

Thinking outside the box to integrate equity into transportation planning efforts in the Greater Chattanooga region

Reflecting on an MPO's evolving approach to meeting the intent of planning requirements related to transportation equity



Chattanooga-Hamilton County/North GA Transportation Planning Organization
Modern Mobility Partners
Prepared for October 2021 TAPA/GPA Conference

<https://bit.ly/3F6nw77>

AGENDA

1

Introduction

2

Why equity matters at the MPO scale

3

Past equity work

4

Current equity work

5

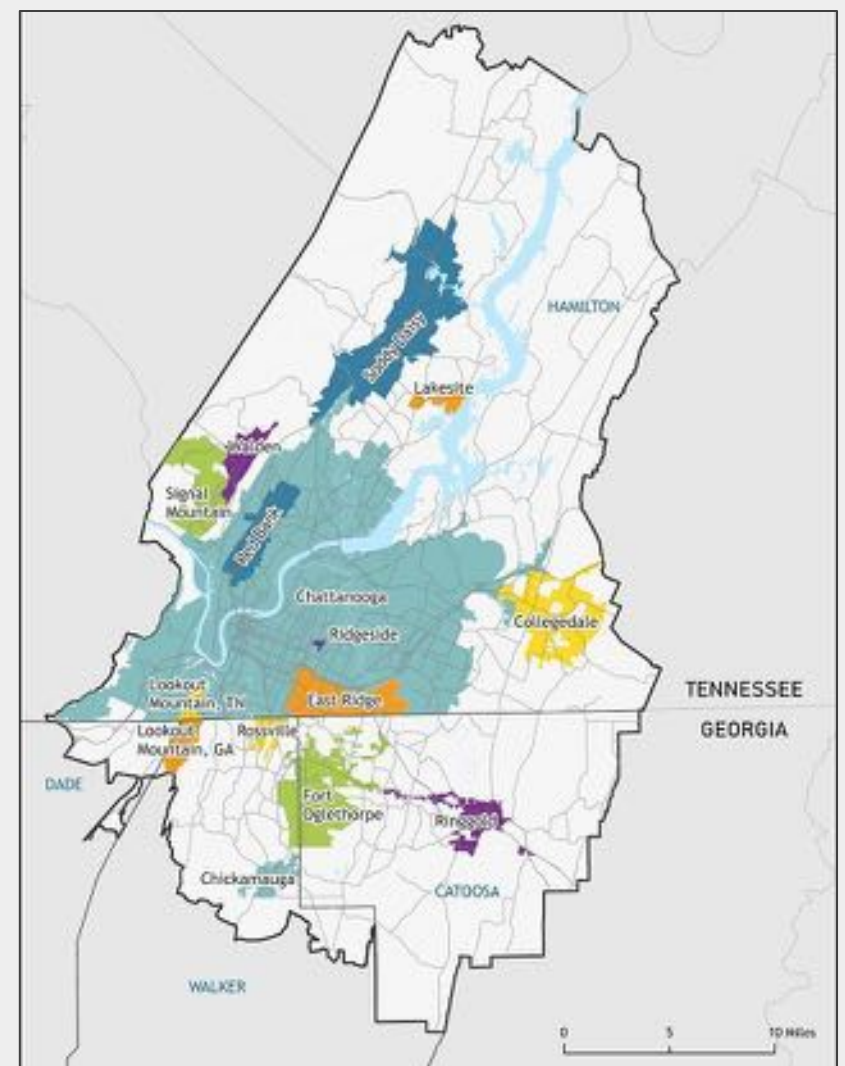
Key takeaways for planners

6

Q & A

Metropolitan Planning Organizations & Regional Planning

- What is an MPO?
- Regional planning, often as an intermediary
- Long range (20+ years) plans



How & Why Equity Matters at this Scale

- Key decisions occur at the regional scale that affect how federal transportation funds are implemented, which directly impacts the **built environment and how people travel**
- Investments reflect **values**, and most funding for transportation improvements flows through the MPO process
- Regional, long-range planning offers a **unique perspective**
- Without an equity lens, these decisions can have **inequitable benefits and burdens** to people throughout the region



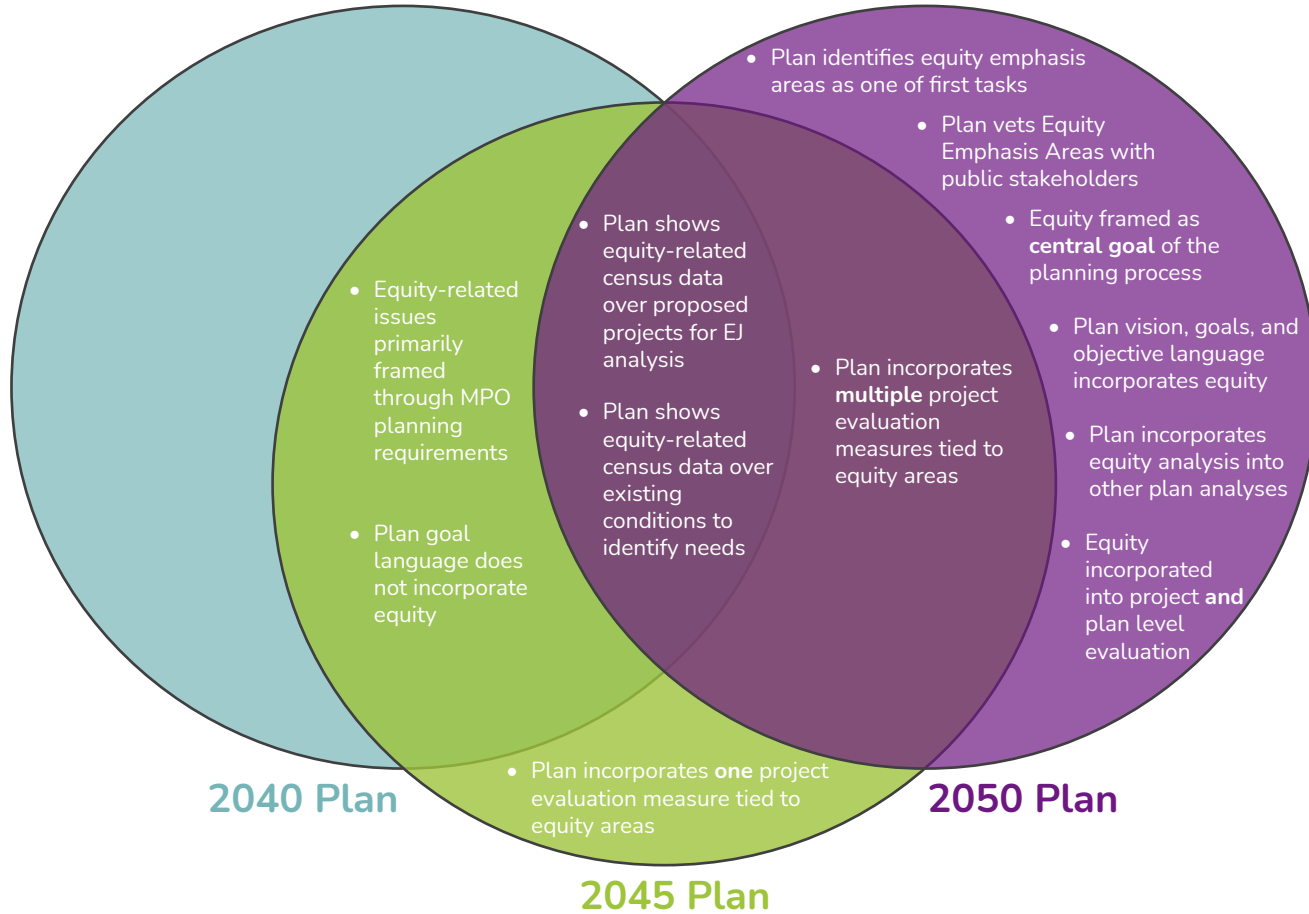
Safe Routes to School National Partnership, Carrie Turner Photography

Past Incorporation of Equity into Transportation Plans

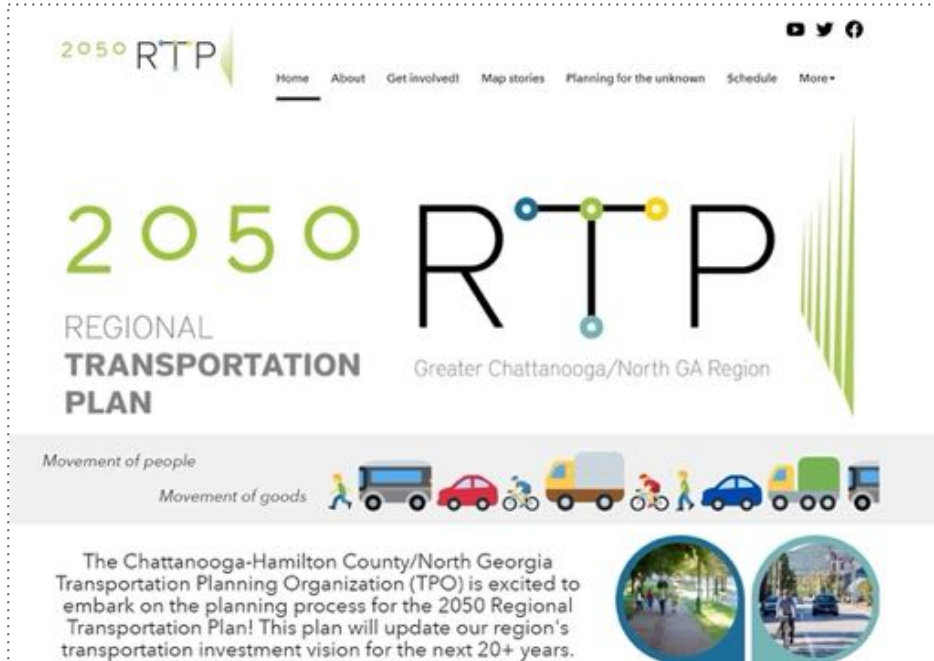
- Alignment with regulations - equity approach framed as requirement of the process
- Primarily retrospective look
- Disjointed analysis: Identify current needs then map proposed projects alongside environmental justice populations

In addition to identifying current needs for disadvantaged populations as they relate to the areas outlined above, the proposed investments for the 2040 RTP were mapped against environment justice areas to assess Plan impacts on these communities (Figures 9.10-9.12). Note that the definition of “disadvantaged” for the environmental justice analysis was refined to focus on low income and minority populations only. Elderly populations were removed from the analysis given the large portions of the region with elderly population. This enabled a more refined assessment of Plan impacts on environmental justice communities, in particular, low income and minority populations. Results of the environmental justice analysis indicate:

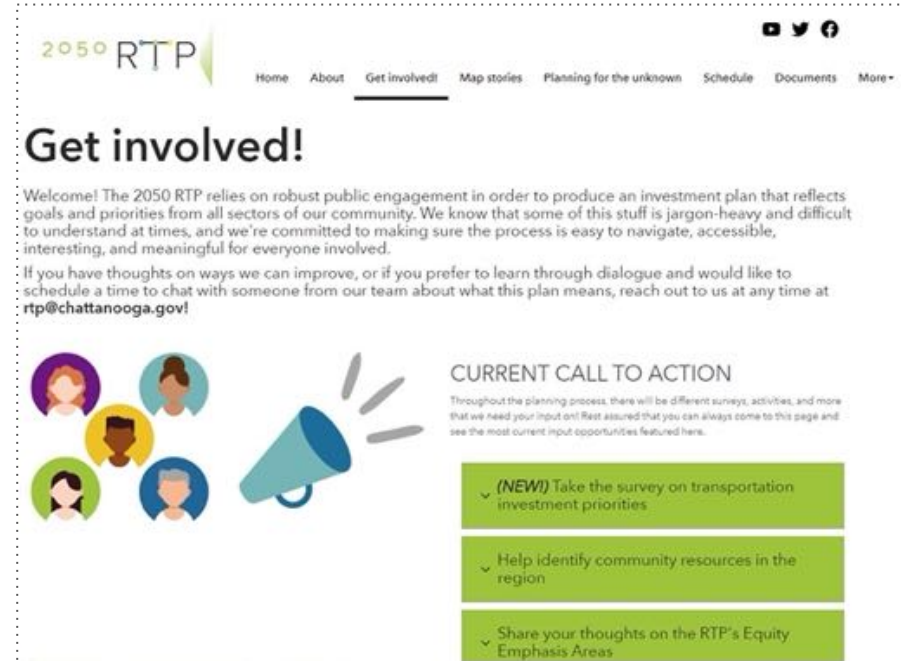
Evolving Approach



2050 Regional Transportation Plan



The screenshot shows the homepage of the 2050 Regional Transportation Plan website. At the top left is the logo "2050 RTP" with a green vertical bar. To the right are social media icons for YouTube, Twitter, and Facebook. Below the logo is a navigation menu with links: Home, About, Get involved!, Map stories, Planning for the unknown, Schedule, and More. The main content area features a large "2050 RTP" logo where the "0"s are green and the "RTP" is black with colored dots. Below this is the text "REGIONAL TRANSPORTATION PLAN" and "Greater Chattanooga/North GA Region". A horizontal bar titled "Movement of people" and "Movement of goods" contains icons for a bus, car, bicycle, truck, and train. At the bottom, a paragraph states: "The Chattanooga-Hamilton County/North Georgia Transportation Planning Organization (TPO) is excited to embark on the planning process for the 2050 Regional Transportation Plan! This plan will update our region's transportation investment vision for the next 20+ years." Two circular images show people walking and a car on a street.



The screenshot shows the "Get involved!" page of the 2050 RTP website. It has the same header as the home page. The main heading is "Get involved!". Below it is a welcome message: "Welcome! The 2050 RTP relies on robust public engagement in order to produce an investment plan that reflects goals and priorities from all sectors of our community. We know that some of this stuff is jargon-heavy and difficult to understand at times, and we're committed to making sure the process is easy to navigate, accessible, interesting, and meaningful for everyone involved." This is followed by an invitation: "If you have thoughts on ways we can improve, or if you prefer to learn through dialogue and would like to schedule a time to chat with someone from our team about what this plan means, reach out to us at any time at rtp@chattanooga.gov!". To the left of the "CURRENT CALL TO ACTION" section are icons of diverse people and a megaphone. The "CURRENT CALL TO ACTION" section contains three green boxes with white text: "(NEW) Take the survey on transportation investment priorities", "Help identify community resources in the region", and "Share your thoughts on the RTP's Equity Emphasis Areas".

<https://2050rtp-chcrpa.hub.arcgis.com/>

What We're Doing Now

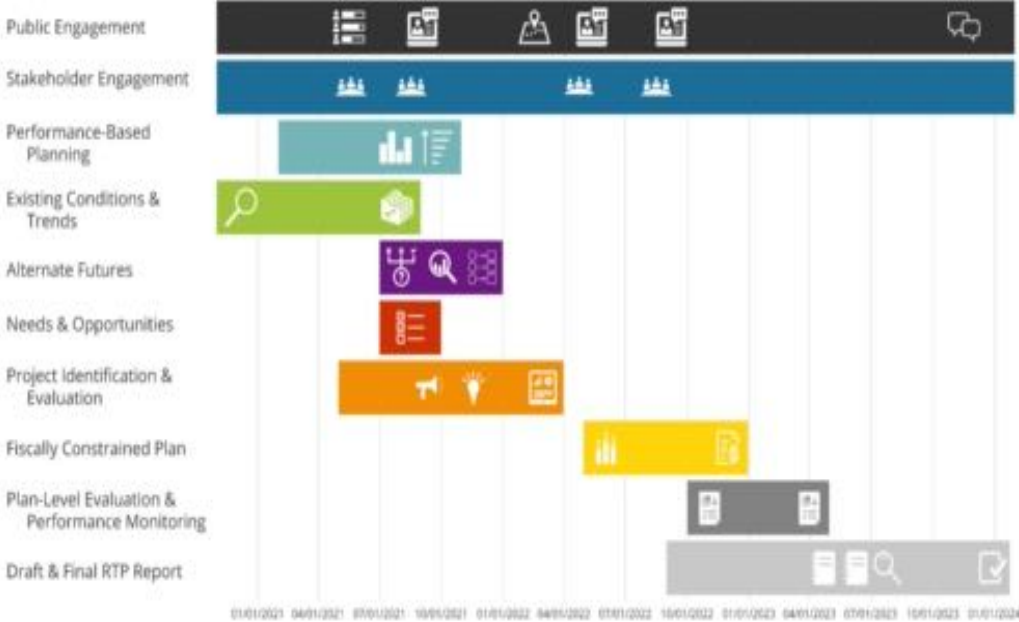
2050 RTP approach to equity

- Community Advisory Committee
- Equity Emphasis Areas (EEAs)
- Level of Traffic Stress for Bicyclists and Pedestrians
- Improving Access to Community Resources
- Transit and Multimodal Potential Areas
- Electric Vehicle (EV) Opportunity Areas
- Project identification
- Project-level evaluation
- Plan-level evaluation

EV Charging Opportunity Areas



2050 Regional Transportation Plan Schedule



Equity Emphasis Areas

- Low-income households
- Zero-vehicle households
- Low-English proficiency households
- Households with a disability present
- Individuals of Hispanic and/or Latin American ethnicity
- Individuals of Black, Asian, Native American, and other minority (non-white) races
- Adults 25+ with low educational attainment (less than a high school diploma)
- Older adults age 65+
- Children and youth under age 18
- **Public input**

Equity Emphasis Areas

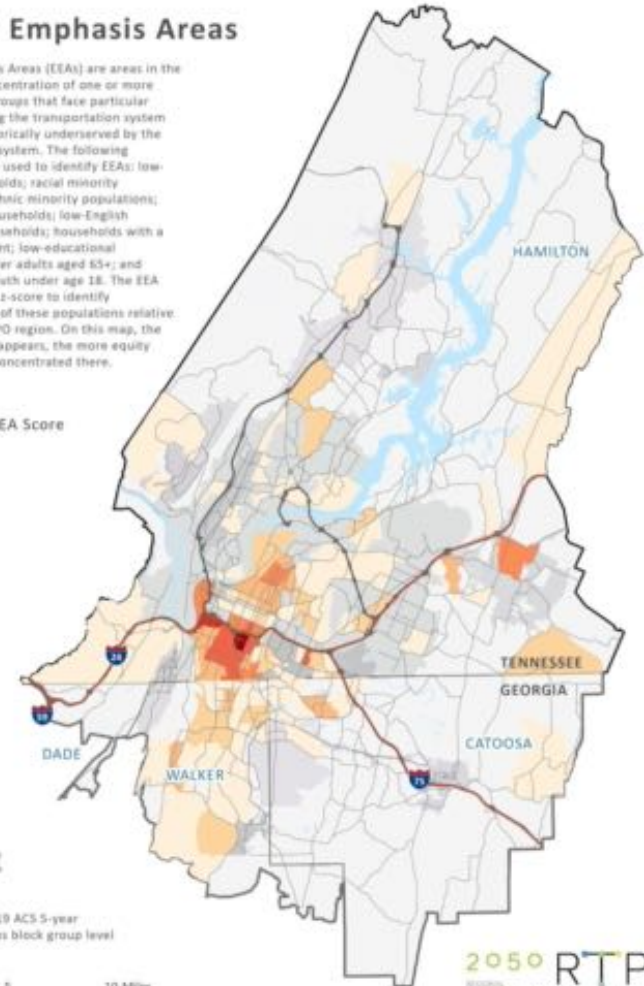
Equity Emphasis Areas (EEAs) are areas in the TPO with a concentration of one or more demographic groups that face particular challenges using the transportation system and/or are historically underserved by the transportation system. The following indicators were used to identify EEAs: low-income households; racial minority populations; ethnic minority populations; zero-vehicle households; low-English proficiency households; households with a disability present; low-educational attainment; older adults aged 65+; and children and youth under age 18. The EEA analysis used a z-score to identify concentrations of these populations relative to the whole TPO region. On this map, the darker an area appears, the more equity indicators are concentrated there.

Combined EEA Score



TPO municipalities shown in grayscale

Data source: 2019 ACS 5-year estimates, census block group level



Equity Emphasis Areas for Transportation Investments

Mapping traditionally underserved communities in the
Chattanooga TPO area

Caroline Dalgle | January 26, 2021



Equity Emphasis Areas - 2050 RTP

This is a survey form to collect public contributions to the dataset of Equity Emphasis Areas that will be used in RTP project evaluation. If you haven't yet, [click here to review the RTP Story Map that explains more about this work](#). If you don't want to use the mapping tool, feel free to email your thoughts about a community or neighborhood that should be identified as an equity emphasis area to rtp@chattanooga.gov.

Draw the neighborhood or community that you want to identify as an equity emphasis area.*

Drag your mouse to navigate the map, and use the +/- buttons in the top left corner to zoom in and out. When you are ready to draw an area, click the polygon shaped icon in the top right corner and start your drawing. When you are done, double click to close the edges. If you need to erase and restart your drawing, click the trashcan icon in the top right corner that appears after you start drawing.



Which population(s) are concentrated in this area?*

Low income households

Households with disabilities present

Older adults 65+

Children and youth 0-17

Black, Asian, or other racial minorities

Hispanic/Latino individuals

Zero vehicle households

Adults age 25+ with low educational attainment

What else do you want us to know about this area?

1000

Submit

Share your thoughts!

These maps of demographic data are a good starting point for identifying equity emphasis areas for the 2050 RTP. They tell us which census block groups, relative to the entire TPO area, have particularly high concentrations of one or more populations described above. But we know looking at census data alone doesn't tell the whole story. Help us make sure our plan rewards all transportation projects that benefit disadvantaged and historically underserved communities by adding any missing equity emphasis areas using the form below.

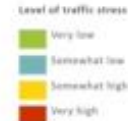
[Need help using the mapping tool? Click here for a video tutorial](#)

Level of Traffic Stress for Bicyclists and Pedestrians

- Identifying high stress areas for walking and biking
 - Speed limit
 - Number of lanes
 - Functional classification

Level of Traffic Stress - Existing Bicycle Facilities

The RTP considers level of traffic stress (LOTS) when evaluating bicycle and pedestrian projects in the region. The factors that go into assigning level of traffic stress include 1) speed limit, 2) number of lanes, and 3) functional classification of the roadway. This map shows LOTS categories for road segments with existing bike facilities in the TPO region.

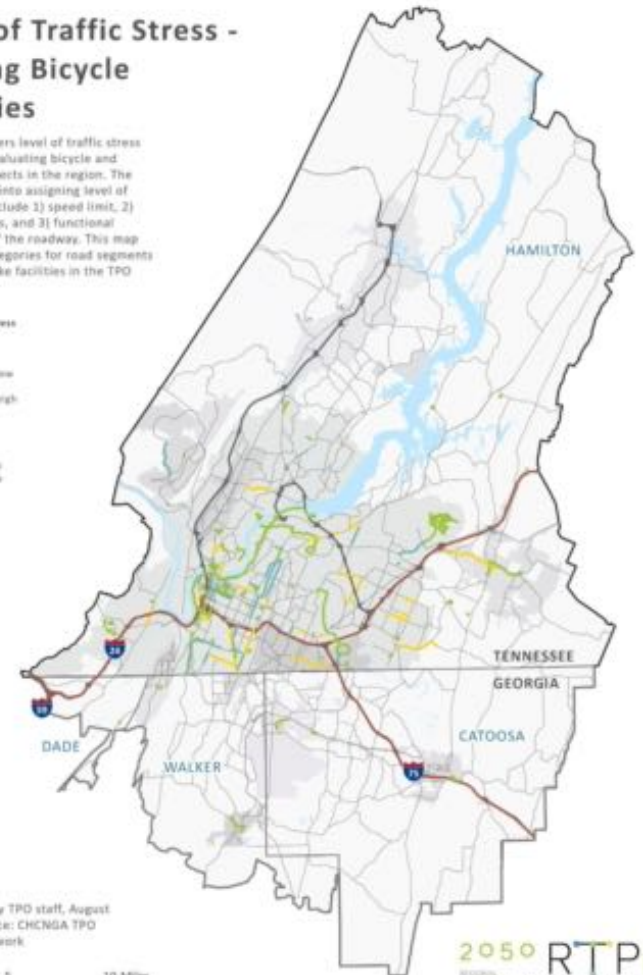


TPO municipalities shown in grayscale

Map prepared by TPO staff, August 2021. Data source: CHCNGA TPO TDM model network

0 5 10 Miles

2050 RTP
REGIONAL TRANSPORTATION PLAN



Level of Traffic Stress for Bicyclists and Pedestrians

- Public input opportunity
- Special consideration for vision-impaired pedestrians who are especially vulnerable

Level of Traffic Stress: Public Input on High Stress Areas

The first round of RTP public engagement included a public input opportunity related to level of traffic stress for walking and biking. 52 people submitted feedback on an online mapping tool to identify specific locations where walking and/or biking along the road network is particularly stressful. Some responses did not map a specific location but rather described locations in their comments. All feedback was made available on a public web map that allowed easy viewing of the comments provided for each location. This map shows all locations submitted through the online mapping tool.

Level of Traffic Stress
Public Input



RTP municipalities
shown in grayscale

Data source: Public input, "Level of
Traffic Stress for Bicyclists and
Pedestrians" RTP story map

Improving Access to Community Resources

- Re-evaluated & updated definition of community resources
- Public input opportunity

TPO Community Resources

The 2050 RTP identified ten categories of community resources across the region in order to inform project-level evaluation: 1) colleges/universities (including public and private institutions); 2) public community centers; 3) daycare centers (public and private); 4) government services (city halls, county offices, etc.); 5) grocery stores/food assets (including full service grocery stores, tiendas, budget grocery stores, farmers' markets, etc); 6) hospitals; 7) parks/trailheads/publicly accessible greenspaces; 8) public libraries; 9) public K-12 schools; and 10) social services (organizations providing direct social services to individuals)

Type

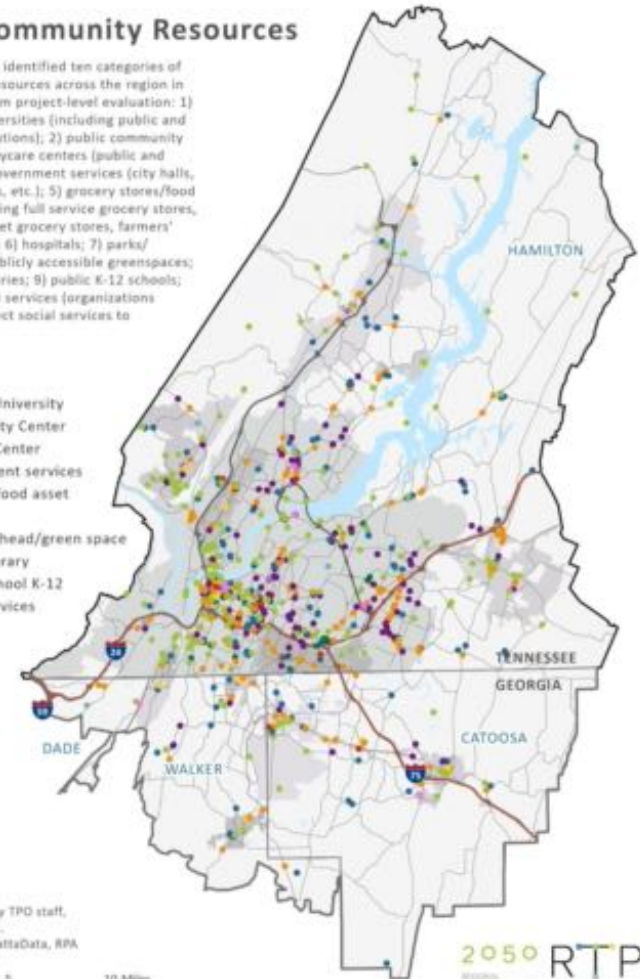
- College/University
- Community Center
- Daycare Center
- Government services
- Grocery/food asset
- Hospital
- Park/trailhead/green space
- Public Library
- Public School K-12
- Social services

TPO municipalities shown in grayscale

Map prepared by TPO staff,
September 2011.
Data source: ChalkData, RPA

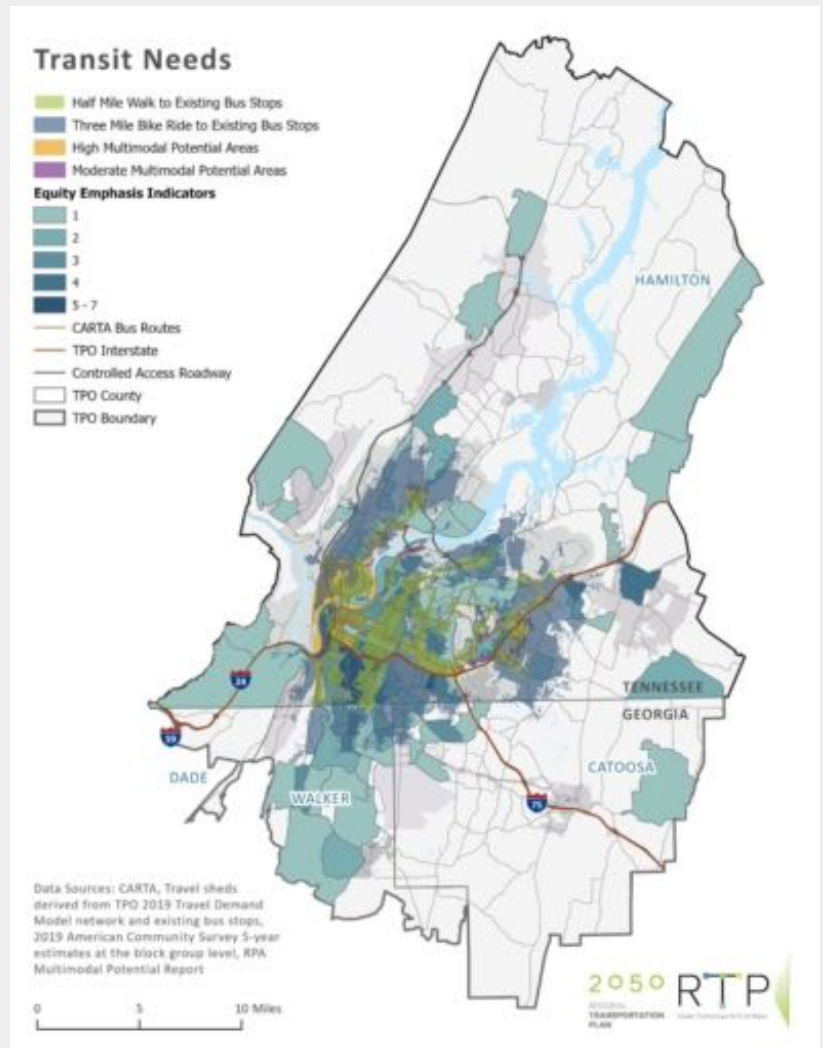
0 5 10 Miles

2050 RTP
REGIONAL
TRANSPORTATION
PLAN
Local Transportation System



Transit and Equity Emphasis Areas

- Drawing connection between transit access and access to opportunities
- Extra attention on areas with biggest potential for impact: *Multimodal potential areas*
 - Planned moderate and high frequency transit routes
 - Walk/bike sheds
- Transit access in Equity Emphasis Areas

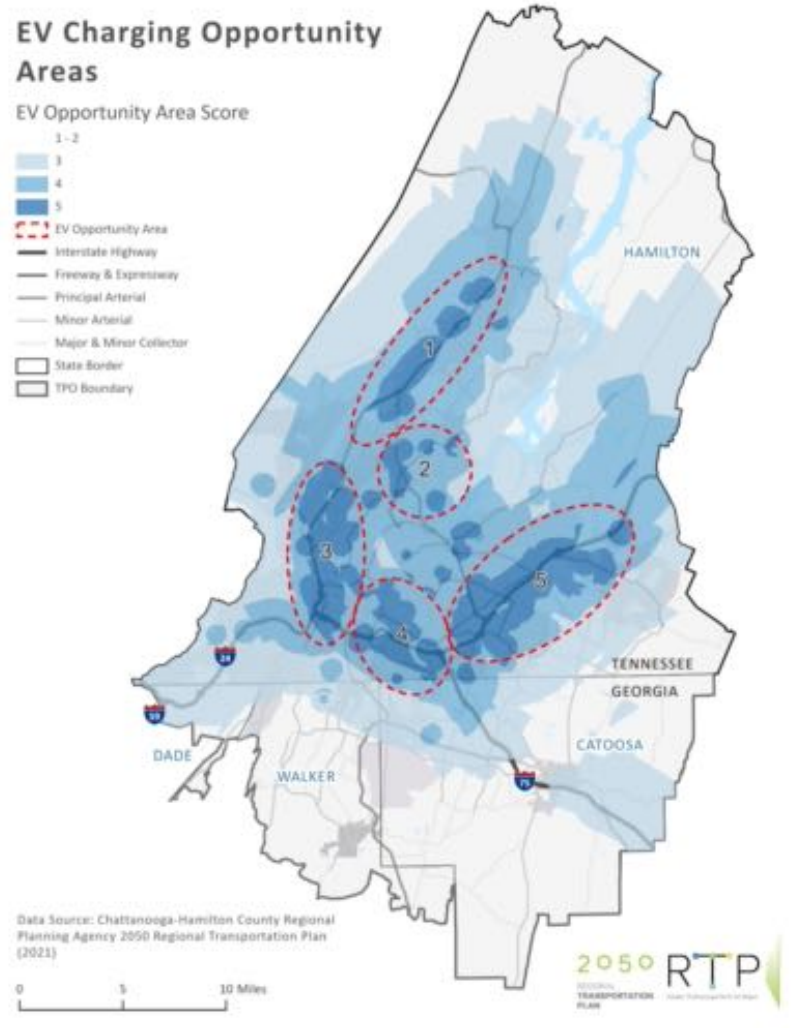


EV Opportunity Areas

- Identified existing EV charging inventory by type
- Established four criteria for EV charging opportunity areas
 - Alternative fuel corridors
 - Accessibility justice to EV charging
 - Points of interest
 - Multifamily buildings and office buildings
- Incorporated public input obtained via story map

EV Charging Opportunity Areas

EV Opportunity Area Score



Electric Vehicle Charging Stations

Identification of Electric Vehicle (EV) Charging Opportunity Areas

Modern Mobility Partners
September 17, 2023



<https://arcg.is/m9r9i>

Project Identification

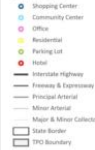
- EV charging infrastructure
- Community resources
- Level of traffic stress
- Transit stop amenities analysis, travel sheds, mobility options & access

EV Charging Stations by Land Use Type

Number of Charging Ports



Land Use Type



Data Source: U.S. Department of Energy Alternative Fuels Data Center (2023)

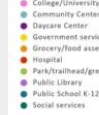
0 5 10 Miles



TPO Community Resources

The 2050 RTP identified ten categories of community resources across the region in order to inform project-level evaluation: 1) colleges/universities (including public and private institutions); 2) public community centers; 3) daycare centers (public and private); 4) government services (city halls, county offices, etc.); 5) grocery stores/food assets (including full service grocery stores, farmers, budget grocery stores, farmers' markets, etc.); 6) hospitals; 7) parks/trails/recreational/green spaces; 8) public libraries; 9) public K-12 schools; and 10) social services (organizations providing direct social services to individuals).

Type



TPO resources shown to geographic

Map prepared by TPO staff, September 2023.

Data source: Chattanooga, BPA

0 5 10 Miles



Level of Traffic Stress - Existing Bicycle Facilities

The RTP considers level of traffic stress (LTS) when evaluating bicycle and pedestrian projects in the region. The factors that go into assigning level of traffic stress include 1) lane level, 2) number of lanes, and 3) functional classification of the roadway. This map shows LTS categories for road segments with existing bike facilities in the TPO region.

Level of traffic stress



TPO transportation shown to geographic

Map prepared by TPO staff, August 2023. Data source: CH2M TPO TSM model network

0 5 10 Miles



Transit Needs



Equity Emphasis Indicators



Data Sources: CARTA, Travel sheds derived from TPO 2020 Travel Demand Model network and existing bus stops, 2023 American Community Survey's over-65 population at the block group level, BPA Multimodal Potential Report

0 5 10 Miles



Project-Level Evaluation Metrics

“Project improves infrastructure conditions within an Equity Emphasis Area”

Bridge or pavement maintenance project within an EEA

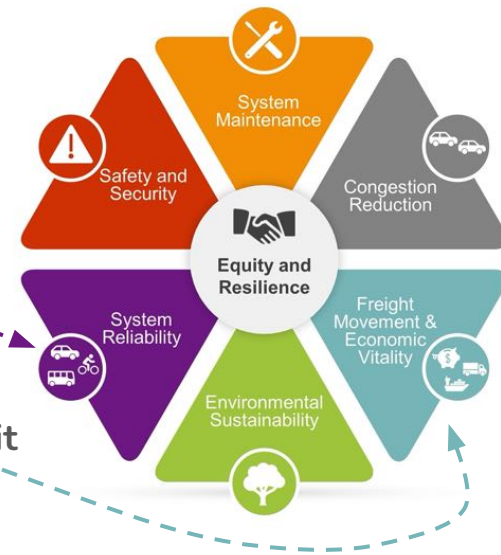
“Project improves multimodal access options and experiences between transit (bus stops) or community resources and EEAs”

Bike, ped or transit project connecting equity emphasis area to a community resource

- Project limits within equity emphasis area and within ½ mile walk shed or 3 mile bike shed of a community resource (bike and ped projects must connect to the community resource directly or via existing infrastructure without documented gaps)

OR bike or ped project connecting equity emphasis area to transit,

- Project limits within equity emphasis area and within ½ mile walk shed or 3 mile bike shed of bus stop; must connect to bus stop directly or via existing infrastructure without documented gaps



Plan-Level Evaluation & Performance Monitoring

Plan-Level Evaluation

- “Number of Proposed Projects Benefiting Equity Emphasis Areas”
- “Percent of Population and Jobs with Transit Access (Hi/Low Frequency)”

Performance Monitoring

- Federally required PM 1, 2, & 3 performance measures
- Transit Asset Management and State of Good Repair performance measures
- Congestion Management Plan performance measures



Coordinated Plan Applications

Translating the RTP long range vision into shorter term investments

Projects implemented:

- Accessible vehicle purchases for transit providers & nonprofit agencies
- Funding for volunteer driver program
- ADA sidewalk improvements at transit stops with high ridership from individuals with disabilities/older adults
- Orientation/mobility training on sidewalks & transit for individuals with vision impairment
- Contracts for nonprofit agencies to provide transit services to clients



Key Takeaways for Planners

- Think beyond the requirements towards the **spirit of the regulations**, and learn to see where there is flexibility: often in more places than we realize
- Incorporate a view towards furthering equity from the very **beginning** of a planning process rather than retrospectively
- Consider what you don't know and **what technical analysis can't tell you**
 - Census data sources and approach for **EEAs**
- Be willing to let your approach **evolve**
- Provide opportunities to engage those that do not have home internet access
 - Use **public libraries** and provide instructions for accessing & using virtual materials

Key Takeaways for Planners (Cont.)

- Consider **anti-displacement strategies**
 - Community benefits agreements (CBAs), community land trusts (CLTs), property tax assistance, home repair assistance, etc.
 - Additional information available in white paper
<https://modernmobilitypartners.com/wp-content/uploads/2021/06/Anti-Displacement-Strategies-for-Equitable-Transportation-Planning.pdf>
- Putting equity lens on the front end and **thinking outside the boundaries of the specific plan**
 - Coordinate with other implementers to ensure that the **intent** of projects is being met across the board

Contact



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