**MARCH 2018** 

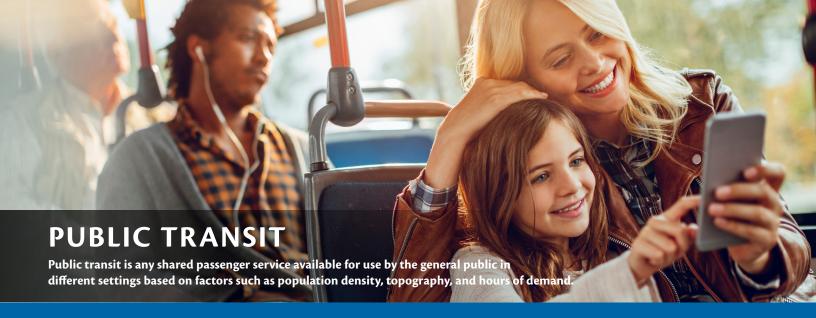
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# **COMMUNITY MOBILITY**

Every community has different ways to accommodate residents' and visitors' travel between employment, shopping, services, and more. A city, county, or region's support for mobility can range from public transit options to the physical infrastructure of a community. Ultimately, maximizing the mobility of residents and visitors encourages individual autonomy, economic development, and a higher quality of life.









### Bus

Buses are large multi-passenger vehicles that can operate on a variety of fuel types. Buses typically operate on a fixed route, offering service at regular time intervals. Bus services are extremely flexible and can be moved based on changes in population and development. Variations in bus service include bus rapid transit (BRT), commuter bus service, and trolley bus service. BRT operates with a dedicated travel lane that allows buses to bypass congestion and get to the destination more quickly.



#### Rail

Rail service is primarily offered through five modes in the United States: light rail, heavy rail, streetcar, commuter rail, and hybrid rail. Light rail uses single vehicles or short trains on private rights-of-way or along streets to move a significant load of passengers. Rail services typically have a significant distance between stations, where passengers board and exit, compared to other forms of transit that may stop more frequently such as buses.



# **Demand Responsive Transit**

Demand responsive transit (DRT) is typically characterized by smaller vehicles (such as vans), user-oriented scheduling (providing door-to-door or curb-to-curb service), and flexible routing based on the needs of those individuals riding at any given time. DRT systems typically operate in a defined zone, where all rides must originate and end. In Ann Arbor, MI, a late-night curb-to-curb service operates within the city to transport citizens when fixed route services are not operating. Approximately 400 urban DRT systems operate in the United States. Common examples of DRT service include paratransit and supplementary shuttles services provided by transit authorities to fill in gaps in their fixed route service area or hours.



#### **Bike Shares**

Bikes Shares, although not formally recognized as a form of public transit, are a quickly emerging as a mode of mobility. Bike shares are a pooled fleet of bicycles that citizens pay a membership fee to access. Bike stations are strategically placed throughout the city so that citizens can use them whenever they need quick on demand transportation. Bike shares reduce congestion and promote active transport.



#### Other

Transit also exists in many unconventional forms. Ferryboats are common in densely populated coastal areas, helping passengers avoid the congestion on roadways by providing an alternative aquatic route. In Morgantown, West Virginia, citizens can opt to use a personal rapid transit (PRT) system. The PRT system is composed of small bus like personal vehicles that move directly to the citizen's desired location without any additional stops, unlike a light rail or bus system.



# Alternative Fuels & Emerging Technologies

Almost all transit modes are capable of running on alternative fuel types including electricity, compressed natural gas, and hydrogen. Each fuel type has unique financial and environmental benefits and challenges. Transit vehicles will also likely become autonomous in the future as self-driving technologies evolve and become widespread.

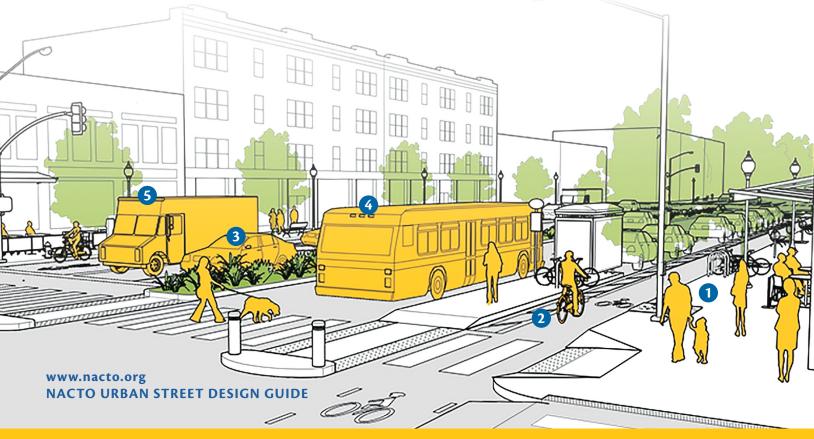
# PHYSICAL INFRASTRUCTURE

#### **Built Environment**

The built environment refers to the physical infrastructure of an area and includes a wide variety of assets including sidewalks, roads, bike lanes, street lighting, traffic signals, and greenspace. The built environment is a non-vehicular method of promoting community mobility by encouraging walkability and alternative transportation methods such as bicycles. Built environments accommodate personal vehicles while also encouraging public and active transit.

## **Transit Oriented Development**

Transit oriented development focuses on strategic land use with an emphasis on population density and access to transit. Development projects can prioritize increased mobility through the prudent use of land. Examples include accessible and convenient bus stops, bike lanes, and pedestrian-friendly infrastructure. Proper zoning and density further promote transit, walkability, and alternative transportation. Ultimately, transit oriented development is the conscious planning of land use to ensure that development favors mobility for all populations.



- 1 Pedestrians People crave activity and variety at street level. Streets with active storefronts, foot traffic design, and human scale design contribute toward an active and economically vibrant community. While activity is of paramount importance to the pedestrian realm, public safety, sidewalk width adequately spaced and apportioned, protection from rain, and shade from the sun together make the difference between a successful street and a barren one.
- 2 **Bicyclists** Bicycle facilities should be direct, safe, intuitive, and cohesive. Bicyclists desire a high degree of connectivity and a system that functions well for cyclists of all skill levels, with minimal detour or delay. Bicyclists benefit from feeling safe and protected from moving traffic. Bikeways that create an effective division from traffic and are well coordinated with the signal timing and intersection design of the traffic network form the basis of a accessible bicycle network.
- **3 Vehicles** Motorists want to get to their destination as quickly and safely as possible with limited friction, interruption, or delay. Vehicles typically benefit from limited access, higher speed roads with limited chance of conflict or surprise. Due to their high speeds and overall mass, drivers feel safest when buffered from other moving vehicles, bicyclists, buses, trucks, and crossing pedestrians. Especially when making decisions at high speeds, motorists need adequate lighting and signage, as well as adequate parking provisions at their destinations.

4 Transit - Transit service may be measured by its speed, convenience, reliability, and frequency of service. Trains and buses should permit easy loading and unloading, and be comfortable and not overcrowded. The overall



level of access and scope of a transit network should be aligned to actual demand, meeting service needs without sacrificing service quality.

**5** Freight – Freight operators want to move goods from their origin to their destination as easily, quickly, and conveniently as possible. Trucks benefit from high, but not unsafe speeds, curb access or docks for easy loading and unloading, and overall safety throughout the traffic system.

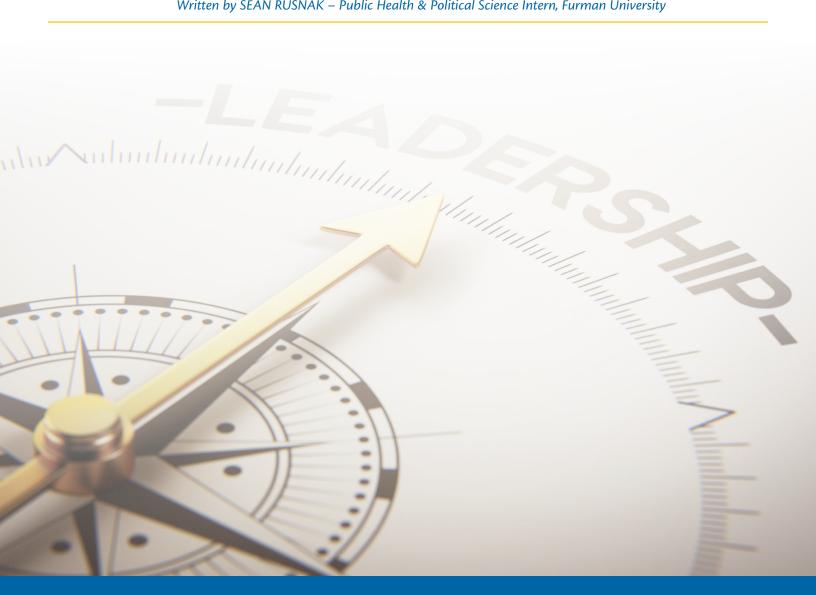
**Emergency Vehicles** – Emergency responders are responsible for attending to crimes, crashes, fires, and other dire scenarios as quickly as possible. They benefit from safety and predictability along their routes, with minimal conflicts with vehicles, bicyclists, or pedestrians, and direct curb access at their destinations.

# MOBILITY LEADERSHIP

Regardless of how a community decides to address mobility, a strong transit agency is necessary to administer federal, state, and local funds, assure the quality and efficiency of transit, and represent the transit interests of the community to elected officials and stakeholders. Strong leadership and coordination are necessary to ensure that a community fully maximizes its mobility potential. One possible outcome of such leadership is a strong comprehensive plan. A comprehensive plan is a series of documents that capture community goals and aspirations which then dictate future public policy. Both the City of Greenville and Greenville County are updating their comprehensive plans over the next two years..



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## **OUR MISSION**

To improve health in Greenville County, South Carolina by identifying critical issues, catalyzing community action, and supporting organizations' health related programs.

The Piedmont Health Foundation is focusing on improving transportation and mobility in Greenville County because inability to access jobs, education, groceries, recreation opportunities and health care impacts residents' health.

