

# Maps for People Who Walk and Bike



## Grand Region Pedestrian and Bicycle Committee Meeting

Thursday, October 29, 2015

Norman Cox, PLA, ASLA

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**The Greenway  
Collaborative, Inc.**



# The Basics

- Walking ≠ Bicycling
  - Vastly different trip distances and scales
- Purpose
  - Sell a concept
  - Trip planning
  - Navigating
  - Education
  - Marketing
- Audience
  - General public
  - Expert



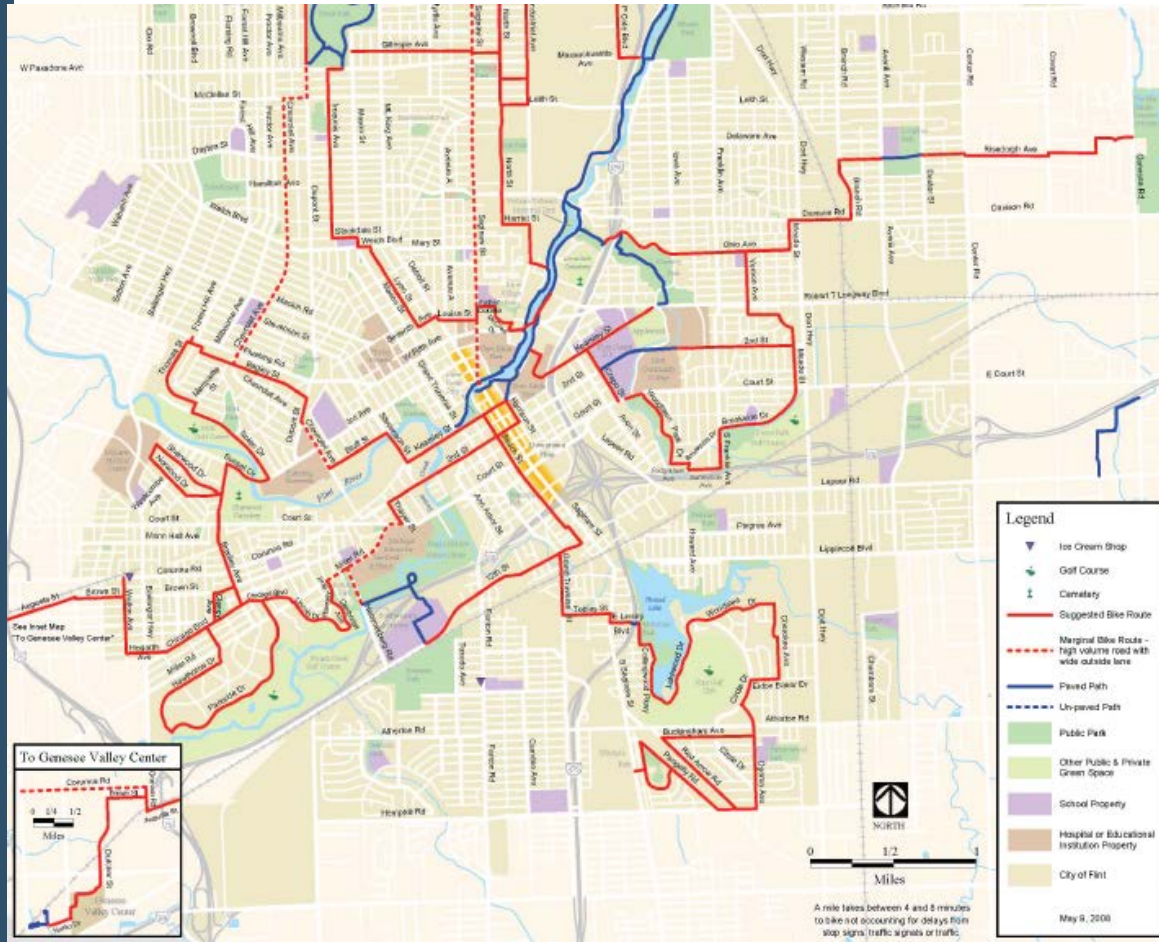
Maps lie – they distort the real world to promote a particular point of view

A good map has an aesthetic appeal that manipulates the reader into seeing the world from the map's perspective



# Two General Types of Maps

- Prescriptive
  - Go here; trust me 😊
  - One size fits all
  - Simple and easy to understand
- Informational
  - This is what is here
  - You decide based on current conditions and your skills
  - Complex and can be overwhelming
  - May not have much to show



Also hybrid maps

Your liability may increase the more prescriptive the map is



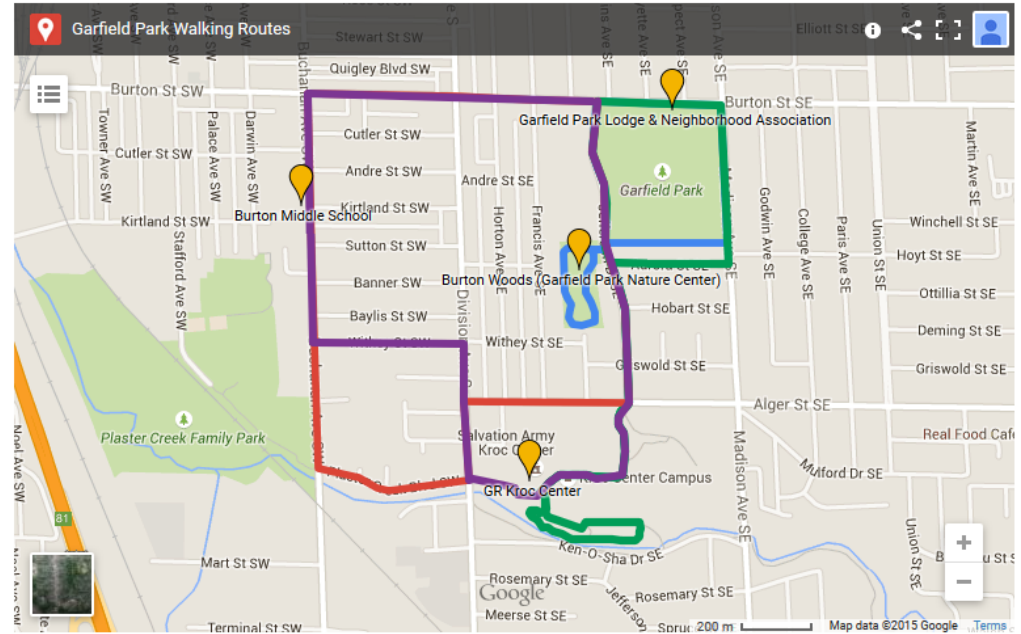
# Digital vs. Printed

- Print

- One scale
- Ultimate control of medium
- Doesn't run out of batteries
- Short useful life

- Digital

- Can be unlimited scale
- Limited control of medium
- Something unexpected will happen
- Easy to update
- Constantly changing



PDF Map (English)

PDF Map (Español)

You can print a digital map and post a printed map on-line

Both have their place – don't see either going away





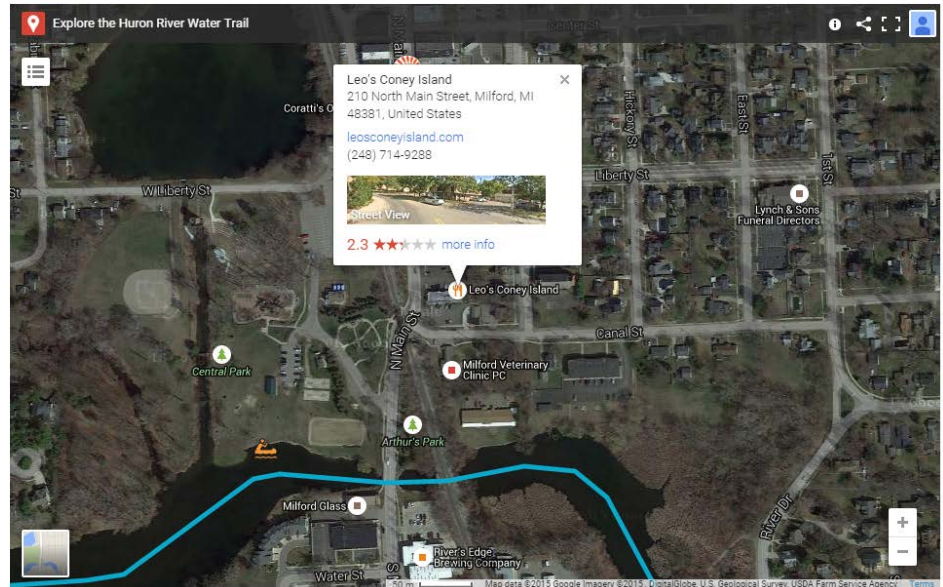
## Kiosk Version



## Web Page Version



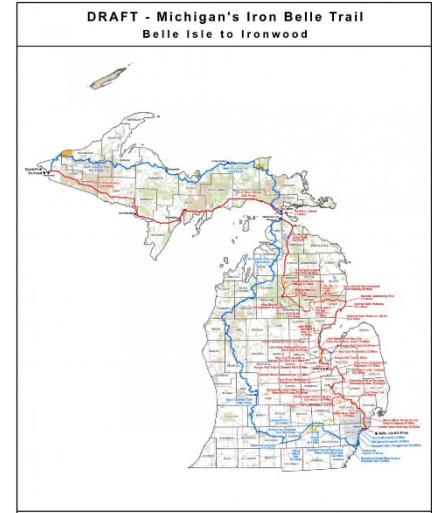
## Google Maps Version



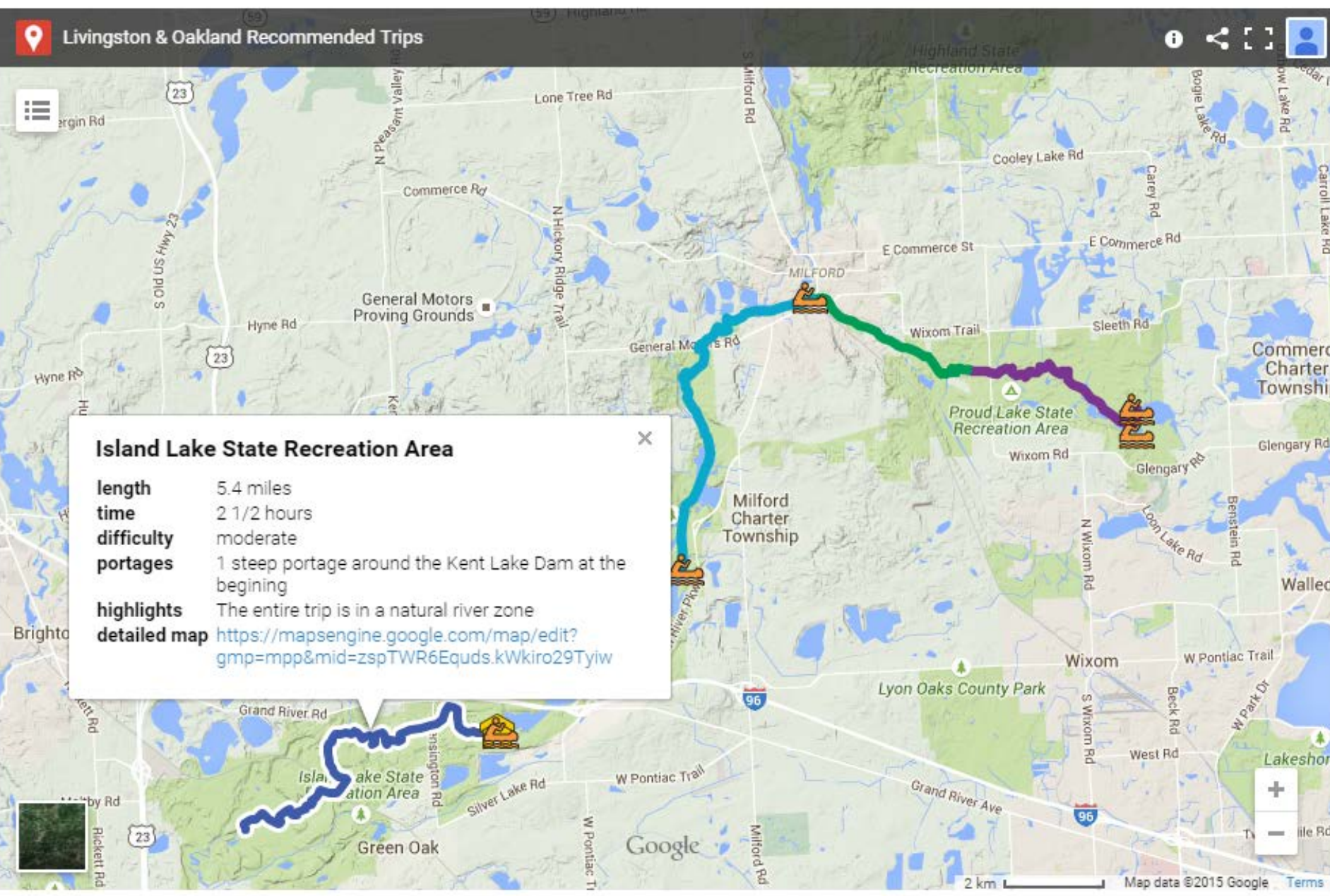


# Scale is Everything

- So where are you walking or biking to?
- Can you see to the level you need to make a decision
- Maps are designed for different uses and may be sequential
  - An overview may help you pick a route or tour
  - A detailed map may help you navigate the actual route







### Island Lake State Recreation Area

- length** 5.4 miles
- time** 2 1/2 hours
- difficulty** moderate
- portages** 1 steep portage around the Kent Lake Dam at the beginning
- highlights** The entire trip is in a natural river zone
- detailed map** <https://mapsengine.google.com/map/edit?gmp=mpp&mid=zspTWR6Equds.kWkiro29Tiyw>





## Island Lake State Recreation Area

5.4 miles, 2.5 hours, 1 portage  
Click on river segments of map features for more information.  
[more](#)

All changes saved in Drive

Add layer Share

### Features

Stylized by Feature

- Launch (4)
- Campground (1)
- Dam (1)
- Hazard (1)
- Livery (1)

### Island Lake State Recreation Area

Stylized by description

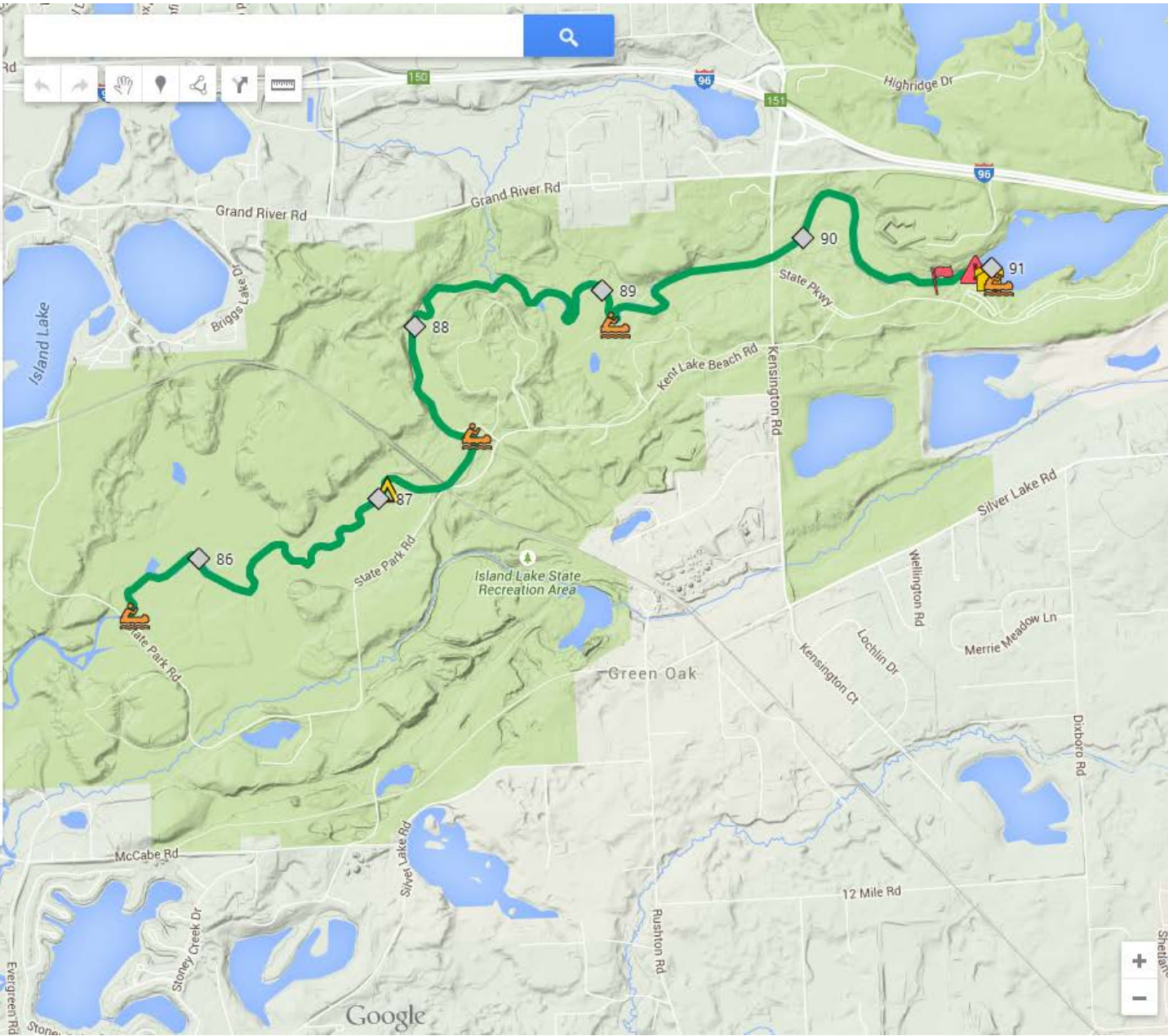
- Natural River Zone (4)
- Portage (1)

### Mile Markers

Uniform style

- All items (6)

### Base map





## Island Lake State Recreation Area

5.4 miles, 2.5 hours, 1 portage

Click on river segments of map features for more information.

[more](#)

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### Features

Styled by Feature

Launch (4)

Campground (1)

Dam (1)

Hazard (1)

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### Island Lake State Recreation Area...

Styled by description

Natural River Zone (4)

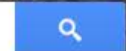
Portage (1)

### Mile Markers

Uniform style

All items (6)

### Base map



## Heavner Canoe & Kayak Rental - Island Lake

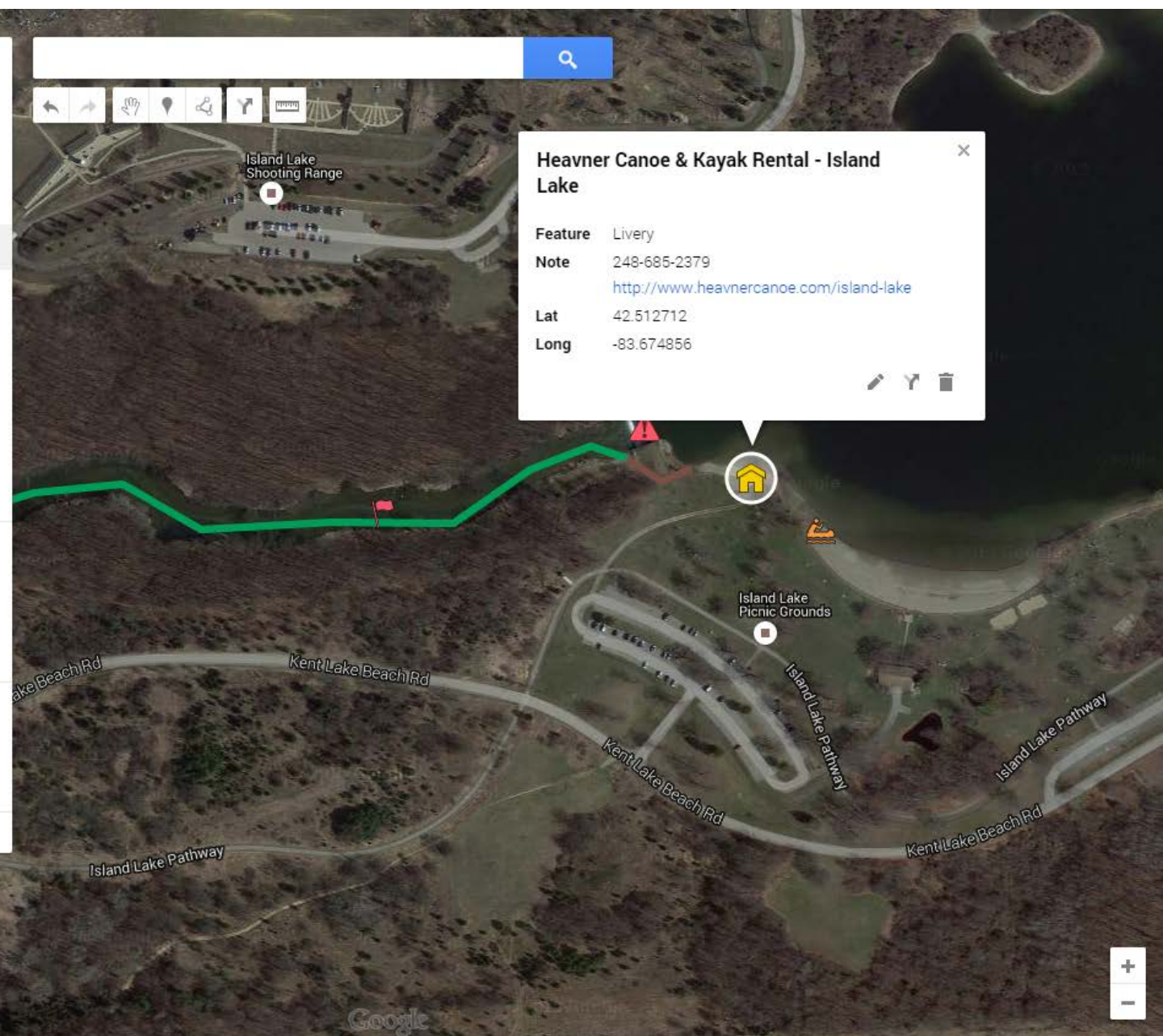
**Feature** Livery

**Note** 248-685-2379

<http://www.heavnercanoe.com/island-lake>

**Lat** 42.512712

**Long** -83.674856



Google

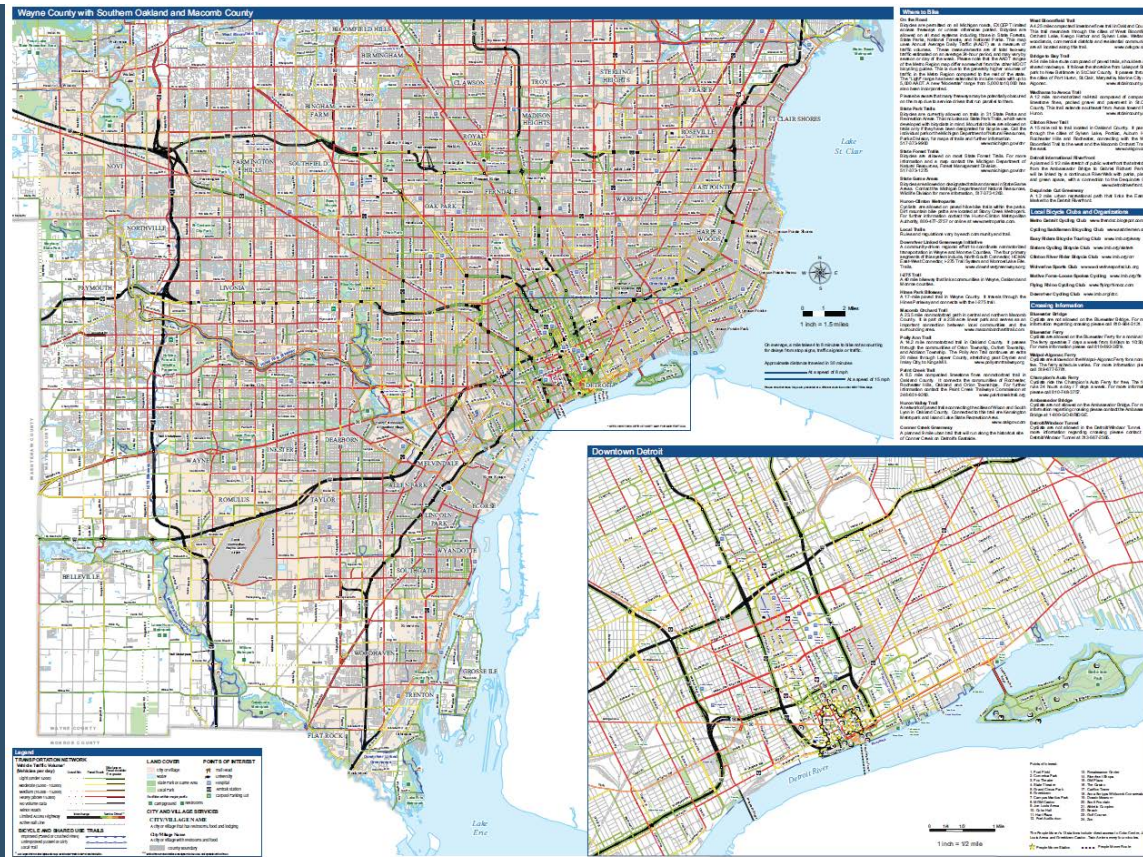






# MDOT Regional Bike Maps

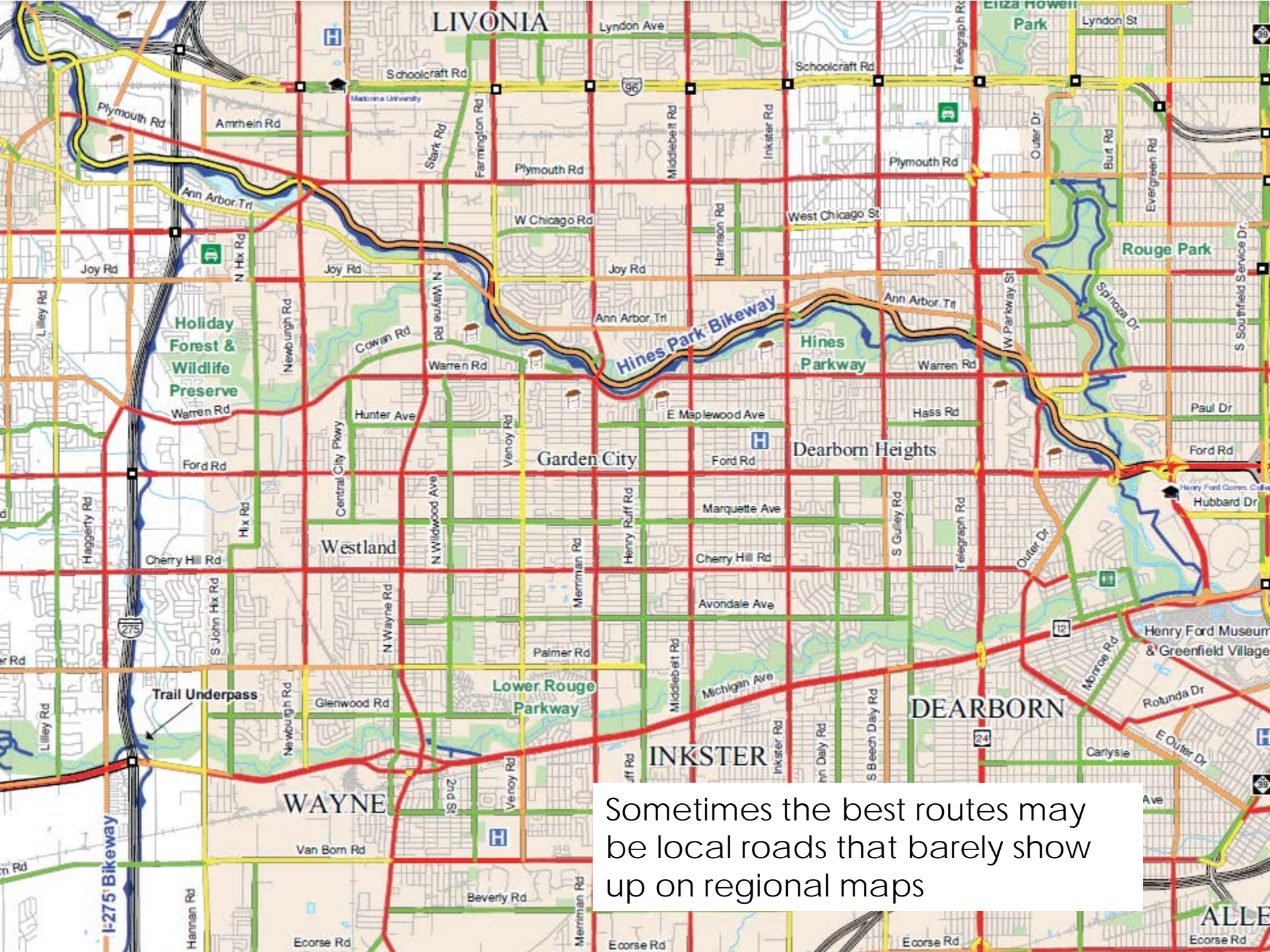
- Informational
- Requires sourcing a number of different GIS datasets
- Challenging to maintain
- Dual purpose map
  - Promote bicycling
  - Identify gaps
- Uses “stop light” color scheme to for traffic



Is a multi-county map really a useful scale for navigation by bicycle?

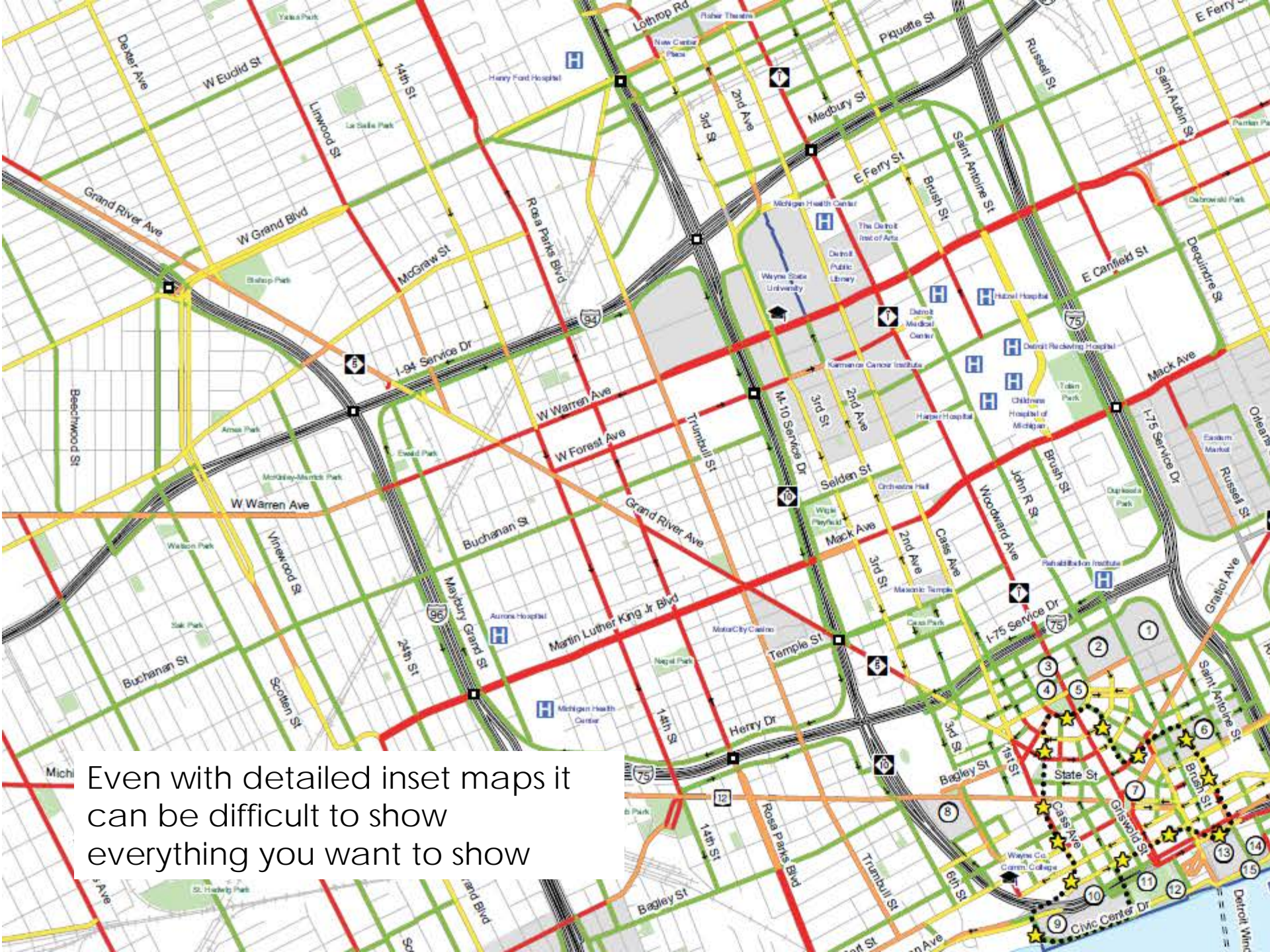
NO! Better for trip planning and a foundation for planning





Sometimes the best routes may be local roads that barely show up on regional maps





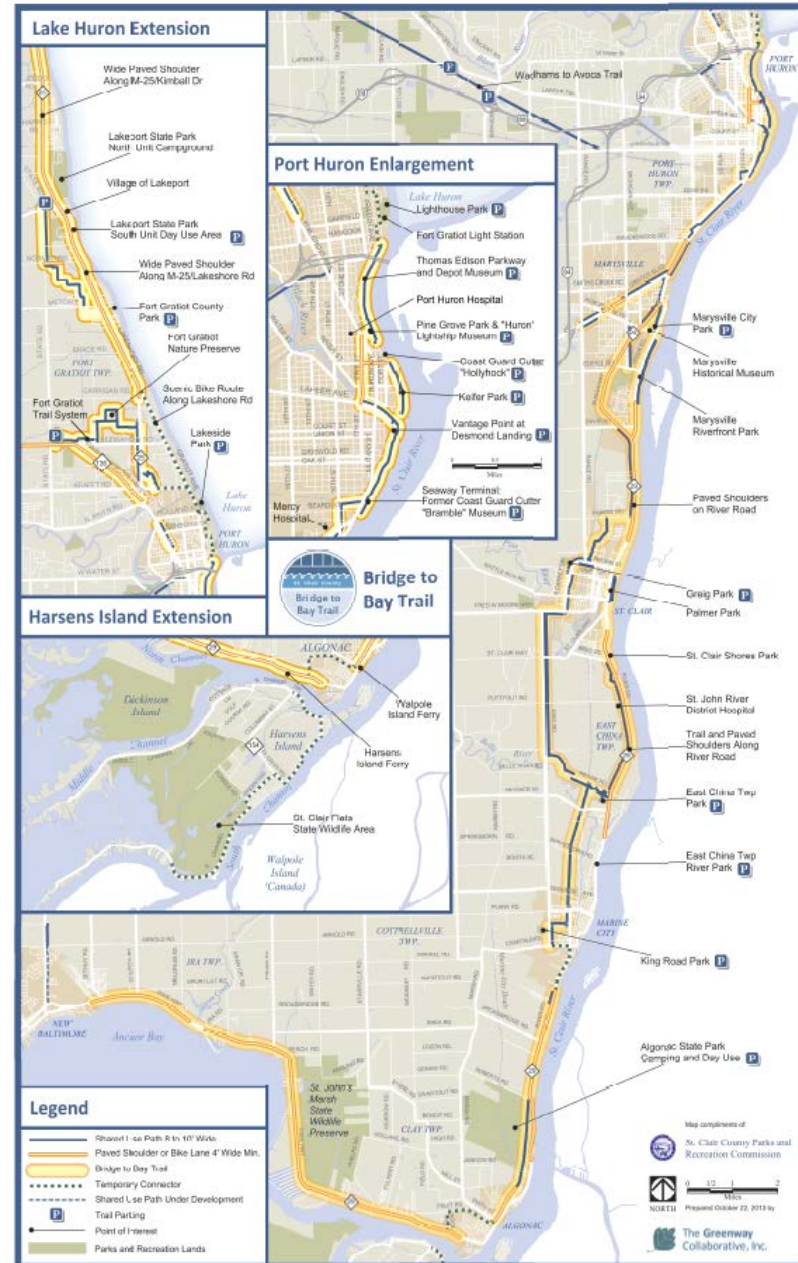
Even with detailed inset maps it can be difficult to show everything you want to show





# St. Clair Bridge to Bay Trail

- Needs to show the existing trail and suggested routes where there is a gap in the trail
- Also highlights points of interest along the way
- Is a county too large a scale to be useful when it comes to navigating?
  - Probably
  - Would require a large map



# Lake Huron Extension



# Port Huron Enlargement

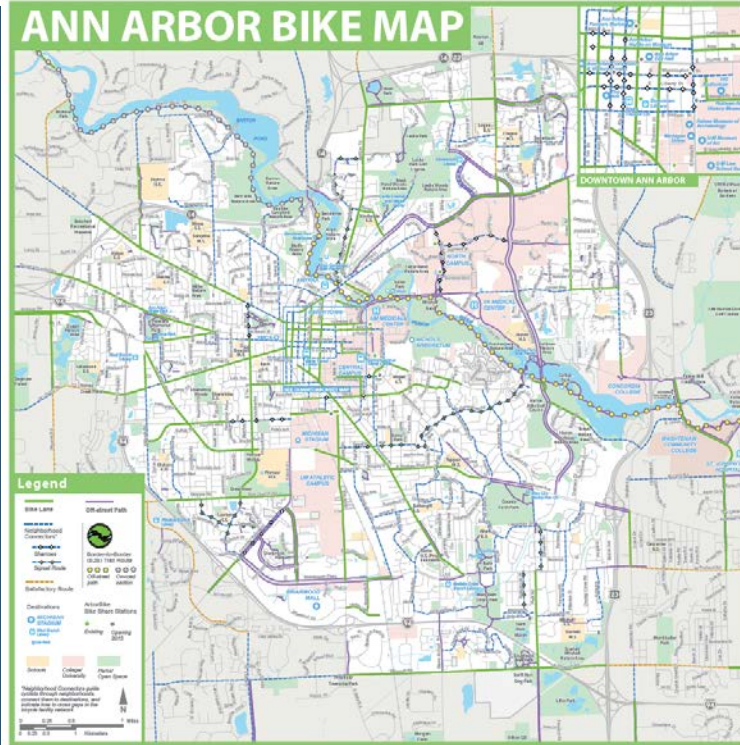




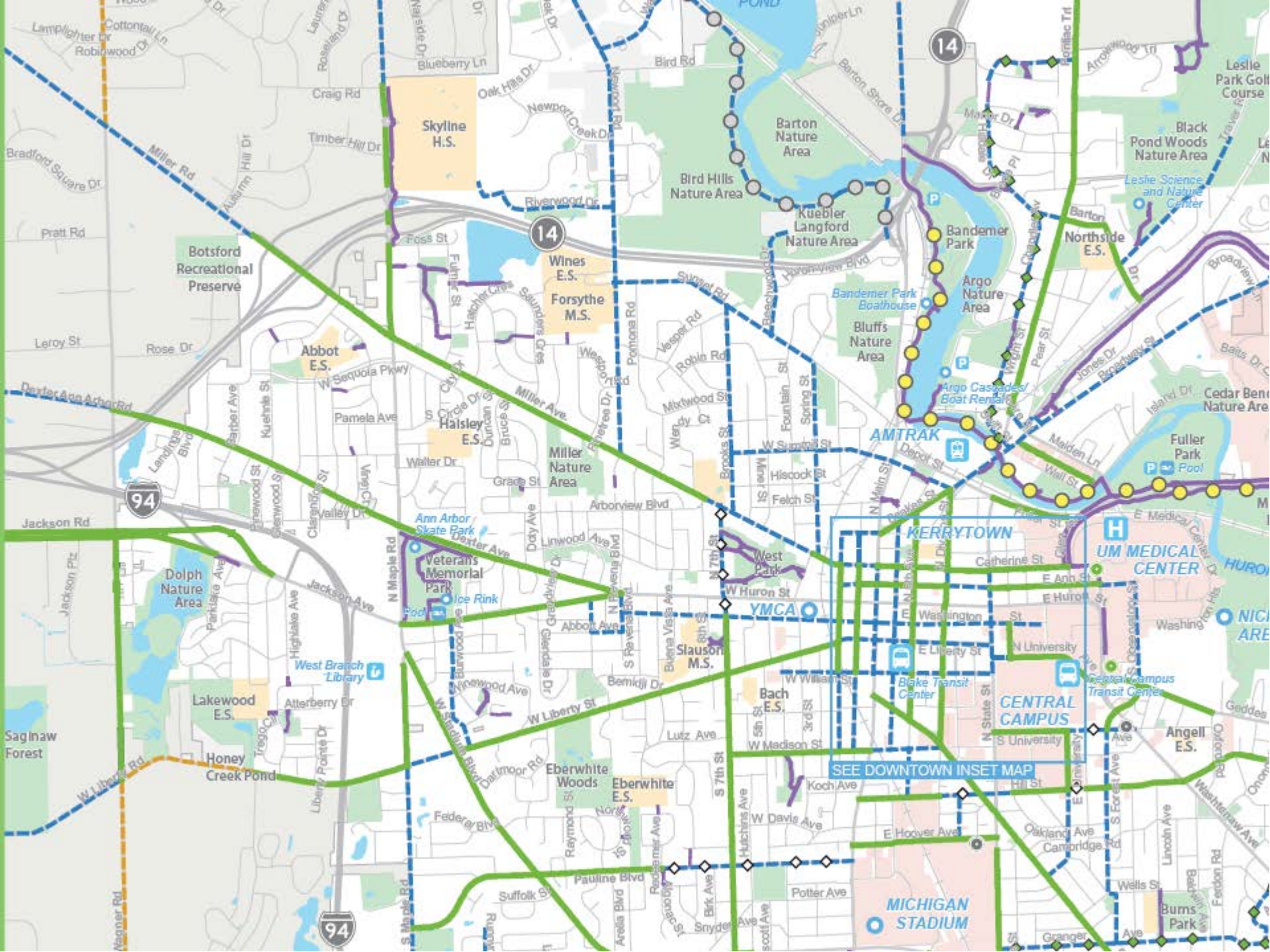


# City of Ann Arbor

- Brand new!
- Informational map
- City scales on the front and county on the back
- Would you hang this on the wall in your back hall?
  - Nice map for other things as well
- Is it useful to plot out a route to an unfamiliar destination?
- Would you carry this with you when you bike around town?







Skyline H.S.

Wines E.S.  
Forsythe M.S.

Abbot E.S.

Haisley E.S.

Miller Nature Area

Ann Arbor Skate Park  
Veterans Memorial Park  
Ice Rink

Lakewood E.S.

Eberwhite Woods  
Eberwhite E.S.

SEE DOWNTOWN INSET MAP

MICHIGAN STADIUM

KERRYTOWN

UM MEDICAL CENTER

AMTRAK

YMCA

Slauson M.S.

CENTRAL CAMPUS

Central Campus Transit Center

Angell E.S.

Burns Park

Barton Nature Area

Bird Hills Nature Area

Kuebler Langford Nature Area

Bandemer Park  
Bandemer Park Boathouse

Bluffs Nature Area

Argo Nature Area  
Argo Cascades Boat Rentals

Northside E.S.

Fuller Park Pool

NICK ARE

Weatherman Ave

Ferdon Rd

Granger Ave

14

14

94

94

Lamp/lighter Dr  
Cottonail Ln  
Robinwood Dr

Bradford Square Dr  
Pratt Rd

Leroy St  
Rose Dr

Jackson Rd

Saginaw Forest  
Honey Creek Pond

Wagner Rd

Timber Hill Dr

W Sequoia Pkwy

Jackson Ave

Atterberry Dr

Liberty Pointe Dr

Oak Hills Dr

Riverwood Dr

W Circle Dr

N Maple Rd

W Liberty St

S Maple Rd

Newport Creek Dr

Foss St

Walter Dr

Day Ave

W Liberty St

Suffolk St

Bird Rd

Sunset Rd

Arborview Blvd

Linwood Ave

Raymond St

Pauline Blvd

Barton Shore Dr

Huron View Blvd

W Huron St

W Huron St

W Huron St

W Huron St

Beaumont Dr

Wesport Rd

Arborview Blvd

Linwood Ave

Raymond St

Pauline Blvd

Wesport Rd

Wesport Rd

Arborview Blvd

Linwood Ave

Raymond St

Pauline Blvd

Wesport Rd

Wesport Rd

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Pauline Blvd

Wesport Rd

Wesport Rd

Arborview Blvd

Linwood Ave

Raymond St

Pauline Blvd

Wesport Rd

Wesport Rd

Arborview Blvd

Linwood Ave

Raymond St

Pauline Blvd





# Springboro Pocket Bike Map

- Size of a Credit Card
- Hybrid Prescriptive and Informational Map
- Designed for easy access and reference while on a bike ride
  - Small, not too hard to handle in the wind
  - Cheap – not a big deal to update, city is adding new facilities each year
- Will complement signed bike route system

**CITY OF SPRINGBORO BIKING IN THE BORO**

**SUGGESTED BIKE ROUTES:**

- High Traffic Road: Steep Incline, Bike Lane, Sharrow
- Moderate Traffic Road: Bike Lane, Sharrow
- Low Traffic Road: Bike Lane, Sharrow
- Off-Road Shared-use Path: Anticipated Completion

**POINTS OF INTEREST:**

- Signalized Intersection
- SPARC and GO
- City Boundary
- Parks & Recreation
- Schools

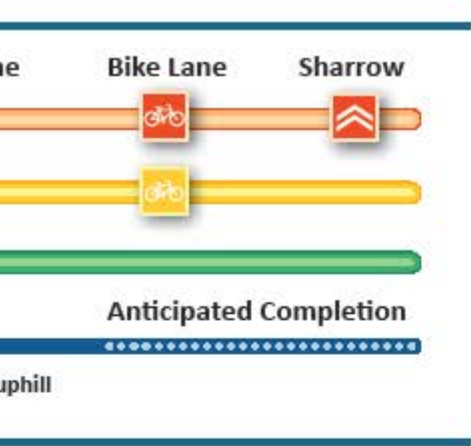
**BIKE LANES**  
Designated lane for bicycles to travel in the same direction as motor vehicles. Pavement striping, markings and signs are used to identify the lane. When riding on a street, a striped bike lane is usually the safest place for a cyclist to ride.

**SHARROWS**  
Pavement marking that indicate that both cars and bikes should share the roadway. Sharrows show the recommended lane position for bicyclists and tell motorists to expect bicycles in the road.

**SPARC AND GO**  
Resource centers for bikes that include access to public restrooms, drinking fountains, bike racks, a tool stand and bike pump, maps, and bicycle information, a wi-fi connection, a battery recharge station and covered shelter. Open seasonally.



Uses a graphic legend



Designated lane for bicycles to travel in the same direction as motor vehicles. Pavement striping, markings and signs are used to identify the lane. When riding on a street, a paved bike lane is usually the safest option for a cyclist to ride.

Pavement markings that indicate where both cars and bikes should travel in the roadway. Sharrow shows the recommended lane position for a cyclist.

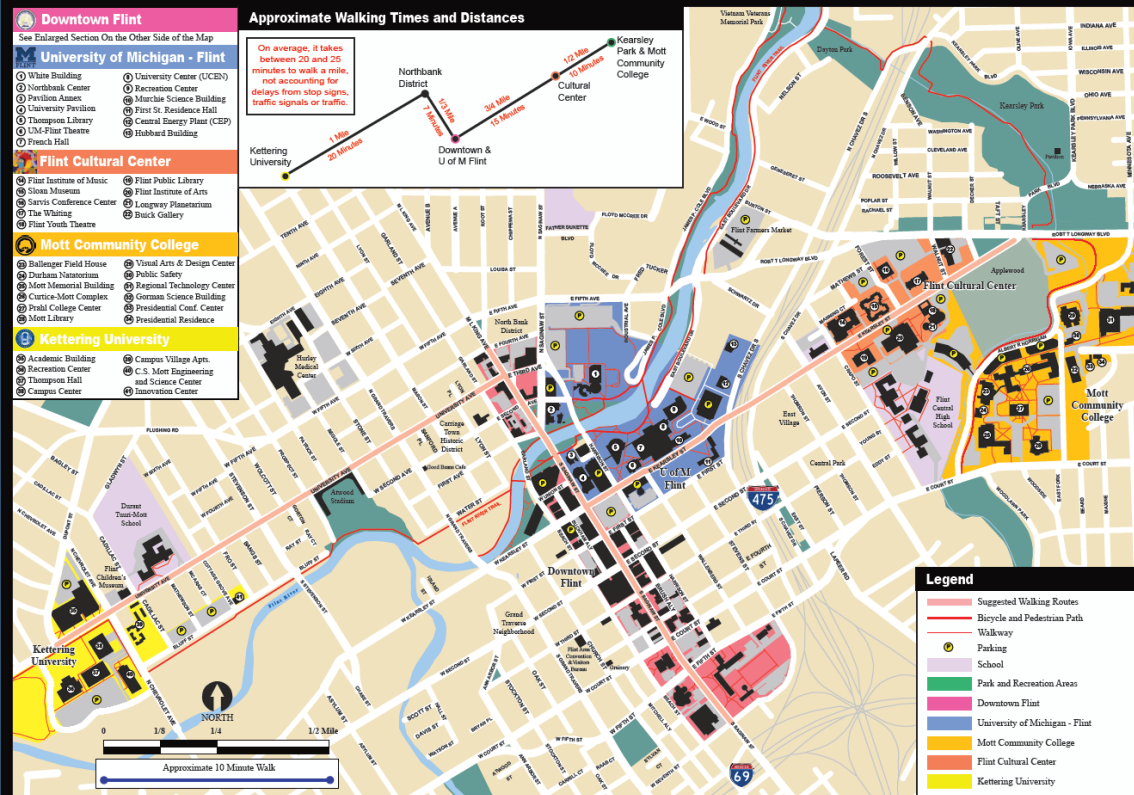
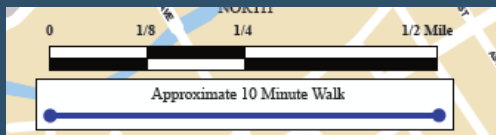




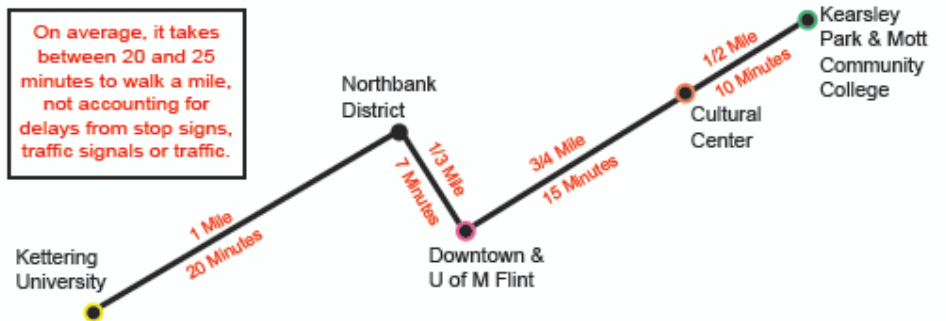


# Downtown Flint Walking Map

- Purpose was to show people that all of the key destinations are actually within walking distance
- Also wanted to promote local businesses
- Highlights key destinations
- Color coded by district
- Provides walking times and distances for each segment of the recommended route



## Approximate Walking Times and Distances





Flint C

Flint  
Centra  
High School

U of M  
Flint

Downtown  
Flint

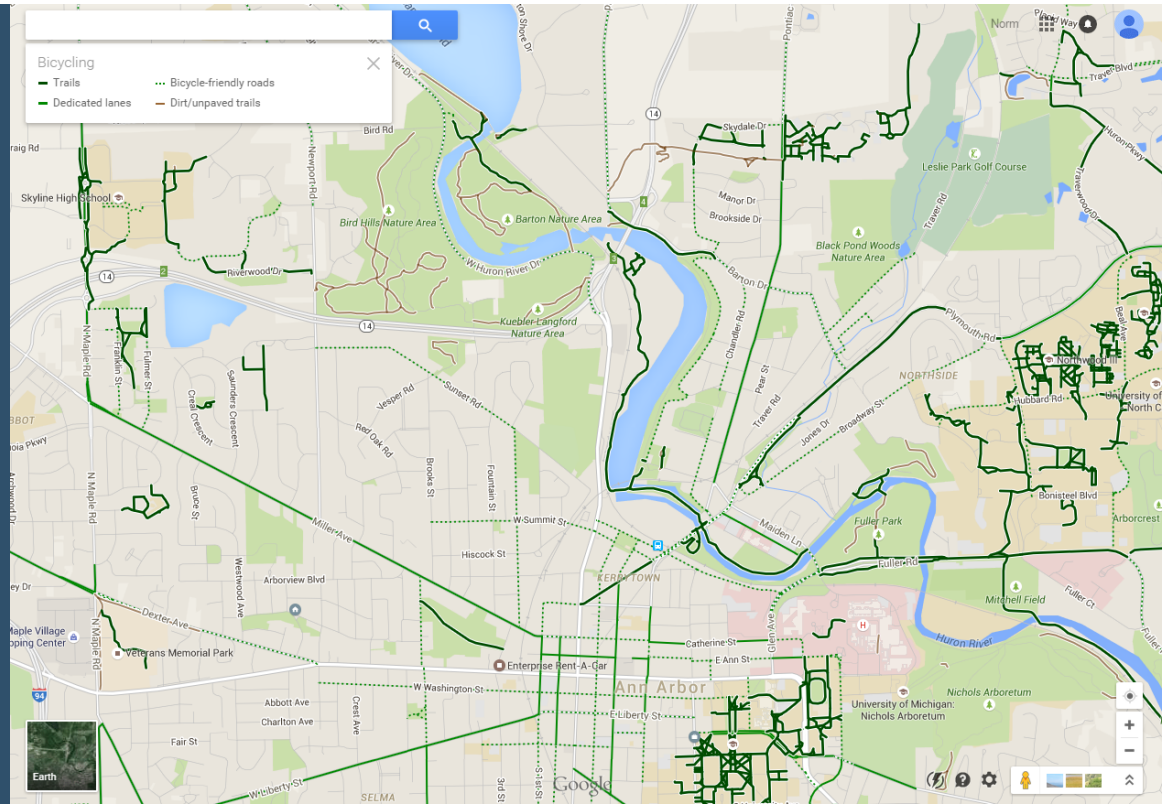
Leg





# Why Not Just Google It?

- Bike map recently got much better
  - Trails
  - Dirt/unpaved trails (new)
  - Dedicated lanes
  - Bicycle-friendly roads
- Often Not Accurate, relies on citizen editors
- Limited Detail



Getting your Google Map up to date  
Should be a priority

Use Google Map Maker to get your routes  
on Google Maps

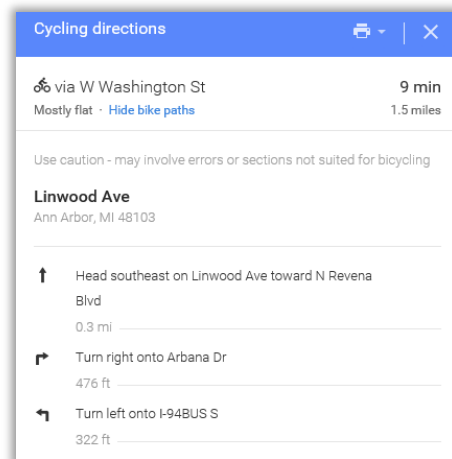
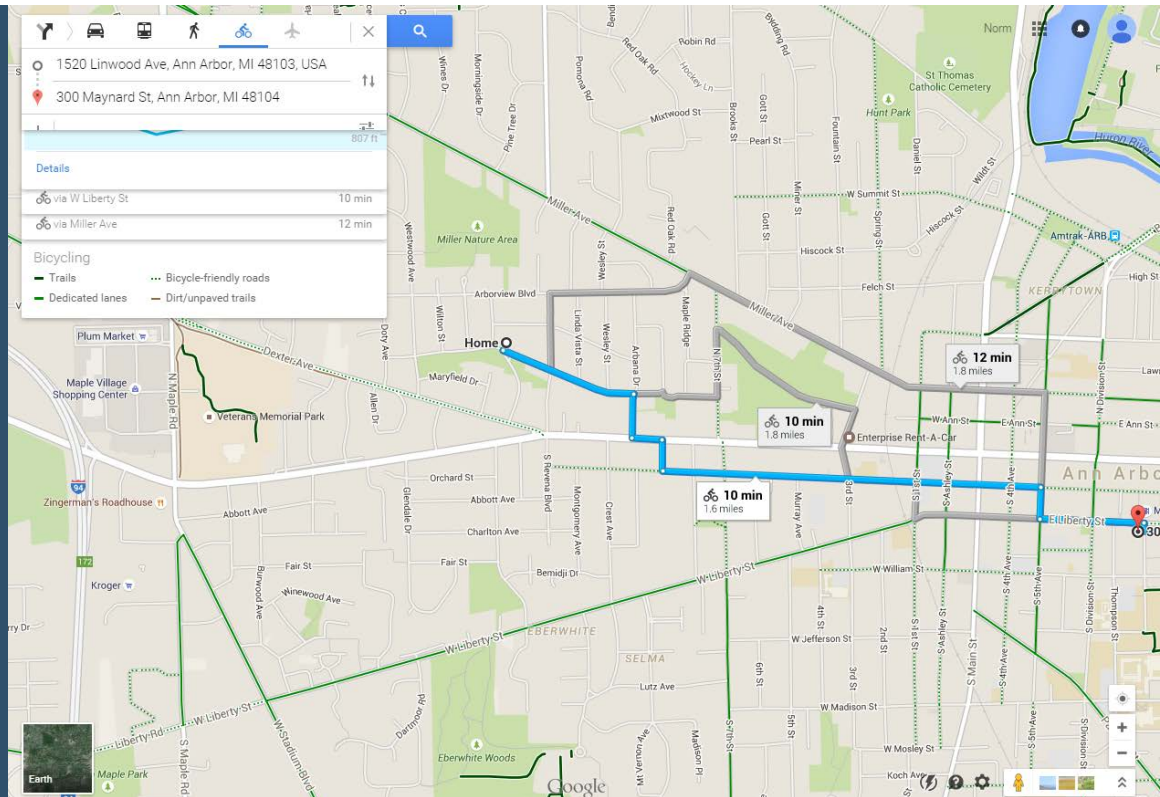
Familiar resource to many people



# Google Navigation

## Provides a Wealth of Information

- Time
- Distance
- Grade
- Options
- Turn-by-turn directions
- Easy to print
- If there is good data will get good results







# Crowdsourcing Information

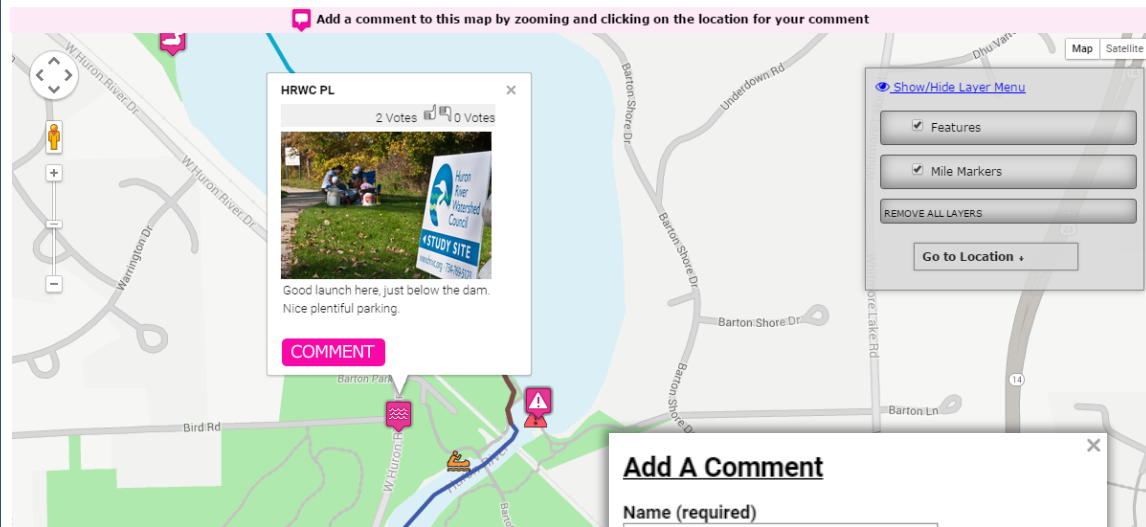
- You have an army of people at your disposal
- Lots of options
- Can integrate your own information as part of the background map
- Good way to identify problem areas
- Need to verify information
- Can be expanded to a discussion of what is missing as well



Huron River  
WATER TRAIL

[Home](#) [Mapped Comments](#)

The Huron River Water Trail is a 104-mile (167 km) inland paddling trail connecting people to the river's natural environment, its history and the communities it touches in Michigan's Lower Peninsula. Please share your experience of the river below and let us know what could be done to make your next trip more enjoyable. [Add your comment to the map.](#)



## Add A Comment

Name (required)

Email (optional, it will be kept private)

Comment Category (required)

Hazard Report

Comment (required)

Link (include http://)

Image

No file chosen

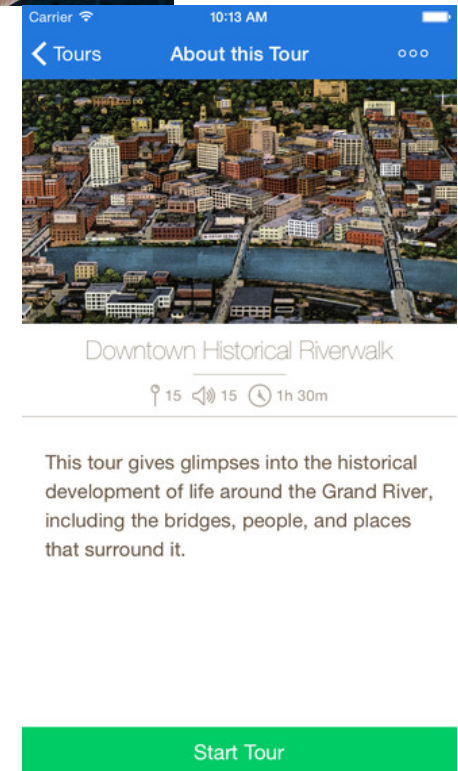
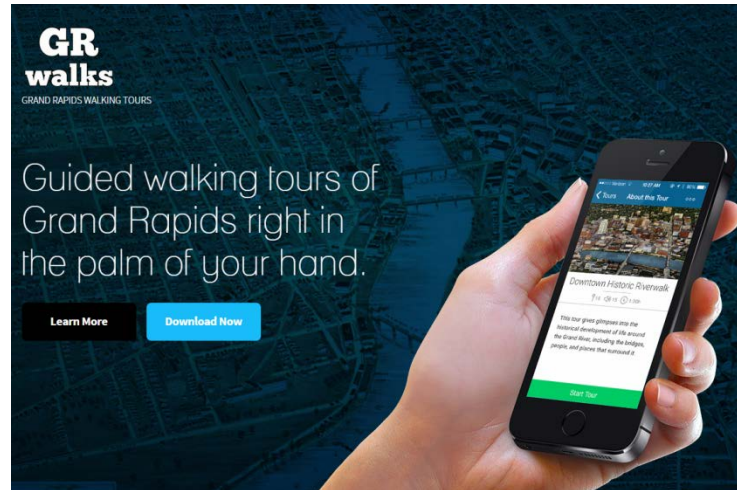
Jpg, Gif, or Png, Max 2MB

[Change your mind? Remove Marker](#)



# There's an App for That

- GR Walk developed by Calvin College Students
- Uses GPS to pull up content
- Users select tours then download files

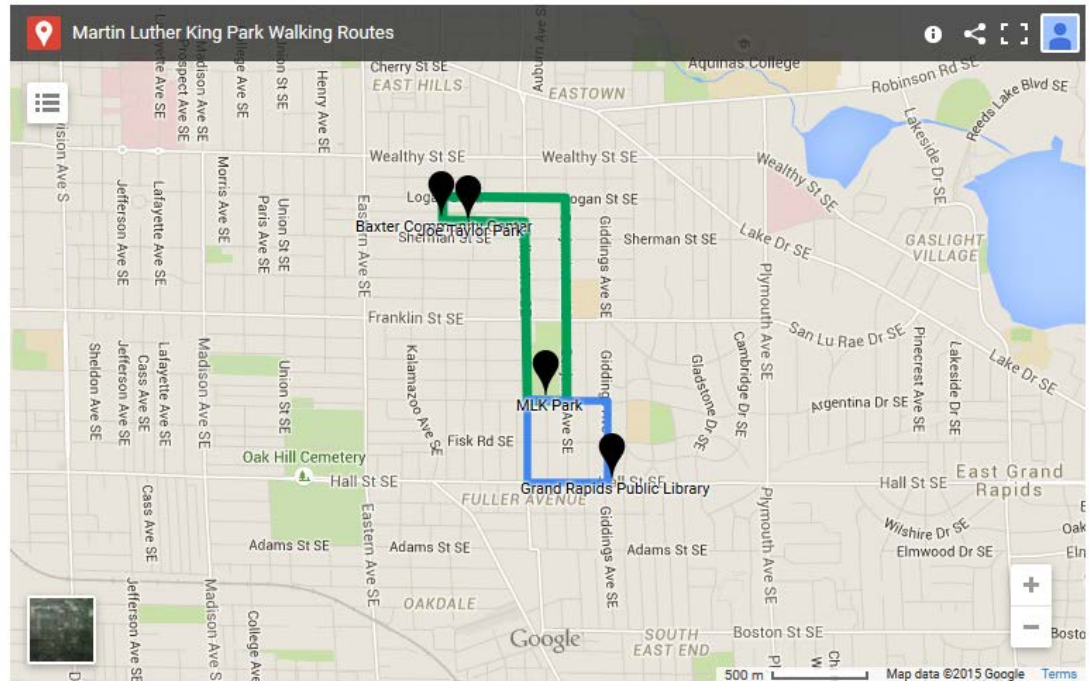






# Utilize the Apps that Exist

- There are lots of apps available that track running, walking and bicycling routes
  - Strava
  - MapMyWalk (Run, Ride, Fitness)
- Many of these apps provide information on distance, direction, grade, and time
- Google My Maps may also be used to map out a route

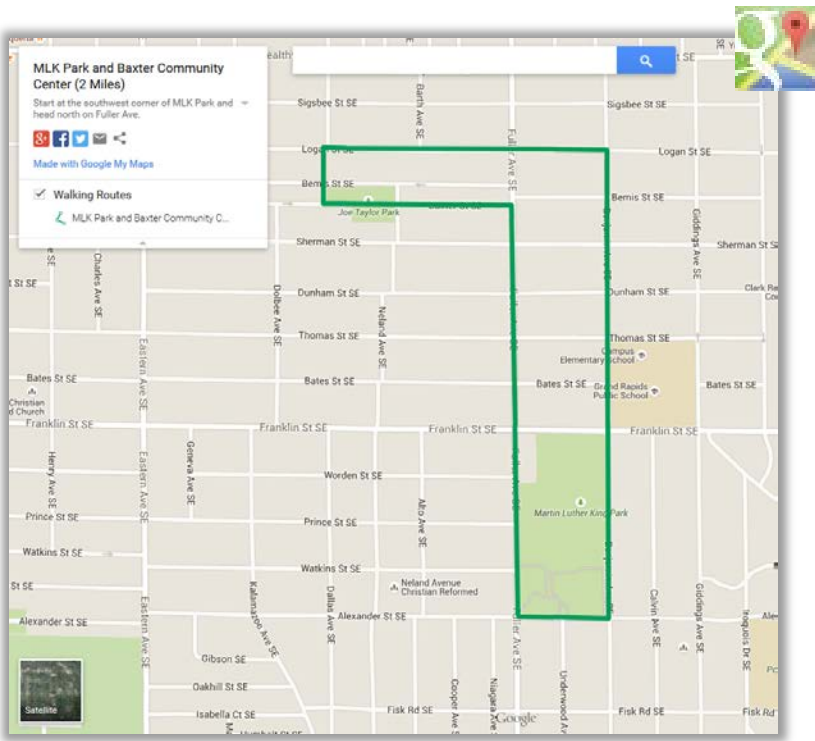


## Walking Routes

1 mile walk/20 minutes

2 mile walk/40 minutes





# MLK PARK AND BAXTER COMMUNITY CENTER (2 MILES)



**DISTANCE**  
2.01 miles

**CLIMB**  
46 ft

**BEGINS IN:** East Grand Rapids, MI, United States

**CREATED BY:** WalkBikeInfo

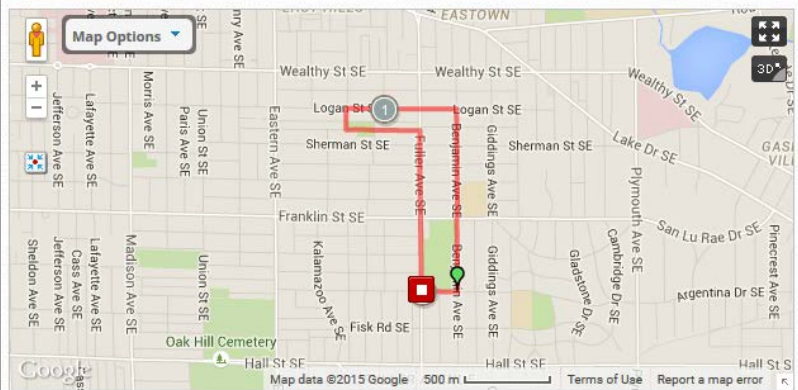
**DESCRIPTION:** This is a 2.01 mi route in East Grand Rapids, MI, United States. The route has a total ascent of 46.37 ft and has a maximum elevation of 776.71 ft. This route was created by WalkBikeInfo on 07/07/2015. [View other maps](#) that WalkBikeInfo has done or [find similar maps](#).

**TYPE:** Walk

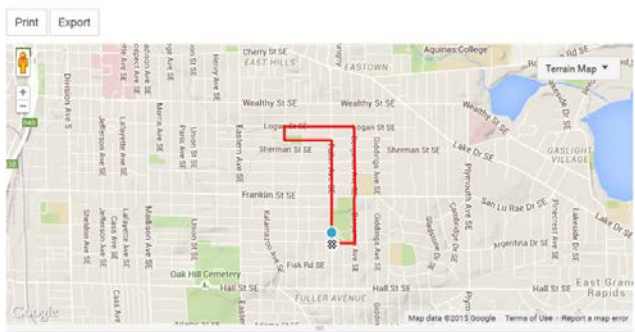
**AVAIL POINTS**  
0

SHARE:

**ACTIONS** **PRINT** **SEND TO PHONE** **BOOKMARK**



## MLK Park and Baxter Community Center (2 Miles)



By WalkBike.Info Grand Rapids  
Created on July 7, 2015

**3.2 km 27 m Road**  
Distance Elevation Gain Run Type

Start at the Southwest corner of MLK Park and head north on Fuller Ave.







# What Else Goes on a Map?

- Safety Information
- Photographs
- Tourist Information
- Detailed inset maps
- Information on local walking and bicycling clubs
- Links to other online resources

### BIKING ON THE STREET

**Ride with Traffic**  
Motorists are not looking for bicyclists riding on the wrong side of the road. State law requires that cyclists ride with the flow of traffic.



**Ride in a Straight Line and Avoid Car Doors**  
Opening parked car doors can seriously injure cyclists. Keep at least an open car door distance away from parked cars and ride in a straight line when there are gaps between parked cars.



**Signal Your Turns**



Hand signals should be given to alert motorists, pedestrians and other bikers of your intentions.

**Keep to the Right and Ride only two abreast**  
Keep as far to the right as practical, moving left to avoid hazards and to position yourself in the appropriate designated through or turn lanes. No more than two bicyclists should ride side by side on a public roadway.



**Make Left Turns Safety**  
There are two ways to make a left turn.

1. Like a Car: signal, move into the left turn lane and turn left.
2. Like a straight crosswalk: When in a straight crosswalk, when a car is merging into the lane, yield to the car.



**Be Careful at Crossings**  
Bicyclists should yield to through traffic at midblock crosswalks.



**Watch for Cars Pulling Out**  
Motorists rarely see bicyclists in their blind spots.



### Kearsley Park

**Trail Information:**  
The trail from Robert T. Longway Boulevard to Lewis Street is about 3.5 of a mile and takes approximately 13 minutes to walk.  
The trail from Lewis Street to the Red River is about 1.7 of a mile and takes approximately 7 minutes to walk.



**Park Rules**

1. Alcoholic beverages are not permitted
2. Please do not litter
3. Glass containers prohibited
4. No motorized vehicles except in designated parking areas
5. Dogs must be on a leash
6. Owners must clean up after pets
7. No campfires
8. The destruction of any park property is prohibited
9. Firearms and other weapons prohibited
10. Parks open dawn to dusk unless otherwise noted

**Legend**

- Parking
- Baseball Field
- Playground
- Soccer Field
- Trail
- Creek
- Road
- Tree
- Building

### BIKE SAFETY

In general, bicyclists on public roadways have the same rights and responsibilities as automobile drivers and are subject to the same state laws and ordinances. For everyone's safety please observe the following safety tips.



- Use a bell or horn
- Use white headlight at night
- Use Wheel Reflectors
- Wear a helmet
- Wear bright, reflective clothing
- Use flashing red rear light at night



# Public Display Maps

- Not everyone will have a printed map or a phone app handy
- Excellent way to introduce a system
- Place strategically and link to resources



Need to balance the quality and durability of the presentation against the lifespan of the map. Systems that use a frame facilitate easy updates.

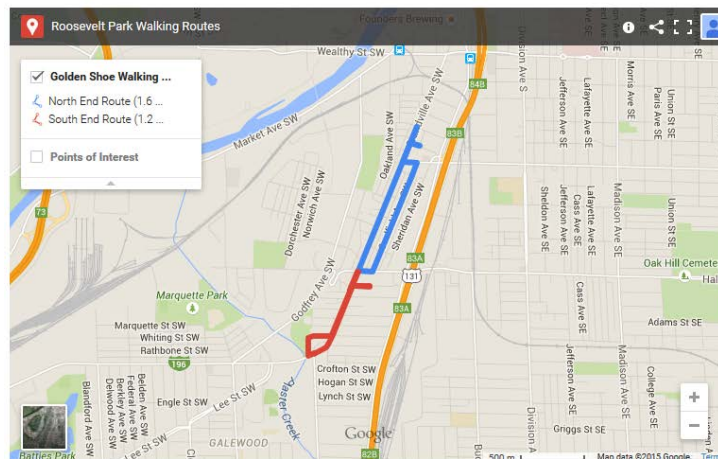




# Few Parting Thoughts

- The underlying data is the key to all maps
- Updating and managing the data is the biggest challenge
- Local is where it is at
- Print vs. digital is not an either or question
- Make it attractive
- Make it useful
- Keep it current
- Capitalize on existing resources

## ROOSEVELT PARK



### Golden Shoe Walking Routes

1.6 mile walk/30 minutes

1.2 mile walk/25 minutes



PDF Map (English)

PDF Map (Español)

## A Proposal for Your Consideration

This group, via its agency updates, could be the keeper of data via on-line Google Maps.

This data is accessible and may be downloaded by anyone. A few designated individuals could have editing privileges.

# Questions?



## Grand Region Pedestrian and Bicycle Committee Meeting

Thursday, October 29, 2015

Norman Cox, PLA, ASLA

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