



Resilience and Vulnerability in Transportation Planning

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June 24, 2019



What is the Capital Area MPO?

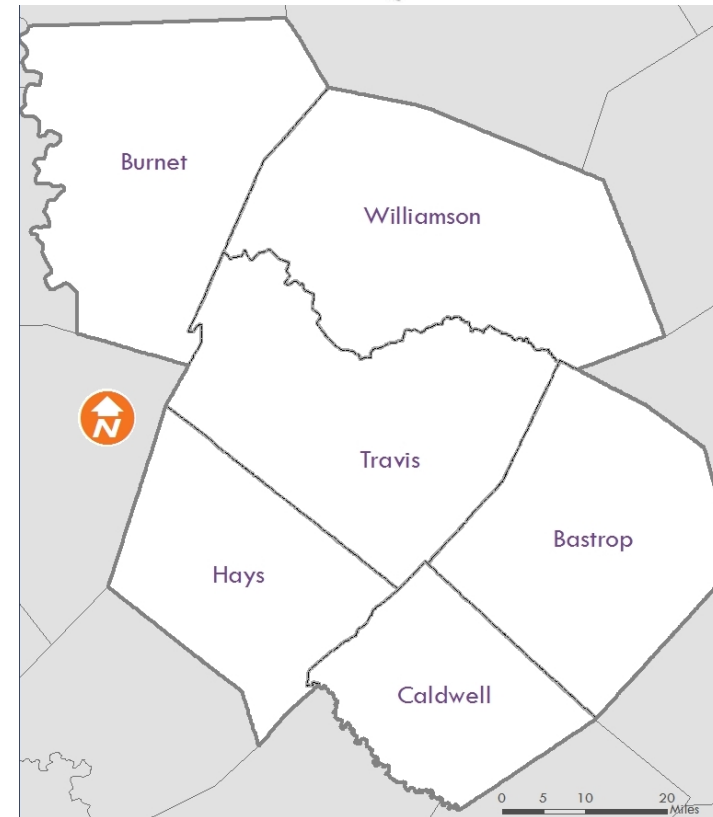
6 counties | 5,302 square miles

2 million people

12,420 lane miles of roads

44.6 millions miles traveled by
vehicles daily

31.2 million transit boardings
each year





Vulnerability Assessment



Climate Related Risks

- Flooding
- Drought
- Extreme heat
- Wildfire
- Extreme cold and ice

Key Infrastructure

- SH 71E at SH 21
- I-35 at Onion Creek Parkway
- Loop 360/RM 2222
- FM 1431 at Brushy Creek/Spanish Oak Creek
- US 183 North of Lockhart
- SH 80 at the Blanco River

Figure 9 Assets for In-Depth Evaluation

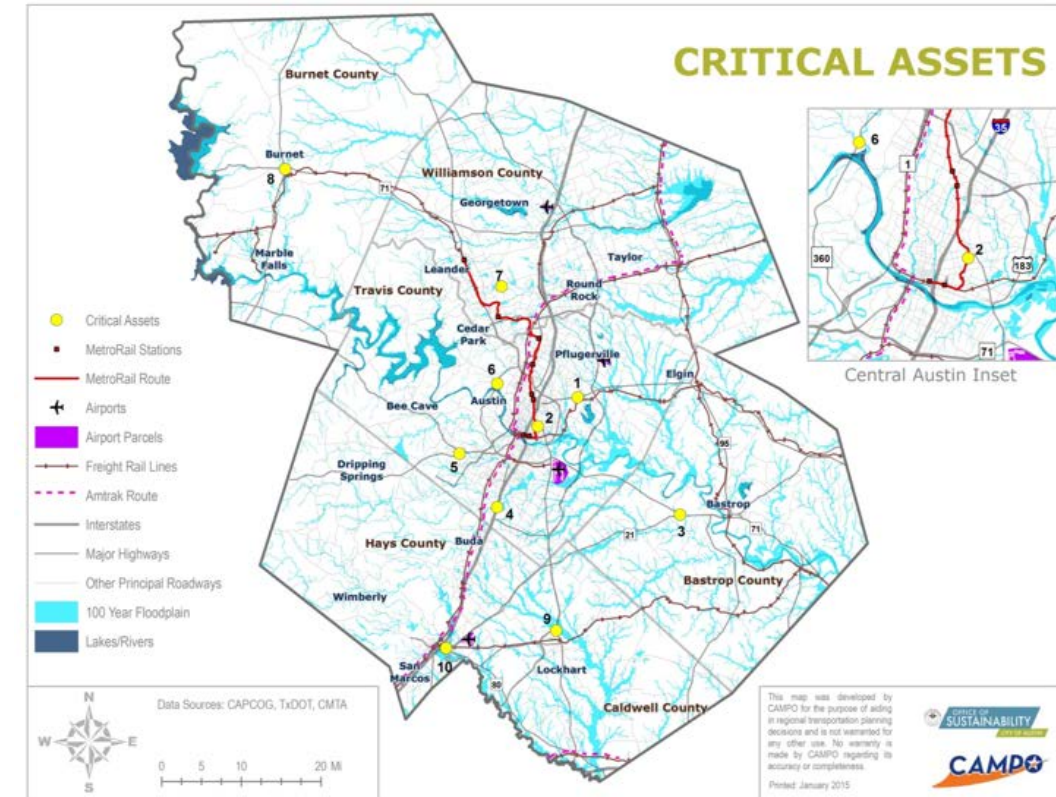




Table 15 Risk Rating Summary

ID	Asset	Flooding	Drought	Heat	Wildfire	Extreme Cold
2	MetroRail Red Line at Boggy Creek	Moderate-High	Inconclusive	Moderate	None	Low-Moderate
3	SH 71E at SH 21	High	Moderate-High	Low-Moderate	Moderate-High	Low-Moderate
4	I-35 at Onion Creek Parkway	Low	None	None	Moderate-High	Low-Moderate
5	US 290W/SH 71 - Y at Oak Hill	Moderate	Moderate	None	High	Low
6	Loop 360/RM 2222	Moderate	Moderate	None	High	Low-Moderate
7	FM 1431 at Brushy Creek/Spanish Oak Creek	None	Moderate	Low	Moderate-High	Low
8	US 281 and SH 29 Intersection	Moderate-High	Low	Low	Moderate	Low
9	US 183 north of Lockhart	Low-Moderate	High	Low-Moderate	Moderate-High	Low-Moderate
10	SH 80 (San Marcos Highway) at the Blanco River	Moderate	Low	Low	Moderate	Low



2040 Plan Vision and Goals

Develop a comprehensive, multimodal, regional transportation system that safely and efficiently addresses mobility needs over time, is economically viable, cost-effective and environmentally sustainable, supports regional quality of life, and promotes travel options.

1. Ensure social equity
2. Support coordinated planning of land use and transportation
3. Increase safety and security of system
4. Maximize cost effectiveness
5. Maintain and enhance mobility & access
6. Improve connectivity
7. Maximize economy
8. Reduce project delays
9. Minimize negative impacts to environment, noise, and neighborhood character
10. Improve air quality and energy
11. Improve efficiency of transportation system
12. Promote system preservation





CAMPO Platinum Planning



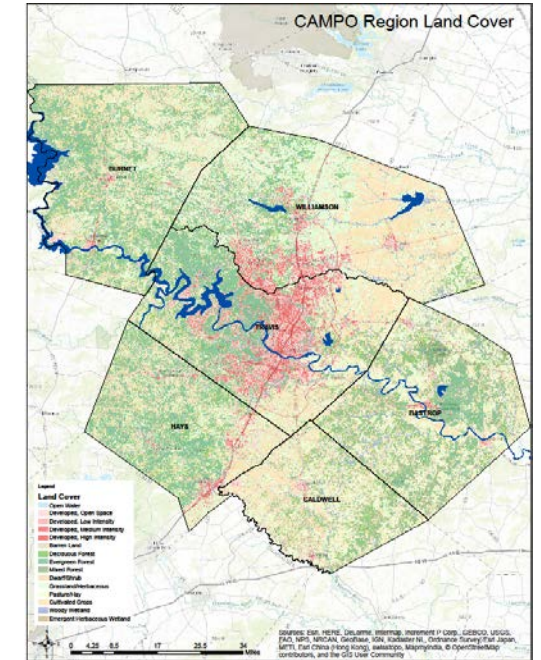
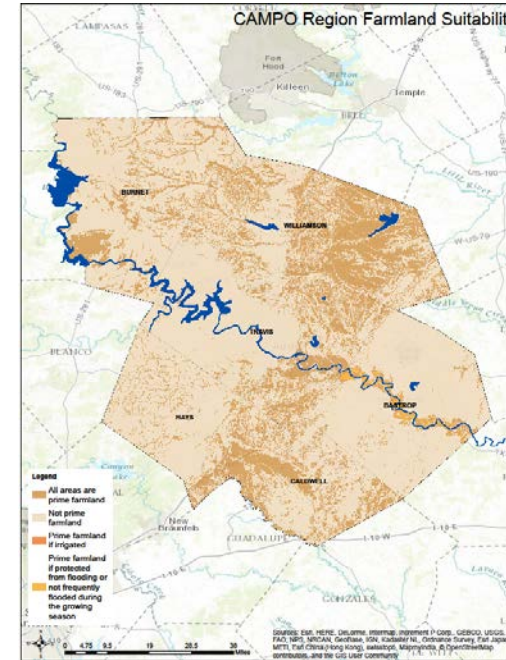
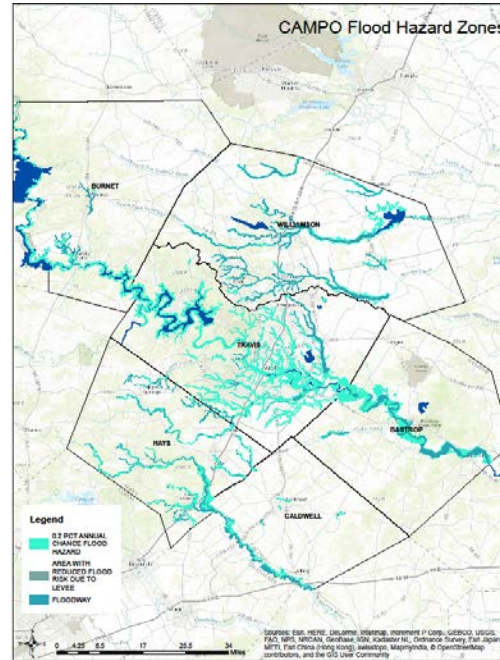
Locally driven approach for
long-term planning





Land Suitability

Assessment of
Environmental & Social
Criteria for Development

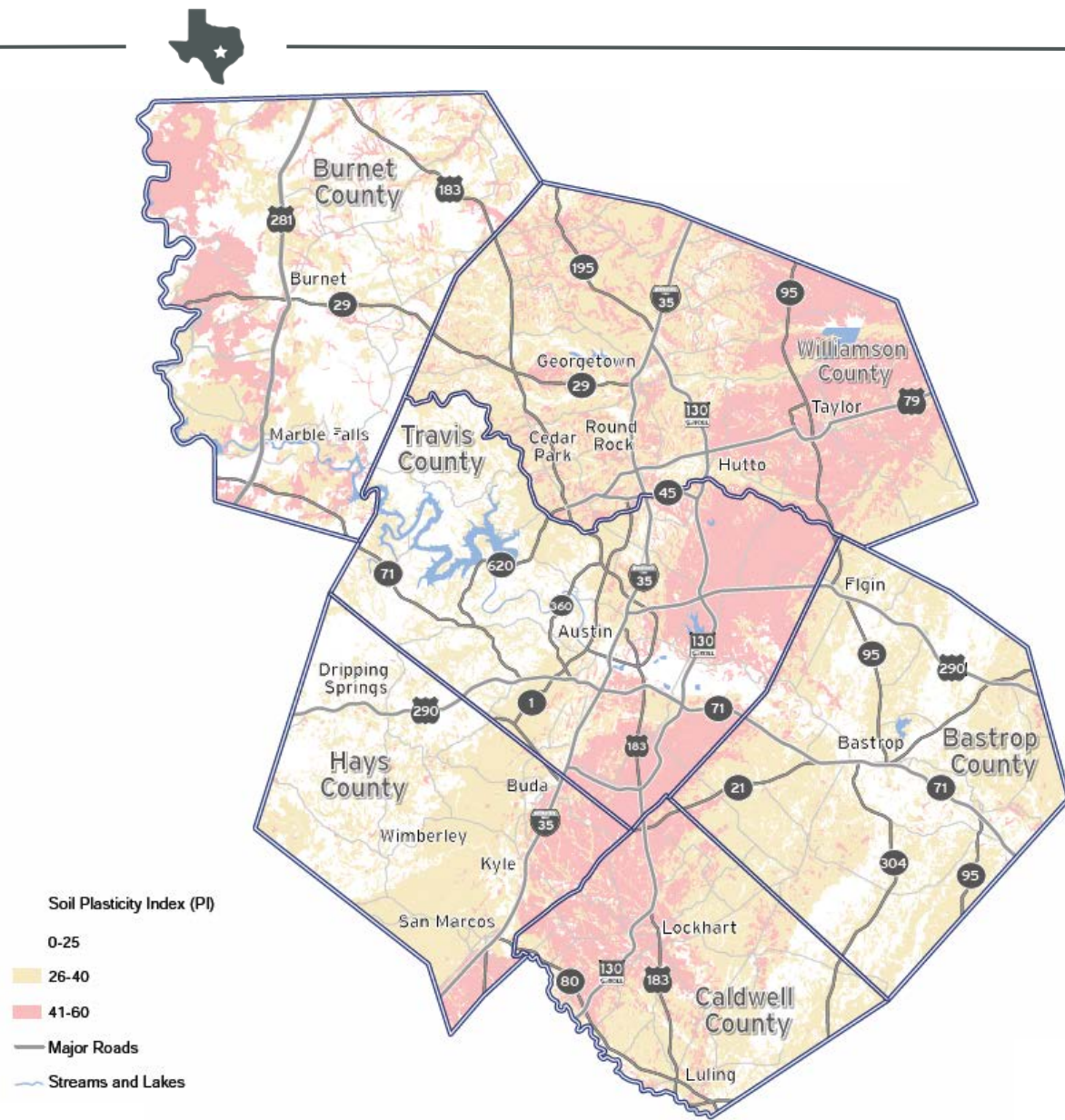


The land suitability and vulnerability analysis will allow for the identification of areas that may be of concern when locating transportation projects and project selection.



Soil Plasticity

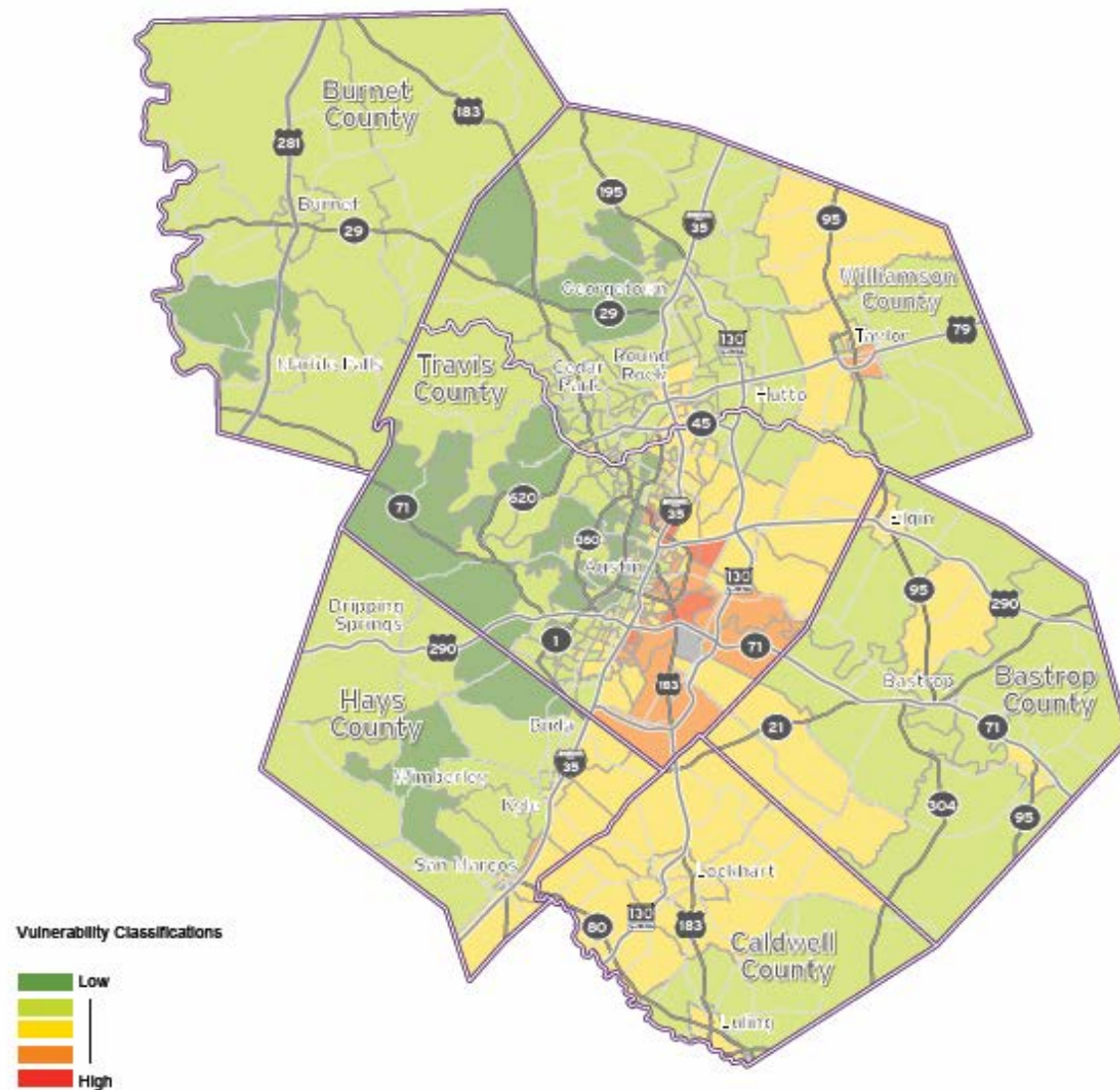
Particularly relevant to
infrastructure life-cycle costs



Beyond Environmental Justice: Measuring Vulnerability

Vulnerability Measures:

- low income
- seniors
- non-white
- school-aged
- disability status
- limited English proficiency
- percent zero car households





DRAFT 2045 **Regional** **Arterials Plan**

Currently In Progress

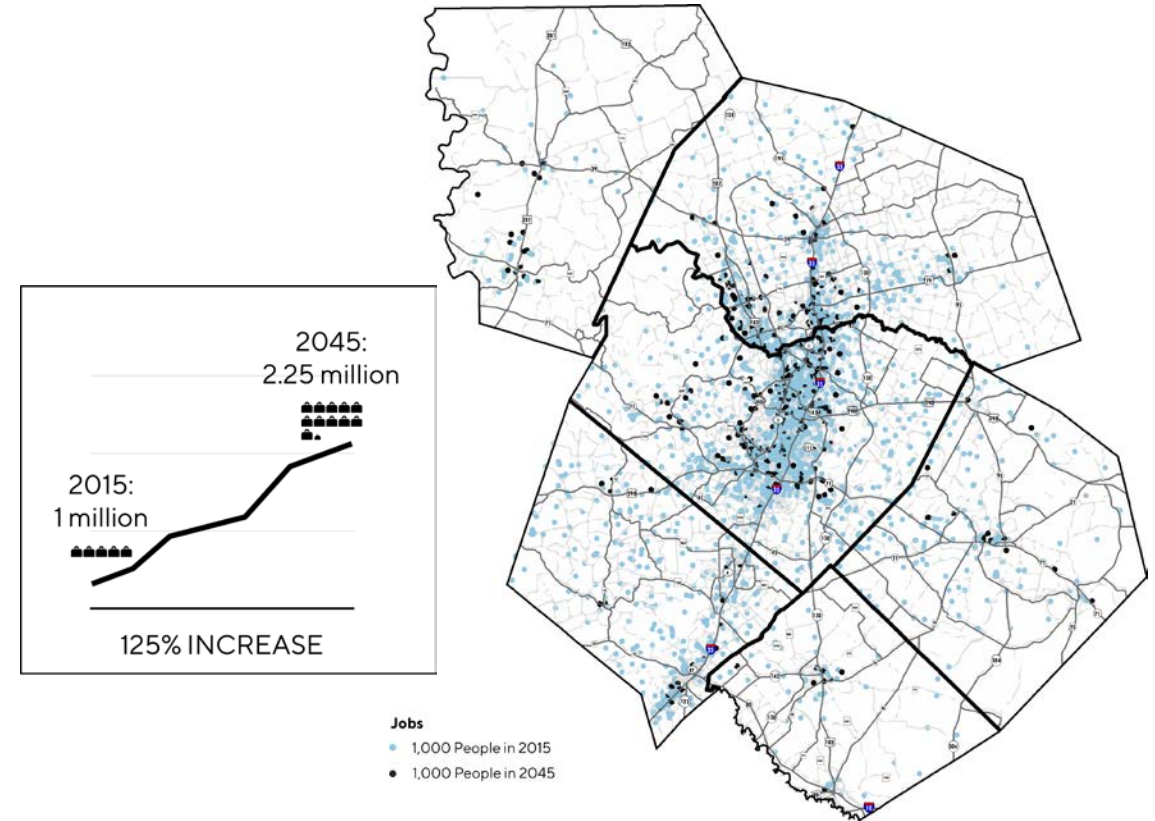
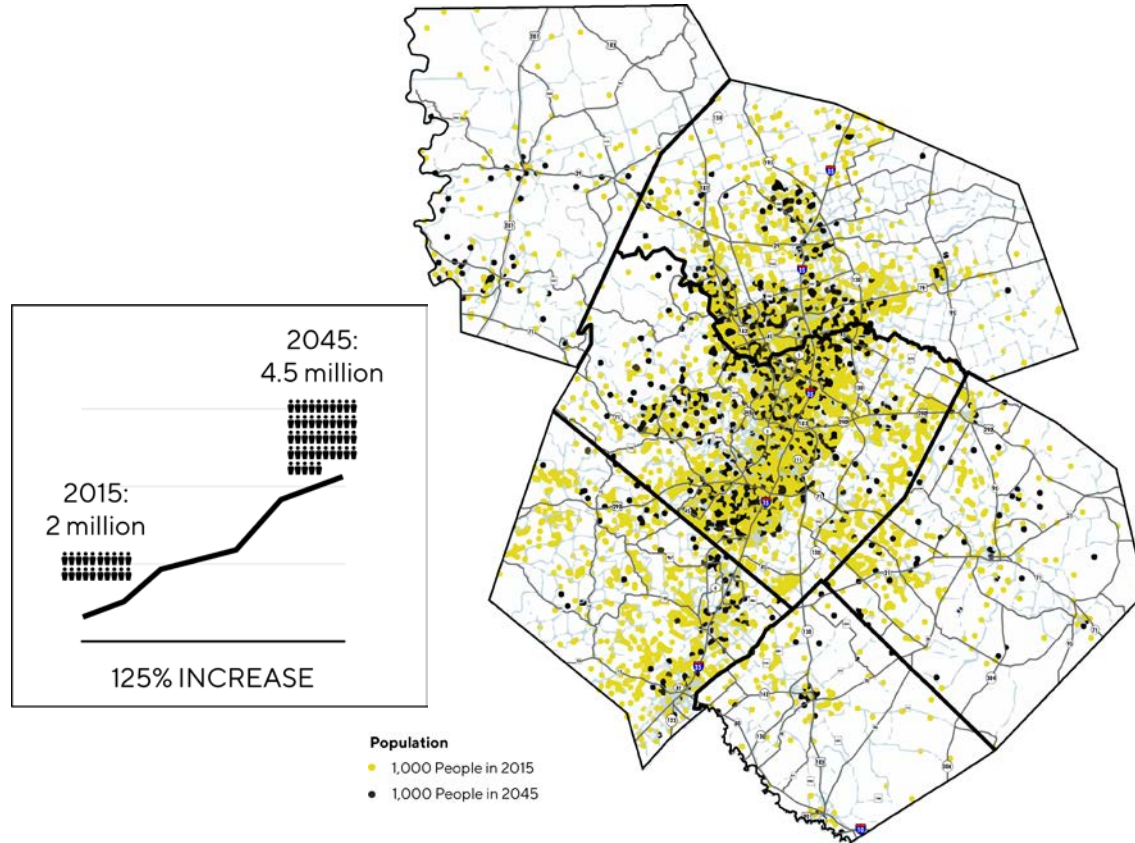
Improvements to:
evacuation routes / system
redundancy / roadway design
and materials



Population

DRAFT: These projections are
not for distribution.

Employment





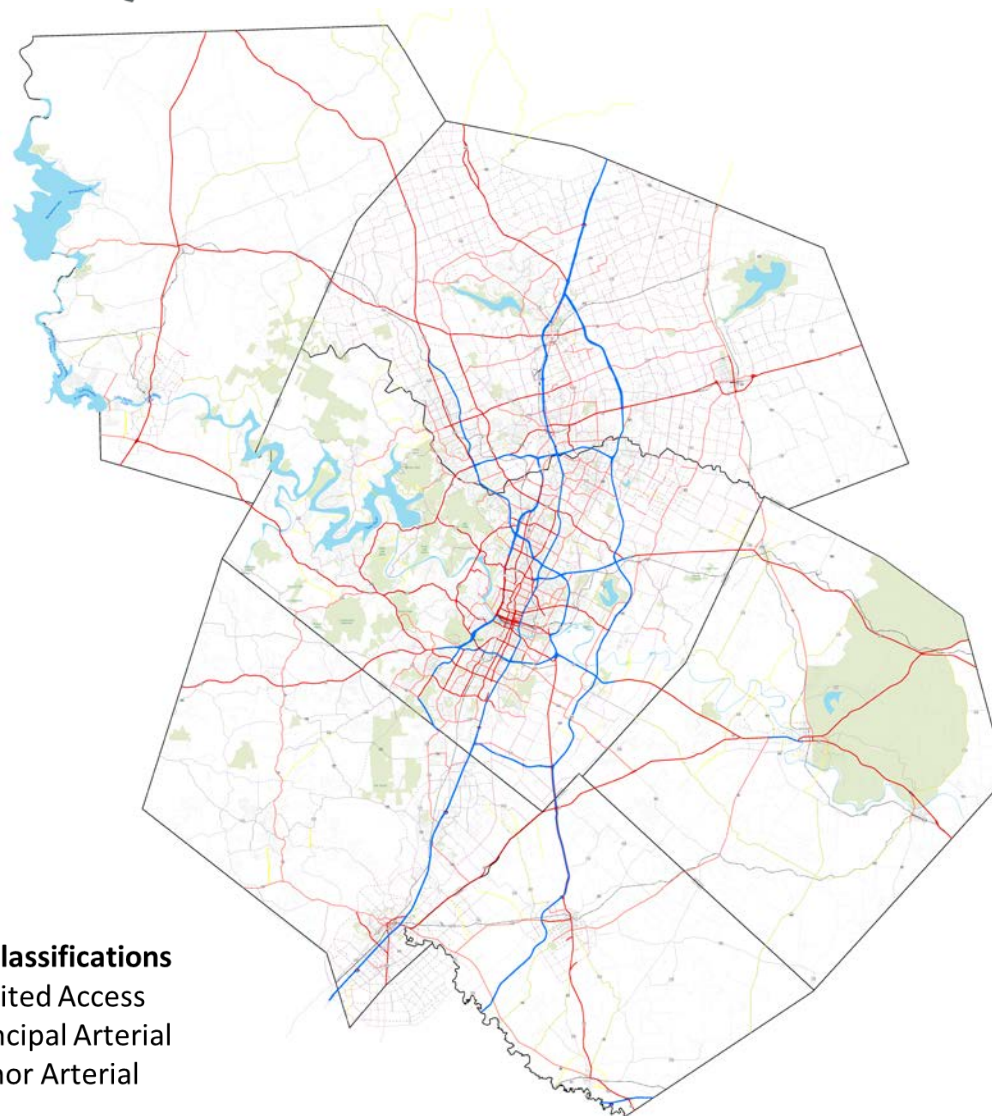
Planned + Desired Network

Includes Existing and
Planned Routes with TIP
Projects and Local
Government Desires



Functional Classifications

- Limited Access
- Principal Arterial
- Minor Arterial

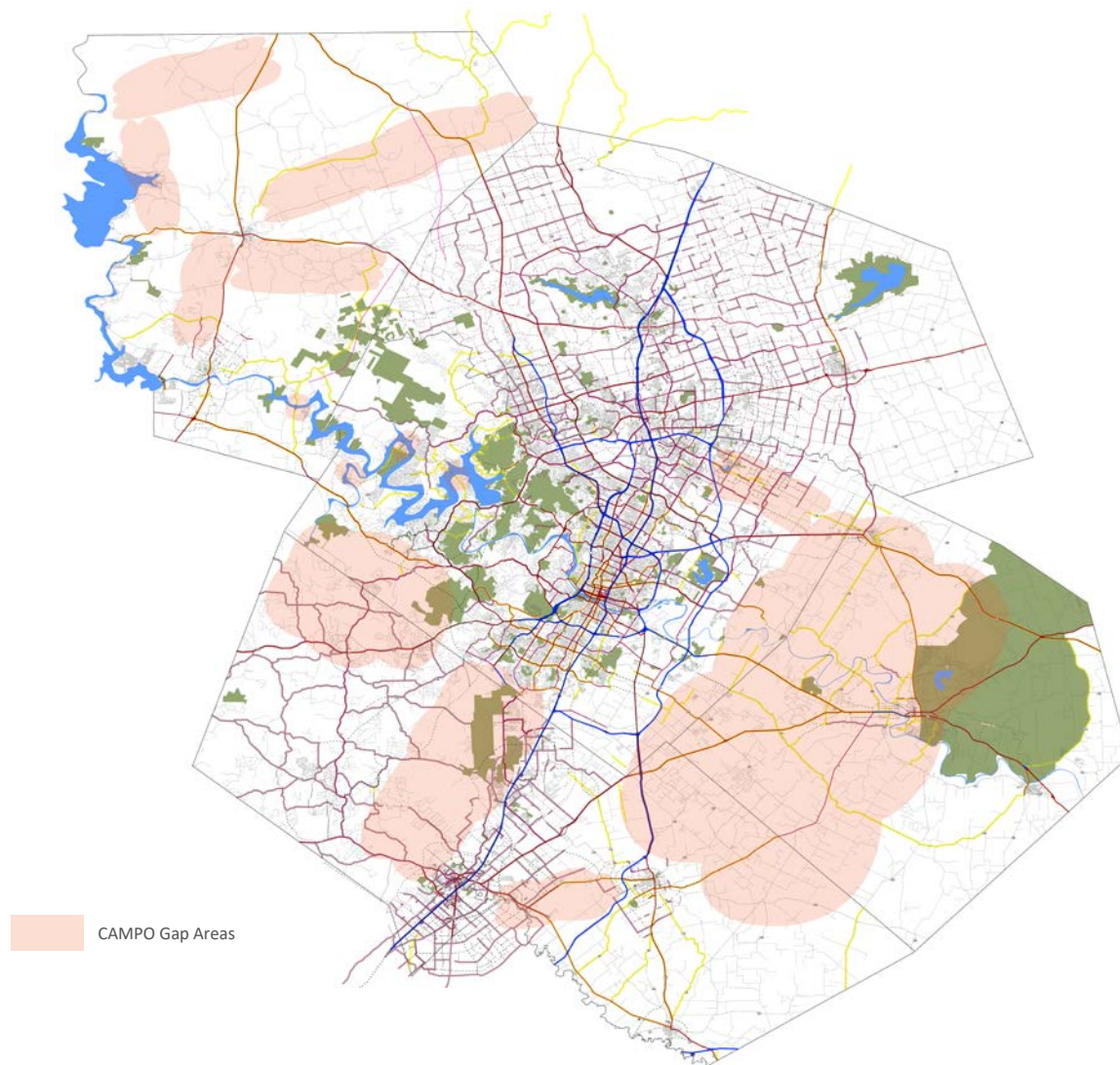




Planned + Desired Network with Gaps



Capital Area MPO
identified gaps





Scenario Modeling



- Z) No-Build
- A) Regional Connectors
- B) Regional Connectors with Non-Tolled Managed Lanes (NML)
- C) Ideas Network
- D) Regional and Supporting Connections Network

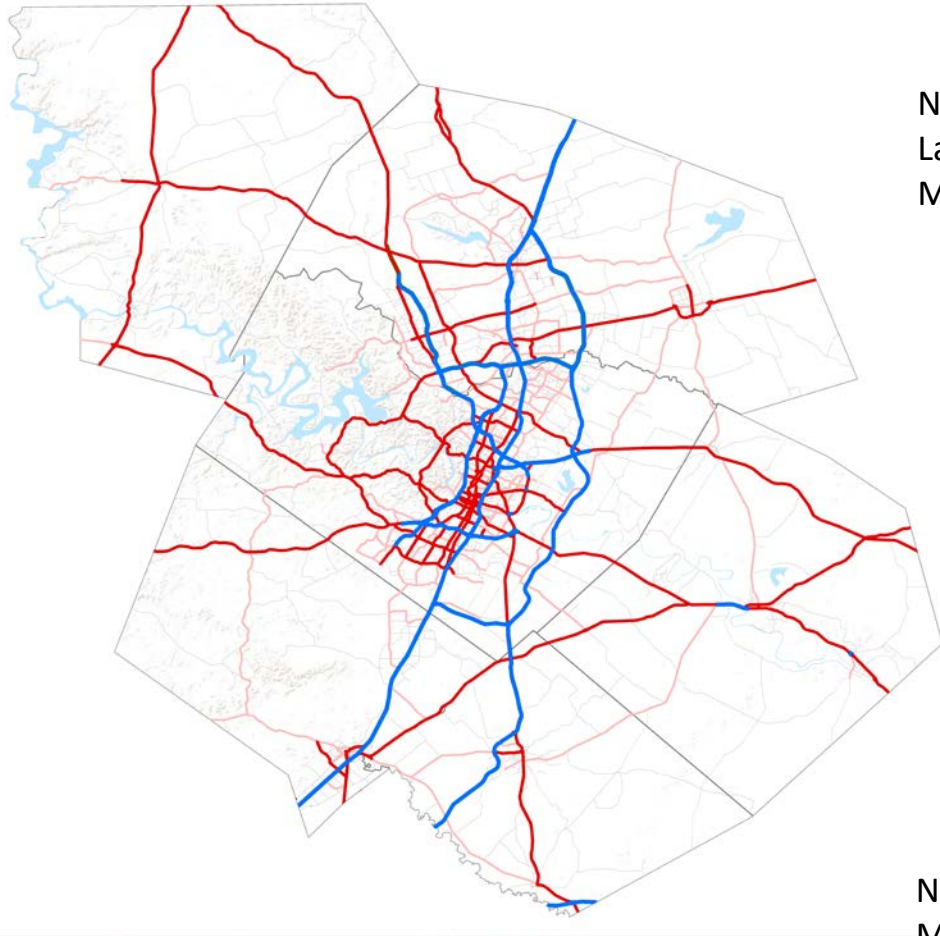


Scenario Z



No-Build

Existing, plus committed
on 2040 demographics



	Baseline	Scenario Z: No-Build
Network Lane Mileage	17,182	17,182
VMT	57.64 Million	100.44 Million
VHT	1.27 Million	2.93 Million
Network Mph	41	34

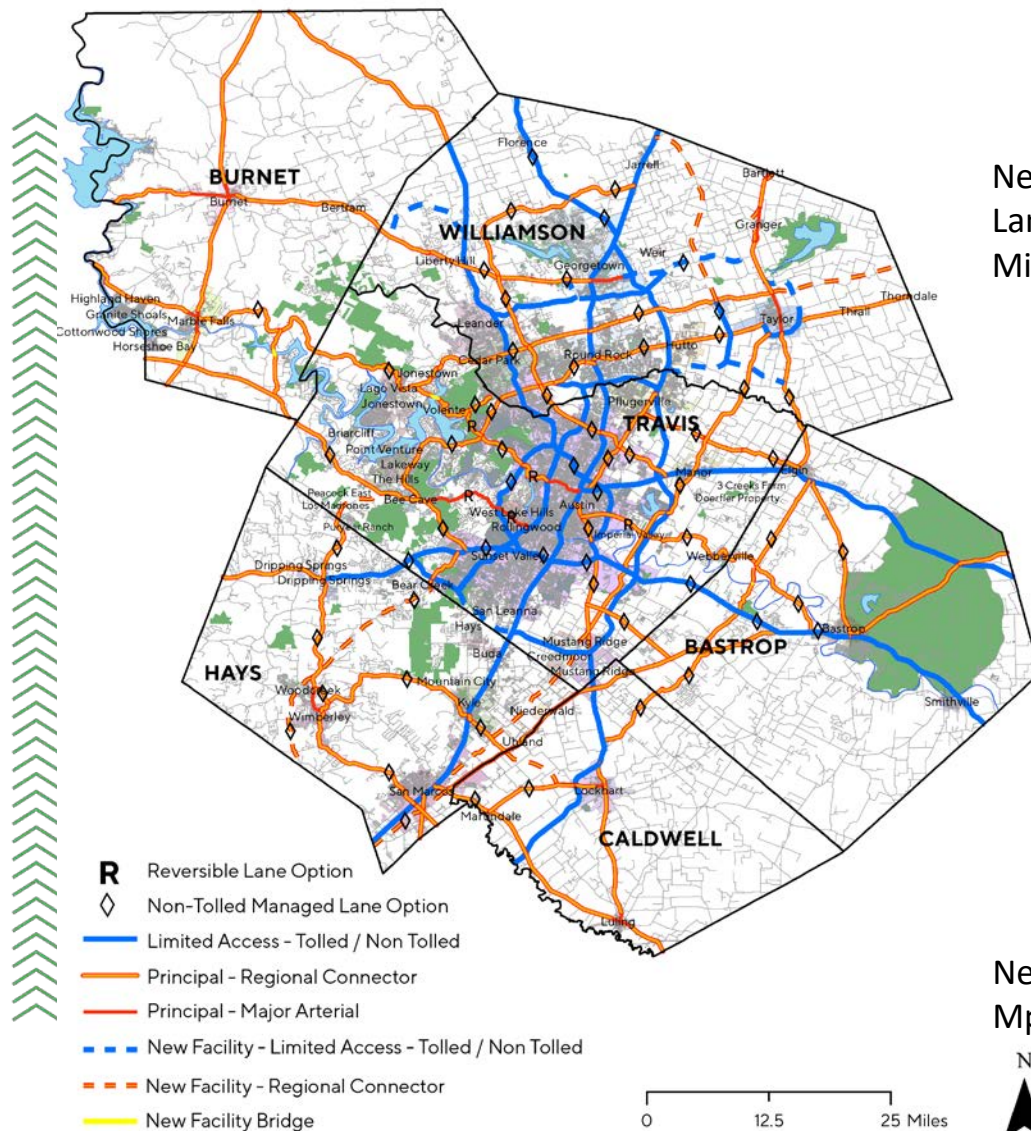




Scenario A

\$9.4 Billion

Regional Connectors



Network
Lane
Mileage

Scenario Z:
No-Build

17,182



Scenario A:
No-Build

19,976

VMT

100.44
Million



99.05
Million

VHT

2.93
Million



2.54
Million

Network
Mph

34

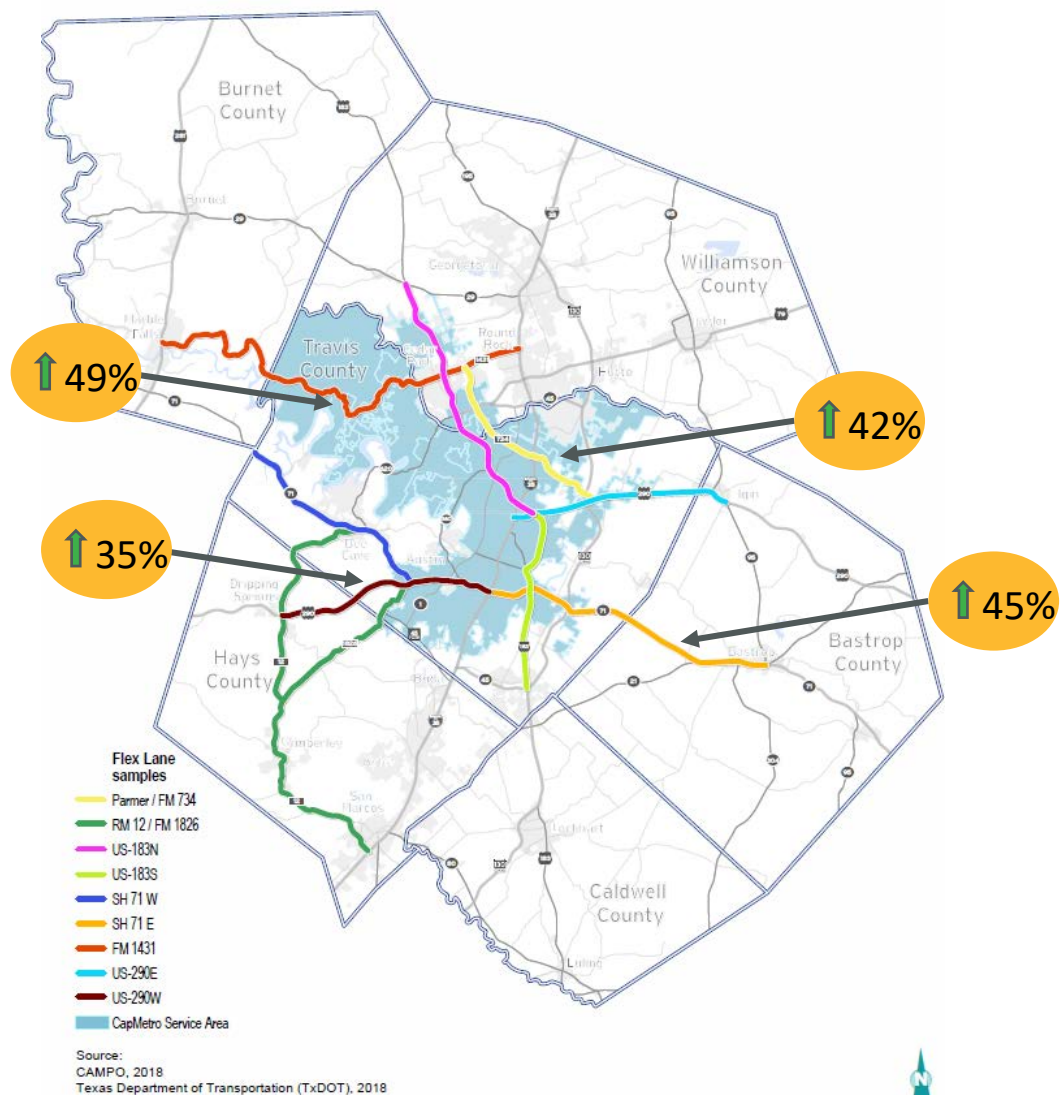


39



Scenario B

Non-Tolled Managed Lanes
Change in person trips

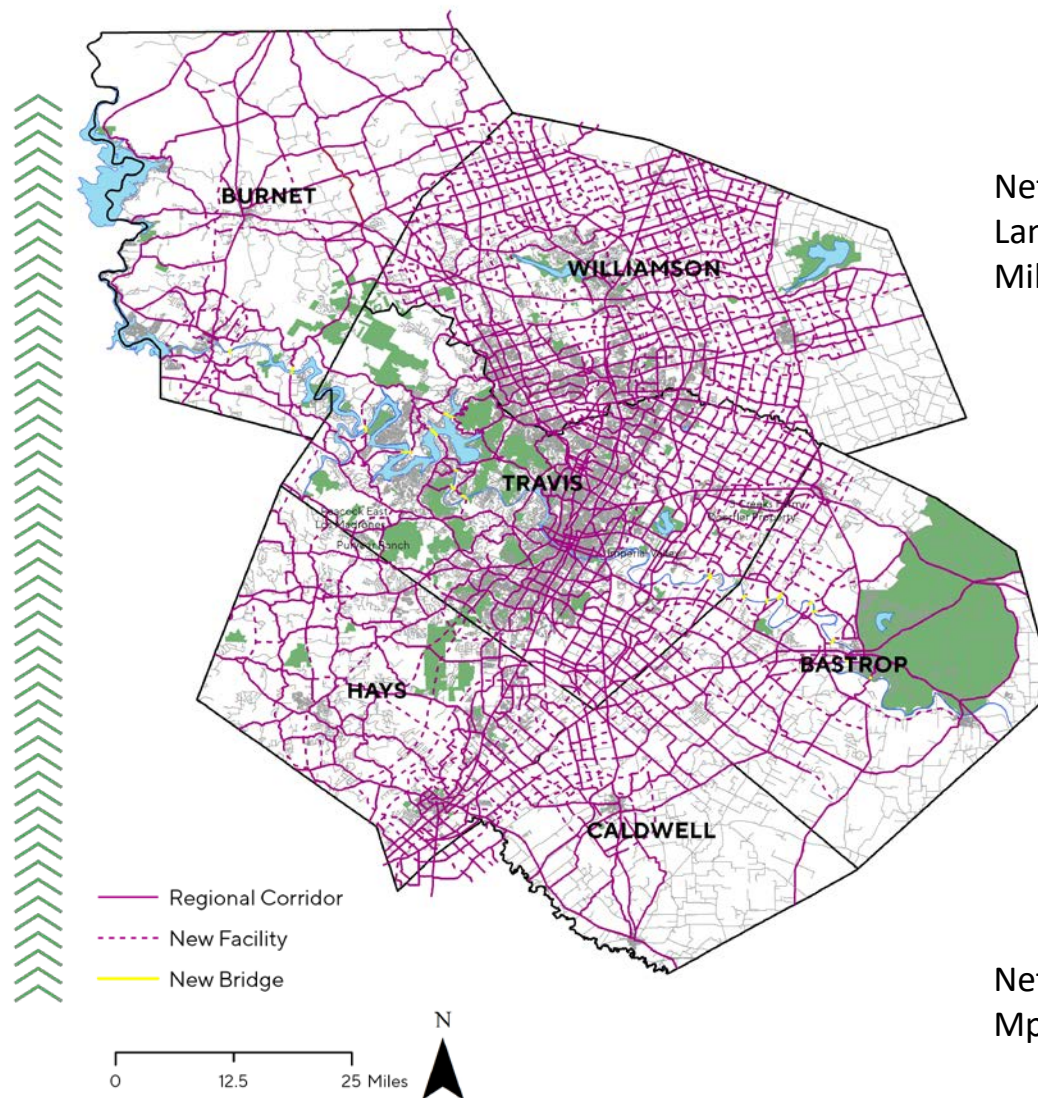




Scenario C

\$22.5 Billion

Collection of Ideas



	Scenario Z: No-Build		Scenario C: Combined Ideas
Network Lane Mileage	17,182	↑	23,606
VMT	100.44 Million	↓	97.60 Million
VHT	2.93 Million	↓	2.35 Million
Network Mph	34	↑	42

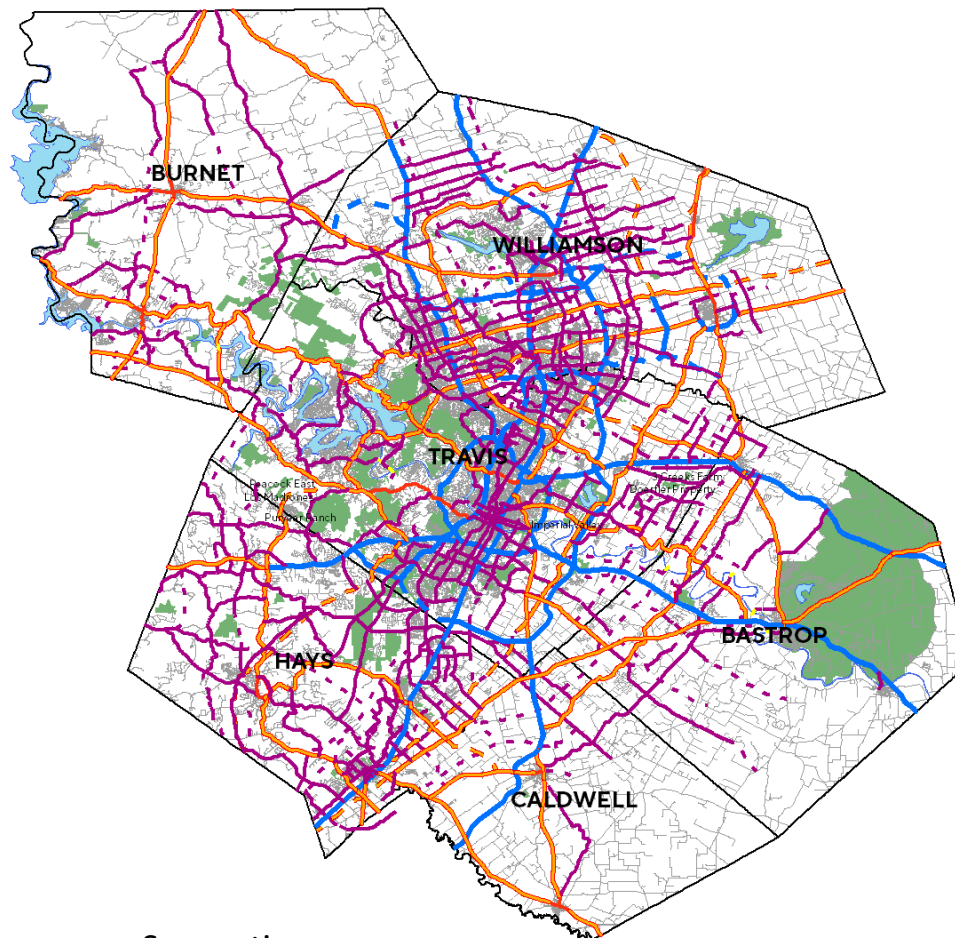


Scenario D

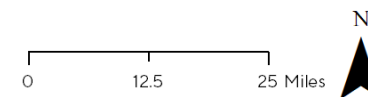
\$17.1 Billion

Regional Connectors and
Supporting Connections

Safety and Redundancy
Segments Over .45 V/C



Supporting
Connections





Regional Incident Management Plan

Adopted December 2018





Regional Incident Management Plan

Adopted December 2018

- Real time information for drivers
- Coordinate first responders and others
- Technological improvements





2045 Regional Active Transportation Plan

Adopted October 2017



Sidewalks



Trails



Pedestrian crossings
and median islands



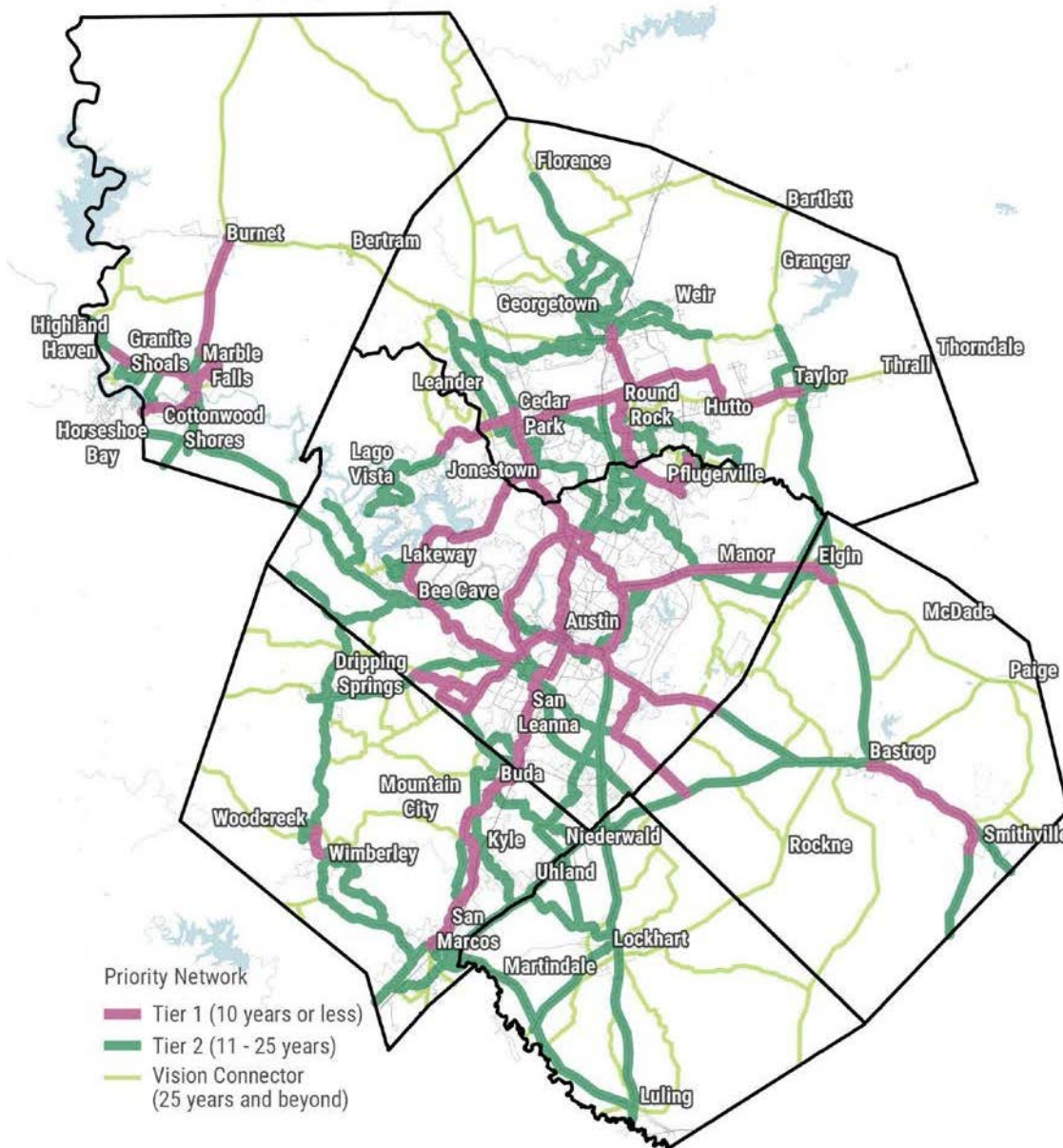
Curb cuts and other treatments
for people with disabilities



Street lighting



Network Development



Vision Connectors



5.96 miles
Existing



617.66 miles
New Construction
Needed



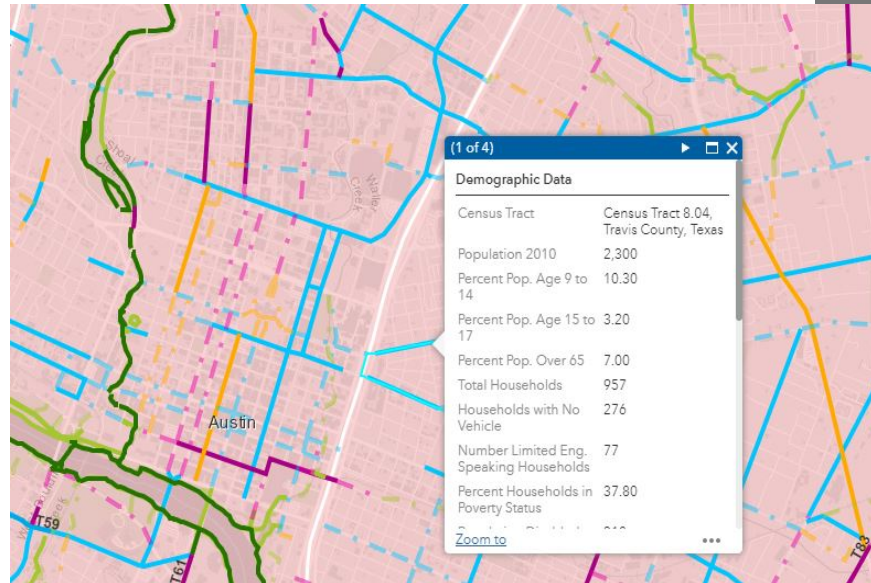
70.94 miles
Potential Upgrade

Vision Network Grand Total

1770.42 miles

- Existing: 129.11 miles
- New Construction Needed: 1245.93 miles
- Potential Upgrade: 395.38 miles

Online Project Viewer



2045 Regional Active Transportation Data Viewer

Find address or place

Purpose
The purpose of CAMPO's Online Data Viewer is to provide the six-county region with reliable and consistent geographical information relating to transportation projects and planning efforts. The public as well as local governments can gain insight and access to valuable GIS data used by the MPO in our regional planning efforts.

What is in the viewer?
Regional Active Transportation Plan (RAP):
This map contains the active transportation network data generated during the development of the 2045 Regional Active Transportation Plan (RAP), which has the purpose of creating a shared vision for the development of a safe and highly functional active transportation network of pedestrian and bicycle facilities and amenities for the six-county CAMPO region. You may use the viewer to see existing and planned bicycle and pedestrian facilities as well as the 2045 RAP Vision Network. Selecting specific links within the regional network will open a window with all available county health, facility, and demographic data associated with the link.
Transportation Improvement Program:
Coming soon.

Contact
For additional information or questions regarding the viewer or the information presented, please contact Lera Reese, GIS and Data Analyst with CAMPO, at lera.reese@camptexas.org
☐ Do not show this splash screen again

OK

About
USER TIPS
• Use Layers tool to turn on and off additional layers in the viewer.
• Use the Query tool to perform buffer queries for existing demographic data, bike facilities, and Environmental Justice areas.
GLOSSARY
Active Transportation Projects
Existing: There is currently a facility that provides separation from motor vehicle traffic that is likely comfortable for a typical person to ride a bicycle. Facility types include trails, sidepaths, and unsurfaced bike lanes.

Query

Tasks Results

← Transit_Stops

Spatial filter
Only return features that intersect with the shape drawn on the map

☐ ☒ Apply a search distance

0.5 Miles

(1 of 2)

Projects

Project ID	BA4
Project Name	Central Ave/Littig Rd
Status	New Construction Needed
Length (Miles)	3.86
From	S Main St
To	Monkey Rd
County	Bastrop

[Zoom to](#)



DRAFT 2045 Regional Transit Plan

Starting in 2019

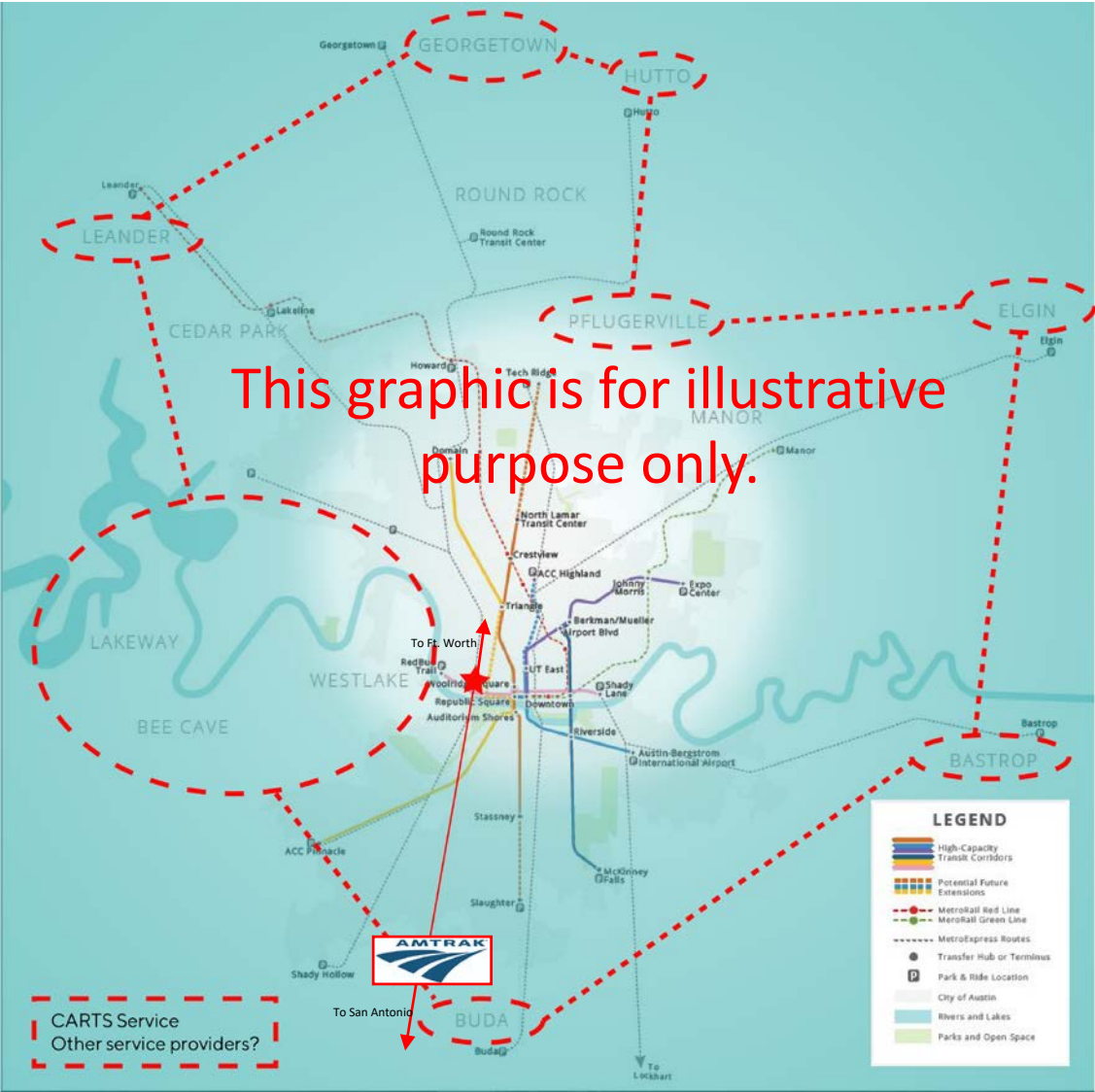




DRAFT 2045 Regional Transit Plan



Regional connections
throughout the region





DRAFT

Regional Transportation Plan

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Currently In Progress



Questions?

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