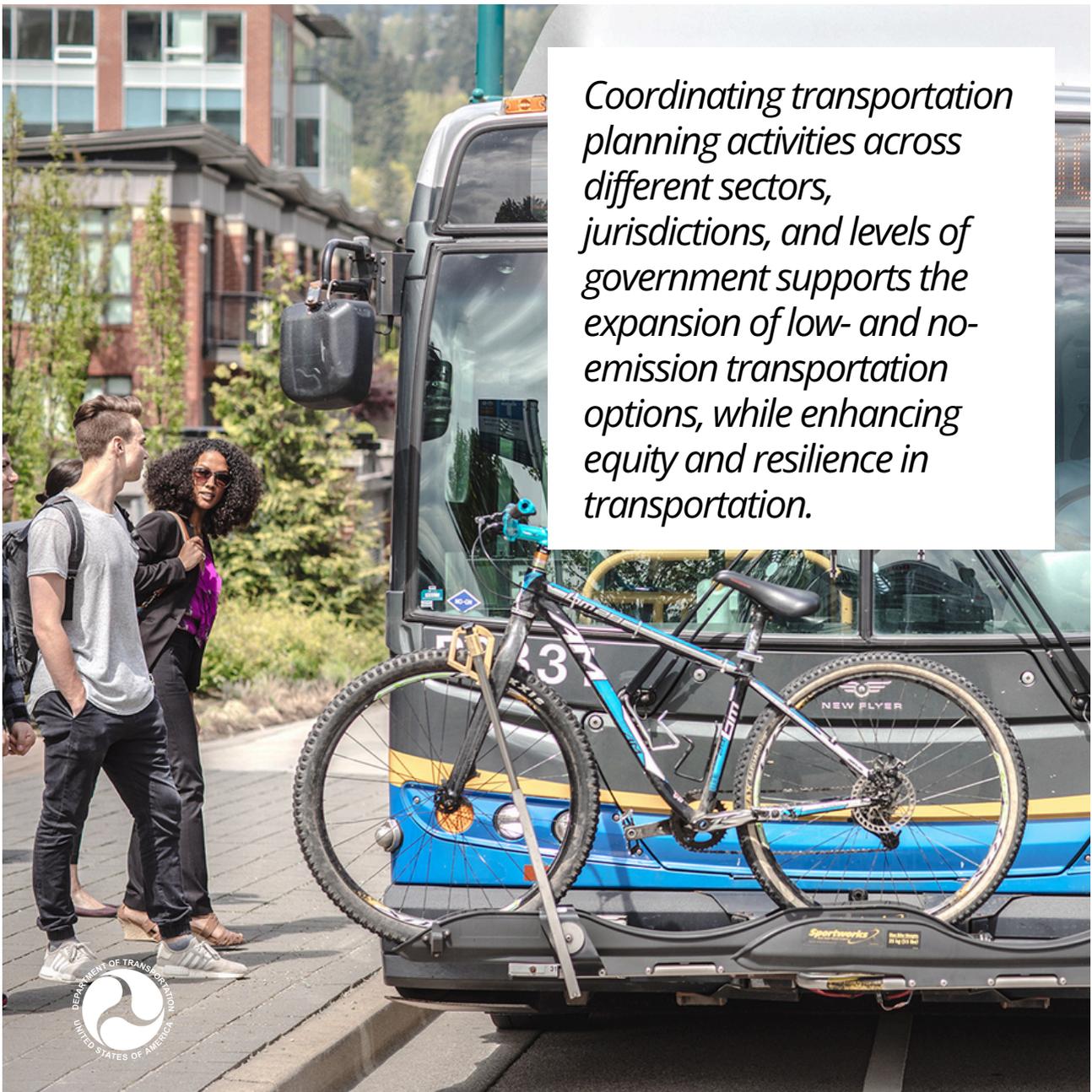


# COORDINATED TRANSPORTATION PLANNING

*Coordinating transportation planning activities across different sectors, jurisdictions, and levels of government supports the expansion of low- and no-emission transportation options, while enhancing equity and resilience in transportation.*



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# OVERVIEW

## Best Suited for:

Long Term  
Urban, Suburban, Rural & Tribal

Transportation planning often requires coordination across multiple sectors (i.e., transportation and housing), jurisdictions (i.e., neighboring municipalities), and levels of government (i.e., municipal, county, and state) to meet strategic goals.

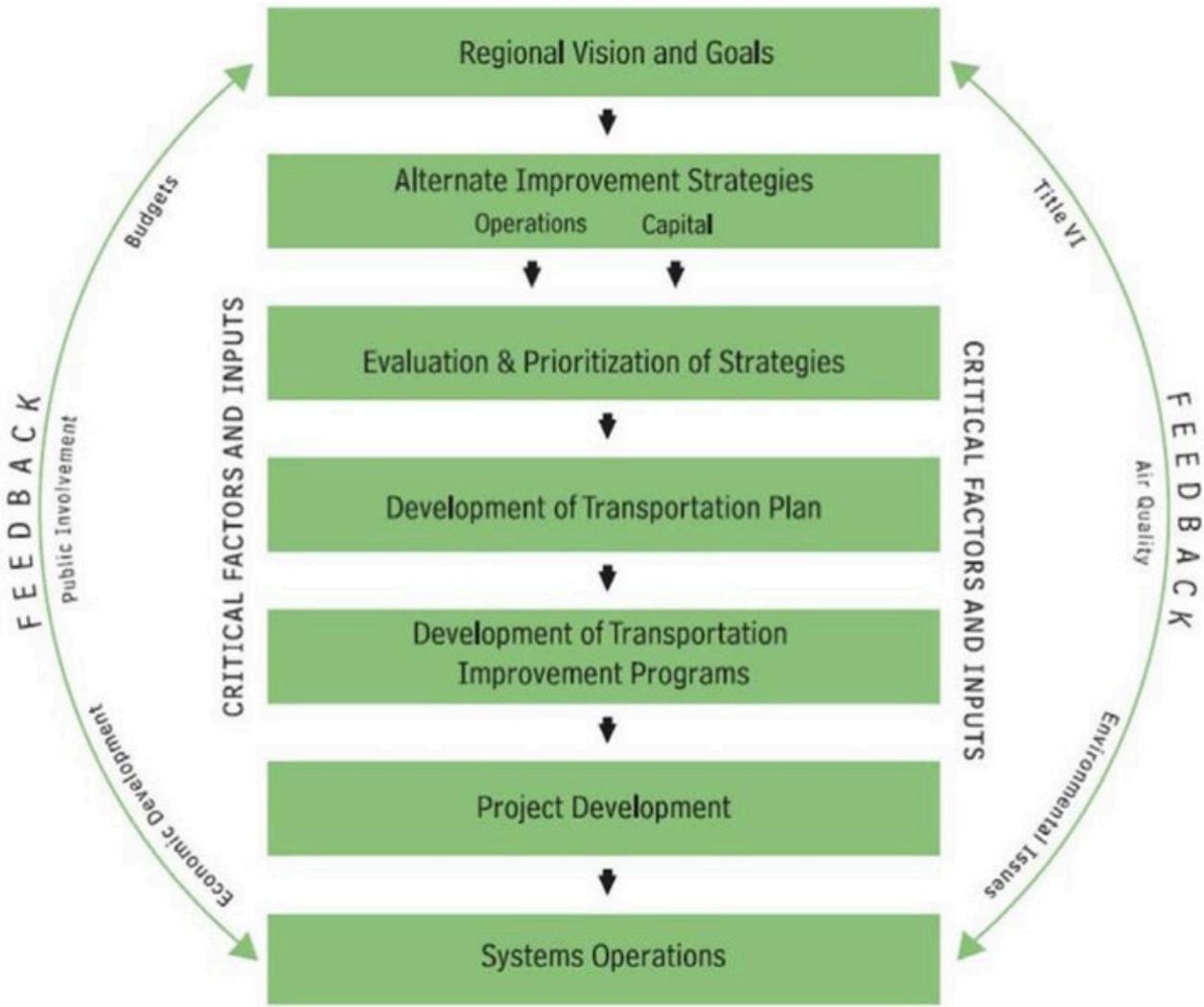
Transportation system development, operations, and performance depends heavily on land use, housing, the economy, environment, and public health. Transportation investments affect outcomes in these sectors as well. Thus, **coordination among transportation planners** and those doing planning in these sectors leads to **mutually beneficial outcomes** that fulfill multiple priorities, including reduction in greenhouse gases and criteria air pollutants. Many important decisions about transportation investments are made through statewide and metropolitan transportation planning processes that already cross geographic jurisdictions and multiple priority areas.

### ***Coordinated Transportation Planning elements may include:***

- Coordination between transportation and land use planning processes involves working to ensure new development complements existing transportation options and future transportation plans consider land use patterns.
- Transit-Oriented Development (TOD) reduces reliance on private vehicles through vibrant, mixed-use neighborhoods centered around high-quality public transportation. Refer to the [Transit-Oriented Development strategy page](#) for more information.
- Zoning that prioritizes affordable housing and other new development near multimodal transportation options, encourages walking, biking, and public transit, and considers parking demand management reforms. Refer to the [Zoning Reform strategy page](#) for more information.



Coordinated transportation planning brings together various stakeholders, such as government agencies, transit operators, and community groups, to develop comprehensive strategies for improving transportation systems.



The transportation planning process (Source: FHWA, n.d.).

**The Bipartisan Infrastructure Law (BIL)** includes several changes in the metropolitan planning process that provide new **opportunities to align investments in transportation and housing (23 USC 134(g)(3)(A))**. This could involve projects and strategies that promote consistency between transportation improvements and state and local housing patterns as part of the transportation planning process. The law specifies a few opportunities for coordinated action:

- updating planning policy to encourage and promote the safe and efficient management, operation, and development of surface transportation systems (like roadways and streets) that will better connect housing and employment;
- consulting housing agency officials during the planning process;
- requiring the metropolitan transportation planning processes to consider projects and strategies that will promote consistency between transportation improvements and State and local housing patterns (in addition to planned growth and economic development patterns); [§ 11201(d)(3); 23 U.S.C. 134(h)(1)(E)]
- recommending assumed distribution of population and housing for consideration in optional scenarios as part of the metropolitan transportation plan; [§ 11201(d)(4)(A); 23 U.S.C. 134(i)(4)(B)]
- adding affordable housing organizations to a list of stakeholders MPOs are required to provide a reasonable opportunity to comment on the metropolitan transportation plan; [§ 11201(d)(4)(B); 23 U.S.C. 134(i)(6)(A)]
- within a metropolitan planning area that serves a transportation management area, permitting the transportation planning process to address the integration of housing, transportation, and economic development strategies through a process that provides for effective integration, including by developing a housing coordination plan. [§ 11201(d)(5); 23 U.S.C. 134(k)].

# GHG REDUCTION POTENTIAL

*This section provides an overview of GHG emission reductions associated with the strategy. It highlights key findings and relevant metrics from GHG modeling resources, peer-reviewed studies, and real-world applications.*

## **COORDINATED PLANNING AND COMPACT DEVELOPMENT**

Globally, people living in more compact developments drive less VMT and produce less carbon dioxide (CO<sub>2</sub>) emissions per capita ([Gim, 2020](#); [Hong, 2017](#)).

The IPCC estimates that integrated planning that brings about compact and efficient urban growth through co-location of residences and jobs, mixed land use, and transit-oriented development could reduce GHG emissions between 23-26% by 2050 compared to the current baseline ([IPCC, 2022](#)).

Reducing VMT through coordinated transportation planning reduces both GHG emissions and traffic congestion. In Denver, CO, redirecting growth of 8% of the city's jobs and households toward 10 regional centers reduced congestion by 6% and GHG emissions by 4% ([EPA, 2007](#)).

Nationally, compact development can reduce GHG emissions by 0.2 to 3.5% from the 2030 baseline; pedestrian improvements can reduce GHG emissions by 0.10 to 0.31% from the 2030 baseline; and bicycle improvements can reduce GHG emissions by 0.09 to 0.28% from the 2030 baseline ([NASEM, 2012](#)).

■ Refer to the [Transit-Oriented Development strategy page](#) for more information.

## **CLIMATE BENEFITS OF ZONING REFORM**

A study of three high-growth U.S. metropolitan areas found that local zoning reforms to accommodate housing growth along public transportation corridors and on underutilized urban land closer to downtown would reduce VMT by up to 13% and GHG emissions by up to 14% ([Holland et al., 2023](#)).

In Albuquerque, NM, scenarios for ambitious zoning changes for more compact, infill land development were modeled to reduce transportation-related GHG emissions by about 20% from the region's 2012 baseline by the year 2040 ([Tayarani et al., 2018](#)).

■ Refer to the [Zoning Reforms strategy page](#) for more information.

# CO-BENEFITS

*This section outlines the multiple co-benefits associated with the strategy, including safety benefits, local air quality improvements, and improved accessibility. Each co-benefit presents examples that demonstrate how the strategy enhances regional or community well-being while addressing emissions.*

## SAFETY

Coordinated transportation planning can help reduce VMT and support the development of complete streets, providing a safer environment for pedestrians and bicyclists and decreasing opportunities for vehicle-pedestrian and vehicle-bicycle crashes. Safety improvements, in turn, positively reinforce uptake of low-emission modes ([Boutros et al., 2023](#)).

Transportation planners and safety practitioners can work together to address safety challenges. See FHWA's [Transportation Safety Planning website](#) for a list of resources.

Transportation planners can support Smart Growth strategies, which encourage compact development and non-auto travel. Smart Growth has been shown to calm traffic, reducing speeds and fatality rates by 20% to 80% ([Litman 2024](#)).

## ECONOMIC GROWTH

There can be economy-wide long-term cost savings associated with policies that allow more compact, mixed-use development, such as

increased property values for residents and businesses, easier travel, reduced pollution, and economic stabilization of neighborhoods ([EPA, n.d.](#)).

Coordinating transportation planning that creates more compact, diverse communities can increase economic productivity, tax revenue, property values, and innovation. Multiple studies have found that economic productivity (in terms of gross domestic product, or GDP) increases with density and declines with VMT ([FHWA, 2019](#); [Ahlfeldt and Peitrostefani, 2017](#); [Litman, 2024a](#)).

In Des Moines, IA, a fiscal impact analysis showed that investing in a walkable urban scenario would generate a total annual net fiscal impact of \$11.2 million, while a low-density scenario would only generate \$7.5 million. The urban scenario would also preserve over 1,200 acres of land, which would still generate property tax revenues and potentially be used for public purposes, like parks ([Smart Growth America, 2015](#)).

## ACCESSIBILITY AND EQUITY

Coordinated transportation planning expands affordable housing opportunities with convenient access to walking, biking, and riding transit. Increased access to transportation options also means more access to job opportunities, education, and everyday destinations for those who cannot or do not drive, especially the elderly, disabled, youth, and people living in lower-income communities ([Litman, 2024a](#)).

Transportation planning decisions can positively influence community cohesion and opportunities for people to meet and build positive relationships. Planning that improves walkability and creates more parks and public spaces for people to naturally interact can increase social interactions and reduce loneliness ([Litman, 2024b](#); [Steuteville, 2024](#)).

## RURAL COMMUNITIES

Coordinated transportation planning can benefit rural communities by allowing for more flexible land use, and supporting efforts to reduce transportation-related GHG emissions. It can enable the development of affordable housing and mixed-use areas, including creating vibrant town centers with improved walkability, bikeability, and the ability for residents to live closer to work and amenities. Overall, it can help promote sustainable growth while preserving the unique character and environment of rural areas ([Litman, 2024a](#)).

## RESILIENCE AND ADAPTATION

Adaptation strategies that support community density, like preservation of open green space, using greenways or other trails to mitigate flooding or heat impacts, or using multimodal hubs as evacuation points or heating/cooling centers for vulnerable populations help communities be more resilient to extreme events like floods ([Davis et al., 2023](#); [Ciabotti et al., 2023](#)).

## AIR QUALITY AND HEALTH

Coordinated transportation planning for compact, mixed-use development that reduces the number of emissions-emitting vehicles on the road (especially in densely-populated areas) will decrease air pollutants that are harmful to human health ([Litman, 2024b](#)).

Coordinated planning can support Smart Growth and transit-oriented development, which are proven strategies to reduce vehicle travel and emissions. A literature review by [Litman \(2024\)](#) found that creation of multi-modal, compact communities can reduce pollution by 10% to 60%. Refer to the [Transit-Oriented Development strategy page](#) for more information.

## COST SAVINGS

Shifting toward land use patterns that prioritize compact, mixed-use development easily accessible by public transit and active transportation can reduce transportation costs by reducing the need for car ownership, maintenance, fuel, and parking costs ([Litman, 2024a](#)). In 2022, transportation was the second largest household expenditure behind housing, accounting for 15% of average household spending ([BTS, 2023](#)).

# COST CONSIDERATIONS

## COST EFFECTIVENESS

While there may be upfront costs associated with coordinated transportation planning and implementing changes, the long-term benefits can outweigh these expenses. For example, promoting compact, mixed-use development can reduce infrastructure costs by minimizing the need for new roads, utilities and other services.

Coordinated transportation planning that encourages compact, mixed-use, transit-oriented development that is conveniently accessed by multiple modes can reduce housing costs while stimulating economic growth by attracting commercial business and visitors (NASEM, 2012; Anagol et al., 2021). This can create jobs and generate revenue for local governments. Refer to the [Transit-Oriented Development strategy page](#) for more information.

By reducing air pollution and promoting active transportation, coordinated transportation planning can improve public health and reduce health care costs associated with respiratory illnesses and traffic accidents.

## COST OF IMPLEMENTATION

The cost of coordinated transportation planning can vary depending on factors such as the scope of the planning effort, the size of the community, and the extent of public engagement required. Some costs to consider include consultant and planning fees, administrative costs, and public engagement (i.e., venue rental, advertisements).

There are often opportunities to leverage funding from grants, partnerships, and other sources to support coordinated transportation planning efforts. See the [Funding Opportunities section](#).



Transportation planning across jurisdictional boundaries is crucial to ensuring efficient, cohesive, and sustainable transportation systems.

# FUNDING OPPORTUNITIES

HUD's **Pathways to Removing Obstacles to Housing (PRO Housing)** empowers communities that are actively taking steps to remove barriers to affordable housing and seeking to increase housing production and lower housing costs for families over the long term. With a specific focus on the lacking access to affordable housing which disproportionately affects people of color, this program seeks to alleviate some of the historic zoning pressures that make housing inaccessible to many.

HUD's **Community Development Block Grant (CDBG) Program** supports community development activities to build stronger and more resilient communities. To support community development, activities are identified through an ongoing process. Activities may address needs such as infrastructure, economic development projects, public facilities installation, community centers, housing rehabilitation, public services, clearance/acquisition, microenterprise assistance, code enforcement, homeowner assistance, etc.

USDOT's **Reconnecting Communities Pilot (RCP) Program** provides grants to improve multimodal transportation

access, to foster equitable development, and to remove, retrofit, or mitigate highways or other transportation facilities that create barriers to community connectivity. Regional Partnerships Challenge Grants encourage stronger partnerships between local governments, Tribal governments, MPOs/RPOs, State DOTs, and non-profit, private, and community partners to tackle persistent equitable access and mobility challenges, as well as greenhouse gas emissions reductions.

FTA's **Areas of Persistent Poverty (AoPP) Program** supports increased transit access for environmental justice (EJ) populations, equity-focused community outreach and public engagement of underserved communities and adoption of equity-focused policies, reducing greenhouse gas emissions, and addressing the effects of climate change.

FTA's **increased federal share for certain planning activities** helps communities with lower population densities or lower average incomes, compared to surrounding areas, expand access to public transportation.

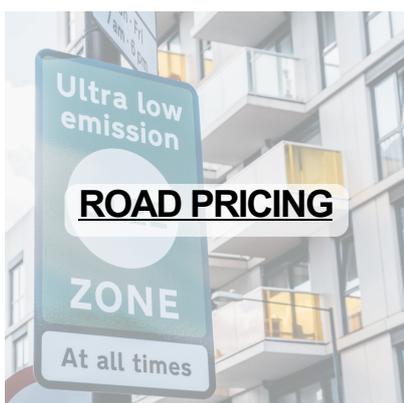
# COMPLEMENTARY STRATEGIES



Coordinated transportation planning complements active transportation when it leads to compact, mixed-use development where destinations are convenient, accessible, and support the development and use of active transportation infrastructure. Active transportation infrastructure can help achieve coordinated transportation planning goals by making walking and biking safer, more accessible, and convenient.



When coordinated transportation planning integrates with parking reform strategies, it can encourage the use of alternative modes, such as public transit, biking, or walking, by making driving and parking less attractive.



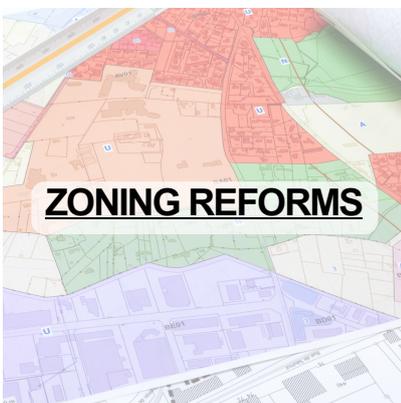
Coordinated transportation planning helps identify where road pricing strategies could be most effective and ensures that alternative transportation options are available to commuters affected by pricing measures.



Coordinated transportation planning, complements TOD by ensuring that new developments meet a range of community needs. For example, when coordinated transportation planning for TOD involves the housing sector, it can help ensure that there is a range of housing options with convenient access to public transit.



Supporting low carbon trip planning and modal integration requires the availability of multimodal options for travelers to be able to use and plan connected trips that are not reliant on single occupancy vehicles. Coordinated transportation planning can support the vision of a network of connected transport and transit options for efficient and convenient travel by ensuring different modes are coordinated and planned effectively with lower carbon options.



Zoning codes are a key tool to implement transportation plans by determining land use patterns, densities, and the design of streets and infrastructure. When transportation planning and zoning are coordinated, zoning codes can be aligned with transportation goals to also promote TOD, pedestrian-friendly streetscapes, and mixed-use developments that reduce dependence on personal vehicles and encourage alternative modes of transportation.

[\*\*View All Strategies\*\*](#)

# CASE STUDIES

## **METROPOLITAN ATLANTA RAPID TRANSIT AUTHORITY**

Since the adoption of its TOD affordable housing policy in 2010, the Metropolitan Atlanta Rapid Transit Authority (MARTA) has been creative in engaging partners and fulfilling its commitment. In 2020, Invest Atlanta, the city's development authority, along with Enterprise Community Loan Fund and the Low-Income Investment Fund created a \$15 million Transit-Oriented Development Fund focused on acquisition and predevelopment of affordable housing near transit. In 2021, MARTA announced the creation of a \$100 million private fund to support the preservation of affordable housing within a half mile of transit stations. In 2023, MARTA secured \$1.75 million in funding from the USDOT to stand up a transit and TOD accelerator, building on the strong track record of innovative solutions to funding gaps for providing affordable housing near transit.



*“Phoenix Mural” by Brandon Sadler at the Five Points MARTA station (Source: [MARTA](#)).*

## **COMMUNITY PLANNING ASSOCIATION OF SOUTHWEST IDAHO**

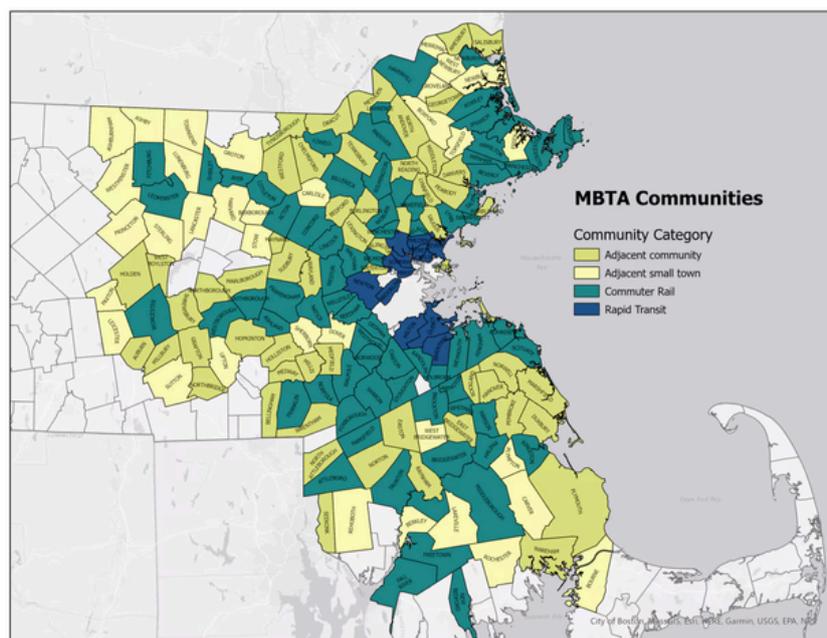
The Community Planning Association of Southwest Idaho, serving as the regional MPO for the City of Boise and greater Treasure Valley, updated its long-range plan, Communities in Motion 2050, in 2022 to include greater coordination with affordable housing development. The Community Planning Association of Southwest Idaho expanded its advisory groups to include housing representatives to inform the long-range plan, harnessing connections with United Way and others. Communities in Motion 2050 includes a vision that sites new housing near planned transit routes as well as a goal to "promote development patterns and a transportation system that provide for affordable housing and transportation options for all residents."

## **AGE-FRIENDLY RURAL PLANNING**

In 2018, the Town of Sullivan, Maine (rural community with a population of 1,200) joined a national network of age-friendly communities that was started in the U.S. by AARP in 2021. Becoming an officially designated age-friendly community involves a comprehensive planning process resulting in policies and programs that make communities more livable so older residents remain connected and independent. Some of the strategies that Sullivan has adopted to be more age-friendly are also helping the community reduce transportation emissions, such as through better walking trails and public transportation options.

## **MULTI-FAMILY ZONING REQUIREMENTS IN MASSACHUSETTS**

A Massachusetts law requires the Massachusetts Bay Transportation Authority (MBTA) communities, which include cities, towns, and municipalities served by MBTA services, to have at least one zoning district for multifamily housing permitted as of right. In response to the high housing and rent costs in Massachusetts, the law aims to allow multifamily housing to be close to transit stations to improve access to daily destinations and workplaces, as well as reduce reliance on single occupancy vehicles. The multifamily housing units must have a minimum gross density of 15 units per acre; located not more than half a mile from public transit stations; have no age restrictions; and be suitable for families with children.



MBTA Communities (Source: [Commonwealth of Massachusetts](#)).

# IMPLEMENTING COORDINATED TRANSPORTATION PLANNING: WHAT TO READ NEXT

New Jersey's [Transit Friendly Guide](#) provides design guidance on orienting development around transit lines. This includes recommendations on bike and pedestrian accommodations, and design and development.

The Bipartisan Policy Center has published [case studies](#) on cities which have changed zoning regulations in order to encourage more housing development. These include changes such as eliminating parking minimums, reducing lot size requirements, and encouraging additional density. All of these changes can play into making more affordable, more walkable, and more sustainable urban environments.

The 2024 report, [Community Cohesion as a Transport Planning Objective](#), describes the concept of community cohesion and specific planning strategies for increasing cohesion, including pedestrian improvements and inclusive design ([Litman, 2024b](#)).

See the National Center for Sustainable Transportation Research's [report on best practices regarding land use and equity](#). The report provides an overview of tools that agencies can use to assess VMT changes, gentrification and equity impacts, and GHG impacts associated with different land use policies.

USDOT's [Tools and Practices for Land Use Integration](#) page contains examples of transportation and land use integration strategies that various jurisdictions have implemented. These include parking management approaches and transit-oriented development projects.

# RESOURCES

## GENERAL RESOURCES

US HUD Green Building Standards: HUD standards strongly encourage low-carbon development methods for grantees and contractors receiving funding through the Neighborhood Stabilization Program.

These standards include a focus on how green housing design benefits the neighborhood fabric through proximity to transportation and access to walking and bike paths.

Federal requirements for statewide and metropolitan transportation planning:

These requirements can be found under 23 U.S.C. Chapter 1, Federal-Aid Highways, and 49 U.S.C. Chapter 53, Public Transportation.

Federal Requirements for State and local Consolidated Plans:

The federal requirements for state and local consolidated plans, established by HUD to serve as the planning document (comprehensive housing affordability strategy and community development plan), can be found at 24 CFR Part 91.

HUD Consolidated Planning website: This website provides an overview of the consolidated State and local planning process, introduction to HUD's Office of Community Planning and Development, and a range of resources and opportunities to keep up to date on the topic.

FHWA-FTA Transportation Planning Capacity Building website: Addressing GHG in the Transportation Planning Process: This website provides information for planners in local agencies to address GHG emissions in the planning process. The site includes information on initiatives, State and metropolitan planning organization examples, and additional resources available to learn more and stay updated on the latest developments.

FHWA Planning Processes website: This website includes tools and guidance for planning coordination at the State and metropolitan level. The site also includes information for rural, small community, and Tribal transportation planning.

APA Equity in Zoning Policy Guide: The guide provides zoning tools to position planners to lead the way on zoning for equity at the local, state, and federal level.

## TOOLKITS AND MODELLING APPROACHES

### National level:

EPA Motor Vehicle Emission Simulator (MOVES): The MOVES model provides vehicle emission rates and mobile-source inventories.

Argonne National Laboratory Greenhouse Gases, Regulated Emissions, and Energy Use in Transportation (GREET) Model: The model provides life-cycle emissions assessment for different vehicle technologies and futures.

Transportation Pooled Fund VisionEval Project and Associated Tools: (i.e., Energy Emissions Reduction and Policy Analysis Tool; EERPAT): These tools are designed to evaluate many alternative futures and policies to help state and metropolitan area governments address pressing issues, despite uncertainty.

FTA Transit Greenhouse Gas Emissions Estimator: The estimator is a spreadsheet-based tool that allows users to estimate the partial lifecycle GHG emissions generated from the construction, operation, and maintenance phases of a project across select transit modes. Users input general information about a project, and the Estimator calculates annual GHG emissions generated in each phase.

FTA Transit Bus Fleet Electrification Tool: The Transit Bus Electrification Tool is a Microsoft Excel-based spreadsheet tool that allows users to estimate the partial lifecycle greenhouse gas emission savings associated with replacing standard bus fleets with low-emission or zero-emission transit buses.

Infrastructure Carbon Estimator (ICE): ICE is a spreadsheet tool that estimates the lifecycle energy and GHG emissions from the construction and maintenance of transportation facilities. ICE is intended to inform planning and other pre-engineering analysis such as those conducted during the NEPA process.

Mobility Energy Productivity Tool (MEP): This tool evaluates the ability of a transportation system to connect individuals to goods, services, employment opportunities, and others while accounting for time, cost, and energy. This tool also includes a separate metric to evaluate freight connectivity, called Freight MEP.

The Argonne Laboratory POLARIS Transportation System Simulation Tool: This is an open-source simulation tool that allows users to simultaneously model all aspects of travel decisions through a network-demand model. This tool can be used to understand impacts of transportation decisions across several key metrics, which includes congestion, accessibility, cost, emissions, energy, and environmental justice, that can be integrated into land use planning.

DOE Behavior, Energy, Autonomy, and Mobility Comprehensive Regional Evaluator (BEAM CORE): This is an open-source, integrative modeling tool that

can capture and analyze a wide set of transportation system components. The tool produces various metrics such as aggregate vehicle and person miles traveled, congestion, energy consumption, and accessibility metrics, for insight on the interconnected impacts between transportation and land use decisions.

DOE's Lawrence Berkely National Laboratory (LBNL) Individual Experienced Utility-Based Synthesis (INEXUS): INEXUS is a suite of accessibility metrics that measure agent-trip level accessibility. These metrics can be used to identify and measure individual travelers who benefit from improved mobility under different simulation scenarios. Tools such as these can be used to design improved operational efficiency in existing and future transportation systems.

**State level:**

APA Michigan Chapter Zoning Reform Toolkit: This toolkit aims to provide urban leaders with tools needed for updating and modernizing zoning and development review regulations to develop more housing types. It also includes case studies on the application of the strategies recommended. This toolkit explains elements of the affordable housing crisis and how zoning reform can act as an intervention. It also provides 15 zoning tools that can be

used to address housing supply and affordability.

Massachusetts Housing Toolbox: The toolbox provides strategies and best practices, including zoning and land use tools, for the creation and preservation of affordable housing, with guides, tools and resources for local boards & committees, planners, municipal staff, developers, and volunteers.

California Quantifying the Effect of Local Government Actions on Vehicle Miles Traveled (VMT): This research resulted in a Vehicle Miles Traveled (VMT) Impact spreadsheet tool, which lets users easily see impacts for any census tract, city, or region in California.

California Emissions Estimator Model (CalEEMod): CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects.

## WORKING WITH COMMUNITIES

U.S. Department of Energy's, Clean Cities Coalition Network: This network supports communities in achieving cleaner air and reducing dependence on fossil fuels by promoting alternative transportation options.

EPA's Smart Growth: This website provides resources and technical assistance to help communities integrate active transportation into their development plans, promoting compact, walkable neighborhoods.

American Planning Association (APA) Working to Address the Nation's Housing Crisis: The APA provides resources on planning-led zoning reform to address housing supply issues and explore ways planners can work with states to enable reform.

Smart Growth America: Smart Growth America empowers communities through technical assistance, advocacy and thought leadership to create livable places, healthy people, and shared prosperity. Smart Growth America also provides a variety of resources on their website to support community planning efforts and zoning reform.

Center for Neighborhood Technology: The Center for Neighborhood Technology delivers innovative analysis

and solutions that support community-based organizations and local governments to create neighborhoods that are equitable, sustainable, and resilient. The Center for Neighborhood Technology provides tools and publications that support planning and zoning initiatives on their website.

## RURAL SPECIFIC

FHWA Planning Processes website: This website includes tools and guidance for planning coordination at the State and metropolitan level. The site includes information for rural, small community, and Tribal transportation planning.

FTA National Rural Transit Assistance Program (RTAP): This FTA program provides technical resources, toolkits, training, webinars, a resource library, news updates, and information on Tribal transit and State RTAP programs.

AARP Livable Communities Transportation and Mobility: This website includes resources such as policy briefs and a rural transportation toolkit for rural communities on the topics of livability, funding opportunities, health care, and transportation options available in rural areas.

Community Transportation Association of America Transit Planning 4 All: This program, in partnership with several organizations, supports older adults and people with disabilities in getting involved in coordinated transportation system development. The members are involved in surveys, research activities, grants, and creating a knowledge sharing network.

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For more information visit the DOT Climate Change Center,  
<https://www.transportation.gov/priorities/climate-and-sustainability/dot-climate-change-center>