The New Mix:
Project Advisory Committee (PAC) Meeting #6
July 31, 2024

CTDOT CONNECTICUT DEPARTMENT OF TRANSPORTATION

HNTB

84 new mix

The *New Mix* Leadership Team

Connecticut Department of Transportation

- Michael N. Calabrese, PE, Division Chief
- Nilesh Patel, PE, Principal Engineer
- Jonathan Dean, PE, Project Manager
- Joe Belrose, EIT, Project Engineer

HNTB Corporation

- Jacob Argiro, PE, Project Manager
- David Schweitzer, PE, Deputy Project Manager
- Chris Fagan, PE, Project Engineer
- Naomi Hodges, Environmental Lead
- Kimberli Owens, Public Engagement Lead

Agenda

- Welcome Back!
- New Mix Refresher
- Mobility Equity
  - Overview
  - Methodology for Prioritizing Improvements
  - Recommendations
- Next Steps
- Question & Answer

Since Our Last Meeting…

You have been:

Providing input for the New Mix PEL Study.

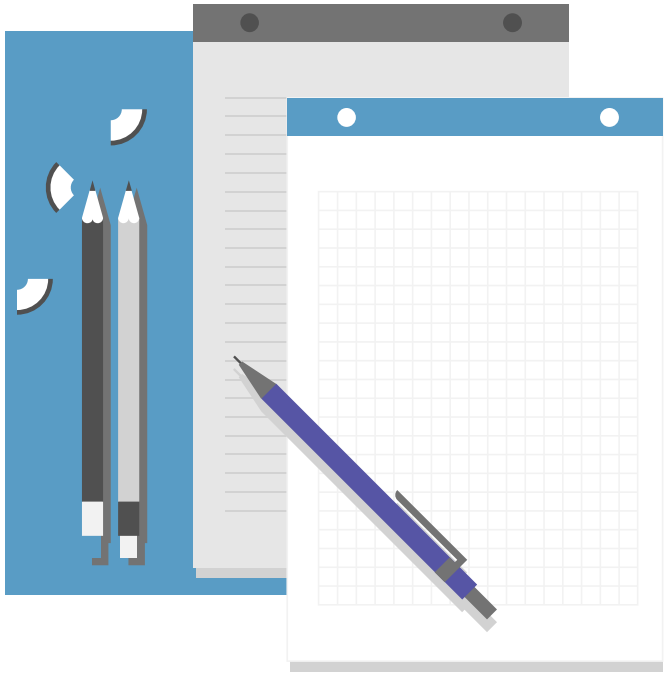
Checking email for information about the New Mix.

We have been:

Obtaining Input from state/federal agencies, PAC members, stakeholders, and the public.

Performing a Mobility Equity Analysis through community outreach activities, a public survey, and data evaluation.

Developing and Evaluating the Preliminary Alternatives in Level 3.



84 new mix | CTDOT Connecticut Department of Transportation

The *New Mix*

- Long-term vision for the future of the Mixmaster:
  - Modernize the interchange
  - Improve safety & functionality
  - Reduce congestion
  - Enhance equitable mobility
  - Complement Waterbury's economic development and community goals
  - Serve the state's transportation needs for decades to come
- Planning through 2045 completion
- Projects will occur over time

High Level Overview and Timeline to Construction

PEL Study

- Links transportation planning and environmental / community concerns
- Will identify a **Range of Reasonable Alternatives**

Today to mid-2024

NEPA Process

- The Environmental Review Process for compliance with environmental laws
- Will identify a **Preferred Alternative**

2-3 years

Design and Permitting

- Advanced design of the *Preferred Alternative* and associated break out projects
- Right of way acquisition
- State and federal permit procurement

4-6 years

Construction

- Includes the Early-Action, Near-term, and Long-term breakout projects

Anticipated completion in 2045

Initiating early 2030s

84new mix | CTDOT Connecticut Department of Transportation

Mobility Equity

What is Mobility Equity?

- A transportation system that meets the needs of all community members, regardless of income level, type of housing, location, or access to personal motor vehicles.
- Transportation Planning that focuses on the needs of people rather than car-centric infrastructure.
- Access to key destinations via all modes of transportation.

Mobility equity exists when:

All transportation users have access to safe, affordable, and convenient transportation options such as frequent public transit and safe, welcoming pathways for pedestrians and bicyclists.

84new mix | CTDOT CONNECTICUT DEPARTMENT OF TRANSPORTATION

Expectations and Opportunities are Evolving

A series of Executive Orders (EO) work together to drive equitable outcomes

EO 12898

Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

1994 President Clinton

EO 13985

Advancing Racial Equity and Support for Underserved Communities Through the Federal Government

2021 President Biden

EO 14008

Tackling the Climate Crisis at Home and Abroad

with provisions to Secure Environmental Justice and Spur Economic Opportunity

2021 President Biden

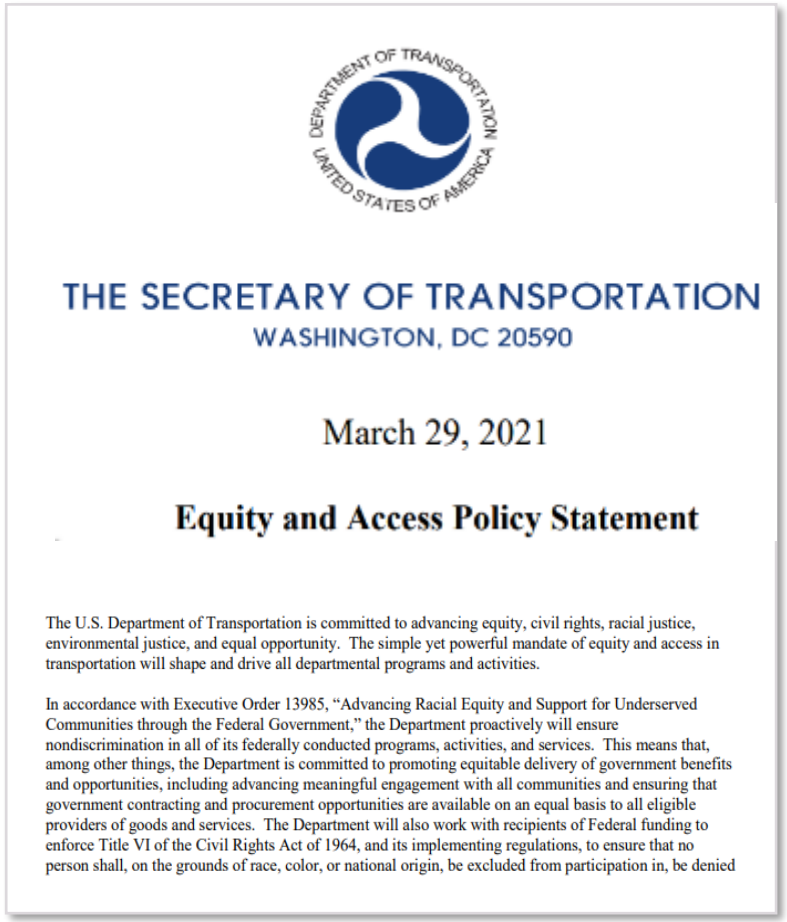
EO 14052

Implementation of the Infrastructure Investment and Jobs Act

2021 President Biden

84 new mix | CTDOT Connecticut Department of Transportation

U.S. DOT Focus on Equity



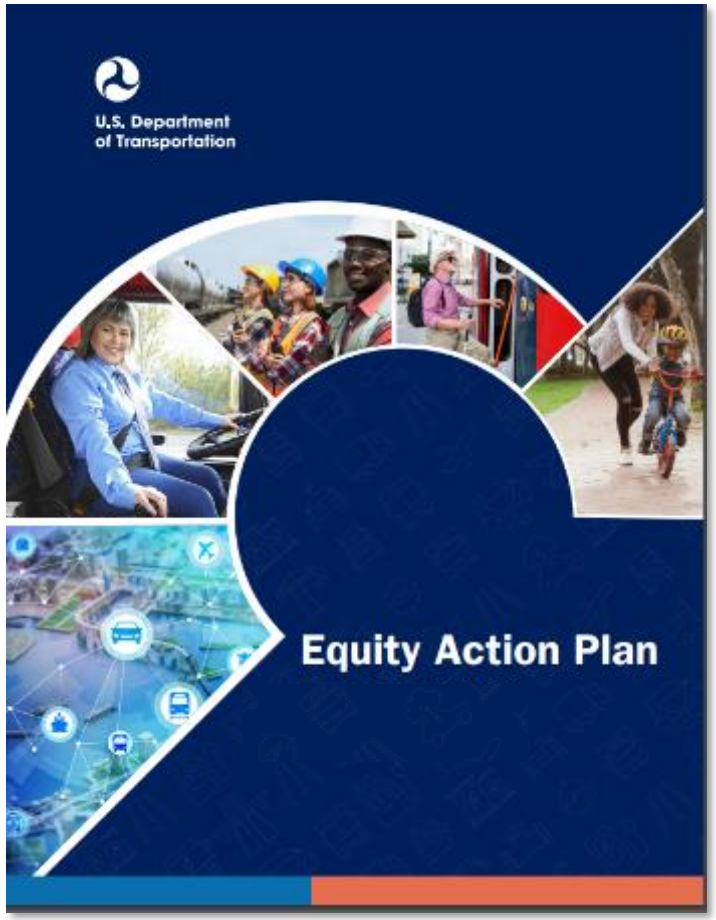
THE SECRETARY OF TRANSPORTATION
WASHINGTON, DC 20590

March 29, 2021

Equity and Access Policy Statement

The U.S. Department of Transportation is committed to advancing equity, civil rights, racial justice, environmental justice, and equal opportunity. The simple yet powerful mandate of equity and access in transportation will shape and drive all departmental programs and activities.

In accordance with Executive Order 13985, "Advancing Racial Equity and Support for Underserved Communities through the Federal Government," the Department proactively will ensure nondiscrimination in all of its federally conducted programs, activities, and services. This means that, among other things, the Department is committed to promoting equitable delivery of government benefits and opportunities, including advancing meaningful engagement with all communities and ensuring that government contracting and procurement opportunities are available on an equal basis to all eligible providers of goods and services. The Department will also work with recipients of Federal funding to enforce Title VI of the Civil Rights Act of 1964, and its implementing regulations, to ensure that no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied

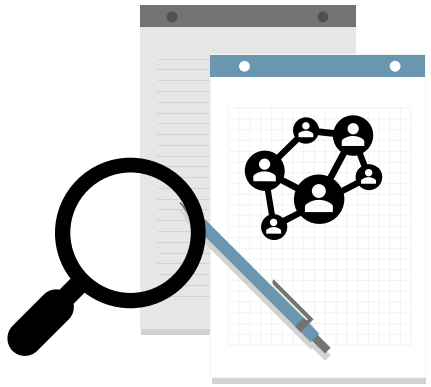


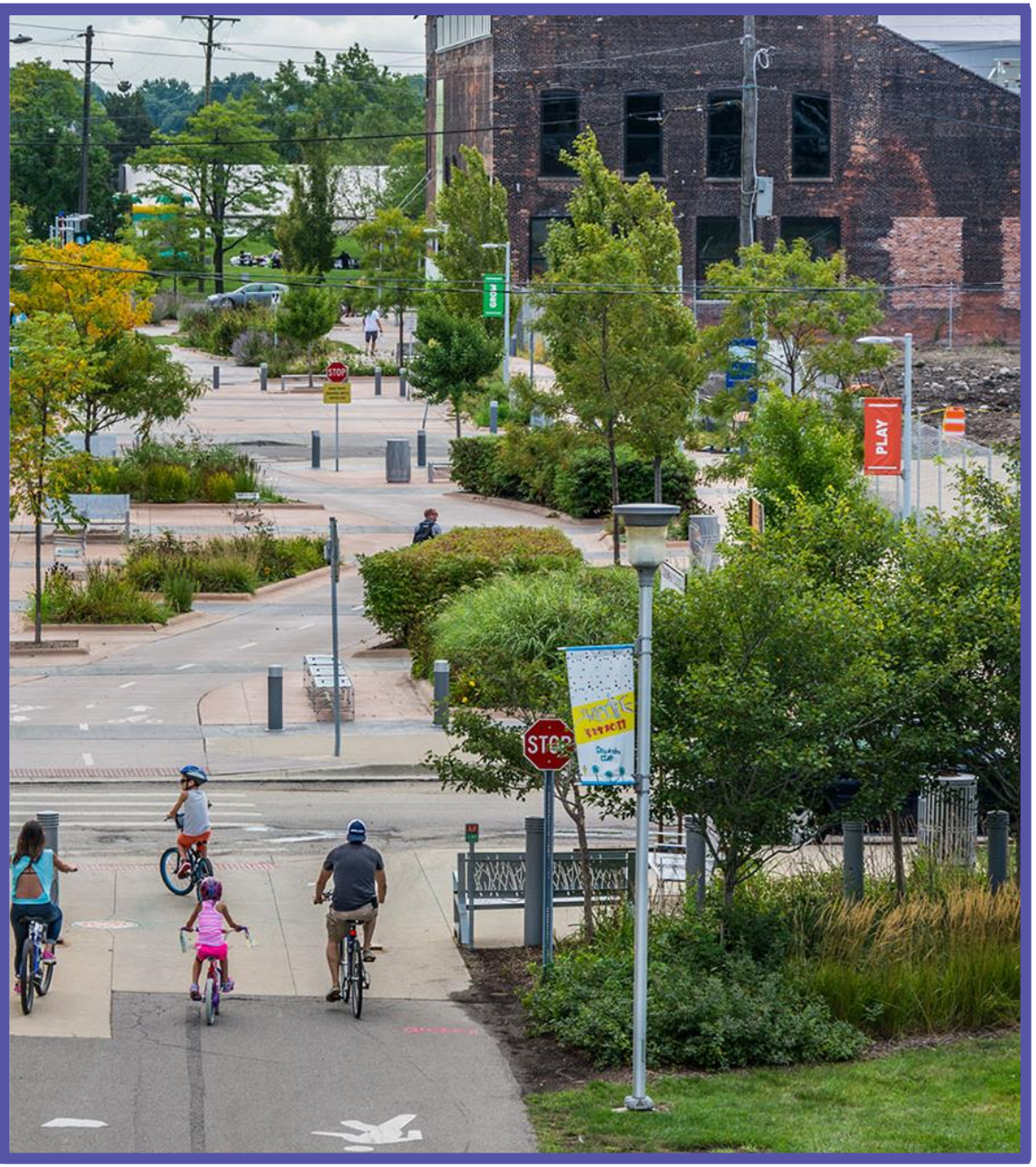
84new mix | CTDOT CONNECTICUT DEPARTMENT OF TRANSPORTATION

Mobility Equity (ME) Analysis

Intended Outcomes:

- Identify transportation needs of traditionally underserved populations.
- Develop targeted localized improvements for addressing needs and improving quality of life for communities with the greatest needs in the short-term and long-term.





ME Analysis Public Outreach Efforts

- **Stakeholder Meetings**
  - CTDOT Office of Rail & Office of Transit and Ridesharing
  - City of Waterbury
  - Naugatuck Valley Council of Governments
  - CT*transit & North East Transportation*
  - Safe Haven of Greater Waterbury
  - Greater Waterbury YMCA
  - Western Connecticut Area Agency on Aging
  - United Way of Greater Waterbury
  - Waterbury Hispanic Coalition
  - New Opportunities Waterbury
  - Home of Hope, Inc.
- **16 Pop-up & Community Events**
- **100+ Bus Stop and Train Station Information Drop-offs**
- **Bus Rider Onboard Surveys**
- **Mobility Equity Survey**
  - 347 respondents

ME Analysis Survey

Demographics

Demographic info e.g., age, gender, employment, and income

Safety

Safety challenges e.g., aggressive driving, jaywalking, or speeding

Public Transportation

Public Transportation challenges in e.g., schedule, lack of service

Active Transportation

Pedestrian and cycling challenges e.g., narrow shoulders or severely cracked, or uneven sidewalks

Environment / Quality of Life

Environmental challenges that affect quality of life e.g., traffic pollution, or lack of street furniture (benches, bus shelters)

Access to Destinations

Level of difficulty ***accessing and traveling to destinations***

Overall Ratings

Overall satisfaction levels of the transportation system as a whole

ME Survey Insights

- Demographics
- Safety
- Public Transportation
- Active Transportation
- Environment / Quality of Life
- Access to Destinations
- Overall Ratings

347 Total Responses

Median income range of **$25,000-$34,999**

30% indicated no one in their household owns a vehicle

31% indicated someone in their household has a disability

Top 3 Safety Challenges:

1. Cars Speeding
2. Aggressive Driving
3. Heavy Traffic

53% indicated that they feel it is unsafe to walk or bike in Waterbury

Top 3 Environment / Quality of Life Challenges:

1. Heavy Traffic
2. Lack of Street Furniture
3. Traffic Noise

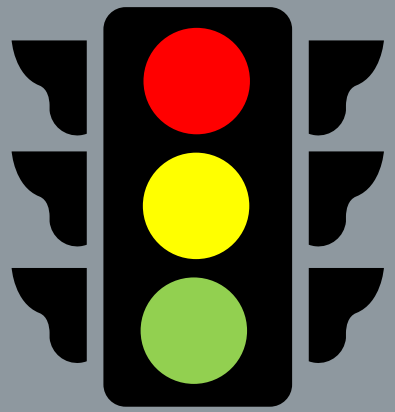
A majority of respondents were unaware of transit frequency near their homes with **1/3** responding "I'm not sure".

1/5 of respondents indicated that there are places that they need to travel to that are not reachable due to a lack of transportation options.

Mobility Equity Survey Insights

- Demographics
- Safety
- Public Transportation
- Active Transportation
- Environment / Quality of Life
- Access to Destinations
- Overall Ratings

Overall Transportation Experience Rating



- 11% Excellent
- 37% Adequate
- 28% Poor
- 24% Don’t Know or No Comment

“The transportation experience (beyond vehicular) is disjointed... Many can begin a walk / bike journey to their destination, but often are impeded by swaths of roads that lack sufficient ped/bike facilities (crosswalks / sidewalks)...”

ME Analysis Study Area

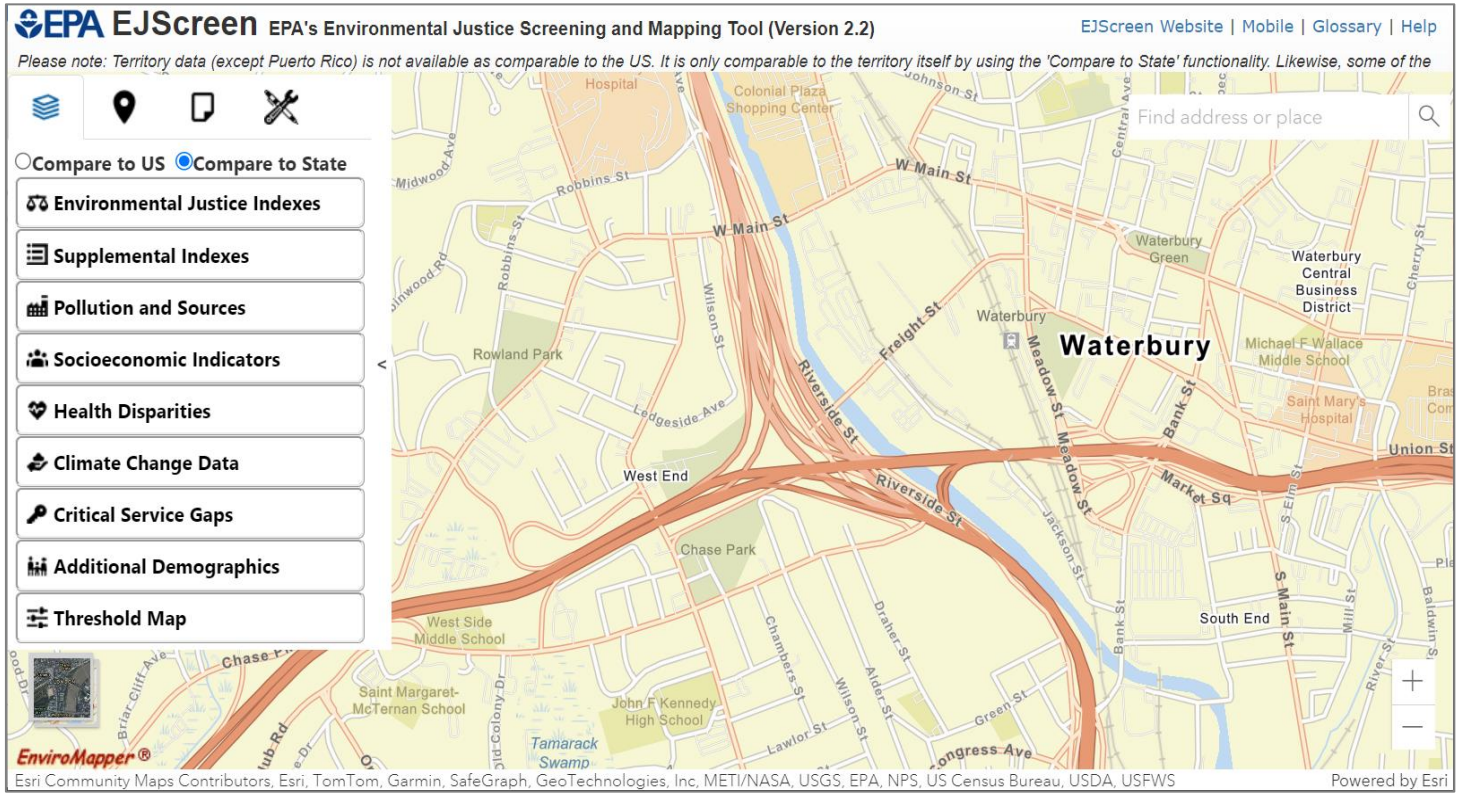
- Study Area boundary based on the Key Area Boundary used in earlier New Mix efforts.
- Updated based on the location of key destinations and for consistency with census boundaries.

ME Analysis Data Collection Activities

Desktop review included

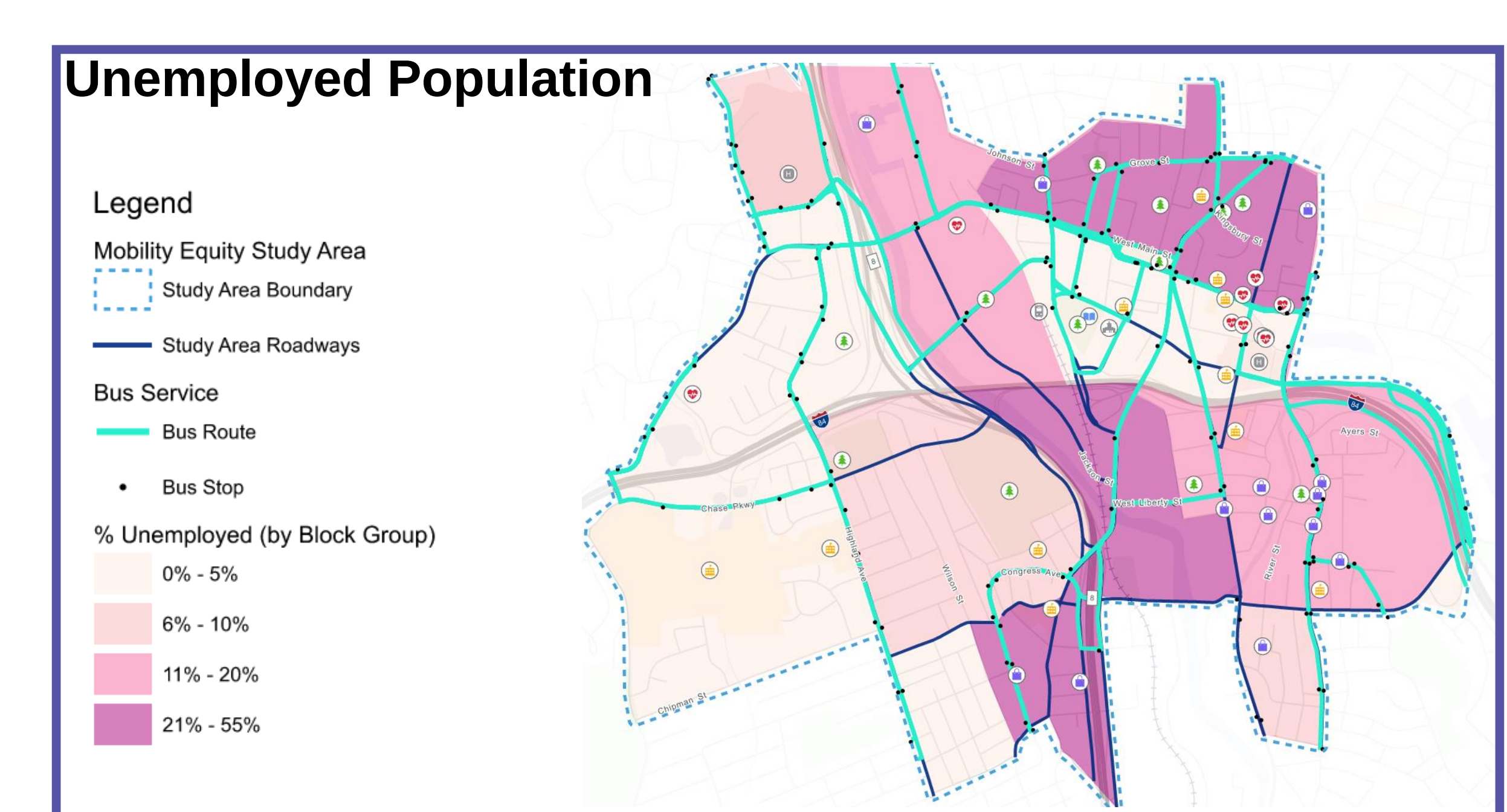
- Census data
- GIS data from NVCOG, UCONN Crash Repository, EJScreen, etc.
- Field verification

Informed the ME Analysis Goals and Strategies

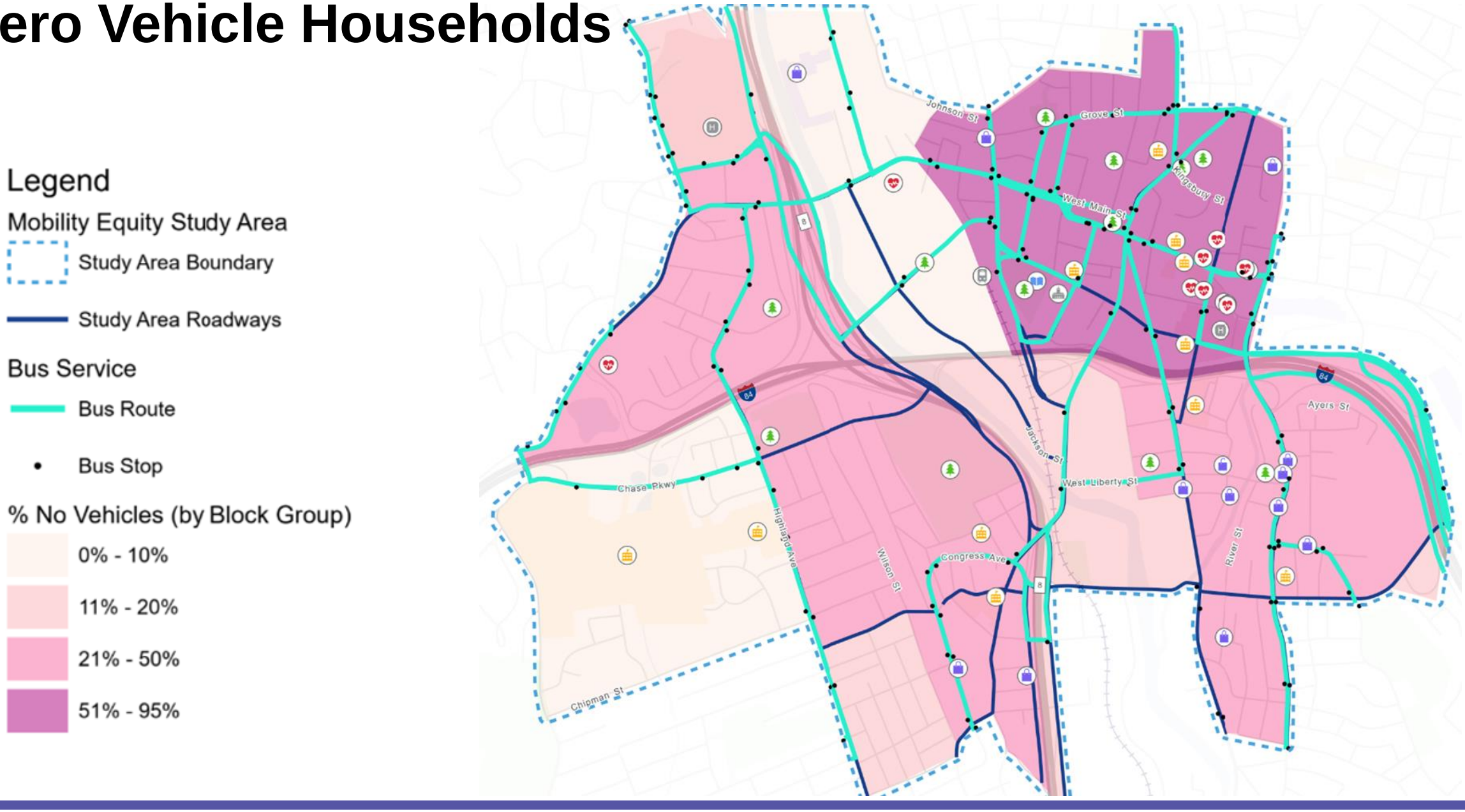


Demographic and Existing Conditions

Unemployed Population



Zero Vehicle Households



Sidewalk Condition

Top 10 Origins of Commuting Workers

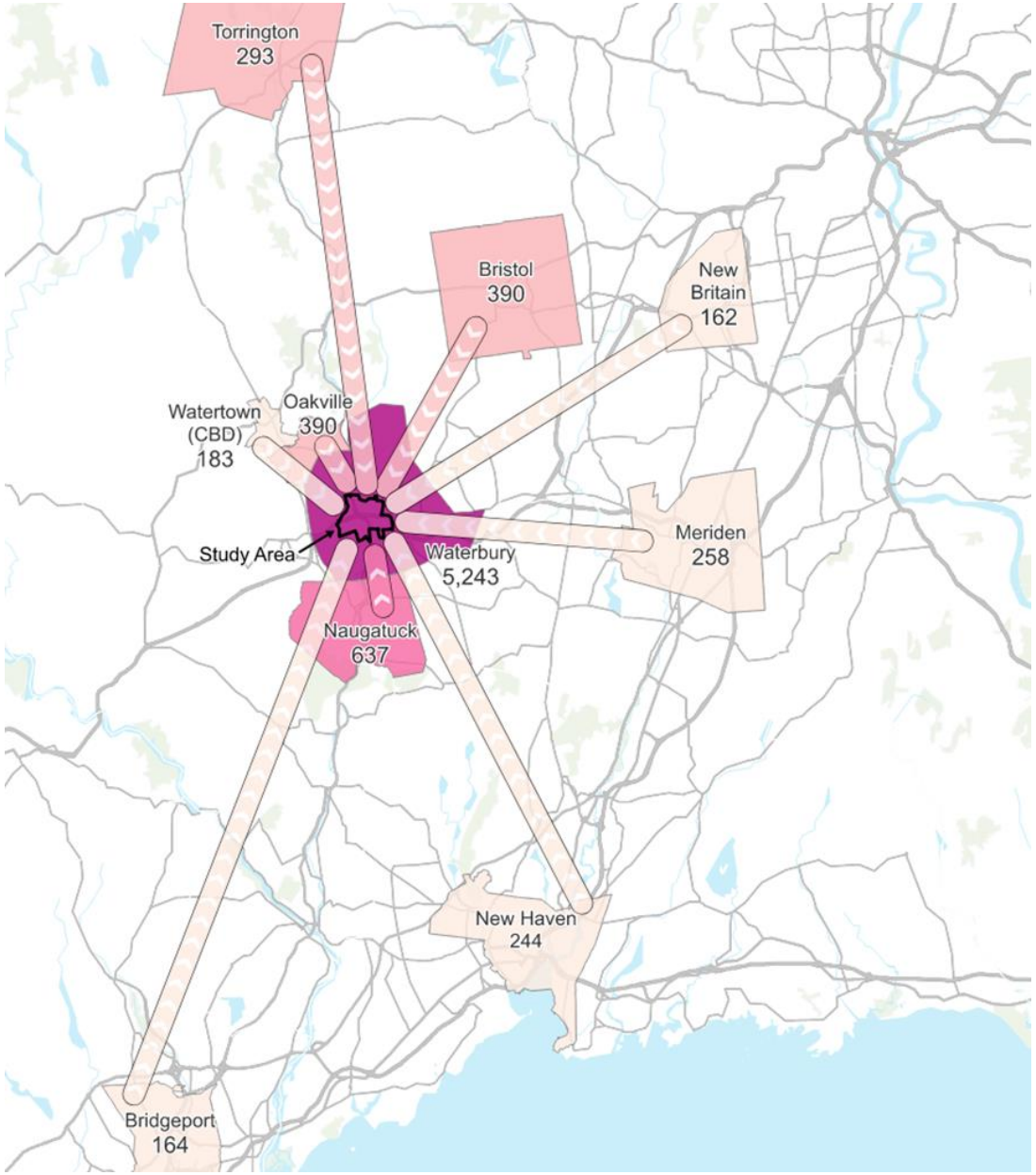
Legend

Origins of Workers Commuting to Study Area

High (5,243)

Low (162)

Note: The top ten origins of commuters heading into the study area for work are mapped by census designated place. The jurisdictions in the darker colors send a higher number of commuters to the study area.



ME Analysis Goals and Strategies

ME Analysis Goals

- **Provide Access to Opportunity**
  - Enable a connected, multi-modal transportation system that allows people to succeed by removing transportation barriers
- **Strengthen Public Health and Safety**
  - Provide safe and secure facilities to walk, bike, roll, ride the bus, and drive, while reducing pollutants that impact human health
- **Support a Healthy Environment**
  - Support investments that reduce pollution and greenhouse gas emissions while providing infrastructure resilient to climate change impacts
- **Provide a Range of Transportation Choices**
  - Invest in a range of transportation choices to allow for ease of travel and while providing affordable options
- **Support Economic Vitality**
  - Maintain and create a transportation system that moves people and goods efficiently and promotes economic development

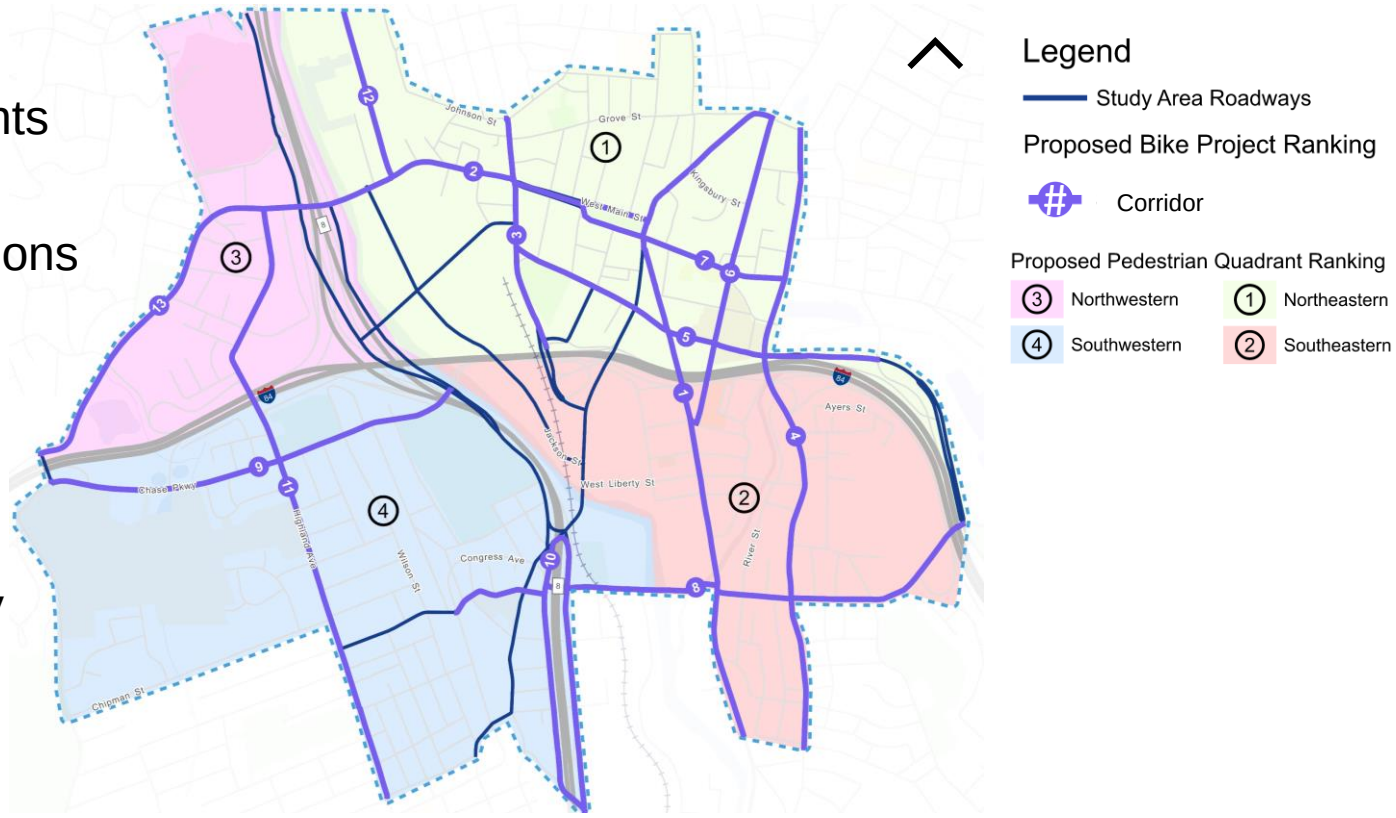
Strategies Matrix for Mobility Equity Projects

	Mobility Equity Analysis Goals				
Strategies	Provide Access to Opportunity	Strengthen Public Health and Safety	Support Healthy Environment	Provide a Range of Transportation Choices	Supports Economic Vitality
Create comfortable and safe sidewalk routes and related pedestrian infrastructure between neighborhoods and Waterbury's Central Business District (CBD) and surrounding key destinations which include existing and future recreational areas and open spaces.	**x**	**x**	**x**	**x**	**x**
Create a comfortable and safe network of bicycle routes between neighborhoods and Waterbury's CBD and surrounding key destinations which include existing and future recreational areas and open spaces.	**x**	**x**	**x**	**x**	**x**
Expand transit service on weekdays and over the weekend and improve public transit service within the Study Area, especially at high ridership locations	**x**	**x**	**x**	**x**	**x**

Methodology for Prioritizing Improvements

Project Ranking Categories

- **Pedestrian Projects**
  1. General sidewalk and ramp improvements by quadrant
  2. Pedestrian-oriented Proposed Early Actions (PEAs)
  3. PEAs with bicycle *and* pedestrian components*
- **Bicycling Projects**
  1. Corridor-based projects within the Study Area**
- **Transit Projects**
  1. Transit stop/hub facilities and efficiency improvements



General sidewalk and ramp improvements by quadrant and bicycling projects

*Only one project in this category

** Most significant Study Area roadways were ranked. Non-PEA projects already in planning are included in this section. There were no PEAs that were exclusively bicycling projects.

Project Priority Scoring Factors

Project Type	Factor	Scoring Measure Examples
All Projects	*Demographic and community factors*	• E.g., Population density within ¼ mile of the proposed project, % of adults with asthma, employment concentration, presence of a higher education institution, etc.
	Public Support and Implementation	• Support for location-specific improvements.
Bicycle	*Screening*	• Existing roadways assessed using FHWA's Bikeway Selection Guide
Bicycle / Pedestrian	*Safety*	• Does the project address a high-crash corridor or intersection?
	Network development and links to other opportunities	• E.g. Number of current or future connections to protected bike facilities. • E.g. Opportunities for green / open space development.
Transit	*Screening*	• For bus stops: Stops must have >10 people/day that lack sidewalks/ other amenities or have Poor or Fair Sidewalk Conditions.
	Network development and links to other opportunities	• Consistency/correspondence with existing and future *CTtransit* plans • Within a half-mile of Waterbury Train Station • Population density within ½ mile of the Waterbury train station

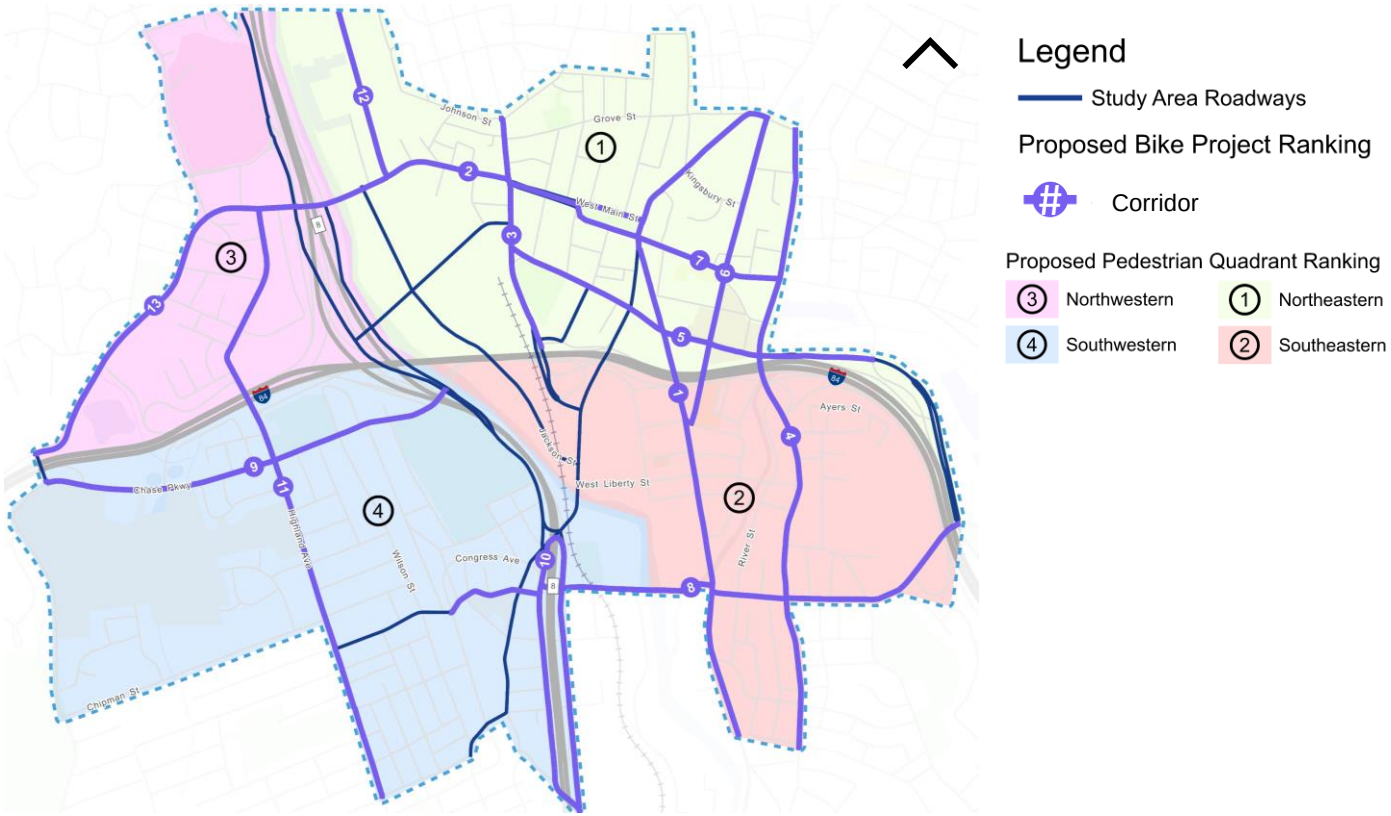
Not all scoring factors were used for all project types.

84 new mix | CTDOT Connecticut Department of Transportation

Recommendations

Pedestrian Quadrant Rankings, Bicycle Project Rankings

- **Pedestrian Projects**
  - The northeast quadrant received the highest overall score, followed by the southeast, northwest, and southwest quadrants.
  - The top-scoring bicycling project is a facility running on North and South Main Street
  - The top-scoring PEA pedestrian project is the proposed pedestrian improvement at Washington Avenue and South Main Street.*

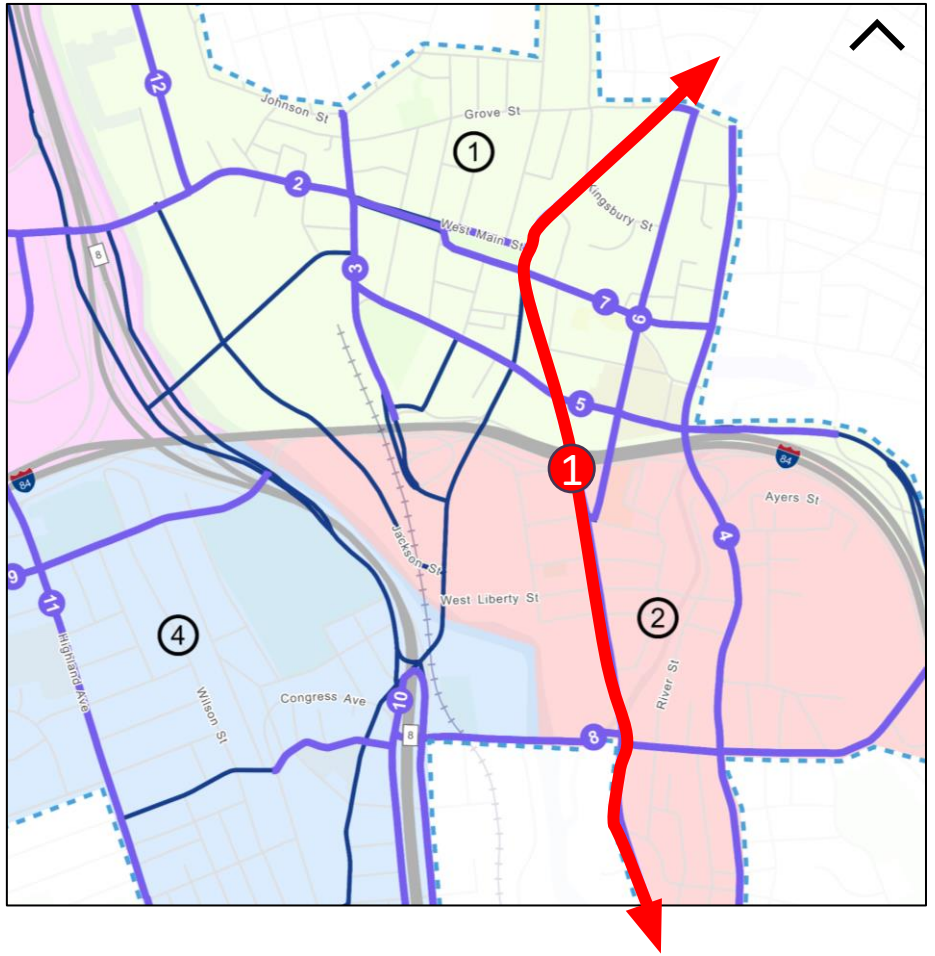


General sidewalk and ramp improvements by quadrant and bicycling projects

* State Project No. 151-340 scored highly but was the only bicycle and pedestrian PEA. The PEA at Washington Avenue and South Main Street was originally identified by the New Mix Team but will likely be advanced by the City of Waterbury with support from CTDOT.

Bicycle Project Main Street Corridor

A view looking southward on North Main Street



Legend

Study Area Roadways

Proposed Bike Project Ranking

1 South/North Main Street

Proposed Pedestrian Quadrant Ranking

3 Northwestern

1 Northeastern

4 Southwestern

2 Southeastern

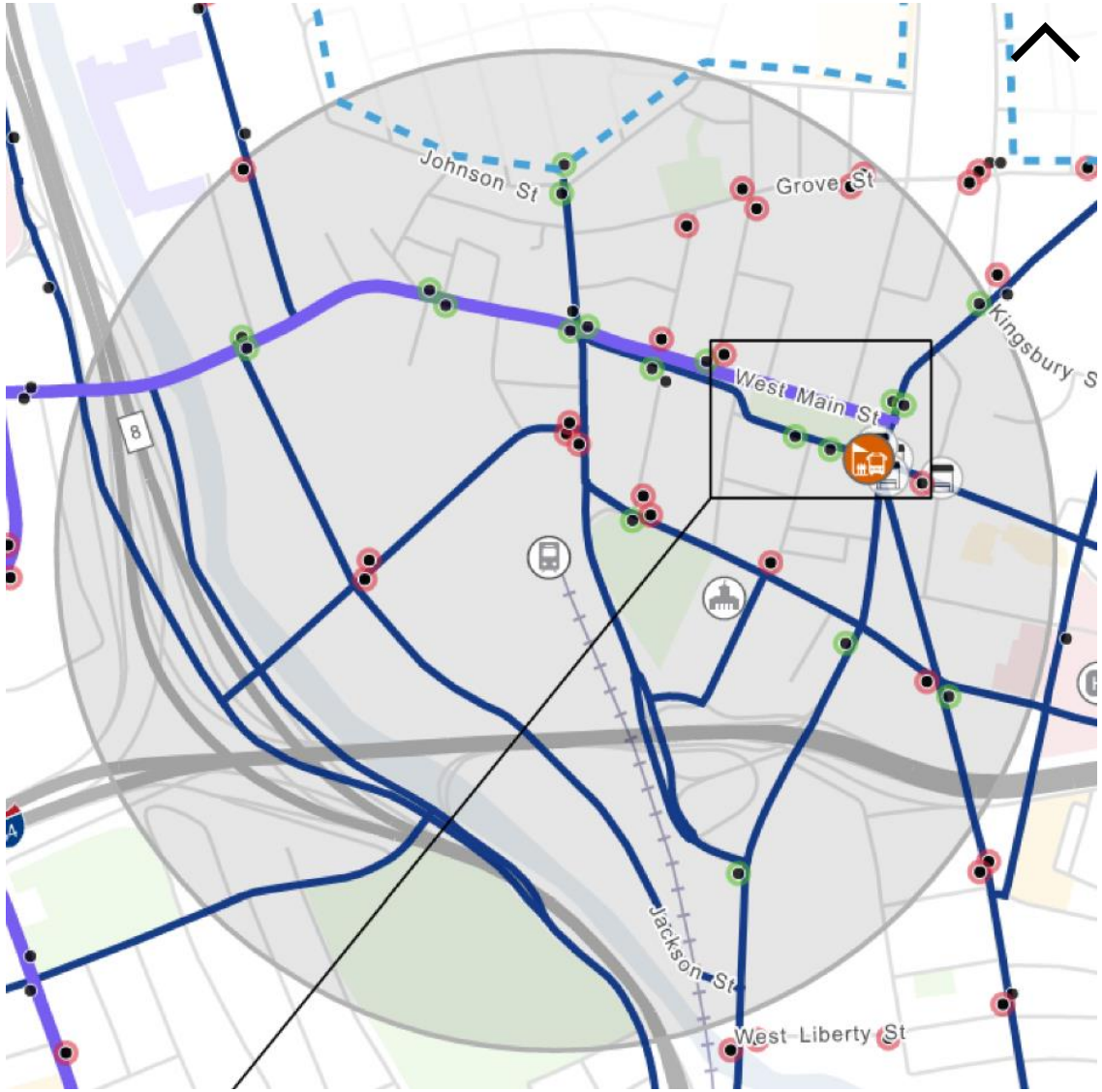
84new mix

CTDOT CONNECTICUT DEPARTMENT OF TRANSPORTATION

Transit Project Rankings

- **Improvements within ½ mile from the train station scored highest**
  - Bus Stop Amenities (100%)
  - Transit Hub Improvement Project (100%)
  - Examine consolidating bus stops with less than 10 riders/day (88%)
- **Transit Signal Priority scored high**
  - W. Main Street and Highland Avenue (84%)
- **Other efficiency improvement**
  - Examine consolidating bus stops with less than 10 riders/day in the rest of the study area (56%)

Bus Stop Amenities – ½ mile of Rail Station



Legend

Mobility Equity Study Area

- Study Area Boundary
- Study Area Roadways

Transit Projects

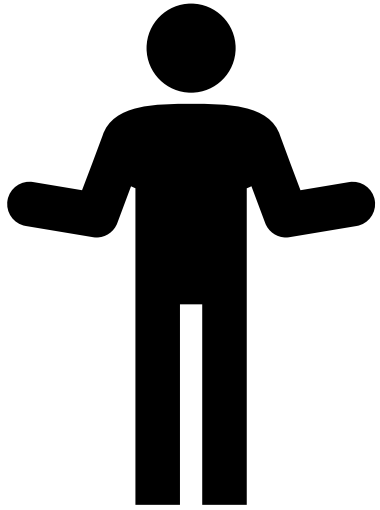
- 1/2 Mile from Train Station
- Proposed Transit Signal Priority
- Transit Hub
- Bus Stop
- Bus Stop w/ Shelter
- Potential for Upgraded Amenities (>10 Daily Riders)
- Potential for Consolidation (<10 Daily Riders)

84new mix | CTDOT Connecticut Department of Transportation

Next Steps

What are the Next Steps?

- Refine PEL Preliminary Purpose and Need Statement
- Incorporate refinements into PEL Study Documents
- Complete Level 3 Screening Analysis
- Present / inform the public



Preliminary Purpose and Need Statement

The purpose of the Study is to improve the existing structural, geometric, and operational deficiencies of the I-84 and Route 8 Interchange to meet current and future traffic needs and enhance equitable mobility within the associated transportation system.

These improvements are expected to improve system performance, improve air quality by reducing congestion, reduce the crash rate, maintain critical system linkages in Connecticut and the Northeast, and facilitate connectivity and mobility within Waterbury through the local road and multimodal network, thereby contributing to the economic vitality of the greater Waterbury area.

Goals and Objectives (Summarized Intended Outcomes)

- Allow for connections to the Naugatuck River and Greenway;
- Enhance mobility equity and safety for bicyclists and pedestrians;
- Integrate the Project with ongoing City projects;
- Improve access to Downtown and key destinations;
- Strengthen surrounding neighborhoods as gateways to the City's Central Business District (CBD);
- Support City revitalizing goals of the CBD;
- Enhance equitable access to multimodal facilities;
- Avoid, minimize or mitigate potential Project consequences to the environment
- Improve system performance;
- Reduce congestion;
- Reduce crash rates;
- Maintain critical system linkages in Connecticut and the Northeast;
- Facilitate connectivity and mobility with Waterbury through the local road network including multimodal travel;
- Improve the local roadway network;
- Reduce interchange complexity;

84 new mix | CTDOT CONNECTICUT DEPARTMENT OF TRANSPORTATION

Looking Ahead

July 2024
- FHWA Coordination Point
- 151-331 is presented to state/federal agencies
- PAC and Stakeholder Meetings

August 2024
- Stakeholder Meetings

September 2024
- Draft PEL Study Report
- Stakeholder Meetings

October 2024
- FHWA Coordination Point for adoption of the PEL Study
- Stakeholder Meetings

November thru December 2024
- PAC and Stakeholder Meetings
- Public Outreach Activities

Public Outreach activities will take place through the completion of the PEL Study.

Before the Next Meeting Continue to…

Explore the Project Website and be on the look out for the launch of the Mobility Equity Video.

Check email for information about the next PAC meeting and other PEL Study updates.

Remain excited to participate in our next meeting.

84new mix

CTDOT CONNECTICUT DEPARTMENT OF TRANSPORTATION

Questions & Comments

Thank you.

84 new mix
CTDOT
CONNECTICUT DEPARTMENT OF TRANSPORTATION