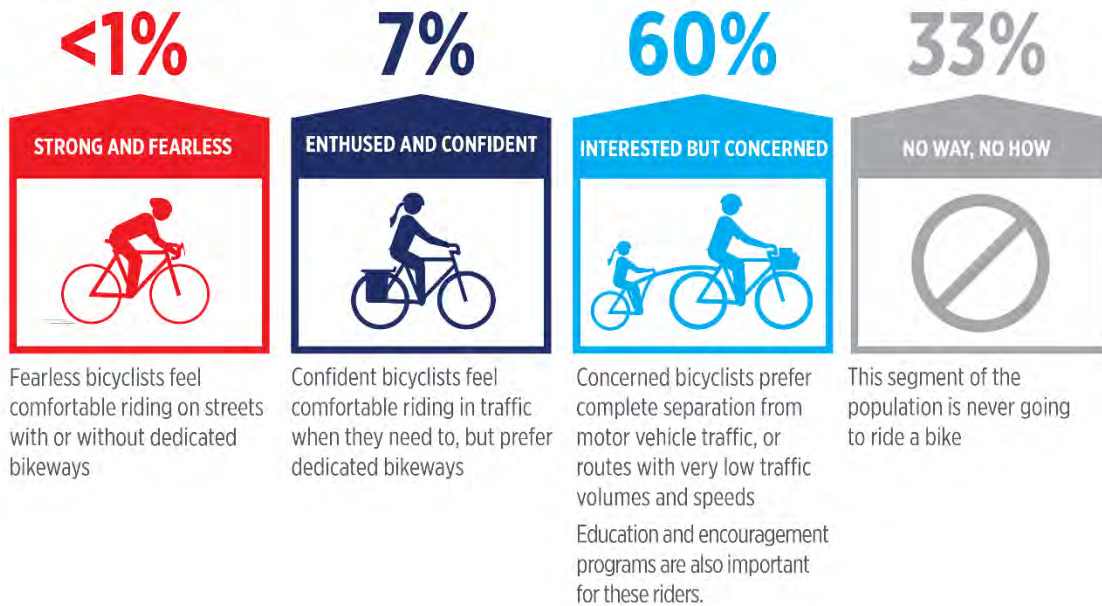
- (1) street design best practices,
- (2) information on different types of bike facilities, and
- (3) intersection design with bikes in mind.



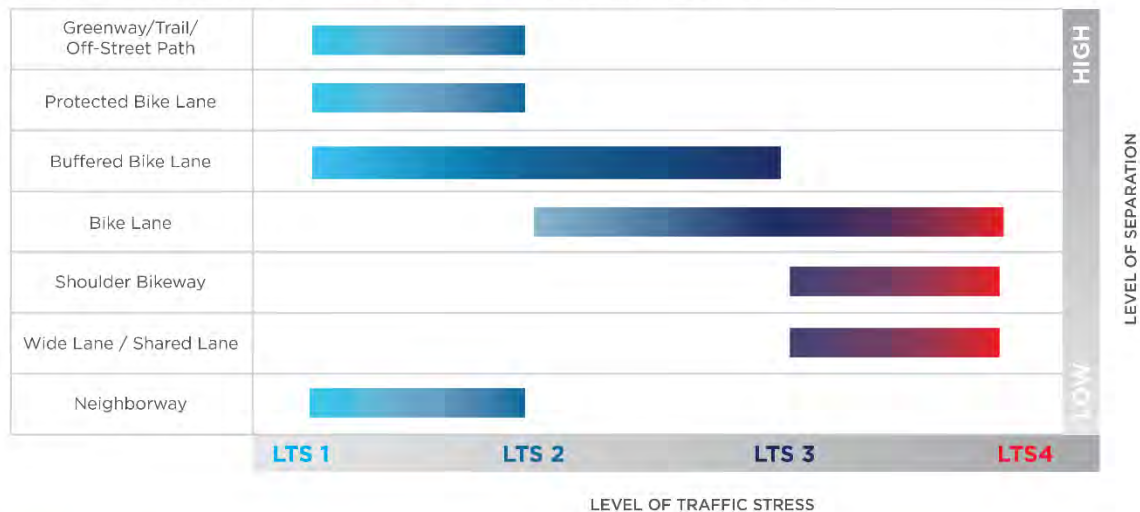


Figure 5-1 Types of Bicyclists, Level of Traffic Stress, Facility Type, and Rider Comfort

#### TYPES OF BICYCLISTS



#### LEVEL OF TRAFFIC STRESS, FACILITY TYPE, AND RIDER COMFORT



- 1 Level 1 (LTS 1)**  
Level 1 is the lowest level of stress. These segments are suitable for all ages and abilities, including children.
- 2 Level 2 (LTS 2)**  
Level 2 has a low level of stress. However, attention is required. Most adults will tolerate this level. The "interested but concerned" population will feel safe on these streets.

- 3 Level 3 (LTS 3)**  
Level 3 requires attention and is suitable for adults who have confidence on a bicycle. These streets work for the "enthused and confident" riders who still prefer dedicated space.
- 4 Level 4 (LTS 4)**  
Level 4 is the highest level of stress. It is suitable only for adults who can tolerate bicycling in traffic.





## STREET DESIGN BEST PRACTICES

Pedal Indy includes street and bikeway designs and best practices based on national guidelines, tailored to the needs of Indianapolis. A low-stress bicycle network must incorporate safe and accessible pedestrian infrastructure, as every person who bikes begins and ends their trip on foot, and some short trips are more convenient on foot. This includes safe crossings and sidewalks, with adequate space for people walking and bicycling. Guidance for successful integration of bicycle and pedestrian facilities comes from Complete Streets principles, which dictate that all streets should have adequate infrastructure for every mode of transportation.

Indianapolis' low-stress bicycle network must also have good connections with transit. As IndyGo builds three bus rapid transit (BRT) corridors, the bicycle network should make connections to future stations and corridors. For example, installing high-quality bicycle parking at BRT stations will encourage people to bike to transit, addressing the common “first/last mile” challenge. Because people can cover greater distances by bike compared to walking, bike infrastructure, access and storage serving transit hubs can effectively expand the transit service area. For example, as Figure 5-2 illustrates below, a person willing to travel for 20 minutes to a bus would only walk about one mile, but they could bike from as far as three miles.

Building bicycle network crossings of BRT corridors that respect transit priority will increase safety, as well as transit speed and reliability. Bicycle route design supports transit access when bike routes and transit corridors are located to minimize conflict, and when best practices in street design are applied to maintain both transit efficiency and comfortable bicycle conditions.

Figure 5-2 Bike and Walk Shed Distances: Biking Expands Transit's Service Area



## BICYCLE FACILITY DESIGN GUIDANCE

Tailoring the design of bicycle facilities to fit local context is key to developing a low-stress bicycle network that is comfortable for riders of all ages and abilities. The following pages describe the characteristics of streets on which the bicycle facilities recommended in Pedal Indy are most appropriate.

### Bicycle Facility Types

The National Association of City Transportation Officials (NACTO) has developed national best practice design guidance to help cities design bicycle facilities that best address local needs and priorities to serve all riders. Their December 2017 publication, *Designing for All Ages & Abilities*, explains why this is so important to expand mobility choices (see Figure 5-3 for more benefits):



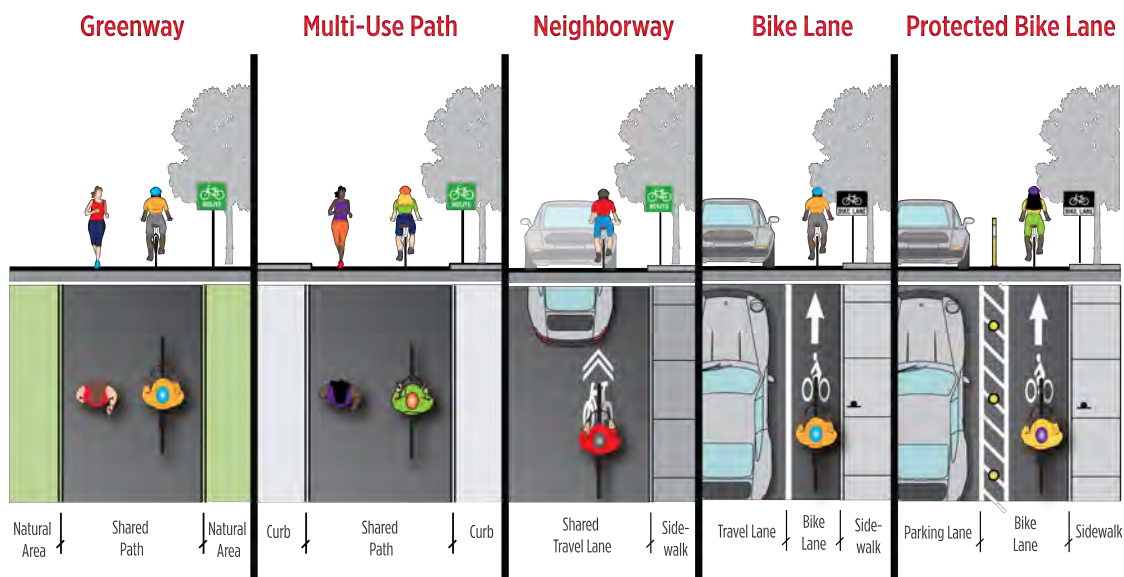
*“Streets that are safe and comfortable for All Ages & Abilities bicycling are critical for urban mobility ... Building bicycle infrastructure that meets this criteria is an essential strategy for cities seeking to improve traffic safety, reduce congestion, improve air quality and public health, provide better and more equitable access to jobs and opportunities, and bolster local economies.”*

Figure 5-3 Benefits of All Ages and Abilities Bike Facilities

All Ages & Abilities Bike Facilities are ...		
Safe	Comfortable	Equitable
More people will bicycle when they have safe places to ride, and more riders mean safer streets. Among seven NACTO cities that grew the lane mileage of their bikeway networks 50% between 2007–2014, ridership more than doubled while risk of death and serious injury to people biking was halved. <sup>6</sup> Better bicycle facilities are directly correlated with increased safety for people walking and driving as well. Data from New York City showed that adding protected bike lanes to streets reduced injury crashes for all road users by 40% over four years. <sup>7</sup>	Bikeways that provide comfortable, low-stress bicycling conditions can achieve widespread growth in mode share. Among adults in the US, only 6–10% of people generally feel comfortable riding in mixed traffic or painted bike lanes. <sup>8</sup> However, nearly two-thirds of the adult population may be interested in riding more often, given better places to ride, and as many as 81% of those would ride in protected bike lanes. <sup>9</sup> Bikeways that eliminate stress will attract traditionally under-represented bicyclists, including women, children, and seniors.	High-quality bikeways expand opportunities to ride and encourage safe riding. Poor or inadequate infrastructure—which has disproportionately impacted low-income communities and communities of color—forces people bicycling to choose between feeling safe and following the rules of the road, and induces wrong-way and sidewalk riding. Where street design provides safe places to ride and manages motor vehicle driver behavior, unsafe bicycling decisions disappear, <sup>11</sup> making ordinary riding safe and legal and reaching more riders.

Indianapolis has begun to develop and implement new types of bicycle facilities, balancing high levels of rider comfort and protection with available roadway space. The five primary types of bicycle facilities recommended in Pedal Indy are shown in Figure 5-4.

Figure 5-4 Pedal Indy Bike Facilities





The low-stress network facilities described below are consistent with NACTO design guidelines, national best practices, and examples of successful designs that have been implemented around the country.

## Neighborways

Neighborways provide continuous, comfortable bicycle routes through the local street network (and occasionally on 2-lane collector roads). They are located on non-arterial streets with low vehicle traffic volumes (typically less than 3,000 autos per day) and low speeds (20 mph target). Neighborways are designed so that most people riding bikes have few interactions with passing motor vehicles. The street design of a neighborway calms traffic and prioritize bicycle crossings at major and minor street intersections.

SUITABLE FOR:



Interested but Concerned



Enthusiased and Confident



Strong and Fearless

Neighborway Cross-Section



Source: Seattle Bike Blog

### 1 Traffic calming

To reduce auto speeds and make biking safer, neighborways are calmed with speed humps, traffic circles, chicanes, and diverters.

### 2 Neighborway priority

Neighborways can be coordinated with cross streets to remove stop signs and use traffic circles and other treatments that allow people on bikes priority through intersections.

### 3 Signage and wayfinding

Marking neighborways with sharrows, special-colored street signs, and directions to major destinations can help people make better use of what may initially seem like a “hidden” network, making biking a more attractive option.

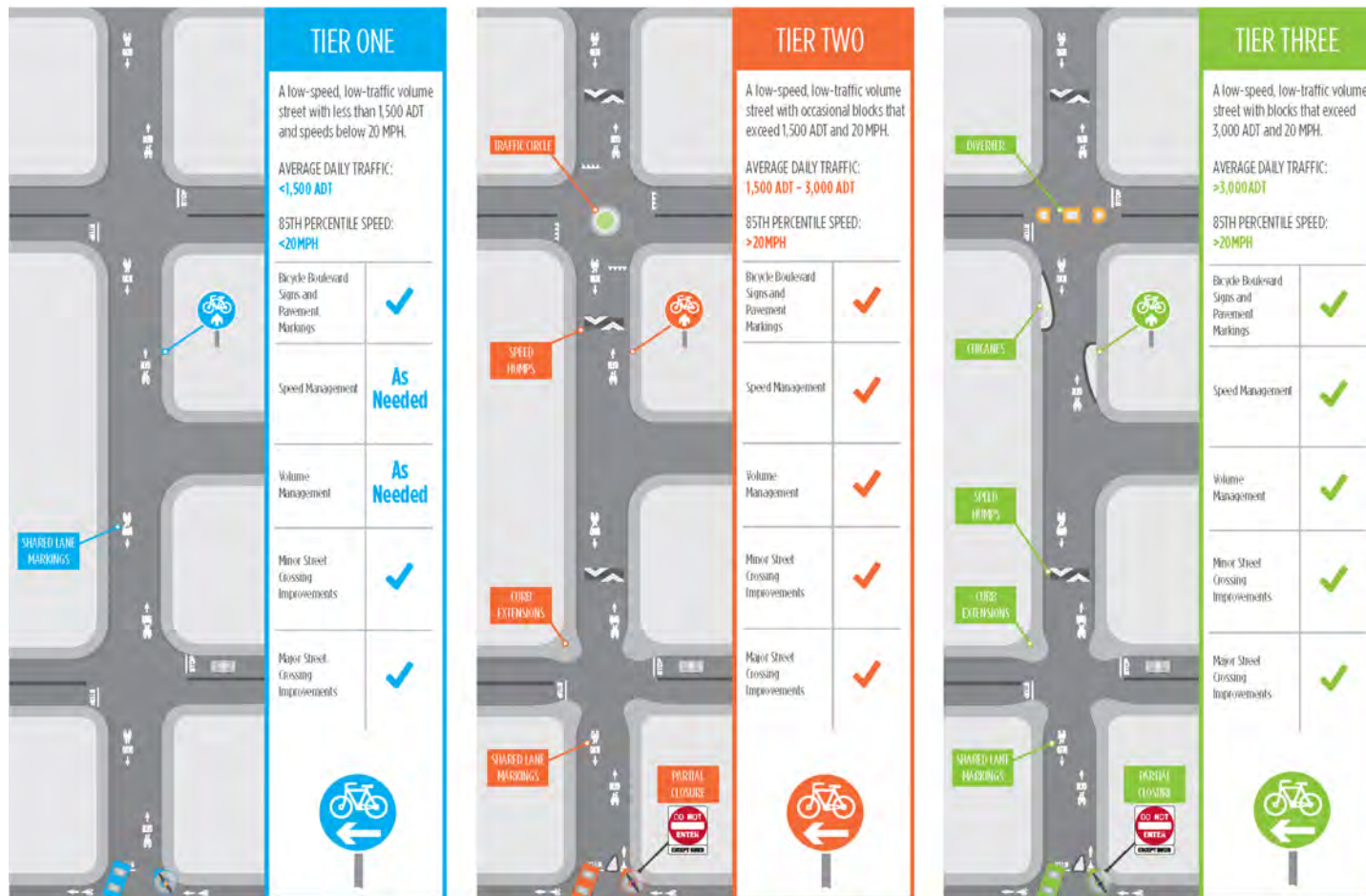




## Neighborhood Applications

The design treatments used for Neighborhoods can be applied in various combinations depending on context, community desires, and funding availability. Figure 5-5 provides a continuum of Neighborhood investments to support further project planning and design.

Figure 5-5 Continuum of Neighborhood Investments





## Greenways

Greenways are one of the lowest stress bicycle facilities, supporting all types of riders and all types of trips, whether commuting, recreational, or shopping trips. Greenways in Indianapolis are shared non-motorized use paths and are most often located in park-like environments or along a river or abandoned railway. They are also recommended where roadways with higher speed traffic (40 mph or more) connect to corridors with dedicated bicycle facilities to support network connectivity where vehicle speeds cannot be reduced. The complete separation from auto traffic makes greenways comfortable and accessible for all types of bike riders.

Greenway  
Cross-Section



SUITABLE FOR:



Interested but Concerned



Enthusied and Confident



Strong and Fearless



### 1 Physical separation

Greenways are always two-way paths that are separated from auto traffic. Sometimes they are designed to separate people walking from people biking as well. Greenways should have enhanced connections to on-street bike infrastructure whenever possible.

### 2 Landscaping

Greenways are typically located in park-like environments. This makes the riding experience more relaxing and lower stress.

### 3 Activities

Greenways often have parks, community gardens, stores, or other attractions along the way. This makes greenways useful for many types of trips and provides amenities for people using the greenway.

### 4 Amenities

Lighting makes greenways feel safer and encourages people to use them at night. Wayfinding signs help people make connections, and amenities like water fountains make greenways more comfortable.





The Indy Greenways Full Circle Master Plan outlines the long-term, comprehensive vision for trail and greenway development throughout the city, as well as design recommendations. Additional elements described below build on the existing Master Plan to incorporate greenways into the larger network of low-stress bicycle facilities:

- **Connectivity:** It is critical that greenways make protected and comfortable transitions to on-street infrastructure, and the rest of the low-stress network.
- **Crossings:** At-grade crossings are necessary across the entire greenway network. Careful design, signage, and speed considerations must be given to protect people walking and biking at intersections (see Figure 5-5).
- **Signage:** Consistent and easy-to-understand signage with mileage on the trail and along the on-street connections to greenways helps people make better use of the network.
- **Park Facilities:** As part of the parks systems, greenways should include supportive facilities and amenities, such as water fountains, lighting, and restrooms.

Figure 5-5 Example of Greenway Crossing Arterial Streets



Indy's Monon Trail jogs across Winthrop Avenue and Westfield Boulevard, to make the north-south connection across the Central Canal. High-visibility crosswalks, clearly marked on-street facilities, and signage currently help users navigate this crossing, and a signalized or scramble light intersection could enhance safety at this busy intersection.

# Multi-Use Paths

Multi-use paths are always separated from auto traffic and shared by people biking, walking, and using other non-motorized transportation. When they are adjacent to roadways, multi-use paths are generally grade-separated (most often by a curb). They often have landscaping on one or both sides, providing additional separation from traffic and other roadway uses.

Multi-Use Path Cross-Section



SUITABLE FOR:



Interested but Concerned



Enthusied and Confident



Strong and Fearless



## 1 Shared

Multi-use paths are open to all non-motorized travelers, including people on bikes, in wheelchairs, walking, or using rollerblades.

## 2 Bi-directional

Multi-use paths typically allow two-way travel and often include a striped centerline or other directional divider.

## 3 Separated

Multi-use paths are always separated from auto traffic, typically with a change in grade and/or landscaping.

# Protected Bike Lanes

Protected bike lanes are on-street bicycle facilities that are physically separated from auto traffic, whether by a curb, bollards, planters, or parked cars. The complete, clearly-delineated separation is essential to make a protected bike lane feel inviting and safe for riders of all ages and abilities. Protected bike lanes are most often used on arterial streets and can provide key connections between urban destinations. Protected bike lanes work well on streets with any speed limit and should be prioritized on streets with high traffic volumes or high speeds.

Protected Bike Lane Cross-Section



SUITABLE FOR:



Interested but Concerned



Enthusied and Confident



Strong and Fearless



## 1 Physical separation

Protected bike lanes, although in the roadway, are physically separate from cars and pedestrians.

## 2 Types of separation

Protection can be achieved via grade separation, planters, concrete or plastic curbs, plastic flex-posts, or other objects that remain on the roadway year-round.

## 3 Buffer

A buffer zone either creates the space for separators or, if the protected bike lane is adjacent to a parking lane, provides clear space between people biking and the door zone.



## Protected Bike Lanes in Indy

Indy has begun to develop a network of protected bike lanes, including those highlighted in Figure 5-6 and Figure 5-7. More information about these facilities can be found in Chapter 2.

Figure 5-6 New York Street and Arsenal: On-Street Protected Bike Lane



Figure 5-7 Michigan Street through IUPUI: Two-Way, On-Street, Protected Bike Lane



# Bicycle Lanes

Bicycle lanes are on-street facilities that are separated from traffic by pavement markings, typically a single stripe but sometimes a painted buffer. They are relatively inexpensive facilities, but the limited protection from vehicles makes bike lanes higher-stress facilities that are not comfortable for all types of riders. Bike lanes are often used on arterial and collector streets, but they are not ideal facilities and are recommended only for lower volume and slower speed streets. In cases where there is not enough street space for a protected bike lane, painted bike lanes may be used when vehicle speeds are 25 mph or lower.

SUITABLE FOR:



Bike Lane Cross-Section



## 1 Marked lane

A clearly-marked lane indicates space on the road that is dedicated for people on bikes.

## 2 Door zone buffer

If striped adjacent to a parking lane, bike lanes should have a (minimum) three-foot buffer separating people on bikes from opening car doors.

## 3 Adjacent traffic

Bike lanes should be built only on streets with both low volumes and slower speeds of adjacent traffic.





## Bike Lanes in Indy

New York and Michigan were striped as the first on-street bike lanes in the downtown area in 2009. As a pair of one-way streets, the original limits were from the White River on the west side to Emerson Ave (on New York) and Arlington Ave (on Michigan) on the east side. The initial striping and signage was added with Transportation Enhancement (TE) funds and only required the reallocation of space in the existing right-of-way. In most areas, the bike lane was a five-foot, paint-only facility.

Figure 5-8 New York Street at New Jersey Street Bike Lane



## INTERSECTION DESIGN GUIDANCE

Intersections are among the most dangerous places for people on bikes—they are mixing zones where drivers, pedestrians, and cyclists interact. Best practice multimodal intersection design is based on the principles of a complete and protected intersection, which allow people on bikes to safely cross multiple lanes of traffic without being exposed to a turning vehicle.

Intersections are crucial to the success of all types of bicycle facilities. A low-stress segment of a bike network will be used only if it includes safe, low-stress intersections that connect people to and through the network. There are a number of strategies for making intersections safer for everyone using the road, including all types of cyclists:

- **Physical Protection:** The safest intersection design is a “protected intersection,” which uses concrete islands and pavement markings to keep different modes separated to eliminate conflicts (see Figure 5-9).



- **Paint:** Painted intersection treatments, such as green bike boxes, turn lanes, and driveway crossings, help alert drivers to the presence of people on bikes and direct cyclists through an intersection (see Figure 5-10, Figure 5-11, and Figure 5-12).
- **Bike Signals:** On high-volume bikeways, bicycle-specific traffic signals clearly define time and space for bike movements and make drivers more aware of people on bikes. Bike signals are particularly important as part of a protected bike lane installation, as they help to separate bike movements from vehicles turning across a bike lane. Bike signal preemption increases the visibility of cyclists and enables them to move through intersections with short signal timings (see Figure 5-13). Even where bike signals aren't warranted, upgrading existing traffic signals to be able to detect bicycles will improve the safety of riders.
- **Protected Phases:** At signalized intersections where bicycle volumes are high, leading pedestrian and bicycle interval signals or a dedicated phase for bicycles can help to separate walking and biking movements from vehicle turns. Adding a signal at unsignalized intersections with high bicycle volumes can also help to separate bicycles and vehicle turning movements (see Figure 5-13).
- **Raised Crossings:** Raised crossings for people walking and biking slow traffic and improve safety. They also make the crossing smoother by keeping people walking or biking at the same grade as an adjacent sidewalk or bikeway (see Figure 5-14 and Figure 5-15).
- **Speed Management Measures:** Tightening the turning radii at intersections forces motorists to turn at lower speeds and is safer for everyone using the roadway. Another tactic for slowing speed at intersections is the use of bollards to force motorists to look left and see any potential bicyclists or pedestrians using the crosswalk, as well as mini-roundabouts at minor intersection crossings and at uncontrolled intersections (see Figure 5-16 and Figure 5-17).
- **Pavers:** Using pavers, such as bricks, at intersections can help designate an intersection as a mixing zone, slowing auto traffic and making drivers more aware of people crossing an intersection on foot or on bike (see Figure 5-18).

Figure 5-9 Example of a Median Refuge Island for Bicyclists



Source: NACTO

Figure 5-10 Example of a Protected Center Median Offset Trail Crossing



Source: NACTO



Figure 5-11 Example of a Bike Box at a Signalized Intersection with a Bike Lane Approach



Source: NACTO

Figure 5-12 Example of a Painted Merging Area between a Bike lane and Right Turns for Vehicles



Source: NACTO

Figure 5-13 Example of Bike Signals at an Intersection in New York City



Source: rEvolving Transportation (New York, NY)



**Figure 5-14** Raised Intersection with Bollards at Corners



Source: NACTO

**Figure 5-15** Raised Intersection and Bike Crossing in Cambridge, MA



Source: NACTO

Figure 5-16 Example of a Curb Extension as a Speed Management Measure



Source: NACTO

Figure 5-17 Traffic Circle (or Mini-Roundabout) at Minor Streets Crossing



Source: NACTO





Figure 5-18 Cultural Trail Intersection with Pavers to Designate a Mixing Zone



Source: Indianapolis Cultural Trail

## MAINTENANCE AND OPERATIONS GUIDANCE

Maintenance and operations of existing (and future) bicycle infrastructure is one of the most critical pieces of a successful bike network. No matter how well designed and constructed our infrastructure is, if the bike lanes are not cleared of snow or are poorly maintained, they become unusable and can cause equipment damage and physical injuries to bicyclists.

This section offers guidance for maintaining and operating the bike network to ensure it is safe and comfortable for all riders and has a long and useful life.

### Maintenance

As infrastructure is designed, it is important to consider its life cycle and maintenance needs and ensure funds for that purpose through a bikeway maintenance program. This program should establish maintenance standards and a schedule of maintenance activities.

Primary considerations include the following:

- **Sweeping Program:** Whether a shoulder bike lane or a greenway, gravel, broken glass or general litter, and even ice can accumulate and cause difficulties for bicyclists. Indy should establish a regular sweeping schedule, including periodic inspection in areas that experience frequent vandalism or flooding.
- **Surface Repairs Program and Pavement Preservation Program:** These programs help to minimize deterioration and cracking of bikeways surfaces. Indy should regularly inspect existing surfaces for irregularities by establishing a process that enables departments to respond to resident complaints in a timely manner, and prevent long-term problems by building new facilities to a high pavement standard, such as using pavement material resistant to root damage.
- **Vegetation:** Both roots and vegetation encroaching into bikeways should be removed and controlled to provide adequate clearance and sight distances and prevent surface



damage. Vegetation should be cut back seasonally. Indy should require adjacent landowners to control vegetation to support a safe cycling network.

- **Snow Clearance:** Snow stored in bike lanes impedes bicycling in winter. Snow should be removed from shoulders and bike lanes and stored either on the furniture zone of the adjacent sidewalk (without blocking pedestrian traffic) or removed to a designated location outside of the right-of-way. Protected bike lanes, greenways, and multi-use paths should be designed with a minimum width to accommodate a smaller snow removal vehicle.
- **Traffic Signals:** Repairs and modifications to traffic signals offer opportunities to improve their functionality for bicyclists by adjusting detectors to be actuated by a typical bicycle or adjusting signal phases to account for the speed of a typical bicyclist.
- **Signs and Markings:** Signs and markings should be readable and inspected regularly, including for retro-reflectivity at night. Timely restriping and replacement is key for safety of the bike network and the entire roadway network.

## Operations

Proper planning for bicyclists through and along construction routes should be initiated whenever there is a need for temporary traffic control or temporary facilities. Cyclists should be provided with an adequate paved surface, and drivers should be provided with enough roadway width to safely pass bicyclists.

In busy urban areas, bicyclists should be accommodated within the construction zone with proper signage or with a temporary bike lane. A protocol for the closure of bike facilities should be developed to ensure a continuous bike network that is safe for all types of riders.

## KEYS FOR THE NETWORK

Well-designed bike facilities are a necessity if Indy wants to build a low-stress, safe bike network. For example, protected bike lanes and painted bike lanes provide very different levels of comfort and safety for cyclists depending on the street. The bicycle facility guidance outlined above will allow Indy to build a network that serves everyone who is interested in bicycling. Facility design recommendations depend on a variety of factors, including traffic volumes, vehicle speeds, other priority uses such as transit, and the available space within the right-of-way. The city should secure funds to maintain the network at an optimal level, to ensure that investments in bicycle infrastructure serve all of Indy's cyclists over the long term.

## 6 SUPPORTIVE PROGRAMS, POLICIES, & PROCEDURES

Bicycle-supportive programs, policies, and procedures complement the low-stress bicycle network. Developing a culture of active transportation that makes biking a fun, efficient and attractive travel option for people of all ages and abilities takes years of commitment and engagement by stakeholders at all levels. Programs like Safe Routes to School, policies such as Vision Zero, and regular maintenance of bike infrastructure are essential components of a sustainable, high-ridership network.

Indianapolis enjoys a robust and active bicycling culture. Many organizations support a variety of programs, events, and policies. In addition to spotlighting some of this existing work, the sections below introduce and catalog some select programs that support people riding bikes; policies to help make Indy a bike-friendly city; and procedures the City of Indianapolis can implement to support development of the Pedal Indy network.

These are merely examples based on the great work underway in Indianapolis today. As Pedal Indy moves into implementation, the City and County will work with community partners to create more tailored programs to support the low-stress network.

### PROGRAMS

Programs are targeted, actively managed initiatives that include collaboration with local government, business and community partners, and engaged residents to elevate biking as a primary mode of transportation and to improve safety and comfort for people riding bikes.

#### BikeParty Indianapolis

At BikeParty Indianapolis, residents gather on the second Friday of every month for a free social bike ride. Organizers pick monthly themes and attendees get to show off their fancy lights, bells, and costumes.



Source: BIKEPARTY INDIANAPOLIS, Facebook



## Encouragement

- **Community rides** such as monthly bike parties or bike-based tours help expose new riders to a bike network. Low-speed, relaxed group rides are particularly effective at building family ridership. These group rides can be used as an economic development tool when trips are routed through shopping areas.
- **Bike races** and other competitions build community and draw committed cyclists from across the region. Bike-based competitions are excellent for involving youth, and both spectators and participants bring tourist dollars to competition sites.
- **Events encouraging bike commuting** help new riders find commuting routes, connect to the community, and simply have fun—they are an important part of building a bicycling culture. A variety of partners host events such as Bike to Work Day, bike trains, monthly lunch and learns, and Bike-In Breakfasts.
- **Open streets events**, also known as ciclovías, close major thoroughfares for a day, opening the street for people to walk, bike, and use other non-motorized transportation. These events help build a sense of community and neighborhood pride. They can also be targeted economic development tools that coincide with holidays, festivals, or other special events.

### Bike to the 500

In coordination with the City of Indianapolis, Bike Indianapolis and the Indianapolis Motor Speedway organize Bike to the 500, which provides fans a safe, fast, and fun ride to the Indy 500.



Source: Indianapolis City Market

### Indy Criterium Bicycle Festival

The Indy Criterium began in 2010 to address the lack of urban bike races in Indianapolis. With \$8,000 in cash prizes, all-ages focused events, and a festival-like atmosphere, the criterium has become one of the most celebrated events in the Indy bicycling community.



Source: Indy Criterium Bicycle Festival, Facebook

## Education

- Building a world-class bike network requires teaching drivers to safely operate vehicles around the various types of bicycle facilities and the growing number of people riding bikes. Adding **bike awareness training** to driver's education programs helps normalize auto interactions with bikes and bike infrastructure. Adding training to commercial licensing and other large vehicle operator training is particularly important, as these vehicles pose the greatest danger to people on bikes.
- **Safe Routes to School** is a nationwide program that creates safe, simple, and fun opportunities for children to walk or bike to school. The program encourages physical activity before and after school and can reduce traffic caused by people driving kids to school.
- **Bike rodeos** are clinics with stations focusing on bike skills, bike maintenance, rules of the road, and helmet fit. Bike rodeos are a fun, active, and hands-on way for children to learn biking and safety skills in a safe and comfortable environment.

### Bicycle Friendly Driver Program

Local organizations Bike Indianapolis and Bicycle Garage Indy are working on a Bicycle-Friendly Driver program. Expected to launch in fall of 2018, the program is based on one developed in Fort Collins, Colorado, and later adopted by the League of American Bicyclists.



Source: City of Fort Collins, CO (<https://www.fcgov.com/bicycling/bike-friendly-driver-program.php>)

## Youth Programs

Kids Riding Bikes (left) is a youth program created by the Indianapolis nonprofit Nine13 Sports. The program puts participants on indoor bike simulators, and is built around the concept of community and team-building, achieving personal goals, getting active, and learning about the athleticism and hardware of biking. Freewheelin' Community Bikes' (right) mission is to connect youth with skills for life over a shared passion for the bicycle. The nonprofit operates a youth apprenticeship program, youth cycling teams, an earn-a-bike program, and seeks to build a safe space for youth during Open Shop hours. Freewheelin' helps build and grow the next generation of riders.



Source: 913 Sports, Twitter (left); Freewheelin' Community Bikes, Twitter (right)



## Enforcement

- Enforcement is critical to ensuring the safety of everyone using the roadway. Through a grant from the Criminal Justice Institute, bicycle advocates are working with the Indianapolis Metropolitan Police Department to develop an **education and enforcement campaign** focusing on Marion County's 3-foot passing ordinance.

## Other Supportive Programs

### Advocacy Organizations and Groups

- Building a positive, collaborative relationship with **local advocacy groups** helps bring more community members into planning processes and can streamline project delivery by drawing stakeholder engagement into earlier phases of project and plan review. Indianapolis has an active bicycle advocacy community that includes Bike Indianapolis, Health by Design, Bicycle Indiana, Hoosier Mountain Bike Association, Central Indiana Bicycle Association, Central Indiana Bicycling Association, Pacers Bikeshare, the Indianapolis Cultural Trail, Inc, and Strong Towns Indy. Continued partnerships with such organizations are critical to moving Indianapolis to the next level in creating bicycle-friendly communities.
- **Community groups** that support bike network implementation can help produce the special events and community rides that build familiarity with a bike network. They can also serve as an intermediary between local businesses and bike-based events, thereby channeling economic development to bike-friendly shopping events and corridors.

### Bicycle Parking

- **Safe, secure bike parking** ensures that the beginning and end of every trip is comfortable and stress-free. Incentivizing easily-accessible, well-lit, and sheltered bicycle parking at major destinations and trip generators can increase ridership. Prominently-located bike parking facilities can encourage people who drive to try biking to regular destinations.
- Mandating high-quality **bicycle parking sites in large residential and commercial developments** ensures that future residents have access to safe, clean, and sheltered parking for their bikes. The City's new zoning code (Indy ReZone) now includes minimum bicycle parking spaces for most commercial, civic, institutional, and multifamily residential development.
- **Valet bike parking** is a fun and novel way to encourage cycling to large events.

### Wayfinding

- In a city as large as Indianapolis, **good wayfinding** is crucial to successful bike network implementation. Signs that provide the distance and direction to major destinations, transit connections, and places of interest help new riders build familiarity with bike routes and the larger network.
- Wayfinding can be used as an **economic development tool**, directing people on bikes toward retail corridors, farmers markets, and special events. Most current wayfinding in Indianapolis is found downtown, around the Children's Museum of Indianapolis, and in mixed-use neighborhoods like Irvington.



## POLICIES

Policies translate goals into standards, guidelines, and practices. In particular, Pedal Indy policies establish street design, operational, and maintenance standards to increase safety and reduce collisions.

### Vision Zero

- Establishing a **Vision Zero policy** formalizes a city's commitment to eliminating traffic deaths. By operating under the belief that every death caused by a traffic crash is preventable, Indianapolis can work to produce the safest possible outcomes with every infrastructure project. A key component of the Vision Zero mission is the reduction of auto speed in places where people walk and bike. Indianapolis/Marion County's 2016 Pedestrian Plan also calls for the adoption of a Vision Zero policy. And Indy Moves includes the following recommendations for developing an Indy Vision Zero policy:



### Design Criteria

- Building an accessible low-stress bike network is a **context-sensitive undertaking** that is carried out differently in every city. Appropriate design guidelines can be developed from general principles but must take into account the unique needs of the community for which they are produced and the neighborhoods in which they are applied. See Chapter 5 for more information about bike network design in Indy.
- **Infrastructure design guidelines** that separate people biking from moving vehicles are the cornerstone of a bike network with low levels of traffic stress. Successful guidelines are produced for network segments and for nodes, thereby protecting people on bikes both at intersections and along rights-of-way.
- In many places, rights-of-way are generous enough to support auto lanes, sidewalks, and protected bike infrastructure. In instances where protected bike infrastructure is missing, road diets may be necessary to reduce the width or number of auto lanes. This type of **roadway rechannelization** reduces speeds to improve safety and reflects the transportation goals and priorities of a multimodal city.





## Dedicated Funding

- A commitment of **dedicated and sustained infrastructure funding** is essential to the successful implementation of the Pedal Indy network. A baseline financial commitment provides assurance to public, private, and nonprofit partners that their investments will be matched and that their partnership is valued. Funding commitments can come in the form of grant programs, capital investment programs, or budget allocations to relevant departments, such as the Multimodal Transportation Facilities Fund supported by revenues from shared mobility system operators.

## PROCEDURES

Procedures are the day-to-day practices of the City of Indianapolis and Marion County that can make our streets safe and comfortable for biking. Procedures can be wide ranging, from staffing changes to street management to project delivery, and have a profound impact on the quality of the bicycle network in Indy.

## Bikeway Maintenance Standards

- Encouraging regular ridership on a bike network means the **network must be well maintained**, with regular sweeping and short response times for repairs. Equipment must be rightsized for the task: the City may need to purchase bike-lane-sized sweepers. Commuter ridership, in particular, requires that routes to major workplaces are consistently clear of snow and debris, and pavement is free from cracks, potholes, and other defects. Maintenance can be a partnership between public, private, and advocacy organizations and could be facilitated by improved bicycle-related issue integration with the RequestIndy issue reporting app.
- **Integrating standards for bikeway maintenance** into regular maintenance cycles removes ambiguity about when or how a bikeway is to be maintained. Good maintenance practices also reduce long-term capital costs by extending the lifespan of expensive infrastructure.

## Leveraging the Indianapolis Mayor's Bicycle Advisory Council (IMBAC)

- The **Indianapolis Mayor's Bicycle Advisory Council** is composed of community members, business representatives, and City and County officials. IMBAC could play a role in supporting Pedal Indy implementation, which will require champions outside of City staff. For example, IMBAC could assume an enhanced leadership role in encouragement and education programs. This could include organizing and holding events such as a winter Greenway ride or a summer open streets event.

## Tracking Progress

- Developing and using **performance measures** is an important step in monitoring Indianapolis' progress toward meeting the goals of Pedal Indy. Performance measures should be clear and easily understandable, related to community values and goals, and reported on an annual basis. Metrics are valuable for tracking progress, such as the number of miles of bicycle facilities added each year, and for establishing targets for the future, such as increasing bicycle commute mode share in Indy to 5% by 2020.



## 7 PEDAL INDY ACTION PLAN

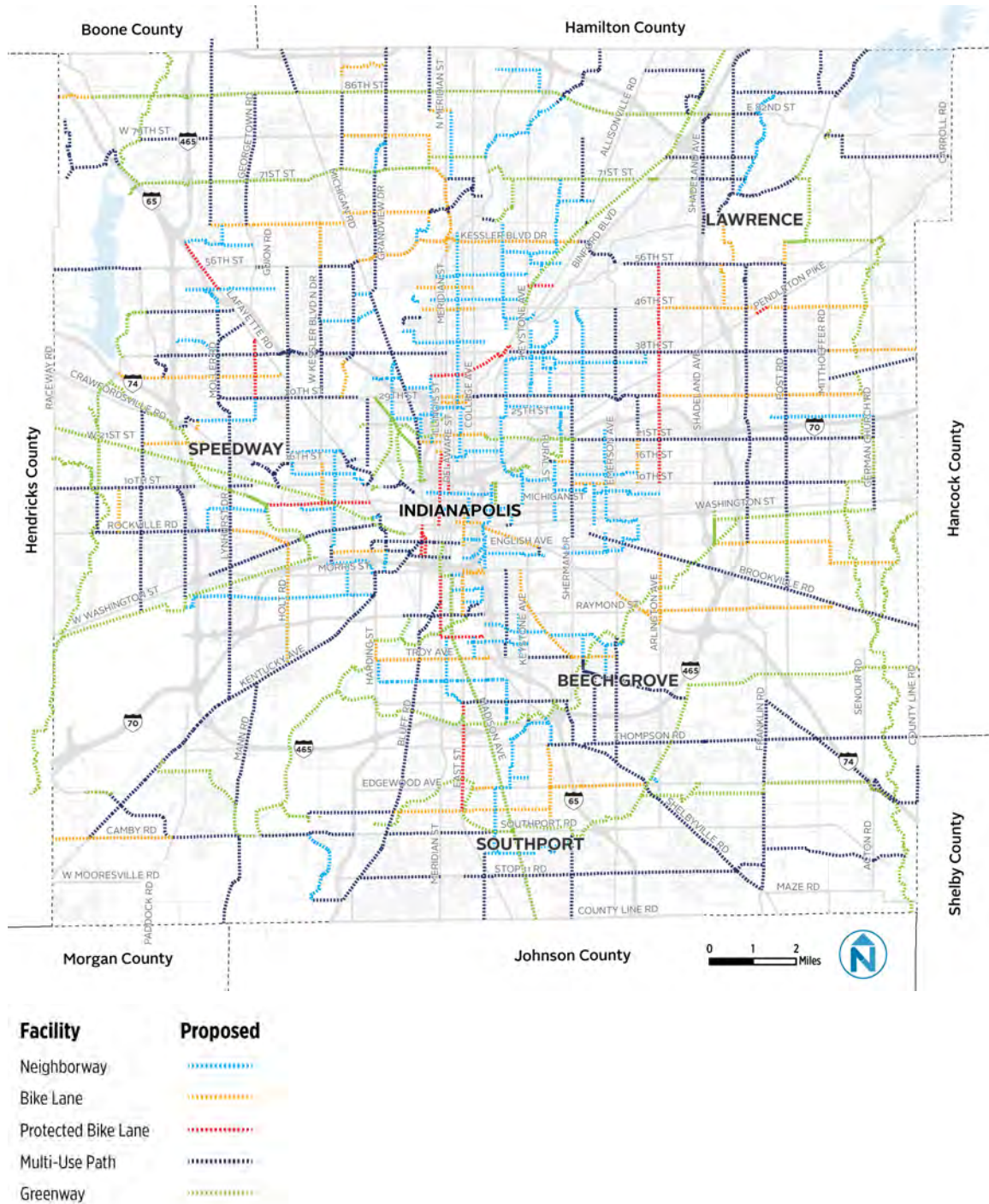
The primary goal of Pedal Indy is to create a low-stress bicycle network that is accessible and welcoming for people of all ages and bicycling abilities. While Indianapolis has recently made great strides in improving biking conditions, building the full bicycle network will require a sustained commitment over the coming years. This chapter discusses priority recommendations to begin meeting the goals of Pedal Indy.

### PROJECT LIST AND KEY ACTIONS

The complete network of new facilities needed to establish Indy's low-stress bike network is shown in Figure 7-1. Building this network is a long-term effort that will require resources far in excess of those currently available.



Figure 7-1 New Pedal Indy Facilities

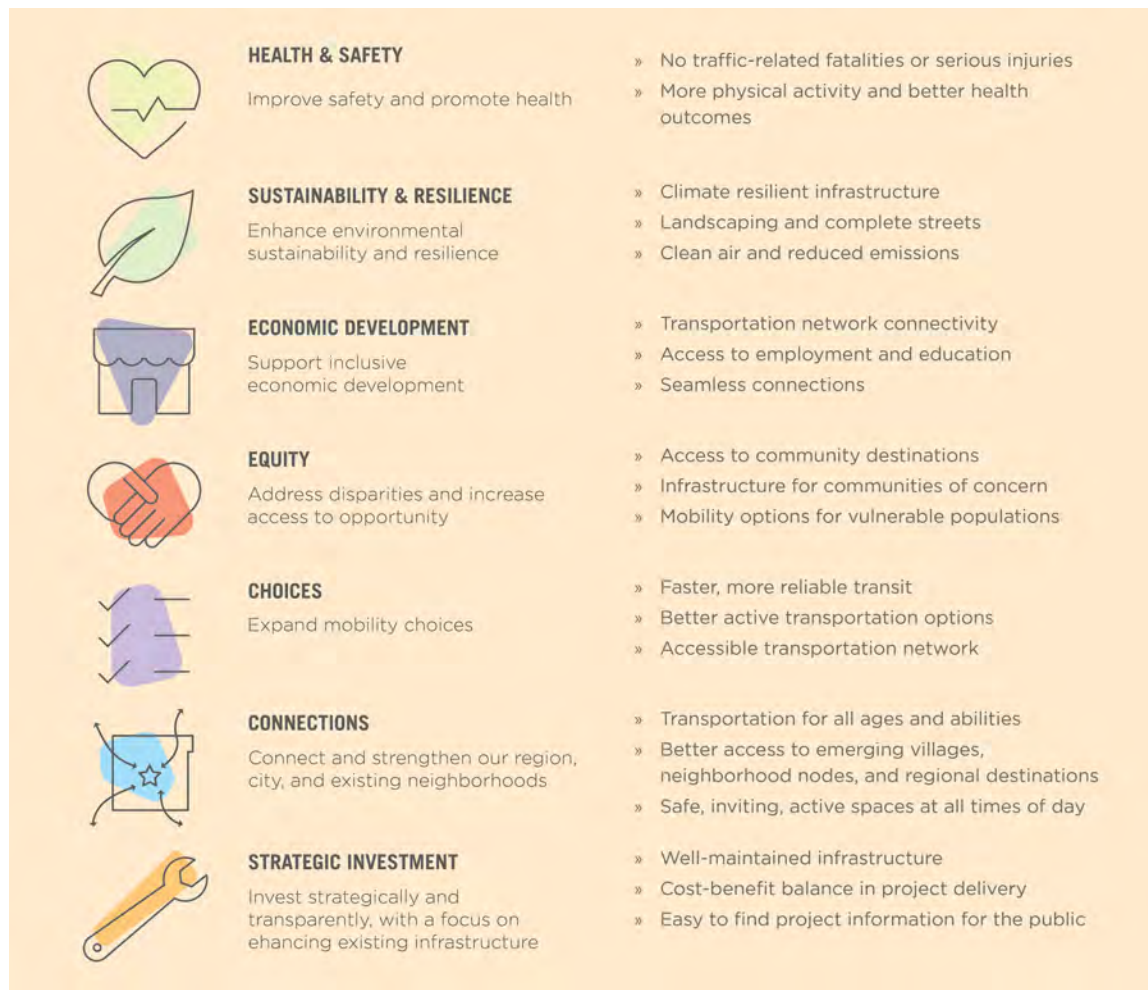




## High Priority Projects

Through Indy Moves, the City worked with Indianapolis residents and a Stakeholder Committee to establish a process for prioritizing projects, guided by community values. Figure 7-2 shows the Indy Moves goals and evaluation criteria. (More information about this process and the criteria used for scoring can be found in Indy Moves, Appendix C.)

Figure 7-2 Indy Moves Goals and Evaluation Criteria

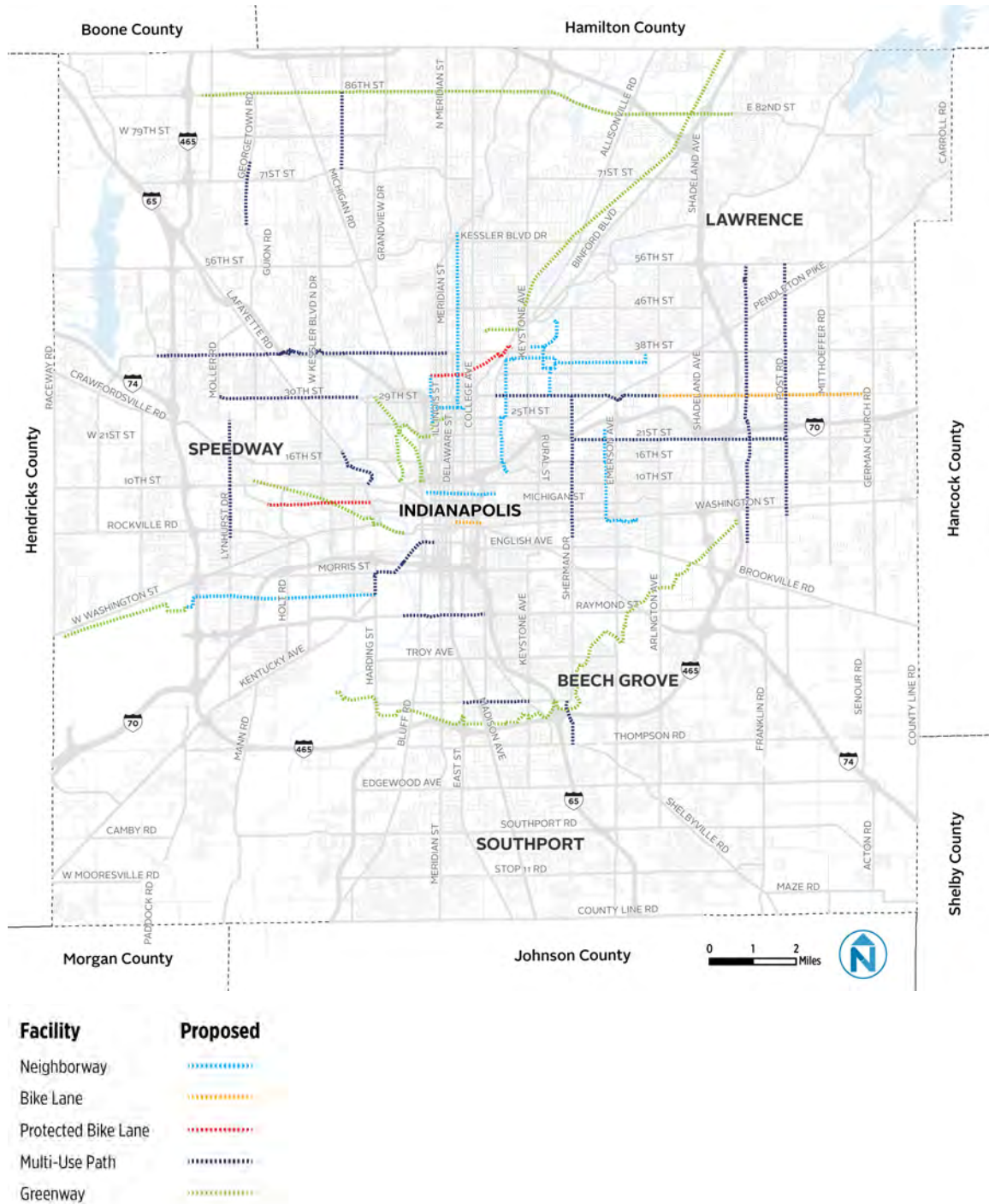


These same criteria were applied to the Pedal Indy network to identify the highest priority projects for implementation. The projects shown on the map in Figure 7-3 and listed in Figure 7-4 are those that best help to achieve the goals established through Indy Moves and Pedal Indy. The prioritization of these projects isn't intended to be rigid or to establish a hard-and-fast order for implementation. Rather, it points to projects that will have significant impact and should be considered earlier than later for funding, as resources become available.





Figure 7-3 Pedal Indy High Priority Projects





**Figure 7-4 List of Pedal Indy High Priority Projects**

Street / Trail Alphabetical Order	From	To	Suggested Bike Facility Type	Project Type
34th St / Fairfield Ave / Woodland Ave / Fall Creek PkwY N Dr / 39th St	Boulevard Pl	Millersville Rd	Protected Bike Lane	Active Transportation
86th St / 82nd St Commercial Connector	Northwest Blvd	Hague Rd	Greenway	Greenway
Arlington Ave	10th St	56th St	Protected Bike Lane	Active Transportation
B&O Trail	Main St	White River	Greenway	Greenway
Boulevard Pl	Fall Creek	34th St	Neighborway	Active Transportation
Central Ave / 28th St / Washington Blvd	Boulevard Pl / 28th St	Central Ave / Westfield Blvd	Neighborway	Active Transportation
Central Canal Towpath Extension	11th St	30th St	Greenway	Greenway
Commerce Ave / Sheldon St / 25th St / Ralston Ave / 36th St / 37th St / Lasalle St / Audubon Rd	Brookside Ave	38th St	Neighborway	Active Transportation
Dearborn St / 35th St / Oxford St / Lasalle St / Meadows Dr / 37th St	34th St	Millersville Rd	Neighborway	Active Transportation
Dequincy St / Julian St	23rd St	Ritter Ave	Neighborway	Active Transportation
E 21st St	Sherman Dr	Post Rd	Multi-Use Path	Complete Street Upgrades
E 30th St	Arlington Ave	Grassy Creek Trail	Bike Lane	Active Transportation
E 30th St	Dr Andrew Brown Ave	Arlington Ave	Multi-Use Path	Complete Street Upgrades
Fall Creek Creenway	Indiana Ave	Meridian St	Greenway	Greenway
Franklin Rd	Rawles Ave	56th St	Multi-Use Path	Complete Street Upgrades
Georgetown Rd	56th St	Ryder Logistics	Multi-Use Path	Complete Street Upgrades
Hanna Ave / Sherman Dr	East St	Shelbyville Rd	Multi-Use Path	Complete Street Upgrades
Lick Creek Greenway	White River	Pennsy Trail	Greenway	Greenway
Lynhurst Dr	Jackson St	25th St	Multi-Use Path	Complete Street Upgrades



Street / Trail Alphabetical Order	From	To	Suggested Bike Facility Type	Project Type
Market St	Alabama St	Cruse St	Bike Lane	Active Transportation
Meridian St / Orange St / Madison Ave / Interurban Trail	County Line Rd	South St	Greenway	Greenway
Michigan St	Grande Ave	White River Pkwy W Dr	Protected Bike Lane	Active Transportation
Nickel Plate Trail	Monon Trail	96th St	Greenway	Greenway
Post Rd	38th St	56th St	Multi-Use Path	Complete Street Upgrades
Post Rd	Pennsy Trail	38th St	Multi-Use Path	Complete Street Upgrades
Raymond St	White River Pkwy W Dr	Shelby St	Multi-Use Path	Complete Street Upgrades
Sherman Dr	Pleasant Run	30th St	Multi-Use Path	Complete Street Upgrades
St Clair St	Canal	Oriental St	Neighborway	Active Transportation
Stop 11 Rd	Singleton St	Hearthstone Way	Multi-Use Path	Complete Street Upgrades
Tacoma Ave	30th St	Fall Creek	Neighborway	Active Transportation
Township Line Rd	Westlane Rd	86th St	Multi-Use Path	Complete Street Upgrades
Vandelia Trail / Perimeter Rd / Pierson Dr / High School Dr / Minnesota St / Kentucky Ave / Harding St / Morris St	White Lick Creek	Capitol Ave	Greenway	Greenway
W 30th St	Moller Rd	White River Pkwy W Dr	Multi-Use Path	Complete Street Upgrades
W 38th St	Eagle Creek Pkwy	Meridian St	Multi-Use Path	Complete Street Upgrades
White River Pkwy W Dr / Lafayette Rd	10th St	18th St	Multi-Use Path	Complete Street Upgrades

## Project Spotlights

There is much work to be done to continue defining the details of the projects included in Pedal Indy and in Indy Moves. The spotlight projects described in Figure 7-5 through Figure 7-8 provide additional detail about four of the high priority projects identified through this process.

Figure 7-5 Arlington Avenue Protected Bike Lane





Figure 7-6 Tacoma Avenue Neighborway

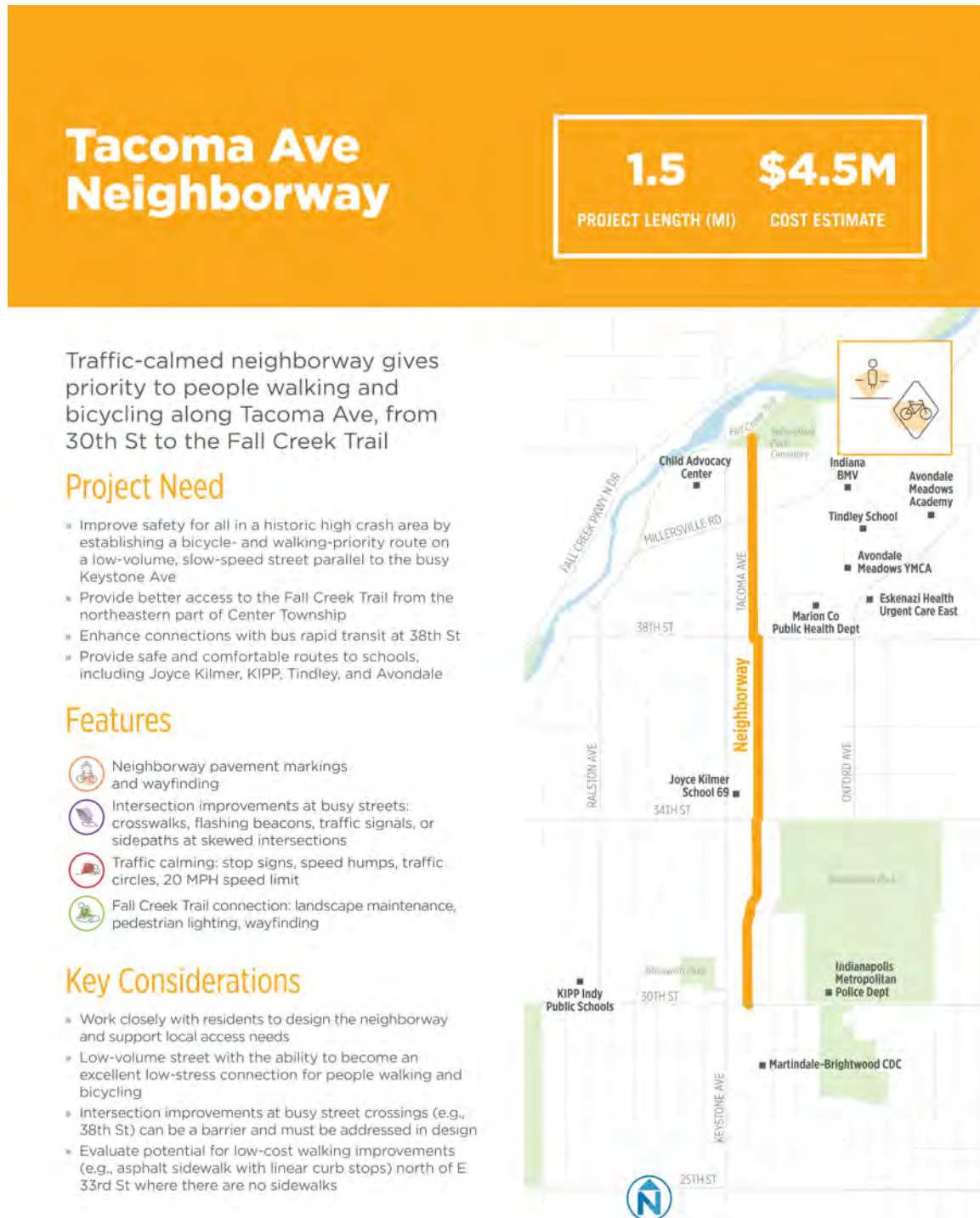




Figure 7-7 Vandalia Trail / Minnesota St Neighborway



Continuous walking and bicycling connection from Bridgeport to downtown via greenway, neighborway, multi-use path, and protected bike lanes

### Project Need

- » Create a connection between proposed White Lick Creek Greenway and the Eagle Creek Greenway
- » Provide east-west link in Wayne Township from planned greenway to downtown
- » Improve walking and biking access to key employment centers (e.g., Lilly Industrial Center), several elementary schools, Lucas Oil Stadium, as well as White River, Eagle Creek, and White Lick Creek
- » Improve safety in several high-crash zones, including the intersection of Kentucky Ave and South St, and Minneapolis St between Lynhurst Dr and Holt Rd
- » Connect to future Blue Line BRT stations and S Girls School Rd proposed complete street

### Features

- Off-street greenway in former rail corridor and along the perimeter of Indianapolis International Airport
- Calm traffic and add sidewalks, wayfinding, sharrows, and signage along Minnesota St
- A combination of multi-use path and protected bike lanes will complete the connection along busy streets into downtown.
- Intersection improvements and dedicated space for people walking and riding bicycles to create continuous connection

### Key Considerations

- » Long-term project may require phasing as partnerships develop and funding becomes available
- » Several portions of the project area have constrained right-of-way, heavy freight traffic, interstate undercrossings, bridges, and busy intersections
- » Special consideration will need to be given to design of the multi-use path to safely and continuously accommodate people walking and bicycling
- » Partnership with Indy Parks and other funding partners will be integral to the success of this project
- » Coordination and partnership with large land owners along this route will be needed, including Indianapolis International Airport and Eli Lilly and Company

Figure 7-8 Hanna Ave Multi-Use Path and Complete Street





## Other Actions

In addition to the infrastructure projects discussed above, Indy should also address the following needed improvements and actions in the near term.

- **Ongoing Maintenance:** Regular maintenance of the bicycle network should be planned and budgeted. Well-maintained bike facilities are crucial to ensuring these important investments remain accessible to riders of all experience levels, and that people feel confident they can rely on the network for their regularly-scheduled trips. Proper maintenance also extends infrastructure life, limiting the need for expensive repairs.
- **Coordinated Implementation:** Coordinating implementation across Indianapolis' Bike Plan, Pedestrian Plan, and Greenways Plan will help the City deliver projects more efficiently while also speeding delivery of complete streets and other complementary infrastructure. Indy Moves helps to integrate these plans and prioritizes projects to support multi-plan implementation.
- **Crash Data:** Better bicycle-involved crash data would provide a more complete picture of the causes of crashes and help to inform the solutions needed to make biking safer in Indianapolis.
- **Bicycle Counts:** Indy currently collects bicycle count data from 18 automated counters that record the number of passing cyclists. While effective, these machines are expensive and cover a limited area. By partnering with community groups or the Mayor's Bicycle Advisory Council, the City could recruit volunteers for manual counts over a larger geographic area. This would provide a better ridership estimate and prove useful in validating assumptions and analyses used in developing the Pedal Indy network.

## POTENTIAL FUNDING SOURCES

Many funding sources can support Pedal Indy implementation, including existing resources; local, regional, state, and federal grants; private funding; and partnership opportunities. While many funding sources are competitive, Indianapolis has historically been very successful in securing grants. By matching projects to the funding sources for which they are best suited (and for which they can be most competitive), the City can continue to use a variety of funding mechanisms to build bicycle projects and implement new programs.

This section is organized into public funding sources and private funding sources. The public sources are further categorized into local, regional, state, and federal programs. Additional information about funding sources can be found in Indy Moves (Appendix E).

### Public Funding Sources

Regional, state, and federal funding sources are distributed through regular competitions. The funding available in a given year depends on a wide range of factors. The majority of Pedal Indy projects will be competitive given the benefits they provide to specific communities and their focus on improving comfort and safety.

### Local Funding

Local funding sources are those over which the City of Indianapolis is likely to have the most control, although competition for scarce local resources is always intense.





For some projects or programs, the use of general fund dollars may be appropriate, particularly for projects that are operational in nature, lower cost, or a high priority for implementation. City funds can also be used to help implement Pedal Indy projects in the course of other capital project construction, such as leveraging planned roadway maintenance projects. For example, the City could easily add bike improvements to a maintenance project by including enhanced crossings as part of restriping after roadway resurfacing.

Cities can fund various improvements, including bicycle projects, through parking meter revenues. In Indianapolis, ParkIndy manages the city's metered parking system and provides the City with an annual revenue share. The City could use this revenue to invest directly in services and infrastructure where parking demand is highest. This directly benefits people who drive by reducing congestion and demand for parking as well as building out the bicycle system.

## **Regional Funding**

As in most parts of the United States, a significant percentage of public funding for transportation projects—particularly federal funding—is distributed at the regional level, through metropolitan planning organizations. The Indianapolis Metropolitan Planning Organization (Indy MPO) plans for and distributes federal transportation funds for highways, transit, bikeways, trails, and sidewalks to move people and goods in Central Indiana. Established in 1972, the Indy MPO initially served primarily Marion County, but has grown to include more than 35 members who represent cities, towns, counties, and other transportation agencies throughout the Central Indiana region.

The Indy MPO does a consolidated call for projects in the fall that includes funding from the following federal programs:

- Congestion Mitigation and Air Quality (CMAQ) improvement program
- Highway Safety Improvement Program (HSIP)
- Surface Transportation Block Grant (STBG) program
- Transportation Alternatives Program (TAP) set-asides

Each program has selection criteria that are used by the Indy MPO to prioritize projects for funding. The most recent call for projects noted that projects should be developed beyond the feasibility or planning stages and must be able to proceed to bidding no later than February 2023. Ideally, projects will have completed the preliminary engineering and right-of-way phases prior to application.

## **State Funding**

The Indiana Department of Transportation (INDOT) Community Crossings program uses state funding for local road and bridge grants. Since 2016, INDOT has awarded more than \$300 million in state funds to support road resurfacing, bridge rehabilitation, road reconstruction, and Americans with Disabilities Act (ADA) compliance in connection with asphalt paving projects. Projects submitted to INDOT are evaluated based on need, traffic volume, local support, the impact on connectivity and mobility within the community, and regional economic significance. Projects in areas with more than 50,000 people require a 50/50 match.

In addition, the state administers the following federal funding programs:

- Congestion Mitigation and Air Quality (CMAQ) improvement program
- Highway Safety Improvement Program (HSIP)



- National Highway Performance Program (NHPP)
- Surface Transportation Block Grant (STBG) program
- Recreational Trails Program (RTP)
- Safe Routes to School (SRTS) program

## Federal Funding

The majority of federal funding for bicycle projects is administered at the state and regional level, so grants and loans are the primary funding sources directly from the U.S. Department of Transportation (DOT).<sup>10</sup>

Perhaps the most well-known federal program that could be considered as potential bicycle program funding is the TIGER/BUILD program. The Transportation Investment Generating Economic Recovery (TIGER) discretionary grant program was created in 2009 and renamed the Better Utilizing Investments to Leverage Development (BUILD) Transportation Discretionary Grants program in 2018. The U.S. DOT published a Notice of Funding Opportunity (NOFO) to apply for \$1.5 billion in discretionary grant funding in the summer of 2018. Projects for BUILD will be evaluated based on merit criteria that include safety, economic competitiveness, quality of life, environmental protection, state of good repair, innovation, partnership, and additional non-Federal revenue for future transportation infrastructure investments. However, reflecting the current administration's priorities, DOT intends to award a greater share of BUILD transportation grants to projects located in rural areas rather than those in urban areas.

Another potential grant program at U.S. DOT is the Federal Transit Administration (FTA) Capital Investment Grants program. This is FTA's primary grant program for funding major transit capital investments, including heavy rail, commuter rail, light rail, streetcars, and bus rapid transit. Bicycle and pedestrian improvements that are components of transit investments are eligible for funding through this program. However, it is a discretionary grant program unlike most others in government. Instead of an annual call for applications and selection of awardees by the Federal Transit Administration (FTA), the law requires that projects seeking CIG funding complete a series of steps over several years to be eligible for funding.

The Transportation Infrastructure Finance and Innovation Act (TIFIA) provides credit assistance for qualified projects of regional and national significance. While the vast majority of projects funded through the program are highway projects, there are examples of TIFIA being used for active transportation projects. For example, the City of Chicago and the Chicago Department of Transportation used a \$98.66M TIFIA loan to complete the Wacker Drive reconstruction project and establish a continuous pedestrian walkway along the south bank of the Chicago River.<sup>11</sup>

## Private Funding Sources

Private funding sources are increasingly used to supplement public funds, particularly in areas that are experiencing a great deal of growth and development. While private funding is most often the "last dollar in" for a project—rather than the seed money for an improved bike crossing, for example—leveraging private investment is a powerful way for cities to implement more projects

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<sup>10</sup> A Federal Highway Administration (FHWA) summary table indicates potential eligibility for pedestrian and bicycle projects under all U.S. Department of Transportation (DOT) surface transportation funding programs. Revised August 12, 2016 [https://www.fhwa.dot.gov/environment/bicycle\\_pedestrian/funding/funding\\_opportunities.cfm](https://www.fhwa.dot.gov/environment/bicycle_pedestrian/funding/funding_opportunities.cfm)

<sup>11</sup> For more information: <https://www.transportation.gov/tifia/financed-projects/riverwalk-expansion>



and build stronger partnerships with community members. For example, private funds were used to build a portion of the bike lanes on both Capitol Street and Illinois Street.

Partnerships with local businesses can generate support and funding for bike network projects in specific places or as a part of larger neighborhood initiatives. Projects funded through public-private partnerships may include green streets and pedestrian plazas, pedestrian tunnels, bike share programs, and multi-use trails. The Cultural Trail is a nationally recognized public-private partnership to fund innovative bicycle infrastructure. Working proactively with corporate stakeholders—which often occurs as a part of large redevelopment projects or within the scope of a specific community benefits agreement—can also lead to a partnership for funding bike projects. Indianapolis is lucky to have a proactive and engaged business community that is interested in retaining the 21<sup>st</sup>-century workforce needed for Indy to stay competitive on the national stage.

Nonprofit organizations, community groups, and advocacy organizations also offer funding for bike infrastructure projects in the form of grants. For example, People For Bikes is an advocacy group that administers a community grant program to fund a variety of bike network projects, including shared-use paths, trails, and protected bike lanes.

Finally, a number of local and national foundations have begun to play important roles in supporting bicycle infrastructure improvements and programming. National foundations that have funded urban health and active transportation investments in the recent past include the following:

- Bloomberg Philanthropies' Sustainable Cities grants aim to tackle climate change at the city and local level, while the Initiative for Global Road Safety focuses on reducing traffic deaths and injuries.
- The Kresge Foundation has supported planning (not construction) for bicycle and pedestrian facilities.
- The Robert Wood Johnson Foundation funds projects and research related to the health impacts of active transportation and the built environment.
- The Surdna Foundation's Sustainable Transportation Networks and Equitable Development Patterns Grant supports efforts to boost sustainable transportation networks.

### Central Indiana Community Foundation

CICF is a local grant-awarding foundation that supports equity, the creation of vibrant places, and initiatives to attract visitors and businesses to Central Indiana. CICF can be an important partner for the City in implementing Pedal Indy, especially focused on Neighborways.



## Development Review

Indianapolis' development review policies accommodate incorporation of bicycle facilities as new development occurs. Indy ReZone requires bicycle parking in many types of commercial, civic, institutional, and multi-family developments. Negotiations with developers regarding bike infrastructure, such as off-street paths, occur based on adopted plans and City department recommendations and are typically funded by the project developer.



## **Economic Improvement Districts**

Bicycle infrastructure can be funded as part of a local benefit assessment district, which is based on the concept that those who benefit from a service should help to fund it. One common example is the Economic Improvement District (EID), where property owners pay directly into a common fund to provide improved infrastructure, support operations to maintain clean and safe streets, and enhance wayfinding and placemaking elements in the district. These districts may fund bike improvements along with ongoing maintenance, placemaking, and landscaping projects.





# **Attachment: Detailed Methodologies for Bicycle Network Development Analysis**

## **BICYCLE HIGH CRASH CORRIDORS ANALYSIS**

The high crash corridors analysis used the last ten years for which crash data are available (2006-2016) to identify corridors with the highest concentration of bicycle-involved crashes.

First, a buffer was drawn around each crash point to associate nearby crashes with one another. Next, high-crash roadway segments were identified using an analysis method known as kernel density and a 300' buffer (Figure A - 1). Crashes were weighted based on severity: fatal = 3, injury = 1, property damage only = 0. High crash corridors located within 900 feet of each other were merged together to more clearly identify high crash areas (Figure A - 2).

This crash analysis was used to inform development of a proposed bicycle network that supports travel to places people want to go. The proposed network addresses corridors identified in the crash analysis by proposing upgraded bicycle facilities along high-crash corridors or accommodating demand on safer, nearby routes.



Figure A - 1 High Crash Corridor Analysis

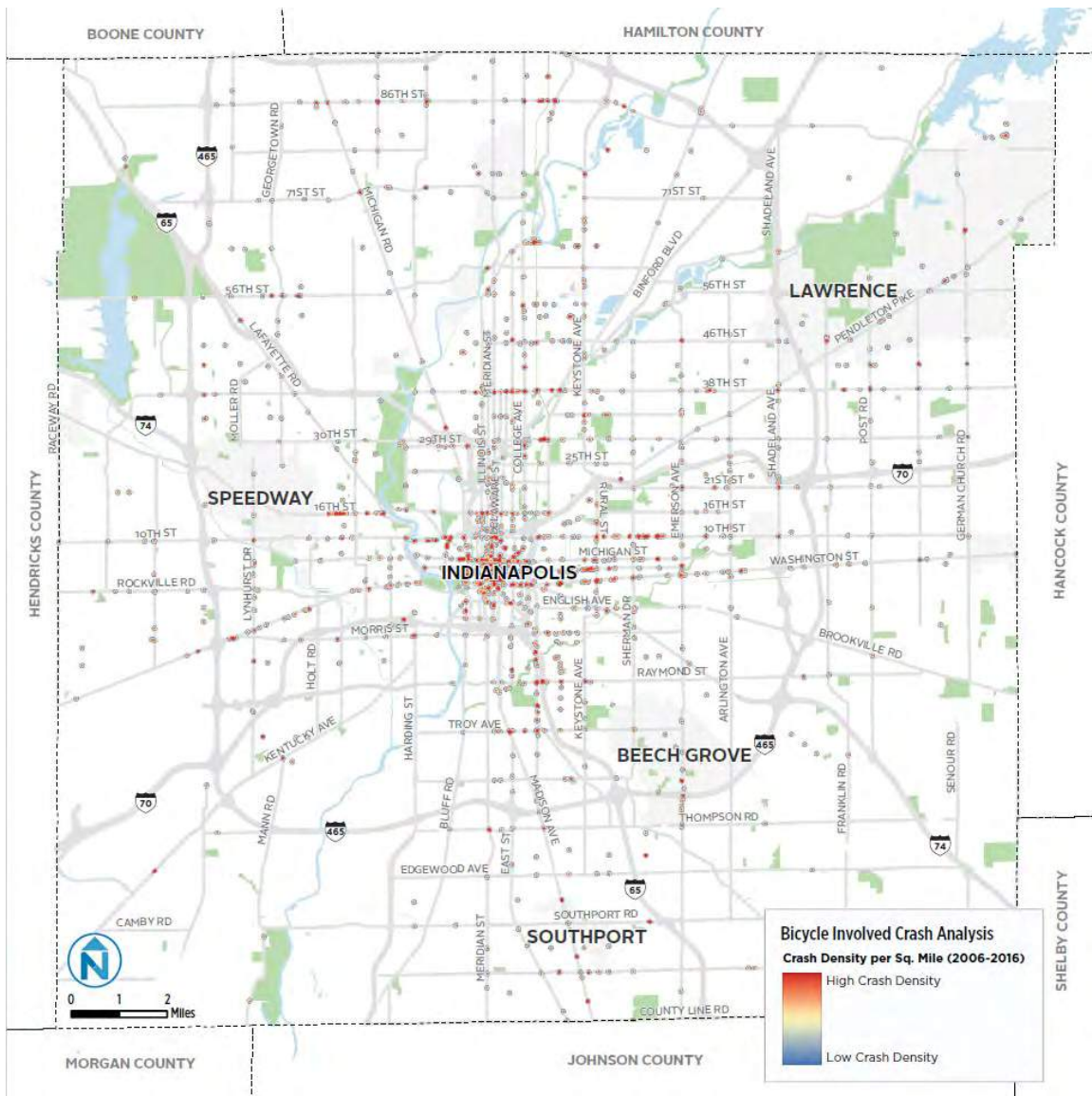
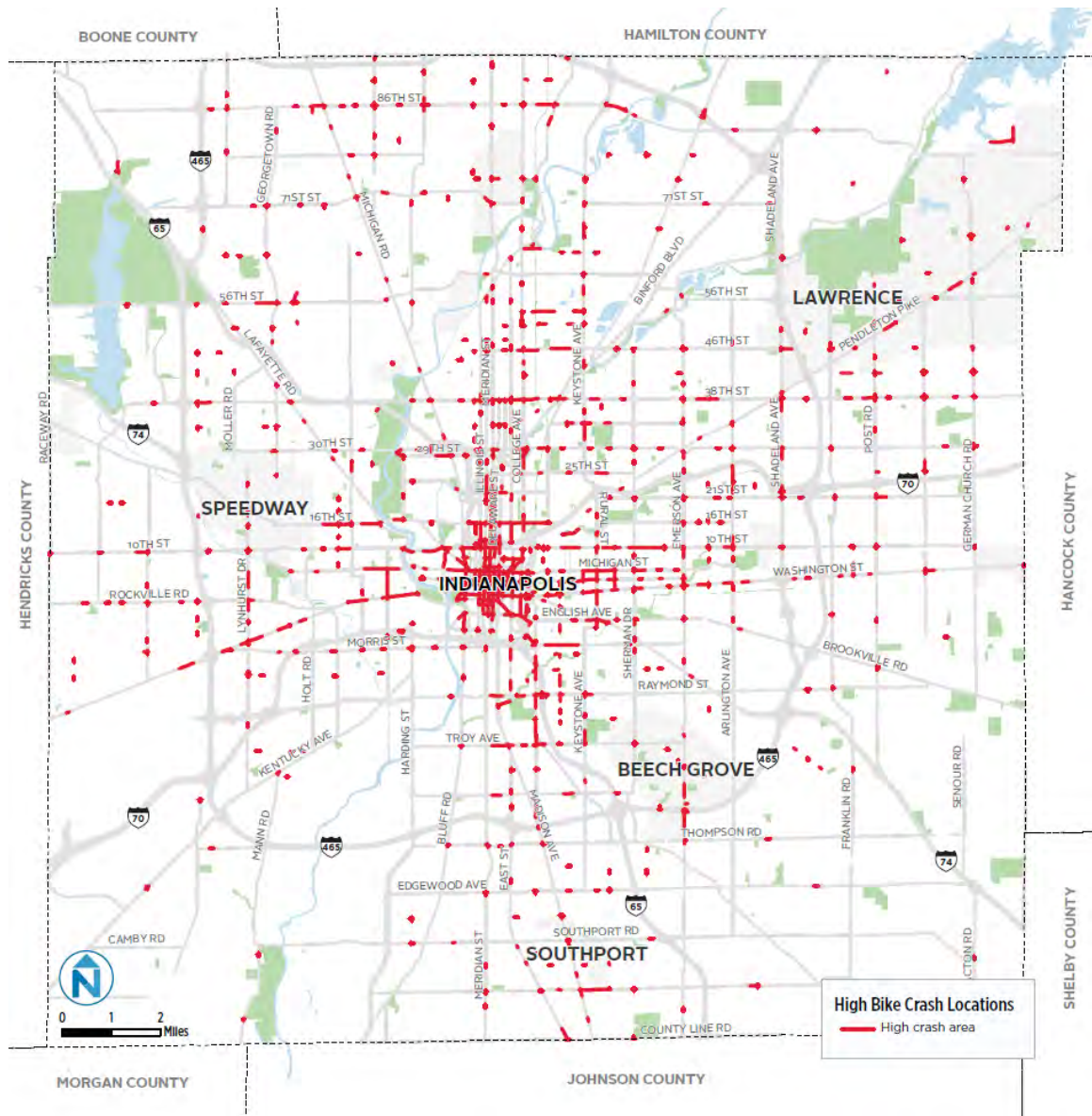




Figure A - 2 High Crash Areas



## BICYCLE DEMAND ANALYSIS

A Bike Propensity Index (BPI) is an indicator of demand for bicycling. Figure A - 3 shows the density (population and employment) and proximity factors (transit, parks, schools, libraries, and colleges) that are included in this analysis. These factors were selected due to their ability to generate bicycle trips.

Based on the comparative density and proximity levels, each area of Marion County was assigned a score from one to ten for each factor; a score of ten indicates areas with factors that may yield high bike activity (such as nearby schools). BPI was then calculated by combining density and proximity scores based on the weights indicated in Figure A - 3.



This method results in potential composite scores from 0 to 120. The actual scores in Indianapolis/Marion County range from 5.3 to 92. The bicycle demand map is shown in Figure A - 4.

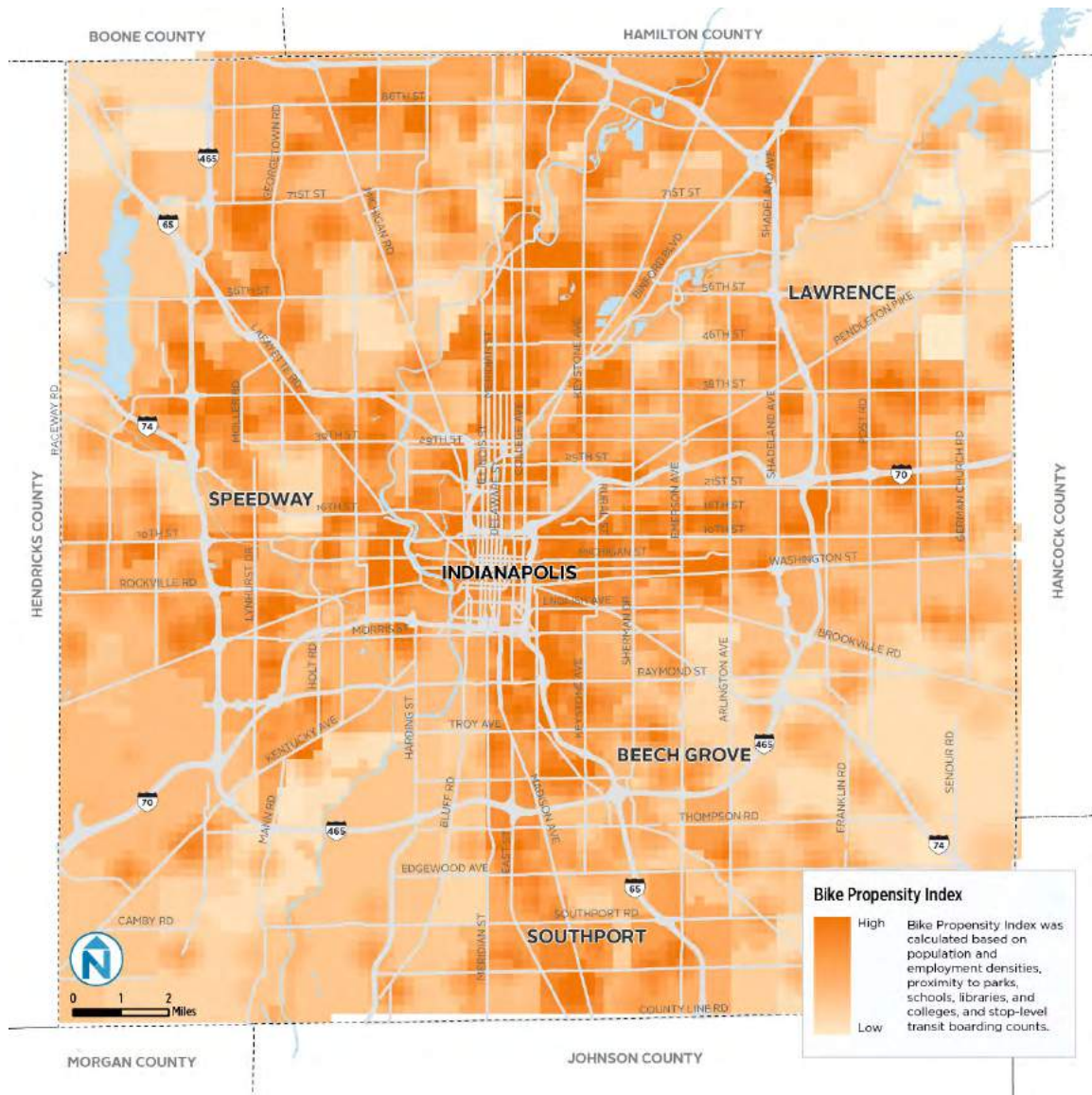
Figure A - 3 BPI Factors

Factor	Weight	Max Value	Analysis notes	Source
Population Density	2	20	-	<ul style="list-style-type: none"><li>2011-15 ACS 5 Year Surveys</li><li>Census block groups</li></ul>
Other Population Density	1	10	Consists of zero vehicle households, households at least 150% below poverty level, and populations who bike or walk to work	<ul style="list-style-type: none"><li>2011-15 ACS 5 Year Surveys</li><li>Census block groups</li></ul>
Employment Density	2	20	-	<ul style="list-style-type: none"><li>2015 LEHD</li><li>Census block groups</li></ul>
Other Employment Density	1	10	Consists of employment in the following categories: <ul style="list-style-type: none"><li>7: Retail</li><li>16: Health care and social assistance</li><li>17: Arts, entertainment, and recreation</li><li>18: Accommodation and food services</li></ul>	<ul style="list-style-type: none"><li>2015 LEHD</li><li>Census block groups</li><li>CNS categories</li></ul>
Transit Ridership	1	10	¼ mile distance	<ul style="list-style-type: none"><li>IndyGo</li></ul>
Parks	1	10	½ mile distance	<ul style="list-style-type: none"><li>City of Indianapolis</li></ul>
Schools	2	20	½ mile distance	<ul style="list-style-type: none"><li>IndianaMap</li></ul>
Libraries	1	10	½ mile distance	<ul style="list-style-type: none"><li>IndianaMap</li></ul>
Colleges	1	10	½ mile distance	<ul style="list-style-type: none"><li>IndianaMap</li></ul>





Figure A - 4 Bicycle Demand Map



## BICYCLE LEVEL OF TRAFFIC STRESS ANALYSIS

The Bicycle Level of Traffic Stress (LTS) analysis measures the comfort and accessibility of bicycle facilities. To attract a wide array of riders with varying levels of confidence and ability, bicycle facilities must be low stress. While not all segments can provide the lowest level of stress, it is important that implemented facilities create a network that is welcoming to bicyclists of all ages and abilities.

This analysis, originally developed by the Mineta Transportation Institute in 2012 and updated in 2017, takes into account the following factors to determine the level of stress experienced by a bicyclist:

- Number of lanes



- Speed
- Average daily trips (ADT)
- Parking
- One-way vs. two-way operations
- Bicycle facility width

Figure A - 5 shows the LTS criteria tables that inform the analysis.

Indianapolis GIS data was collated and joined to shapefiles containing the bicycle network from the 2010 Bicycle Plan as well as a supplementary network of neighborways (created by Indianapolis Department of Metropolitan Development staff). The results of the analysis are shown in Figure A - 6 through Figure A - 8. The analysis assumed the following:

- For the Supplementary Bicycle Boulevard Network:
  - “Mixed Traffic” criteria was used
  - Assumed a centerline on all streets
  - ADT data was not available for most streets in the supplementary network due to the residential context; therefore, the lowest level of ADT (0-750) was assumed
- For all other (Existing and Planned) Facilities:
  - All facilities categorized as “Bicycle Lanes” were analyzed
    - i) Facilities with the “Protected” secondary type were automatically considered LTS 1
    - ii) Facilities with the “Sharrows” secondary type were analyzed in the same manner as the Supplementary Bicycle Boulevard Network
    - iii) If no secondary type was assigned to a facility, it was assumed to be a standard bicycle lane
  - All bicycle lane facilities were assumed to have a width of 4 or 5 feet
  - All bicycle lane facilities were assumed not to be adjacent to a parking lane



Figure A - 5 Updated LTS Criteria for Bicycle Facilities on Road Segments

**Level of Traffic Stress Criteria for Road Segments, version 2.0, June, 2017**

**Mixed traffic criteria**

Number of lanes	Effective ADT*	Prevailing Speed						
		≤ 20 mph	25 mph	30 mph	35 mph	40 mph	45 mph	50+mph
Unlaned 2-way street (no centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 1	LTS 1	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4
	1501-3000	LTS 2	LTS 2	LTS 2	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
1 thru lane per direction (1-way, 1-lane street or 2-way street with centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4
	1501-3000	LTS 2	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
2 thru lanes per direction	0-8000	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	8001+	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
3+ thru lanes per direction	any ADT	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4

\* Effective ADT = ADT for two-way roads; Effective ADT = 1.5\*ADT for one-way roads

**Bike lanes and shoulders not adjacent to a parking lane**

Number of lanes	Bike lane width	Prevailing Speed					
		≤ 25 mph	30 mph	35 mph	40 mph	45 mph	50+ mph
1 thru lane per direction, or unlaned	6+ ft	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
2 thru lanes per direction	6+ ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
3+ lanes per direction	any width	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4

- Notes
1. If bike lane / shoulder is frequently blocked, use mixed traffic criteria.
  2. Qualifying bike lane / shoulder should extend at least 4 ft from a curb and at least 3.5 ft from a pavement edge or discontinuous gutter pan seam
  3. Bike lane width includes any marked buffer next to the bike lane.

**Bike lanes alongside a parking lane**

Number of lanes	Bike lane reach = Bike + Pkg lane width	Prevailing Speed		
		≤ 25 mph	30 mph	35 mph
1 lane per direction	15+ ft	LTS 1	LTS 2	LTS 3
	12-14 ft	LTS 2	LTS 2	LTS 3
2 lanes per direction (2-way)	15+ ft	LTS 2	LTS 3	LTS 3
2-3 lanes per direction (1-way)		LTS 2	LTS 3	LTS 3
other multilane		LTS 3	LTS 3	LTS 3

- Notes
1. If bike lane is frequently blocked, use mixed traffic criteria.
  2. Qualifying bike lane must have reach (bike lane width + parking lane width) ≥ 12 ft
  3. Bike lane width includes any marked buffer next to the bike lane.



Figure A - 6 Level of Traffic Stress – Existing Facilities

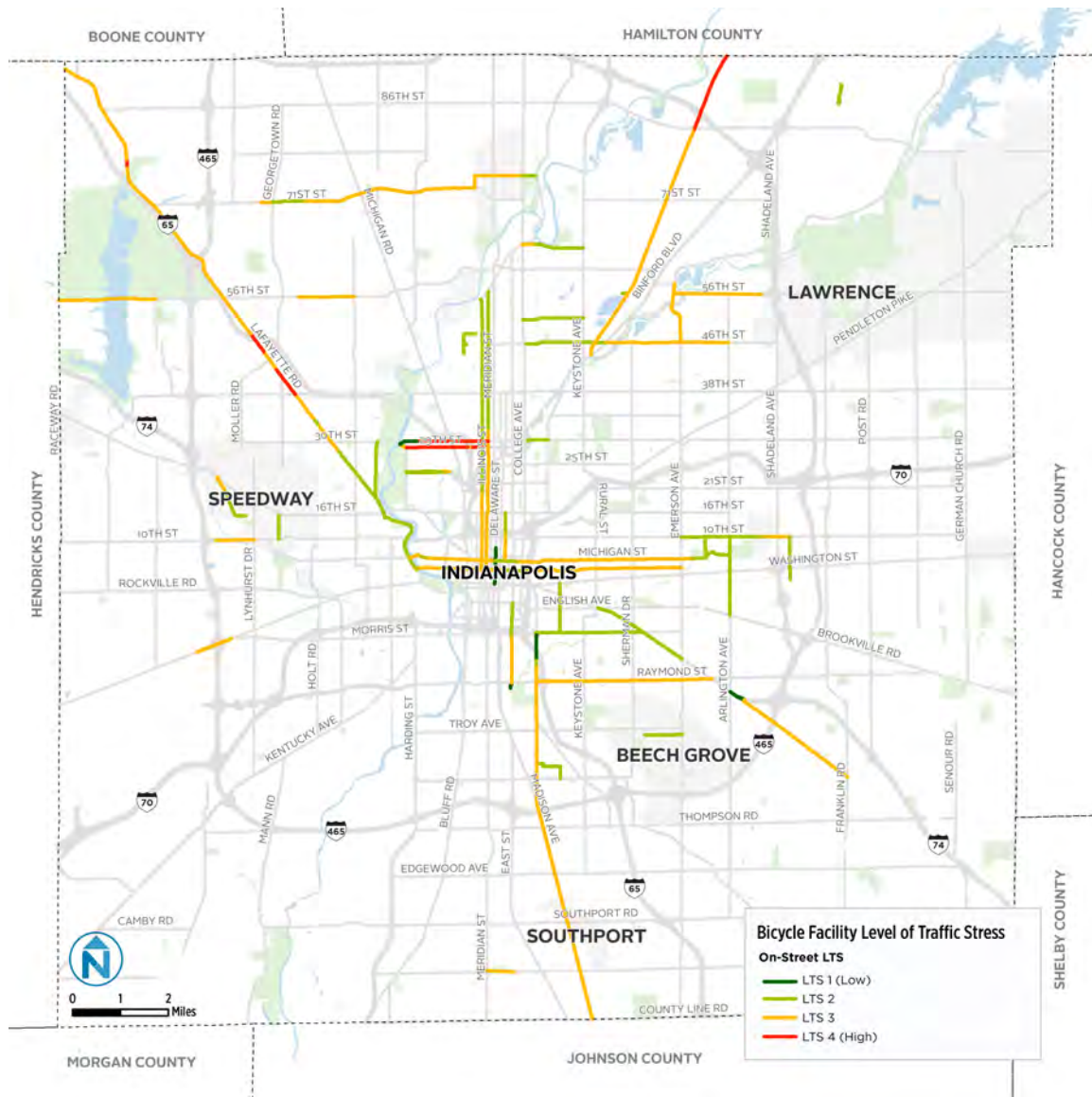






Figure A - 7 Level of Traffic Stress – Select Planned and Proposed Facilities

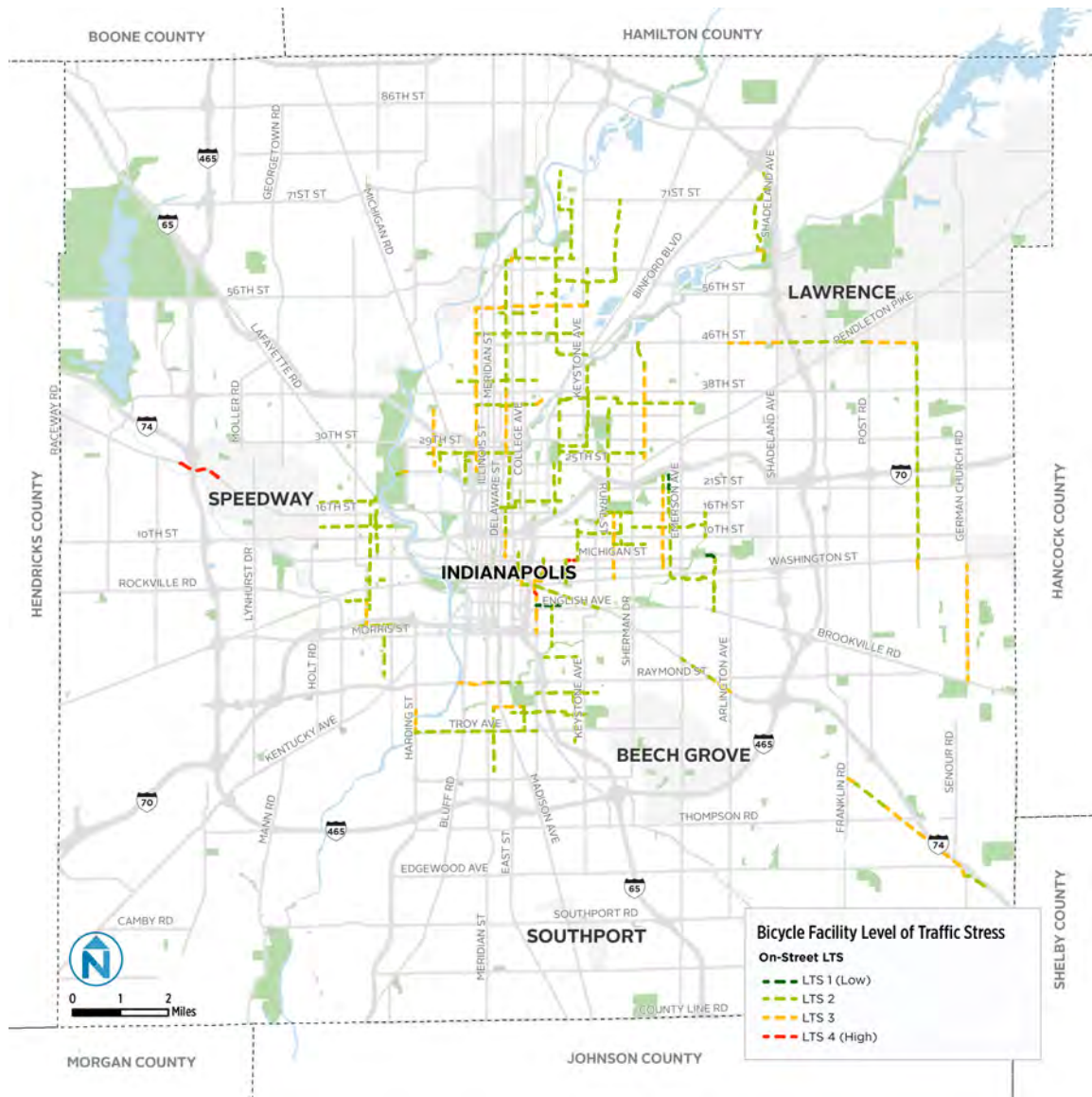
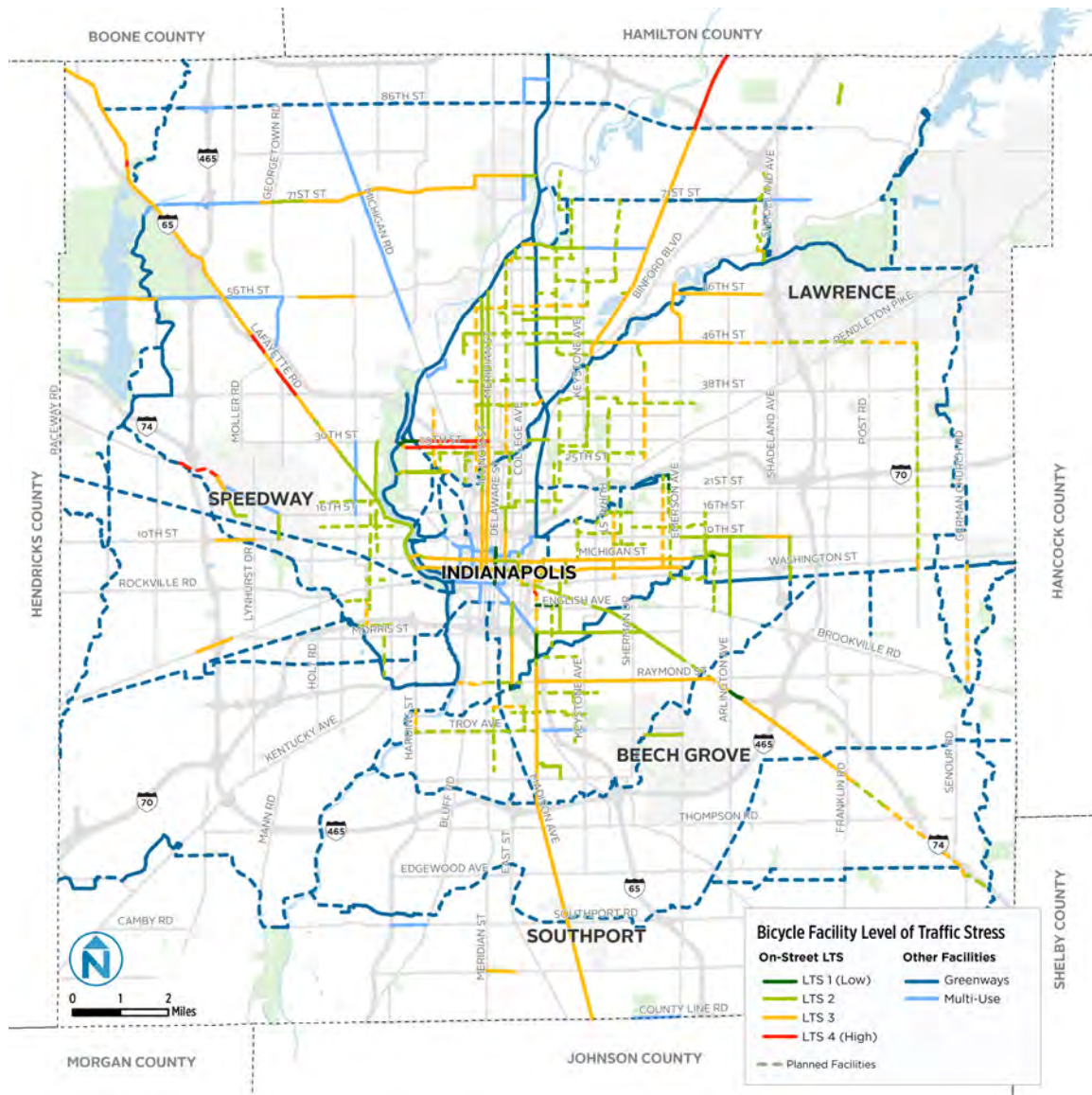




Figure A - 8 Level of Traffic Stress – Select Existing, Planned, and Proposed Facilities





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# **Appendix C: Project Evaluation Framework**



**October 2018**









## CAPITAL PROJECT EVALUATION FRAMEWORK

Indy Moves Goal	Objectives / Desired Outcomes	Descriptive Evaluation Criteria	Quantitative Evaluation Criteria	Performance Indicators Desired Trend in Brackets
 <p><b>1. Improve safety and promote health</b></p>	<ol style="list-style-type: none"> <li>1. Eliminate traffic-related fatalities</li> <li>2. Reduce serious injuries from traffic collisions</li> <li>3. Increase physical activity</li> </ol>	<ul style="list-style-type: none"> <li>Is the project located in a high crash location? <ul style="list-style-type: none"> <li>– MPO top 50 high crash locations</li> <li>– Health By Design pedestrian crash zones</li> <li>– Pedal Indy bike crash corridors (2012-2016 crash data, kernel density, top 50%)</li> </ul> </li> </ul>	<p>3 Points</p> <ul style="list-style-type: none"> <li>Projects within 0.1 miles of MPO high crash locations</li> <li>Projects that intersect with Health By Design pedestrian crash zones</li> <li>Projects within 0.1 miles of Pedal Indy bike crash corridors</li> </ul>	<ul style="list-style-type: none"> <li>Miles of bike facilities (<b>increase</b>)</li> <li>Blocks of sidewalks (<b>increase</b>)</li> <li>Number of collisions resulting in injuries and fatalities (<b>decrease</b>)</li> </ul>
 <p><b>2. Enhance environmental sustainability and resilience</b></p>	<ol style="list-style-type: none"> <li>1. Integrate green infrastructure, landscaping, and complete streets design</li> <li>2. Improve climate resilience and adaptability of infrastructure</li> <li>3. Reduce transportation-related air emissions</li> </ol>	<ul style="list-style-type: none"> <li>Is the project expected to reduce single-occupancy vehicle use?</li> <li>Does the project improve person throughput or traffic signal operations?</li> <li>Does the project have the potential to improve stormwater drainage?</li> </ul>	<p>3 Points</p> <ul style="list-style-type: none"> <li>Projects that don't expand vehicle capacity<sup>1</sup></li> <li>Projects that include operational improvements<sup>2</sup></li> <li>Projects that intersect with stormwater problem areas</li> </ul>	<ul style="list-style-type: none"> <li>Number of green infrastructure streets (<b>increase</b>)</li> <li>Number of intersections with operational improvements (<b>increase</b>)</li> <li>Total greenhouse gas emissions from transportation (<b>decrease</b>)</li> </ul>

<sup>1</sup> Projects that expand vehicle capacity include projects with Thoroughfare Plan-based roadway expansion elements and new terrain roadways (e.g., GM Stamping Plant roads and the AmeriPLEX extension).

<sup>2</sup> Projects assumed to include operational improvements are: (1) projects with Pedestrian Plan-based elements with the description "Improve crosswalks, signal timing, and other pedestrian enhancements", or "Install curb ramps, update/repair/retire pedestrian signals; add high visibility crosswalks" or "Install traffic light, install curb ramps, lighting and high visibility crosswalks"; (2) projects that include a protected bike lane; (3) projects along the BRT Purple and Blue lines (Red Line is not included because construction is underway and will be finished before the Indy Moves capital projects are implemented); and (4) projects with Thoroughfare Plan-based roadway expansion elements.





Indy Moves Goal	Objectives / Desired Outcomes	Descriptive Evaluation Criteria	Quantitative Evaluation Criteria	Performance Indicators Desired Trend in Brackets
 <p><b>3. Support inclusive economic development</b></p>	<ol style="list-style-type: none"> <li>1. Increase street, trail/greenway, and sidewalk network connectivity</li> <li>2. Provide access to employment centers, focusing on living wage jobs</li> <li>3. Create mobility hubs (including investments in existing and emerging village and neighborhood nodes) that connect modes and are great places for people</li> </ol>	<ul style="list-style-type: none"> <li>Does the project connect to an employment center or educational institution?</li> <li>Does the project include two or more modes of transportation?</li> </ul>	<p>2 Points</p> <ul style="list-style-type: none"> <li>Projects that intersect job centers<sup>3</sup> OR higher educational institutions</li> <li>Projects that include improvements for two or more modes</li> </ul>	<ul style="list-style-type: none"> <li>Number of job centers or post-secondary institutions served by projects (<b>increase</b>)</li> <li>Miles of projects that include two or more modes (<b>increase</b>)</li> <li>Percent of low-income population with direct transit connection to living-wage jobs (<b>increase</b>)</li> </ul>
 <p><b>4. Address disparities and increase access to opportunity</b></p>	<ol style="list-style-type: none"> <li>1. Improve access to jobs, schools, parks, food, transit, and community facilities</li> <li>2. Invest in disadvantaged areas and historically under-invested areas</li> <li>3. Provide mobility benefits to vulnerable populations</li> </ol>	<ul style="list-style-type: none"> <li>Is the project located in a high need area? <ul style="list-style-type: none"> <li>Areas with residents who are disproportionately likely to benefit from non-auto mobility options ("high need" equity analysis areas)</li> <li>Racially segregated high-poverty areas</li> <li>Areas with higher concentrations of people and jobs</li> </ul> </li> </ul>	<p>3 Points</p> <ul style="list-style-type: none"> <li>Projects that intersect census tracts with an Equity Index of 30 or greater (out of 40)<sup>4</sup></li> <li>Projects that intersect a HUD RECAP area<sup>5</sup></li> <li>Projects that intersect the top quartile census block groups based on the sum of population and employment densities (ACS 2011-2015)</li> </ul>	<ul style="list-style-type: none"> <li>Number of projects in racially/ethnically-concentrated areas of poverty (R/ECAP) neighborhoods (<b>increase</b>)</li> <li>Percent of high need equity analysis areas served by projects (<b>increase</b>)</li> </ul>

<sup>3</sup> We are defining job centers using census block groups with 4 or more jobs PER ACRE based on 2015 job point data from the Indianapolis MPO. This results in 75 out of 632 CBGs.

<sup>4</sup> The Equity Index is based on combined densities of people below 200% of the federal poverty level, adults aged 65 and over, youth aged 10 through 17, no-vehicle households, people with a disability, people with limited English proficiency, and people who self-describe as not White/Caucasian. The Equity Index is unitless, with a value between 0 and 40. There are 73 census tracts (out of 224) with an index value of 30 or greater.


<sup>5</sup> The Department of Housing and Urban Development (HUD) publishes a geospatial dataset called RECAP (racially/ethnically-concentrated areas of poverty) at the census tract level. Further information on RECAP is available at this URL: [https://egis-hud.opendata.arcgis.com/datasets/56de4edea8264fe5a344da9811ef5d6e\\_0](https://egis-hud.opendata.arcgis.com/datasets/56de4edea8264fe5a344da9811ef5d6e_0).



Indy Moves Goal	Objectives / Desired Outcomes	Descriptive Evaluation Criteria	Quantitative Evaluation Criteria	Performance Indicators Desired Trend in Brackets
 <p><b>5. Expand mobility choices</b></p>	<ol style="list-style-type: none"> <li>1. Make transit faster and more reliable</li> <li>2. Make walking and biking preferred modes of travel</li> <li>3. Improve ADA-accessible facilities, investing in dignified and equitable solutions</li> </ol>	<ul style="list-style-type: none"> <li>Does the project serve and connect high concentrations of residents?</li> <li>Does the project improve first- and last-mile connections to transit?</li> </ul>	<p>2 Points</p> <ul style="list-style-type: none"> <li>Projects that intersect census block groups in the top quartile of population density</li> <li>Projects within 0.5 miles of proposed BRT (Red, Blue, and Purple Lines), or within 0.25 miles of Indy Connect 2021 Frequent Transit Network, or within 0.5 miles of an existing or proposed greenway.</li> </ul>	<ul style="list-style-type: none"> <li>Number of projects within 0.5 miles of BRT or within 0.25 miles of frequent transit (<b>increase</b>)</li> <li>Number of projects within 0.5 miles of existing or proposed greenways (<b>increase</b>)</li> <li>Drive alone commute mode share (<b>decrease</b>)</li> </ul>
 <p><b>6. Connect and strengthen our region, city, and existing neighborhoods</b></p>	<ol style="list-style-type: none"> <li>1. Make the transportation system work for people of all ages and abilities</li> <li>2. Enhance connections within and between existing and emerging villages and neighborhood nodes</li> <li>3. Strengthen connections to key regional destinations and jobs</li> <li>4. Create safe, accessible, inviting, and active spaces at all times of day</li> </ol>	<ul style="list-style-type: none"> <li>Does the project increase access to a Plan 2020 Village or Neighborhood Node?</li> </ul>	<p>1 Point</p> <ul style="list-style-type: none"> <li>Projects within 0.75 miles of a Plan 2020 Village or Emerging Village, or within 0.5 miles of a Plan 2020 Neighborhood Node.</li> </ul>	<ul style="list-style-type: none"> <li>Number of projects within 10 minutes of a Village or Neighborhood Node (<b>increase</b>)</li> <li>Percent of households with direct connections to job centers (<b>increase</b>)</li> </ul>





Indy Moves Goal	Objectives / Desired Outcomes	Descriptive Evaluation Criteria	Quantitative Evaluation Criteria	Performance Indicators Desired Trend in Brackets
 <p><b>7. Invest strategically and transparently, with a focus on enhancing existing infrastructure</b></p>	<p>1. Bring existing infrastructure assets into a state of good repair</p> <p>2. Balance cost-effective, implementable projects with high-impact projects</p> <p>3. Provide clear and understandable project information to the public throughout planning, design, and construction</p>	<ul style="list-style-type: none"> <li>Does the project improve the condition of existing infrastructure or address a maintenance need?</li> </ul>	<p>1 Point</p> <ul style="list-style-type: none"> <li>Does the project address a street with "poor" pavement condition (Pavement Condition Index of 40 or less) AND include a repaving component?<sup>6</sup></li> </ul>	<ul style="list-style-type: none"> <li>Miles of poor pavement condition addressed by projects (<b>increase</b>)</li> <li>Local dollars leveraged (<b>increase</b>)</li> <li>Positive responses to customer satisfaction survey (<b>increase</b>)</li> </ul>

<sup>6</sup> Projects that include a repaving component are (1) projects with Thoroughfare Plan-based roadway expansion elements, GM Stamping Plant roads, and the AmeriPLEX extension; and (2) projects along the BRT Purple and Blue lines (Red Line is not included because construction is underway and will be finished before the Indy Moves capital projects are implemented).

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## Appendix D: Project List

October 2018





PROJECT MAPS

Figure D-1 Map of Indy Moves Capital Projects By Type

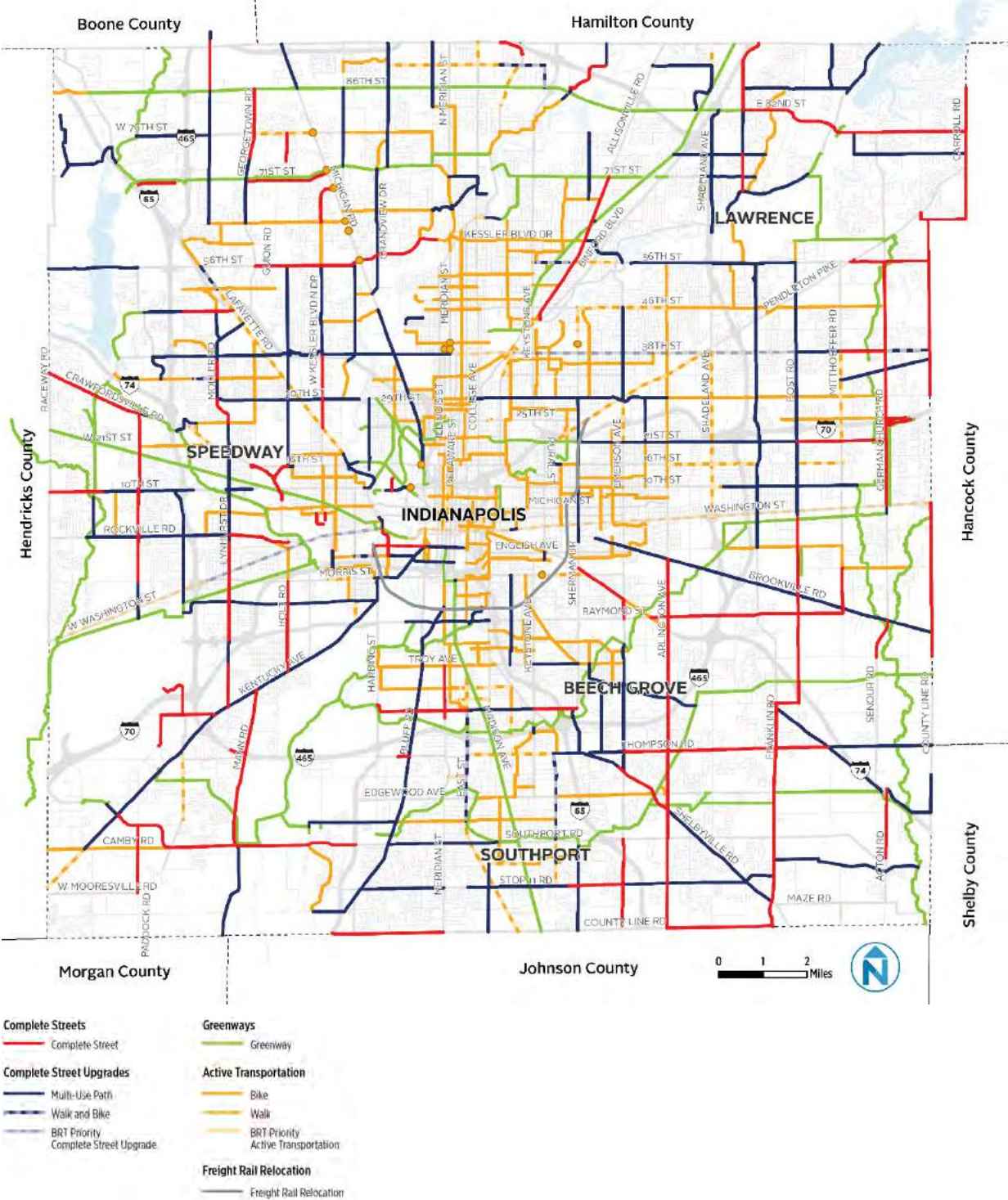


Figure D-2 Map of Indy Moves Capital Projects By Score

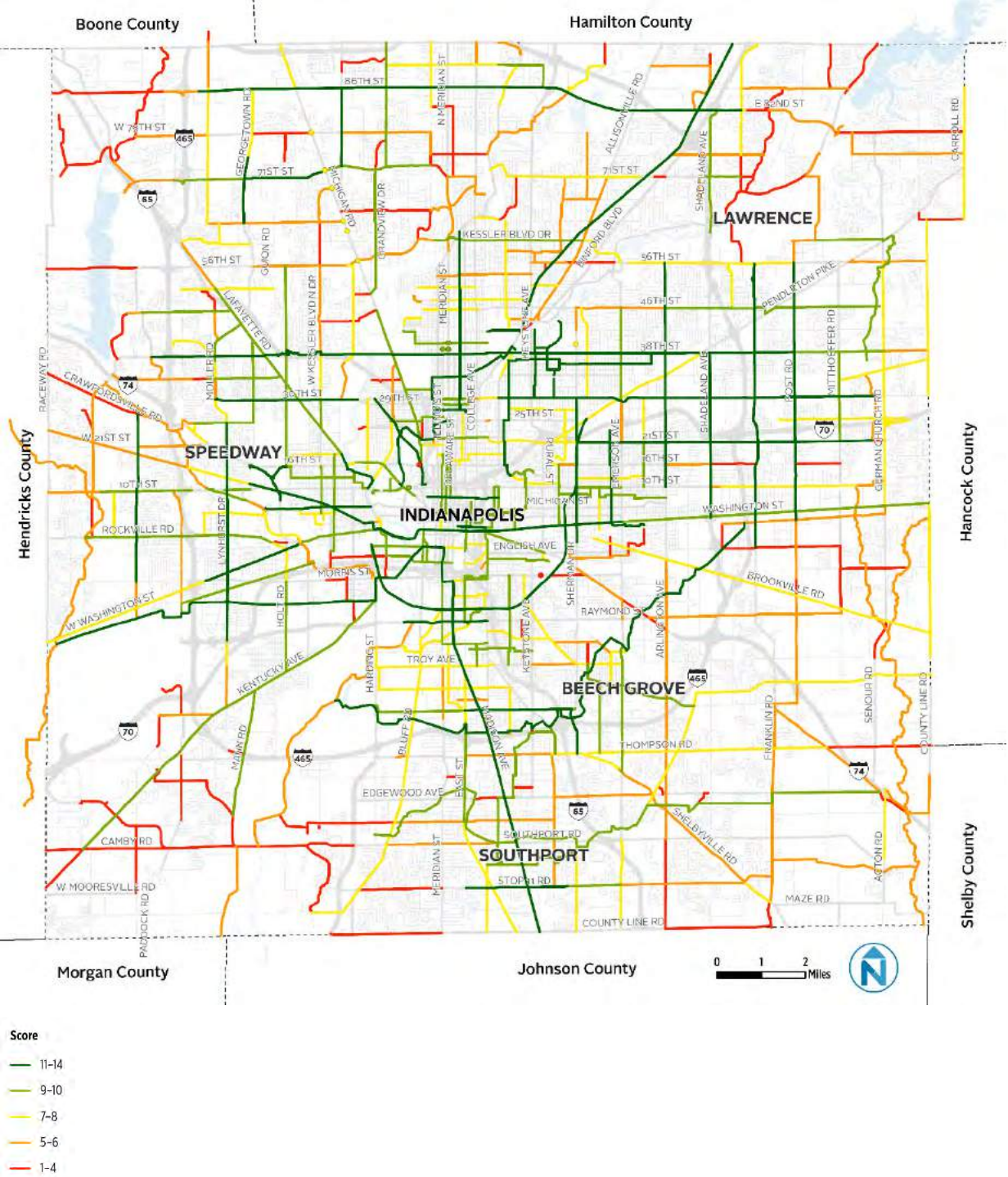






Figure D-3 Map of Indy Moves Capital Projects Scoring 11 Points or More

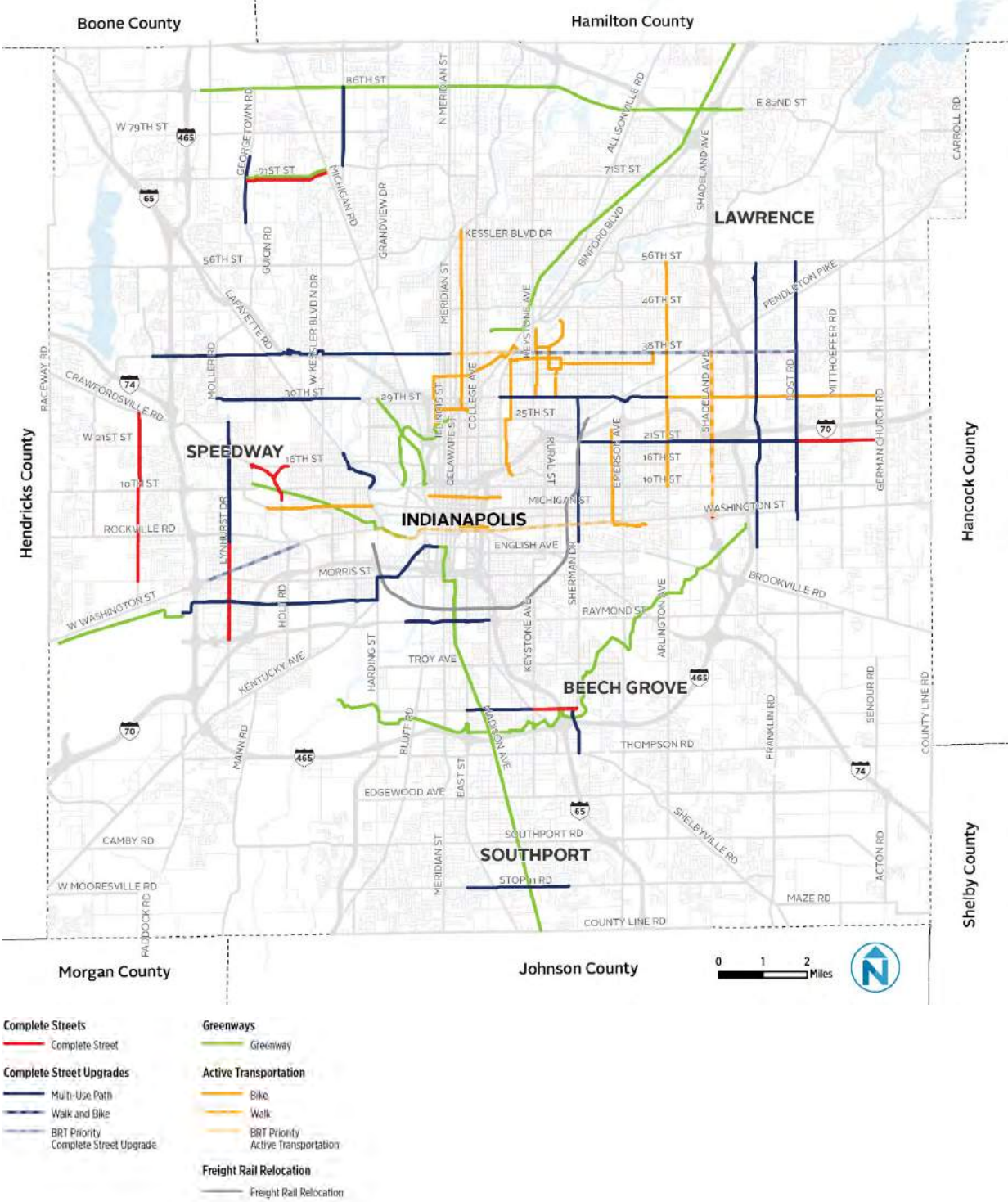
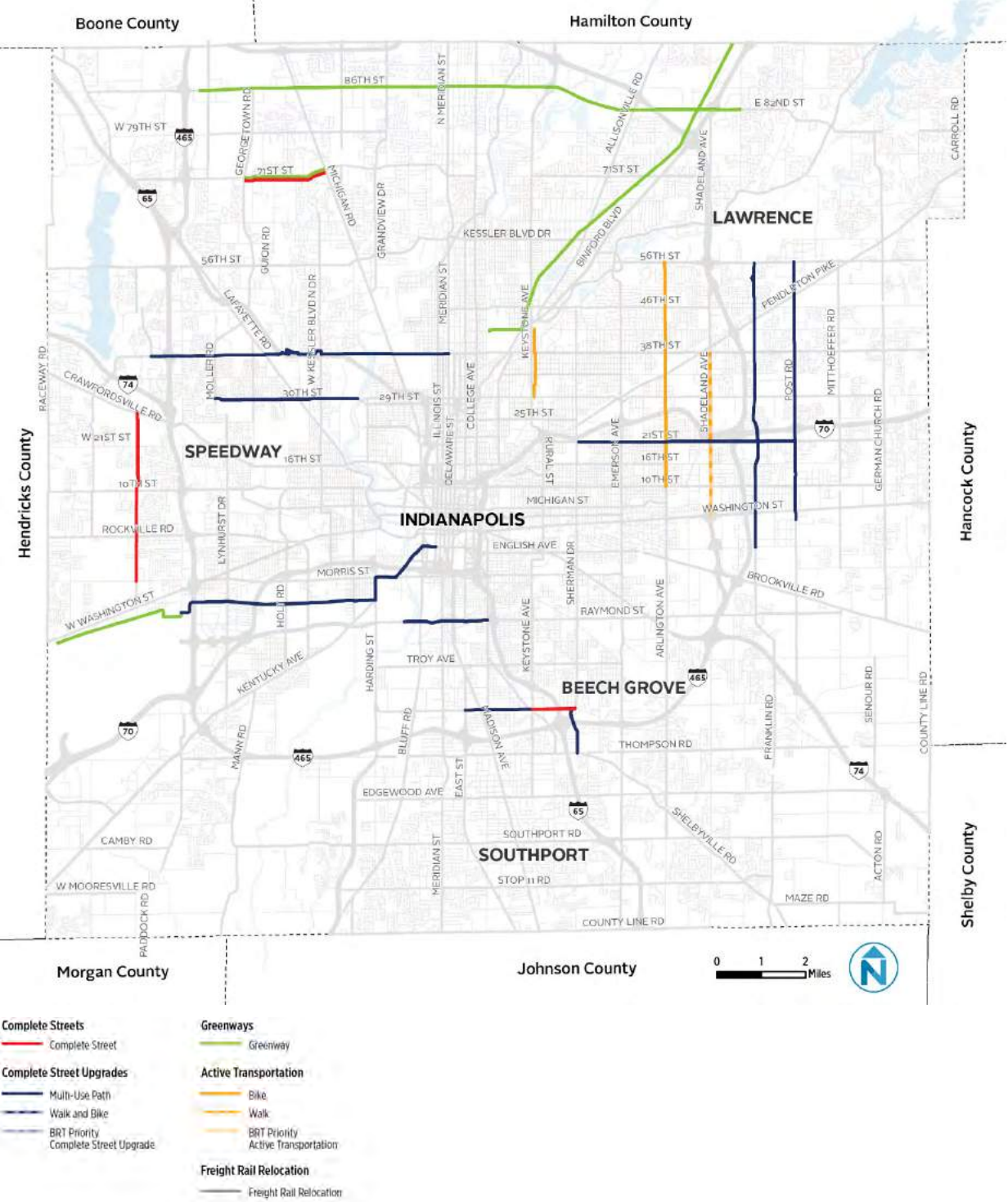


Figure D-4 Map of Priority Indy Moves Capital Projects with Cost Estimates







COSTED HIGH PRIORITY PROJECTS

PID	Name	Project Type(s)	Project Limits	Description	Project Need	Features	Key Considerations	Score	Cost	Length
451	21 <sup>st</sup> St Multi-Use Path	<ul style="list-style-type: none"><li>Multi-use path</li></ul>	<ul style="list-style-type: none"><li>From: Sherman Dr</li><li>To: Post Rd</li></ul>	The 21st Street multi-use path will provide a safe bicycle and pedestrian connection from the East side of Indianapolis into downtown.	<ul style="list-style-type: none"><li>Provide valuable walking and bicycling connectivity to the network within Indianapolis, with connections to the proposed Arlington Avenue protected bike lanes, Franklin Road multi-use path, and Post Road multi-use paths.</li></ul>	<ul style="list-style-type: none"><li>Multi-use path within existing ROW</li><li>Signal improvements for pedestrian and bicycle detection</li></ul>	<ul style="list-style-type: none"><li>Pedestrian and bicycle network/route connectivity</li><li>Multi-use path consistency; reducing unnecessary road crossings as permits</li><li>Sidewalk/multi-use path consistency; reducing unnecessary road crossings as permitted</li><li>Facilities to be designed for the safety &amp; comfort for all ages and ability levels</li></ul>	14	\$7,440,000	4.93 mi
528	30 <sup>th</sup> St Multi-Use Path	<ul style="list-style-type: none"><li>Multi-use path</li></ul>	<ul style="list-style-type: none"><li>From: Moller Rd</li><li>To: White River Pkwy West</li></ul>	The 30th Street multi-use path will provide a safe bicycle and pedestrian connection on the near Northwest side of Indianapolis.	<ul style="list-style-type: none"><li>Provide valuable connectivity to the existing multi-use path and greenway network within Indianapolis, connecting the White River Trail and Canal Towpath to the existing bike lanes on Cold Spring Road and Lafayette Road.</li><li>Improve access for Marian University into the city, as well as very close access to the Indianapolis Motor Speedway.</li></ul>	<ul style="list-style-type: none"><li>Multi-use path within existing ROW</li><li>Signal improvements for pedestrian and bicycle detection</li></ul>	<ul style="list-style-type: none"><li>Pedestrian and bicycle network/route connectivity</li><li>Sidewalk/multi-use path consistency; reducing unnecessary road crossings as permitted</li><li>Facilities to be designed for the safety &amp; comfort for all ages and ability levels</li></ul>	13	\$4,780,000	3.21 mi
639	71st St Complete Street / Northtown Trail	<ul style="list-style-type: none"><li>Complete Street</li><li>Greenway</li></ul>	<ul style="list-style-type: none"><li>From: Georgetown Rd</li><li>To: Michigan Rd</li></ul>	The 71st Street Complete Street & Northtown Trail will provide a key east-west multimodal connection on the Northwest side of Indianapolis, while establishing continuity in roadway configuration with a consistent three-lane typical section. Although this corridor already includes bike lanes, much of it is lacking pedestrian infrastructure. The Northtown Trail provides continuity for people walking along the corridor, while also providing an off-street facility for bicyclists. People walking along the north side of 71st Street (opposite the Northtown Trail) will benefit from new sidewalks for the length of the project. A consistent three-lane typical section, with one travel lane in each direction and a two-way center turn lane, will be created by relocating and consolidating the existing bike lanes with the Northtown Trail to minimize right-of-way acquisition.	<ul style="list-style-type: none"><li>Network connectivity &amp; improved access for people walking and bicycling</li><li>Improved safety for all, regardless of mode of transportation</li></ul>	<ul style="list-style-type: none"><li>Mill &amp; overlay existing pavement and restripe corridor to 3 travel lanes</li><li>Multi-use path (Northtown Trail) on south side of road</li><li>Sidewalk on north side of road with new curb &amp; gutter</li><li>Signals modified for pedestrian and bicycle detection</li><li>Multi-use path bridge over Little Eagle Creek</li><li>Potential ROW acquisition</li></ul>	<ul style="list-style-type: none"><li>Pedestrian and bicycle network/route connectivity</li><li>Sidewalk/multi-use path consistency; reducing unnecessary road crossings as permitted</li><li>Facilities to be designed for the safety &amp; comfort for all ages and ability levels</li><li>Travel lane consistency; avoid lane drops and adds with uniform lane configuration – improves safety for all road users</li></ul>	12	\$8,500,000	1.86 mi



PID	Name	Project Type(s)	Project Limits	Description	Project Need	Features	Key Considerations	Score	Cost	Length
75	86 <sup>th</sup> /82 <sup>nd</sup> St Commercial Connector	<ul style="list-style-type: none"> <li>Multi-use path</li> </ul>	<ul style="list-style-type: none"> <li>From: Northwest Blvd</li> <li>To: Hague Rd</li> </ul>	The 86th/82nd street commercial connector will provide a safe means of access for people walking and bicycling along a critical east-west connection on the North side of Indianapolis.	<ul style="list-style-type: none"> <li>Connect some of the busiest and most populous commercial and retail areas of Indianapolis, including Castleton Square Mall, Clearwater Springs, the Fashion Mall at Keystone, Nora, Northbrook Shopping Center, and Traders Point Mall.</li> <li>Connect Brebeuf Jesuit Preparatory School, St. Vincent Hospital, North Central High School, Northview Middle School, Community Hospital North, and comes very close to Lawrence North High School.</li> <li>Connectivity to other significant multimodal investments, including Phase 2 of Red Line BRT, the Monon Trail, Allisonville Road bike lanes, and the proposed Nickel Plate Trail.</li> </ul>	<ul style="list-style-type: none"> <li>Multi-use path within existing ROW</li> <li>Signal improvements for pedestrian and bicycle detection</li> <li>Narrow/remove medians and restripe lanes to 11' at 82<sup>nd</sup> St. underpass of I-69 and overpass of I-465</li> <li>Multi-use path bridge over White River</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian and bicycle network/route connectivity</li> <li>Sidewalk/multi-use path consistency; reducing unnecessary road crossings as permitted</li> <li>Facilities to be designed for the safety &amp; comfort for all ages and ability levels</li> <li>Upgraded transit stops and first/last mile access</li> </ul>	13	\$20,841,000	12.58 mi
450	Arlington Ave Protected Bike Lanes	<ul style="list-style-type: none"> <li>Active Transportation: Protected bike lanes</li> </ul>	<ul style="list-style-type: none"> <li>From: 10<sup>th</sup> St</li> <li>To: 56<sup>th</sup> St</li> </ul>	Protected bike lanes along Arlington Avenue will provide a vital north-south bicycle connection on the East side of Indianapolis, while improving safety & accessibility for people walking and taking transit. People using Arlington Avenue will benefit from upgraded bus stops, protected bike lanes and sidewalk, and wide buffers separating vehicle traffic, making travel by foot, bicycle, or transit comfortable for all ages and abilities. This project will also establish a consistent travel lane configuration through the corridor, improving safety for drivers by reducing the need for lane changes. The Arlington Avenue protected bike lanes will also add valuable connectivity with the future Blue and Purple Line BRT, 46th Street bike lanes, and proposed 21st Street multi-use path.	<ul style="list-style-type: none"> <li>Provide key north-south bike connection for Warren and Lawrence Townships</li> <li>Connect Pleasant Run and Fall Creek, via existing bike lanes south of 10th St, 46th St and Emerson Ave</li> <li>Improve safety for all, as Arlington Ave overlaps with several high-crash zones</li> <li>Increase connections to schools</li> <li>Support future frequent transit service south of 42nd St</li> </ul>	<ul style="list-style-type: none"> <li>One-way protected bike lane on each side of the street</li> <li>Intersection improvements, including protected intersection treatments, high-visibility crosswalks, and ADA-compliant curb ramps</li> <li>Floating bus islands every ¼ miles routing bikes away from traffic and behind people waiting at the bus stop</li> <li>Mill &amp; overlay existing pavement and restripe corridor to 3 travel lanes with protected bike lanes</li> <li>Signals modified for pedestrian and bicycle detection</li> <li>No changes to existing curb line or beyond</li> </ul>	<ul style="list-style-type: none"> <li>Low vehicle volumes support repurposing outer travel lanes into one-way protected bike lanes</li> <li>Focus intersection improvements at challenging locations such as the five-way intersection at E 34th and Massachusetts Ave</li> <li>Frequent transit route should account for needs of transit and cyclists</li> <li>Travel lane consistency; avoid lane drops and adds with uniform lane configuration – improves safety for all road users</li> </ul>	12	\$5,600,000	5.1 mi
446	Franklin Rd Multi-Use Path	<ul style="list-style-type: none"> <li>Multi-use path</li> </ul>	<ul style="list-style-type: none"> <li>From: Rawles Ave</li> <li>To: 56<sup>th</sup> St</li> </ul>	The Franklin Road multi-use path will provide a safe north-south connection for multi-modal access on the East side of Indianapolis.	<ul style="list-style-type: none"> <li>Improve connectivity in the area, connecting Blue and Purple Line BRT, the proposed 21st Street multi-use path, economic hubs along Pendleton Pike and Washington Street, and substantial residential areas.</li> </ul>	<ul style="list-style-type: none"> <li>Multi-use path within existing ROW</li> <li>Signal improvements for pedestrian and bicycle detection</li> <li>Multi-use path bridge over I-70</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian and bicycle network/route connectivity</li> <li>Sidewalk/multi-use path consistency; reducing unnecessary road crossings as permitted</li> <li>Facilities to be designed for the safety &amp; comfort for all ages and ability levels</li> </ul>	12	\$10,300,000	6.47 mi



PID	Name	Project Type(s)	Project Limits	Description	Project Need	Features	Key Considerations	Score	Cost	Length
653	Girls School Rd Complete Street	<ul style="list-style-type: none"><li>Complete Street</li><li>Multi-use path</li></ul>	<ul style="list-style-type: none"><li>From: Morris St</li><li>To: Crawfordsville Rd</li></ul>	The Girls School Road complete street project will provide a sidewalk and multi-use path for people walking and bicycling along Girls School Road between Morris Street and Crawfordsville Road. This will establish a vital north-south multimodal connection on the West side of Indianapolis, connecting residential areas, several schools, and employment centers. People using Girls School Road will benefit from safe, well-buffered places to walk and ride bicycles, including crossing improvements at busy intersections. This project will create a consistent three-lane typical section along the extent of Girls School Road, also improving safety for automobile users by establishing a two-way center turn lane with a through travel lane in each direction.	<ul style="list-style-type: none"><li>Improve safety for all, especially south of 10th St, which is a high bike and pedestrian crash area</li><li>Increase multimodal access to several schools, employment clusters including Carrier, and Indianapolis Public Library Wayne Branch</li></ul>	<ul style="list-style-type: none"><li>Thoroughfare expansion and improvements, including installation of consistent two-way center-turn lane, curb and gutter, drainage improvements, and utility relocation</li><li>Sidewalk (with curb, gutter, and drainage) and lighting on one side</li><li>Multi-use path with landscaped buffer along one side</li><li>Pedestrian crossing improvements at intersections (high-visibility crosswalks, ADA compliant curb ramps, curb extensions to shorten crossing distance, pedestrian signal heads with countdowns and push buttons)</li><li>Traffic signal upgrades</li><li>Mill &amp; overlay existing pavement and restripe entire corridor to 3 travel lanes</li><li>Culvert extensions</li><li>Potential ROW acquisition</li></ul>	<ul style="list-style-type: none"><li>Connect to future Eagle Creek Greenway and Crawfordsville Road Complete Street projects</li><li>Key intersection improvements needed at Girls School Rd and Morris St, Rockville Rd, W 21st St, and Crawfordsville Rd</li><li>Travel lane consistency; avoid lane drops and adds with uniform lane configuration – improves safety for all road users</li></ul>	12	\$18,000,000	3.8 mi
570	Hanna Ave / Sherman Dr Multi-Use Path and Complete Street	<ul style="list-style-type: none"><li>Complete Street</li><li>Multi-use path</li></ul>	<ul style="list-style-type: none"><li>From: Hanna Ave &amp; East St</li><li>To: Sherman Dr &amp; Shelbyville Rd</li></ul>	Hanna Avenue and Sherman Drive will benefit from a new multi-use path, starting on Hanna Avenue at East Street, continuing onto Sherman Drive and ultimately ending at Shelbyville Road. Hanna Avenue between Keystone Avenue and Sherman Drive will also see additional Complete Streets improvements, with upgraded transit stops and new sidewalk along the North side of Hanna Avenue, opposite the multi-use path. Together, this project will provide multimodal connectivity and accessibility along a key east-west corridor and transit route on the Southeast side of Indianapolis. As part of the multi-use path, three multi-use path bridges will serve bicycle and pedestrian traffic on Hanna Avenue over I-65, and on Sherman Drive over Carson and Lick Creeks. The multi-use path will also provide valuable connectivity to the Red Line BRT.	<ul style="list-style-type: none"><li>Improve walking and bicycling access between residential and commercial areas in south Indianapolis, including safe and convenient access to Red Line BRT, University of Indianapolis, and the proposed Lick Creek Greenway</li><li>Address high crash areas on Hanna Ave and Sherman Dr</li><li>Provide active transportation infrastructure over I-465 and I-65</li><li>Create safe connections to transit on Hanna Ave</li></ul>	<ul style="list-style-type: none"><li>Thoroughfare expansion and improvements, adding sidewalks and creating a consistent three-lane cross section along Hanna Ave, including bus bulbs, curb and gutter and drainage improvements</li><li>Multi-use path along the entire length of the project including bicycle and pedestrian bridges to connect over I-65 and Carson and Lick Creeks</li><li>Intersection improvements: high-visibility crosswalks, ADA-compliant curb ramps, pedestrian-activated beacons</li><li>Transit improvements: bus bulbs, upgraded stops, lighting</li><li>Traffic signal upgrades</li></ul>	<ul style="list-style-type: none"><li>E Hanna Ave is a transit route, requiring coordination with IndyGo</li><li>Outer travel lane can be repurposed to support multi-use path construction in wider portions of corridor, but right-of-way (or coordination with Indy Parks) may be needed in other areas</li><li>Phased implementation should focus in areas (e.g., E Hanna Ave) that lack sidewalks</li><li>Travel lane consistency; avoid lane drops and adds with uniform lane configuration – improves safety for all road users</li></ul>	12	\$6,000,000	3 mi



PID	Name	Project Type(s)	Project Limits	Description	Project Need	Features	Key Considerations	Score	Cost	Length
107	Nickel Plate Trail	<ul style="list-style-type: none"> <li>Greenway</li> </ul>	<ul style="list-style-type: none"> <li>From: 96<sup>th</sup> St</li> <li>To: 42<sup>nd</sup> &amp; Monon Trail</li> </ul>	The objective of the Nickel Plate Trail is to maximize the usability of a retired railroad line and improving connectivity to other nearby walking and bicycling facilities. Within Marion County, the Nickel Plate Trail will connect to the Monon via 42nd street, enabling Nickel Plate Trail users travelling south to benefit from the Monon's upcoming multi-use trail bridge over 38th Street.	<ul style="list-style-type: none"> <li>Provide direct or nearly-direct connectivity to other points of interest, including the Indiana State Fairgrounds, Eastwood Middle School, shops at 62nd and Allisonville Road, commercial and retail near Binford Boulevard between 62nd and 71st, and Castleton &amp; the proposed 82nd/86th Street Commercial Connector.</li> </ul>	<ul style="list-style-type: none"> <li>Converted rail-to-trail from 96<sup>th</sup> street, tying into Monon Trail at 42<sup>nd</sup> Street</li> <li>At-grade street crossings</li> <li>Signals modified for pedestrian and bicycle detection</li> </ul>	<ul style="list-style-type: none"> <li>Currently under review, the cities of Fishers and Noblesville are considering extending the Nickel Plate Trail into Hamilton County, from 96th Street to downtown Noblesville</li> </ul>	11	\$10,000,000	9 mi
809	Post Rd Multi-Use Path (Phase 1: Fort Benjamin Harrison Connection)	<ul style="list-style-type: none"> <li>Multi-use path</li> </ul>	<ul style="list-style-type: none"> <li>From: 38<sup>th</sup> St</li> <li>To: 56<sup>th</sup> St</li> </ul>	Phase 1 of the Post Road multi-use path will provide a safe means of access for people walking and bicycling to and from Fort Benjamin Harrison State Park, commercial development along Pendleton Pike and 38th Streets, and residential areas currently underserved by pedestrian and bicycle facilities.	<ul style="list-style-type: none"> <li>Provide access to/from Fort Benjamin Harrison State Park, commercial development along Pendleton Pike and 38th Streets, and residential areas currently underserved by walking and bicycling facilities.</li> <li>Provide access to the future Purple Line BRT, as well as connectivity to Phase 2 of the Post Road multi-use path to Pennsy Trail.</li> </ul>	<ul style="list-style-type: none"> <li>Multi-use path within existing ROW</li> <li>Signal improvements for pedestrian and bicycle detection</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian and bicycle network/route connectivity</li> <li>Sidewalk/multi-use path consistency; reducing unnecessary road crossings as permitted</li> <li>Facilities to be designed for the safety &amp; comfort for all ages and ability levels</li> <li>Upgraded transit stops and first/last mile access</li> <li>Travel lane consistency; avoid lane drops and adds with uniform lane configuration – improves safety for all road users</li> </ul>	11	\$3,023,000	2.03 mi
455	Post Rd Multi-Use Path (Phase 2: Pennsy Trail Connection)	<ul style="list-style-type: none"> <li>Multi-use path</li> </ul>	<ul style="list-style-type: none"> <li>From: Pennsy Trail</li> <li>To: 38<sup>th</sup> St</li> </ul>	Phase 2 of the Post Road multi-use path will provide a safe means of access for multi-modal users between the Pennsy Trail near Irvington, commercial development along Washington, 21st, and 38th Streets, and residential areas currently underserved by pedestrian and bicycle facilities.	<ul style="list-style-type: none"> <li>Provide access to the Pennsy Trail near Irvington, commercial development along Washington, 21st, and 38th Streets, and residential areas currently underserved by pedestrian and bicycle facilities.</li> <li>Provide access to the future Blue Line BRT, as well as connectivity to Phase 1 of the Post Road multi-use path into Fort Benjamin Harrison.</li> </ul>	<ul style="list-style-type: none"> <li>Multi-use path within existing ROW</li> <li>Signal improvements for pedestrian and bicycle detection</li> <li>Narrow/remove median and restripe lanes to 11' over I-70</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian and bicycle network/route connectivity</li> <li>Sidewalk/multi-use path consistency; reducing unnecessary road crossings as permitted</li> <li>Facilities to be designed for the safety &amp; comfort for all ages and ability levels</li> </ul>	11	\$5,868,000	3.75 mi
568	Raymond St Multi-Use Path	<ul style="list-style-type: none"> <li>Multi-use path</li> </ul>	<ul style="list-style-type: none"> <li>From: White River Pkwy West</li> <li>To: Shelby St</li> </ul>	The Raymond Street multi-use path will provide a safe east-west connection for people walking and bicycling on the near South side of downtown Indianapolis.	<ul style="list-style-type: none"> <li>This multi-use path would provide significant connectivity between the White River Trail, Eagle Creek Greenway, Lilly Recreation Park, Garfield Park, and Red Line BRT.</li> </ul>	<ul style="list-style-type: none"> <li>Multi-use path within existing ROW</li> <li>Signal improvements for pedestrian and bicycle detection</li> <li>Removed median and narrowed lanes across White River bridge to accommodate path</li> </ul>	<ul style="list-style-type: none"> <li>Pedestrian and bicycle network/route connectivity</li> <li>Sidewalk/multi-use path consistency; reducing unnecessary road crossings as permitted</li> <li>Facilities to be designed for the safety &amp; comfort for all ages and ability levels</li> </ul>	11	\$2,834,000	1.87 mi





PID	Name	Project Type(s)	Project Limits	Description	Project Need	Features	Key Considerations	Score	Cost	Length
586	Tacoma Ave Neighborway	<ul style="list-style-type: none"><li>▪ Active Transportation: Neighborway</li></ul>	<ul style="list-style-type: none"><li>▪ From: 30<sup>th</sup> St</li><li>▪ To: Fall Creek Pkwy Trail</li></ul>	The Tacoma Avenue neighborway will establish a priority route for bicycles and pedestrians on a low-volume, low-speed street parallel to the busy Keystone Avenue. As Tacoma Avenue already has direct trail access to the Fall Creek Parkway Trail, constructing the Tacoma Avenue neighborway will establish a key north/south connection for people walking and bicycling, as well as an enhanced connection to the existing Fall Creek Parkway Trail. People using the Tacoma Avenue neighborway will benefit from new sidewalks where they don't exist already, wayfinding, traffic calming, and intersection improvements at busy streets to make crossings easier.	<ul style="list-style-type: none"><li>▪ Improve safety for all in a historic high crash area by establishing a bicycle- and walking-priority route on a low-volume, slow-speed street parallel to the busy Keystone Ave</li><li>▪ Provide better access to the Fall Creek Trail from the northeastern part of Center Township</li><li>▪ Enhance connections with bus rapid transit at 38th St</li><li>▪ Provide safe and comfortable routes to schools, including Joyce Kilmer, KIPP, Tindley, and Avondale</li></ul>	<ul style="list-style-type: none"><li>▪ Neighborway pavement markings and wayfinding</li><li>▪ Intersection improvements at busy streets: crosswalks, flashing beacons, traffic signals, or sidepaths at skewed intersections</li><li>▪ Traffic calming: stop signs, speed humps, traffic circles, 20 MPH speed limit</li><li>▪ Fall Creek Trail connection: landscape maintenance, pedestrian lighting, wayfinding</li></ul>	<ul style="list-style-type: none"><li>▪ Work closely with residents to design the neighborway and support local access needs</li><li>▪ Low-volume street with the ability to become an excellent low-stress connection for people walking and bicycling</li><li>▪ Intersection improvements at busy street crossings (e.g., 38th St) can be a barrier and must be addressed in design</li><li>▪ Evaluate potential for low-cost walking improvements (e.g., asphalt sidewalk with linear curb stops) north of E 33rd St where there are no sidewalks</li></ul>	12	\$4,500,000	1.5 mi.



PID	Name	Project Type(s)	Project Limits	Description	Project Need	Features	Key Considerations	Score	Cost	Length
60	Vandalia Trail / Minnesota St Neighborway	<ul style="list-style-type: none"><li>Greenway</li><li>Active Transportation: Neighborway, multi-use path, &amp; protected bike lanes</li></ul>	<ul style="list-style-type: none"><li>From: Perimeter Rd &amp; Bridge Creek</li><li>To: Capitol Ave &amp; South St</li></ul>	<p>The Vandalia Trail, Minnesota Street Neighborway, and Harding/Morris/Kentucky multi-use paths/protected bike lanes will establish a continuous walking and bicycling connection from the far Southwest side of Indianapolis into downtown. The Vandalia Trail segment implements a long-standing greenway vision for a former rail corridor and along land at the perimeter of the Indianapolis International Airport, and will make possible a connection into Plainfield via the Hendricks County portion of the Vandalia Trail. At Minnesota Street near I-465, the connection takes the form of a neighborway to provide a low-stress connection with traffic calming and sidewalk continuity for people walking or riding bicycles along Minnesota Street. At Harding Street, the connection takes the form of multi-use paths and protected bike lanes, providing a fully-separated bicycle and pedestrian connection for users of all ages and abilities. This follows the busy streets of South Harding Street, West Morris Street, and Kentucky Avenue into downtown. This ten-mile route implements different walking and bicycling facilities to take advantage of the unique site conditions of each segment.</p>	<ul style="list-style-type: none"><li>Create a connection between proposed White Lick Creek Greenway and the Eagle Creek Greenway</li><li>Provide east-west link in Wayne Township from planned greenway to downtown</li><li>Improve walking and biking access to key employment centers (e.g., Lilly Industrial Center), several elementary schools, Lucas Oil Stadium, as well as White River, Eagle Creek, and White Lick Creek</li><li>Improve safety in several high-crash zones, including the intersection of Kentucky Ave and South St, and Minneapolis St between Lynhurst Dr and Holt Rd</li><li>Connect to future Blue Line BRT stations and S Girls School Rd proposed complete street</li></ul>	<ul style="list-style-type: none"><li>Vandalia Trail: Off-street greenway in former rail corridor and along the perimeter of Indianapolis International Airport (Perimeter Road)</li><li>Minnesota Street Neighborway: Mill &amp; overlay of existing pavement, add sharrows, neighborway signage, traffic calming, completed sidewalks, and modified signals for pedestrian and bicycle detection</li><li>A combination of multi-use path and protected bike lanes will complete the connection along busy streets into downtown<ul style="list-style-type: none"><li>Multi-Use Path: Along Kentucky Ave, S. Harding Street, &amp; W. Morris Street</li><li>2-Way Protected Bike Lane: Along Kentucky Ave bridge over the White River, includes full mill &amp; overlay of bridge deck, and removing center turn lane</li><li>Sidewalks improved and rebranded as multi-use path: South Street, from West Street to Capitol Ave</li></ul></li><li>Intersection improvements and dedicated space for people walking and riding bicycles to create continuous connection</li></ul>	<ul style="list-style-type: none"><li>Long-term project may require phasing as partnerships develop and funding becomes available</li><li>Several portions of the project area have constrained right-of-way, heavy freight traffic, interstate undercrossings, bridges, and busy intersections</li><li>Special consideration will need to be given to design of the multi-use path to safely and continuously accommodate people walking and bicycling</li><li>Partnership with Indy Parks and other funding partners will be integral to the success of this project</li><li>Coordination and partnership with large land owners along this route will be needed, including Indianapolis International Airport and Eli Lilly and Company</li></ul>	12	\$17,400,000	10 mi
388	W 38 <sup>th</sup> St Multi-Use Path and IMX Path	<ul style="list-style-type: none"><li>Multi-use path</li></ul>	<ul style="list-style-type: none"><li>From: Eagle Creek Pkwy</li><li>To: Meridian St</li></ul>	<p>The W. 38th Street multi-use path will provide a critical east-west connection on the near Northwest side of Indianapolis. To complete the multi-use path, no driving lanes will be removed, so impacts to drivers will be minimal. The path will include bicycle and pedestrian bridges over Crooked Creek, Guion Road, and Little Eagle Creek, with modifications to bridges over the White River and Central Canal.</p>	<ul style="list-style-type: none"><li>Connect major points of interest, such as Crown Hill Cemetery, Newfields and the Indianapolis Museum of Art, the Canal Towpath, the Lake Sullivan Sports Complex, Marian University, Lafayette Square Mall, and Eagle Creek Reservoir.</li><li>Provide valuable walking and bicycling access to the Red and Purple Line BRT.</li></ul>	<ul style="list-style-type: none"><li>Multi-use path along entire length of corridor, including multi-use path bridges over waterways &amp; major roads</li><li>Signals modified for pedestrian and bicycle detection</li><li>Median barrier on 38<sup>th</sup> over I-465 narrowed and lanes restriped, to extend multi-use path over existing bridge surface</li></ul>	<ul style="list-style-type: none"><li>Pedestrian and bicycle network/route connectivity</li><li>Sidewalk/multi-use path consistency; reducing unnecessary road crossings as permitted</li><li>Facilities to be designed for the safety &amp; comfort for all ages and ability levels</li></ul>	14	\$14,000,000	6.72 mi



COMPLETE PROJECT LIST

PID	On Street Alphabetical Order	From Street	To Street	Project Type	Project Type Detail	Bike Type If Applicable	Project Source	Score
5900	10th St	University Blvd / Brooks St		Active Transportation	Walk (Intersection)		Indianapolis/Marion County Pedestrian Plan 2016	10
458	10th St	Shortridge Rd	Grassy Creek Trail	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
460	10th St	Sherman Dr	Emerson Ave	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	10
523	10th St	Miley Ave	White River Pkwy W Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
533	10th St	Lynhurst Dr	Main St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	10
534	10th St	Railroad Trailacks	Beachway Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	10
610	10th St	St Margarets Dr	Indiana Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	10
636	10th St	Raceway Rd	Railroad Trailacks	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	6
777	10th St	Shadeland Ave	Shortridge Rd	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
466	12th St / 11th St	Pogues Run	Lasalle St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
619	13th Ave	Albany St	Southern Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	3
575	13th Ave / Churchman Ave	Albany St	Southeast Trail	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
461	13th St	Sherman Dr	Ritter Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
5600	16th St	Dr MLK Jr St / Brighton Blvd		Active Transportation	Walk (Intersection)		Indianapolis/Marion County Pedestrian Plan 2016	4
126	16th St	Arlington Ave	Shadeland Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
128	16th St	Shadeland Ave	Franklin Rd	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	4
258	16th St	Post Rd	Mitthoeffer Rd	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	4
462	16th St	Lasalle St	Sherman Dr	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	6
524	16th St	Railway Trailacks	Livingston Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
608	16th St	Lafayette Rd	Waterway Blvd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8
109	16th St / Indiana Ave / Cultural Trail	White River	St Clair St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	10
496	17th St / 19th St	Talbott St	Sheldon St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
602	19th St	Capitol Ave	Illinois St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	8
451	21st St	Sherman Dr	Post Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	14
511	21st St	Dr MLK Jr St	Illinois St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	8



PID	On Street Alphabetical Order	From Street	To Street	Project Type	Project Type Detail	Bike Type If Applicable	Project Source	Score
547	21st St	Girls School Rd	Cunningham Rd	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	5
714	21st St	Post Rd	Grassy Creek Trail	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	11
821	21st St / Grassy Creek Greenway	Grassy Creek	German Church Rd	Complete Streets	Complete Street and Greenway	Multi-Use Path	fullCIRCLE Indy Greenways Master Plan 2014; Indy Thoroughfare Plan 2016	3
495	22nd St	Capitol Ave	Monon Trail	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	9
329	25th St	Winthrop Ave	Monon Trail	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
452	25th St	Planes Dr	German Church Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
507	25th St / 26th St	Bond St	Illinois St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	9
544	25th St / Georgetown Rd	Parkwood Dr	30th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10
583	28th St	Ralston Ave	Sherman Dr	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
503	29th St / Ruckle St	Illinois St	30th St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	9
449	30th St	Arlington Ave	Grassy Creek Trail	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	11
499	30th St	Illinois St	Ruckle St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	9
500	30th St	Ruckle St	Fall Creek Pkwy N Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
501	30th St	Dr Andrew Brown Ave	Arlington Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	11
502	30th St	Fall Creek Pkwy N Dr	Dr Andrew Brown Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
528	30th St	Moller Rd	White River Pkwy W Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	13
509	32nd St	Dr MLK Jr St	Boulevard Pl	Active Transportation	Bike	Neighborway	Pedal Indy 2018	9
543	34th St	Scarlet Ct	Lafayette Rd	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	9
757	34th St	Dandy Tr	Faculty Dr	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	6
758	34th St	Faculty Dr	Scarlet Ct	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Bike Lane	Indianapolis/Marion County Pedestrian Plan 2016; Pedal Indy 2018	4
417	34th St / Fairfield Ave / Woodland Ave / Fall Creek Pkwy N Dr / 39th St	Boulevard Pl	Millersville Rd	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	11
505	35th St	White River Pkwy E Dr	Dr MLK Jr St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	4
138	38th St	Fall Creek Pkwy N Dr	Sutherland Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	8
194	38th St	Meridian St	Sutherland Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	13
388	38th St	Eagle Creek Pkwy	Meridian St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	14





PID	On Street Alphabetical Order	From Street	To Street	Project Type	Project Type Detail	Bike Type If Applicable	Project Source	Score
447	38th St	Sutherland Ave	Post Rd	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Multi-Use Path	Indianapolis/Marion County Pedestrian Plan 2016; Pedal Indy 2018	14
698	38th St	Mitthoeffer Rd	German Church Rd	Complete Streets	Complete Street	Bike Lane	Indy Thoroughfare Plan 2016	9
752	38th St	German Church Rd	N 800 W	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Bike Lane	Indianapolis/Marion County Pedestrian Plan 2016; Pedal Indy 2018	6
754	38th St	Post Rd	Mitthoeffer Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
424	42nd St / Clarendon Rd / 40th St	Haughey Ave	40th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10
413	44th St	Ralston Ave	Allisonville Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	5
395	44th St / Cold Spring Rd	Kessler Blvd N Dr	Michigan Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	3
354	46th St	Sherman Dr	Arlington Ave	Active Transportation	Walk		Indy Moves 2018 Outreach	5
418	46th St	Rockwood Ave	Carrollton Ave	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	8
443	46th St	Arlington Ave	German Church Rd	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	10
664	46th St	High School Rd	Lafayette Rd	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	9
761	46th St	Eagle Creek Pkwy	High School Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
421	49th St	Boulevard Pl	Keystone Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
393	51st St	Knollton Rd	Michigan Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	2
366	52nd St	Capitol Ave	Illinois St	Active Transportation	Walk		Indy Moves 2018 Outreach	5
383	52nd St	High School Rd	Guion Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	7
419	52nd St	Central Canal Trail	College Ave	Active Transportation	Bike	Bike Lane	Pedal Indy 2018; Indy Moves 2018 Outreach	7
420	52nd St	Keystone Ave	Allisonville Rd	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018; Indy Moves 2018 Outreach	7
414	54th St	Capitol Ave	Keystone Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	6
236	56th St	Allisonville Rd	Emerson Way	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	4
381	56th St	Raceway Rd	Reed Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
411	56th St	Tacoma Ave	Allisonville Rd	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Neighborway	Indianapolis/Marion County Pedestrian Plan 2016; Pedal Indy 2018	6
440	56th St	Fall Creek	Post Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	8
666	56th St	Pendleton Pike	N 800 W	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
699	56th St	Georgetown Rd	Michigan Rd	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	6



PID	On Street Alphabetical Order	From Street	To Street	Project Type	Project Type Detail	Bike Type If Applicable	Project Source	Score
746	56th St	Keystone Ave	Tacoma Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
410	58th St / Tuxedo St / Olney St	Primrose Ave	71st St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	5
378	59th St	Lafayette Rd	Georgetown Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	7
80	59th St / Grassy Creek Trail	Lee Rd	Lace Bark Ln	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	9
487	5th Ave / Subway St	Churchman Ave	Connection Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
375	62nd St	Zionsville Rd	Michigan Rd	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	6
598	62nd St	Allisonville Rd	Nickel Plate Trail	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	5
681	62nd St	Oaklandon Rd	Carroll Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	2
377	64th St	Michigan Rd	Spring Mill Rd	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	4
597	65th St	Tuxedo St	Allisonville Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	5
600	71st St	Hague Rd	Fairwood Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	3
404	71st St / College Ave	Meridian St	White River	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
50	71st St / Northtown Trail	Intech Blvd	Georgetown Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	9
77	71st St / Northtown Trail	Monon Trail	Steinmeir Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	7
78	71st St / Northtown Trail	Graham Rd	Lakeknoll Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	4
639	71st St / Northtown Trail	Georgetown Rd	Michigan Rd	Complete Streets	Complete Street and Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014; Indy Thoroughfare Plan 2016	12
640	71st St / Northtown Trail	Lafayette Rd	Intech Blvd	Complete Streets	Complete Street and Greenway	Unspecified	fullCIRCLE Indy Greenways Master Plan 2014; Indy Thoroughfare Plan 2016	5
824	71st St / Northtown Trail	Eagle Creek Park	Lafayette Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5
436	75th St	Nickel Plate Trail	Teel Way	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
9	75th St / Northtown Trail	College Ave	Westfield Blvd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	4
10	75th St / Northtown Trail	Spring Mill Rd	College Ave	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	4
353	79th St	Georgetown Rd	Michigan Rd	Active Transportation	Walk		Indy Moves 2018 Outreach	3
373	79th St	Noel Rd	Zionsville Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	5
641	79th St	Indian Lake Rd	Carroll Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4



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743	79th St	Geist Crossing Dr	Indian Lake Rd	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	4
400	79th St / Spring Mill Rd	Township Line Rd	75th St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	6
402	82nd St	Spring Mill Rd	Pennsylvania St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	4
740	82nd St	Hague Rd	Castle Ridge Ln	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
741	82nd St	Castle Ridge Ln	Teel Way	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	4
742	82nd St	Teel Way	Geist Crossing Dr	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
371	86th St	Marion County Line	Lafayette Rd	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	2
430	86th St	Hague Rd	Fall Creek Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
75	86th St / 82nd St / 86th St 82nd St Commercial Connector	Northwest Blvd	Hague Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	13
13	86th St / 86th 82nd Street Commercial Connector	Connaroe Rd	Northwest Blvd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5
74	86th St / 86th St 82nd St Commercial Connector	Lafayette Rd	Conarroe Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	3
358	91st St	Ditch Rd	Monon Trail	Active Transportation	Walk		Indy Moves 2018 Outreach	8
406	91st St / Haverstick Rd	Monon Trail	86th St	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Neighborway	Pedal Indy 2018; Indy Moves 2018 Outreach	9
574	9th Ave	Thompson Rd	Churchman Bypass	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
494	9th St / St Clair St	Lasalle St	Arlington Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	9
667	Acton Rd	Edgewood Ave	Southport Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	7
415	Alabama St / New Jersey St	16th St	Fall Creek Pkwy S Dr	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
488	Albany St	Keystone Ave	Sherman Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
569	Allen Ave / Nelson Ave / Gimber St	Troy Ave / Stanley Ave / Southern Ave	Keystone Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	9
696	Allisonville Rd	Binford Blvd	56th St	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
697	Allisonville Rd	56th St	71st St	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
783	Ameriplex Pkwy	Decatur Blvd	Kentucky Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
702	Ameriplex Pwky			Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	3
425	Arden Dr / College Ave / 67th St	Spring Mill Rd	Monon Trail	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
450	Arlington Ave	10th St	56th St	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	12
707	Arlington Ave	Raymond St	Southeastern Ave	Complete Streets	Complete Street	Bike Lane	Indy Thoroughfare Plan 2016	5
708	Arlington Ave	Thompson Rd	Southeastern Ave	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
709	Arlington Ave	Southport Rd	Thompson Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
710	Arlington Ave	County Line Rd	Southport Ave	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	2



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71	B&O Trail	Eagle Creek	Main St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	7
90	B&O Trail	Main St	White River	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	11
91	B&O Trail	Raceway Rd	Eagle Creek	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	6
561	Banta Rd	Bluff Rd	McFarland Rd	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	5
625	Banta Rd	Tibbs Ave	Bluff Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
327	Belmont Ave	Kentucky Ave	Minnesota St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	3
557	Bluff Rd / Wicker Rd	Tibbs Ave	Meridian St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
508	Boulevard Pl	Fall Creek	34th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	11
604	Boulevard Pl	21st St	Fall Creek Pkwy N Dr	Active Transportation	Bike	Neighborway	Pedal Indy 2018	6
439	Boy Scout Rd	56th St	Fall Creek	Active Transportation	Bike	Bike Lane	Pedal Indy 2018; Indy Moves 2018 Outreach	3
493	Bradbury Ave / Walker Ave	Shelby St	Churchman Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	7
623	Bradston Way	Southeast Trail	Edgewood Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	3
427	Broad Ripple Ave	Winthrop Ave	Haverford Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8
900	Broad Ripple Ave	College Ave	Winthrop Ave	Active Transportation	Walk		Indy Moves 2018 Outreach	7
463	Brookside Pkwy S Dr	Pogues Run	Lasalle St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
486	Brookville Rd	Pleasant Run	County Line Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
106	Buck Creek Greenway	Marion County Line	County Line Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	6
30	Burdsal Pwky / White River Greenway	White River Pkwy E Dr	East Riverside Dr	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	4
624	Camby Rd	Raceway Rd	Mooresville Rd	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	3
416	Central Ave / 28th St / Washington Blvd	Boulevard Pl / 28th St	Central Ave / Westfield Blvd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	11
70	Central Canal Towpath Extension	11th St	30th St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	11
560	Chase St / Sumner Ave / State Ave	Troy Ave	Hanna Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
489	Churchman Ave / Albany St	Prospect St	Emerson Ave	Active Transportation	Bike	Bike Lane	Pedal Indy 2018; Indy Moves 2018 Outreach	8
506	Clifton St	25th St	Dr MLK Jr St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	6
529	Cold Spring Rd	30th St	I-65	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	5





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247	College Ave	91st St	96th St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
497	Commerce Ave / Sheldon St / 25th St / Ralston Ave / 36th St / 37th St / Lasalle St / Audubon Rd	Brookside Ave	38th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	11
522	Concord St	Vermont St	16th St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	9
376	Cooper Rd	56th St	62nd St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	3
397	Cooper Rd	38th St	56th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	5
724	Cooper Rd	62nd St	Michigan Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
554	Country Club Rd	Rockville Rd	White Lick Creek	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
712	County Line Rd	Belmont Ave	Meridian St	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
713	County Line Rd	Arlington Ave	Franklin Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
711	County Line Rd / N 800 W / Carroll Rd	Troy Ave	86th St	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	7
429	Craig St / Masters Rd / 91st St	82nd St	Allisonville Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
326	Crawfordsville Rd	High School Rd	Peoria Eastern Rail Trail	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	8
670	Crawfordsville Rd	Raceway Rd	Girls School Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
767	Crawfordsville Rd	Girls School Rd	Eagle Creek	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
82	Crittenden Ave / Northtown Trail	71st St	Haverford Ave	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	4
426	Crows Nest Rd / Spring Mill Rd	Kessler Blvd W Dr	63rd St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	2
67	Dandy Tr / Eagle Creek Greenway	38th St	46th St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	4
409	Dean Rd	65th St	79th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
584	Dearborn St / 35th St / Oxford St / Lasalle St / Meadows Dr / 37th St	34th St	Millersville Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	11
464	Dequincy St / Julian St	23rd St	Ritter Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	11
390	Ditch Rd	73rd St	96th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	10
517	Division St	Morris St	Oliver Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	4
504	Dr MLK Jr Dr / Michigan Rd	Cold Spring Rd	16th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
66	Eagle Creek Greenway	Cossell Rd	10th St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	9
68	Eagle Creek Greenway	Cossell Rd	Gasoline Alley	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5



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69	Eagle Creek Greenway	I-70	Washington St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	6
76	Eagle Creek Greenway	Lafayette Rd	96th St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	3
83	Eagle Creek Greenway	10th St	Dandy Tr	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	6
57	Eagle Creek Greenway / Lafayette Rd	71st St	Eagle Creek	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5
387	Eagle Creek Pkwy	34th St	38th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	5
84	Eagle Creek Trail	Washington St	Gasoline Alley	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	8
475	East St	South St	New York St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	10
563	East St	Banta Rd	Lick Creek Greenway	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Protected Bike Lane	Indianapolis/Marion County Pedestrian Plan 2016; Pedal Indy 2018	9
564	East St	Lick Creek Greenway	Hanna Ave	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Protected Bike Lane	Indianapolis/Marion County Pedestrian Plan 2016; Pedal Indy 2018	8
795	East St	I-465	Markwood Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
905	East St	Morris St	Raymond St	Active Transportation	Bike	Bike Lane	Indy Moves 2018 Outreach	9
588	Edgewood Ave	McFarland Rd	Southeast Trail	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	5
589	Edgewood Ave	Little Buck Cree	Orinoco Ave	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	3
171	Edwards Ave	Madison Ave	Weaver Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
131	Emerson Ave	21st St	30th St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
576	Emerson Ave	Shelbyville Rd	Churchman Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
587	Emerson Ave	30th St	46th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
622	Emerson Ave	Churchman Ave	Lick Creek Greenway	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
649	Emerson Ave	County Line Rd	Southport Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	7
457	English Ave / Rawles Ave / Mitthoeffer Rd / Prospect St	Shortridge Rd	Buck Creek Greenway	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	4
364	Epler Ave	Meridian St	East St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	4
531	Exeter Ave / Vermont St	Michigan St	Holmes Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8



PID	On Street Alphabetical Order	From Street	To Street	Project Type	Project Type Detail	Bike Type If Applicable	Project Source	Score
438	Fairwood Dr / Teel Way / Castleton Blvd	Fall Creek Rd	86th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	3
63	Fall Creek Creenway	Indiana Ave	Meridian St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	11
64	Fall Creek Greenway	Across 79th St		Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5
343	Fall Creek Pkwy N Dr	Evanston Ave	Keystone Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	4
431	Fall Creek Rd	Geist Station	96th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	3
434	Fall Creek Rd	Boy Scout Rd	71st St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
481	Fletcher Ave / Brookville Ave	Pleasant Run	Spencer Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	6
478	Fletcher Ave / Hoyt Ave	Shelby St	Pleasant Run Pkwy N Dr	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10
498	Forest Manor Ave	30th St	46th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
446	Franklin Rd	Rawles Ave	56th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	12
672	Franklin Rd	Shelbyville Rd	Hanna Ave	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016; Indy Moves 2018 Outreach	6
780	Franklin Rd	Count Line	Shelbyville Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	3
58	Freight Railway Relocation			Rail Relocation	Rail Relocation		Railroad Alignment Upgrade	11
386	Gateway Dr	Westhaven Dr	Moller Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	7
379	Georgetown Rd	56th St	Ryder Logistics	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	11
548	Georgetown Rd	30th St	Lafayette Rd	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	9
652	Georgetown Rd	Ryder Logistics	86th St	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	7
691	German Church Rd	Troy Ave	Brookville Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
775	German Church Rd	25th St	56th St	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	8
776	German Church Rd	Pennsy Trail	Washington St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	5
673	German Church Rd / Grassy Creek Greenway	Washington St	25th St	Complete Streets	Complete Street and Greenway	Multi-Use Path	fullCIRCLE Indy Greenways Master Plan 2014; Indy Thoroughfare Plan 2016	7
628	Gilbert Ave	Walcott St	Keystone Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	3
653	Girls School Rd	Morris St	Crawfordsville Rd	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016; Indy Moves 2018 Outreach	12
769	Girls School Rd	Perimeter Rd	Morris St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
695	GM Stamping Plant and White River Pedestrian Bridge			Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	10



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391	Grandview Dr	Westlane Rd	Ditch Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	4
392	Grandview Dr	Michigan Rd	73rd St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	9
819	Grassy Creek Greenway	21st St	Grassy Creek Regional Park	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	6
81	Grassy Creek Trail	Buck Creek Greenway	German Church Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5
477	Grove Ave / Lexington Ave	Virginia Ave	Shelby St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	6
723	Hadleigh Dr	Hanna Ave	FedEx Ship Center	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
428	Hague Rd	75th St	82nd St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8
717	Hague Rd	82nd St	96th St	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	8
718	Hague Rd	Fall Creek Rd	75th St	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	3
686	Hanna Ave	Southeastern Ave	Post Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	5
719	Hanna Ave	Keystone Ave	Sherman Dr	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	10
720	Hanna Ave	Kollman Rd	Kentucky Ave	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	5
721	Hanna Ave	Harding St	East St	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	9
570	Hanna Ave / Sherman Dr	East St	Shelbyville Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	12
565	Harding St / Troy Ave	White River	Carson Ave	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	8
423	Haughey Ave / Hampton Dr	Berkley Rd	Sunset Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8
349	High School Rd	Nolte St	Mooresville Rd	Active Transportation	Walk		Indy Moves 2018 Outreach	2
539	High School Rd	Minnesota St	10th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
545	High School Rd / 25th St	Eagle Creek	Parkwood Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
474	Highland Ave	Washington St	10th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	9
520	Holmes Ave / Victoria St	18th St	Warman St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	9
677	Holt Rd	Kentucky Ave	Morris St	Complete Streets	Complete Street	Bike Lane	Indy Thoroughfare Plan 2016	9
731	I-465 Ramp	Mann Rd		Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	2
601	Illinois St	New York St	19th St	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	9
603	Illinois St	Washington St	Ohio St	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	8
433	Indian Lake Rd / 75th St	79th St	Carroll Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
605	Indianapolis Ave	Fall Creek	26th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	4
687	Indianapolis Motor Speedway Roundabout			Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	11
467	Jefferson Ave	Michigan St	Pogues Run	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10



PID	On Street Alphabetical Order	From Street	To Street	Project Type	Project Type Detail	Bike Type If Applicable	Project Source	Score
79	Johnson Rd / Northtown Trail	65th St	71st St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5
333	Kentucky Ave	Mooreville Rd	Camby Rd	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	1
555	Kentucky Ave	Camby Rd	Harding St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	10
398	Kessler Blvd E Dr	Allisonville Rd	56th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
399	Kessler Blvd E Dr	Spring Mill Rd	Allisonville Rd	Active Transportation	Bike	Bike Lane	Pedal Indy 2018; Indy Moves 2018 Outreach	9
700	Kessler Blvd W Dr	Michigan Rd	White River	Complete Streets	Complete Street	Bike Lane	Indy Thoroughfare Plan 2016	5
567	Keystone Ave	Across I-465		Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
688	Kirkbride Way	Vermont St	Steeple's Blvd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	7
394	Knollton Rd	I-65	Kessler Blvd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
722	Kollman Rd	Decatur Blvd	Hanna Ave	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
217	Lafayette Rd	38th St	52nd St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	9
229	Lafayette Rd	16th St	52nd St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	10
549	Lafayette Rd	Traders Ln	Eagle Creek	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
550	Lafayette Rd	56th St	Petersburg Pkwy	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	5
763	Lafayette Rd	52nd St	56th St	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Protected Bike Lane	Indianapolis/Marion County Pedestrian Plan 2016; Pedal Indy 2018	5
422	Lake Rd / Garden Rd	Central Canal Trail	Sunset Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	6
465	Lasalle St	Washington St	16th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10
65	Lee Rd / 59th St / Fall Creek Greenway	Post Rd	Fall Creek Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5
103	Lick Creek Greenway	White River	Pennsy Trail	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	11
104	Lick Creek Greenway	English Ave	Pennsy Trail	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	4
617	Lincoln St / Palmer St / Barth Ave / Beecher St	Madison Ave	Shelby St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
621	Linwood Ave	Pleasant Run	9th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
101	Little Buck Creek Bridge			Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	3
100	Little Buck Creek Greenway	White River	Tibbs Ave	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	3





PID	On Street Alphabetical Order	From Street	To Street	Project Type	Project Type Detail	Bike Type If Applicable	Project Source	Score
102	Little Buck Creek Greenway	Little Buck Creek	Edgewood Ave	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	3
99	Little Buck Creek Trail	Harding St	I-74	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	9
56	Little Buck Creek Trail / Southeastern Ave	Edgewood Ave	Buck Creek	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	4
525	Livingston Ave / 18th St	16th St	Lafayette Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
526	Livingston St / 12th St / Belmont Ave / 11th St / Miley Ave	16th St	White River Pkwy W Dr	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10
513	Louisiana St	East St	Shelby St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	7
369	Lynhurst Dr	Vermont St	10th St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	7
728	Lynhurst Dr	Washington St	Sam Jones Expwy	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016; Indy Moves 2018 Outreach	11
729	Lynhurst Dr	Gas Light Pkwy	Kentucky Ave	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
801	Lynhurst Dr	Gas Light Pkwy	Sam Jones Expwy	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	7
802	Lynhurst Dr	Jackson St	25th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	11
727	Lynhurst Dr / Moller Rd	25th St	30th St	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	7
629	MacFarland Ave	Babette Dr	Anniston Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
797	MacFarland Rd	Stop 11 Rd	Southport Rd	Active Transportation	Walk		Indy Moves 2018 Outreach	5
616	Madison Ave	Orange St	Sanders St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
553	Mann Rd	Marion County Line	Southport Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	5
730	Mann Rd	Milhouse Rd	Kentucky Ave	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	9
811	Mann Rd / Southwest Trail	Dollar Hide Creek	Southport Rd	Complete Streets	Complete Street and Greenway	Multi-Use Path	fullCIRCLE Indy Greenways Master Plan 2014; Indy Thoroughfare Plan 2016	4
471	Market St	Alabama St	Cruse St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	11
331	Massachusetts Ave	21st St	38th St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	8
367	Masters Rd	91st St	Vistamere Way	Active Transportation	Walk		Indy Moves 2018 Outreach	4
614	McCarty St / Calvary St	East St	Shelby St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
559	McFarland Rd	Southport Rd	Thompson Rd	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Bike Lane	Pedal Indy 2018; Indy Moves 2018 Outreach	6
580	McGregor Rd	Franklin Rd	Buck Creek Greenway	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
596	Meridian Hills Blvd	Spring Mill Rd	Meridian St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	3



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346	Meridian St	Ohio St	16th St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	10
405	Meridian St	Westfield Blvd	71st St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018; Indy Moves 2018 Outreach	5
680	Meridian St	Edwards Ave	Troy Ave	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
108	Meridian St / Orange St / Madison Ave / Interurban Trail	County Line Rd	South St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	11
566	Meridian St / Southern Ave	Orange St	Shelby St	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	10
9000	Michigan Rd	Kessler Blvd W Dr	79th St	Active Transportation	Walk (Intersection)		Indy Moves 2018 Outreach	8
903	Michigan Rd	86th St	96th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Indy Moves 2018 Outreach	7
352	Michigan St	Across Holmes Ave		Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	8
538	Michigan St	Grande Ave	White River Pkwy W Dr	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	11
540	Mickley Ave / Vermont St	Rockville Rd	Eagle Creek	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
515	Missouri St / West St	McCarty St	Washington St	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	9
132	Mitthoeffer Rd	21st St	30th St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	9
180	Mitthoeffer Rd	21st St	38th St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	9
689	Mitthoeffer Rd	Brookville Rd	Prospect St	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
384	Moller Rd	46th St	52nd St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	3
385	Moller Rd	Pike Plaza Rd	46th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
726	Moller Rd	34th St	Ruskin Pl	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	7
759	Moller Rd	Ruskin Pl	Lafayette Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
764	Moller Rd	30th St	34th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	5
92	Monon-Pogues Connector	Monon Trail	Olney St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	8
344	Morris St	Eagle Creek	Tremont St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	4
518	Morris St	Blaine Ave	Harding St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
432	Mud Creek Rd	86th St	96th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	3
170	National Ave	New Jersey St	Shelby St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	5
442	New ROW	Mitthoeffer Rd	N 800 W	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7



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527	New ROW (Rail Trail)	16th St	56th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	9
107	Nickel Plate Trail	Monon Trail	96th St	Greenway	Greenway	Greenway		11
123	Ohio St	College Ave	New York St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	10
611	Ohio St	Koehne St	White River Pkwy W Dr	Active Transportation	Bike	Neighborway	Pedal Indy 2018	5
592	Oliver Ave	Belmont Ave	Harding St	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Bike Lane	Pedal Indy 2018; Indy Moves 2018 Outreach	4
790	Oliver Ave	Harding St	Division St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	4
516	Oliver Ave / McCarty St	Division St	Delaware St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
582	Olney St	21st St	28th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
789	Olver Ave	Warman Ave	Belmont Ave	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	3
748	Oxford St	55th St	56th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	4
732	Paddock Rd	Mooreville Rd	Mills Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
472	Park Ave	Market St	Walnut St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10
546	Parkwood Dr	Crawfordsville Rd	25th St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	8
690	Payne Rd	79th St	Guion Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
444	Pendleton Pike	Mowery St	46th St	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	10
61	Pennsy Trail	Shortridge Rd	German Church Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5
403	Pennsylvania St	71st St	82nd St	Active Transportation	Bike	Neighborway	Pedal Indy 2018; Indy Moves 2018 Outreach	4
512	Pennsylvania St	St Clair St	11th St	Active Transportation	Bike	Protected Bike Lane	Pedal Indy 2018	10
562	Pennsylvania St	South Ave	Hanna Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	8
590	Pershing Ave	Minnesota St	Ray St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	4
95	Pleasant Run Greenway	White River Greenway	Conservatory Dr	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	8
618	Pleasant Run Pkwy N Dr	Conservatory Dr	Beecher St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	9
93	Pogues Run Greenway	Arsenal Technical High School	10th St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	9
62	Pogues Run Trail	Brookside Park	Sherman Dr	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	7
73	Pogues Run Trail	Commerce Ave	Nowland Ave	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	9
441	Post Rd	56th St	59th St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	6



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455	Post Rd	Pennsy Trail	38th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	11
631	Post Rd	Hanna Ave	Pennsy Trail	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
779	Post Rd	Brookville Rd	Indianapolis Word Sports Park	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	4
809	Post Rd	38th St	56th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	11
778	Post Rd / Indianapolis World Sports Park Connector	Rawles Ave	Indianapolis World Sports Park	Complete Streets	Complete Street and Greenway	Unspecified	fullCIRCLE Indy Greenways Master Plan 2014; Indy Thoroughfare Plan 2016	5
8700	Prospect St	Pleasant Run (East of Rail Bridge)		Active Transportation	Walk (Intersection)		Indianapolis/Marion County Pedestrian Plan 2016	3
345	Prospect St	Railroad Trailacks	Southeastern Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	4
906	Prospect St / Morris St	East St	Shelby St	Active Transportation	Bike	Bike Lane	Indy Moves 2018 Outreach	10
412	Ralston Ave / Primrose Ave	42nd St	62nd St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	7
468	Randolph St	Washington St	Michigan St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	9
521	Ray St / Wyoming St / Blaine Ave	Eagle Creek	Morris St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	5
568	Raymond St	White River Pkwy W Dr	Shelby St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	11
682	Raymond St	Southeastern Ave	Mitthoeffer Rd	Complete Streets	Complete Street	Bike Lane	Indy Thoroughfare Plan 2016	6
701	Real St	Monon Trail	Westfield Blvd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	6
445	Richardt Ave	46th St	56th St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	7
692	Riley Hospital Dr	10th St	Waterway Blvd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	9
459	Ritter Ave	10th St	21st St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	9
609	Ritter Ave	21st St	30th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
737	River Crossing Blvd	86th St	River Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8
683	River Rd	River Crossing Blvd	Brandt Rd	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	8
738	River Rd	Crystal Lake Dr	96th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
606	Riverside Dr	Waterway Blvd	30th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
804	Rockville Ave / Holt Rd	Rockville Rd	Morris St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	7
541	Rockville Rd	White Lick Creek	Lynhurst Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	10
657	Rockville Rd	Lynhurst Dr	Rockville Ave	Complete Streets	Complete Street	Bike Lane	Indy Thoroughfare Plan 2016	9
805	Rockville Rd	Rockville Ave	Holt Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
482	Rural St	Hoyt Ave	Southeastern Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8
615	Sanders St	Madison Ave	East St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	7



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220	Shadeland Ave	Washington St	38th St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	13
435	Shadeland Ave / 71st St	Johnson Rd / Fall Creek	Hague Rd / 82nd St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	9
476	Shelby St	Prospect St	Southeastern Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10
901	Shelby St	East St	County Line Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Indy Moves 2018 Outreach	7
572	Shelbyville Rd	Stop 11 Rd	Arlington Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	5
715	Shelbyville Rd	Bancroft St	Arlington Ave	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	6
6500	Sherman Dr	Denwood Dr		Active Transportation	Walk (Intersection)		Indianapolis/Marion County Pedestrian Plan 2016	7
337	Sherman Dr	42nd St	Ashbourne Ln	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	5
479	Sherman Dr	Pleasant Run	30th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	11
581	Sherman Dr	County Line Rd	Little Buck Creek	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8
514	South St	Capitol Ave	New Jersey St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8
105	Southeast Trail	Little Buck Creek Greenway	County Line Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	7
470	Southeastern Ave	Shelby St	Rural St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	9
484	Southeastern Ave	Emerson Ave	Arlington Ave	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	4
585	Southeastern Ave / County Line Rd	Franklin Rd	Southeastway Park	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
491	Southern Ave / Bethel Ave	Churchman Ave	Subway St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	6
716	Southeastern Ave / Emerson Ave	Sherman Dr	Raymond St	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	5
556	Southport Rd	Bluff Rd	Orinoco Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
704	Southport Rd	White River	Belmont Ave	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	4
703	Southport Rd / Camby Rd	Mooreville Rd	Mann Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	4
814	Southport Rd / Southwest Trail	Mann Rd	White River	Complete Streets	Complete Street and Greenway	Multi-Use Path	fullCIRCLE Indy Greenways Master Plan 2014; Indy Thoroughfare Plan 2016	4
97	Southwest Trail	Mann Rd	Kentucky Ave	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	4
98	Southwest Trail	Exploration Dr	Decatur Blvd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	3
480	Spencer Ave / Burgess Ave / Ritter Ave	Fletcher Ave	Bonna Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	4
401	Spring Mill Rd	82nd St	96th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8





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612	St Clair St	Canal	Oriental St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	11
172	State Ave	I-465	Hanna Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
490	State Ave	Troy Ave	Prospect St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	10
365	Stop 10 Rd	Shelby St	Madison Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
571	Stop 10 Rd / Orinoco Ave / Walcott St / Woodcrest Rd / Carson Ave	Sherman Dr	Thompson Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	9
558	Stop 11 Rd	Bluff Rd	Meridian St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	3
661	Stop 11 Rd	Hearthstone Way	Emerson Ave	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	9
781	Stop 11 Rd	Singleton St	Hearthstone Way	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	11
579	Stop 11 Rd / Frye Rd	Emerson Ave	Franklin Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
169	Sumner Ave	New Jersey St	Shelby St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	7
173	Sumner Ave	Shelby St	State Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
136	Sutherland Ave	34th St	38th St	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	7
586	Tacoma Ave	30th St	Fall Creek	Active Transportation	Bike	Neighborway	Pedal Indy 2018	12
747	Tacoma Ave	56th St	58th St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	6
8100	Tarkington Park Intersections			Active Transportation	Walk (Intersection)		Indianapolis/Marion County Pedestrian Plan 2016	9
117	Thompson Rd	East St	Madison Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
356	Thompson Rd	East St	McFarland Rd	Active Transportation	Walk		Indy Moves 2018 Outreach	5
635	Thompson Rd	Emerson Ave	Southeastern Ave	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	8
693	Thompson Rd	Railroad Trailacks	Bluff Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	5
798	Thompson Rd	Shelbyville Rd	Emerson Ave	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	8
799	Thompson Rd	Southeastern Ave	County Line Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
807	Thompson Rd / Shelbyville Rd	McFarland Rd	Bancroft St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
627	Tibbs Ave	Wicker Rd	Southport Rd	Active Transportation	Bike	Neighborway	Pedal Indy 2018	3
389	Township Line Rd	Westlane Rd	86th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	11
904	Township Line Rd / Emily Dr	Brewster Rd	Ditch Rd	Active Transportation	Bike	Neighborway	Indy Moves 2018 Outreach	3



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542	Transfer Dr	Rockville Rd	10th St	Active Transportation	Bike	Bike Lane	Pedal Indy 2018	7
347	Troy Ave	Across Railroad Tracks		Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	5
407	Union Chapel Rd	Shoreway Dr	TownePlace Suites	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	6
212	US-30	County Line Rd	Banta Rd	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	8
85	Vandelia Trail	High School Rd	Eagle Creek	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	9
60	Vandelia Trail / Perimeter Rd / Pierson Dr / High School Dr / Minnesota St / Kentucky Ave / Harding St / Morris St	White Lick Creek	Capitol Ave	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	12
613	Vermont St	Capitol Ave	Alabama St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10
473	Vermont St / Sturm Ave	College Ave	Randolph St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	10
492	Villa Ave	Troy Ave	Raymond St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	4
725	W Kessler Blvd N Dr	30th St	I-65	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016	8
772	W Kessler Blvd N Dr	Questend Dr	Lafayette Rd	Complete Streets	Complete Street	Unspecified	Indy Thoroughfare Plan 2016	9
519	Warman St	Ray St	Victoria St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
201	Washington St	Koehne St	Emerson Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	12
469	Washington St	State Ave	Randolph St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
532	Washington St	Mickley Ave	Tibbs Ave	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Multi-Use Path	Indianapolis/Marion County Pedestrian Plan 2016; Pedal Indy 2018	12
536	Washington St	Eagle Creek	Koehne St	Complete Street Upgrades	Walk/Bike (Incl. Sidewalks)	Multi-Use Path	Indianapolis/Marion County Pedestrian Plan 2016; Pedal Indy 2018	9
784	Washington St	Raceway Rd	Mickley Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	7
785	Washington St	Rochester Ave	Eagle Creek	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	6
810	Washington St	Emerson Ave	County Line Rd	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	10
793	Wast St	Hanna Ave	Madison Ave	Active Transportation	Walk		Indianapolis/Marion County Pedestrian Plan 2016	8
357	Westfield Blvd	83rd St	91st St	Active Transportation	Walk		Indy Moves 2018 Outreach	8
408	Westfield Blvd / 79st St / Union Chapel Rd	75th St	82nd St	Active Transportation	Bike	Neighborway	Pedal Indy 2018	6



PID	On Street Alphabetical Order	From Street	To Street	Project Type	Project Type Detail	Bike Type If Applicable	Project Source	Score
51	Westlane Rd / Northtown Trail	Michigan Rd	Spring Mill Rd	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	10
86	White Lick Creek Greenway	White Lick Cree	Crawfordsville RD	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	5
87	White Lick Creek Greenway	Country Club Rd	Robey Park	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	3
88	White Lick Creek Greenway	E County Rd 600 S	B&O Railroad Trailacks	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	6
72	White River Greenway	Across 10th St		Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	9
96	White River Greenway	Southport Rd	Raymond St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	6
89	White River Greenway Connector	White River	25th St	Greenway	Greenway	Greenway	fullCIRCLE Indy Greenways Master Plan 2014	7
594	White River Pkwy W Dr	Washington St	West New York St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
607	White River Pkwy W Dr / Lafayette Rd	10th St	18th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	11
372	Wilson Rd / Fishback Rd	Raceway Rd / 82nd St	Lafayette Rd	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	4
620	Worcester Ave	Fletcher Ave	Farrington Ave	Active Transportation	Bike	Neighborway	Pedal Indy 2018	3
374	Zionsville Rd	62nd St	86th St	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018	7
662	Zionsville Rd	86th St	Technology Center Dr	Complete Streets	Complete Street	Multi-Use Path	Indy Thoroughfare Plan 2016; Indy Moves 2018 Outreach	6
733	Zionsville Rd	Technology Center Dr	Nuttall Oak Dr	Complete Street Upgrades	Multi-Use Path	Multi-Use Path	Pedal Indy 2018; Indy Moves 2018 Outreach	3



Indy Moves

## **Appendix E: Funding Sources**

**October 2018**









## INTRODUCTION

Funding the Indy Moves capital projects will take a coordinated effort of local, state, federal, and private partners and funding sources. While many transportation funding sources are competitive, Indianapolis has historically been quite successful and can continue this trend by aligning projects with the funding sources for which they are best suited. Taking a creative approach to leveraging multiple funding sources and collaborating with partners will allow Indianapolis to build priority projects and implement new programs.



Source: City of Indianapolis

### Funding Example: Indianapolis Cultural Trail

The Indianapolis Cultural Trail: A Legacy of Gene and Melinda Glick is a prime example of public-private partnership leveraging multiple funding sources to bring a vision for a transportation and community asset to life. With a total project cost of \$63 million (including a \$6 million maintenance endowment), private funding totaled \$27.5 million, and public funding (federal grant money) totaled \$35.5 million. Funding was compiled from the following sources: the Central Indiana Community Foundation (CICF), private donors, a federal TIGER grant (\$20.5 million), the City of Indianapolis tax increment financing revenues, and several not-for-profit organizations. No local tax dollars were used.

Aligned with Indy Moves goals to leverage transportation investments as a tool for economic development, the Indiana University Public Policy Institute found that property assessments within approximately one block of the eight mile Indianapolis Cultural Trail have increased 148% since 2008, an increase of \$1 billion in assessed property value.<sup>1</sup> The trail has catalyzed investment with new developments and businesses opening throughout the cultural districts along the trail.

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<sup>1</sup> <http://indyculturaltrail.org/impact/>



This appendix provides information on funding sources at the local, private, state, and federal level. The table below lists these funding sources.

Category	Funding Source
Local	<ul style="list-style-type: none"> <li>Local City Funds <ul style="list-style-type: none"> <li>Gas Tax</li> <li>Motor Vehicle Highway Tax (MVH)</li> <li>Local Road and Street Tax (LRS)</li> <li>Wheel Tax</li> <li>Cumulative Funds</li> <li>Other Fees and Collections</li> </ul> </li> <li>Income Tax</li> <li>Indianapolis Regional Transportation Improvement Program (IRTIP) (Federal funding administered locally by Indianapolis MPO)</li> <li>Tax Increment Financing</li> <li>Municipal Bonds</li> </ul>
Private	<ul style="list-style-type: none"> <li>Public Benefits Agreements</li> <li>Central Indiana Community Foundation (CICF)</li> <li>Economic Improvement Districts</li> </ul>
State	<ul style="list-style-type: none"> <li>Community Crossings Matching Grants</li> <li>Safe Routes to School (Federal funding administered by State)</li> <li>Recreational Trails Program (Federal funding administered by State)</li> <li>Highway Safety Improvement Program (Federal funding administered by State)</li> </ul>
Federal	<ul style="list-style-type: none"> <li>Transportation Infrastructure Finance and Innovation Act (TIFIA)</li> <li>Infrastructure for Rebuilding America (INFRA)</li> <li>Community Development Block Grants</li> <li>BUILD Grants</li> </ul>

## LOCAL FUNDING SOURCES

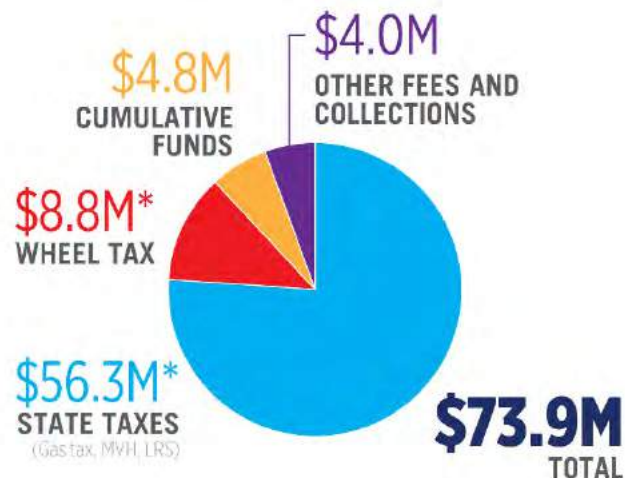
### Local City Funds

#### What is it?

Local city funds include funding from the city's annual budget and revenue sources. These funds come from a combination of state taxes distributed locally (Gas Tax, MVH, and LRS), as well as the local Wheel Tax, Cumulative Funds, and other fees.

#### What is it useful for?

Operations and maintenance; pilot projects; high priority projects.



\*Will be modified in future years due to HEA 1002

Note: Indianapolis receives an average of \$21M in federal funding for transportation each year.



#### ***Further Information:***

For some projects or programs, the use of general fund dollars may be appropriate, particularly for projects that are operational in nature, lower cost, or a high priority for implementation. City funds can also be used to incorporate elements of priority Capital Plan projects as part of other project construction, such as leveraging planned investments in roadway maintenance.

One drawback with gas revenues is that they decrease as fuel efficiency increases. While fuel efficiency has its own benefits (e.g., air quality), this can present a challenge in terms of financial sustainability.

## **Income Tax**

#### ***What is it?***

One-quarter percent income tax for transit system expansion.

#### ***What is it useful for?***

Projects that include transit-supportive infrastructure for planned routes and stops.

#### ***Further Information***

Indianapolis City-County Council recently approved a 0.25% income tax increase that will fund expansion and improvements to the county's transit system. Many of the high priority capital projects identified in Indy Moves are intended to upgrade streets (some with existing bus service) to more safely, and efficiently accommodate all modes. The city could partner with IndyGo to leverage income tax funds for transit improvements by coordinating and contributing funds for holistic Complete Streets upgrades along the same corridors.

## **Indianapolis Regional Transportation Improvement Program (IRTIP)**

#### ***What is it?***

Projects selected by the Indy MPO's governing body, the Indianapolis Regional Transportation Council, to receive funds from various federal transportation funding programs.

#### ***What is it useful for?***

Projects on collector roads (or higher in federal functional classification), that address congestion, air quality, safety, or transportation alternatives.

#### ***Further Information***

Every two years, the Indianapolis Regional Transportation Improvement Program (IRTIP) selects projects proposed by local governments and transit agencies to receive federal funds. The goal of the IRTIP is to support local agencies in providing a coordinated transportation system by funding projects most aligned with Long Range Transportation goals. Projects in the Indy Moves Capital Plan could qualify IRTIP funds through the Congestion Mitigation Air Quality Program, Highway Safety Improvement Program, and Surface Transportation Program.



## **Tax Increment Financing**

### ***What is it?***

Dedicated proportion of property taxes within a specific area to service debt based on an investment in that area.

### ***What is it useful for?***

Projects that anticipate an increase in property taxes in their immediate surroundings.

### ***Further Information***

By issuing bonds to cover transportation infrastructure investment, local governments can then service their debt through a dedicated portion of property taxes from the investment area. This strategy—called tax increment financing (TIF)—may be a good funding strategy for projects that promise to help increase property taxes in their immediate area. Indianapolis already oversees 25 TIF districts comprising 15,087 parcels, and has used TIF revenues to fund transportation projects that are within or directly benefit the TIF. TIFs are established and managed per State Code by the Metropolitan Development Commission with City-County Council approval.

## **Municipal Bonds**

### ***What is it?***

Loans against future revenue streams, such as sales, property, or special assessment district taxes.

### ***What is it useful for?***

Long lifespan projects with a broad benefit to Indianapolis.

### ***Further Information***

In addition to TIF bonds, Indianapolis could borrow against other future tax revenue streams, such as sales, property, or special assessment district taxes. These tax levies can be proposed to construct specific projects or to contribute to Indianapolis' or Marion County's transportation fund.

## **PRIVATE FUNDING SOURCES**

### **Public Benefits Agreements**

#### ***What is it?***

Negotiated agreements for developers to provide benefits to the public.

#### ***What is it useful for?***

Localized projects in areas experiencing significant private development, e.g., sidewalks adjacent to new apartments.

#### ***Further information***

Many cities, including Indianapolis, negotiate public benefits agreements on a case-by-case basis to specify the standards and conditions that will govern development of a property. As new developments are proposed, the city can negotiate with developers to contribute toward or build multimodal improvements.





## **Central Indiana Community Foundation (CICF)**

### ***What is it?***

Grant awarding foundation aiming to support equity, the creation of vibrant places, and initiatives to attract visitors and businesses to Central Indiana

### ***What is it useful for?***

Projects that align with the foundation's goals.

### ***Further Information***

CICF is a charitable foundation stewarding \$800 million in assets with the mission grant funds to efforts supporting equity, the creation of vibrant places, and initiatives to attract visitors and businesses to Central Indiana. A partner in the development of the Indianapolis Cultural Trail, Indy should continue partnership with CICF to fund improvements or invest in programs improving safety, mobility choices, and access to opportunity for vulnerable populations or in areas of Indy that have seen historic under-investment. Partnership with CICF could also support neighborhood business districts where improved multimodal infrastructure could catalyze local economic development.

## **Economic Improvement Districts (EIDs)**

### ***What is it?***

Economic Improvement Districts are geographic zones that collectively contribute to shared maintenance, development, and other activities. These are typically formed at the level of a neighborhood, such as a retail street or downtown area.

### ***What is it useful for?***

From a transportation perspective, Economic Improvement Districts are useful for locally beneficial investments that may not otherwise be possible from typical sources, including streetscape improvements and maintenance.

### ***Further Information***

In order to establish an EID, a geographic area must collect a petition from 60% of local property taxpayers within 120 days.

Because EIDS Economic Improvement Districts are in a sense voluntary, the benefits typically accrue locally. Therefore, they are typically not a suitable source of funding for large-scale regional projects.

## **STATE FUNDING SOURCES**

### **Community Crossings Matching Grants**

#### ***What is it?***

INDOT matching grants (50%) for road and bridge projects that catalyze economic development, strengthen transportation networks, and create jobs.

#### ***Why is it important?***

Projects that include a roadway or bridge component for which matching funds exist.



#### ***Further information***

A partnership between Hoosier communities and the Indianapolis Department of Transportation (INDOT), the Community Crossings grant program provides up to a 50% match for projects that catalyze economic development, strengthen transportation networks, and create jobs. The grants are administered and paid for by INDOT and are eligible only for roadway or bridge projects. Grants are capped at \$1m per year for each local government.

## **Safe Routes to School**

#### ***What is it?***

INDOT matching grants (80%) up to \$250K to improve walking and biking connections to schools.

#### ***Why is it important?***

Lower cost projects that include a walking or biking improvement near schools.

#### ***Further information***

INDOT administers the Safe Routes to School matching grant program, funded within Indiana's federal Transportation Alternatives set-aside. Projects must be under \$250,000, with at least 20% of their cost matched from other sources, and must demonstrate an ability to improve walking and biking connections to schools.

## **Recreational Trails Program**

#### ***What is it?***

Indiana Department of Natural Resources (DNR) matching grants (80%) for the construction of multi-use paths and greenways.

#### ***Why is it important?***

Projects that include a multi-use path or greenway.

#### ***Further information***

Administered by the Indiana DNR, the Recreational Trails Program is a matching grant program of federal Transportation Alternatives set-aside funds. The program supports the construction of multi-use paths and greenways with a 20% local match.

## **Highway Safety Improvement Program**

#### ***What is it?***

INDOT funding source for pedestrian or bike projects aimed at reducing traffic fatalities and serious injuries on public roads.

#### ***Why is it important?***

Projects that include a bike or pedestrian component, including multi-use paths, in or near high crash areas.



#### ***Further information***

The Highway Safety Improvement Program (HSIP) is a core federal-aid program that aims to reduce traffic fatalities and serious injuries on public roads. HSIP funds can be used for bike lane or sidewalk projects on local roadways, improvements to Class I multi-use paths, or for traffic calming measures. Applications must identify a history of collisions and demonstrate a project's safety improvements. Administered by INDOT every two years, HSIP is a potential funding source for Indy Moves projects that improve roadway conditions in high crash locations.

## **FEDERAL FUNDING SOURCES**

While federal funding sources typically offer the largest monetary awards of public funding sources, there is considerable uncertainty concerning the structure of federal investment, including in specific programs currently available at the time of writing (Fall 2018). As such, the programs described below may be subject to change.

### **Transportation Infrastructure Finance and Innovation Act (TIFIA)**

#### ***What is it?***

Secured loans, loan guarantees, and standby lines of credit for large surface transportation projects.

#### ***Why is it important?***

Large multimodal projects.

#### ***Further information***

TIFIA is credit assistance program designed to fill market gaps and leverage private investment for large-scale surface transportation projects. Highway, transit, railroad, intermodal freight, port access, and intelligent transportation systems (ITS) are eligible for assistance. TIFIA provides credit assistance in the form of secured loans, loan guarantees, and standby lines of credit. A combined \$600 million of TIFIA funds have been authorized for fiscal years 2019 and 2020.

### **Infrastructure for Rebuilding America (INFRA)**

#### ***What is it?***

Dedicated, discretionary funding for projects that address critical issues facing highways and bridges (\$5M+ and \$25M+ categories).

#### ***Why is it important?***

Projects that include a highway or bridge component in a critical state of repair.

#### ***Further information***

The INFRA grants program provides dedicated, discretionary funding for projects that address critical issues facing highways and bridges throughout the United States. As June 2018 the USDOT proposed nearly \$1.5 billion in INFRA grants awarded to a combination of large (at least \$25 million) and small (at least \$5 million) projects.



## **Community Development Block Grants**

### ***What is it?***

Housing and Urban Development (HUD) funding source for low and moderate income communities to address a wide range of community development and public infrastructure needs.

### ***Why is it important?***

Projects in low-income areas.

### ***Further information***

Funded by the U.S. Department of Housing and Urban Development (HUD), Community Development Block Grants (CDBG) are administered by HUD and the City of Indianapolis Department of Metropolitan Development (except for areas of Marion County within an excluded city, which are administered by the Indiana Office of Community and Rural Affairs (OCRA). CDBG is a flexible program that provides communities where residents are at least 51% low- or moderate-income with funding to address a wide range of community development and public infrastructure needs.

## **Better Utilizing Investments to Leverage Development (BUILD) Grants**

### ***What is it?***

United States Department of Transportation grants for repair and construction of projects that support freight and passenger transportation (formerly TIGER).

### ***Why is it important?***

Projects that involve passenger transportation or freight corridors.

### ***Further information***

Offered by the U.S. Department of Transportation (DOT), BUILD grants are available for repair and construction of projects that support freight and passenger transportation. Formerly known as TIGER grants, BUILD applications are open to any public entity and can support multimodal projects.