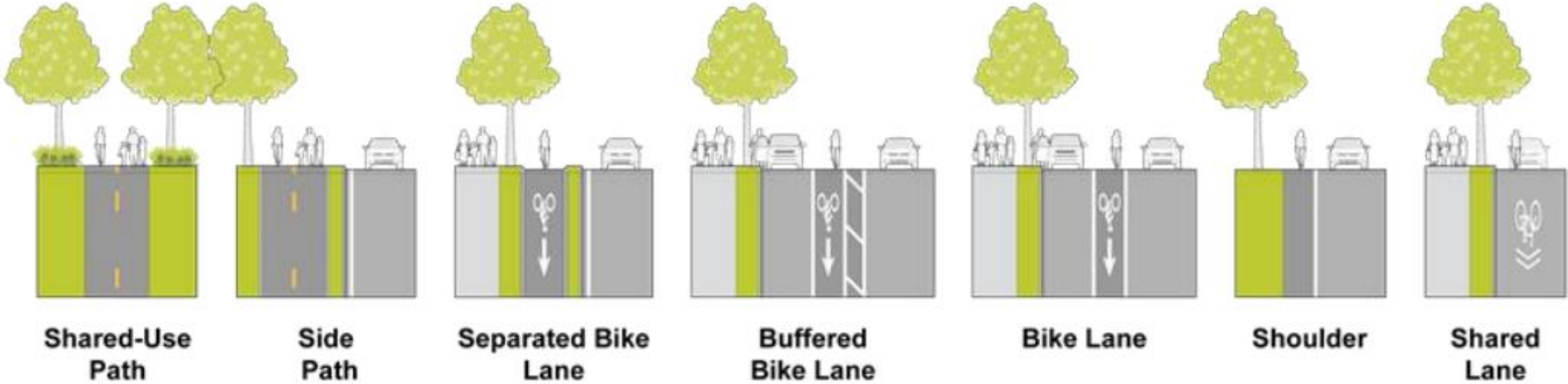


**MDOT** MARYLAND DEPARTMENT OF TRANSPORTATION

# Bicycle Network Accessibility Analysis

Nate Evans, Active Transportation Planner

# Levels of Traffic Stress



**+**      SEPARATION FROM TRAFFIC      **-**



# MDOT LTS Scale

<b>LTS</b>	<b>Target Audience</b>	<b>Bicycle Facility Types</b>
<b>0</b>	All ages and abilities	Shared-use paths, rail trails
<b>1</b>	Almost everyone	Protected bikeways, sidepaths
<b>2</b>	Interested but concerned	Bike lanes, bike boulevards
<b>3</b>	Enthusied and confident	Bike lanes, shared lanes, shoulders
<b>4</b>	Strong and fearless	No bike facility or bike lane on a major roadway
<b>5</b>	Bicycle Access Prohibited	Bicycle access is prohibited by managing roadway agency

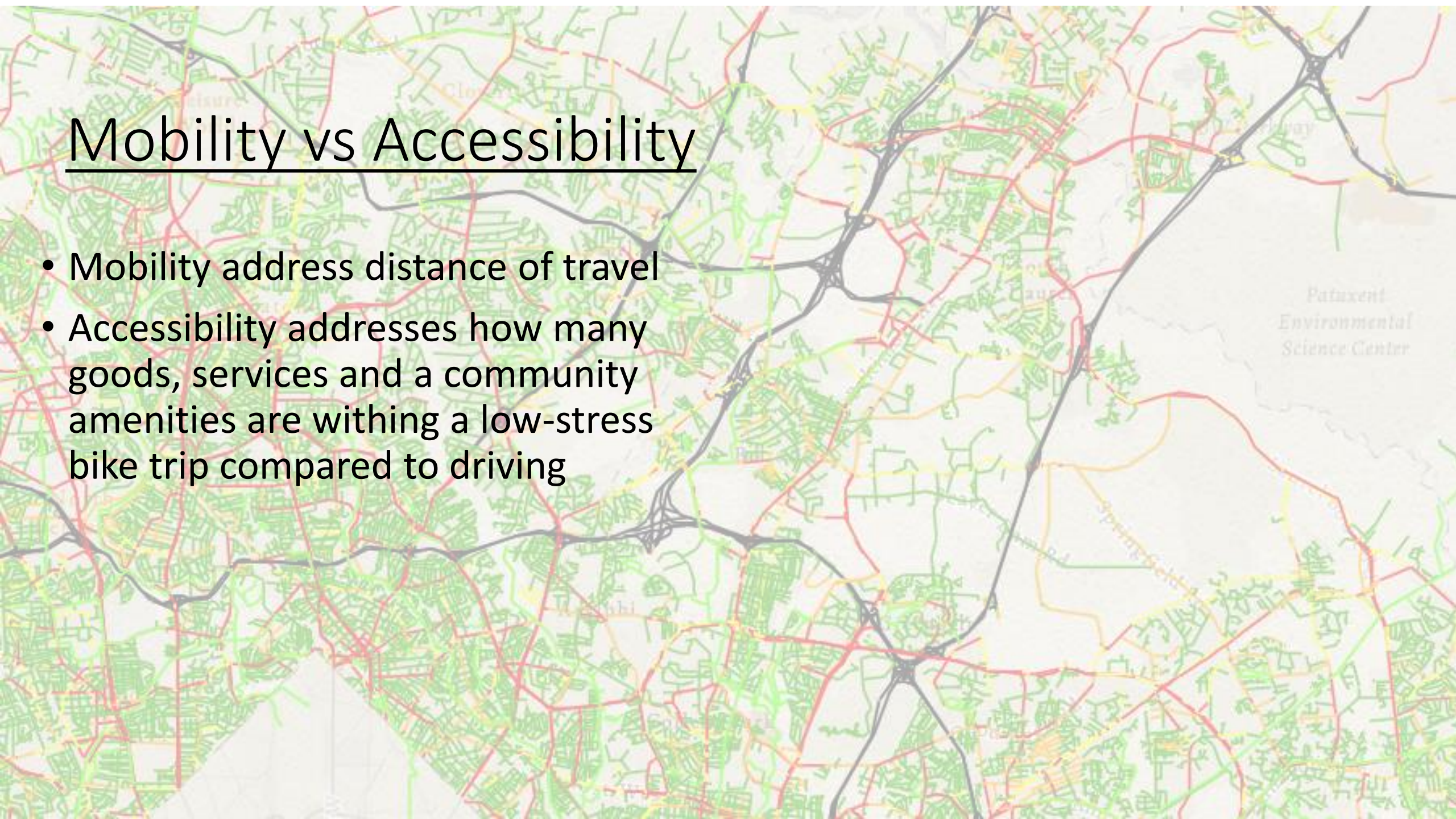
# Bicycle Facility Inventory

- Linear Referencing System (LRS) vs. GIS
- Asset management, existing facilities only
- Develop routable network to measure accessibility
- **Facility Types**
  - Shared-use paths
  - Protected bike lanes
  - Standard bike lanes
  - Null Value (shared lanes, shoulders)
- **Sub-facility Type**
- **Side of Roadway (both, left, right)**
- **Traffic Flow (one-way, two-way)**
- **Vertical Separation (yes, no)**



# Mobility vs Accessibility

- Mobility address distance of travel
- Accessibility addresses how many goods, services and a community amenities are within a low-stress bike trip compared to driving



# Network Configuration

<b>Stress Level</b>	<b>Distance</b>
LTS 0-1	1.67
LTS 0-1	5 miles
LTS 0-2	1.67 miles
LTS 0-2	5 miles
Driving	1.67
Driving	5

# BNA Scoring Categories

Category	Weight	Subcategory
People	15	Population
Opportunity	20	Employment, K-12, vocational/technical school, higher education
Core Services	20	Doctors, dentist, hospital, pharmacies, supermarkets, social services
Recreation	15	Parks, Recreational Trails, Community Centers
Retail	15	Retail shopping
Transit	15	Transit stations and centers

# Bicycle Accessibility

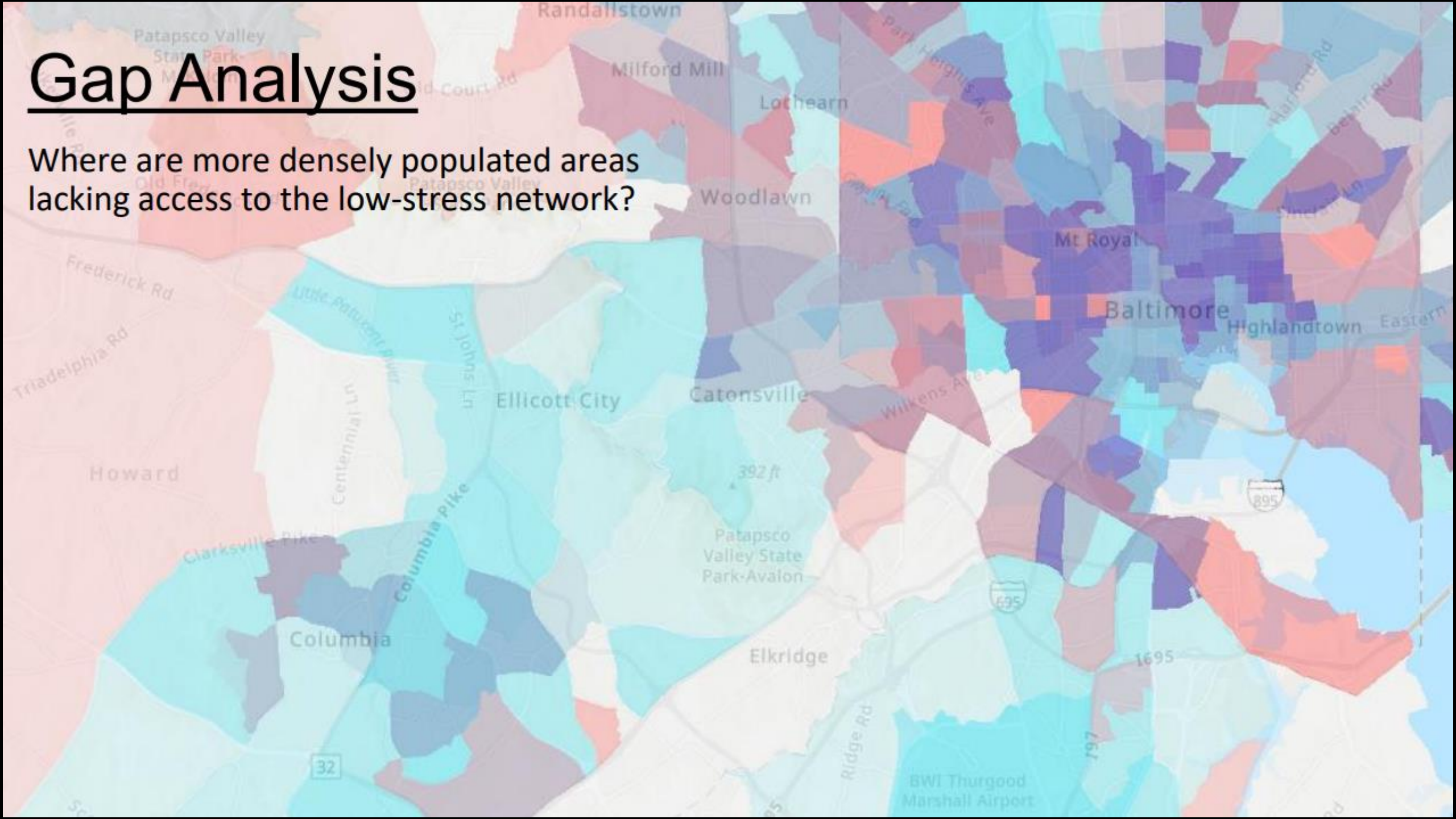
“**Bikescore**”: How many goods, services and community amenities are within a low-stress bike trip compared to driving?





# Gap Analysis

Where are more densely populated areas lacking access to the low-stress network?



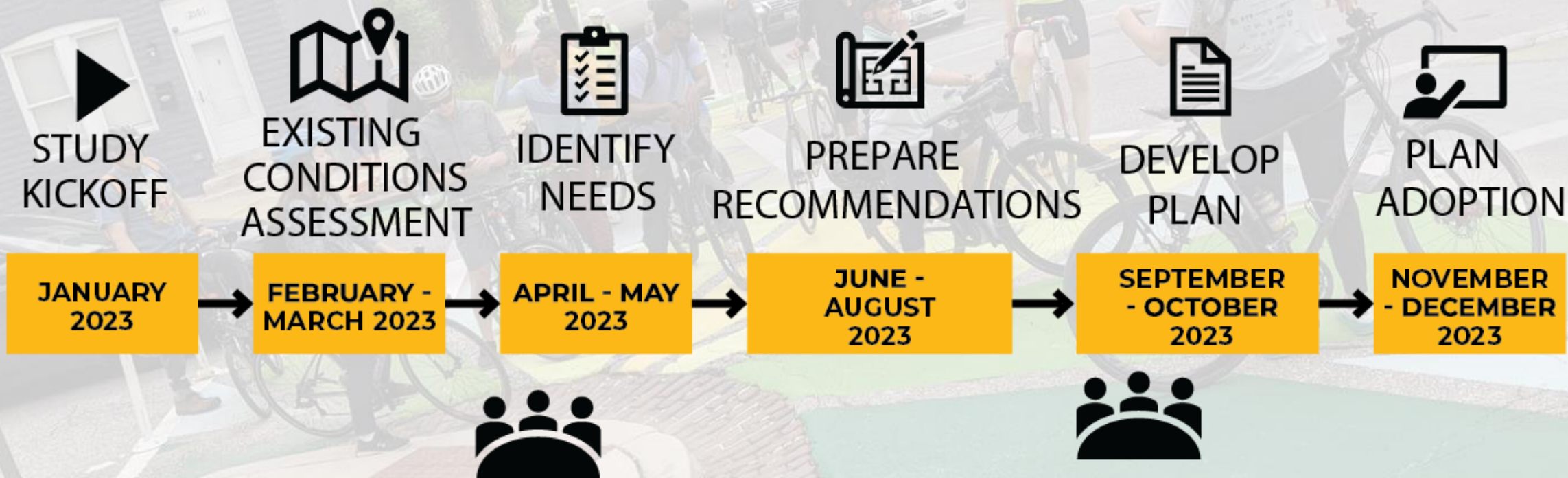
# Accessibility Uses

- Maryland Bicycle & Pedestrian Master Plan Existing Conditions
- Guidance for VRU Assessment, Pedestrian Safety Action Plan and Context Driven recommendations
- Equity analysis
- Proposed project impacts
- Replicable process for local use



# Plan Schedule

[2050marylandbpmp.com](http://2050marylandbpmp.com)



# Vision & Goals

**VISION:** Maryland will provide safe and convenient active transportation that supports equitable access for all.

- **Safety:** Improve the safety of bicycle and pedestrian travel through infrastructure & evaluation
- **Process:** Better integrate active transportation and micromobility considerations in project and program procedures
- **Connections:** Encourage short- and long-distance active transportation trips through better-connected networks
- **Equitable & Sustainable Communities:** Leverage active transportation investments for building sustainable, equitable and resilient communities

# Questions



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