




# Planning for Pedestrian Investments using the ActiveTrans Priority Tool

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# Agenda

- Background
- Overview of tool and application
- Utilizing GIS using methodology
- Enhancements and future applications



# Background

- Previous pedestrian investments for the most part only followed pavement/bridge program
- Minnesota State Highway Investment Plan (MnSHIP) 2017 Update substantially increased funding for pedestrian infrastructure
- Metro District Planning staff sought tool to help inform where pedestrian investment could have greatest impact. Particularly where pavement project is not in the near future.

# ActiveTrans Priority Tool

- Prioritize bike and pedestrian investment locations for intersections, corridors or areas based on variety of factors:
  - Exiting conditions
  - Equity
  - Demand
  - Connectivity, etc.
- Data variables are measured, scaled, and weighted.
- Can be utilized just with excel and corridors/projects or in combination with GIS to create heat maps or identify projects

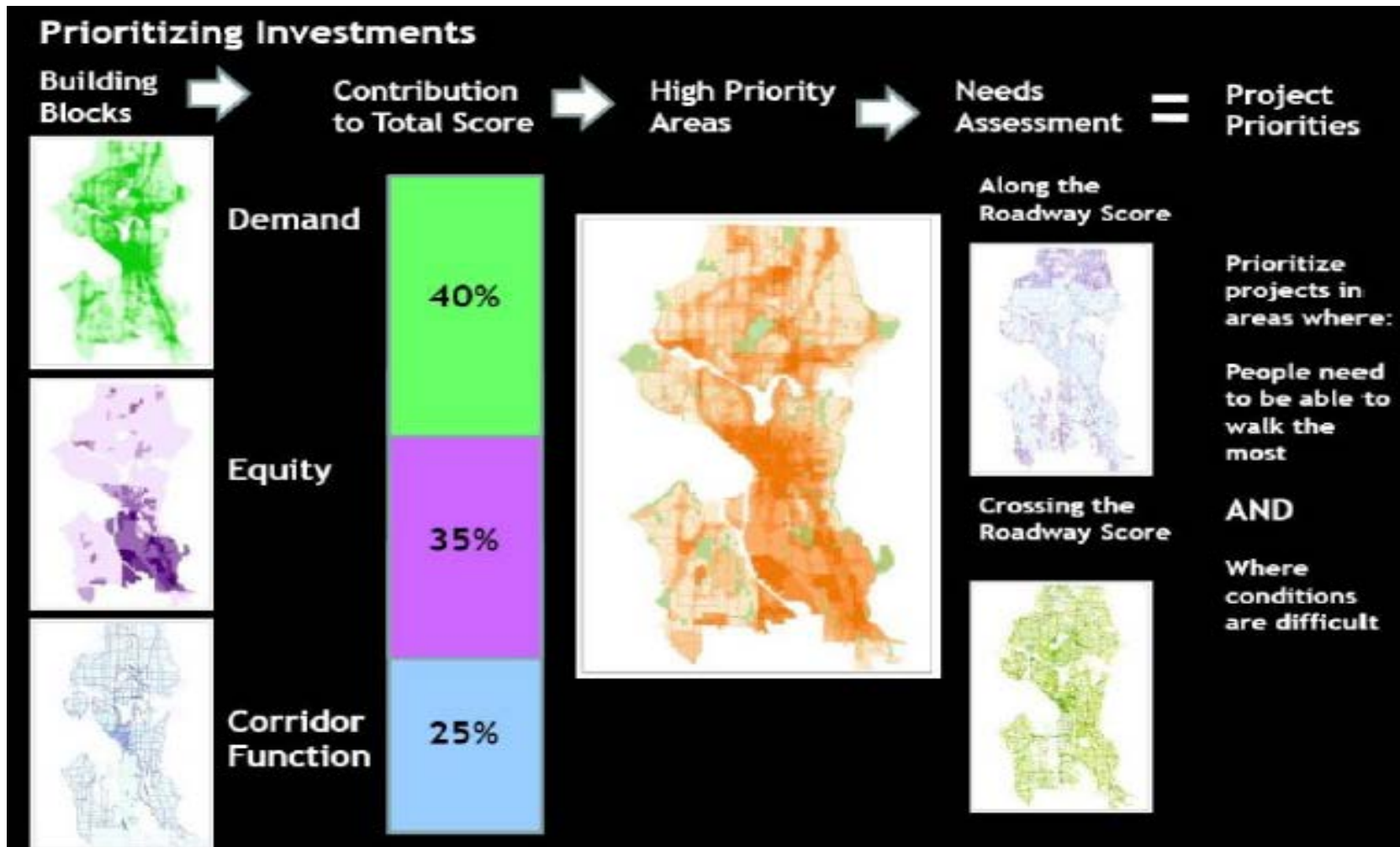
**NCHRP**  
REPORT 803

**Pedestrian and Bicycle  
Transportation Along  
Existing Roads—ActiveTrans  
Priority Tool Guidebook**

TRANSPORTATION RESEARCH BOARD  
OF THE NATIONAL ACADEMIES



# Utilizing GIS with ActiveTrans

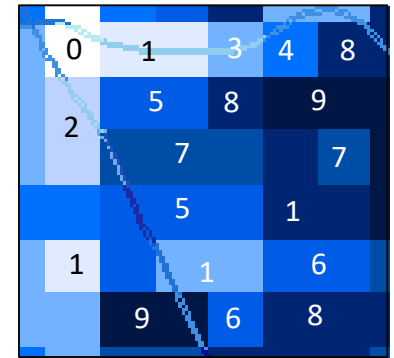
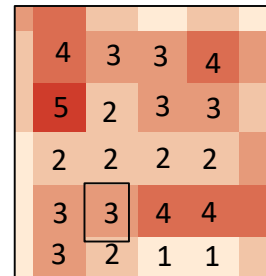
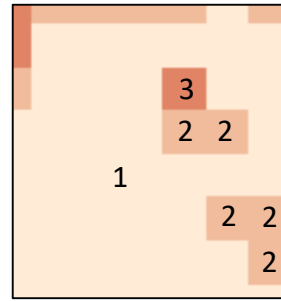
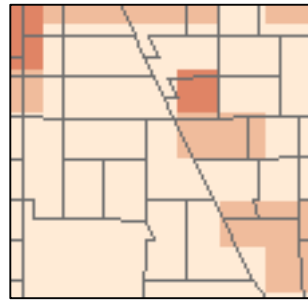
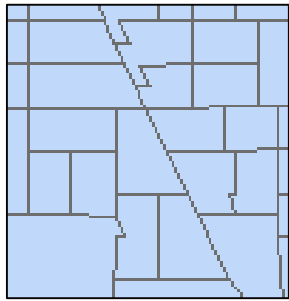


Source: FHWA – ActiveTrans Priority Tool Presentation

# Metro District Project - Variables

Variables	Phase 1 (regional)	Scale	Weight (multiplier)	Attribute	Source	Address
Population Density	Y	natural breaks	1		Census ACS (2015)	
Number of Bus Stops	Y	proportional	1		Metro Transit	<a href="https://gisdata.mn.gov/dataset/us-mn-state-metc-trans-transit-stops">https://gisdata.mn.gov/dataset/us-mn-state-metc-trans-transit-stops</a>
Number of Rail Transit Stations	Y	proportional	1		Metro Transit	<a href="https://gisdata.mn.gov/dataset/us-mn-state-metc-trans-transit-stops">https://gisdata.mn.gov/dataset/us-mn-state-metc-trans-transit-stops</a>
Future Transit	Y	proportional	1		MT - Planned transit ways	<a href="http://gis2.metc.state.mn.us/arcgis/rest/services/MetroGIS/Transit/MapServer">http://gis2.metc.state.mn.us/arcgis/rest/services/MetroGIS/Transit/MapServer</a>
Employment/ Job Density	Y	proportional (0 or 1)	1	Job Density or Scale	MC - Job and Activity Centers	<a href="https://gisdata.mn.gov/dataset/us-mn-state-metc-society-job-and-activity-centers">https://gisdata.mn.gov/dataset/us-mn-state-metc-society-job-and-activity-centers</a>
% Households with No Auto	Y	natural breaks	2		Census ACS (2015)	
% Households in Poverty	Y	natural breaks	2		Census ACS (2015)	
Minority Pop	Y	natural breaks	2		Census ACS (2015)	
Regional Destinations	Y	proportional (0 or 1)	1		MC - Regional Bicycle Transportation Network	<a href="https://gisdata.mn.gov/dataset/us-mn-state-metc-trans-regional-bike-trans-destin">https://gisdata.mn.gov/dataset/us-mn-state-metc-trans-regional-bike-trans-destin</a>

# Metro District Project- Mapping



Variables

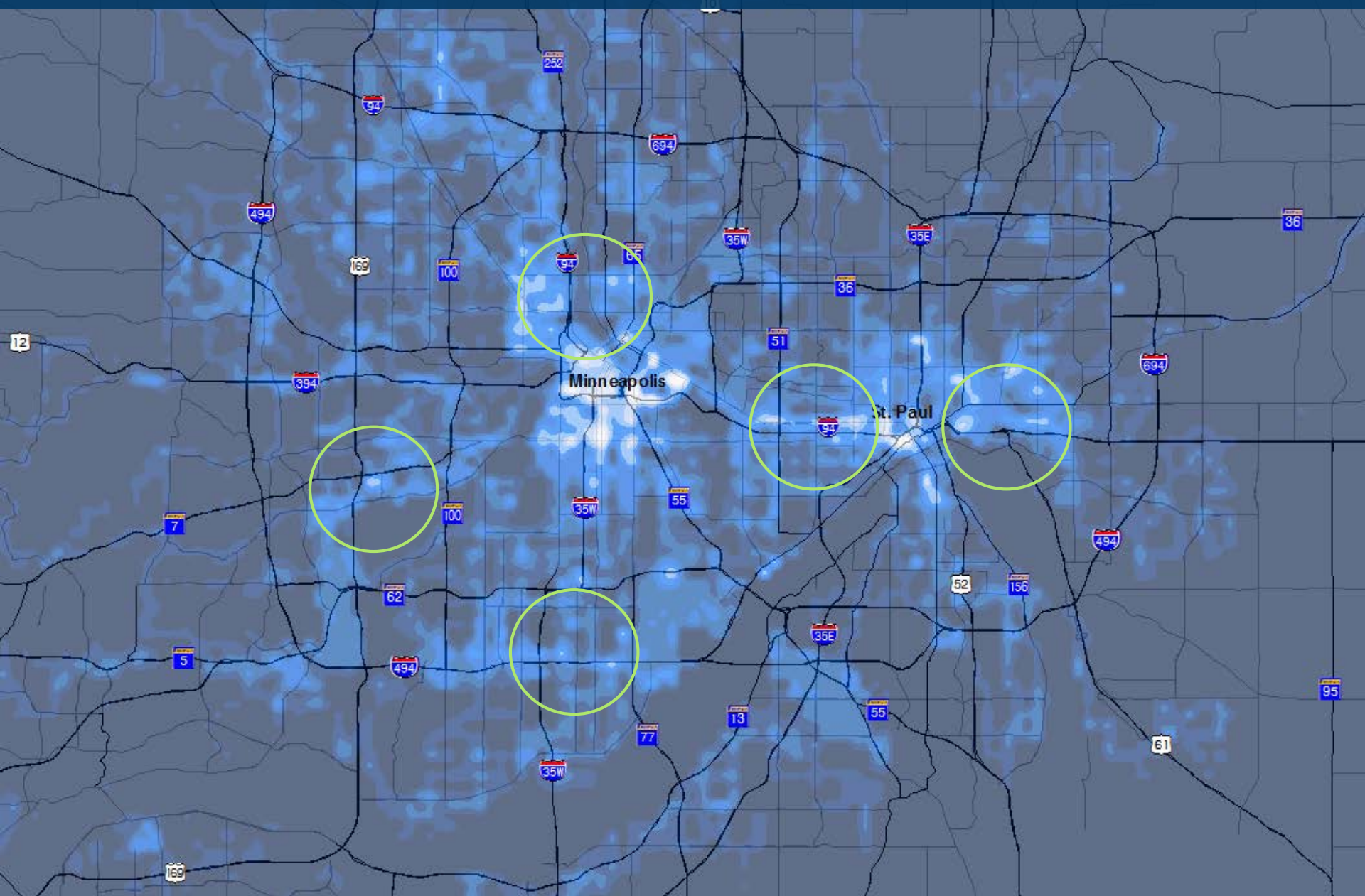
Raster cells with values (1/4 mile)

Sum rasters of all variables

Prioritization Score

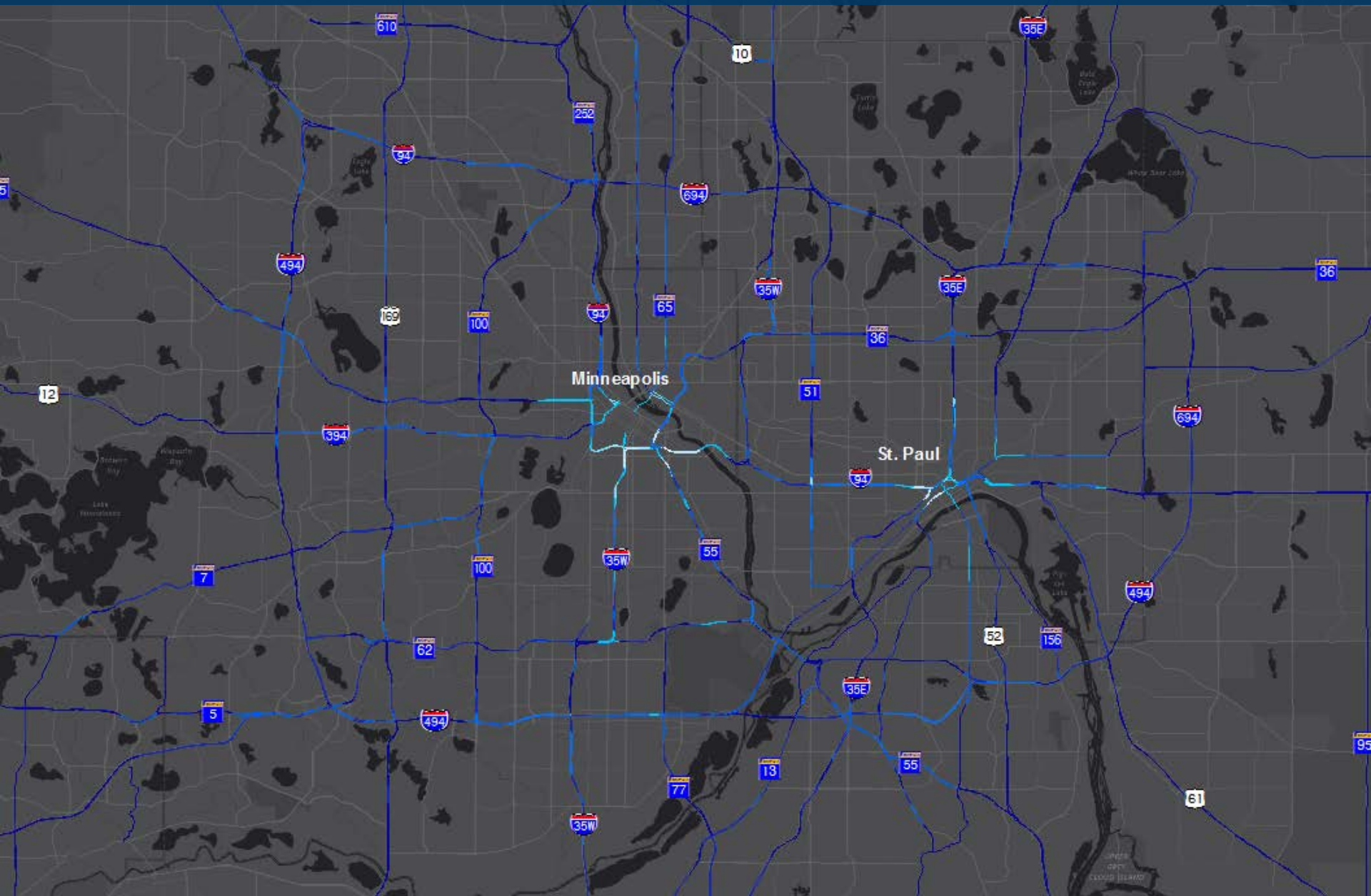


# Heat Map - Weighted for Equity



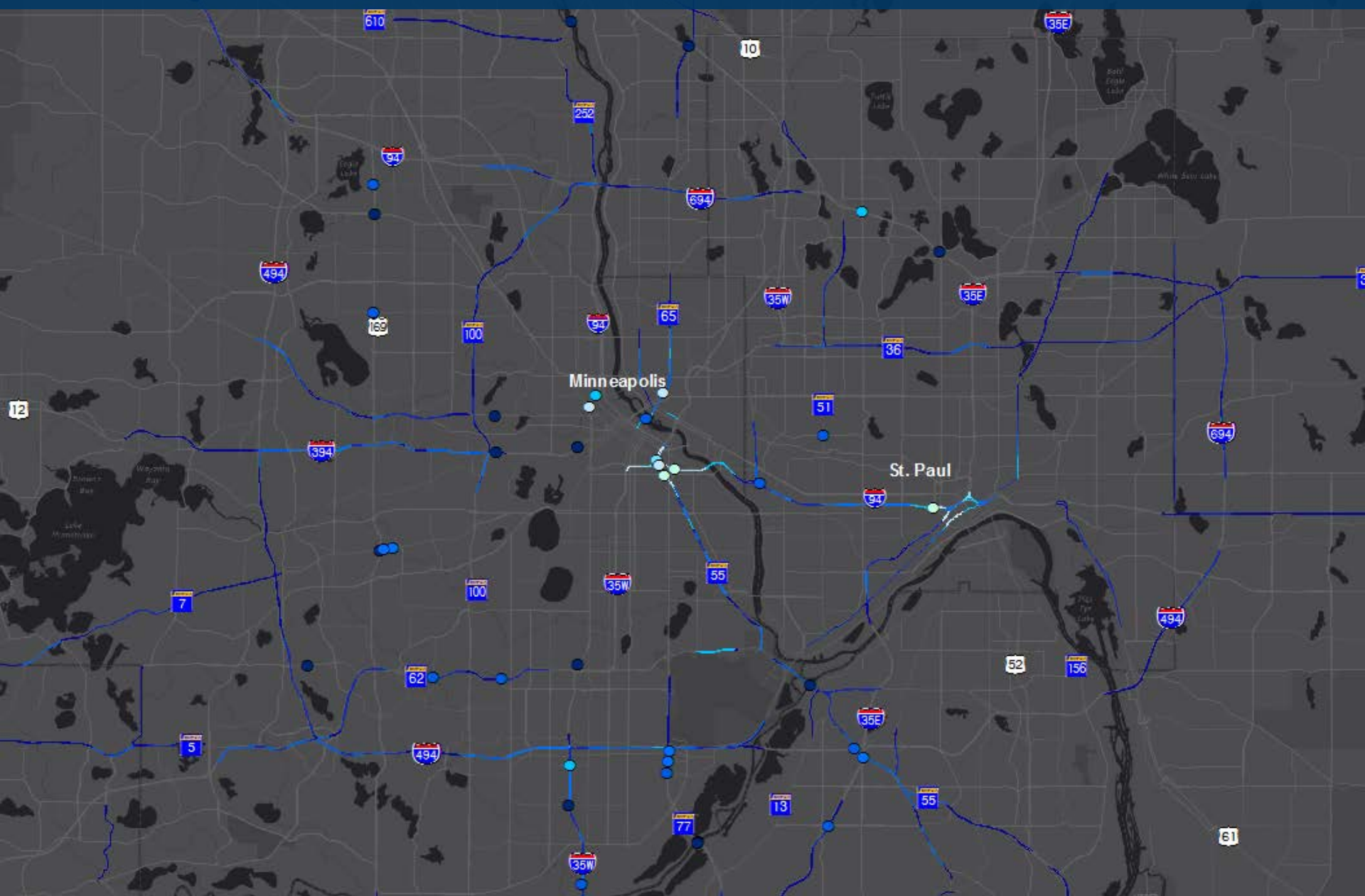


# Score Tied to State Highways





# Score Tied to Upcoming Projects





# Future Application and Improvements

## Future Application

- Regional/Area
- Corridor and Intersection Analysis
- Project Selection and Scoping
  - Infrastructure and outreach needs

## Improvements

- + safety/crash data
- + list of destination/attractors
- + inclusion of big data (app and smartphone location-based data)

# Questions?

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