

The background is a dark blue gradient with faint, light blue icons of a bicycle, a car, a bus, and a pedestrian scattered across it.

bikeNEO APP UPDATE

Bicycle & Pedestrian Advisory Council

May 15, 2026

ACTION REQUESTED

No action requested at this time. This item is for information and presentation only.

However, Council members are encouraged to contact us if they wish to be included as bikeNEO beta testers.

PREVIOUS ACTION

There is no previous action.

BACKGROUND

- In December 2024, NOACA contracted with TierraPlan to develop an interactive application that will enable users to conduct bike trip planning on a desktop computer or mobile device.

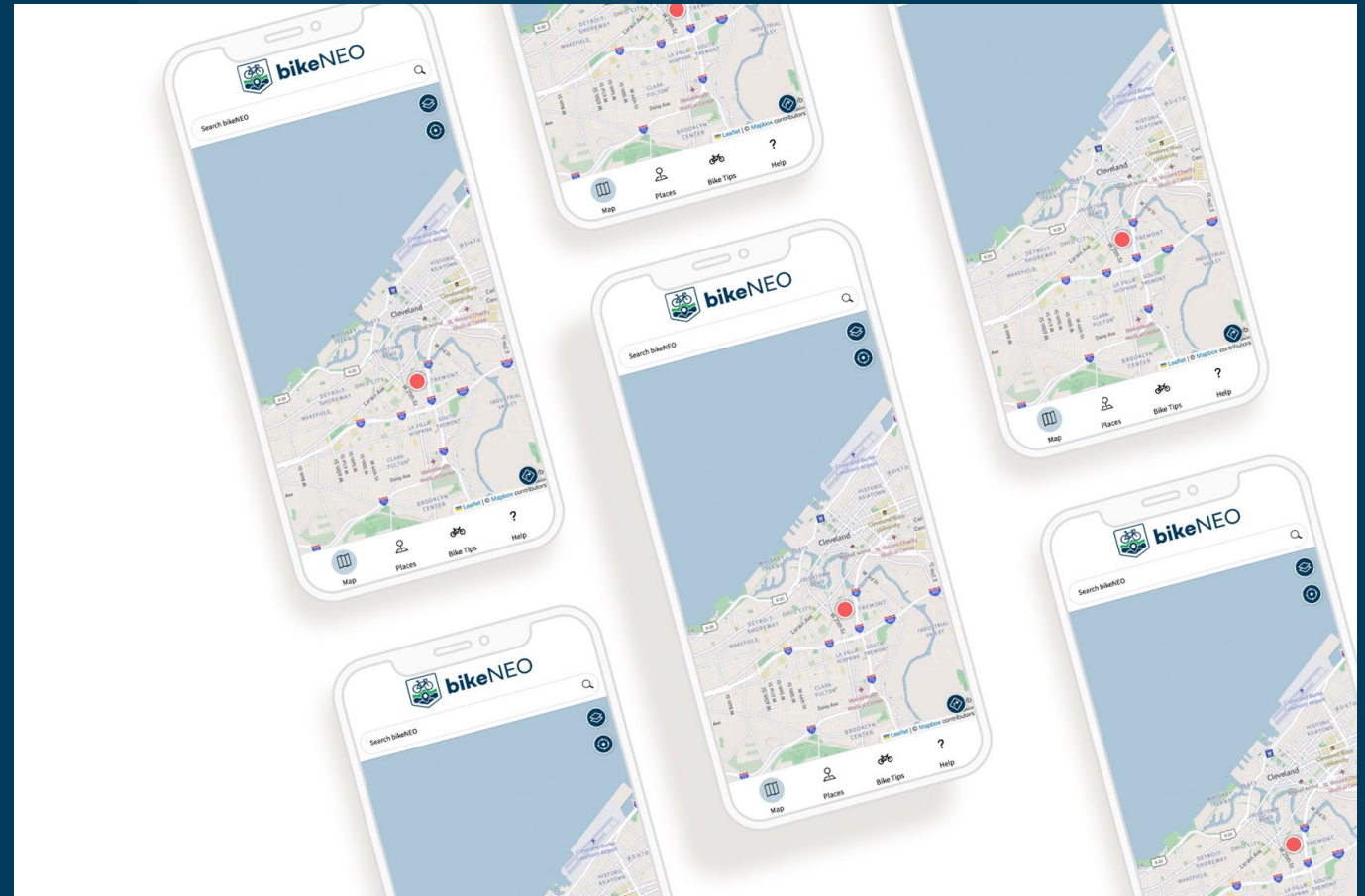
BACKGROUND

Interface includes:

- Interactive bike network map
- Map searching
- Map layers
- Bike tips from NOACA's paper maps

New:

- Only doing to door-to-door routing
- Route finding function to increase adaptability/versatility



BACKGROUND

Door-to-Door

- Routes the user from the current or selected **address** to desired destination
- User can enter a name, address, or use current location

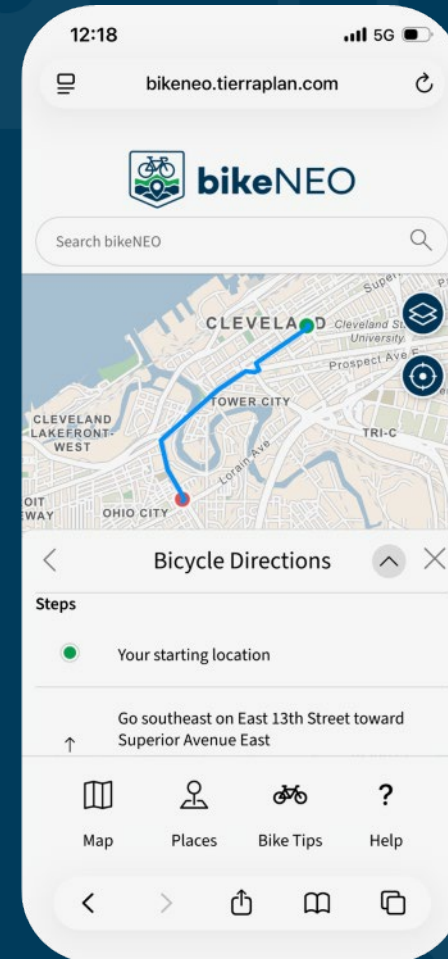
Neighborhood-to-Neighborhood

- Routes the user from the current or selected **neighborhood** to the neighborhood that contains the desired destination
- Routing begins and ends at the centroid of the two selected neighborhoods, *regardless of where the user intends to go within the neighborhood*
- Maximum trip distance of 5 miles (about 30 min. ride)

SURVEY FEEDBACK

Map Routing

- Removed neighborhood-to-neighborhood routing method
 - Streamlines the user experience
 - More in alignment with Google or Apple Maps
 - Door-to-door method can be used to accomplish similar experience of neighborhood-to-neighborhood method by selecting start location/destination on the map



SURVEY FEEDBACK

Map Content

- Bike Facilities
 - Currently working to update our bike facilities
 - We want this data to be representative of the *whole* NOACA region, so we're working to incorporate Cuyahoga County's Bike Network into our own, and better understand what's been built in communities in the outer counties
- Crowdsource
 - Data like bike parking and public water filling stations,
 - Staying away from private establishments like coffee shops and restaurants
 - Showcase Points of Interest – Photos from around the region of significant views and attractions seen/accessible from a bike facility to incorporate in app

LETS TAKE A LOOK

Now we'll take a live look at the current working version of bikeNEO

- <https://bikeneo.tierraplan.com/>

ROUTE FINDING FUNCTION

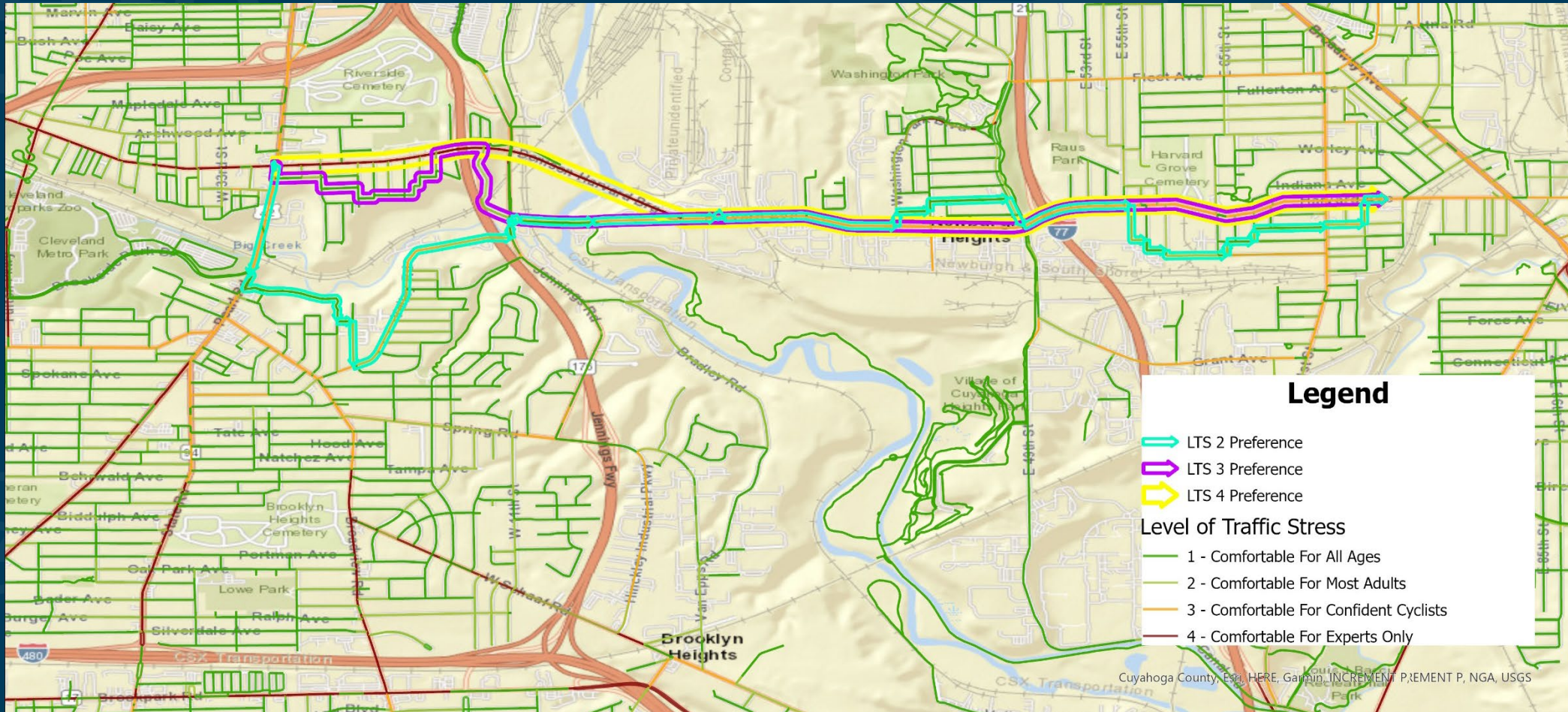
- Problem encountered with how strictly to follow user's LTS preference
 - Route fails -> Tolerate higher LTS?
 - Higher Stress vs. Dilated Travel Time/Distance
- Decision was made to allow users to pick a Distance Tolerance on top of their LTS preference
 - Increases complexity
 - Acknowledges differences in individuals & use cases

ROUTE FINDING FUNCTION

- LTS Preference vs. Distance Tolerance
 - A rider may wish to stay on a lower LTS for a greater percentage of the trip, to increase comfort, even though it adds distance.
 - A rider may tolerate a higher LTS for a greater percentage of the trip, to decrease travel time/distance.
- Bike riders are, on average, willing to consider alternate/parallel routes up to about 30% longer than the most direct route (2.5.2 ODOT Multimodal Design Guide).
 - One size doesn't fit all.

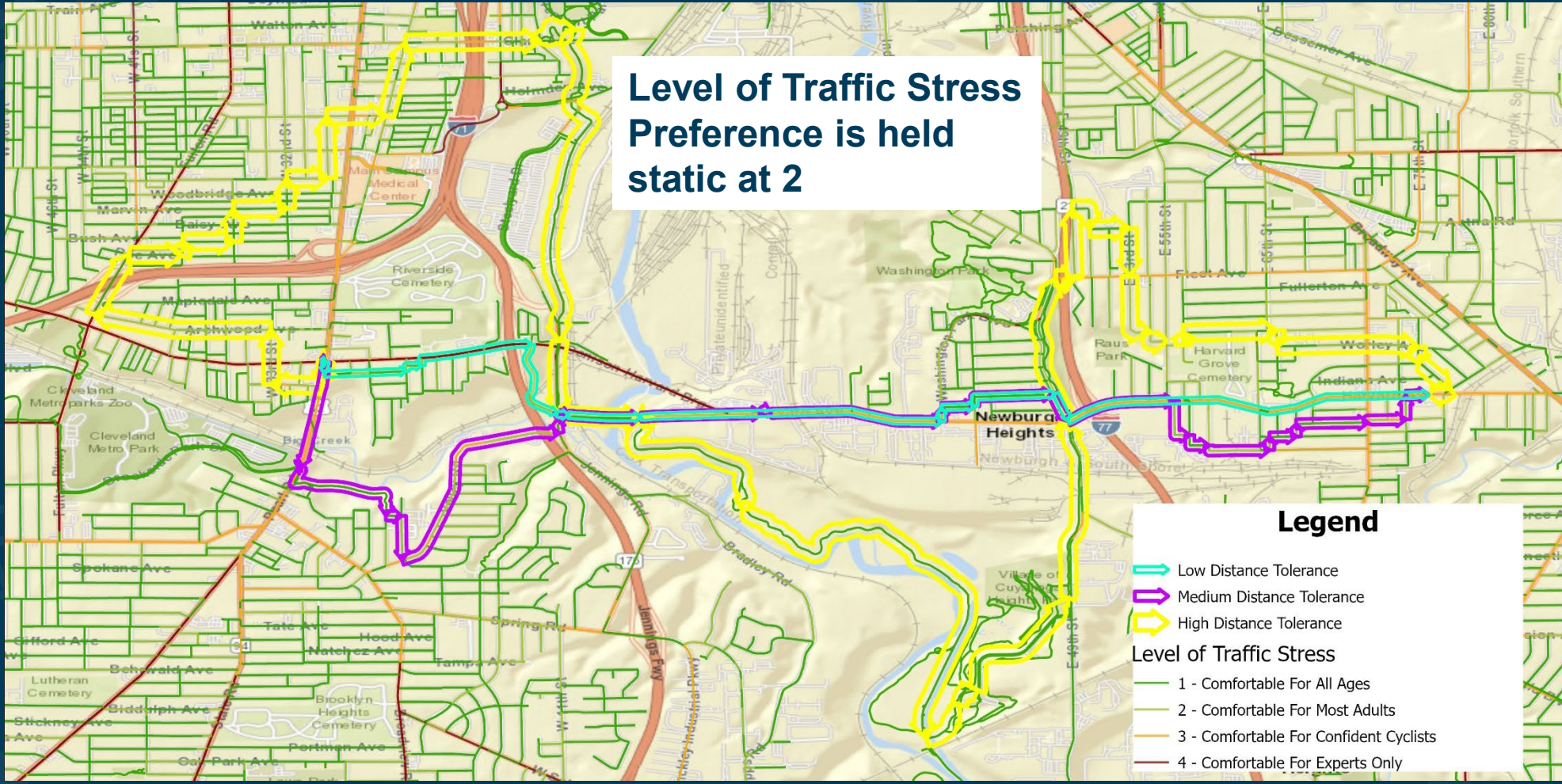
ROUTE FINDING FUNCTION

LTS PREFERENCE VARIABILITY



ROUTE FINDING FUNCTION

DISTANCE TOLERANCE VARIABILITY



NEXT STEPS

- **The project team will provide updates as app development nears completion**
- **Council members should contact us to be beta testing volunteers**
- **It is expected that after further algorithm development and a thorough beta testing and feedback process, bikeNEO will be ready for public use in early fall 2026**



NOACA

Northeast Ohio Areawide Coordinating Agency

NOACA will **strengthen** regional cohesion, **preserve** existing infrastructure, and **build** a sustainable multimodal transportation system to **support** economic development and **enhance** quality of life in Northeast Ohio.