



toolbox

improving transportation for livability

PLANNING tools



Transit-oriented development promotes growth of higher density, mixed-use building. A combination of strategies to combine rail and light rail with other transit modes encourages vibrant, accessible retail and residential areas.



Great street planning principles promote pedestrian use and integrate transportation modes into a balanced system of streets and sidewalks. A great streets plan has already been deployed successfully downtown, and it can be applied to other metro areas.



An **urban trail plan** promotes linking recreation and business uses with a comprehensive system of pedestrian trails. Such a system can extend the success of Lady Bird Lake Trail and other trails already established in Austin.



Carsharing is a car rental model in which people rent cars for short periods of time, often by the hour, and customers usually make only occasional use of a vehicle. The rental organization may be a business, public agency, or cooperative.



Bikesharing is an innovative system similar to carsharing. A customer typically rents a bike from a program kiosk for a short trip and returns the bike to another participating location. Most bikeshare programs are operated as public agencies.



Bike avenues are carefully selected corridors in the city that are conducive to bicycle use and incorporate traffic calming and bike-specific features to give bicyclists safe and useful route options.

DEMAND-SIDE tools



Travel demand management refers to a set of strategies to reduce the use of city roadways to decrease congestion and the infrastructural burden of intense use, especially by single-occupancy vehicles.



Vanpooling is a system in which a transit agency rents a multi-passenger vehicle to a group of commuters who collectively pay low weekly or monthly rates. Cities or other organizations may provide incentives to large employers to encourage employee vanpooling.



Carpool is an informal system of shared automobile transportation, but, similar to vanpooling, financial incentives can be used to encourage carpooling.



Parking strategies can encourage use of parking areas or structures that are peripheral to high-density urban areas and discourage overuse of central city parking by requiring users to pay the costs of parking directly.



Congestion pricing is a device for discouraging automobile use in congested urban centers. A fee for entering the area during certain times of the day or certain days of the week will deter overuse of downtown roadways.



Road space rationing or reallocation reserves parking and other road uses for preferred modes such as carpools, vanpools, energy-efficient vehicles, and public transit vehicles.

For more information on the strategic mobility plan

www.AustinStrategicMobility.com



Austin Strategic Mobility Plan



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ROADWAY tools



Traffic calming slows or reduces automobile traffic, improving safety for pedestrians and cyclists. Techniques include speed humps, textured paving, curb extensions, pedestrian crossing islands, traffic circles, and reduced turning radii.



Intersection design controls traffic movement where two or more streets cross. Improvements include left-turn bays, right-turn slip lanes, flared lanes to increase intersection capacity, reduced turning radii to increase intersection awareness, and protected bicycle turn spaces.



Signal timing is coordinating the sequence and timing of traffic signal phases. Signal timing can increase the efficiency of the street of by allowing for the greatest number of vehicles to cross the intersection in the shortest time.



New roadways increase capacity in areas that are not fully developed and are expected to grow. New roads can alleviate congestion by expanding the network and providing more options for the transportation system.



Roadway widening can increase the number of lanes when traffic volume exceeds a road's capacity. Extra capacity can alleviate "bottleneck" during peak travel times.



Access management techniques help increase the mobility and safety of a particular corridor by consolidating driveways and controlling access to adjacent land uses by influencing access location, design, spacing and operation.

TRANSIT tools



Commuter rail is passenger rail service that connects people in larger distances. Station spacing is typically 5+ miles, and trains have lower frequency. The MetroRail red line and the proposed green line are examples of commuter rail. The Austin-San Antonio LStar is another example of commuter rail.



Light Rail is a public urban rail system that has 1/2 - 1 mile station spacing. Light rail typically uses a dedicated right-of-way that is separate from the streets as well as freight rail lines. Light rail has a much higher person capacity than regular bus service.



A **bus rapid transit** (BRT) system uses dedicated bus lanes which operate separate from other traffic modes. This allows buses to operate at a very high level of reliability, approaching that of rail systems but at lower construction costs compared to rail infrastructure.



Urban Rail/Streetcars can be slightly smaller than light-rail vehicles. They primarily cover urban centers to enable circulation around the urban core. Service is frequent. Station spacing ranges from every 2-3 blocks up to 1/2 mile and typically shares the traffic lanes with other vehicles such as cars and buses.



Local bus service provides access to and from important destinations on a fixed route system. Bus stop spacing is close in order to capture the most riders possible. Real-time bus arrival information and traffic signal preemption can be used to increase efficiency on busier routes and corridors within Austin.



Park and Ride lots encourage transit usage for people who are not within walking distance of a transit station. These lots typically adjoin suburban bus and rail stations to reduce the number of cars in the urban core.

BIKE + PEDESTRIAN tools



Sidewalks are important to pedestrian travel. Wider sidewalks in commercial areas facilitate a mix of uses, and the addition of streetscaping can promote pedestrian use.



Bike lanes are located on the edge of a street or between the travel lanes and parking lanes. Typically, they are 5-6 feet wide and allow cyclists to have a protected space on the street.



A **multi-use path** accommodates pedestrian and bicyclists, separating their travel from automobiles. At least 10 feet wide, a multi-use path allows for a high volume of users. Hardscape paths usually are oriented toward commuters; crushed stone paths tend to be recreational.



Streetscaping refers to the use of planted areas and other beautifying techniques along transit corridors that can attract pedestrians and make pedestrian and bicycle use more pleasant.



Pedestrian crossings connect neighborhoods and can be at intersections or mid-block. Signal timing and pedestrian "islands" can improve safety for walkers.



Sharrows are special lane markings for roads too narrow to accommodate a separate bike lane. These markings alert drivers to the likelihood of encountering bicyclists.